INDONESIA

ROAD SAFETY PROFILE

Supported by:

The ATO road safety profiles offer insights into the road safety in 37 Asia-Pacific countries by utilizing road safety related data from various sources and policy information extracted from a range of documents.

These road safety profiles were developed by the Asian Transport Observatory in collaboration with the Asia Pacific Road Safety Observatory (APRSO) and the International Road Federation (IRF). This September 2025 edition updates the February 2025 release—prepared for the Global Ministerial Conference on Road Safety in Marrakech—to inform discussions at the Asia-Pacific Regional Road Safety Conference in Manila.

Country Summary

Road safety in Indonesia remains a significant public health challenge. In 2021, it was estimated about 31 thousand fatalities in Indonesia due to road crashes (WHO), accounting for 2.0% of all deaths in the country. While Indonesia has made some progress, the current trajectory is insufficient to meet ambitious 2030 fatality reduction targets. This narrative will explore the complexities of road safety in Indonesia, examining data discrepancies, economic costs, infrastructure challenges, and the policy landscape.

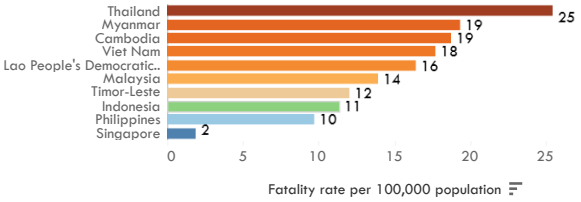
Population (2024)
280 Million

GDP per capita, PPP (2022)
14,658 USD
Low and lower middle income

WHO (estimate) road crash fatalities for Year 2021
31,063 deaths

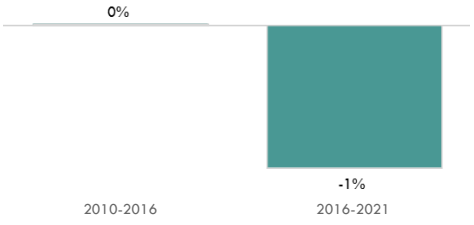
The country report to WHO recorded 25,266 deaths in 2021

WHO estimated road crash fatality rate in Indonesia compared to other countries in South East Asia (2021)



(WHO estimated, 2023)

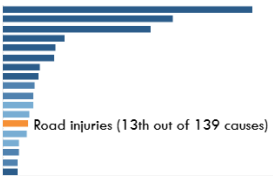
Annual average growth rate of road crash fatalities



(WHO estimated, 2023)

The country report to WHO recorded 9.1 deaths per 100,000 population in 2021

Causes of mortalities in Indonesia (2021)



(IHME, 2024)

A notable challenge in understanding the full scope of the problem is the discrepancy in reported data. The numbers reported by country statistics and the Global Burden of Disease for 2021 and 2023 vary significantly, ranging from approximately 28 thousand to 43 thousand fatalities. This inconsistency highlights the need for improved data collection and reporting mechanisms to assess the road safety situation accurately.

Road crash fatality rate, by source

WHO (estimate) for Year 2021
11.3 per 100,000 population

WHO (country-report) for Year 2021
9.1 per 100,000 population

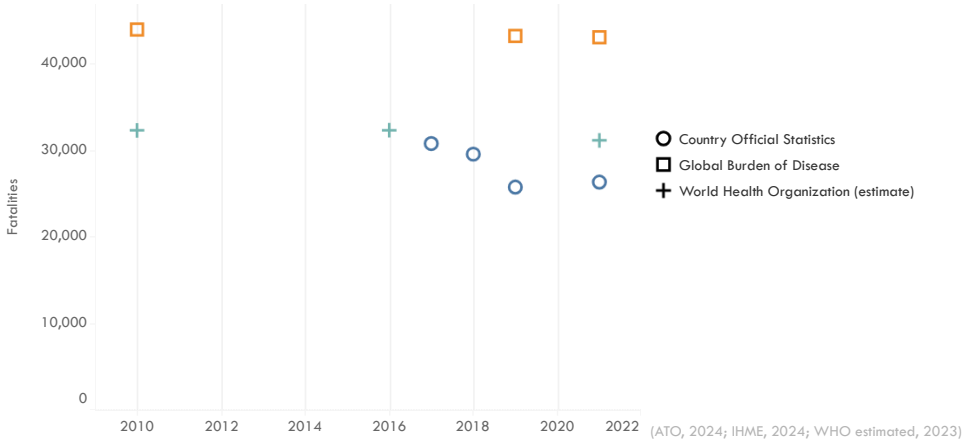
Country official statistics for Year 2022
10.2 per 100,000 population

GBD estimate for Year 2021
15.7 per 100,000 population

Every 6 minutes, someone dies in a road crash in Indonesia

(WHO estimated, 2023)

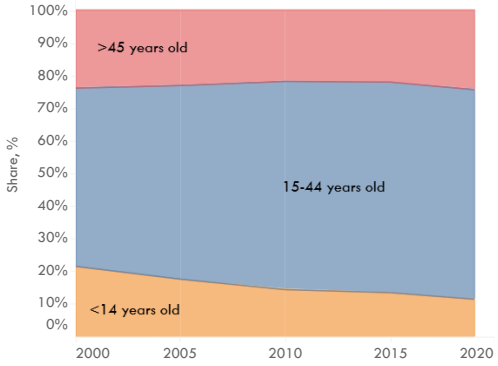
Road crash fatalities, by source



(ATO, 2024; IHME, 2024; WHO estimated, 2023)

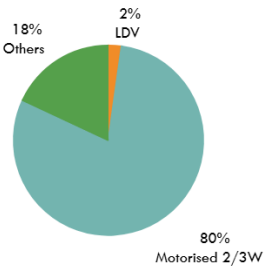
Despite data discrepancies, available information provides valuable insights. The share of female fatalities has slightly decreased, while the combined share of minors (<14 years old) and seniors (>65 years old) in deaths has seen a marginal increase. Alarmingly, the share of pedestrian and bicyclist fatalities is not reported for 2021 and requires further investigation.

Road crash fatalities, share by age group



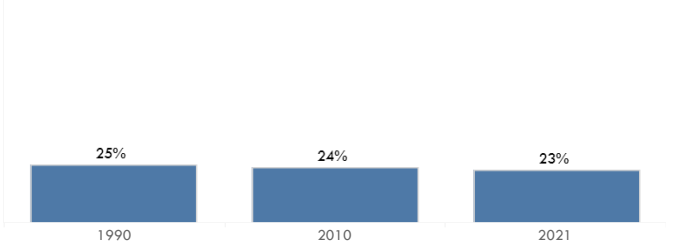
(IHME, 2021)

Road crash fatalities, share by road user



(Country report to WHO, 2023)

Share of female road crash fatalities



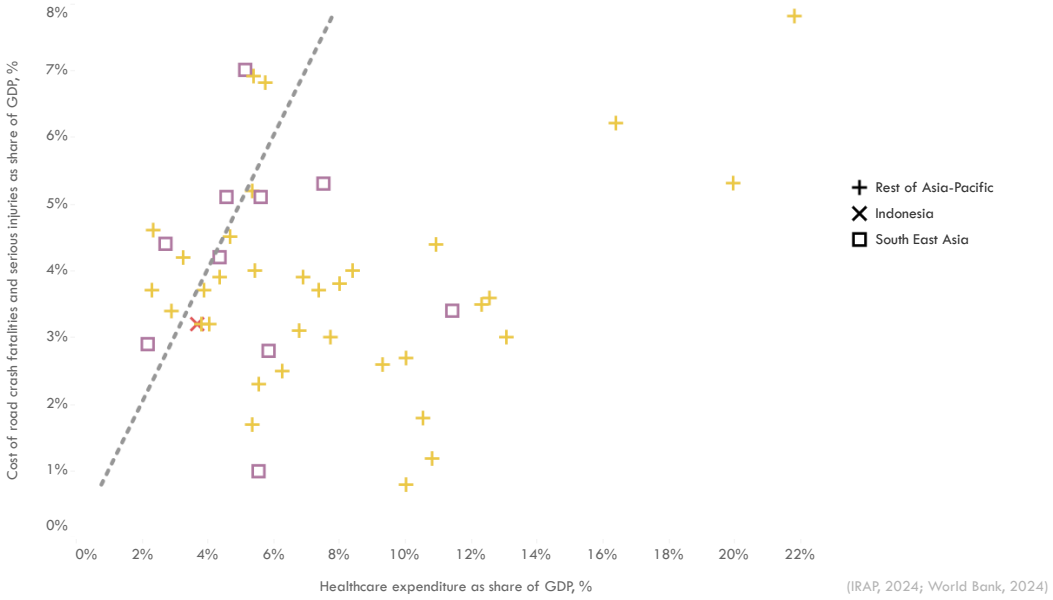
The country report to WHO indicates that women made up 21% of total road crashes deaths in 2021

(IHME, 2024)

The human cost of road crashes is immense, and the economic burden is substantial. Fatalities and serious injuries from road crashes in Indonesia cost an estimated 38 billion USD in 2021, roughly 3% of the country's GDP. This is comparable to Indonesia's healthcare expenditure of 3.7% of GDP in the same year.

Cost of road crash fatalities and serious injuries (2021)
38.3 Billion USD

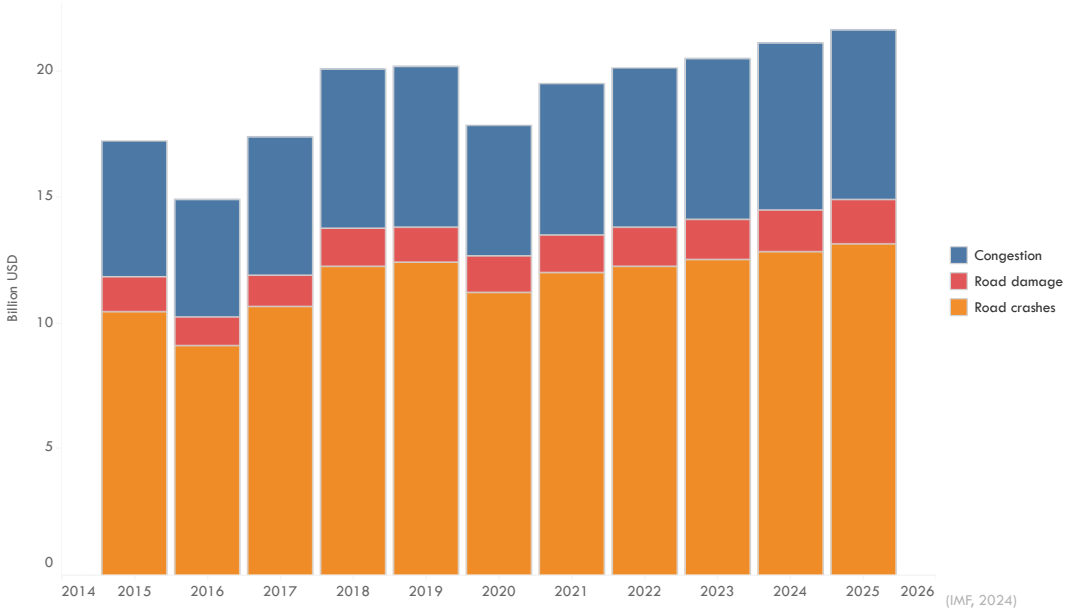
Cost of road crash fatalities and serious injuries vs. country healthcare expenditure as share of GDP (2021)



(IRAP, 2024; World Bank, 2024)

Road crashes also contribute significantly to the implicit costs of fossil fuel subsidies in transport, accounting for approximately 61% of the total. Investing in road safety is not just a moral imperative; it's also economically sound. IRAP estimates that an annual investment of 2 billion USD, or about 0.1% of Indonesia's GDP, could save around 10,000 lives yearly.

External costs to the society due to fossil fuel subsidies in transport



(IMF, 2024)

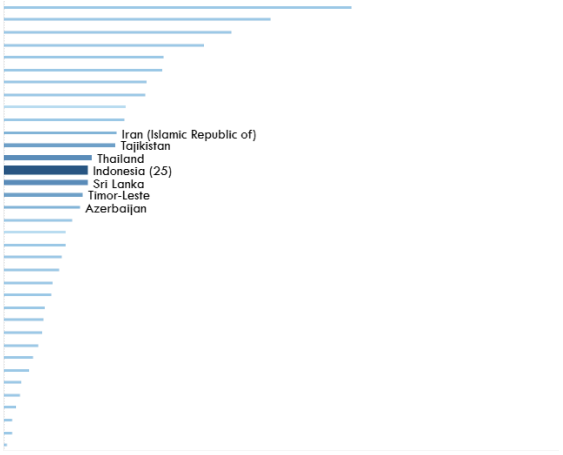
Infrastructure plays a crucial role in road safety. IRAP ratings reveal that only 7% and 14% of Indonesia's road infrastructure have a 3-star or better rating for pedestrians and bicyclists, respectively, compared to 14% and 22% for the Asia-Pacific region. The situation is better for vehicle occupants, with at least 55% of roads having a 3-star or better rating. However, for motorcyclists, who make up the vast majority of road users, only about 32% of road infrastructure meets this

standard. Indonesia also experiences a high rate of road fatalities per kilometer of road, with approximately 25 fatalities per thousand kilometers.

Road availability (2021)
4.6 kilometers per thousand population

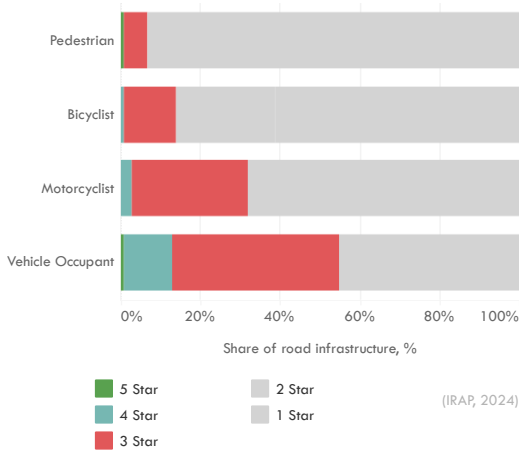
Length of road assessed by IRAP (as of 2024)
31,667 kilometers

Road crash fatalities per thousand kilometers (2021)



(WHO estimated, 2023; Nirandjan, et al., 2022)

Share of road infrastructure with 3-star or better safety rating, by road user category (2024)

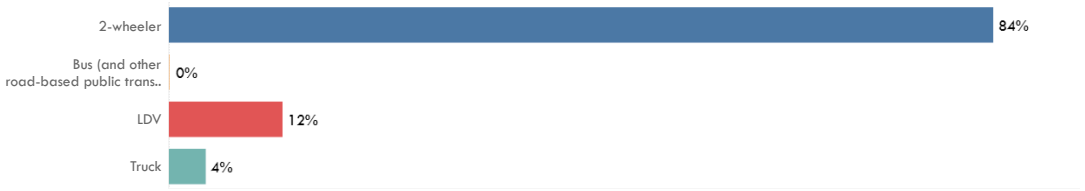


(IRAP, 2024)

Indonesia has experienced rapid motorization, with 566 vehicles per thousand population by 2023. Two-wheelers dominate the vehicle fleet, comprising 84% of all vehicles, followed by light-duty vehicles (12%), trucks (4%). This high reliance on motorcycles, coupled with inadequate infrastructure for them, contributes significantly to the road safety challenge.

Motorization rate (2023)
566 vehicles per thousand population

Vehicle share by type (2022)

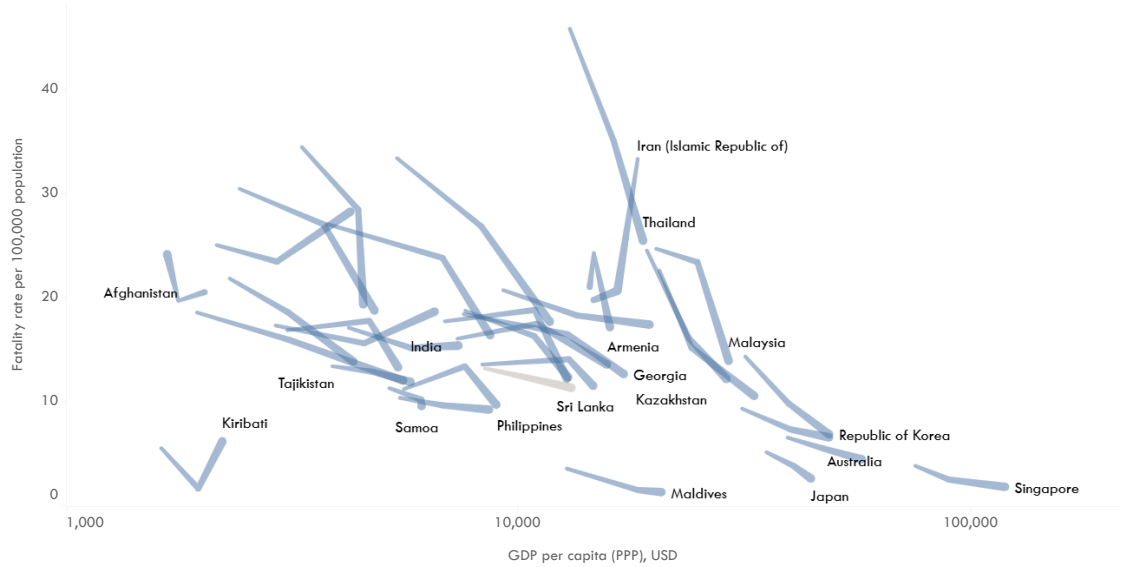


(ATO, 2024)

Benchmarking

Progress has been slow while this is lower than the Asia-Pacific average of 15.2 and the South East Asia average of 14.4. WHO estimates a decrease in fatalities per 100,000 population from 13.2 in 2010 to 11.3 in 2021, a 14% reduction. This compares unfavorably to the Asia-Pacific region's 19% improvement and South East Asia's 35% decrease during the same period.

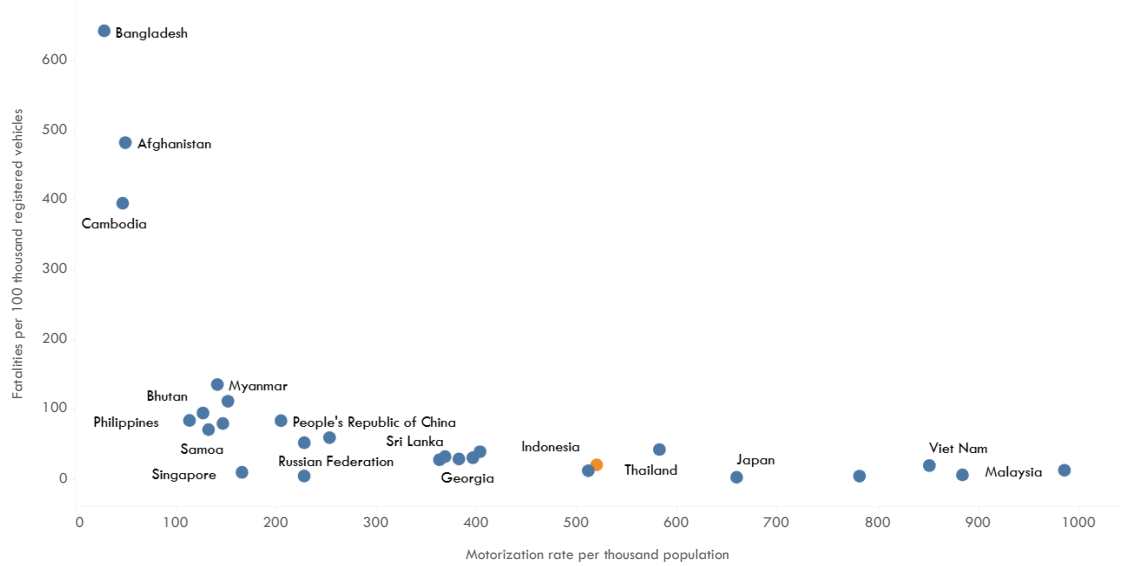
Road crash fatality rate vs. GDP per capita (2010, 2016, 2021)



(WHO estimated, 2023; World Bank, 2023)

Indonesia has about 22 fatalities per 100,000 registered vehicles.

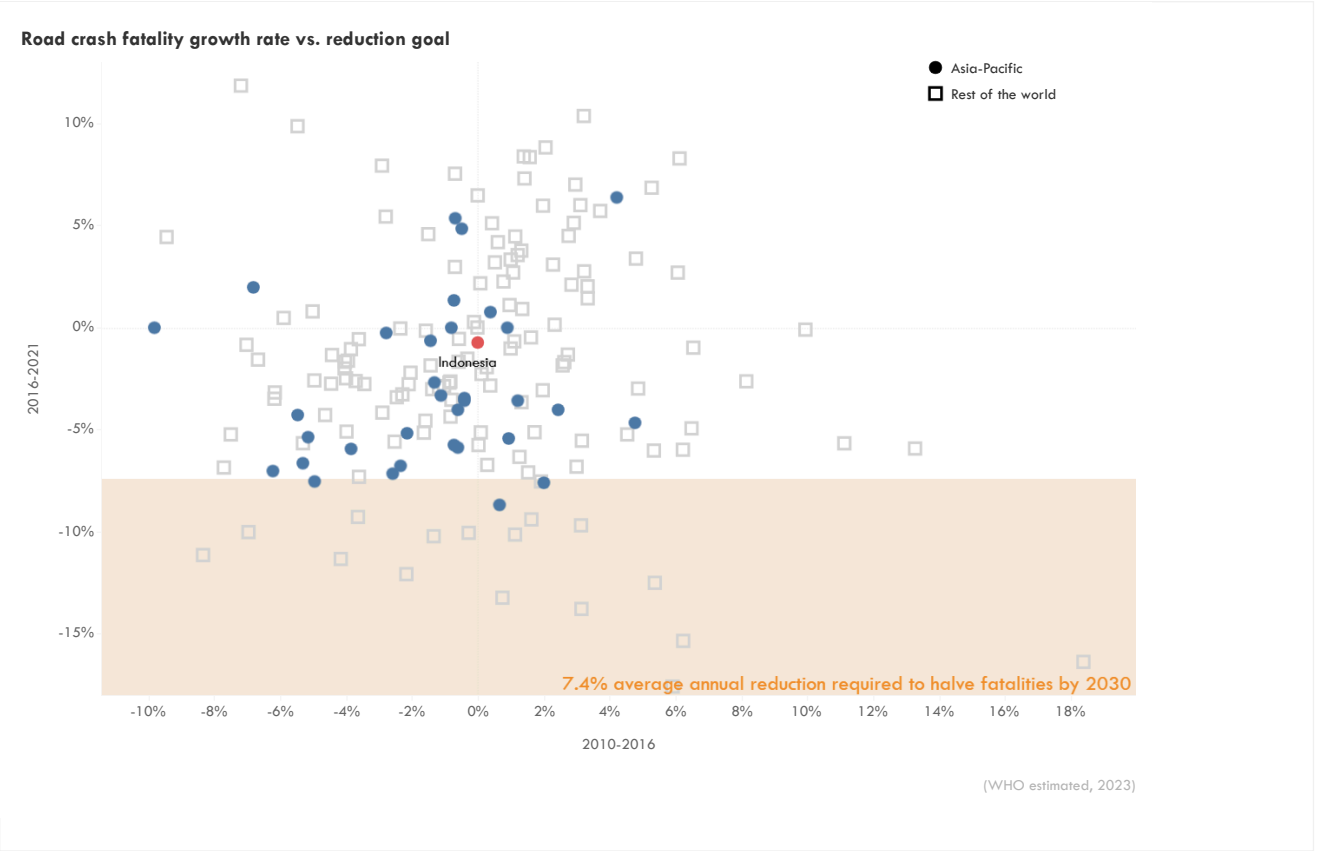
Road crash fatalities per vehicle registration (2021)



(WHO estimated, 2023; ATO, 2024)

Can Asia meet the 2030 target of halving fatalities?

- **Urgent action needed to reduce road fatalities** The Decade of Action for Road Safety 2021-2030 aims to cut road fatalities in half by 2030. An annual reduction of at least 7.4% is necessary to achieve this.
- **Asia-Pacific region falling behind** Despite reaching a peak in road crash fatalities, the Asia-Pacific region is not on track to meet the 2030 goal. The average annual reduction in deaths between 2016 and 2021 was only 0.6%, far below the required rate.
- **Varying progress across Asia** Using the 2016-2021 road crash fatality growth rate as a basis for estimates until 2030:
  - Only 3 Asian countries are projected to achieve the 50% reduction target by 2030.
  - 18 Asian countries are expected to reduce fatalities by at least 25%.
  - Worryingly, 7 Asian countries will continue to increase road fatalities, moving further away from the target.
- In Indonesia, road crash fatalities decreased by approximately -0.7% per year between 2016 and 2021. However, this is not enough to reach the 2030 target to halve the fatalities by 2030



Policy Landscape

Indonesia has a National Road Safety Plan 2021-2040, published in 2021. The country also has specific road safety targets, including reducing the road accident fatality ratio per 10,000 vehicles. Furthermore, various other policy documents, such as the National Railways Master Plan and the National Medium Term Development Plan, have indirect benefits for road safety. Despite these policy initiatives, effective implementation and enforcement are crucial for achieving tangible improvements in road safety outcomes.

Targets to reduce road crash fatalities or injuries	Target year	Document	Year published
Reducing road accident fatality ratio per 10,000 vehicles against the 2010 base rate (%) = 65 (Baseline = 53 (2019))	2024	National Medium Term Development Plan 2020-2024	2020

Measure type	Other targets with indirect benefits to road safety	Target year	Document	Year published
General infrastructure improvements	Number of cities with multi-level transport systems = 6 (Baseline 2019 = 3)	2024	National Medium Term Development Plan 2020-2024	2020
General infrastructure improvements	Increased public satisfaction index with public services in the transportation sector by 88.5 On Time Performance (OTP) achievement for transportation services is 82.08%	2024	Strategic Plan for the Railway Sector 2020-2024	2020
General infrastructure improvements	Infrastructure stock increases to 70 percent of GDP by 2045.	2045	Visi Indonesia 2045	2017
General public transport	Number of metropolitan cities with built and developed urban mass transit systems = 6 (Baseline 2019 = 1)	2024	National Medium Term Development Plan 2020-2024	2020

General rail improvement	Creating a railway transportation service that has a passenger market share of 7% - 9% and goods 11% - 13% of all national transportation services. "Increasing railway security and safety with indicators of decreasing the ratio of security and safety disturbances by at least 50% in the period 2010 - 2030" Passenger transportation facilities with a total of 2,839 locomotives, 27,949 intercity trains and 6,229 urban trains Goods transportation facilities with a total of 2,475 locomotives and 48,364 wagons.	2030	National Railways Master Plan	2018
General rail improvement	Increased levels of safety and security as measured by a decrease in the fatality ratio of transportation accidents to 0.826	2024	Strategic Plan for the Railway Sector 2020-2024	2020
General rail improvement	Creating railway transportation services that have a passenger market share of 7% - 9% and goods of 11% - 13% of all national transportation services." (National Railways 2030)	2030	Strategic Plan for the Railway Sector 2020-2024	2020
Investment required for specific projects	"fulfillment of strong railway funding supported by private investment with an investment target estimated to reach USD 65,063.00 million with funding contributions from the Government and investment from Business Entities	2030	National Railways Master Plan	2018
Technology and knowledge transfer	"The realization of mastery of railway technology by reducing technological dependence on facilities and infrastructure by a maximum of 25%, local content of at least 85% and supplied by a minimum of 90% of domestic industry	2030	National Railways Master Plan	2018
Transport asset condition assessment	Percentage of roads in good condition at the national/provincial/regency/city level (%) = 97/75/65 (Baseline 2019 = 92/68/57) Railroad conditions according to the Track Quality Index (TQI) categories 1 and 2 (%) = 94 (Baseline 2019 = 81.5)	2024	National Medium Term Development Plan 2020-2024	2020
Travel time improvement	Travel time on an island's main road network (in hour/100 km) = 1.9 hours/ 100 km (Baseline 2019 = 2.3)	2024	National Medium Term Development Plan 2020-2024	2020

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