



# TOWARDS SAFER MOBILITY FOR CHILDREN AND ADOLESCENTS

Training Module for Local Governments



Developed for Pune District Road Safety  
Committee under the Pune District Road Safety Program  
by UNICEF and its partners

January 2024

**CEE**

Centre for Environment Education



**unicef**  
for every child

Intentionally blank

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Developed by Centre for Environment Education, RISE Infinity Foundation and UNICEF.

Recommended citation:

Centre for Environment Education, RISE Infinity Foundation & UNICEF. (January 2024). *Towards Safer Mobility for Children and Adolescents: Training Module for Local Governments*. Pune. India.

### **Centre for Environment Education**

Centre for Environment Education (CEE) was established in 1984 as a Centre of Excellence of the Ministry of Environment and Forests, Government of India. As a national institution, CEE's mandate is to promote environmental awareness nationwide. CEE develops innovative programmes and educational material and builds capacity in the field of Education for Sustainable Development (ESD). CEE's thrust areas of work include Environment Education (EE) in Schools, EE for Youth and Higher Education, Biodiversity conservation, Coast and Marine Programmes, Circular Economy, Environment Management, Interpretation, Rural Programmes, and Urban Programmes.

More at <https://www.ceeindia.org>

### **RISE Infinity Foundation**

RISE INFINITY FOUNDATION (RIF) was founded in 2014 with the objective to advance Peace as the ultimate indicator of development and strengthening communities through ownership and collaboration.

Rise Infinity Foundation is committed to:

- Fostering a more Responsible, Inclusive, Sustainable and Eco-System Friendly world through programs that will meet the immediate needs of those who are vulnerable and underserved.
- Providing humanitarian aid especially at times of emergency and disaster to support those challenged by poverty, medical or conflict related situations.
- Advocating for ecosystem restoration at the physical, social and emotional levels for the long term to ensure that any solution the community arrives at contributes to a healthy coexistence with the environment.

Our multi-stakeholder, cross-sectoral approach driven by the four RISE values, ensures that we address community development as inter-related issues and not in mutually exclusive silos. We believe in co-creating a world that we would like to be a part of, through Positive lives and Peaceful societies!

More at [www.riseinfinity.org](http://www.riseinfinity.org)

### **UNICEF**

UNICEF works to promote and protect the rights of children across India and globally in more than 190 countries. UNICEF works across India to save children's lives, help them fulfil their potential and defend their rights. UNICEF promotes and strengthens the demand generation, strengthening the delivery of services, addressing equity gaps, improving quality of care and prioritising issues like services for the urban poor, early childhood development and adolescent empowerment. UNICEF has spent more than 50 years in Maharashtra helping improve children's lives through strengthened access to nutritious diets, quality primary health care, immunisation, nurturing practices, essential supplies, education and skills, protection from violence, exploitation, access to safe and equitable water, sanitation and hygiene services, and safe and sustainable climate and environment.

More at <https://www.unicef.org/india/>

### **Credits**

CEE	Amar Karan, Dr Sanskriti Menon, Dr Avinash Madhale, Kunal Jaiswal, Avadhut Abhyankar, Bijaylakshmi Borpujari
RIF	Deepali Bhagwate, Karon Shaiva, Avani Gurjar
UNICEF	Yusuf Kabir, Balaji Vharkat, Nalini Yadav, Dr Mangesh Arun Gadhari

Milind Barbhai (Public Works Dept, Pune ZP), Shabbir Shaikh (Education Dept, Pune ZP), Ruchi Varma (HumanQind)

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# Abbreviations

ADSI	Accidental Deaths and Suicides in India
CEE	Centre for Environment Education
CRS	Child Restraint System
DRSC	District Road Safety Committee
DSTC	District School Transport Committee
EMRI	Emergency Management and Research Institute
FIR	First Information Report
GDCI	Global Design City Initiative
GTS	Global Traffic Solutions
IPC	Indian Penal Code
iRAD	Integrated Road Accident Database
IRC	Indian Road Congress
ITC	Infant, Toddler and Caregiver
ITDP	Institute for Transportation and Development Policy
MoHUA	Ministry of Housing and Urban Affairs
MoRTH	Ministry of Road Transport and Highways
MVA	Motor Vehicles Act 1988
MVAA	Motor Vehicle Amendment Act, 2019
NCRB	National Crime Records Bureau
NHAI	National Highways Authority of India
PCMC	Pimpri Chinchwad Municipal Corporation
PMC	Pune Municipal Corporation
PMPML	Pune Mahanagar Parivahan Mahamandal Limited
PMRDA	Pune Metropolitan Regional Development Authority
PTA	Parents Teachers Association
PWD	Public Works Department
RIF	RISE Infinity Foundation
RISE	Responsible, Inclusive, Sustainable, Eco-System Friendly Values
RSP	Road Safety Patrol
RTO	Road Transport Office
SDMA	State Disaster Management Authority
SDG	Sustainable Development Goals
SMC	School Management Committee
STC	School Transport Committee
STIP	School Transport Improvement Plan
UNICEF	United Nations Children's Fund
USDG	Urban Street Design Guideline
VRU	Vulnerable Road Users
WRI	World Resource Institute
ZP	Zilla Parishad

# Introduction

Road traffic crashes are a leading killer of children and adolescents around the world. In India, children and adolescents form the largest vulnerable road users (VRU) group with more than 31% of the country population i.e. 444 million in the age group of below 18 years and 253 million in the age group of 10 to 19 years (UNICEF, 2022). The National Crime Records Bureau (NCRB) *Accidental Deaths and Suicides in India (ADSI)* reports 77,820 children age below 18 years were killed in road crash fatalities from 2017 to 2021. This means, about 40 children's lives are lost every day. Within India, Maharashtra and especially Pune district (in Maharashtra) have very high rates of road crash fatalities.

*These deaths are preventable.*

Low-cost solutions with cross-cutting benefits for people, planet and profits exist. Sadly, these solutions are often ignored because our roads have been designed to meet the needs of adults using motorised transport and not the needs of children who interact with the road environment as pedestrians, cyclists, passengers, and in some instances as drivers.

Children living in low-income settings, informal settlements, and inadequate housing communities in high-speed areas, as well as children with disabilities, are particularly vulnerable.

Transforming environments to enable children's safe mobility promotes their physical activity, active travel, independence, and development. Wider social, economic, and environmental benefits of these transformations include reduced health system costs from fewer road traffic injuries and disabilities, less traffic congestion, lower air pollution, increased walking and bicycling to reduce non-communicable diseases.

Road traffic injury prevention is not only a transport challenge, but also a child's right issue, linked to health and survival, education, protection and participation rights and a global development challenge with strong impacts on health, well-being and economic growth.



## Safer Roads - Global and National Commitment

The United Nations General Assembly has declared 2021-2030 as the second “Decade of Action for Road Safety” with the target of preventing at least 50% of road traffic deaths and injuries by 2030 through improving road safety. India has also committed to this target<sup>1</sup>.



The Sustainable Development Goals (SDGs) also refer to road safety.

### **3** GOOD HEALTH AND WELL-BEING



SDG 3 is “to ensure healthy lives and promote well-being for all”. Target 3.6 is to “**halve the number of deaths and injuries from road accidents** by 2030”.

### **11** SUSTAINABLE CITIES AND COMMUNITIES



SDG 11 is to “make cities and human settlements inclusive, safe, resilient, and sustainable”. Target 11.2 is to “provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons, by year 2030”.

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<sup>1</sup> The Annual Report on “Road Accidents in India-2022” by the Ministry of Road Transport and Highways

## Approaches to Road Safety

Road safety actions should focus on interventions that are designed and implemented in an integrated Safe Systems Approach, combining engineering, enforcement of legislation and education interventions. The use of a safe systems approach focuses on planning roads and journeys that anticipate human error and protect vulnerable road users.

All components of a safe systems approach need to be interconnected, with design and implementation across diverse sectors and actors to strengthen and multiply their impacts. Commitment to collaborative action is needed by government, civil society, funders, private sector, and United Nations agencies.

### Rethink Mobility

The Decade of Action for Road Safety calls for “Rethink Mobility” to reduce the road traffic deaths and injuries by half. Rethinking mobility is a global priority to build better, safer, more resilient, efficient, and sustainable transport systems for all.

Globally, it is recognized that **promoting safe, affordable, accessible walking, cycling and public transport facilities greatly strengthens road safety.**

Bringing down travel by private motorised vehicles can reduce risks for pedestrians and cyclists as well as drivers.

### Safe Systems

The “Safe Systems approach” is based on three principles, namely - people make mistakes, people are fragile, and the system should be forgiving. ***The globally accepted Safe Systems Approach takes us away from blaming the driver, and road users, to designing and implementing safer systems.***

The Safe Systems approach includes ‘Safe Users’, ‘Safe Vehicles’, ‘Safe Speed’, ‘Safe Roads and Mobility’ and ‘Emergency Response.’ The attributes of the Safe Systems approach are leadership, legislation, promoting, target setting, funding, coordinating monitoring & evaluation, and R&D and transferring knowledge.



## **Road safety for children and adolescents**

Behavioural risk factors for safe users, infrastructure and environment for safe roads, safe vehicle standards and emergency response service in the event of a crash and post trauma care are equally relevant for the safety of children and adolescents as road users.

The key behavioural risk factors in road safety are speed, helmet, seat belt, child restraint system (CRS), drink and drive, distracted and dangerous driving and in the context of adolescents, underage driving, and risk-taking behaviour, and it can be influenced by systems design and management.

## **Supportive National Policies and Programmes**

The Government of India has taken several measures to strengthen road safety, such as:

1. The Motor Vehicles Amendment Act 2019, which is the legislation with various provisions related to road safety.
2. The National Urban Transport Policy, promotes sustainable urban transport, including improved street design and public bus systems.
3. Programmes such as Bicycle Challenge, and Transport 4All Challenge of the MoHUA.
4. The School Health and Wellness Programme under the National Health Mission or Ayushman Bharat recognizes the need to strengthen road safety.
5. Observance of annual and frequent road safety awareness week/month.

## **Local Implementation is the Key**

The implementation of road safety measures lies at the local level and needs engagement of multiple stakeholders.

In Pune, the District Road Safety Committee chaired by the District Collector has adopted the national commitment to road safety and aims to work towards halving road crash fatalities in the district by 2030. The District School Transport Committee (DSTC) is to adopt a programme over the medium and long-term, for safer and greener commute to school.

The School Road Safety programme being piloted in Pune district aims to develop:

- Children and adolescents' focussed interventions/ solutions.
- Strengthen students learning about road safety through curricular integration.
- Road safety is aligned to the National Education Policy.
- Road safety is aligned to Ayushman Bharat.

Meeting this commitment requires a targeted approach supported by the concerned agencies and departments.

Accordingly, this module is meant for local government officials and stakeholders who have specific roles to play in strengthening road safety for children and adolescents.

# About this Training Module

Through the Pune District Road Safety Committee, a cascading training programme is being organised for officials from the Pune District administration, the Pune Municipal Corporation, and the Pimpri Chinchwad Municipal Corporation.

## ***Who is this module for***

This module is developed for master trainers from the Education Department (including teachers and school authorities), Road Department, Public Works Department (PWD), Health Department, Traffic Police, Road Transport Authority, Public Information Officer, planning authority Pune Metropolitan Regional Development Authority (PMRDA) and transport provider Pune Mahanagar Parivahan Mahamandal Limited (PMPML) who have a key role in improving road safety for children and adolescents.

## ***Purpose of the module***

The purpose of this module is to support the local government departments and various stakeholders to:

- Raise awareness about the magnitude, impacts and risk factors of child and adolescent road traffic injuries at local levels.
- Draw attention to the preventability of child and adolescent road traffic injuries and share what is known about evidence-based intervention.
- Support and provide guidance for planning, implementation and monitoring of child and adolescent road safety.
- Advocate for social behaviour change towards road safety through a value-based approach.

Whilst this module is intended to be resource for conducting orientation programmes, it addresses following factors specifically:

- Why be concerned about road safety for children and adolescents.
- What we should keep in mind in our efforts to change this situation, especially the mental and physiological development of children and adolescents.
- How can we strengthen road safety, using the Safe Systems Approach concepts, auditing for road risks near schools, creating safe school zones, and enabling safe and greener mobility for children, especially walking, cycling, shared mode and public transport use,
- Who should be involved in strengthening road safety for children and adolescents, as a multi-stakeholder and multi-agency effort; the institutional roles of Education, Road, Health Departments, Traffic Police, RTO and the District Road Safety Committee in strengthening road safety for children and adolescents; how to inculcate ownership in individuals and institutions to take action and collaborate towards mitigating behaviour and other risk to road safety and
- When road safety improvements can be implemented, by integrating action planning for road safety measures within the module.

The focus is on orienting agency officials and other stakeholders in creating and operating Safe School Zones, school transport management for greener mobility, and promoting community awareness and engagement, especially through school transport committees.

## **Session plan**

Duration: 12 to 14 hours

Approach:

- Interactive classroom sessions using slide shows, videos, and activities
- Field experience

Sessions: Ten sessions

Day 1

1. Welcome, Ice-breaker, Context setting and Inauguration.
2. Why: Concerns about Road Safety of children and adolescents
3. What: Road Traffic Risks and Vulnerability of children & youth road users
4. How: Approaches to Road Safety
5. Practicum / demonstration of School Zone, First Responder, and First Aid measures.

Day 2

6. Recapitulation and feedback of Day 1
7. Who: Let's make roads safer for children and adolescents - Institutional Roles
8. Discussion on the Trainers' Module
9. When: Action planning by the agency
10. Next steps, feedback and conclusion

The programme schedule is provided overleaf.

## **Material required**

- Projector and sound systems
- Chart papers and marker pens
- Writing materials for participants
- Copies of handouts, activity worksheets, slide decks included in this module and available online through this QR code:

<http://tinyurl.com/PuneChildRS-training>



# Training Schedule

Day 1		
30 min	Registration	Desk
45 min	<b>1 Welcome, Ice-breaker</b> Context setting and Inauguration	Activity, Talk
30 min	<b>2 Why: Concerns about road safety of children and adolescents</b> <ul style="list-style-type: none"> <li>• Status</li> <li>• India's commitment</li> <li>• Pune Vision</li> </ul>	Experience sharing Slideshow
45 min	<b>3 What: Road traffic risks and vulnerability</b> <ul style="list-style-type: none"> <li>• Why children &amp; youth road users are vulnerable.</li> <li>• Nature of risk factors - modifiable and non-modifiable</li> </ul>	Slides and activities <ul style="list-style-type: none"> <li>• Analyse a graphic</li> <li>• Worksheet on risk factors</li> </ul>
30 min	Tea	
60 min	<b>4 How: Approaches to road safety</b> <ul style="list-style-type: none"> <li>• Safe systems approach</li> <li>• Provisions for road safety in laws and guidelines, with special reference to children and adolescents</li> </ul>	Slides and videos Worksheets on legislative provisions and effectiveness of safety measures.
60 min	Lunch	
120 min	<b>5 Practicum / demonstration of School Zone</b> First Responder, First Aid measures	Slides and discussion On-field discussions
Day 2		
30 min	<b>6 Recap and feedback of Day 1</b>	
90 min	<b>7 Who: Institutional roles for strengthening road safety</b>	Facilitated group work/ and plenary discussion
30 min	Tea	
60 min	<b>8 When: Action planning by agency</b>	Facilitated group work
60 min	Lunch	
60 min	<b>9 Discussion on the Trainers' Module</b> <ul style="list-style-type: none"> <li>• Use of Trainers' Module</li> <li>• Feedback, suggestions on resources</li> </ul>	In plenary
45 min	<b>10 Next steps</b> , feedback, and conclusion	Facilitated by organisers
	Tea	

# Registration and Report

Registration sheet for the master trainers training and the cascading training is available in the Appendix and in the online folder for download.

The reports of cascading training programmes organised by master trainers should be shared over email at [ceurban@ceeindia.org](mailto:ceurban@ceeindia.org). These may also be uploaded into the Google Drive folder 'PUNE CHILD & ADOLESCENTS ROAD SAFETY', into the sub-folder named "Training Reports" at the link or QR code below:

<https://tinyurl.com/PuneChildRS>



Process to share the report:

1. Create a separate folder in the above folder (Training Reports)
2. Name it appropriately e.g., as per the training, place and date.
3. Upload the reports, list of participants with photographs, videos and other relevant documents and information.
4. Do not share scans of the documents, instead create a pdf file of the documents for sharing.
5. Send an email at email id [ceurban@ceeindia.org](mailto:ceurban@ceeindia.org) with the report, link, and name of the folder. Provide main details such as the name of the training, place, and date in the email.
6. You can also upload the reports on your Google Drive and share the link or shortcut.

# Session 1 - Welcome, Ice-breaker, Inauguration

## Session Objectives

1. Create a friendly, welcoming and hopeful learning environment.
2. Establish the context of the training and its importance.
3. Help tune the participants attention to key topics to be covered in the training.
4. Build ownership to be more Responsible about Road Safety issues.

## Preparations and Material

- Ice-breaker drawings or captions; wheel of emotion chart
- Ice-breaker quiz
- Briefing/ talking points for keynote speaker.

## Session Plan

You may adjust the sequence and duration of the ice-breaker and welcome remarks depending on the time available and the arrival of participants and resource persons.

Ice-breaker = 20 to 30 minutes

Purpose: To help participants become at ease and tune themselves to the subject of training.

1. Ask participants to sit in small groups, close eyes for a few moments to think about
  - a. First experiences of independent travel in childhood, and their feelings about these experiences; share it on a wheel of emotion chart (in the Appendix), Or
  - b. which streets of the city/ area they like best and why; share in their groups, and after 5-7 minutes, ask different groups to share in plenary.

Note that the road environment is part of the daily experience of the outdoors for most people, especially in cities. Depending on the design of the road and management of the traffic, the experience can evoke negative feelings like fear, disturbance, road rage, or fatigue. On the other hand, well-designed roads and management can promote independence, navigational skills, social exchange, love of the outdoors, and mental and physical wellbeing. Which type of roads would we love to see in our city?

2. In pairs, give captions to the photos provided or ask participants to prepare drawings for captions provided.
3. Conduct a quiz and distribute small treats for correct answers (e.g. Mints, *chikki* or toffees), and provide explanations.
4. Introduce the RISE value Responsible for creating self awareness about the relevance of Road safety in our own lives. What do I need to do to prevent accidents or reduce risks while I am on the road?

Welcome = 5 minutes

Purpose: To create a friendly, welcoming, and hopeful learning environment

- Introduce yourself and the organising agencies.
- Welcome all participants and thank them for making time for the orientation on the safety of children and adolescents as road users.
- Briefly introduce the programme schedule, that it would cover the why, what, how of road safety for children, as well as the who, and the roles of different departments in improving road safety.
- Provide the timings and transport arrangements of the field trip and the second day.
- Provide logistics information e.g. drinking water, toilets, tea and lunch arrangements.
- Remind everyone to register their attendance.
- Introduce the resource person or guest providing the keynote address.
- Wish everyone a good day of learning and sharing and thank them for playing their part to help improve road safety.

Inauguration or Keynote Address = 5 - 10 minutes (see talking points in the next pages)

### **Icebreaker**

Use the slides for Session 1

#### Tips to use the emotion wheel

1. Identify the emotion closest to how you are feeling - Emotions closer to the centre are more intense, core emotions are in the middle layer, and those furthest out are milder forms of emotions. Try to find the emotion that best describes how you are feeling at the moment.
2. Try to figure out the trigger - Emotions often don't just occur out of nowhere. Often, something triggers or causes you to feel the way you do. It may not be a simple, single event either. But other times, figuring out the trigger may be easy.
3. Analyse connections - You may notice that some emotions you identify can lead to other emotions. For example, if you have a pleasant footpath to walk on, with plants and flowers, you may experience emotions such as contentment, joy, and confidence. On the other hand, recalling fast traffic and noise, may evoke feelings of fear, anxiety, feeling disrespected, etc.
4. Make changes or take other action - When you start to identify your emotions and triggers, you can start to figure out ways to take positive action. In other words, you can use identification of your emotions to find ways to think about how you may want to respond to situations.

*(Adapted from PsychCentral (u.d.) How to Understand Your Feelings Using an Emotion Wheel <https://psychcentral.com/health/emotion-wheel#how-to-use-it>)*

### Talking points for the keynote address or context setting talk

- We have assembled here to understand how we can contribute to addressing a highly sensitive issue that concerns us all, not only as government staff but as human society - that of the safety of children and young people as road users.
- India has among the highest rate of road crash fatalities in the world though the level of motorization is not as high as in Europe or USA. Within India, Maharashtra and Pune district have very high rates of road crash fatalities.
- It is an unacceptable loss for us as a society.
- However, two very important points are at the core of this training:
  - a. These deaths are preventable.
  - b. We as adults are responsible for the safety of children by making conditions safe for their mobility.
- It is our job as different wings of the government, and as members of the District Road Safety Committee to change this situation and design and manage mobility infrastructure to be safer for all.
- Especially with regard to children, our approach has to change. Often our tendency is to teach children to walk safely, cross safely and learn traffic signs. This is not wrong. But it is just not enough. Also, we are often fearful of letting children travel independently because of unsafe road conditions. Due to this, we deprive children of opportunities to develop the social and navigational skills necessary for their development.
- We as adults have to make physical conditions and operations safe for children, and not just teach them in the classroom how to be safe. Rather, we can engage children to understand their experience of the journey to school and solve the difficulties and risks they face.
- This will be discussed more in detail in the workshop as to why this change in approach is necessary and what behaviour changes the government departments have to make in their own functioning and processes to ensure road safety.
- The purpose of this training is to
  - a. Understand the concerns about road safety.
  - b. Know the commitment of the Govt of India, and Pune District Road Safety Committee for improving road safety.
  - c. Understand the roles of various agencies and departments of the Pune District and Local Authorities in Pune for safety of children and adolescents.
  - d. Prepare the action plan for department- or area-wise training sessions towards fulfilling these roles.

# Session 2 - Why: Concerns about Road Safety of Children and Adolescents

## Session Objectives

1. Develop a shared concern for the safety of children and adolescents as road users, based on the existing evidence and experience.
2. Develop awareness that there is global evidence that road crash fatalities are avoidable.
3. Share India's commitment to halve road crash fatalities by 2030, which is reflected in the goal adopted at the visioning workshop under the aegis Pune District Road Safety Committee for road safety of children and adolescents in Pune district.
4. Take an Inclusive view of Road safety as impacting all of us.

## Duration

30 minutes

## Preparations and Material

Slide set for Session 2

- Status of child and adolescent road safety in India
- Impacts of road crash risks on society and children
- India's Commitment to Road Safety

Video WHO Global Road Safety - Time for Results

<https://www.youtube.com/watch?v=Eq1SageDwjg>



## Session Plan

1. Explain that this session delves into **why** we should be concerned about the safety of children and adolescents as road users.
2. Introduce the video "WHO Global Road Safety - Time for Results". This video, produced by the WHO Collaboration, emphasises the importance of every life on the road.

Ask participants to pay attention to how road safety is portrayed as an inclusive concern. Play the first 2 minutes of the video (or more, depending on time available).

3. After watching, facilitate a discussion:
  - What emotions did the video evoke regarding road safety for children and adolescents?
  - How does the video convey the idea that road safety is a concern for everyone?
  - What actions or initiatives can we take collectively to address the challenges highlighted in the video?

4. Invite participants to share their own observations and experiences of risks to children as road users and delve into the level of sensitization into an inclusive lens for the risk to others and the consequences from a lack of concern and care.

**Caution** - It may be possible that some participants may have lost someone close in a road crash and this may be a disturbing session. The Facilitator may take a call to continue or stop the sharing and request for some moments of silence to express empathy.

Further, the Facilitator may share that such loss of lives of children should strengthen our resolve to improve road safety as road crash fatalities can be avoided. It is the duty and mandate of local governments and all stakeholders to create safer conditions for everyone, and this training is a step in the right direction.

The discussion may also lead to blaming individuals or entities (e.g. driver, victim, Police, health facility etc). The Facilitator may acknowledge the grief and sense of loss which can lead to feelings of anger or helplessness.

5. To reinforce the concern about road safety in the country context, share the slide deck “Status of child and adolescent road safety in India” and invite questions if any.
6. Ask participants to share their thoughts about the **impacts** of real and perceived risks on roads.

Share the slide on “Impacts of road crashes and mobility risks”. The impacts have social, economic and environmental dimensions.

7. To build understanding that **crashes are avoidable**, first ask participants whether we should use the word “accident” or “crash”.

Explain that the word “accident” suggests that these mishaps are by chance or destiny. However, global evidence shows that road crash fatalities are avoidable, and the next sessions will provide details of how to create safer road environments.

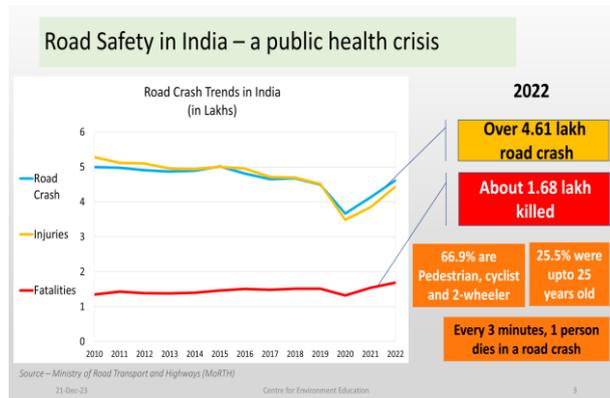
8. Present the slides on India’s **Commitment to Road Safety**
  - Share that India as a member of the UN is committed to the Sustainable Development Goals and SDG 3.2 and 11.2 specifically talk about road safety.
  - Govt of India / MoRTH has made a commitment to halve road crash fatalities by 50% by 2030 in line with global programmes for road safety.
  - Accordingly, the Pune District Road Safety Committee has also formulated its Vision (show the slide / brief clip of the video from the Visioning Workshop organised under the District Road Safety Committee)

9. Sum up

## Slide Deck: Status of child and adolescent road safety in India

### Slide Road Safety in India - a public health crisis

1. Road safety in India is a public health concern.
2. Data on road crashes is available from the Road Accidents in India, a report published by the Ministry of Road Transport and Highways (MoRTH), Government of India). The road crash data for the last one decade, from 2010 till 2022 shows a decreasing trend in road crashes and



associated injuries till 2019. (We can ignore the data for 2020, as there is a decline due to the pandemic and national lockdown.) However, we again see a sharp increasing trend in road crashes till 2022, up to which the data is published.

3. There is a clear increasing trend of fatalities from 2020 to 2022, a serious concern.
4. The latest data of 2022 shows more than 4 lakh 61 thousand road crashes, in which more than 1 lakh 68 thousand people were killed.
5. About 67 to 70 percent, more than two thirds of victims, were pedestrians, cyclists and two-wheeler users, which means they are the most vulnerable road users.
6. 25.5 percent, that is more than one fourth, were up to 25 years of age. (66.5 percent were 18 to 45 years old, who were a potential bread earner of a family.) The question might arise to you, why do we then focus on children and adolescents' road safety? We will learn about this in the coming sessions.
7. In a way we see that, every 3 minutes, 1 person dies on Indian roads. Or 19-20 persons every hour.

### Slide Road crash fatalities are a public health crisis in India.

The number of people dying in road crashes is much higher than deaths due to drowning, railway accidents, natural disasters, fire, etc.

### Slide State with highest proportion of road crashes

- Maharashtra has 6th highest proportion of road crashes, and
- 3rd highest proportion of fatalities among Indian states

### Slide Road Crash Severity in Maharashtra

- The severity of the road crash is represented in terms of the number of fatalities per 100 road crashes.
- In Maharashtra, the number of road crashes seems to be decreasing till 2020 but again increasing in post 2020. However, the fatalities are increasing sharply from 2020 to 2022.
- The severity of the crashes is increasing throughout, showing even if the road crash decreased the fatality did not decrease in the same manner. It means that

the severity of the road crashes is increasing in Maharashtra, which is much higher than the national average.

- 2020 data might have decreased due to pandemic imposed lockdown.

**Slide** Road safety situation in Maharashtra

- The map shows the road crash data per lakh of population for different districts. Pune district is among one of the highest in Maharashtra.
- A recent analysis shows Pune has the second highest number of children fatalities

**Slide** Road Safety Scenario in Maharashtra

- Road safety scenario in Maharashtra according to 2020 data is:
  - 6<sup>th</sup> highest proportion with 33,383 crashes
  - 3<sup>rd</sup> highest proportion with 15,224 fatalities
- Age group less than 18 years is 3% and 18 to 25 is 18%
- Two-wheeler constitutes the highest fatality of 51%, followed by the pedestrians of 19%. Maharashtra ranks 2nd in two wheelers fatality in India.

**Slide** Scenario of child and adolescent road safety in India

- Children and adolescents form the largest vulnerable road users (VRU) group.
- 77,820 children's lives lost in the last five years, as per NCRB.
- More than 40 children below the age of 18 years are killed per day in road crashes in India.

**Slide** road safety charts

- Chart of road crash, persons Injured and killed near schools/colleges/educational Institutions in India, highlighting the fatalities.
- Children and adolescents killed in road crash in India, highlighting the underage drivers' fatalities.

**Slide** Impacts of road crashes and mobility risks

Some important impacts are:

- Loss of life or well-being of victim and caregivers
- Fear related to independent travel by children, which may lead to loss of opportunities for education, and social and navigational skills essential for the child's personal development.
- Greater vulnerability and loss of development opportunities for children with disabilities.
- Increased dependence on private vehicles
- Economic loss to society

**Slide** Crash or Accident

Should we use the term "accident" or "crash"?

Several people who work in the field of road safety have the opinion that "the term accident makes us think that these are somehow our fate.

However, it is possible to prevent these deaths using scientific approaches to road safety.

**Slide** Child and Adolescent Road Safety

Though road traffic injuries are the leading cause of death for children and adolescents aged 5 to 19 globally, these deaths are preventable.

**Slides Global, national and local support for road safety**

The UN through the Sustainable Development Goals and the Global Plan for the Decade of Action for Road Safety 2021-2030 has shown its commitment for road safety. A target has been set to reduce road deaths and injuries by 50% by 2030.

During the visioning workshop organised in November 2023 under the aegis of the District Road Safety Committee, the Chair and participants adopted a local goal for strengthening road safety, in alignment with the country commitment, to:

***“Halve the number of death and injuries due to road accidents in Pune district by 2030 by implementing district-wide safe systems approach for road safety.”***



***“Halve the number of death and injuries due to road accidents in Pune district by 2030 by implementing district-wide safe systems approach for road safety.”***

Visioning Workshop, Pune District Road Safety Committee  
November 2023



# Session 3 - What: Road Traffic Risks and Vulnerability

## Session Objectives

1. Understand behaviour and infrastructure design related factors that lead to crashes
2. Register the need for timely emergency response
3. Discern the vulnerability of children and adolescents as road users
4. Realise that road crash fatalities can be avoided and there is supporting global evidence from countries that have adopted the safe systems approach.

## Preparations and Material

- Slides for Session 3
- Videos
  - Three stages of collision  
<https://youtu.be/zSiDRaV7O24?si=t7VO2FAGhHq-mR5S>
  - Graham, the only person designed to survive on our roads  
<https://youtu.be/vdf4fNkMMA8?si=ZpA-bryXSNZcb4Oa>
- Worksheet 1: Non-modifiable and Modifiable Risk Factors



**Duration: 90 minutes**

## Session Plan

Explain that this session will discuss why crashes happen, why injuries and fatalities may occur, and why children and adolescents are more vulnerable. The session is divided into 4 segments.

### 1. Why do crashes happen? (15 min)

Project the slide “Everyday Road Scene”.

Ask, what are the possible reasons that a crash could happen in this scene?

Through the discussion, list the risk factors that come up and consolidate into these categories:

- a. Driver factors: distracted drive (talking on the phone), reckless or aggressive driving, speeding, drive too close, drink drive, lose control of vehicle (e.g. sleepiness, illness, not know how to drive the vehicle), etc
- b. Vehicle factors: mechanical failure of the vehicle, such as tyre bursting, brakes failure
- c. Road environment factors: curve is not banked properly, road hazards like slippery surface, poor visibility etc.

Questions to discuss:

- a. What can be done about such reasons for crashes?
- b. Is the driver to blame?
- c. Is it acceptable that people lose their lives due to human error?

**Note:** In the next session the Safe Systems Approach will be discussed. The basis of the approach includes: Human beings make errors; it is unacceptable that the price to pay for human errors in the use of roads should be human lives; it is possible to design and manage roads and mobility in ways that reduce road crashes and loss of lives even if crashes occur.

## 2. Why do crashes cause injuries (20 min)

Ask participants why people get injured when a road crash happens. Why are some road crashes more severe than others?

- a. Explain that simple physics can help us understand this: the energy of the moving vehicle, that is kinetic energy is transferred to the person's body
- b. Humans have a level of tolerance for sudden transfer of energy, beyond which the body gets injured.

Show the slide Why do crashes cause injury and the video "Three stages of collision".

Questions to discuss:

- a. How can the impact on the human body be reduced?  
*Protective gear such as helmets, seat belts, child seats help reduce the impact*
- b. Do you think reducing speed is an important factor for road safety? Would a crash with a slow moving vehicle result in the same level of injury or impact on a pedestrian as compared to a speeding vehicle?  
*Yes, speed is a very important factor. If a crash happens when a vehicle is travelling at a high speed, the impact is much greater than if the vehicle is slow.*

*Share the slide with the Speed Impact graphic. Ask, from the pedestrian's point of view, which speed is safer?*

- c. Show the video "Graham, the only person designed to survive on our roads". The video presents an innovative educational tool developed by road safety experts and an artist. It explains that the human body would need to be designed quite differently to survive road crashes.

Encourage participants to later explore the website  
Meet Graham <https://www.meetgraham.com.au/>



3. Why might road crash injuries lead to death (20 min)

Ask participants about why or under what circumstances would injuries be or become severe enough to lead to death.

Consolidate the responses and discussion to arrive at the categories “during crash” and “post crash”.

During crash

- a. Speed of the vehicle which hits a pedestrian, cyclist, or another vehicle, which is a factor in the severity of crash.
- b. Whether the vehicle occupants were wearing safety gear.
- c. Whether the vehicle is built to withstand crashes.

Post crash

- d. Appropriateness of first response
- e. Availability of emergency medical services (concept of Golden Hour)
- f. Availability of appropriate trauma and further medical care

4. Understanding vulnerability and children and adolescents (20)

Using the slides, discuss:

- a. Who are vulnerable road users.
- b. Children are not small adults.
- c. Why are adolescents more vulnerable.

Use Worksheet 1 to draw attention to Modifiable and Non-modifiable risk factors.

5. Sum-up and consolidate the key points of the session. You may again ask the question: Should we blame drivers and victims?

Key points from the session are:

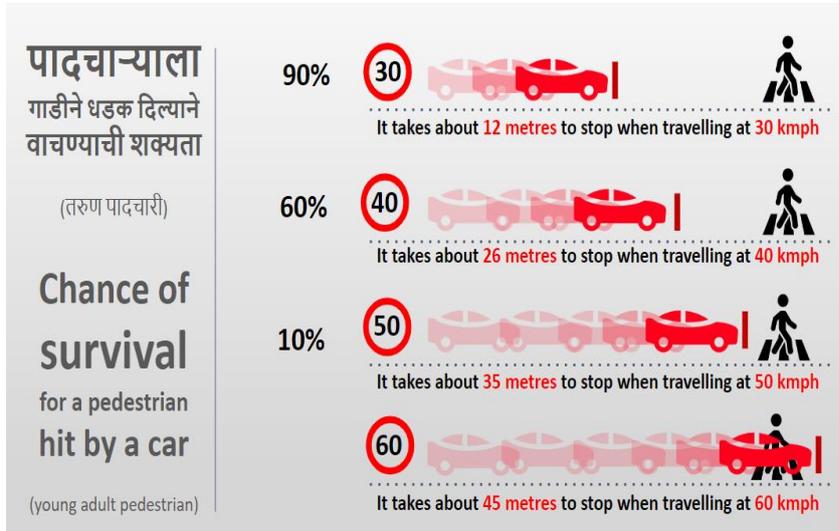
- The causes for road crashes include driver, vehicle and road environment related factors.
- People are vulnerable, crashes cause injuries, which may cause death, depending on factors such as the severity of the crash, whether protective gear was used, the victim’s tolerance level, speed and appropriateness of emergency response and further medical care needed.
- Children and adolescents are more vulnerable due to their age and developmental factors.
- It is unacceptable that people lose their lives due to crashes that can be prevented.

### Why do crashes occur?

Road traffic crashes, injuries and fatalities are the result of a complex combination of risk factors including road-user behaviour, speed, road design, vehicle safety, traffic volume, emergency response and post-trauma care. Being aware of and understanding the risk factors children and adolescents face on their journeys will assist in the development and implementation of interventions to mitigate these risks.

### Speed

Speed of the vehicle is a very important factor that affects the severity of a crash and the likelihood of survival of a pedestrian hit by the vehicle.

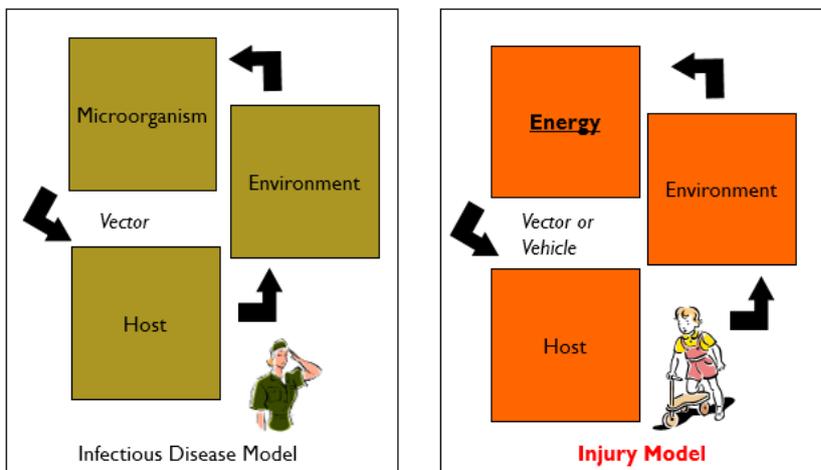


### Slide: Why do crashes cause injury

#### Road traffic injury

A road traffic injury is defined as a fatal or non-fatal injury due to a road traffic crash, collision or incident resulting in an injury, occurring on a public road and a moving vehicle. Road traffic injuries may occur to road users including pedestrians, cyclists, passengers or drivers of a motorised vehicle.

(UNICEF Child and Adolescent Road Safety in East Asia and Pacific nations)



Source: GRSLC

### 3 types of collisions

A road crash is not only a collision of vehicles or people, or the objects that we see.

There are 3 types of collisions:

1. The vehicle crash: Vehicle hits something, it buckles and bends and comes to abrupt halt.
2. The human crash: Occupants move toward point of impact, at original speed of vehicle, until something stops their movement.
3. The internal crash: After the body comes to complete stop, internal organs are still moving forward until they hit something.

Injury is caused not only at the surface of impact, but also internal to the body.

### Risks related to injury, and outcome of injury

What will be the outcome of the injury again depends upon various factors such as:

- How severe was the crash
- Whether passengers were wearing safety gear (e.g. seat belts/ CRS, or helmet),
- Whether the road environment has other objects that can cause further damage to victims
- Nature of post-crash emergency response. how soon is medical help available to a victim, whether it is possible within the “Golden Hour”, and post-trauma care (including whether the trauma centres / ICU have adequately trained.
- Inherent health factors of the victims.

### Vulnerable Road Users

What makes people ‘vulnerable’? Everyone is at risk of death or injury in a road crash - but some are more at risk than others.

- the human body can only tolerate certain physical forces.
- larger impact force equals greater injury to the body.

Who are vulnerable road users (VRUs)?

- Road user groups with high casualty rates
- It usually refers to road users:
  - Exposed to greater danger in the event of a crash because of no or poor protection from impact forces i.e., pedestrians, bicyclist and two-wheeler riders
  - Most at risk of death or injury due to limited task capability e.g., young novice, new, underage drivers, the elderly
  - Who are less resilient in the event of trauma e.g., children, people with a disability, the elderly?

The most vulnerable **population groups** are Children, Elderly, Young, new drivers, Commercial drivers, Poorer communities. Ask participants: What makes these road users vulnerable?

- Children
- Young new drivers
- Pedestrians
- Two-Wheeler riders

### **Children's vulnerability**

- Physical development
  - Size, height, growth patterns, coordination, balance: body less able than adult to cope with impact forces.
- Cognitive development
  - Mastering concepts, judgements (e.g., speed), decision making, reasoning, impulse control
- Risk taking behaviour.
  - Intentional and unintentional (children cannot always control own safety)
- Peer influence
- Road network is constructed without considering children.
- Parents are not always good role models or teachers of good safe road using behaviours.

### **Underage, Young drivers and New (Novice) drivers**

- Inexperience with task and judgement of risks – no graduated introduction to using the road as a
- Driver and rider
- Intentional and unintentional risk taking
- Unable to multi-task and split attention
- Over-confident and test out new skills
- Distracted driving:
  - Same age (peer) passengers
  - Phone use
  - Fatigue

### **Pedestrian vulnerability**

- Human body can only withstand limited force.
- No external 'shell' for protection
- Low visibility compared to vehicles.
- Active mobility patterns not considered when building infrastructure.
- Roads designed for motorised vehicles, with little safe passage for people.
- Overpass and underpass pedestrian road crossings not always accessible, safe or well maintained.
- Distracted walking; drink walking

### **Two-wheeler user vulnerability**

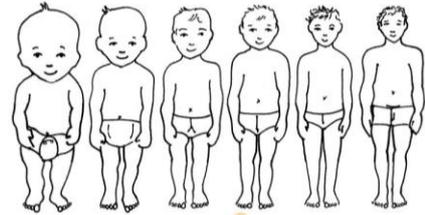
- Lack of lane separation between faster, heavier four wheelers and two wheelers
- Weight of four wheelers results in greater forces in a crash.
- Visibility of two wheelers
- Lack of road safety related policies around E-bikes
- Lack of use of protection: helmets, safety gears and clothing
- Head and upper body takes the force of the crash.
- Lower limbs exposed and unprotected.
- E-bike users - Training, Licensing/Registration, Weight and Power, Design, Protection, Silent, Lights, Road use

### What can be done to protect VRUs?

- Increase availability of reliable and affordable public transport (modal shift, reducing the exposure!)
- Build infrastructure that considers safety of all road users.
- Appropriate (slower) speed limits and speed calming measures
- Reduce trading and parking on pavements to allow access for pedestrians.
- Enforcement of road safety-related policies and appropriate penalties (e.g. policy and enforcement of correct helmet wearing)
- Protective equipment use - Helmets (good quality and buckled), clothing (visible, protective), and occupant restraints.
- Safer vehicle design and adherence to appropriate regulations
- Improved ambulance, emergency, and trauma care services
- Distracted driving and walking policies.
- Graduated Driver Licensing schemes (GDL)
- Fatigue management strategies and regulations for heavy vehicles

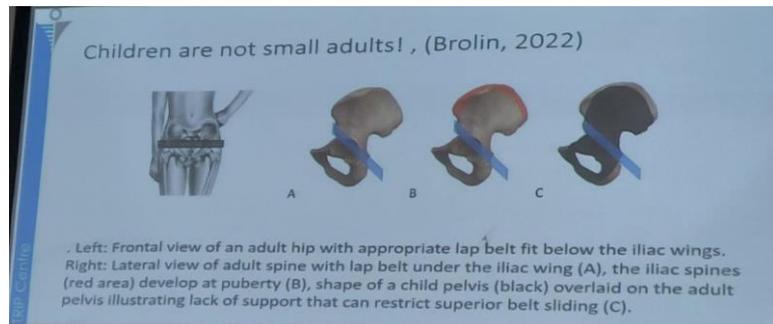
### Children are not little adults

- Body of a child is not comparable with an adult in physical form. Child's body parts and internal organs are soft and delicate and not fully grown to withstand as much force or energy as in the case of an adult.



- In a child's body the proportion of the head is large compared to an adult. That makes them top-heavy with higher possibility to topple down and hit their head with any hard surface or sharp object making them more vulnerable to injuries. The head is more delicate at this age to sustain such injury. Other body parts and internal organs may also get hurt in such a fall.

- The spine and pelvic bones of a child are not fully grown and strong. Therefore, a seat belt designed for adults of height more than 150 cm is not good for a child.



- A child seat or restraint system is an appropriate device to keep them safe from such sudden forces in a car or four-wheeler.

## **Modifiable and Non-modifiable Risk Factors**

Children and adolescents are more vulnerable to road traffic injuries than adults for a range of reasons. These reasons, or risk factors, can be classified as being non-modifiable or modifiable. In addition, there are post-crash factors that place children at elevated risk of preventable serious injury or death in the event of being involved in a road traffic crash.

The non-modifiable risk factors mean that adopting a Safe Systems approach is essential to keep children safe on roads, knowing that road use errors are to be expected with this age group.

Some risk factors can be modified through evidence-based interventions. Such risk factors can be modified through a combination of education, laws and their enforcement, building of safer road infrastructure and making safer vehicles more readily available.

It is necessary to understand circumstances leading to fatal or nonfatal injuries. It is key for road injury prevention and planning. A lot can be learned from events that do not lead to road injuries despite the fact that they look like other events where injuries occurred.

## **Age and Sex**

As children grow, they shift from exploring their home environment by crawling and walking to exploring the outdoor environment through play and their journey to school. However, the road environment is designed for adults and vehicles, not children. Children are physically smaller and therefore less visible, move unpredictably and under age 10 are unable to complete various cognitive tasks necessary to safely cross a road (detect motion, ascertain if the motion is toward or away and estimate the speed of the vehicle to forecast when the vehicle will be close to their moving space). As children age they often make the journey to school without an adult, creating another risk factor for road traffic injuries. Older children who are developmentally delayed or have deficits in psychomotor skills may also be at increased risk.

Women and girls are often the primary caregivers of children and the road environment plays a significant role in the mobility of women and girls. When the road environment is unsafe, too expensive or too time consuming many women face real barriers to both physical and social mobility. Women fear sexual harassment and personal security on public transport and in public spaces resulting in their reduced ability to access services for themselves and for their children. Women and girls' mobility is further reduced in adverse weather conditions, with many unable to attend school as the streets are unusable for them.

## **Risk based on type of road users**

Children and adolescents make their journeys in many ways, ranging from walking, cycling, use of two wheelers or as passengers and drivers in vehicles. Over time, there has been an increased use of vehicles as a means of transport and this has led to a decline in walking and cycling in children and adolescents. The result has been increasingly sedentary lifestyles with consequences to children's and adolescents' health, in addition to the burden of road traffic injuries.

Each mode of transport is linked to specific risks. As noted earlier, children are considered vulnerable road users as pedestrians or cyclists as they have no protection in a crash when compared to passengers or drivers in closed vehicles. Vehicles with functioning

safety features, such as seatbelts, child car restraint systems / child-seat and front and side airbags, are more likely to keep a child safe in a crash than vehicles without these lifesaving features. The same is true for helmets while cycling or as passengers or drivers on motorised two-wheeled vehicles and lowering speed and safe segregated road infrastructure.

Children depend on caregivers to use products such as child restraint systems that can ensure their safety on roads. Yet use of these devices varies greatly across the globe. For example, a study conducted in 30 provinces in rural China from 2015 to 2016 found that 66% of the caregivers who transported children in cars did not use child restraint systems; 44.4% of them believed they were unnecessary and 33% had never heard of them. In addition, in the same study, over 70% of primary caregivers who transported children on motorcycles did not have a helmet for their child, more than 50% thought it was unnecessary and 26% reported being unable to buy suitable child-size helmets.

Only 36% of Malaysian parents were aware of the importance of a child restraint system and even fewer (27%) used them. The use of a child restraint system in different regions of Malaysia ranges from 5% to 42%. As a result, the Malaysian Government mandated the use of child restraint systems starting 1 January 2020.

### ***What is the usage of child helmets and child restraint systems in your community?***

#### **Unsafe vehicles**

Safe vehicles play a critical role in averting crashes and reducing the likelihood of serious injury. Improvements include antilock brake systems (ABS), electronic stability control (ESC), safety belts and child seats, frontal airbags, side airbags, side-door beams, side structure and padding and vehicle front-end design for pedestrian protection.

#### **Lack of safe independent mobility**

Children have the right to independent mobility and to equal and safe access to age-appropriate services and opportunities in their surroundings. But weak transportation policies and poor urban planning and lack of safe infrastructure in many places prevent children and their families from moving about safely in their neighbourhoods. This lack of safe mobility has a direct impact on children's physical and mental health.

Child road traffic fatalities occur more frequently in rural areas because of high speeds, lack of physical separation of lanes, numerous intersections, poorly maintained roadsides and use of modified motorised vehicles with an overload of passengers, including children going to school. Another problem is the mixing of road users; for example, child pedestrians and cyclists are in close proximity to speeding vehicles. This also increases not only road crashes, but also their severity.

In cities, it is often more difficult to create these spaces because of greater population density and lack of safe infrastructure. If such spaces exist, they may be dominated by motorised traffic. In urban areas, streets around green spaces may be dominated by two- and four-wheeled vehicles, often moving at fast speeds.

#### **Road injury recovery and post-crash trauma care**

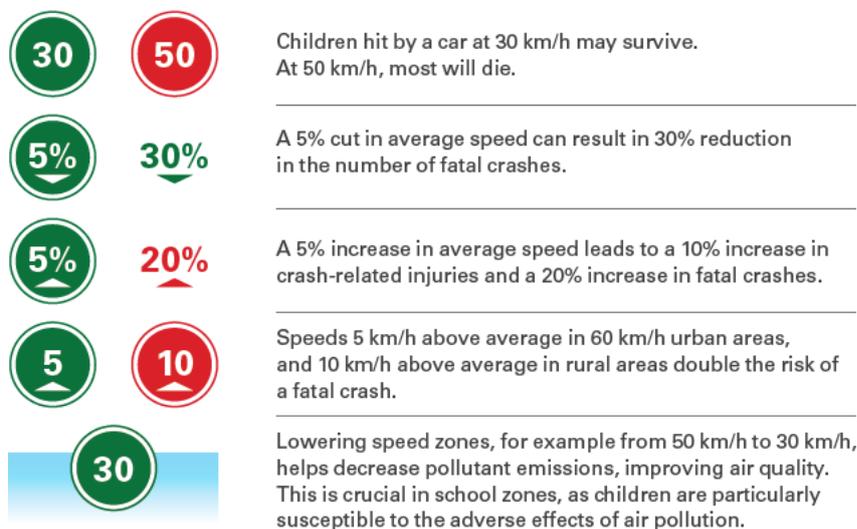
A major factor in whether children survive a road traffic injury is timely and accessible medical treatment. Gaps may exist in the health system affecting the capacity to immediately and efficiently respond to road traffic injuries. Many volunteers or first responders at the scene of a collision may not be trained in first aid and lack of transportation to medical care is a common problem. Further, even if children are brought to an ambulance or emergency room, some of these may lack child-sized equipment,

including basics such as tubes to intubate and ventilate younger children. Also, many doctors and nurses have not received adequate training in emergency treatment of children. Children have different physiologies and different medical needs from adults (they are not just 'little adults').

### Speed as a major risk factor for road traffic injuries

Speed is one of the main causes of fatal road traffic injuries. WHO cites speeding as a contributing factor in most crashes. As average road speeds increase, so does the probability of death or crash severity. Children's lives are lost due to speeding vehicles, as faster vehicles may be harder to avoid and the vehicles carry more energy which increases the level of damage in the event of a child being struck.

Speeds below 30 km/h save lives and are a key focus of the Second Decade of Action on Road Safety. Low speeds are the foundation of the Safe Systems Approach which incorporates road designs that minimise the opportunity for drivers to speed, protecting vulnerable road users, including children.



### Alcohol as a contributing risk factor in road traffic injuries

Driving under the influence of alcohol poses a major threat to children on roads in two ways: as pedestrians being hit by an impaired driver or as passengers in a car driven by an impaired driver. Adolescents may also be the impaired driver themselves.

### Distraction from hand-held devices as a risk factor among pedestrians and drivers

Children, adolescents and adults of all ages are increasingly using mobile phones. Evidence shows a direct relationship between pedestrians speaking on the phone or texting and rates of crashes and near misses. An even greater threat to safety is distracted driving. Talking on the phone while driving (handheld or hands-free) results in a four-fold increase in the probability of a crash. This risk increases to approximately 23 times for texting while driving. Parents driving their children, aged 1–12 years, frequently engage in a variety of potentially distracting behaviours such as using a mobile phone, passing food to a child or picking up a toy. Other unsafe driving behaviours, such as driving while fatigued and speeding, along with mobile phone distraction, increases the risk of a crash.

### Risk from new mobility forms

The motorization of conventional scooters, bicycles and other two-wheeled vehicles has created new road safety challenges. Though the risk for these modes is not quantified yet due to limited crash statistics, new types of crashes involving these modes of transport are

reported globally, particularly when they go at high speeds, and a further risk of crashes by many youth using headphones to listen to music while on electric scooters. This is worrying as they are now starting to emerge in urban parts, where they will further increase road traffic injuries and deaths. This new trend will need to be monitored to determine the need for new regulations and policies.

*Source: Child and Adolescent Road Safety, in East Asia and Pacific nations, UNICEF*

**What Can We Do?**

- We can study the risk factors and understand them
- We can prevent them from causing injuries in the first place
- We can immediately respond to injuries and their risks when they happen (be better prepared)
- We can manage injuries in the long term to minimise their impact on health.

**Need for institutional action**

- Generally speaking, we have created a system that endangers vulnerable road users - we need to change this through institutional action
- Those who are most vulnerable on the road require special consideration and need your leadership and action
- Your actions can assist in saving the lives of those most in need of protection from road trauma.

# Session 4 - How: Approaches to Road Safety

## Session Objectives

1. Introduce the safe systems approach to road safety.
2. Introduce emerging thinking on sustainable mobility as an approach to road safety reducing motorised vehicle kms travelled.
3. Connect the safe systems approach and sustainable mobility approach to Indian laws, codes, and guidelines, with specific reference to children and adolescents.
4. Encourage behaviour change among institutional actors and society for the long term and sustainable impact.

## Preparations and Material

Slides for Session 4

Videos

- जगण्या मरण्यातील अंतर | Safe systems approach | Road Safety | Marathi, duration 13 min 44 sec, <https://youtu.be/6eSV01Xb8Lc>
- “#RethinkMobility Call to Action”, English, duration 1 min 11 sec, <https://www.youtube.com/watch?v=ITb3KH2pHIM>
- The safety of the system is everyone’s responsibility <https://www.youtube.com/watch?v=-2B2JUdzcF0>



Worksheet 2: Match the road safety measures to effectiveness.

**Duration: 45 minutes**

## Session Plan

1. Recall the key points of the previous session.
  - The causes for road crashes include driver, vehicle, speed, and road environment related factors.
  - People are vulnerable, crashes cause injuries, which may cause death.
  - Children and adolescents are more vulnerable due to their age and developmental factors.
  - It is unacceptable that people lose their lives due to human error.

These are the basis of the thinking on road safety that has evolved over the last few decades in Australia and Europe as the “Safe Systems Approach”, or “Vision Zero”.

These are countries with a longer history or more extensive motorization than India or other middle- and low-income countries.

2. Evolution of the safe systems approach
  - Share the slides on the evolution and key elements of the Safe Systems Approach
  - Share the video on the Safe Systems Approach in practice and seek brief feedback.
3. Share and discuss the slide on the Safe System Approach for children and adolescents (adapted Haddon Matrix).
4. Discuss with the participants about how the sustainable approaches of safe systems and mobility could be applied.
5. Share the video “#RethinkMobility Call to Action” (1 min 11 sec) about promoting walk, cycle, public transport facilities as key elements of safer mobility and the need to rethink mobility for improving road safety. Share slides showing street design improvement done in Pune, Pimpri Chinchwad and other cities.

Discuss how this can be made possible in schools.

6. Next, ask / discuss with participants how different elements of safe systems approach and mobility are reflected in Indian laws, policies, codes, and urban missions.

Share Worksheet 2 and give participants a few minutes to match the legal provisions and elements of road users' safety, with special reference to children and adolescents.

Share the slides/ worksheet 2 key, to match provisions and gains in safety to the different components of the safe systems approach.

## 7. Educational approaches

- Ask participants to recall the non-modifiable and modifiable factors related to children and adolescents.
- Keeping the child developmental stages in mind, ask participants: Should we teach children about road safety? If so, what are the age-appropriate contents and methods to teach children or adolescents about road safety?
- Road crashes naturally evoke a response, however, to avoid or reduce the risk and enhance road safety, we need to find Sustainable solutions. How can we develop an entrepreneurial mindset in students to reflect on problem solving and remedies or corrective actions to prevent road safety issues?

## Principles of the Global Plan for the Decade of Action for Road Safety 2021-2030

- Safe system designs should not only be forgiving of human error but also equitable and responsive to the needs of the users/ population.
- Road safety is a shared responsibility, recognizing the role of government as well as a range of non-state actors.
- Mobility and transport are constantly evolving and improving safety is not a one-time event but an on-going process.

(GRSLC)



(Global Plan for the Decade of Action for Road Safety 2021-2030)

**Video** The safety of the system is everyone’s responsibility.

The Safe Systems approach includes aspects such as leadership, legislation, promoting, target setting, funding, coordinating, monitoring and evaluation, research and development, and transferring knowledge for improving road safety.

In the countries that have adopted the “Safe Systems approach” to road safety, there is a sustained reduction in the number of deaths in road crashes.

**Think and reflect:** How does your day-to-day work contribute to meeting the target of the Decade of Action?

# Child and Adolescent Road Safety

Based on Haddon Matrix

	Pre-crash	Crash	Post-crash	
Parents, caregivers	Human Factors <ul style="list-style-type: none"> <li>• Education, licensing</li> <li>• Driving skill for crash avoidance (brake, turn)</li> <li>• Driver impairment (alcohol, drug)</li> <li>• Ability to use safety equipment appropriately</li> </ul>	<ul style="list-style-type: none"> <li>• Helmet, standard, fastening</li> <li>• Bicycle helmet</li> <li>• CRS/Child seat</li> <li>• Placement of child</li> </ul>	<ul style="list-style-type: none"> <li>• Response to emergency medical aid</li> <li>• Severity of injury</li> <li>• Type of injury</li> <li>• Prevention of disability</li> <li>• Rehabilitation</li> </ul>	
RTO, School Transport Committee	Vehicle Factors <ul style="list-style-type: none"> <li>• Vehicle design standards</li> <li>• Crash avoidance technology, equipment (lights, tires, brake system, rear view camera)</li> <li>• Vehicle load</li> </ul>	<ul style="list-style-type: none"> <li>• Speed of travel</li> <li>• Functioning of safety equipment (seat belt, air bags, breaks)</li> <li>• Energy absorption of vehicle</li> </ul>	<ul style="list-style-type: none"> <li>• Ease of extraction from vehicle</li> <li>• Integrity of fuel systems and battery systems</li> </ul>	
Municipal Road Dept, PWD/Highways Dept	Physical Environment <ul style="list-style-type: none"> <li>• School Zone, drop point</li> <li>• Road design, signages, hazards, footpath, crossing, signal time, cycle track, light</li> <li>• Distractions</li> <li>• Weather conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Roadside features</li> <li>• Guardrails</li> <li>• Type and size of object struck</li> <li>• Separation of traffic</li> </ul>	<ul style="list-style-type: none"> <li>• Distance of EMS</li> <li>• Notification of EMS</li> <li>• Accessibility to crash victims</li> <li>• Evacuation</li> </ul>	State & Municipal Health Depts Traffic Police
DRSC, RTO, City Traffic Police, School Education Dept, STC	Social/Economic <ul style="list-style-type: none"> <li>• Social norms - STC SOP</li> <li>• Information sharing</li> <li>• Enforcement activities</li> <li>• Insurance incentives</li> <li>• Laws concerning use of safety equipment</li> </ul>		<ul style="list-style-type: none"> <li>• Child Trauma system center, equipment, personnel, training</li> <li>• First aid &amp; first responders</li> <li>• Public fund to start treatment</li> </ul>	Emergency Medical Services 108

27-Dec-23

Centre for Environment Education

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## Sustainable Mobility as an approach to Road Safety

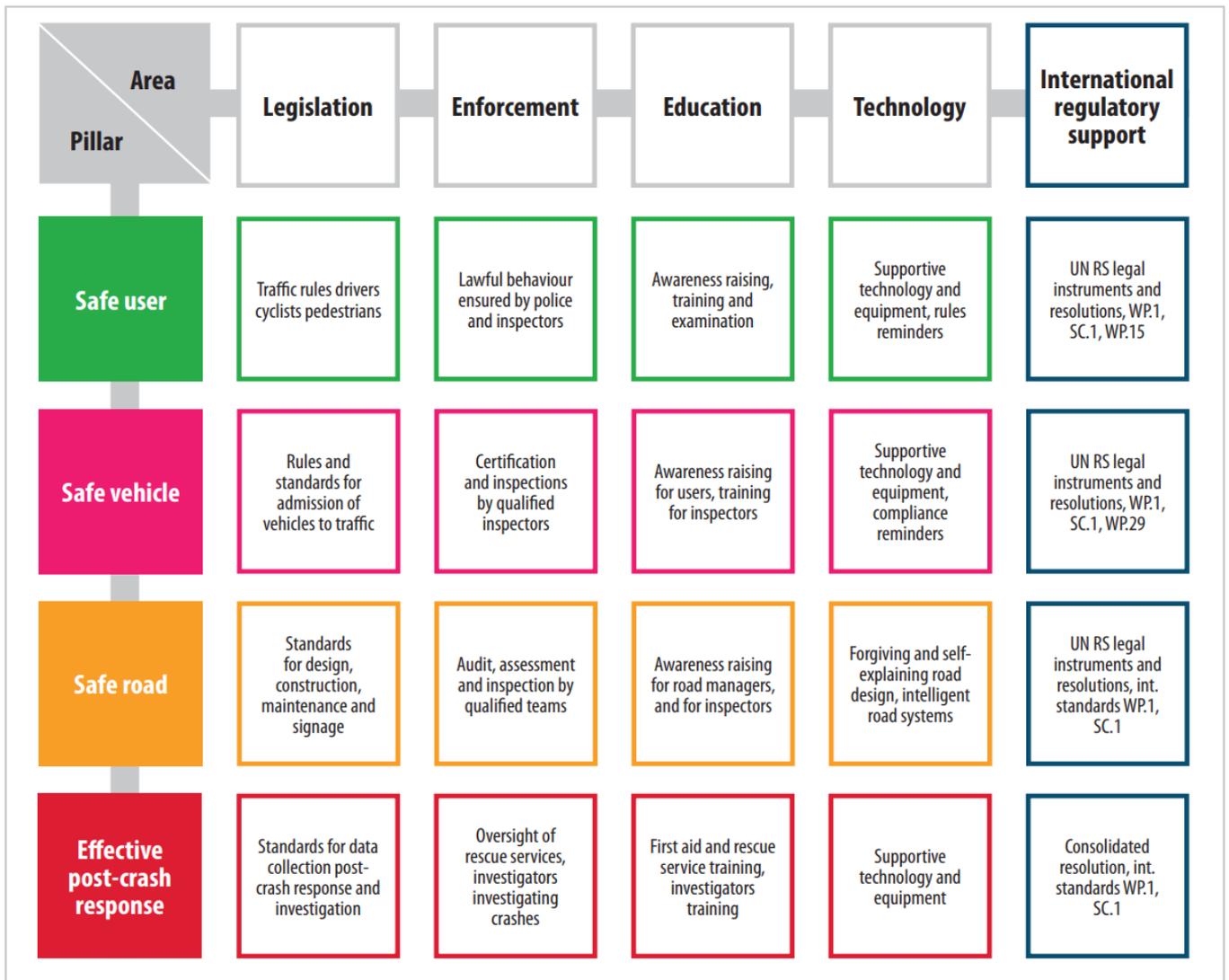
#RethinkMobility

The 7th UN Global Road Safety Week held on 15-21 May 2023 called for policy makers to #RethinkMobility in order to make walking, cycling, and public transport safe and convenient so that people can make the shift to active, sustainable mobility.

This modal shift is one of the recommendations in the Global Plan for the Decade of Action 2021-2030.

### Key messages

- There is a desperate need for governments and their partners to rethink mobility.
- Safety must be at the core of efforts to reimagine how we move in the world.
- To ensure safety, road networks must be designed with the most at risk in mind.
- Safe walking and cycling can contribute to making people healthy, cities sustainable, societies equitable and economies grow.
- Safe, affordable, accessible and reliable sustainable public transport is a solution for many of societies' ills.



## Provisions in Law and Guidelines

Legislation	Provisions for Road Safety
The Motor Vehicles (Driving) Regulations, 2017	Specifies speed limit for School Zone: <ul style="list-style-type: none"> <li>● <b>The speed limit of 25 kmph</b> or a lower speed limit specified on road signage, while passing by <b>a school, or a hospital</b>, wherever indicated by signage, <b>or on roads without footpaths</b> where pedestrians use a part of the carriageway to walk.</li> <li>● <b>Vehicles shall not overtake in School Zones</b>, wherever indicated by signage, or on roads without footpaths where pedestrians use part of it to walk.</li> </ul>
The Indian Road Congress (IRC) under Standards for School Zone (IRC: 103 2012)	Specified the Guidelines for Pedestrian Facilities, and suggests: <ul style="list-style-type: none"> <li>● Schools to design 'Safe Routes to School'</li> <li>● Placement of Marshalls</li> <li>● Drop-off Zones</li> </ul>
IRC: 67-2012 (2001) for School Zone Signage and the Code of Practice on Signages, by Ministry of Urban Development (MoUD)	Specifies signs to be displayed for: <ul style="list-style-type: none"> <li>● School Zones, and</li> <li>● Playgrounds.</li> </ul>
The Motor Vehicles Act, 1988 (MVA) and the Motor Vehicles (Amendment) Act, 2019 (MVAA)	Specifies for use of helmet: <ul style="list-style-type: none"> <li>● Every person, above 4 years of age, driving or riding or being carried on a two wheeler of any class or description shall <b>wear a helmet</b>.</li> <li>● <b>Helmet must conform to BIS Standards</b>.</li> <li>● <b>Strap of the helmet must be buckled</b> properly.</li> <li>● Penalty for non-compliance with this rule is a fine of <b>Rs 1000 and suspension of licence for 3 months</b>.</li> </ul>
MVA and MVAA under the Central Motor Vehicles Rules, 1989 (CMVR)	Specifies child helmet: <ul style="list-style-type: none"> <li>● A child between the age of 9 months and 4 years carried on a two-wheeler <b>must wear his own crash helmet</b>.</li> <li>● It is the <b>responsibility of the two-wheeler driver</b> to follow this rule and secure the child.</li> <li>● The helmet should <b>fit the head of the child with the strap buckled</b> properly.</li> <li>● The child should wear a standard crash helmet.</li> </ul>

MVA and MVAA	<p>Specifies child restraint system:</p> <ul style="list-style-type: none"> <li>● A child below 14 years of age carried on a four-wheeler should be <b>secured by a safety seatbelt or a child restraint system (CRS)</b>.</li> <li>● Driver of the motor vehicle is responsible to comply with this rule.</li> <li>● There is a <b>fine of Rs 1000</b> for not complying with this rule.</li> </ul> <p>Experts advise <b>using a child restraint system, a child-seat or a booster-seat</b> for a young child below 150 cm height, as seatbelt is designed for persons with height above 150 cm. A child should <b>not be carried in the lap</b>, as it is unsafe for them.</p> <p>They should <b>not even be allowed to travel sitting in the front seat</b> of a car, as airbag inflation will also harm them.</p>
The Central Motor Vehicles Rule, 1989 (CMVR)	<p>Specifies:</p> <ul style="list-style-type: none"> <li>● <b>Speed limit of 40 kmph</b> for a two-wheeler driver while carrying a child up to the age 4 years.</li> </ul>
MVA	<p>Specifies age for driving:</p> <ul style="list-style-type: none"> <li>● <b>18 years</b> as the age limit for obtaining a driving licence and driving a motor vehicle.</li> <li>● A two wheeler with engine capacity <b>not exceeding 50 cc</b> or electric <b>bike with 25 kmph speed limit</b> may be driven by a person after attaining the age of 16 years. However, <b>a driving licence</b> is essential for the same.</li> </ul>
MVA	<p>Specifies sitting capacity for two-wheeler:</p> <ul style="list-style-type: none"> <li>● It is <b>illegal for more than two people</b> including driver and pillion rider to ride on a two-wheeler.</li> <li>● It is illegal to carry the pillion rider other than sitting on a seat fixed to the vehicle behind the driver's seat without appropriate safety measures.</li> <li>● Penalty for the same is a <b>fine of Rs 1000</b> and <b>suspension of licence</b> for 3 months.</li> </ul>
MVA and MVAA	<p>Specifies for offence by a juvenile:</p> <ul style="list-style-type: none"> <li>● If an offence under MVA committed by a juvenile, the <b>guardian of such juvenile or the owner of the motor vehicle shall be deemed to be guilty</b> of the contravention and shall be liable to be proceeded against and punished accordingly.</li> <li>● In addition to the penalty, such guardian or owner shall be <b>punishable with an imprisonment for a term which may extend to 3 years and with a fine of Rs 25,000</b>.</li> </ul>

MVA and MVAA	<p>Specifies:</p> <ul style="list-style-type: none"> <li>● Responsibility <b>to comply with the safety standards for road</b> design, construction and maintenance.</li> <li>● An authority, contractor, consultant or concessionaire responsible for the design or construction or maintenance of the safety standards of the road shall follow such design, construction and maintenance standards, as prescribed by the Central Government.</li> </ul>
The Good Samaritan law of MVA and MVAA	<p>Provides for protection of Good Samaritan:</p> <ul style="list-style-type: none"> <li>● A person who helps any road traffic victim to save their life will be considered a Good Samaritan and he should be <b>treated respectfully</b>.</li> <li>● A Good Samaritan who informed police of any crash or transported a victim to the hospital will <b>not be subjected to any requirements</b> by the police or the hospital and <b>be permitted to leave immediately</b>.</li> <li>● They are <b>not required to disclose personal details</b> and can not be compelled to become an eye-witness by police or hospital unless they voluntarily choose to do so.</li> <li>● Every hospital has to publish a charter stating the rights of Good Samaritans.</li> <li>● Also provides guidelines for examination of a Good Samaritan if they wished to be examined or be an eye-witness, protecting their right and preventing any harassment and inconvenience to such Good Samaritans.</li> </ul>
Road Safety Action Plan for road engineering by the Ministry of Road Transport and Highways (MoRTH)	<p>Prescribes:</p> <ul style="list-style-type: none"> <li>● Road safety Audit (RSA) for the highways and other roads where development work is in process.</li> <li>● RSA to be part of road development projects and be a prerequisite.</li> </ul>
State Lead Agency, as per MoRTH notification	<ul style="list-style-type: none"> <li>● The State Transport Department, Government of Maharashtra has been designated as the <b>State Lead Agency</b> for planning and implementation of all the work related to road safety in the state.</li> </ul>
State Road Safety Council (SRSC), by the notification of Government of Maharashtra, as per MVA	<ul style="list-style-type: none"> <li>● A <b>State Road Safety Council</b> is constituted under the Chair of State Transport Minister, by the notification of Government of Maharashtra. The Council is to meet every six months to review the plans of road safety measures, implementation strategy and implementation measures.</li> </ul>

<p>District Road Safety Committee (DRSC), by the notification of Government of Maharashtra, as per MVA/MVAA</p>	<ul style="list-style-type: none"> <li>• The <b>District Road Safety Committee (DRSC)</b> is constituted under the chairpersonship of the District Collector as per the Motor Vehicles Act 1988 in all the districts of India. The Government of Maharashtra has constituted the DRSCs in all the districts through a notification.</li> <li>• The role of the DRSC is <b>to spearhead, facilitate, implement and overview the plans of road safety measures, implementation strategy and the monitoring mechanism</b> and meet every three months.</li> <li>• DRSC constitutes - Collector/Commissioner of Police as Chair, CEO of Zilla Parishad, SP/DySP, Civil Surgeon, Executive Engineer of PWD, Divisional Collector of MSRTC, Deputy Municipal Commissioner of Municipal Corporation and RTO/DyRTO, as members.</li> <li>• In Pune, the committee is chaired by the Collector and PWD is the Member Secretary. It has concerned departments and civil society groups as its members.</li> </ul>
<p>District School Safety Committee, under the Maharashtra Motor Vehicles (Regulations for School Buses) Rule, 2011</p>	<ul style="list-style-type: none"> <li>• A <b>District School Bus Safety Committee</b> is to be constituted at each district <b>to discuss, decide and recommend on issues pertaining to safety of children and their transportation</b> under the chair of the Police Commissioner or District Superintendent of Police.</li> <li>• The Committee shall meet every six months to review and monitor the issues related to safety of transportation of school children.<sup>2</sup></li> </ul>
<p>School Transport Committee, under the Maharashtra Motor Vehicles (Regulations for School Buses) Rule, 2011</p>	<ul style="list-style-type: none"> <li>• Every school shall <b>have a transport committee to look into the matters pertaining to safe transportation of school children</b>, transportation fees, identification of bus stops and the committee shall verify the documents of the vehicles viz. Registration Certificate, Certificate of Fitness, Certificate of Insurance, Permit, PUC, Driving License, Fire Extinguisher and First Aid Kit.</li> <li>• The committee is <b>headed by the Principal of the school and has one PTA representative</b>, Traffic Police Inspector of the respective area, Inspector of Motor Vehicles or Assistant Inspector of Motor Vehicles of the area, Education Inspector, representative of bus contractor and representative of local authority.</li> </ul>

<sup>2</sup> <https://schoolbussafetypune.org/index.php>

- The committee shall meet at least once in three months prior to commencement of each semester.
- The Regional Transport Authority in consultation with the School Authorities, Traffic Police and Municipal Corporation or Council **specify the parking and halting places** at appropriate locations exclusively for the school buses having regard to school timing and safety of the children.<sup>3</sup>

### School Preparedness

The Operational Guidelines on School Health Programme under Ayushman Bharat includes teacher training and students' orientation on road safety under "Key Performance Indicators".

Figure: Extract from the table on Key Performance Indicators under Ayushman Bharat

Road Safety, Injuries	Percentage of schools with trained teachers to monitor and administer first aid and basic safety	Annually
	Percentage of students taught about injury prevention and safety, e.g. road safety	Annually

18 Operational Guidelines on School Health Programme under Ayushman Bharat

### Appropriate Age for Road Safety Education for Children

A framework on School Health Promotion Activities is presented in the Operational Guidelines of the School Health Programme under Ayushman Bharat, which suggests that the "Road Safety" component be taken up with students in High School, and not before that, paying special attention to the physical, psycho-social and mental aspects based on the developmental stages of the child.

**4.4 School Health Promotion Activities**

The health promotion activities will be given a special focus. Age appropriate health education for the students will be taken up to influence behavior and enhance skills. The framework developed pays special attention to physical, psycho-social and mental aspects based on the developmental stages of the child. The broad components are:

Age Appropriate Health Promotion		
Primary School	Middle School	High School
<ul style="list-style-type: none"> <li>• Health, growth and development</li> <li>• Personal safety</li> <li>• Nutrition and physical activity</li> <li>• Hygiene practices</li> <li>• Prevention of Diseases like Malaria, Dengue, TB, worms infestation, diarrhoea and vaccine preventable diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Puberty and related changes</li> <li>• Eye care, oral hygiene</li> <li>• Nutrition</li> <li>• Bullying prevention</li> <li>• Meditation and Yoga</li> <li>• Internet safety and media literacy</li> <li>• Prevention of substance abuse</li> <li>• HIV/AIDS</li> <li>• Mental Health</li> </ul>	<ul style="list-style-type: none"> <li>• Prevention of substance abuse</li> <li>• Sexual &amp; Reproductive Health</li> <li>• Violence Prevention</li> <li>• Unintentional Injury</li> <li>• Road safety</li> <li>• Nutrition</li> <li>• Meditation and Yoga</li> </ul>

Extract from Operation Guidelines of School Health Programme under Ayushman Bharat (pg 6)

<sup>3</sup> <https://schoolbussafetypune.org/index.php/committee-structure>

## Implementing Road Safety at Schools

### a. Reduce risks with safe road environment

- *Road safety audits should be done professionally*
- *The road environment can be made safer for pedestrians, cyclists and motor vehicle users by implementing the mandatory street design codes issued by the Indian Roads Congress. A higher standard is adopted by PMC with its Urban Street Design Guidelines and the Infant Toddler and Caregiver guidelines.*
- *The drop off and pick up of students by rickshaws, vans, buses, private scooters, cars etc should be managed in such a way that avoids obstructions to children (and others) who are walking and cycling. Similarly, the parking of vehicles should not obstruct footpaths or cycle tracks near the school.*
- *Traffic signals at junctions near schools should have signals set for school arrival and departure times, providing adequate time for safe crossings.*

### b. Reduce speed in school zones

*Speed can be reduced by*

- *Setting speed limits (25 kmph or less in a school zone), signposting, and enforcing speed limits.*
- *Designing the road with speed calming features such as narrower lanes, rumble strips, cobble stones, tighter turning at junctions, etc.*
- *Adding speed governors to school vehicles.*

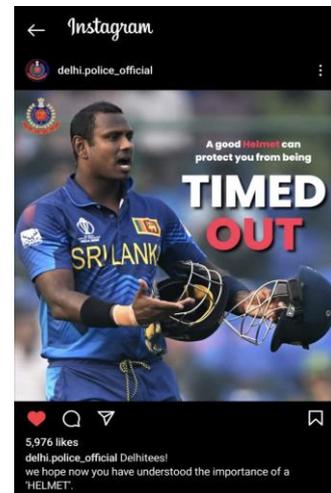
*Note: In the Safe Systems Approach, the reduction of speed is considered as a key factor to save lives.*

### c. Safe driving practices among drivers / guardians of students especially avoiding mobile use, drink drive

- *Drink driving, distracted driving are punishable offences. Schools may request for Traffic Police assistance in severe cases of improper behaviour.*
- *Schools may further promote safe driving behaviour by organising regular orientation sessions for parents, regular eye tests for school vehicle drivers, and monitoring by staff and students on gate duty.*
- *Schools should advise students and their families that students or their caregivers below 18 do not drive any motorised vehicle with an engine of above 50 cc capacity or electric vehicle that can be operated at above 25 kmph; the owner of the vehicle is liable in case of a crash with an underage person driving and it is a punishable offence. They must not drive any motorised vehicle without having an effective driving licence for that, even a motorised vehicle below 50 cc capacity.*
- *Risk-taking behaviour by adolescents (with or without learner's licence) is generally observed, such as driving too fast, weaving, doing stunts, riding triple-seat etc. Counselling students, and channelizing their energy and enterprise into sports, volunteering for causes, including first aid and first responders training may be tried.*

d. Use of safety gear for children, that is child helmets, and CRS/ seat belts as appropriate.

- *Use of helmets, child seats/ seat restraints, seat belts are required by law. The proper way to use safety equipment for children should be included in orientation programmes for parents.*
- *Adolescents may be reluctant to wear helmets; campaigns engaging adolescents, inspiration or guidance from suitable role models, or the sports teacher may be helpful. See here an example of helmet promotion by Delhi Police<sup>4</sup>*
- *Schools may create a “helmet bank” for child helmets on the lines of a book bank, with proper precautions to clean / sanitise used helmets, and checking they are safe (not cracked, dented).*



e. Reduce risk of crashes with safer vehicles, and due to vehicle failure

- *Proper vehicle maintenance of school transport vehicles*
- *If possible, school buses may be fitted with technologies such as sensors and warning alarms if an object comes too close, side and rear cameras to enable the driver to see all around the vehicle, or school staff and student volunteers can help drivers by maintaining discipline, student waiting areas and queues.*

f. Reduce risks of road crashes with modal shift to collective walking or cycling and public transport

- *As the largest number of road crash fatalities in India are associated with motorised two-wheelers, changing the mode of travel to school by private motorised modes to walk, cycle and public bus would be beneficial.*
- *Safety outcomes may be improved by facilitating formation of groups of students walking or cycling from the same area, accompanied by an adult if possible.*

g. Improve emergency response

- *Widespread training for first aid, first response, and awareness about Good Samaritan law will help provide better care within the golden hour for road crash victims.*
- *Ambulances and hospitals should have equipment and personnel trained to address child trauma situations; tie-ups of government hospitals with private healthcare facilities can widen the access to and availability of emergency medical services.*

<sup>4</sup> Source: [https://www.instagram.com/p/CzVrewLymn/?utm\\_source=ig\\_web\\_copy\\_link&igsh=MzRIODBiNWFIZA==](https://www.instagram.com/p/CzVrewLymn/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==)

# Session 5 - School Road Safety and Response in Practice

## Session Objectives

- Share inspirational case studies of strengthening road safety for schools
- Discuss key elements of assessment, institution development, education and outreach, management, infrastructure development, and evaluation for strengthening school road safety.
- Exposure to the role of First Responders and First Aid and where to access comprehensive training for these
- Conduct a field visit to a nearby school to assess risks, with the guidance of a road safety expert.

## Preparations and Material

Slides and videos of case studies

First Aid Kit

Slides/ videos, and field visit to a school

## Duration: 3 hours

## Session Plan

Share the case Safe Routes to School, in Suraksha Nagar. This is a fictitious case for the purpose of generating discussion.

Note the problems identified, the stakeholders involved, the strategies implemented, and the outcomes achieved. Conduct an interactive discussion with the pointers below.

### 1. Problem Identification

- What were the primary road safety challenges faced by school children in Suraksha Nagar, as highlighted in the case study?
- Can you think of similar challenges in your own regions?

### 2. Stakeholder Involvement

- Reflect on the stakeholders involved in the 'Safe School Routes' initiative. How did their collaboration contribute to the success of the program?
- In your context, who are the key stakeholders that need to be involved in child and adolescent road safety efforts?

### 3. Implementation

- Discuss the strategies implemented in Suraksha Nagar, such as designated school zones, traffic management, practical and age-appropriate training for students, and infrastructure upgrades. How can these strategies be adapted in your regions?
- Are there any unique challenges in your area that might require tailored strategies?

### 4. Outcomes

- Consider the outcomes mentioned in the case study. How can we measure success in child and adolescent road safety initiatives?
- What indicators would be relevant in your context to assess the impact of similar programs?

## **5. Challenges and Lessons Learned**

- Explore the challenges faced during the initiative and the lessons learned. How can we anticipate and overcome challenges in our own efforts?
- What strategies can we adopt to continuously improve and refine our road safety initiatives?

**Reflection** - This interactive discussion format encourages participants to actively participate, share their insights, and apply the lessons from the case study to their specific contexts.

**Inspirational cases** - Share the real-life case studies from Delhi, Pune and Jorhat, and discuss the processes adopted, highlights, challenges, achievements and learnings. A few other resources including videos are also provided in the References section. You may choose relevant materials as per the need.

In the following sessions, participants will work in small groups to brainstorm collaborative actions based on the insights gained. This 'Safe School Routes' initiative can serve as inspiration for developing locally relevant child and adolescent road safety efforts.

### **Field Visit**

Facilitate a field visit to observe the mobility and land-use status around the school. If possible, the visit may be done at the time of start or end of the school shift, to observe arrival or departure of students and staff.

Ideally, such a visit may be done with the guidance of a professional road safety auditor or transport planner.

Before the visit, discuss the various aspects to be observed in the observation sheet provided as Worksheet 4: Field observations (see overleaf and in the Appendix). Correlate the observations to the road safety aspects discussed in the module and classroom sessions.

## School Zone Observation Sheet

School name, location:

Date:

Aspects related to road safety	Observations
<b>Road Environment</b>	
Is the school zone visually identifiable and prominent?	
Are the school zone and speed signage placed properly and visible?	
Is the school located near any highway or high-speed road?	
Presence of crossing / junction near school	
Divider present and type <ul style="list-style-type: none"> <li>● No divider</li> <li>● Painted line</li> <li>● Grill</li> <li>● Concrete</li> </ul>	
Number of lanes <ul style="list-style-type: none"> <li>● For left side</li> <li>● For right side</li> </ul>	
Footpath <ul style="list-style-type: none"> <li>● present,</li> <li>● continuous and in good condition</li> <li>● People are able to use footpath</li> <li>● Safety grill on footpath side</li> </ul>	
Crossing is made safer by <ul style="list-style-type: none"> <li>● Zebra Crossing</li> <li>● Pedestrian Refuse</li> <li>● Signal, with phase for pedestrian</li> <li>● Any other measure</li> </ul>	
Cycle path <ul style="list-style-type: none"> <li>● Segregated</li> <li>● painted</li> <li>● Cyclists are able to use cycle path</li> </ul>	
Presence of high speed and heavy vehicles	
Visibility <ul style="list-style-type: none"> <li>● School gate is clearly visible to motorists on the road</li> <li>● Visibility of children using the road, any visual blocks due to objects, railings, plants or parked vehicles, etc</li> </ul>	
Designated drop-off and pick-up place for school transport vehicles <ul style="list-style-type: none"> <li>● Bus</li> <li>● Van</li> <li>● Auto Rickshaw</li> <li>● Parents by walk</li> <li>● Parents by cycle</li> <li>● Parents by two-wheeler</li> <li>● Parents by two-wheeler</li> </ul>	

Parking in front and near school <ul style="list-style-type: none"> <li>• School vehicles</li> <li>• Private vehicles</li> </ul>	
Any other school / college present <ul style="list-style-type: none"> <li>• distance</li> </ul>	
<b>Speed</b>	
Speed limit is mentioned	
Speed management by <ul style="list-style-type: none"> <li>• Speed breaker / speed table</li> <li>• Rumble strip / cobblestone, etc</li> <li>• Signal</li> <li>• Any other measure</li> </ul>	
Operation speed by general observation  Difference between posted speed and operational speed	
<b>User</b>	
Who are the users <ul style="list-style-type: none"> <li>• Pedestrian</li> <li>• Cyclist</li> <li>• Two-wheeler</li> <li>• Four-wheeler</li> <li>• Heave vehicle</li> <li>• School bus</li> </ul>	
Child on two-wheelers are using helmets	
Number of child carried on two wheelers	
Child in four-wheeler using child restraint seats	
<b>Vehicles / Users count / other modes</b>	
Number of users / vehicles ( <i>can count for 6 min and multiply</i> ) <ul style="list-style-type: none"> <li>• Pedestrian</li> <li>• Bicycle</li> <li>• Two-wheeler</li> <li>• Four-wheeler</li> <li>• Heavy vehicles (School bus, truck, etc)</li> </ul>	
Public transport available <ul style="list-style-type: none"> <li>• Mode</li> <li>• Distance</li> <li>• Access, status to walk up to nearest stop / station</li> </ul>	

## Safe Routes to School

**Context:** Here is a case study<sup>5</sup> of a successful initiative called “Safe School Routes” in Suraksha Nagar. This case study will serve as a foundation for our group discussions on child and adolescent road safety.

**Case Study Overview:** The 'Safe School Routes' initiative aimed to address the growing concerns about road safety for children in Suraksha Nagar.

In response to escalating concerns over the safety of school children on the roads of Suraksha Nagar, a transformative initiative, the "Safe School Routes" program, was introduced. The primary issue at hand was the surge in road accidents involving school children, exacerbated by the absence of designated safe zones and inadequate infrastructure around educational institutions. A lot of crowding and wrong side driving at the school gate was occurring since a number of students were being dropped off or picked up by their guardian on a scooter or car. The parents' vehicles were also often parked haphazardly on the footpath, making walking difficult for students and other pedestrians.

Recognizing the urgency of the situation, a collaborative effort unfolded, engaging various stakeholders. The education department played a crucial role by first setting up and activating the school transport committee with representatives from the different key departments, the local elected representative, as well as representatives from the parents and the students' body. The school transport committee invited a road safety expert for orienting themselves about the topic, and commissioned a participatory audit of the school premises, the travel modes of the students, and the risks within the school zone.

The traffic police took charge of traffic management and the enforcement of safety rules, while the health department focused on providing first aid training for school staff and students. Simultaneously, the Public Works Department (PWD) spearheaded infrastructural enhancements, including the identification and marking of the school zone, deployment of traffic police during school hours, and implementation of vital infrastructure improvements such as pedestrian crossings and speed bumps.

A survey was done to understand which students are walking and cycling. This information was presented to the school transport committee. Area-wise “walking and cycling school bus” were initiated by forming groups of children who could walk or cycle together. Older students and parents who were happy to volunteer were roped in to accompany these walking, cycling school buses.

Parents who were bringing their scooters or cars to drop off, were requested to use the bus or van services if possible. In addition, a few different drop off / pick up points were identified close to the school, which would be safe to walk and not create a crowd at the school gate.

A regular protocol was adopted to provide practical skills as pedestrians and cyclists as per age, for students in the primary, middle school and high school. High school students were also guided about training in driving skills, safe behaviour as drivers, and how to obtain a

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<sup>5</sup> This is a fictitious case study prepared for discussion.

learner's licence. Some of the more adventurous boys were counselled about risk-taking and engaged in sports activities to develop and showcase their skills.

The outcomes were remarkable, marked by a significant reduction in road crashes involving school children, heightened awareness among students, parents, and the community, and the establishment of a collaborative model that showcased the effectiveness of a multi-stakeholder approach.

Challenges such as initial resistance to change and awareness gaps were acknowledged and addressed through continuous evaluation and feedback loops.

This case study provides a foundation for discussion, inviting stakeholders to brainstorm on adapting similar strategies to their own contexts and addressing the unique challenges in ensuring the safety of school children on their daily commute.

## **Delhi DAV school cluster by HumanQind**

**Location:** Vasant Kunj area, southern part of New Delhi, India

**Time Frame:** January 2019 to April 2019

**Initiative:** Co-designing Safe School Streets by Children

**On-boarding Process:** The initiative involved 47 Grade IV students from a local school in Vasant Kunj. The project was part of a social change program under the Dalai Lama Fellows hosted by the University of Virginia, USA. The aim was to empower children to redesign their school streets for safety and livability.

### **Technical Partners and Roles**

Technical Partners:

- Dalai Lama Fellows Program
- University of Virginia
- Delhi Government
- Delhi Public Works Department (PWD)

Roles:

- Dalai Lama Fellows Program: Hosted the initiative and provided support.
- University of Virginia: Facilitated the pilot study as part of a social change project.
- Delhi Government and PWD: Collaborated for the potential implementation of the students' street redesign plan.

### **Process**

Conditions before the initiative

- Children faced safety issues on their way to school.
- Traffic jams, inadequate pedestrian crossings, and lack of safe cycling space were identified as key issues.

Assessment and Key Issues Identified:

- Phase I (STIMULATE): Collected qualitative data, mental maps, and questionnaire responses from students.
- Identified mobility issues, traffic violations, and the desire for mode of transport change among students.

Engagement with Key Stakeholders:

- Phase II (CODESIGN): Prepared a design brief through collaboration among students.
- Explored spatial equity, community involvement, and co-design principles.

Improvement of Infrastructure:

- Phase III (STRATEGIZE): Mobilised for action and change.
- Explored storytelling as a catalyst, created physical models, and outlined strategy for safe streets.

Improvement of Management/Operations:

- Proposed closing the school street to moving traffic during school hours for safety.

- Explored options for parking, drop-off points, and a linear park for community use in the evening.

#### Status after intervention

- Identified the complete length of the street (250m) as their school street for redesign.
- Proposed rules and principles for a slow traffic, "no honking" zone, tree cover, cycle lanes, and community spaces.

#### Results

- The children's design proposal was formalised into an actionable document.
- Presented to local authorities and submitted to Delhi Government and PWD for potential implementation.

#### Future Planning

- Infrastructural changes and modifications are underway.
- The project's modularity, replicability, and participatory nature make it adaptable to diverse contexts.

#### Reflections

- Children demonstrated an understanding of safety, mobility, and human rights.
- The curriculum enhanced awareness of SDGs and their relevance to everyday experiences.

#### Sustaining the Effort

- The project gained traction due to its modular, replicable, and scalable nature.
- Adaptations needed for diverse school and student contexts, considering factors like language, governance, and demographics.

This case study showcases how empowering children in the redesign process can lead to safer and more inclusive school streets. The ongoing efforts focus on sustaining and adapting the initiative to various contexts

#### Videos

Safe School Zone, HumanQind

<https://www.youtube.com/watch?v=va2jZHOG4z0>



DAV Student - Reporter

<https://www.youtube.com/watch?v=KvLyV2FZxHw>



## **Safer Roads for Safer Childhood Project in Jorhat City, Assam**

Jorhat, a city in Assam, faced challenges in ensuring road safety for school children due to narrow roads, inadequate infrastructure, and traffic congestion. The "Safer Roads for Safer Childhood" (SRSC) project was initiated collaboratively by the Centre for Environment Education (CEE), IIT Guwahati, and the Department of Home and Political Affairs, Govt of Assam, represented by Jorhat Police. The project aimed to address road safety concerns for children travelling to and from school. It was implemented over 5 years from 2018 to 2023.

### **Technical Partners and Roles**

- Centre for Environment Education (CEE): Leading the project, conducting surveys, training teachers, and implementing education and awareness programmes.
- IIT Guwahati: Analysing data, assessing road crash statistics, and providing technical expertise.
- Jorhat Police: Representing the government and ensuring law enforcement aspects of the project.

### **Process**

- Conditions before the initiative:
  - High traffic risk for school-going children.
  - Inadequate road infrastructure and safety measures.
  - Lack of awareness and education on road safety.
- Assessment and Key Issues Identified:
  - Preliminary surveys conducted in 57 schools to identify risky areas.
  - Six schools prioritised based on road crash data and risk factors.
- Engagement with Key Stakeholders and Their Roles for Improvements:
  - Collaboration with School Management Committees, parents, and government departments (Public Works, Transport, Police, Municipality, and Education).
  - Training teachers and creating a student group called "Road Safety Friends" (RSFs) to monitor and implement road safety activities.
  - Advisory committee formed involving various stakeholders.
  - Developed posters for teachers, students and parents.
- Improvement of Infrastructure:
  - Hardware modifications at high-risk crossroads, including footpath railings and road signage.
  - Development of School Road Safety Plans (SRS) for each project school.
- Improvement of Management/Operations:
  - Training programs, morning assemblies, summer camps, and inter-school competitions conducted to raise awareness.
  - Distribution of road safety materials and student booklets in English and Assamese.
  - Youth engagement through design competitions and workshops.
- Status after intervention:
  - Improved infrastructure at high-risk crossroads.
  - Increased awareness and engagement through educational programs.
  - Enhanced road safety measures in project schools.

## Results

- **Achievements:**
  - Improved safety infrastructure at identified crossroads.
  - Successful engagement with schools, parents, and students.
  - Enhanced awareness and understanding of road safety.
  - Developed teachers training module.
  - Prepared school road safety plan.
- **Future Steps:**
  - Continued monitoring and evaluation of road safety initiatives.
  - Expansion of successful strategies to more schools and areas.
  - Collaboration with the media for wider outreach.

## Reflections

- Positive feedback from teachers, parents, and students regarding increased awareness.
- Testimonials highlighting the impact of RSFs in creating a safer environment.
- Recognition from local authorities for the positive changes observed.
- As per school road safety plan movable items such as cones, barricades were remarkable to demarcate drop off and no parking etc in the school zone.

## Sustaining the Effort

- Ongoing collaboration with stakeholders and government departments.
- Integration of road safety education into the school curriculum.
- Periodic assessments and updates to address emerging challenges.
- Road safety friends are an integral part of school like eco club, they reappoint new ones as old ones are promoted or leave schools.
- Youth engagement in road safety education with 40 NCC students from four colleges as RSFs to carry awareness programmes through NCC units.

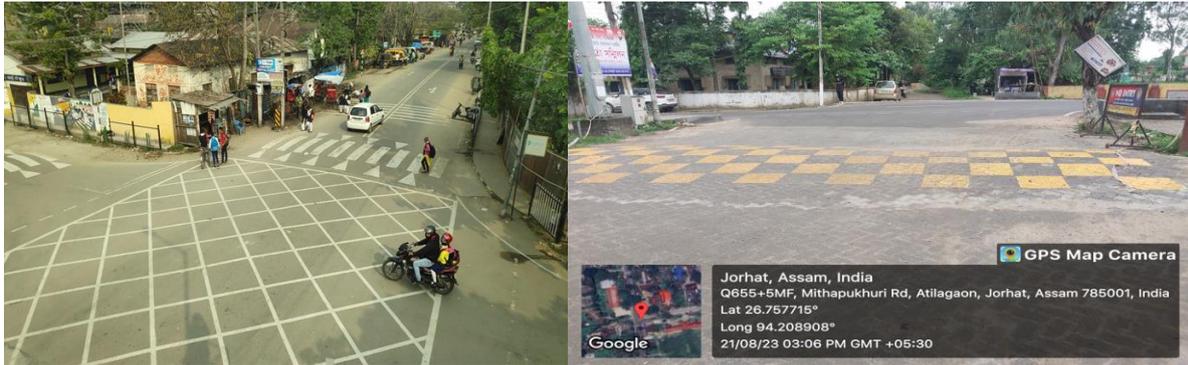
The SRSC project in Jorhat city demonstrates a holistic approach to improving road safety for school children, emphasising infrastructure improvements, education, and community engagement. The success achieved provides a model for future initiatives in similar settings.



Stage 1 Understanding of the situation surveys



Stage 4 Creating Safe School Zones and Road Safety Friends



Junction improvement with raised pedestrian crossing facilities on four legs, road signages and road markings, Pedestrian Guardrails, table-top markings in pedestrian humps



Gate management by RSFs students

Source: Safer Roads for Safer Childhood (SRSC)

<https://www.ceeindia.org/safer-roads-for-safer-childhood-srsc->

## **Pune School Travel Improvement plan by Pune Municipal Corporation**

**Vision** The program envisions safe access to schools for children of all ages and abilities, including toddlers, through sensitive planning and design of school zones.

The program primarily consists of school zones identification across Pune and implementing mobility interventions to make travel to school safer for all ages of children, from anganwadis to high schools.

### **Partners and roles**

#### Government bodies

Pune Municipal Corporation: Project owner  
PMPML  
Pune Traffic Police

#### Technical partners

WRI and Parisar: Road infrastructure design guidance  
Safe Kids Foundation: Engagement activities with students and staff

#### Design Teams

Shunya Studio (Kharadi zone)  
Studio Infill (Parvati-Bibwewadi zone)  
Archana Kothari , Dashma Soni, Chinmay Nagpurkar, Chaitali Patil (Deccan zone)

#### Participating schools

##### *Deccan zone*

MES Vimlabai Garware High school  
MVM Panditrao Agashe School  
Ramchandra Rathi School  
Symbiosis School

##### *Kharadi zone*

PDEA English medium School  
PDEA Marathi Medium School  
EON Gyanankur English Medium School  
Late Rajaram Pathare school Parvati

##### *Bibwewadi zone*

Rajiv Gandhi E-learning school  
City International school  
Muktangan high school

### **Process**

Among educational trips, 43% trips are made by walking and 4% trips are on bicycles. School children from pre-schools to high schools faced various issues in mobility such as unsafe street infrastructure, difficulty in crossing, parking encroachments, poor shade or lighting, no traffic enforcement around school zones and anti-social activities in the vicinity.

A design competition was organised for 9 zones across Pune, followed by a jury selection. The winning teams of 3 zones implemented various solutions for safe access in the form of trials. Based on the trial impact evaluation, proposals are refined for permanent implementation by PMC.

Multiple stakeholders are included in planning and implementation, including PMPML for exploring the possibility of school bus services, Traffic Police for guidance on signals timings, traffic re-routing, enforcement of helmet and seat belts use. NGOs were involved for inputs on infrastructure and design, as well as for engagement activities with students, staff and guardians.

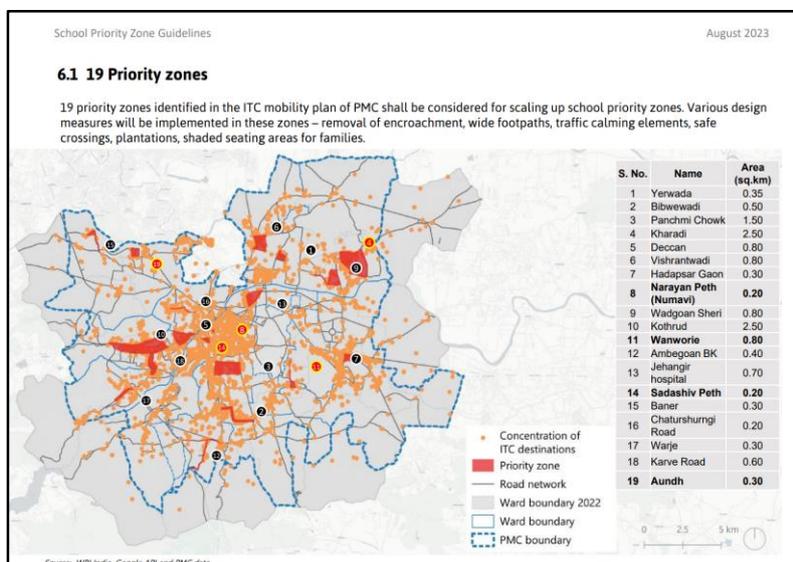
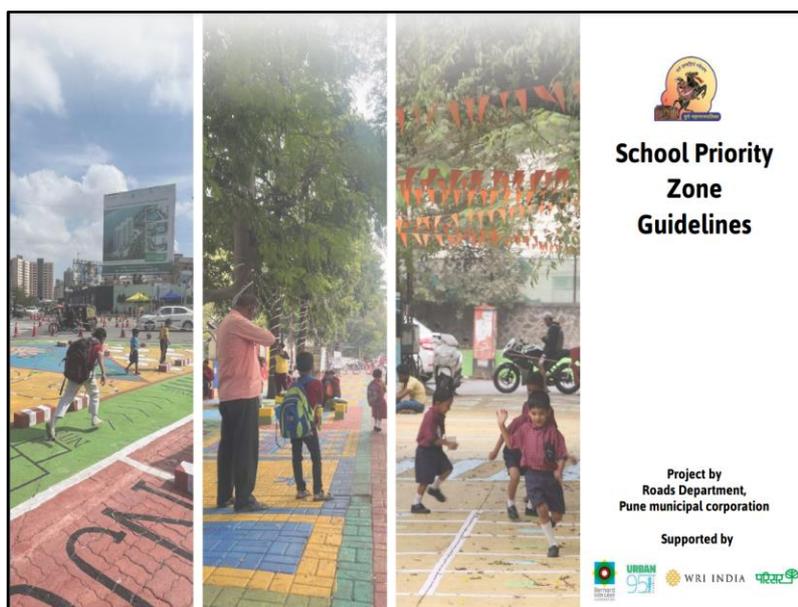
### Improvement of infrastructure

A range of improvements were identified and tried out through tactical measures (temporary), such as clear marking of the school zone, use of bollards for regulating traffic movement, installation of street furniture, and interactive elements.

### Sustaining the effort

- Additional school zones will be identified based on GIS data analysis for scaling up this initiative across other school zones in the city. PMC has identified areas for scaling up the school priority zones.
- Design guidelines have been developed by PMC and the document is available on the PMC website.

<https://www.pmc.gov.in/sites/default/files/school-priority-zone-guidelines28-11.pdf>



## **Good Samaritan law**

The Good Samaritan law under the Motor Vehicles Act 1988 and Motor Vehicles (Amendment) Act, 2019 provides legal protection to the Good Samaritan:

- Under the law, the person helping any road traffic victim will be considered a Good Samaritan for saving their life and shall be treated respectfully.
- A Good Samaritan who informed the police of any road traffic crash or transported a victim to the hospital will not be subjected to any requirements by the police or the hospital, of sharing their personal details, fill any form or cover the cost of the treatment and shall be permitted to leave immediately.
- A Good Samaritan is not required to disclose personal details and can not be compelled to become an eye-witness of the crash by the police or the hospital against their will unless they voluntarily choose to do so.
- Every government and private hospitals have to publish a charter stating the rights of Good Samaritan and display of the entrance and on the website.
- The law also provides the guidelines for examination of a Good Samaritan if he wishes to be examined or be an eye-witness and pronounce the rules under CMVR to protect their right. It prevents any harassment and inconvenience to such Good Samaritan, that might cause under examination.

The Good Samaritan law is brought to encourage and promote people to help any road crash victim and provide them help needed in emergency. It protects their right, convenience and is encouraged in the light of being a lifesaver. In some states cash prizes and awards are given to the Good Samaritan by the state government.

## **First Responder**

The Maharashtra State Disaster Management Authority in coordination with the National Disaster Management Authority has implemented the *Aapda Mitra* Scheme in 20 districts including Pune. The scheme aims to reduce loss of lives due to disasters, and create a culture of volunteerism among local community members by imparting basic rescue and first aid training. The trained volunteers contribute as first responders during any emergency, inform and coordinate with the local administration for relief and rescue, support the emergency service providers, provide basic life support to affected communities and support in maintaining records of any incident. Pune district has 500 trained volunteers under this scheme. These include NCC, NSS, NYKS, NGOs, as well as citizens.

The training modules of *Aapda Mitra* include first aid training, CPR, Basic Life Support (BLS), crowd management along with other components of disaster specific rescue training.

## First Aid

### 1. Minimum requirements of first aid

- First Aid Kit
- An appointed persons to take charge of first aid arrangements
- Information for students and staff on first aid arrangements

### 2. Main duties of the first aider

First aiders must complete a certified training course. At school or college, the main duties of a first aider are to:

- Give immediate help to casualties with common injuries or illnesses and those arising from specific hazards and risks at school and around the School Zone.
- When necessary, ensure that an ambulance or other professional help is called.

### 3. Risk assessment of First Aid needs that school and college should consider

Schools and colleges normally include staff, pupils and visitors when carrying out risk assessments for first aid needs. Points to consider:

#### A. Size of the school and college and if it is on split sites or locations

The governing body (School Management Committee) / head teacher (principal) needs to consider additional first aid provision if there is more than one building. They should consider how many first aid personnel are needed to provide adequate cover on each site or location of a split site school and college.

#### B. Location of school and college

It is a good practice to inform the local emergency service in writing the location of the school and college especially when it is remote from emergency services. Also, inform any particular circumstances that may affect access to the school and college. If the school and college has more than one entrance, emergency services should be given instructions on where or to whom they should report.

#### C. Any specific hazards or risks

Identification of any specific hazard like dangerous spot, crossing, curve, junction, etc. and temporary hazards like vehicle movements, unsafe site, maintenance work should also be considered in and around school and college and suitable short term measures put in place.

#### D. Specific needs

- Any staff or pupils with disabilities or special health needs
- Age ranges the school and college cater for. Different first aid procedures may apply to pupils in primary, secondary and higher school and college. The age of pupils may affect the type of first aid procedures required such as resuscitation techniques.

#### E. Accident statistics

Accident statistics can indicate the most common injuries, times, locations and activities at a particular site. These can be useful tools in risk assessment, highlighting areas to concentrate on and tailor first aid provision to.

#### First Aid Risk Assessment

- Size and layout of the school and college premises with entrances
- High risks areas (technology, home economics, science)
- Number of campuses/buildings with entrances
- Number of employees and students in the campus/premises
- Nature of hazards
- Previous accidents, incidences and injuries
- Authorised after-hours programmes or shifts
- Nature and location of school and college excursions and camps
- School and college contractual and owned vehicles
- Location of the site and proximity to medical facilities

#### **4. Number of first aid persons required**

There are no rules on exact numbers. Institutions have to make judgement based on their own circumstances and a suitable and sufficient risk assessment. As a general guide it is recommended that a lower risk place or work like school and college with 50 to 100 employees should consider having at least one first aider. They can consider one first aider per shift and location for a split site institute. One institute must have one first aider available when in function.

#### **5. School and college should base their provision on their risk assessment**

When considering number of first aid personnel required the governing body should also consider:

- Provision can be done looking at overall risk assessment of the school and college including risks and hazards other than the road crash.
- Adequate provision for school and college starts and end times and breaks. It is good practice to encourage transport or gate (entry/exit) management supervisors to have first aid training.
- Adequate provision for leave and in case of absences.
- First aid provisions for off-site activities like school and college trips. If a first aider accompanies pupils off-site, will there be adequate first-aid provision in the school and college.
- Adequate provision for practical departments, such as science, technology, home, economics, physical education, etc.
- Adequate provision for out of hours activities e.g., sports activities, clubs, etc.
- Any agreements with contractors (e.g. school and college meals), transport providers including formal and non-formal (bus, van, rickshaw), on joint provision for first aid for their employees.

#### **6. Selection of first aiders**

Unless first aid cover is part of a member of staff's contract of employment, people who agree to become first-aiders do so on a voluntary basis. When selecting first aiders, governing body/head teacher should consider the individual's:

- Reliability and communication skills,
- Aptitude and ability to absorb new knowledge and learn new skills,
- Ability to cope with stressful and physically demanding emergency procedures,
- Normal duties. A first aider must be able to leave to go immediately to an emergency.

## 7. Contacting first-aid personnel

All school and college staff must know how to contact a first aider. There should be agreed procedures in place if an emergency occurs in an isolated area or in the School Zone e.g., while travelling to school and college or on the playing field.

Governing body/head teacher should consider how best to let everyone know the first-aid arrangements of the school and college. Procedures need to be in place that are known, understood and accepted by all. Information should be given about the location of first-aid equipment, facilities and personnel. First-aid notices should be displayed which are clear and easily understood by all.

First Aid training should include but not limited to these:

- Basic life support (BLS)
- Activation of Emergency Medical Services (EMS)
- Cardiopulmonary resuscitation (CPR)
- Basic First Aid - DRSABCD (Danger, Response, Send for help, Airway, Breathing, Cardiopulmonary resuscitation (CPR) and Defibrillation)
- Trauma and Common Surgical Emergencies
- First Aid Kit

## Keeping Children Safe

It is the responsibility of adults to work out what might hurt a child, and to work out how to keep children safe. There is a set of steps that you can follow in order to best protect a child.

1. Get rid of the danger by removing them
2. Change the hazard so that it is not so dangerous
3. Block access to the danger
4. Change in the child so the risk is lowered
5. Always do things the safe way yourself
6. Help them learn skills so that they do things the right way
7. Teach them by telling them what to do, and what not to do
8. Finally, if they are doing something you think is dangerous, stop it.

## Useful Notes

Local Contact Numbers

1. Ambulance service
2. Fire Brigade
3. School First Aider
4. Paediatric Emergency of nearest hospital
5. Police Station of the area / helpline number
6. Child Protection services
7. Others

Source: FAST, *First Aid for Students and Teachers Workshop Manual*, Aster CMI Hospital

# Session 6 - Recapitulation

## Session Objectives

- The recapitulation will help reinforce the learnings and surface any questions, need for clarifications and concerns participants may have.
- Reinforce a value-based approach to problem solving and learning based on the RISE Values Framework

**Duration: 30 minutes**

## Materials Needed:

1. Flipchart or whiteboard
2. Markers
3. Sticky notes
4. Timer/stopwatch
5. Printed RISE Values Framework handouts

## Session Plan

### Recapitulation

Ask participants to take a couple of minutes to think about the sessions so far, and then share their thoughts, such as about:

1. Important learning or new insight related to road safety
2. Questions or need for clarifications
3. Experiences that came to mind due to the discussions
4. Concerns
5. RISE Values Framework

A co-facilitator may make a note of the responses on the blackboard/ whiteboard in these categories. Use the responses to provide more information or clarifications, as needed and fine tune the following sessions.

Alternatively, conduct a quiz on the main topics of the previous session.

### Introduction to the RISE Values Framework

Share the RISE Values Framework as a handout and review how the values have been a part of the program - WHY, WHAT, HOW, WHO. Explore and reinforce the RISE Values Framework in the context of child and adolescent road safety, fostering a collaborative and value-based approach among stakeholders.

Briefly introduce the RISE Values, Principles and Framework by IDOBRO\* as

1. A value-based approach to behaviour change to take positive action.
2. Train Youth and adults on analytical skills and behaviour changes that enable them to develop a problem-solving approach for social issues and sustainable development.

Explain the relevance of the framework to child and adolescent road safety, emphasising the importance of a holistic and collaborative approach.

## The RISE Values

The RISE values - Responsible Inclusive Sustainable Eco-friendly – are the universal values to drive positive action and partnerships.



### RISE Values – Definitions

- **Responsible (Ownership)** - Reflect on one's actions and/or have a sense of duty to act.
- **Inclusive (Citizenship)** - Think about the wellbeing of others and/or how one's actions affect others.
- **Sustainable (Entrepreneurship)** - Consider how one can maintain one's positive action over time, in order to create lasting change.
- **Eco(system)-friendly (Partnership)** - Have a collaborative mindset, to work together to solve problems on a larger scale and for the common good.

### The RISE Principle of Shared Values

The RISE values – Responsible, Inclusive, Sustainable and Eco(system)-friendly – are a part of every individual and organisation to some degree, indicative of a society's ecosystem. The RISE Values are applicable at home, at workplace, on the playground and in communities too.

### The RISE Framework for Action

The RISE Framework allows individuals and organisations to design and plan for positive action. It systematically seeks answers to the basic building blocks of Why? What? Where and How? The RISE values and Principle simultaneously provide the compass for partnerships that may help scale the final initiative based on the RISE Framework.

# Session 7 - Who: Institutional Roles for Safer Roads

## Session Objectives

1. Explore the need for collective action and collaborative approach for implementing solutions on road safety management.
2. Discuss the roles of different departments in strengthening road safety around schools.

## Preparations and Material

Handout on departmental roles and elements of safe systems approach

**Duration: 60 minutes**

## Session Plan

Introduce the session purpose, that is, to identify and elaborate on the 'Institutional Roles for Safer Roads.' Further, the discussion will also explore the necessity of collective action and collaboration in implementing effective solutions for road safety management.

Before the group work, introduce the 'Road safety management – vertical and horizontal coordination' framework outlined in the global action plan for road safety. This framework emphasises the need for both vertical coordination within institutions and horizontal coordination among different sectors to achieve comprehensive road safety.

1. **Vertical Coordination:** Groups should identify key institutions and roles within each institution that contribute to vertical coordination in road safety management. Think about how responsibilities are distributed vertically within organisations.
2. **Horizontal Coordination:** Each group should discuss the collaborations needed between different institutions and sectors to ensure a holistic approach to road safety. Consider how information, resources, and efforts can be shared horizontally.
3. **Framework Application:** Using the global action plan's framework as a guide, map out the relationships and connections you've identified within your groups. How do these connections align with the principles of vertical and horizontal coordination?
4. **Action planning:** Invite the participants groups to outline a draft action plan that can be implemented by the department, especially on the cascading training, programme adoption, budgets and reporting systems. Note that this department-wise outline will be further discussed in the next session with a view to coordinate across departments and stakeholders.

**Group Sharing and Discussion:** Each group will have a few minutes to share their institutional roles mapping. Then, together discuss commonalities, differences, and potential challenges in coordinating efforts.

**Reflection and Action Planning:** As a collective, let's reflect on the insights gained. How can we enhance vertical and horizontal coordination in our local contexts? What actionable steps can be taken to strengthen collaboration among institutions for safer roads?

**Conclusion:** Thank everyone for their active participation. Remember, effective road safety management requires a collective effort and collaboration across institutions. Let's carry these insights ahead into the future training programmes and departmental activities.

### **District School Transport Committee**

A District School Bus Safety Committee is to be constituted as per the Maharashtra Motor Vehicles (Regulations for School Buses) Rule, 2011 at each district to discuss, decide and recommend the issues pertaining to safety of children and their transportation under the chairpersonship of the Commissioner of Police or the District Superintendent of Police. The Committee shall meet every six months to review and monitor the issues related to safety of transportation of school children.

- In Pune, the District School Safety Committee is constituted to oversee the school transport safety related issues in the district. The committee is constituted differently for rural areas and municipal areas of Pune district.
- The District School Bus Safety Committee is constituted of District Superintendent of Police as the Chairperson, Deputy Regional Transport Officer (Dy RTO) as the Member Secretary and Chief Executive Officer of Zilla Parishad, Divisional Controller of Maharashtra State Road Transport Corporation (MSRTC), Chief Officer of Municipal Council, Education Officer (Primary and Secondary) of Zilla Parishad and the representatives appointed by the Chair from each Talika as members, for Pune district.
- The School Bus Safety Committee is constituted of Commissioner of Police as Chairperson, Dy RTO, Municipal Commissioner of Municipal Corporations or the representative, Chairperson and Managing Director of the city bus service (PMPML), Education Officer (Primary and Secondary) of Municipal Corporations, and the representatives appointed by the Chair, for the municipal corporation areas.

### **Education Dept**

1. Form (if not already existing) and convene agency-level School Transport Committee, and conduct orientation for the members on road safety for children and adolescents
2. Communicate to all schools and concerned depts to adopt School Road Safety programme and SOP, including through school cluster coordination meetings
3. Social Media and press communications in partnership with Local Authority's PIO / Social Media cell, inviting schools to join school road safety initiative
4. Monitor and evaluate the multi-agency School Road Safety programme
5. Report annually to the DRSC/ Distt School Transport Committee, on the following indicators/ aspects, and any other relevant aspects necessary to achieve the target of halving (and reducing even further) road crash fatalities by 2030:
  - a. Proportion of schools that have completed School Road Safety Committee formation, activities taken up (meetings, trainings, students green travel mode share, gate management, etc)
  - b. Plan and number (or percentage) of annual school road safety audits completed and Safe School Zones implemented (Road Dept)
  - c. Number and analytical report of crashes involving children and adolescents; and plans for improving enforcement in high risk areas for schools (Police)
  - d. Number and analytical report of serious injuries and fatalities of children and adolescents due to road crashes, and plans and activities for improving emergency response, ICUs and post-trauma care, and any other EMS services (Health Dept)
  - e. Mode share of students' travel to school and plans for increasing the proportion of walk, cycle, shared and public transportation modes (Transport Dept, and PMPML)
  - f. Monitoring and compliance of school transport vehicles (RTO)
6. Organise a monthly Janta Darbar on school road safety for guardians, school representatives, school transport service providers and other stakeholders.

### **Road Dept/ PWD/ Highways Authority**

- Plan for and conduct an annual orientation (and refresher programs as needed) for all road engineers on road safety, and developing safe school zones, including relevant IRC codes for pedestrians, cyclists, junctions and signals, and speed management, school zone audit, and best practices.
- Commission and oversee the conduct of annual audits for school zone implementation, especially in cases where schools are located on or close to major district roads, state and national highways.
- Plan for and complete the implementation of safe school zones across the jurisdiction by 2030, prioritising the schools facing higher risks.
- Develop and adopt a process for rapid response to schools for road repairs and maintenance in school zones.

### **Health Dept**

- Organise area-wise training for municipal staff, school staff, youth and community members for first response and first aid with special reference to for child road crash emergencies, and link trained first responders to schools in the area, converging with Ayushman Bharat training programmes
- Provide First Aid training and kit to all school transport committees.
- Ensure to check and fit ambulances for child road crash emergencies
- Ensure adequate trauma and ICU centres for child road crash emergencies
- Have a process for 108 Ambulance call centre to respond to child road crash emergencies
- Link nearest child health care centre / emergency centre with schools

### **Local Authority's PIO / Social Media cell**

- Understand the approach to road safety communication (safe systems approach)
- Create appropriate communications through social media, press releases, highlighting positive steps taken by different departments for improving road safety

### **Traffic Police/ Enforcement Planning**

- Monitoring and visible presence to manage Speed, Use of helmet, CRS, Underage driving, drink & drive
- Effective deterrence measures (incl Education combined with deterrence)
- Penalty measures (guardians/ vehicle owners)
- Traffic management at / near school gates

### **RTO**

- Inspection, passing and monitoring of school transport vehicles including bus, van and rickshaw
- Training of youth / adolescents on safe driving behaviour, testing on safe road behaviour, and licencing
- Training of drivers, attendants
- Process for orientation and regulation of school rickshaw / van and monitoring.

### **School-level Transport Committee (STC)**

According to the Maharashtra Motor Vehicles (Regulations for School Buses) Rule, 2011 every school shall have a transport committee to look into the matters pertaining to safe transportation of school children, transportation fees, identification of bus stops and the committee shall verify the documents of the vehicles viz. Registration Certificate, Certificate of Fitness, Certificate of Insurance, Permit, Pollution Under Control (PUC) Certificate, Driving License, Fire Extinguisher and First Aid Kit.

The committee is headed by the Principal of the school and has one PTA representative, Traffic Police Inspector of the respective area, Inspector of Motor Vehicles or Assistant Inspector of Motor Vehicles of the area, Education Inspector, representative of bus contractor and representative of local authority.

The committee shall meet at least once in a three months prior to commencement of each semester. The Regional Transport Authority in consultation with the School Authorities, Traffic Police and Municipal Corporation or Council specify the parking and halting places at appropriate locations exclusively for the school buses having regard to school timing and safety of the children.

Membership: RTO, Health/Emergency Response representative, JE Ward Office/ Block/ Gram Panchayat, Traffic police, School Principal, School Teacher in charge, Parents' representatives, Students, students with disability or their guardians, alumni, first responder trained volunteers/*Apada Mitra* from the school vicinity.

The role of the School-level Transport Committee is to support the city/ district wide long-term transport and safety management programme for safer and greener commute to school with a Students-first approach. The activities of the committee are to be aligned with the National Education Policy and the School Health and Wellness Programme under the National Health Mission.

The activities of the STC include:

1. Maintain records and report on
  - a. Transport modes used by students - walk, cycle, public, shared, private
  - b. Places of travel
  - c. Distance of travel
  - d. Maintain a register for absence due to NCD/ injury related / RTI related reasons
  - e. Report on the road safety indicators of School Health and Wellness program
2. Transport Audit
  - a. Transport modes used by students, staff
  - b. Walking/ cycling school "bus" (group walks or cycles together, with an adult)
  - c. Registry of rickshaws, vans, buses operated by the school or private agencies to ferry students, including contact details of driver and manager/ owner, total number and details of students

3. Participatory Audit of School Zone implementation (STC/PTA/Students), and request concerned officials (Ward office or Road Dept) for a formal road safety audit.
  - a. Signage for school zone
  - b. Speed - posted speed limit sign
  - c. Timing - posted sign, if any
  - d. Pedestrian facility - footpath, crossings, nearest junction, nearest bus stop
  - e. Traffic calming - speed breaker, rumble strip, signal, cobblestone, others
  - f. Enforcement - CCTV, warden
  - g. Monitoring
  
4. Communications and outreach
  - a. Parents - drop and pick up (by walk, cycle, 2 and 4 wheelers), use of modes (daily/occasional commutes), use of safety gears (child helmet, CRS), road safety policy of the school
  - b. Staff - gate management, Marking and implementing drop-off/ pick-up zone away from school gate, emergency situation management, enforcement management
  - c. Local authorities - ward office, Gram Panchayat, ZP, Block Office, traffic police, RTO
  - d. Emergency response - health care, EMRI 108, trauma care centres, rehab centres, etc
  - e. Helmet and CRS campaign and helmet distribution, if possible.
  - f. *Shala Purva Taiyari* - Mother Parents Committee/PTA - change in Parents' behaviour (overloading, use of safety devices, underage driving, etc)
  - g. Organise regular annual training on road safety for children and adolescents
  
5. Trainings and orientation
  - a. School Management Committee (SMC), School Transport Committee members, Parents on child road safety
  - b. School transport vehicle drivers and attendants
  - c. School gate management staffs
  - d. Student counsellor
  - e. Bal Sansad members
  
6. Bal Sansad members role on road safety
  - a. Assist the school staff in gate management, and checking that students wear helmets, seat belts/ child restraints
  - b. Assist in participatory audits
  - c. Assist in organising walking / cycling school buses
  - d. Plan the road safety communications to the school students' body with the help of the in-charge teachers, including assembly announcements, putting up posters, demonstrations.
  - e. Support Annual road safety exhibition and Annual Day
  - f. Observe Road Safety Week/Month

# Session 8 - When: Action planning

## Session Objectives

To provide an opportunity for discussing multi-department, multi-agency or multi-stakeholder cooperation and coordination to implement school road safety initiatives.

## Preparations and Material

Writing materials, charts and pens

**Duration: 60 minutes**

## Session Plan

Ask participants to form groups such that officials working in the same geographical area or work zone are together. This could be at the block or ward level within the jurisdiction of an agency (e.g. Aundh ward of PMC), or at the agency level when multiple agencies are present (e.g. PMC, PCMC and the Pune District administration).

The next level of training may be organised for representatives from the relevant departments and agencies who will need to work together to strengthen school road safety for schools/ clusters in their jurisdiction.

In groups, participants should discuss the roles and responsibilities for conducting the next level of training and facilitating implementation.

The purpose of this time in the orientation is to identify the opportunities to work together to strengthen road safety in schools. This includes conducting structured joint training events, and implementing the joint actions to strengthen road safety in schools.

The discussion may address:

1. Deputation/ permissions and instructions for conducting the training and ensuring the presence of staff from different departments or schools within the jurisdiction
2. Timeframe
3. Logistics, and any arrangements that may be needed to conduct the training
4. Joint action planning for implementation activities that can already be initiated.
5. Sequencing the activities to be done

Any difficulties foreseen may be identified and addressed through discussions, and also brought to the attention of the departmental or agency leadership, and further in the school transport committee or District Road Safety Committee.

# Session 9 - Trainers' Role and Module

## Objectives

- To discuss the role of the participants as trainers
- To review the training resources and approach for their usability by participants in their role as trainers

## Preparations and Material

Slides with weblink and QR code for the online repository of the trainers' manual, presentation materials and tools

**Duration: 60 minutes**

## Session Plan

Drawing on the action plans discussed in the previous session, invite participants to think about orientation sessions to be conducted with staff and stakeholders.

Using the slides or the contents page of this manual, briefly present the structure of the training module and resources (why, what, how, when and who of road safety).

Share the web link/ QR code for the Google Drive folder for the manual and presentations.

Invite participants to reflect on the use of the master trainers' module and resources, especially thinking about:

- Training approach
- Topic clarity
- Sequence of sessions
- Materials, methods, timing

Invite sharing and suggestions for adaptation or other ideas for conducting the orientation, as well as sharing information about other resources that they know of, that may be useful.

# Session 10 - Next steps, Feedback, Conclusion

## Session Objectives

1. To summarise the training, obtain participants' feedback about the training, and discuss the next steps that the participants may take.
2. Gauge mindset and behaviour change towards the road safety using the RISE Values

## Preparations and Material

Feedback form (in the Appendix)

**Duration: 45 minutes**

## Session Plan

Summarise and invite final inputs if any on the following:

- Key messages related to road safety of children and adolescents
- Institutional roles in alignment with the safe systems approach
- Main actions agreed upon, such as for further training and other institutional measures.

Invite final inputs and suggestions from the participants regarding implementation that may need to be incorporated during further roll out of the programme and agreed actions.

Request participants to fill out the feedback form and give 5 to 10 minutes for the same.

Thank the participants and organisers and partners for the event and conclude the same.

# Reference Materials and Websites

## **Session 1**

**PsychCentral (u.d.) How to Understand Your Feelings Using an Emotion Wheel**

<https://psychcentral.com/health/emotion-wheel#how-to-use-it>

## **Session 2**

**Global Status Report on Road Safety 2023, WHO**

<https://www.who.int/teams/social-determinants-of-health/safety-and-mobility/global-status-report-on-road-safety-2023>

**National Crime Records Bureau**

<https://ncrb.gov.in/accidental-deaths-suicides-in-india-ads.html>

**Road Accidents in India report by Ministry of Road Transport and Highways**

[https://morth.nic.in/sites/default/files/RA\\_2022\\_30\\_Oct.pdf](https://morth.nic.in/sites/default/files/RA_2022_30_Oct.pdf)

## **Session 3**

**Video Kinetic and Potential Energy**

<https://youtu.be/t2vnyfNK870?feature=shared>

**Video Graham, the only person designed to survive on our roads**

<https://youtu.be/vdf4fNkMMA8?si=ZpA-bryXSNZcb4Oa>

**Child and Adolescent Road Safety in East Asia and Pacific nations, UNICEF**

<https://www.unicef.org/eap/reports/child-and-adolescent-road-safety#:~:text=Highlights,particularly%20vulnerable%20to%20being%20injured.>

**30M30-Circle**

<https://georgeruns30x30.com/>

## **Session 4**

**Video जगण्या मरण्यातील अंतर | Safe systems approach | Road Safety | Marathi**

<https://youtu.be/6eSV01Xb8Lc>

**Video “#RethinkMobility Call to Action”, English, duration 1 min 11 sec,**

<https://www.youtube.com/watch?v=ITb3KH2pHIM>

**Video The safety of the system is everyone’s responsibility**

<https://www.youtube.com/watch?v=-2B2JUdzcF0>

**The Motor Vehicles (Driving) Regulations, 2017, by MoRTH**

<https://morth.nic.in/sites/default/files/Motor-Vehicle-Driving-Regulation-2017.pdf>

**Road Safety Manual for Schools, IRC SP: 32 (to be notified)**

<http://www.irc.nic.in/admnis/admin/showimg.aspx?ID=398>

**Global Plan for the Decade of Action for Road Safety 2021-2030**

<https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030>

### **The Motor Vehicles Act, 1988**

<https://morth.nic.in/motor-vehicles-act-1988>,

[https://www.indiacode.nic.in/handle/123456789/1798?sam\\_handle=123456789/1362](https://www.indiacode.nic.in/handle/123456789/1798?sam_handle=123456789/1362)

### **The Motor Vehicles (Amendment) Act, 2019**

<https://morth.nic.in/motor-vehicles-amendment-act-2019-no-32-2019>

### **Motor Vehicles Act, 1988 and Motor Vehicles Amendment Act, 2019**

<https://www.indiacode.nic.in/bitstream/123456789/9460/1/a1988-59.pdf>

[https://morth.nic.in/sites/default/files/notifications\\_document/MV%20Act%20English.pdf](https://morth.nic.in/sites/default/files/notifications_document/MV%20Act%20English.pdf)

Section 44 on use of helmet, Section 194 B on use of child restraint system,

### **Pune District School Safety Committee**

<https://schoolbussafetypune.org/index.php>

### **शालेय विद्यार्थी वाहतूक नियमावली व मार्गदर्शिका (School School Transportation Rules & Guidelines)**

<https://schoolbussafetypune.org/index.php/downloads>

### **Helmet promotion by Delhi Police**

[https://www.instagram.com/p/CzVrewLymsn/?utm\\_source=ig\\_web\\_copy\\_link&igsh=MzRIODBiNWFIZA==](https://www.instagram.com/p/CzVrewLymsn/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==)

### **Maharashtra Motor Vehicles (Regulations for School Buses), Rules, 2011**

<https://vlex.in/vid/maharashtra-motor-vehicles-regulations-545662458>

### **Session 5**

#### **Reimagining safer school streets with children using the crosswalk program, Ruchi Varma**

<https://www.sciencedirect.com/science/article/pii/S038611221000121>

### **Video Safe School Zone, HumanQind**

<https://www.youtube.com/watch?v=va2jZHOG4z0>

### **Video DAV Student - Reporter 3, HumanQind**

<https://www.youtube.com/watch?v=KvLyV2FZxHw>

### **Video Story of a young voice, HumanAind**

<https://www.youtube.com/watch?v=GyippL4BxA&t=72s>

### **Video Delhi Transport Department, HumanQind and Transportation Research and Injury Prevention Center IIT, Safe School Zone**

<https://youtu.be/va2jZHOG4z0?feature=shared>

### **Safer Roads for Safer Childhood (SRSC)**

<https://www.ceeindia.org/safer-roads-for-safer-childhood-srsc->

### **School Priority Zone Guidelines, Pune Municipal Corporation, 2023**

<https://www.pmc.gov.in/sites/default/files/school-priority-zone-guidelines28-11.pdf>

### **Pune District School Safety Committee**

<https://schoolbussafetypune.org/index.php>

## **Good Samaritan Rights and Duties of the Hospitals/Police, Ministry of Road Transport and Highways**

<https://morth.nic.in/sites/default/files/Good-Samaritan.pdf>

## **First Aid Manual**

Indian Red Cross

<https://www.indianredcross.org/publications/FA-manual.pdf>

## **FAST First Aid for Teachers and Students app**

Letter from Ministry of Education, Govt of India

[https://www.education.gov.in/sites/upload\\_files/mhrd/files/NDMA.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NDMA.pdf)

(Please note that as of January 2024, the app is available for older phone softwares)

## **Operational Guidelines on School Health Programme under Ayushman Bharat**

[https://nhm.gov.in/New\\_Updates\\_2018/NHM\\_Components/RMNCHA/AH/guidelines/Operational\\_guidelines\\_on\\_School\\_Health\\_Programme\\_under\\_Ayushman\\_Bharat.pdf](https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/AH/guidelines/Operational_guidelines_on_School_Health_Programme_under_Ayushman_Bharat.pdf)

## **Programme for Addressing Risky Behaviour and Attitude towards Trauma Prevention (PRATAP), A handbook on Road Safety Education for School Children, by CHEB**

[www.cheb.nic.in/sites/default/files/books/Handbook%20on%20road%20safety%20education-%20PRATAP.pdf](http://www.cheb.nic.in/sites/default/files/books/Handbook%20on%20road%20safety%20education-%20PRATAP.pdf)

## **WRI 6 Ways to Design Safer School Zones**

<https://wri-india.org/blog/6-ways-design-safer-school-zones-lessons-mumbai>

## **Urban Road Safety Audit toolkit**

TRIPP, IIT Delhi and Ministry of Urban Development, 2016

[https://smartnet.niua.org/sites/default/files/resources/urban\\_road\\_safety\\_audit\\_200614.pdf](https://smartnet.niua.org/sites/default/files/resources/urban_road_safety_audit_200614.pdf)

## **Teaching Road Safety: A Guide for Parents**

The Royal Society for the Prevention of Accidents <https://www.rosipa.com/media/documents/road-safety/teaching-road-safety-a-guide-for-parents.pdf>

## **Road safety for child and adolescent, the Better Health Channel website**

<https://www.betterhealth.vic.gov.au/health/healthyliving/road-and-traffic-safety-for-children> & <https://www.betterhealth.vic.gov.au/health/healthyliving/bicycle-safety-and-children>.

## **Some demonstration ideas**

*Save Pune Traffic Movement has prepared this video as a public awareness campaign, with the belief that if pedestrians raise their hand while crossing the road, they are more visible to drivers, can establish eye contact, and drivers can take necessary safety precautions.*

Save Pune Traffic Movement (2023). पाऊल पुढे? - हात समोर! [Video]. YouTube.

<https://youtu.be/j3kvOOcfPz0>

*This article has some views from PuneKars on the video mentioned above.*

PMB Desk, 8 Mar 2023, Can Raising Hand Safeguard Walkers? Pune Mirror.

<https://punemirror.com/pune/others/can-raising-hand-safeguard-walkers/cid1678234424.htm>

*This article describes an initiative to create “Safe School Zones” in Pune and Bangalore.*

MobileKids: A Mercedes-Benz initiative (n.d.) MobileKids in India.

<https://www.mobilekids.net/en/about-mobilekids/road-safety-education-worldwide/india>

*WRI’s work for guiding cities in initiating systematic road design changes, building infrastructure that is safe for all users and formulating laws and other measures to ensure safe mobility is presented at this webpage:*

WRI India (u.d.). Safer Roads for Vision Zero <https://www.wricitiesindia.org/content/safer-roads-vision-zero>

*This video by WRI India presents the SATS (Safe Access To School) geoanalytics tool, that focuses on road safety indicators in relation to Bengaluru schools.*

WRI India, 14 Sept 2021, Connect Karo 2021 | Safe Access to Schools (SATS) tool [Video] YouTube. <https://youtu.be/rp0KUxGEZLA?si=FyRwSRDBpcGIGmyZ>

*This article describes in detail the Safer Roads for Safer Childhoods initiative by CEE with support from the Botnar Foundation.*

CEE India (u.d.). Safer Roads for Safer Childhood. <https://www.ceeindia.org/safer-roads-for-safer-childhood-srsc->

*Junctions are important elements of road infrastructure and must be designed with safety in mind. This article describes how Mumbai Traffic Police tested some designs.*

WRI India (18 Nov 2021). Mumbai Traffic Police Designs Safer Roads for the City. <https://wri-india.org/news/mumbai-traffic-police-designs-safer-roads-city>

<https://www.pmc.gov.in/en/junction-improvement-redesign>

# Road Safety and Children

Children in their early years **need a lot of assistance** from adults to manage the risks associated with road use. They need particular help in detecting the presence of traffic and judging the speed and distance of oncoming traffic. As they grow and develop, and with the help of adults, children become increasingly aware of how they can manage their own safety and become safer road users.

## Helping children to be safe around traffic

Road safety skills are best learnt in the real traffic environment. Children learn by experience, and adult interaction helps them to learn. You can help by talking with your child as you walk. Ask questions about roads, signs, traffic, and how and where you can cross the road safely.

## Road safety for children under 5 years

Creating safe journeys for young children is critical, whether they are car or two-wheeler passengers, walking along the road or learning to ride a bicycle. Always **carefully supervise** children in traffic situations. It is important to:

- Talk with your child about the traffic environment.
- Hold your child's hand when you are near cars. **Talk with your child about why it is important to hold hands.**
- Explain what you are doing when you cross the road together. Involve your child in deciding when it is safe to cross the road – of course you still make the decision, but you are teaching your child to think in the traffic environment.
- Always be a good role model for your child by wearing your own helmet or seatbelt, obeying road rules, driving courteously and crossing roads safely.
- Make eye contact with road users, especially at intersections.
- Involve your child in choosing safe places to play.
- Separate play areas from driveways.
- Ask if your child's early childhood service includes road safety education in the program.

## Road safety for children between 5 and 9 years

Pedestrian and passenger safety education, as well as **role modelling positive road safety behaviour**, is key to primary school students becoming safe road users. **Your child still needs adult supervision and assistance in the traffic environment.** It is important to:

- Talk together about signs and traffic lights. Identify and discuss places where it is safe to cross the road.
- Teach your child how to cross roads using the 'stop, look, listen and think' process – stop at the kerb, look and listen for traffic and then decide whether it is safe to cross. Take the trip to school together along the safest footpaths and use safe crossing places, such as pedestrian crossings and on straight sections of road.
- Supervise your child on the way to and from school.
- Always be a good role model for your child by wearing your own helmet or seatbelt, obeying road rules, driving courteously and crossing roads safely.
- Ask at your child's school what road safety programs are being taught.

### **Road safety for children between 10 and 13 years**

Children between 10 and 13 can cope more safely in traffic on their own. This will depend, however, on **how much practice the child has had in the 'real traffic environment'** and how much they have learnt about navigating traffic risks. It is important to:

- Check that your child always 'stops, looks, listens and thinks' when crossing the road. Ask them to explain to you what they are doing and why they are doing it.
- Talk with your child about road laws. Go for regular rides and walks together.
- **Plan with your child safe routes to school** and to places your child often visits.
- Make sure your child wears bright colours that can **be easily seen** by road users.

## **Bicycle Safety and Children**

To help your child become a safe cyclist, **let them practise often** on footpaths and offer tips on how to ride safely. **Children need to develop the skills to be able to ride in a straight line, brake properly and turn corners safely.**

Ride in designated areas such as bicycle paths when possible. **Children under 13 years of age should ride on the footpath**, and adults can too when they are supervising them. Find out if your child's school offers 'Bike Ed', which teaches children about road safety and cycling skills.

### **Bicycle safety for children under 5 years**

Always carefully supervise children in traffic situations. It is important to:

- Talk with your child about the traffic environment.
- Explain what you are doing when you ride together. Involve your child in deciding where it is safe to ride on the bike – of course you still make the decision, but you are teaching your child to think in the traffic environment.
- Always be a good role model for your child by obeying road rules and crossing roads safely.
- Involve your child in choosing safe places to ride.
- Make sure your child always rides on the footpath or a bicycle path with adult supervision.
- Make certain that your **child wears a standard bicycle helmet** when riding a bicycle.

### **Bicycle safety for children between 5 and 9 years**

Your child still needs adult supervision and assistance in the traffic environment. It is important to:

- Talk together about signs and traffic lights. Identify and discuss places where it is safe to cross the road.
- Supervise your child on the way to and from school.
- Always be a good role model for your child by obeying road rules and crossing roads safely.
- **Children under 13 years of age are not recommended to cycle on the road, and they should be accompanied by a competent adult when riding on a footpath or bike path.** (You can ride with your child on footpaths while they are younger than 13 years old.)

- Make certain that your **child wears a standard bicycle helmet** when riding a bicycle.
- Ask at your child's school what road safety programs are being taught.

### **Bicycle safety for children between 10 and 13 years**

Children between 10 and 13 can cope more safely in traffic on their own. This will depend, however, on **how much practice the child has had in the 'real traffic' environment**. It is important to:

- Check that your child always 'stops, looks, listens and thinks' when crossing the road. Ask them to explain to you what they are doing and why they are doing it.
- Talk with your child about road laws. Go for regular rides together.
- **Plan a safe route to school with your child**, and to places your child often visits.
- Talk with your child about where they can safely ride.
- **Children under 13 years of age are not recommended to cycle on the road and they should be accompanied by a competent adult when riding on a footpath or bike path.**
- Make certain your **child wears a standard bicycle helmet**.
- Make sure your **child wears bright colours** that can be easily seen by other road users.
- **Always be a good role model for your child** by obeying road rules and crossing roads safely.

### **Bicycle helmets for children**

Bicycle **helmets are effective in protecting child cyclists** against head, brain and facial injuries. Wearing a helmet can **reduce the risk of head injury by 60 to 90%**.

It is always good to wear a helmet when riding a bicycle on any road or a bike path, bike lane, shared footpath or separated footpath. Your child's helmet should be:

- **standard quality** – make sure the helmet is of standard quality, showing that it is safety approved
- **the right size and correctly fitted** – the helmet should be comfortable and not too tight or loose. Caps should not be worn under helmets as they ruin the fit. Choose a helmet that is not too heavy and provides good ventilation
- **positioned properly** – the helmet should sit level on the rider's head, covering the forehead with the rim just above the eyebrows. **The straps should be correctly adjusted and the buckle securely fastened.** The straps should form a 'V' shape with the plastic strap guide sitting just under the earlobe. Make sure straps are not twisted. **The buckle should be close up under your child's chin**
- **kept in good condition** – a helmet is designed to protect a person's head for one impact only. If the helmet has been involved in an accident or if it has been dropped from a height, you must replace it, even if there is no visible damage. Do not leave a helmet exposed to direct sunlight when not in use. Make sure the foam is not old and crumbling, and clean the helmet according to the manufacturer's instructions.

### **Choosing a suitable bicycle for your child**

Having a **bicycle of the right size for the rider's body** plays a big part in safe cycling.

- A bicycle that is too big for your child is dangerous. Do not buy a bicycle or helmet that is too large for your child, with the intention that they will 'grow into it'.

- To test for size, stand your child over the bicycle with both feet on the ground. For medium or lightweight bicycles, there should be at least 2 cm between the child's crotch and the crossbar (or where the crossbar would be if the bicycle had one). For BMX and mountain bicycles, there should be at least 5 cm between the child's crotch and the bicycle crossbar.
- Make sure all controls are within easy reach and comfortable to use, and that the seat can be adjusted. If you buy a second-hand bicycle, get it serviced properly.

### **Caring for your child's bicycle**

- Make sure that your bicycle and your child's bicycle are **well maintained. Regularly check** brakes, wheels, pedals, bearings and chains so that the bicycle will stop quickly in an emergency.
- Each time you ride the bicycle, check if the tyres are hard, if the brakes work and whether there are any rattles. Check the tyres, bearings, gears, nuts and bolts, and lubricate the chain and cables each week.
- See a professional bicycle mechanic if you are unsure about the bicycle's safety.

## **Child Safety as Two Wheeler Rider**

If we look at road fatalities data, two wheeler is one of the most unsafe modes of transport. That is so because of its inherent nature of imbalance and no physical protective cover where riders are always exposed to the risk of falling, getting hit and injured. Motorbike coupled with speed multiplies the risk many fold.

The best way to avoid this risk is to opt for safer modes of transport. In developed countries, children are not allowed on two wheelers because of the risk involved. This limits the studies and technological advancement in the areas of child safety as two wheeler riders. However, in many Asian countries and so is in India two wheelers are coming into daily modes of commute mainly because of lack of public transport choices.

- Motorcycle **helmet is the best available protection** with global proven effectiveness of 69% reductions in the risk of head injuries.
- Head injuries are the severe causes of fatalities in road crashes involving two-wheeler riders both drivers and pillion passengers in India.

### **Helmet and the law**

In India, the law makes it absolutely **compulsory to wear a helmet**

- while riding on a two wheeler of any kind,
- for all the people - including all gender, male and female,
- for both the riders - driver and pillion passenger,
- on any road - rural or urban. (The only exception is the person with a turban.)

Law also mentions that:

- The helmet has to be Standard ISI marked.
- The strap of the helmet has to be fastened properly.
- The punishment for not wearing the helmet is a fine of Rs 1000 and disqualification for holding a licence for a period of 3 months.

### **Two-wheeler safety of children under 4 years**

- Avoid carrying a child below two years on a two-wheeler to the level possible, instead use public transport modes.
- **Adults and caregivers are responsible** for the safety of children being carried on two wheelers.
- **Use a crash helmet** or a bicycle helmet for a child between 9 months to 4 years.
- Use a good quality standard helmet which fits properly to the child's head.
- Do not carry more than one child on a two-wheeler along with the driver.
- Never carry a child standing in the front space of a scooter or sitting on the petrol tank of a motorcycle. Always **carry them sitting on the proper seat** fixed with the body of the vehicle in the back of the driver, cross legged and front facing.
- Use a harness to attach a child under 4 years to the driver, on the two-wheeler.
- Children should wear shoes and full clothes covering both hands and legs.
- Driver should **never drive the vehicle exceeding the safe speed range of 25 to 30 kmph** when carrying the child under 4 years.

### **Two-wheeler safety of children between 4 to 16 years**

- **Driver is responsible** for the safety of children being carried on a two-wheeler.
- Children must be made to wear an **ISI marked standard helmet**. The strap should be fastened properly.
- Do not carry more than one child on a two-wheeler.
- Never carry a child standing in the front space or sitting on the petrol tank. Always carry a child sitting on the proper seat of the vehicle, cross legged and front facing.
- Children should wear shoes and full clothes covering both hands and legs.
- Good to drive the vehicle **below the safe speed of 30 kmph**.

### **Two-wheeler safety of adolescents between 16 to 19 years**

- Always **wear an ISI marked helmet** while riding as a pillion or driver on a two-wheeler.
- Never ride more than two people on a two-wheeler including a driver and a pillion.
- Never drive a vehicle without an effective licence. Must obtain a valid licence by giving a test at RTO to drive that particular class of two-wheeler.
- Persons above 18 years can obtain a driving licence for driving a two-wheeler.
- Persons above 16 years can obtain a driving licence only to drive a two-wheeler of engine capacity up to 50 cc or ebike of speed limit 25 kmph.
- The **rider must be trained properly and practised sufficiently** under the supervision of a trained adult on the key aspects of - operating the two-wheeler, safety of his own as driver and of passenger, safe road behaviour including following speed limit, road safety and traffic rules for safety of other road users.
- Must wear shoes while riding or driving on a two-wheeler. Good to wear protective clothing like a jacket, gloves, guards, etc.
- Be aware of the speed limit of the road and the zone and follow the same.

### **Two-wheeler helmets for children**

- Use an **ISI marked helmet** for a child above 4 years.
- Use a good quality helmet for a child between 9 months and 4 years. Can also use a bicycle helmet of European Standard.
- Always **fasten the strap of the helmet** with the buckle under the chin of the child.

- Helmet should fit properly to the child's head. It should not be too loose or tight. Helmet needs to be changed as the child grows with growing head size.
- A helmet involved in an accident or fallen from a height should not be used, even if the cracks are not visible.
- The inside foam of the helmet should be in good condition, this layer is important to protect from a shock.

#### Helmet bank

- A 'Helmet Bank' can be tried at the school and college level to promote the use of helmets among children and adolescents like the idea of a book bank.
- The helmet can be given based on membership and nominal fee and deposit. The quality of the helmet, sensitisation after use, etc must be taken care of.

## Child Safety in the Car

The best way to prevent injuries to children in a crash is by **taking care to correctly restrain them** while travelling in a car. By law, in India **all passengers must be restrained appropriately at all times** when travelling in a car. **Children should be restrained using the right child restraint system (CRS) for their age and size.**

All child restraints must comply with the ARAI standard for child restraint systems (AIS-072). When fitted and used correctly, **restraints are very effective in protecting children** in the event of a crash.

Cars can quickly become very hot, so **never leave a baby or child alone in a car**, even in mild weather. Leaving a child on their own, locked in a car on any day – even for a short period – can be fatal. The temperature inside a car can very quickly climb to dangerous levels.

#### Child restraints system and the law

In India, **children under 14 years of age must be restrained** in a **child restraint system (CRS)** or a seatbelt when travelling in a four wheeler. It is ambiguous in the law till what age they are mandated to use CRS and when they can graduate to seatbelt.

The global best practice is that children over seven years of age and under 16 years must be restrained in a booster seat or adult seatbelt. For safety reasons, it is recommended to only transition children to the next category of restraint when they outgrow their current restraint.

It is a safe practice that:

- **Children aged under six months** must use a properly fastened rearward-facing child restraint.
- **Children aged between six months and seven years** old must use a properly fastened rearward-facing child restraint OR a forward-facing child restraint.
- **Children aged between four and seven years** old must use a properly fastened and adjusted forward-facing child restraint OR booster seat.
- **Children aged between seven and 14 years** old must use a booster seat with a properly fastened and adjusted lap or sash seatbelt or child safety harness, or a properly fastened and adjusted seat belt.

In India, the law does not mention where children can sit in vehicles. However, the global best practice is:

- If a car has two or more rows of seats, then **children under four years old must not travel in the front seat.**
- If all rear seats are being used by children under seven years old, children aged between four and seven years old may travel in the front seat, provided they use a booster seat. Because there are no child restraint anchorage points for the front seat, you will need to use a booster seat that does not have a top tether strap.

**Children 12 years of age and under are safest in the rear seat.**

### **Options for children with disability or reduced mobility**

Children with disability or reduced mobility may present challenges for safe motor vehicle travel. Allied health professionals (such as an occupational therapist) can work together with families to identify safe motor vehicle travel strategies, such as:

- modifying a child restraint
- recommending a child restraint accessory
- prescribing a special purpose child restraint for children with disabilities.

Modifications to a child restraint must be undertaken on the advice of medical and allied health staff. Seek advice from a health professional who can prescribe the best restraint for your child.

### **Restraint hire schemes**

Restraint hire schemes can allow parents and caregivers of children to hire restraints for a specified time. There can be a fee for the hire of a restraint.

### **Travelling with children**

Travelling with children can be challenging. Some tips to help provide an enjoyable time for everyone include:

- Explain to children that you can't go anywhere unless the seatbelts are all buckled.
- If travelling long distance/outstation take your child restraint or booster seat with you.
- If you have a toddler and a baby, take the baby out of the car safely before the toddler gets out.
- Take regular breaks every two hours when driving to minimise the distress to passengers and driver fatigue.
- Make sure children exit the car from the kerb side door, where possible.
- Secure loose objects (toys and other items) in the car that could fly about and injure passengers during a crash or heavy braking.
- Make sure that children **do not put any body parts out** of the moving vehicle through windows and sun-roof, it could be very dangerous and may cause serious injuries.

Acknowledgement: This note on road safety for children and adolescents is adapted from the information Better Health Channel website at

<https://www.betterhealth.vic.gov.au/health/healthyliving/road-and-traffic-safety-for-children> & <https://www.betterhealth.vic.gov.au/health/healthyliving/bicycle-safety-and-children>.

# Appendix

**Download** from the online folder Towards Safer Mobility for Children & Adolescents

- Manual
- Registration sheet
- Worksheets
- Presentation slides

<http://tinyurl.com/PuneChildRS-training>



**Upload** your reports and participant lists into the folder PUNE CHILD & ADOLESCENTS ROAD SAFETY at this link or QR code

<http://tinyurl.com/PuneChildRS>



# Registration Sheet

## Training Programme on Road Safety for Children and Adolescents for Local Governments and Stakeholders

Date: | Venue:

SI No	Name and Designation	Department / Organisation / School name and Address	Mobile Number and Email	Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

# Session 1 - The Wheel of Emotions

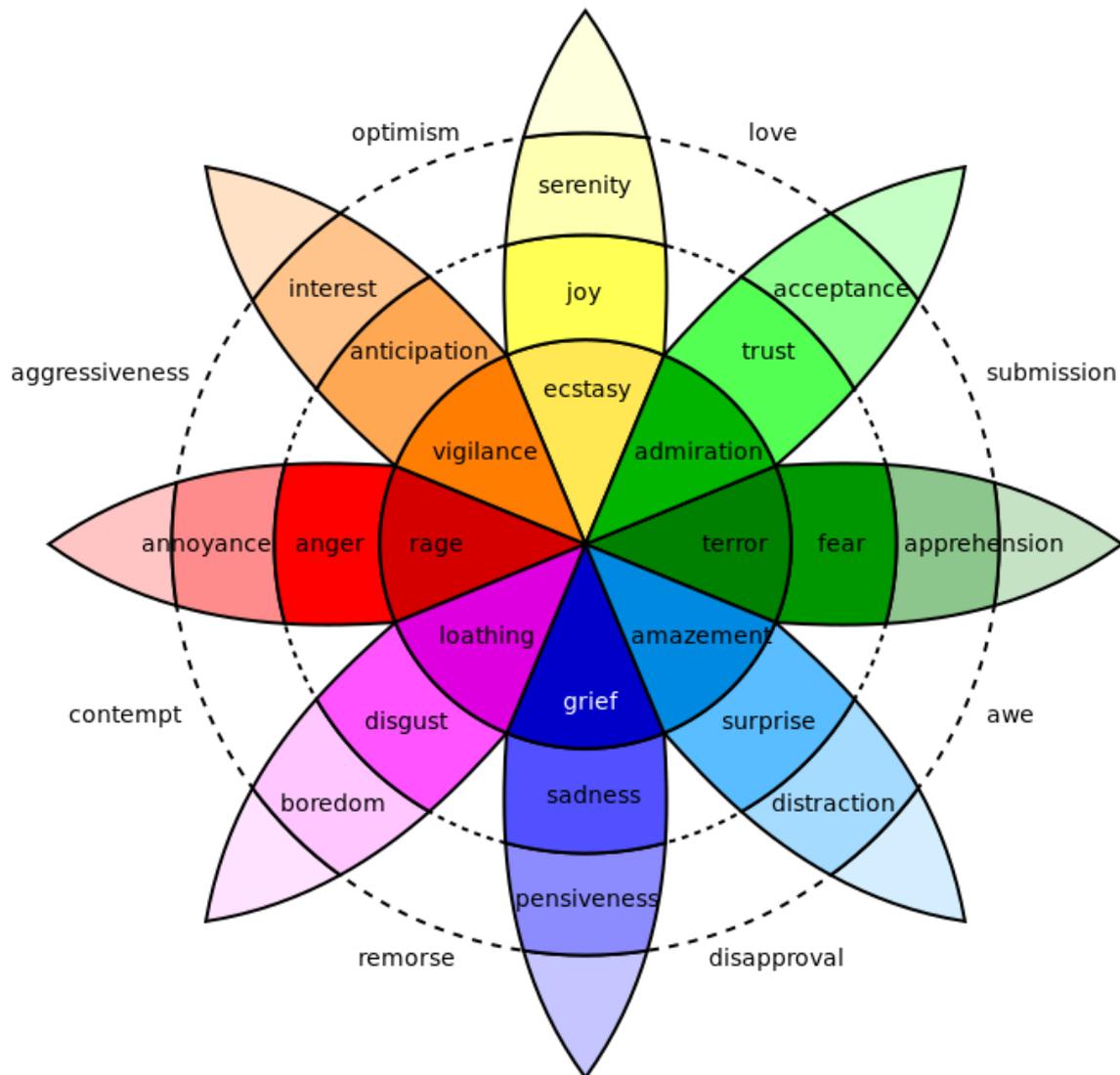


Image by [Machine Elf 1735](#) on Wikipedia

## Session 3 - Worksheet 1: Non-modifiable and modifiable risk factors for road traffic injuries among children and adolescents

Write *N* for non-modifiable and *M* for modifiable risk factors (or you can shade the non-modifiable risk factors) (15 minutes)

Modifiable or Non modifiable	Risk Factors
	<b>Age</b> Young children do not use the road nor react to traffic situations in the same way as adults.
	<b>Cognition</b> Young children find road traffic situations very complex to navigate.
	<b>Development</b> Their developmental immaturity and inability to assess risks places children at higher risk of road traffic crashes. Their concentration span is much shorter and they have difficulty focusing on more than one issue at a time.
	<b>Hearing and seeing</b> Young children have difficulty discerning what direction a sound is coming from. Likewise, they have difficulty judging distances between themselves and other vehicles when both are in motion.
	<b>Inadequate post-crash response</b> Countries that do not have the appropriate pre-hospital, hospital and rehabilitation facilities designed for children place them at greater risk of negative outcomes.
	<b>Lack experience</b> Inexperience, particularly among novice drivers, increases the risk of a crash occurring.
	<b>Lack of knowledge</b> All children need to be taught the basic laws and rules of the road, how to behave in traffic and what risks to avoid.
	<b>No safety equipment</b> Not wearing helmets or using child restraints or seatbelts places children at greater risk of injuries in the event of a collision.
	<b>Poor infrastructure</b> Lack of separate lanes for walking and cycling results in vulnerable children mingling with heavy vehicles.
	<b>Peer pressure</b> Peers are the most important people in the lives of teenagers. They are often led by what is considered 'cool', not necessarily what is safe.
	<b>Risk taking</b> As they get older, adolescents begin to take more risks or seek out new experiences, for example alcohol and substance use. This is more common among boys than girls.
	<b>Size</b> A child is difficult to see in traffic because of their stature. Likewise, they have difficulty seeing above the surrounding vehicles and infrastructure.
	<b>Sex</b> As children get older, more boys are involved in traffic collisions than girls.
	<b>Unsafe vehicles</b> Vehicles without safety features such as seatbelts, ISOFIX or pedestrian crumple zones place children and adolescents at greater risk of sustaining injuries in the event of a crash.

Key for worksheet 1

<b>Non-modifiable risk factors</b>	
<b>Age</b>	Young children do not use road or react to traffic same way as adult
<b>Sex</b>	As children get older, more boys are involved in road crash than girls
<b>Size</b>	Children can be difficult for other road users to see in traffic. Children have difficulty in being able to see above vehicles and infrastructure elements.
<b>Cognition</b>	Young children find road traffic situations extremely complex to navigate
<b>Development</b>	Their developmental immaturity and inability to assess risks places children at higher risk of road traffic crashes. Their concentration span is much shorter and have difficulty focusing on more than one issue at a time.
<b>Hearing and seeing</b>	Young children have difficulty discerning what direction sound is coming from. They have difficulty judging distances between themselves and other vehicles when both are in motion.

<b>Modifiable risk factors</b>	
<b>Risk-taking</b>	Adolescents begin to take risks, seek experiences, ex. alcohol. More common in boys.
<b>Lack of experience</b>	Inexperience among novice drivers increases risk of crashes.
<b>Peer pressure</b>	Peers are most important for teenagers. Often led by what is 'cool', not safe.
<b>No safety equipment</b>	Not using helmet, CRS or seat belt puts children at risk of injuries in case of crash.
<b>Poor infrastructure</b>	Lack of separate lanes for walk & cycle results in vulnerable children
<b>Unsafe vehicles</b>	Vehicles without safety features such as pedestrian crumple zones place them at risk.
<b>Lack of knowledge</b>	Need to be taught basic laws & rules of road & risks
<b>Inadequate post-crash response</b>	Lack of appropriate pre-hospital, hospital & rehabilitative facilities for children place them at greater risk.

## Session 4 - Worksheet 2: Road Safety Measures

Match the following correct intervention with the estimated effectiveness.

Intervention
a. 25 kmph speed zones
b. Sidewalks and walking paths
c. Separated bike/bicycle lanes
d. Bicycle helmets fitted and worn properly
e. Bicycle helmet legislation
f. Motorcycle helmet use
g. Child passenger restraint use
h. Seatbelts used appropriately

Estimated Effectiveness
i. 40%-50% reduction in the number of deaths
ii. 60% reduction in serious head injuries
iii. 69% reduction in the risk of head injury
vi. 40%-60% reduction in casualties
v. 71%-95% reduction of serious injuries for rear-facing restraints
vi. 44% fewer bicycle deaths in cities
vii. 45% reduction in rates of bicycle-related head injuries
viii. 70% or more reduction in fatal child pedestrian injuries

Key for worksheet 2

<b>Intervention</b>	<b>Estimated Effectiveness</b>	<b>Provision in Law</b>
25 kmph speed zones	70% or more reduction in fatal child pedestrian injuries	Motor Vehicle Amendment Act IRC
Sidewalks and walking paths	40%-60% reduction in casualties	IRC codes
Separated bike/bicycle lanes	44% fewer bicycle deaths in cities	IRC codes
Bicycle helmets fitted and worn properly	60% reduction in serious head injuries	No national or state law
Bicycle helmet legislation	45% reduction in rates of bicycle-related head injuries	No national or state law
Motorcycle helmet use	69% reduction in the risk of head injury	Motor Vehicle Amendment Act
Child passenger restraint use	71%-95% reduction of serious injuries for rear-facing restraints	Motor Vehicle Amendment Act
Seatbelts used appropriately	40%-50% reduction in the number of deaths	Motor Vehicle Amendment Act

*Source: Technical Guidance for Child and Adolescent Road Safety, UNICEF*

## Session 4 - Worksheet 3: Road Safety in Legislation

Mention *True* or *False* for following children and adolescents' road safety related provisions in legislation in India. You can also mention the law. (10 mins)

Provisions for Road Safety of Children and Adolescents		True / False Legislation
1	Providing a footpath and safe crossing is not mandatory.	
2	Mandatory speed limit in a School Zone is 25 kmph.	
3	Speed limit for a two-wheeler carrying a child up to 4 years is 50 kmph.	
4	Crash helmet is mandatory for a child riding on a bicycle.	
5	Wearing a helmet is made mandatory for a child riding on a two-wheeler.	
6	There is a penalty of Rs 500 for not wearing a helmet on a two-wheeler.	
7	Mandatory to have a BIS marked helmet for a two-wheeler rider.	
8	Mandatory to place a child below 14 years in a Child Restraint Seat when travelling in a four-wheeler.	
9	There is a fine of Rs 1000 for not using CRS for a child in a car/four-wheeler.	
10	It is prohibited to make a child sit in the front seats.	
11	Minimum age limit for driving licence is 18 years.	
12	One can drive a motor vehicle without a driving licence.	
13	Not mandatory to post signage for School Zones and speed.	
14	Providing a segregated cycle track is mandatory by law.	
15	The School Transport Committee's role is not mandated for students' safety.	
16	Guardian is not responsible for any violation of motor vehicle rules by an adolescent.	
17	Helping a road crash victim may cause legal harassment.	
18	Giving way to an ambulance is a moral duty, not mandated by law.	

Key to Worksheet 3 - Provisions for Road Safety of Children and Adolescents in Legislation

Provisions for Road Safety		True / False, Legislation
1	Providing a footpath and safe crossing is not mandatory.	False, IRC Code
2	Mandatory speed limit in a School Zone is 25 kmph.	True, The Motor Vehicles (Driving) Regulations, 2017
3	Speed limit for a two-wheeler carrying a child up to 4 years is 50 kmph.	False, CMVR 1989, it is 40 kmph
4	Crash helmet is mandatory for a child riding on a bicycle.	False. Needs to be covered in law, as helmet use is highly advisable.
5	Wearing a helmet is made mandatory for a child riding on a two-wheeler.	True, MVA 1988, MVAA 2019, CMVR 1989
6	There is a penalty of Rs 1000 for not wearing a helmet on a two-wheeler.	True, MVA 1988 and MVAA 2019, (Rs 500 in Maharashtra)
7	Mandatory to have a BIS marked helmet for a two-wheeler rider.	True, MVA 1988, MVAA 2019, CMVR 1989
8	Mandatory to place a child below 14 years in a Child Restraint Seat when travelling in a four-wheeler.	True, MVA 1988 and MVAA 2019
9	There is a fine of Rs 1000 for not using CRS for a child in a car/four-wheeler.	True, MVA 1988 and MVAA 2019
10	It is prohibited to make a child sit in the front seats.	False, needs to be covered in law, as this is not advisable, and it is a gap in legislation.
11	Minimum age limit for driving licence is 18 years	True, MVA 1988
12	One can drive a motor vehicle without a driving licence.	False, MVA 1988
13	Not mandatory to post signage for School Zones and speed.	False, IRC Code under MVAA
14	Providing a segregated cycle track is mandatory by law.	False, not covered in law
15	The School Transport Committee's role is not mandated for students' safety.	False, The Maharashtra Motor Vehicles Rule, 2011
16	Guardian is not responsible for any violation of motor vehicle rules by an adolescent.	False, MVAA 2019
17	Helping a road crash victim may cause legal harassment.	False, Good Samaritan law
18	Giving way to an ambulance is a moral duty, not mandated by law.	False, MVAA

## Session 5 - Worksheet 4: Field Observations around School

Road Environment	Observations
Is the school zone visually identifiable & prominent?	
Are the school zone and speed signage placed properly and visible?	
Is any highway or high speed road close by?	
Presence of crossing / junction near school	
Divider present and type <ul style="list-style-type: none"> <li>● No divider</li> <li>● Painted line</li> <li>● Grill</li> <li>● Concrete</li> </ul>	
Number of lanes <ul style="list-style-type: none"> <li>● For left side</li> <li>● For right side</li> </ul>	
Footpath <ul style="list-style-type: none"> <li>● present,</li> <li>● continuous and in good condition</li> <li>● People are able to use footpath</li> <li>● Safety grill on footpath side</li> </ul>	
Crossing is made safer by <ul style="list-style-type: none"> <li>● Zebra Crossing</li> <li>● Pedestrian Refuse</li> <li>● Signal, with phase for pedestrian</li> <li>● Any other measure</li> </ul>	
Cycle path <ul style="list-style-type: none"> <li>● Segregated</li> <li>● painted</li> <li>● Cyclists are able to use cycle path</li> </ul>	
Presence of high speed and heavy vehicles	
Visibility <ul style="list-style-type: none"> <li>● School is clearly gate is visible from roadsides to motorist</li> <li>● Visibility of children using the road, any visual blocks due to objects, railings, plants or parked vehicles, etc</li> </ul>	
Designated drop-off and pick-up place for school transport vehicles <ul style="list-style-type: none"> <li>● Bus</li> <li>● Van</li> <li>● Auto Rickshaw</li> </ul>	

<ul style="list-style-type: none"> <li>● Parents by walk or cycle</li> <li>● Parents by two-wheeler</li> <li>● Parents by four-wheeler</li> </ul>	
Parking in front and near school <ul style="list-style-type: none"> <li>● School vehicles</li> <li>● Private vehicles</li> </ul>	
Any other school / college present, and distance	
<b>Speed</b>	
Speed limit is mentioned	
Speed management by <ul style="list-style-type: none"> <li>● Speed breaker / speed table</li> <li>● Rumble strip / cobblestone, etc</li> <li>● Signal</li> <li>● Any other measure</li> </ul>	
Operation speed by general observation  Difference of posted speed and operational speed	
<b>User</b>	
Who are the users <ul style="list-style-type: none"> <li>● Pedestrian</li> <li>● Cyclist</li> <li>● Two-wheeler</li> <li>● Four-wheeler</li> <li>● Heavy vehicle</li> <li>● School bus</li> </ul>	
Child on two-wheelers are using helmets	
Number of child carried on two wheelers	
Child in four-wheeler using child restraint seats	
<b>Vehicles / Users count / other modes</b>	
Number per hour ( <i>count for 6 min and multiply</i> ) <ul style="list-style-type: none"> <li>● Pedestrian</li> <li>● Bicycle</li> <li>● Two-wheeler</li> <li>● Four-wheeler</li> <li>● Heavy vehicles (School bus, truck, etc)</li> </ul>	
Public transport available <ul style="list-style-type: none"> <li>● Mode</li> <li>● Distance</li> <li>● Access, ease of walk to nearest stop/ station</li> </ul>	



जिल्हा पुणे  
DISTRICT PUNE



## Road Safety Quiz for Students

1. When crossing the road at a crosswalk (also known as zebra crossing or pedestrian crossing), what should you do?
  - a) Run across quickly
  - b) Walk diagonally
  - c) Look both ways and cross when it's safe
  - d) Hold the hand of a guardian or older brother or sister if you are not yet 12 years old.



2. Why is it important to wear a helmet while riding a bicycle?
  - a) It looks cool
  - b) To protect your head in case of a fall or accident
  - c) Helmets are not necessary
  - d) Only professionals need helmets

3. What should you do when getting on or off a school bus?
  - a) Push others to get on first
  - b) Stand in the middle of the road
  - c) Wait for the bus to fully stop before getting on or off
  - d) Ignore the bus and walk home



4. When there is no crosswalk, what is the safest way to cross the road?
  - a) Run across quickly
  - b) Cross in a straight line
  - c) Cross at an intersection or corner
  - d) Cross diagonally

5. What is the purpose of seat belts in a car?
  - a) To keep the car clean
  - b) To make the car look better
  - c) To protect passengers in case of a crash
  - d) Seat belts are unnecessary



6. Why is it important for children to use appropriate Child Restraint Measures (CRM) in vehicles?
  - a) Because it's a fashion trend
  - b) To keep children entertained
  - c) To provide comfort during the ride
  - d) To enhance safety and reduce the risk of injury in case of a collision

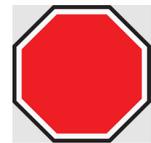


7. What is the recommended way for children to travel in a car for maximum safety?
- Sitting on the driver's lap
  - Using an age-appropriate car seat or booster seat
  - Standing in the back seat
  - Moving around freely inside the car

8. How should children be instructed to behave when a car is equipped with a sunroof?
- Stand and look out from the sunroof
  - Always keep it wide open for a better view
  - Follow the manufacturer's guidelines and remain seated while the sunroof is in use
  - Experiment with opening and closing the sunroof to have fun



9. What does a red octagonal sign mean for motor vehicle drivers?
- Slow down
  - Continue driving
  - Stop
  - Yield



10. What does a yellow traffic light indicate to motor vehicle drivers?
- Speed up
  - Stop
  - Slow down and prepare to stop
  - Make a U-turn



11. What do zebra markings on the road or as a sign post indicate?
- No crossing allowed
  - Pedestrian crossing zone
  - Bicycle lane
  - Parking zone



12. What should drivers do when they hear sirens or see emergency lights approaching while driving?
- Continue driving at the same speed
  - Pull over to the left side and let them pass
  - Speed up to get out of the way
  - Ignore them

13. Where is it safe to park your bicycle when you're not using it?
- On the road
  - In front of a fire hydrant
  - At a designated bicycle stand or parking spot
  - Anywhere it fits



14. What does a blue sign with a white "H" on it signify?
- Hospital ahead
  - Hotel ahead
  - Highway ahead
  - Hiking trail ahead



15. Why is it dangerous to use a mobile phone while walking on the road?
- a) It's not dangerous
  - b) You might miss a call
  - c) It distracts you from traffic, increasing the risk of accidents for you and others too
  - d) Only adults should avoid it

16. When riding a bicycle on the road, in which direction should you go?
- a) Either direction is fine
  - b) Against the flow of traffic
  - c) With the flow of traffic
  - d) Sideways across the road

17. What should a driver do at a green traffic light?
- a) Speed up
  - b) Stop and Wait by the side of the road.
  - c) Proceed if the way is clear
  - d) Turn around



18. Why is it important to be aware of your surroundings while on the road?
- a) It's not important
  - b) To avoid getting lost
  - c) To stay alert and respond to potential dangers
  - d) Only adults need to be aware of their surroundings

19. What should you wear to be visible to drivers when it's dark?
- a) Dark clothes
  - b) Bright and reflective clothing
  - c) Camouflage
  - d) No need to worry about it



20. Why is it important to keep our environment clean around roads?
- a) Because it looks nice
  - b) It doesn't matter
  - c) To maintain hygiene and road safety
  - d) So that animals can play

21. How can you contribute to making roads cleaner?
- a) Throw trash anywhere
  - b) Pick up litter and throw it in the bin
  - c) Ignore trash
  - d) Ask someone else to clean up



## Answers

1. c) Look both ways and cross when it's safe
2. b) To protect your head in case of a fall or accident
3. c) Wait for the bus to fully stop before getting on or off
4. c) Cross at an intersection or corner
5. c) To protect passengers in case of a crash
6. d) To enhance safety and reduce the risk of injury in case of a collision
7. b) Using an age-appropriate car seat or booster seat
8. c) Follow the manufacturer's guidelines and remain seated while the sunroof is in use
9. c) Stop
10. c) Slow down and prepare to stop
11. b) Pedestrian crossing zone
12. b) Pull over to the side and let them pass
13. c) At a designated bike rack
14. a) Hospital ahead
15. c) It distracts you from traffic, increasing the risk of accidents
16. c) With the flow of traffic
17. c) Proceed if the way is clear
18. c) To stay alert and respond to potential dangers
19. b) Bright and reflective clothing
20. c) To maintain hygiene and road safety
21. b) Pick up litter and throw it in the bin

*A sunroof in a car is like a special window that you can open to let in fresh air and make the ride more enjoyable. However, it's essential to use it responsibly. If not used properly, especially by standing and looking out of it, there can be serious risks, especially when braking and during crashes. In the unfortunate event of a rollover crash, where the car tips over, people hanging out of the sunroof face a higher chance of getting hurt or even thrown out of the car. This is why it's crucial to follow the safety guidelines for using the sunroof. While it's a cool feature that adds to the fun of a ride, it's equally important to remember to be safe and adhere to the car's rules to ensure the well-being of everyone on the journey.*

## Recap Quiz for Trainers

1. Road traffic crashes are the leading cause of deaths among children aged 5 to 19 years - True or False?
2. According to India's commitment for road safety, what is the target of reduction in road crash deaths and injuries that we have to achieve as a nation?
  - a. 25 % reduction by 2030
  - b. 50 % reduction by 2030
  - c. 50 % reduction by 2035
  - d. 75 % reduction by 2035
3. True or False? - Safety helmets are not mandatory for a child carried on a motorised two wheeler in India.
4. School Zone - According to rules, where is it mandatory to implement the safe School Zone?
  - a. Urban areas
  - b. Rural areas
  - c. Along highways and high-speed roads
  - d. All the schools
5. What is the speed limit in the School Zone?
  - a. 25 km per hour
  - b. 30 km per hour
  - c. 50 km per hour
  - d. 60 km per hour
6. YES or NO? - Driving is our right
7. What is the age at which a person is eligible to get a driving licence?
  - a. 16 years
  - b. 18 years
  - c. 21 years
  - d. 25 years
8. Devices useful for the safety of children up to 12 years in a car or four wheelers are
  - a. Seat belt
  - b. Child restraint system / child seat
  - c. Front airbag
  - d. Both a and b (seat belt, child restraint, child seat)
9. Which is the most appropriate and desirable way to cross the road for a pedestrian?
  - a. At grade safe crossing
  - b. Foot over bridge
  - c. Underpass/subway
  - d. Both b and c
10. Who is responsible for ensuring the safety of children on roads?
  - a. Children
  - b. Adult
  - c. Both a and b
  - d. None of the above

## ANSWERS

1. True. According to WHO, road traffic crashes are the 2nd leading cause of deaths in the age group 5 to 9 and 10 to 14 years and 1st leading cause of deaths in the age group 15 to 19 years.
2. b. 50 % reduction by 2030
3. False The Motor Vehicles Act, 1988 makes wearing of helmet mandatory for all the riders on a two wheeler. By this rule, it is mandatory to secure by safety helmets any child above 9 months carried on a two wheeler. Driver of the two wheeler is made responsible to follow this rule.
4. All schools
5. Speed limit in the school zone - According to the Driving Regulation, 2017, the speed limit in the school zone is 25 km per hour or lower posted speed limit. This has to be implemented by posting a sign in the start of the school zone on the street.
6. No, according to the Motor Vehicles Act, 1988 one cannot drive a vehicle without a valid driving licence. It is mandatory to have a valid driving licence for a specific class of vehicle. Licence can be obtained for a valid period after proper training and passing a driving test to drive only that particular class of vehicles. According to the Motor Vehicles Act, 1988 one can get a driving licence after 18 years of age. For some classes like commercial vehicles, the age limit is more. Only for a two wheeler of capacity upto 50 CC one can obtain a licence after 16 years. There is a lot of underage driving in India.
7. The age at which a person is eligible to get a driving licence is 16 years
8. Both a and b (seat belt, child restraint, child seat) are the devices useful for safety of children up to 12 years in a car or four wheelers
9. a. The most appropriate and desirable way to cross the road for a pedestrian is at grade safe crossing
10. b. All adults are responsible for ensuring the safety of children on roads including parents, teachers, police, local authorities, drivers, and other road users.

## Feedback Form

We hope you found the Master Trainers' Orientation useful. We request your feedback, which will help strengthen the initiative.

Satisfaction level	Not satisfactory	It was ok	Informative and satisfactory
Introduction session			

What is the level of clarity and confidence the workshop was able to provide for you to conduct Training on Road Safety for children and adolescents?

	Confusing	Not clear	Somewhat clear	Clear	Clear and confident
Why road safety of children and adolescents is a concern					
What is the nature of road traffic risks and vulnerability					
How to strengthen road safety					
Roles of different departments, agencies, School Transport Committee in road safety					

Please share your feedback and any suggestions regarding the Trainers' Manual:

Rating	1 Very poor	2 Poor	3 Ok	4 Good	5 Very good
Structure					
Language					
Content					

Is it comprehensive enough as a guide for you to conduct orientation \_\_\_\_\_

\_\_\_\_\_

Logistics	1 Very poor	2 Poor	3 Ok	4 Good	5 Very good
Food					
Venue					

Any other comments / suggestions

\_\_\_\_\_

Name (optional)

Date

## Contact

UNICEF Maharashtra Office  
215 Atrium, Andheri - Kurla Rd, Hanuman Nagar,  
Andheri East, Mumbai 400059

RISE Infinity Foundation  
121, East West Industrial Estate Center, Andheri - Kurla Rd,  
Safed Pul, Mumbai 400072

Centre for Environment Education,  
1 Pinewood Apartment,  
S.No. 233/1/2, Vidhate Colony, Aundh, Pune 411067  
Phone No: +91 - 20 - 2729.8861, 2729.8862  
Email: [ceeurban@ceeindia.org](mailto:ceeurban@ceeindia.org), [ceecentral@ceeindia.org](mailto:ceecentral@ceeindia.org)  
Website: [www.ceeindia.org](http://www.ceeindia.org)  
Social media: [facebook.com/CEEUrban](https://facebook.com/CEEUrban) | [twitter.com/urban\\_cee](https://twitter.com/urban_cee) |  
[linkedin.com/company/centre-for-environment-education](https://linkedin.com/company/centre-for-environment-education)



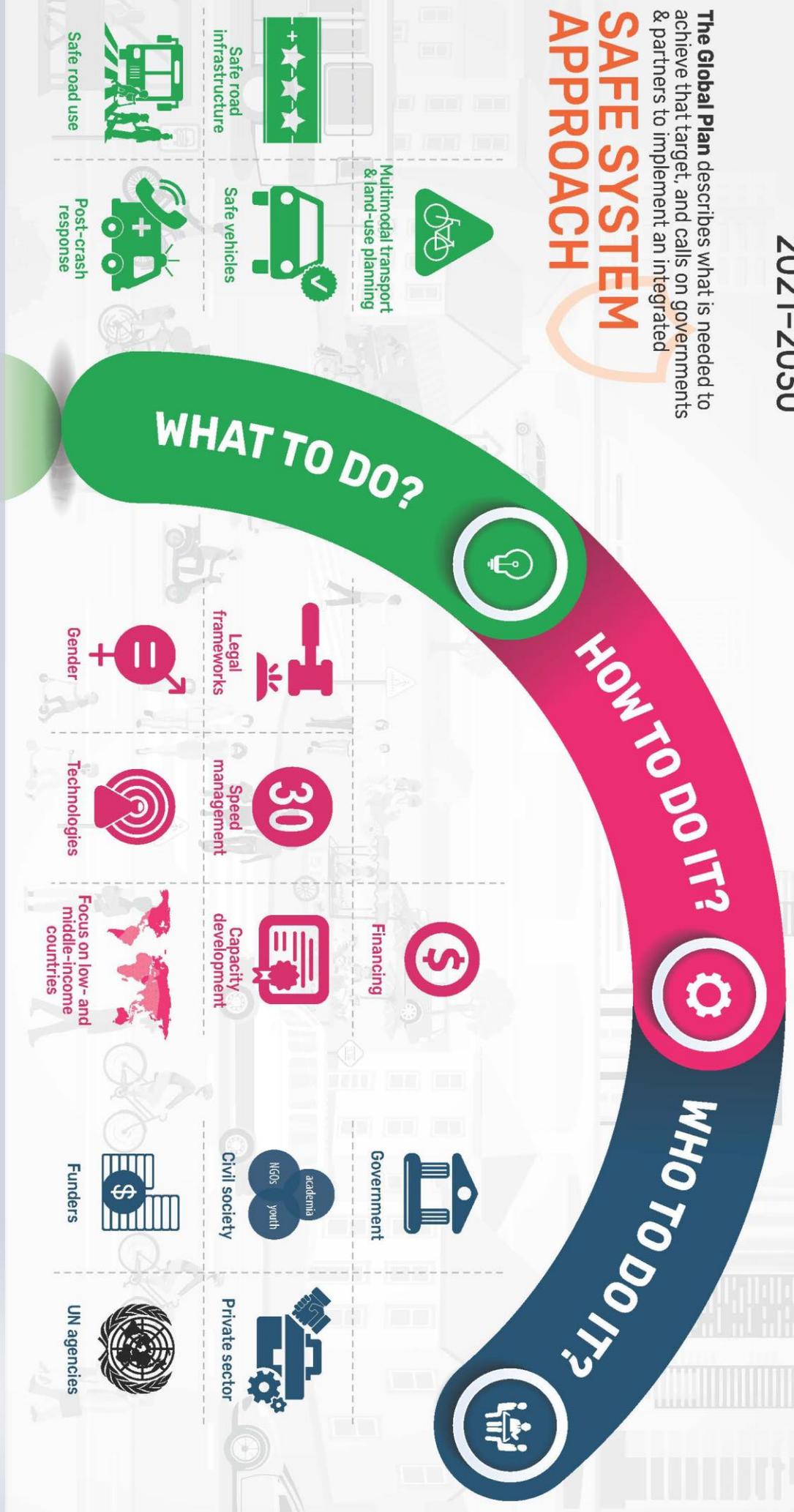
# GLOBAL PLAN

## DECADE OF ACTION FOR ROAD SAFETY

### 2021-2030

UN General Assembly Resolution 74/299 declared a **Decade of Action for Road Safety 2021-2030**, with the target to reduce road traffic deaths & injuries **BY AT LEAST 50%** during that period

The **Global Plan** describes what is needed to achieve that target, and calls on governments & partners to implement an integrated **SAFE SYSTEM APPROACH**



For further information, visit:  
[DECADE OF ACTION FOR ROAD SAFETY 2021-2030](#)

