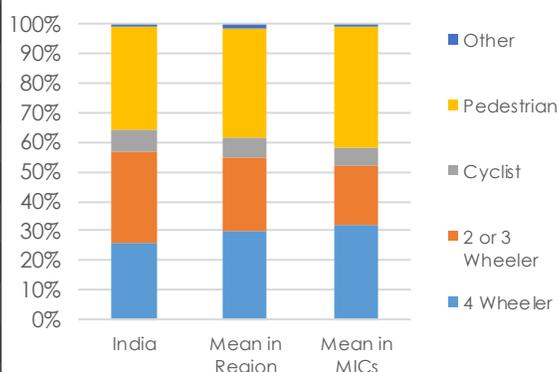


THE SCALE OF THE ROAD SAFETY CHALLENGE Ref: 1,2,3,4,5

## ROAD CRASH FATALITIES AND INJURIES SNAPSHOT

Country Population, 2016 : <b>1,324,171,392</b>
Country Reported Fatalities, 2016 : <b>150,785</b>
WHO Estimated Fatalities, 2016 : <b>299,091</b>
GBD Estimated Fatalities, 2016 : <b>219,670</b>
WHO Est. Fatalities per 100,000 Pop., 2016 : <b>22.60</b>
GBD Est. Fatalities per 100,000 Pop., 2016 : <b>16.10</b>
Estimated Serious Injuries, 2016 : <b>4,486,365</b>
Cost of Fatalities and Serious Injuries, 2016 : <b>\$ 172.02 billion</b>
Cost as % of country GDP, 2016 : <b>7.5%</b>

## FATALITIES BY USER COMPARISON CHART



**78%** Percentage of Road Crash Fatalities and Injuries in the economically productive age groups (15 - 64 years.)

**3:1** Ratio of Male to Female Fatalities with the 15 - 49 year age group being most vulnerable to fatalities

**820 life yrs.** affected due to disability from road crash injuries per 100,000 people

## POSITIONING OF COUNTRY IN THE REGION (COMPARED TO COUNTRIES WITH THE LOWEST TRAFFIC FATALITIES IN THE REGION AND GLOBALLY)

	2016 WHO Estimated Road Fatalities	2016 GBD Estimated Road Fatalities	2016 WHO Estimated Fatality Rate/ 100,000 pop.	2016 GBD Estimated Fatality Rate/ 100,000 pop.	% Trend in Fatality Rate/100,000 (2013 - 2016)	Motorization Registered Vehicles/100,000 population
India	299,091	219,670	22.6	16.1	-8.5%	15,861

## BEST PERFORMING COUNTRIES IN REGION

Maldives	4	32	0.9	7.3	-4.0%	21,737
Pakistan	27,582	52,708	14.3	25.2	-3.1%	9,499

## BEST PERFORMING COUNTRIES GLOBALLY

Switzerland	223	334	2.65	3.89	-5.4%	71,182
Norway	143	215	2.72	4.09	2.4%	75,544
Singapore	155	197	2.76	3.53	-4.9%	16,604
Sweden	278	390	2.83	3.88	-3.2%	62,037

ROAD SAFETY MANAGEMENT Ref: 1

To produce positive road safety outcomes, strong management in all aspects of road safety is key. Presence of a funded lead agency to guide the national road safety effort and implement a Safe Systems approach is recommended.

✓ India has a lead agency present, Ministry of Road Transport and Highways, which is funded in the national budget, and has a road safety strategy which is partially funded. The functions of the agency include coordination, legislation and monitoring and evaluation of road safety strategies. The country only has a fatal road safety target, to reduce fatalities by 50% with a timeline of 2011 - 2020.

SAFE ROADS AND ROADSIDES Ref: 1,4

Improved infrastructure provides solid and well understood crash and injury reduction outcomes and are critical for long term and sustainable trauma reduction in line with the Safe Systems Approach. The International Road Safety Assessment Programme (iRAP) provide a business case for safer roads and road star ratings which give a simple and objective measure on the level of safety which is 'built-in' to the road for the road users. 5 Star roads are the safest while 1 star roads are the least safe.

## Road Infrastructure Star Rating Results

**NO ROAD ASSESSMENT SURVEY DATA FOR INDIA IS PUBLICLY AVAILABLE ON THE IRAP WEBSITE.**

**Information on Infrastructure in India:**

Partial Audit/Star Rating Required for New Road Infrastructure;  
 Inspection/Star Rating Required for Existing Roads;  
 Investment Allocated to Upgrade High Risk Locations

**Business Case for Safer Roads**

Infrastructure and Speed Management Investment required: **\$ 91.63 billion**

Annual Investment as a % of GDP (2019-2030): **0.29%**

Reduction in fatalities per year: **83,020**

Approximate reduction in fatalities and serious injuries (FSI) over 20 years: **18,260,000**

Economic Benefit: **\$ 549.9 billion** B/C Ratio: **6**



## SAFE SPEEDS Ref: 1,6,7,8

Speeding is a major risk factor for road crash injuries, contributing to both crash risk and crash consequences. A 5 % cut in average speed can result in a 20 % reduction in the number of fatal road crashes. Effective speed management measures such as establishing and enforcing speed limit laws, traffic calming through roadway design and other measures, and vehicle technology need to be widely implemented.

### MAXIMUM SPEED LIMITS AND ENFORCEMENT

	<b>100 km/h</b>	<b>100 km/h</b>	<b>100 km/h</b>	<b>Manual</b>
NATIONAL SPEED LIMIT LAW	URBAN ROADS	RURAL ROADS	MOTORWAYS	SPEED ENFORCEMENT
Difference with Recommended Safe Systems Speeds	<b>+ 70 km/h</b> <b>23 times lower</b>	<b>+ 30 km/h</b> <b>4 times lower</b>	<b>+ 10 km/h</b> <b>1 times lower</b>	Potential Decrease in Fatal Road Crashes from Enforcement of Safe System Speed Limits

### MAJOR SPEED CALMING MEASURES BEING IMPLEMENTED IN INDIA:

	<b>NARROWING</b>		<b>VERTICAL DEFLECTIONS</b>		<b>HORIZONTAL DEFLECTION</b>		<b>BLOCK OR RESTRICT ACCESS</b>
Include lane narrowings by extending sidewalks, curb extensions, pedestrian refuges etc.		Include speed bumps, humps, cushions, tables, raised pedestrian crossing, variation in ride surface etc.		Used to make vehicles swerve slightly, include chicanes, pedestrian refuges, chokers etc.		Include median diverters, closing streets to create pedestrian zones, cul-de-sacs etc.	

## SAFE VEHICLES Ref: 1,8

Universal deployment of improved vehicle safety technologies for both passive and active safety through a combination of harmonization of relevant global standards, consumer information schemes and incentives to accelerate the uptake of new technologies will reduce road crash fatalities significantly.

### VEHICLE REGISTRATION, STANDARDS AND IMPORT REGULATIONS

<b>210,023,289</b>	<b>73.5%</b>	COUNTRY COMPLIANCE TO THE UN VEHICLE SAFETY REGULATIONS							
TOTAL REGISTERED VEHICLES AS OF 2016	MOTORIZED 2/3 WHEELERS AS OF 2016	FRONTAL AND SIDE IMPACT (Reg. 94, 95)	MOTORCYCLE ANTI-LOCK BRAKING SYSTEM (Reg. 78)	PEDESTRIAN PROTECTION (Reg. 127)	ELECTRONIC STABILITY CONTROL (Reg. 140)	SEAT BELTS AND ANCHORAGES (Reg. 16, 14)			
	<b>Regulated</b>		<b>5 Yrs.</b>		<b>No</b>		<b>Yes</b>		<b>No</b>
REGULATION OF IMPORT OF USED VEHICLES	IMPORT AGE LIMIT	TAXATION BASED LIMITS	IMPORT INSPECTIONS	PERIODIC INSPECTION					

## SAFE ROAD USERS Ref: 1,8

The key behavioral risk factors for road crash injuries are drunk driving, non-use of helmets, seat-belts or child restraint, and speeding. Establishing and enforcing laws to address these risk factors is effective in reducing road crash fatalities and their associated injuries.

### NATIONAL SEATBELT, DRINK DRIVING AND HELMET LAWS (WHO, 2018)

							<b>Not restricted</b>		<b>18 yrs.</b>
NATIONAL SEATBELT LAW	DRIVER	FRONT	BACK	MOTORCYCLE HELMET LAW	HELMET STANDARDS	MOTORCYCLE OCCUPANT AGE RESTRICTION	LEGAL MINIMUM DRIVING AGE		
		$\leq 0.03$	$\leq 0.03$	$\leq 0.03$		<b>Approx. 4.1%</b>			
NATIONAL DRINK DRIVING LAW	IS LAW BAC BASED?	BLOOD ALCOHOL CONCENTRATION (BAC) LIMITS (g/dl)			RANDOM DRINK DRIVING TESTS	% OF ROAD CRASH FATALITIES INVOLVING ALCOHOL			

## POST CRASH CARE Ref: 1,8,9

Good post-crash care reduces deaths and reduces disability and suffering for road crash survivors. The emergency medical care system elements and processes need to be effective to attain this objective.

<b>Partial Coverage</b>	<b>Some Facilities</b>	COUNTRY HEALTH COVERAGE INDEX - SDG Target 3.8; Target - 100	<b>56</b>	EXPENDITURE ON HEALTHCARE AS % OF GDP	<b>4%</b>
NATIONAL EMERGENCY CARE ACCESS NUMBER	TRAUMA REGISTRY SYSTEM				

India has several emergency numbers. These are 112 (General); 100 (Police); 102 (Ambulance).

## REFERENCES

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