ROAD SAFETY COUNTRY PROFILE

REPUBLIC OF AZERBAIJAN

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Please refer to this Report as follows: World Bank, Road Safety Country Profile—The Republic of Azerbaijan, 2021.

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SNAPSHOT OF KEY ROAD SAFETY INDICATORS

Country Population	: 10,067,100 People	Cost of Road Crash Fatalities:	208.2 Million US\$ (Est.)
Gross Domestic Product	: 42.61 Billion US\$	Cost of Road Crash Serious Injuries:	780.5 Million US\$ (Est.)
GDP per Capita	: 4,272 US\$	Cost of Road Crashes (% of GDP):	2.3 % of GDP (Est.)
No. of Road Crashes	: 1,587 Road Crashes	No. of Registered Vehicles (2019):	1,496,267 Vehicles
No. of Road Crash Fatalities	: 696 Fatalities	Motorization Rate (2019):	149 vehicles/1,000 pop.
Total No. of Road Crash Injuries	: 1,410 Injuries	Table 1	
No. of Road Crash Serious Injuries	: Not Indicated*	Summary of Key Road Safety Indicators	in Azerbaijan (for 2020)
Road Crash Fatality Rate	: 6.91 per 100,000 pop.	serious and minor injuries. The estimate injuries, adjusted for under-reporting, it	ed number of serious s 21.150 °.
Road Crash Fatalities Distri	ibution by Gender ^ь	Road Crash Injuries Distrik	oution by Gender ^b
	* * * * *		.
18.8% Female Road Crash Fatalities	81.2% Male Road Crash Fatalities	25.0% Female Road Crash Injuries	75.0% Male Road Crash Injuries
	Road Crash Fatalities Dis	tribution by Road User Groups ^b	
43.2%	Road Crash Fatalities Dis	tribution by Road User Groups ^b	52.5%
A3.2% Pedestrians	Road Crash Fatalities Dis 2.7% Cyclists	tribution by Road User Groups ^b 1.6% Motorcyclists	52.5% Vehicle Users
Pedestrians	Road Crash Fatalities Dis 2.7% Cyclists	tribution by Road User Groups ^b 1.6% Motorcyclists	52.5% Vehicle Users
Pedestrians	Road Crash Fatalities Dis 2.7% Cyclists	tribution by Road User Groups ^b 1.6% Motorcyclists	Vehicle Users
Pedestrians	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities	tribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b	Vehicle Users
Image: Way of the second se	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities 15 – 64 Yrs.	tribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b 84.1% 65 Yrs. & A	Vehicle Users
Image: Way of the second state of t	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities 15 – 64 Yrs.	rribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b 84.1% 65 Yrs. & A	Solution States
Image: All the second secon	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities 15 - 64 Yrs.	tribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b 84.1% 65 Yrs. & A Key Metrics	Solution States
Image: Antiperiod of the second state of the second sta	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities 15 - 64 Yrs. Other	tribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b 84.1% 65 Yrs. & A Key Metrics	Serve 12.1%
Image: Way of the second state of t	Road Crash Fatalities Dis 2.7% Cyclists Road Crash Fatalities 15 – 64 Yrs. Other ife Yrs. % Trend in F Rate per 100 pp. in the Da Action (2010)	rribution by Road User Groups ^b 1.6% Motorcyclists Distribution by Age Groups ^b 84.1% 65 Yrs. & A Key Metrics Gatality 0,000 ecade of 0 - 2020) ^b -32.3% % Trend in F	52.5% Vehicle Users bove 12.1%

Sources: ° 15:1 ratio of serious injuries per fatality (Developed by iRAP and Adjusted by GRSF, World Bank)

^b Azerbaijan National Data

° Global Burden of Disease (GBD) 2019, Institute for Health Metrics and Evaluation (IHME)

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BASIC DATA, CHARACTERISTICS AND DEFINITIONS

Basic Data and Population Characteristics

Table 2

Table 3

Azerbaijan Basic Data and Population Characteristics in comparison with EaP and EU Region Averages (for 2020)

Basic data	Republic of Azerbaijan°	EaP average (6 countries)	EU Average (28 countries) ^b
Population	10.07 million	27.94 million	45.5 million
Area	82,654 km²	167,499 km²	159,848 km²
Population density	116 inhabitants/km ²	76 inhabitants/km²	166 inhabitants/km²
Urban population (% of total)	56.2 %	67.4 %	75 %

Population Composition:								
Children (0 – 14 years)	22.4 % (2020)	-	15.1 % (2019)					
Adults (15 – 64 years)	70.4 % (2020)	-	64.4 % (2019)					
Elderly (65 years and over)	7.2 % (2020)	-	20.5 % (2019)					
Gross Domestic Product (GDP) per capita (2019)	4,272.20 Current US\$	4,323.65 Current US\$	65,297.52 Current US\$					

Sources: ^a The State Statistical Committee of The Republic of Azerbaijan: <u>www.stat.gov.az</u> ^b EUROSTAT: <u>ec.europa.eu/eurostat</u>

Road Safety Definitions in The Republic of Azerbaijan

Road Safety Definitions in Azerbaijan					
Road Traffic Accident (RTA)	accident involving a vehicle while it's movement on the roads, streets, squares and railway crossings which led to death or injuries of persons, hitting animals or stationary obstacles, damage of vehicles, roads, constructions or other material damage ¹ .				
Road Traffic Fatality	death that took place at the place of a traffic accident or within 7 days of the crash.				
Road Traffic Injury	The definitions used to describe injuries in the crash database are not based on international standards (e.g. ISD, AIS scale) but on Medical Forensic Examination. The list of major and minor injury types is approved by the Decree of the Cabinet of Ministers of the Republic of Azerbaijan № 66 dated May 13th, 2003.				
Minor Injuries	injuries that include injuries, contusion and traumas with light functional complications, insensible and non-sustained anatomical changes.				
Major Injuries	injuries that include wounds, contusion, trauma and damages leading to obvious anatomical changes and functional complications.				
Black spot	There is no definition approved. 'Identifying hot spots where road crashes happen on a regular basis and eliminating their reason' is foreseen by direction 4.0.5 of the State Program on Road Safety 2019—2023.				

Sources: ¹ Road Traffic Law of the Republic of Azerbaijan approved on July 3, 1998

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DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF AZERBAIJAN

General Road Safety Positioning (in comparison with European Countries)

In 2020, Azerbaijan recorded the 5th highest road crash fatality rate, **6.91 fatalities per 100,000 inhabitants**, in the EaP region and the 8th highest fatality rate in the EU–27. This is **lower than the EaP average** and **higher than the EU–27 average** fatality rate by **16.5**% and **39.3**%, respectively. The actual fatality rate registered may be higher, given that the fatality rate has not been corrected for under-reporting.

Figure 1 Road Crash Fatalities per 100,000 inhabitants in 2020 with EaP and EU-27 region averages.

Sources 27 EU countries—15th Annual Road Safety Performance Index (PIN) Report - 2021, ETSC; 6 EaP countries—National statistics



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DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF AZERBAIJAN

Road Crash Fatalities and Injuries Analysis

Figure 2

In 2020, Azerbaijan registered an overall decrease in the number of road crashes (17.8%), a decline in the number of road crash fatalities (18%) and reduction of road crash injuries (20.7%), as compared to 2019.

It is noteworthy to mention that during 2020, the COVID-19 pandemic had a significant impact on transport and mobility across the globe, including the EaP region, bringing travel to a standstill, thus leading to a an overall reduction in the number of registered road crashes. However, it is noted that the reduction in the registered road crash fatalities is not of the same magnitude, possibly due to an increase in recorded speeding caused by less traffic, leading to a higher proportion of fatalities for each road crash.

The decreasing longer-term trend for road crash fatalities registered in Azerbaijan can be observed between 2010-2020, the total number of road crash fatalities per 100,000 inhabitants in Azerbaijan has dropped by 32.3%.

The figures below give an overall impression of the scale of road crash fatalities and injuries in Azerbaijan.

Road Crashes, Fatalities and Injuries in Azerbaijan (2008 – 2020), National Data 3232 Key Data 3031 2997 No. of Road Crashes, Fatalities and Injuries **Road Crashes** 3000 2871 2792 **Road Crash Fatalities** 2721 2890 2892 28/4 **Road Crash Injuries** 267 2000 1870 1817 1500 1410 1164 1124 925 821 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2019 2020 2018 Figure 3 50% INCREASE Evolution of Road Crash 40% Fatalities in Azerbaijan by Road User Group, Age Group, Urban/Rural Areas and Gender from National Data -1.3% -16% % DECREASE -22% -27% -40% -57% -64% -80% Inside Built Up 0 - 14 Years Male 15 - 64 Years 65 Years & Ab ROAD USER AGE GROUP ROADS GENDER (2015 - 2019)(2010 - 2020) (2010 - 2020)(2015 - 2020)

DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF AZERBAIJAN

Age has a significant impact on mortality and risk of road crash fatality and injuries, thus it is recommended to investigate and control this factor. The **most significant mortality rate** due to road crashes in Azerbaijan is observed among population aged **between 15 and 64 Years, accounting for on average higher than 80% of Road Crash Fatalities and Injuries**. Road Crash Fatalities and Injuries registered during 2015 – 2020 have incurred insignificant change within 0 – 14 and 65 Years & Above Age Groups.



DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF AZERBAIJAN

The most Vulnerable Road Users (VRUs), in Azerbaijan, include pedestrians (on average accounting for 42% of road crash fatalities and 32.6% of road crash injuries) and vehicle occupants (on average accounting for 50% of road crash fatalities and 59% of road crash injuries).



Azerbaijan has an urban population of approximately **56.2%**. National data indicates that rural areas account for more than half of the total road crashes registered in the country; for **two thirds of the road crash fatalities** and **one half of road crash injuries**. Further analysis of urban and rural area contexts of road crashes is required to learn and understand the disparity, considering **a higher mortality risk in rural areas**.





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DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF AZERBAIJAN

Economic and Social Cost of Road Crashes Fatalities and Injuries

The Economic and Social Cost of Road Crash Fatalities and Injuries in Moldova has been calculated by applying the general approximation rule developed by iRAP (Fatality Cost - 70 x GDP/Capita; Serious Injury Cost – 17.5 x GDP/Capita). An estimate of 15:1 ratio of serious injuries per fatality has been used where data was not available (Developed by iRAP and Adjusted by GRSF, World Bank). The socioeconomic cost of road crash fatalities and serious injuries in Azerbaijan has been steadily decreasing (by 55%) since its highest rate in 2012 (4.2% of GDP).



Data Discrepancy of Road Crashes Fatalities and Injuries Data

EaP Eastern

Data Discrepancy in Azerbaijan reported at the national level and corrected by WHO has been estimated at between 10-21.4% in 2009-2019. The reduction in the discrepancy in 2019 may indicate that the road crash data collection in Azerbaijan has improved. The given discrepancy is lower than the average discrepancy registered in the EaP region and EU-27.



PILLAR 1 | ROAD SAFETY MANAGEMENT

Institutional Framework of Road Safety in the Republic of Azerbaijan

In 2012, the Decree of the President of the Republic of Azerbaijan "**On measures to strengthen road safety activities and improve transparency of traffic management**"¹ was signed. This led to improvements on road safety coordination, legislation and institutional capacity building.

Azerbaijan has a Road Safety Strategy, **State Program on Road Safety and Action Plan**². This was approved by Decree of the President of Republic of Azerbaijan on **December 27th**, **2018** with a period of action of **2019 – 2023**. The visions and targets to be achieved by the end of 2023 include:

- » 30% reduction in Road Crashes and Road Crash Fatalities;
- » **30%** reduction in Road Crash Serious and Minor Injuries;
- » 50% reduction in Road Crash Infant Fatalities.

Road Safety (RS) Function	Key Institution
Road Safety Coordination	Special Commission on Road Safety comprised of representatives of the Ministries of Health, Transport, Education and Interior. The National Road Safety Council (NRSC) is operating under the Cabinet of Ministers. It has no permanent Secretariat.
Formulation of National RS Strategy, Development of RS Action Plan, Monitoring of the RS development in the country	The Azerbaijan Automobile Federation was leading the development of the Road Safety Program 2019—2023.
Road Safety Funding	Funded from the state budget, as well as funds from paid fines.
Implementation of the RS programme	Relevant public authorities according to the road safety action plan on Road Safety Program 2019—2023 implementation.
Improvements in road infrastructure	Ministry of Transport, Communications and High Technologies
Vehicle improvement	Cabinet of Ministers, State Agency for Control of Antimonopoly and Consumer Market, Ministry of Transport, Communications and High Technologies
Improvement in road user education	Ministry of Internal Affairs, Ministry of Education
Publicity campaigns	The National Automobile Club of Azerbaijan (AMAK)
Enforcement of road traffic laws	State Road Police, Ministry of Internal Affairs

Table 4 Azerbaijan Road Safety Institutional Framework

Sources: ¹ Order of the Ministry of Internal Affairs № 326 dated September 27th, 1999 "Recording of road traffic crashes". ² State Program of Azerbaijan Republic on Road Safety for 2019-2023 Crashes"; <u>bit.ly/2L4uObu</u>

Road Crash Data Collection System

Road police use a paper-based data collection system through special crash data forms, and afterwards the data is uploaded to a central crash database at the General Department of State Traffic Police. The current crash database software lacks GIS features and other mapping tools. Current crash data collection system has been in place since 1991. The last modifications to the scope of the crash data collected was done in 2006.

Development of a new electronic database "Road Traffic Crash" is envisaged by the State Program on Road Safety 2019—2023. The General Department of State Traffic Police of the Ministry of Internal Affairs is responsible for the new database development during the period of 2019—2020.

PILLAR 1 | ROAD SAFETY MANAGEMENT

Only the Ministry of Internal Affairs has direct access to the crash database. General crash data is shared only with the State Statistics Committee and in some cases with the State Road Transport Service of the Republic of Azerbaijan. The General Department of State Traffic Police is responsible for the preparation of the monthly road safety reports.

The State Statistical Committee is responsible for publishing general road safety data, which is available on-line at <u>www.stat.gov.az/source/transport</u>.

Detailed analysis of the current situation on crash data collection in the Republic of Azerbaijan is shown in the figure below. The figure provides an overview of the results of the crash data system benchmarking assessment for the EaP and is based on self-reporting.



Road Safety Funding and Expenditure (Projects and Performance)

Funding the expenditures required for the implementation of the road safety activities within the framework of the State Program on Road Safety 2019—2023 shall be carried out of the state budget of the Republic of Azerbaijan.

Several road infrastructure projects to improve road safety have been completed and others are underway in Azerbaijan, funded by both the State and International Financing Institutions. Table 5 and 6 list the completed projects with their outputs and ongoing and upcoming projects with their expected outcomes.

PILLAR 1 | ROAD SAFETY MANAGEMENT

 Table 5
 Completed IFIs' and Other Donors' Financial and Technical Assistance

Title	Period	Brief Objectives/Expected Outcomes	Achieved Road Safety Outputs
World Bank			
Third Highway Project	May. 2010 – Mar. 2021	To contribute to a more efficient and safer Baku- Shamakhi road and higher quality road services as part of the upgrading to motorway standards, and to improve the management of the nascent motorway network.	71% and 76% reduction of personal injury per 100-million vehicle-km along the Baku- Shamakhi Road and Yenikend-Shorsulu Road respectively. Safety Audits on Detailed Design and Construction Completion.
Asian Development	Bank (ADB)		
Road Network Development Program (Tranche 1 – 3)	Oct. 2007 – 2018	 To build an adequate, efficient, safe and sustainable road network linking the Republic of Azerbaijan domestically and internationally, consisting of: Construction of approximately 39.3 km of a new four-lane category I expressway between km 22.1 to km. 61.4 (the Project Road) on the Masalli-Astana highway, comprising: Section B of the Project Road from km 22.1 to km. 45.1 and Section C of the Project Road from km 45.1 to km 61.4; and Project management support and consulting services for construction supervision, financial audit, social and environmental assessments, and institutional capacity development. 	 Project enhanced road safety and improved travel condition by: » Improving the road network by building roads to international safety standard. » Provided gender-sensitive road safety awareness to communities along the roads being constructed/rehabilitated. » Implementation of appropriate road safety enforcement measures.

Table 6 Ongoing/Upcoming IFIs' and Other Donors' Financial and Technical Assistance

Title	Period	Brief Objectives/Expected Outcomes	Road Safety Components
World Bank			
Regional Connectivity and Development Project	May. 2021 – Mar. 2026	To provide safe, efficient and climate resilient transport connectivity and improve market accessibility along the Salyan–Bilasuvar road corridor.	Road safety improvements along M3 Salyan- Bilasuvar road expressed as the Project Safety Impact (PSI) using the Road Safety Screening and Appraisal Tool (RSSAT).
Asian Developmen	t Bank (ADB)		
Enhancing Road Safety for CAREC Member Countries (Ph. 2)	Nov. 2020 - Dec. 2022	Provide knowledge and support technical assistance (TA) to support and enhance road safety initiatives in the Central Asia Regional Economic Cooperation (CAREC) countries.	 Road Safety Components under project include: » Road safety engineering capacity in road agencies improved; » Cross-institutional road safety collaboration and data collection capacity improved; » Intelligent road safety information systems developed and deployed; » Knowledge products disseminated
Second Road Network Development Investment Program	July 2014 – July 2021	To finance the construction of new motorway between Jalilabad and Shorsulu, provide capacity development, rehabilitate M5/R57 road sections, and implement local roads rehabilitation program.	Project supporting ongoing construction/ rehabilitation of roads including safety components, and also building on the EBRD grant financing that developed the road safety study and a study on design standards and performance-based road maintenance contracts, completed in 2018.

PILLAR 2 | SAFER ROADS AND ROADSIDES

Road Infrastructure Safety Assessment Performance

The benchmarking survey on implementation of the EU road safety Directive in each of the EaP countries was conducted by the EaP TP Secretariat in two rounds during 2018. Initially, a quantitative survey was conducted, where EaP countries self-reported the degree to which the introduction of individual measures from the EU 2008/96 Directive on road infrastructure safety has been achieved. Subsequently, an additional qualitative survey was produced by the Bank team, focusing on the four main tools of Road Safety Audit (RSA), Inspection (RSI), Impact Assessment (RSIA) and Blackspot Management (BSM) and aiming at a closer understanding of the current situation.

Answers confirmed by countries

Table 7

EaP Countries Status regarding EC 96/2008 Directive Implementation

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive

			-				
Impact Indicators used	ARM	AZE	BLR	GEO	MDA	UKR	EaP Av.
Implementation of RSIA (Road Safety Impact Assessment)							
Legal basis for RSIA exists	90	95	5	5	5	5	34
Adequate RSIA manual in official use	80	95	5	5	5	5	33
Trained staff for RSIA available	60	50	5	5	10	5	23
Road Authorities have budget to purchase RSIA	50	95	5	5	5	5	28
All major new roads and reconstructions passed RSIA procedure	75	95	5	5	5	5	32
RSIA Recommendations being accepted in feasibility stage	80	95	5	5	5	5	33
Total Scores for Road Safety Impact Assessments (RSIA)	435	525	30	30	35	30	183
Implementation of RSA (Road Safety Audit)							
Legal basis for RSA (Road Safety Audit) exists	85	50	5	30	5	5	30
Adequate RSA manual in official use	95	70	5	85	5	5	44
Trained road safety auditors available	25	50	5	50	30	15	29
Road Authorities have budget to purchase RSA	25	95	5	10	5	5	24
All new, reconstructed and rehabilitated roads being safety audited	50	95	5	10	25	5	32
RSA Recommendations being implemented by Roads Authority	80	95	5	50	20	5	43
Total Scores for Road Safety Audits (RSA)	360	455	30	235	90	40	202
Implementation of RSI (Road Safety Inspection)							
Revision (update) of road design standards undertaken	75	95	25	75	85	5	60
Revision (update) of road design norms (guidelines) undertaken	65	95	25	80	20	5	48
Convention of road signs/ signals 1968 fully implemented	60	95	25	50	30	10	45



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PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive	ctive Answers confirmed by countries						
Impact Indicators used	ARM AZE BLR GEO MDA UKR					EaP Av.	
Implementation of RSI (Road Safety Inspection)							
Vehicle Restraint Systems (VRS) standard based on EN 1317	50	95	75	20	5	5	42
Work zone protection based on best international practice	70	95	75	75	35	5	59
Harmonization between standards/norms/guidelines and other legislation undertaken	80	50	75	80	50	5	57
Average Scores for Road Safety Inspections (RSI)	400	525	300	380	225	35	311
Black Spot Management - BSM (Black Spot Management)	60	50	00	10	10	50	45
Adagusta DCM Maguel in efficiel use	50	75	70	70	 E	05	57
	00	00		10		00	00
	80	80	80	10	20		57
Irained black spot investigators available	80	80	/0	40	30	20	53
Annual black spot improvement program in place	95	75	70	75	5	20	57
Road Authorities has dedicated founds for BSM improvements	90	50	70	50	10	5	46
BSM recommendations being implemented by Roads Authority	90	70	70	70	50	5	59
Average Scores for Black Spot Management (BSM)	545	440	530	325	130	270	373
Road Assessment Program (RAP) (e.g., iRAP)							
Legal basis for RAP (Road Assessment Program) exists	60	20	80	10	5	10	31
RAP implemented on road network	50	20	80	10	20	5	31
Annual RAP program exists	50	20	50	10	5	10	24
Road Authorities has dedicated founds for RAP improvements	60	80	50	10	5	10	36
RAP recommendations being implemented by Roads Authority	80	80	80	10	5	10	44
Average Scores for Road Assessment Programs (RAP)	300	220	340	50	40	45	166
Application of traffic calming measures							
Legal basis for application of traffic calming measures exists	60	50	90	10	10	50	45
Adequate traffic calming Manual in official use	50	35	75	70		85	53
Close oritoria for colocition of traffic colocition monource evicto	80	80	95	10		95	60
	00	60	00	10	20	00	0U
Irainea statt available	80	80	70	40	30	20	53
Road Authorities has dedicated funds for traffic calming implementation	95	75	70	75	5	20	57
Traffic calming recommendations being implemented by Roads Authority	90	50	70	50	10	5	46
Average Scores for Traffic Calming Measures	455	370	460	255	80	265	314

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PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive	ctive Answers confirmed by countries						
Impact Indicators used	ARM	AZE	BLR	GEO	MDA	UKR	EaP Av.
Application of road design standard/norms (guideline) revision							
Revision (update) of road design standards undertaken	85	95	90	80	50	30	72
Revision (update) of road design norms (guidelines) undertaken	75	80	90	80	50	30	68
Convention of road signs/ signals 1968 fully implemented	100	95	99	80	100	90	94
Vehicle Restraint Systems (VRS) standard based on EN 1317	60	70	50	80	80	30	62
Work zone protection based on best international practice	40	50	40	50	50	20	42
Harmonization between standards/norms/guidelines and other legislation undertaken	60	80	80	80	70	50	70
Average Scores for Road Design Standard Revision	420	470	449	450	400	250	408
Building the capacity of engineers and technical staff							
Adequate Manuals/Guidelines for safety engineering produced	50	75	30	70	10	10	41
Selected Government, Consultants and Academic staff trained	35	75	30	60	5	5	35
Different road safety curricula for University courses produced (RSIA, RSA, RSI, RAP, BSM, TC)	40	50	40	30	30	5	33
Students being taught about safe design approaches during their studies	50	50	50	30	70	10	43
Average Scores for Capacity Building	175	250	150	190	115	30	152

Road Safety Infrastructure Investments

Improving the world's roads to a **3-star or better** standard is a key way to achieve the United Nations Sustainable Development Goals target of **halving road deaths and injuries by 2030**. The **Business Case for Safer Roads** (*iRAP*) analyzes the investment required to achieve 75% of travel on 3-star or better roads, as shown in the table below.

Table 8

What can be achieved with >75% of travel in Azerbaijan on 3-star or better roads for all road users by 2030

Infrastructure and Speed Management Investment required 1.72 Billion US	\$\$
Annual Investment as a percentage of GDP (2020–2030) 0.33%	
Reduction in road crash fatalities per year 282 fatalitie	s
eduction in road crash fatalities and serious injuries (FSI) over 20 years 62,145	
Economic Benefit 4.38 Billion U	S\$
Benefit Cost Ratio (BCR) 3	

Source: 1 iRAP Vaccines for Roads. The Big Data Tool. <u>https://www.vaccinesforroads.org/irap-big-data-tool-map/</u>

PILLAR 2 | SAFER ROADS AND ROADSIDES

There are about 25,000 kilometers of roads in Azerbaijan, serving domestic cargo traffic and giving access to international major highways. The length of highways (as of 2019) is about 19,051 km (Concrete – 125 km; Asphalt Concrete – 11,304 km, Black Surface – 6,530 km, Gravel – 1,105 km and Earth – 112 km).

Substantial state investments in the field of road infrastructure improvement, safer roads and efficient road traffic management were carried out in the recent years. During 2017–2019, there was a registered **increase of 44% and 47% in Asphalt Concrete and Black Surface highways**, respectively. The share of existent **gravel and earth roads has declined by 87% and 45%**, respectively. All these investments, together with other measures (underground and overhead pedestrian crossings, road junctions, and traffic management schemes) have played an important role in the reduction of road crashes in Azerbaijan.

The reform of road maintenance system is currently implemented by the Government of Azerbaijan, which includes improving the management of the roads network. The ultimate goal of this activity is to ensure the highest technical quality of road infrastructure, with special focus on road traffic safety.

PILLAR 3 | SAFER SPEEDS

Speed Limits and Comparison with Safe System Speed Limits - National Data (2020)

Azerbaijan has a **National Speed Limit Law** and local authorities in Azerbaijan **are allowed** to modify the speed limits. The law allows for a **tolerance of 10 km/h**.

Comparison of Azerbaijan Speed Limits to the recommended Safe System Speeds shows that **on average the speed limits are 17.5 km/h higher than recommended**.

The Enforcement of speed limits in Azerbaijan is predominantly **automated** with a **self-reported score of 80%**. The **potential decrease** in fatal road crashes from enforcement of the Safe Speed Limits is estimated, on average, to be **six-fold**.

Table 9

Maximum Speed Limits, Recommended Safe System Speeds and the Potential Decrease in Road Crash Fatalities

	ROADS				
	RESIDENTIAL	URBAN	RURAL	MOTORWAYS	
Maximum Speed Limit in Azerbaijan	60 km/h	60 km/h	60 km/h	110 km/h	
Difference with Recommended Safe System Speeds ¹	+ 30 km/h	+ 30 km/h	– 10 km/h	+ 20 km/h	
Potential Decrease in Fatal Road Crashes from Enforcement of Safe System Speed Limits ²	6 times lower	6 times lower	Appropriate	2 times lower	

Note: ¹ Safe System Recommended Speed Limits: Residential and Urban - 30 km/h; Rural - 70 km/h; Motorways - 90 km/h.
 ² Potential decrease in fatal road crashes from enforcement of safe system speed limits calculated using the Nilsson's Power Model connecting speed and road trauma. [M.H. Cameron, R. Elvik. 2010]

Speed Calming Infrastructure

Table 10

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Speed Calming Infrastructure in Azerbaijan - Presence and Brief Descriptions of Implementation (from National Data - 2020)

Speed Calming Infrastructure Category	Presence in Azerbaijan (Present/Not Preset)	Brief Description/Narrative of Implementation and Results
Narrowing e.g., extending sidewalks, pedestrian refuges.	PRESENT	Some roads are narrowed to reduce average speeds.
Vertical Deflections e.g., speed bumps, humps and tables.	NOT SPECIFIED X	- Not Specified -
Horizontal Deflection e.g., chicanes and chokers.	NOT SPECIFIED X	- Not Specified -
Block/Restrict Access e.g., median diverters and cul-de-sacs.	NOT SPECIFIED X	- Not Specified -
Road Markings, Signs and Furniture e.g., colored surfacing	PRESENT	Road markings with speed limits in newly constructed/rehabilitated road sections.

PILLAR 4 | SAFER VEHICLES

Vehicle Population and Distribution – National Data (2020)

Azerbaijan has an up-to-date and extensive dataset of the vehicle population in the country, disaggregated into vehicle categories and vehicle age distribution. The Vehicle Population in Azerbaijan and Motorization (149 Vehicles/1,000 inhabitants) are proportional as shown in Figure 10.

Vehicle distribution in Azerbaijan in 2015–2020 have been comparable, **Cars and Light Wheeled Vehicles** accounting for 85.3%, Motorized 2/3 Wheelers – 0.3%, Trucks – 10.3%, Buses – 2.1% and Other Vehicle Categories accounting for 2.0%.



Azerbaijan has a **relatively high percentage of vehicles that are 10 Years and above**. During 2016–2019 vehicles that are **5 Years and Under in age, have been reducing three-fold**. A robust periodic vehicle inspection system of the existing vehicle fleet in Azerbaijan should be fully developed to ensure that the larger percentage of vehicles are still **safe for vulnerable road users**.



Figure 11Distribution of Vehicle Population by Age in Azerbaijan

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PILLAR 4 | SAFER VEHICLES

Azerbaijan Vehicle Type Crash Distribution is shown in Figure 12 below. Vehicle Pedestrian Crashes, Single Vehicle Crashes and Head–On Collisions account for the highest proportion of crashes.





Compliance with UN Vehicle Safety Regulations - WHO Data (2018) and National Data (2020)

Azerbaijan compliance to the recommended Vehicle Safety Standards is shown below:



PILLAR 5 | SAFER ROAD USERS

Seatbelt Usage in the Republic of Azerbaijan – WHO Data (2018)^a and National Data (2020)^b

Azerbaijan has an **existing National Seatbelt Law**, which applies to **all vehicle passengers**. The enforcement is done by visual inspection by DPS Inspectors (road traffic police) and automatically using video cameras. Drivers and Passengers found to be breaking the law are fined €20 and €15 respectively.



Motorcycle Helmet Usage in the Republic of Azerbaijan – WHO Data (2018)^a and National Data (2020)^b

Azerbaijan has an **existing National Motorcycle Helmet Law**, which applies to **all motorcycle passengers**. Children **passengers under 12 yrs.** are prohibited on motorcycles.



Drink and Drug Driving in the Republic of Azerbaijan - WHO Data (2018)^a and National Data (2020)^b

Azerbaijan has an **existing Drink Driving and Drug Driving Law**, which applies to the **General Population**, Young/Novice Drivers and Professional Drivers. Enforcement of drink/drug driving laws is done by Visual Inspection by DPS Inspectors.

Random breath tests are carried out by the road traffic police if something strange is noticed. A Demerit Point System is used: for the first time [200 (€) or deprivation of the right to drive a vehicle for a period from 6 months to 1 year]; for the second time [200-250 (€) and deprivation of the right to drive a vehicle for a period of 2 years].



PILLAR 5 | SAFER ROAD USERS

Child Restraint Usage in the Republic of Azerbaijan - WHO Data (2018)° and National Data (2020)b

Azerbaijan has an **existing Child Restraint Law**, which specifies that **child restraints are mandatory for all children under the age of 12 years.** As enforcement, car seats are checked by **DPS Inspectors through Visual Inspection**.

12 YRS. & BELOW	CAR SEAT	UNDER PREPARATION	40 %	NO DATA 🗙
Front Seat Prohibition	Child Restraint	Child Restraint	Self-Reported	Child Restraint
for Children ^ь	Required ^ь	Standards ^b	Enforcement Score ^a	Usage Rate ^a

Mobile Phone Usage while Driving in the Republic of Azerbaijan - National Data (2020)











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