



Safe Systems Requirements For Children and Vulnerable Persons in Asia and the Pacific - *A Malaysian Story*

Kulanthayan KC Mani
Safe Kids Malaysia, Universiti Putra Malaysia

Road Safety Capacity Building Program Session 2, APRSO, 16th June 2026, Webinar

Terminology

Use Road Crash

NOT Road Accident

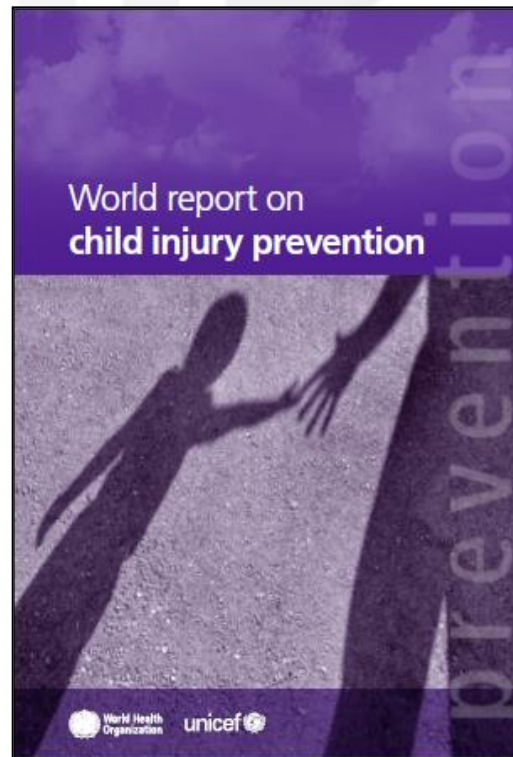
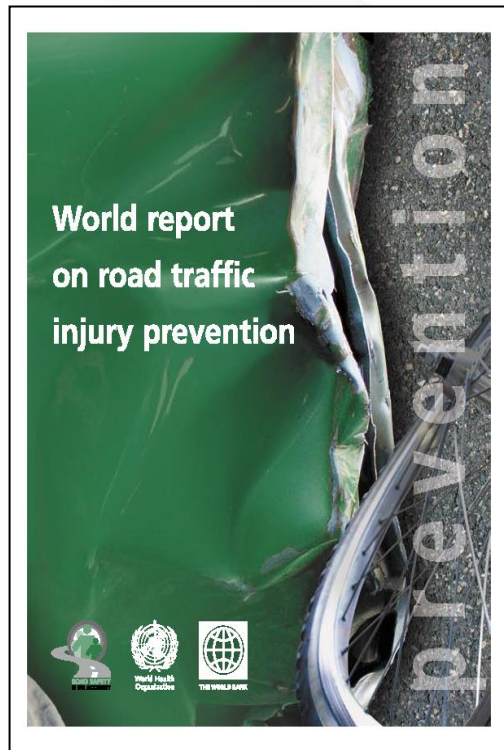
Transport Policy

Moving people / goods **safely**
from one place to the other

NOT moving vehicle



World Health Organisation

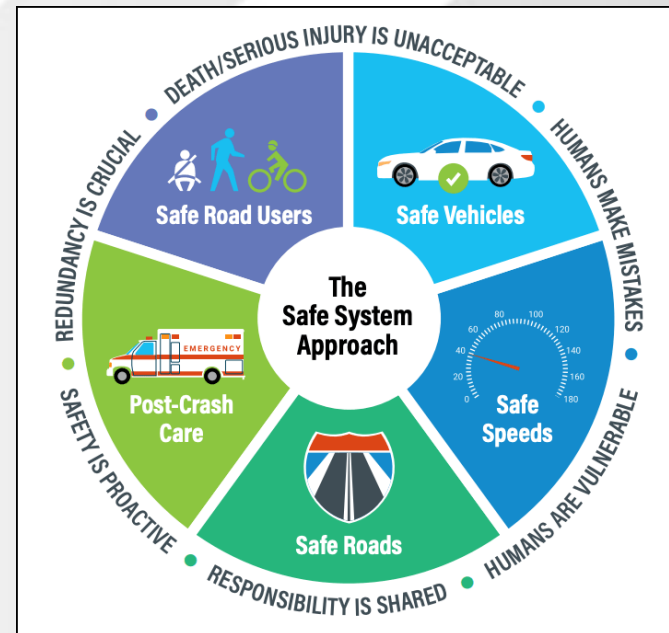


Safe System Approach



Recognizes **humans make mistakes** and the road transport system be designed so that these mistakes do not result in **death** or **serious injury**.

*Five core elements
working together to create
a safer road environment*





Key Principles

1. Approach prioritizes **elimination of fatalities** and serious injuries.
2. Design systems to protect individuals since human bodies have **physical limits**.
3. Shared **responsibility** for road safety among stakeholders (government, industry and public).
4. Approach emphasizes **proactive** identification and mitigation of safety issues rather than reactive.
5. Multiple layers of **protection** are implemented to back up even if one part fails, others can still support.

Children Limitation

CHILDREN LIMITATION ON ROAD

1

Vision
(One third of adult)

2

Hearing

(Can hear but not able to identify direction)

3

Unable to identify moving vehicle
(Vehicle moving vs static)

4

Misunderstanding vehicle can
see them

(Small size object in the windscreen)

CHILDREN LIMITATION ON ROAD

5

Misunderstanding vehicle can stop immediately
(50kmh – 26m, 70kmh – 37m and 80kmh – 58m)

6

Misunderstanding vehicle would not harm them
(Vehicle friendly object – childhood toys)



Way Forward

With Knowledge We Serve

Global Targets



Explore Other SDGs

besides the primary road safety
SDG 3.6 and 11.2

Post-Crash Outcome Goal



2030 Target 50%

(50 by 30)



2026 Target 10%

(10 by 26)

Global Road Safety Performance Targets (2017)

Forgotten Document

Targeted Guiding Initiatives

(Linked to Safe System Approach)

Target

6 – Speed

7 – Motorcycle Helmet

8 – Seat Belt and CRS

TARGET 1 2020  Target 1: By 2020, all countries establish a comprehensive multisectoral national road safety action plan with time-bound targets.	TARGET 2 2030  Target 2: By 2030, all countries accede to one or more of the core road safety-related UN legal instruments.	TARGET 3 2030  Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety, or meet a three star rating or better.	TARGET 4 2030  Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users that take into account road safety.
TARGET 5 2030  Target 5: By 2030, 100% of new (defined as produced, sold or imported) and used vehicles meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements.	TARGET 6 2030  Target 6: By 2030, halve the proportion of vehicles travelling over the posted speed limit and achieve a reduction in speed-related injuries and fatalities.	TARGET 7 2030  Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100%.	TARGET 8 2030  Target 8: By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child restraint systems to close to 100%.
TARGET 9 2030  Target 9: By 2030, halve the number of road traffic injuries and fatalities related to drivers using alcohol, and/or achieve a reduction in those related to other psychoactive substances.	TARGET 10 2030  Target 10: By 2030, all countries have national laws to restrict or prohibit the use of mobile phones while driving.	TARGET 11 2030  Target 11: By 2030, all countries to enact regulation for driving time and rest periods for professional drivers, and/or accede to international/regional regulation in this area.	TARGET 12 2030  Target 12: By 2030, all countries establish and achieve national targets in order to minimize the time interval between road traffic crash and the provision of first professional emergency care.

Example Safe System Initiatives



10 Examples of Child Road Safety Initiatives

1. Road median barrier
2. Pedestrian pathways
3. Bicycle lanes
4. Motorcycle lanes
5. Raised pedestrian crossings
6. 30kmh speed limit in school zones
7. Safety star ratings of roads
8. Motorcycle child helmet initiatives
9. Seat belt usage
10. Child restraint seats

Global Problem

National Issue

Local Solution

Terima kasih

kulan@upm.edu.my