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Comparative Analysis of Road Safety Policies and Outcomes: A Cross-Country Study of Bangladesh, the USA, and Australia

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Abstract

Road accidents represent a significant global public health concern, primarily attributed to heavy traffic and reckless driving. This study employs a descriptive research design to examine road traffic accidents, injuries, and fatalities across Bangladesh, the USA, and Australia from 2013 to 2022. Quantitative data on vehicle registrations, accidents, injuries, and deaths were gathered from respective government agencies. Analysis encompassed growth rates, average annual changes, and accident rates per 100,000 registered vehicles. Comparative analysis revealed stark disparities in road safety performance among the three countries. In Bangladesh, there was a remarkable 324.5% surge in vehicle registrations, accompanied by a 232.6% increase in accidents, 785% rise in injuries, and 409% escalation in deaths. These alarming figures underscore the severe road safety challenges faced by Bangladesh, with dramatic spikes in accidents, injuries, and fatalities. Contrastingly, Australia witnessed a 22.7% growth in

vehicle registrations, coupled with a 24% reduction in accidents, 76% uptick in injuries, and a modest 3% increase in deaths. This indicates Australia's effective road safety management, characterized by declining accident rates and stable death rates. In the USA, there was a 10.8% increase in vehicle registrations, alongside a marginal 0.7% rise in accidents, a 30% surge in injuries, and a slight 0.7% uptick in deaths. While the USA maintained relatively stable conditions, persistent road safety issues persisted, highlighting the need for ongoing interventions. Recommendations aimed at governments, drivers, and pedestrians include enhancing public transportation, rigorously enforcing traffic regulations, promoting responsible driving practices, and advocating for pedestrian safety measures. These findings underscore the imperative for comprehensive interventions to mitigate road accidents and bolster road safety on a global scale.

Keywords: Comparative Analysis, International Comparison, Policy Evaluation, Traffic Accidents

1. Introduction

Road accidents are a global crisis that has been escalating over time. These incidents occur frequently in major cities and towns, often resulting in tragic and fatal outcomes. Studies have identified heavy traffic and reckless driving as the primary causes of road accidents. Typically, motorcyclists and smaller vehicles are severely impacted by these accidents, and pedestrians are also frequently killed or injured. As one of the most pressing issues in today's world, road accidents claim approximately 1.35 million lives annually worldwide, according to the World Health Organization (WHO) ^[1]. This phenomenon is recognized as a leading cause of unexpected deaths, particularly among young people aged 15-29.

The WHO reports that road traffic injuries are the leading cause of death for children and young adults aged 5-29 years. Over 50 million people are injured or disabled annually due to road accidents. The majority of road traffic deaths and injuries occur in low- and middle-income countries, where infrastructure and safety measures often lag behind the increasing number of vehicles.

Road accidents and traffic collisions are often denoted by various terms. The World Health Organization (WHO) employs the term "road traffic injury," while in the U.S. and Canada, they are termed "motor vehicle traffic collisions" by Transport Canada and "motor vehicle accidents" (MVA) ^[2] or (MVTC) by the Census. A road traffic accident encompasses any incident involving at least one moving road vehicle on a public or accessible private road, resulting in at least one injured or deceased

individual (United Nations, European Union, and the International Transport Forum at the (OECD, 2019) [3]. Additional commonly used terms include car crash, car accident, road traffic collision, wreck, car smash, among others. These terms describe occurrences where a vehicle collides with another vehicle, pedestrian, animal, road debris, or stationary objects like trees or utility poles. Such accidents can result in property damage, injury, or loss of life.

Road accidents include:

- Vehicle incidents originating on a highway but leading to casualties either on or off the road.
- Situations involving passengers aboard buses or coaches who sustain injuries, irrespective of involvement from other vehicles or pedestrians.
- Local authorities and organizations may also term road accidents as road collisions, road crashes, or road incidents.

1.1 Causes of road accidents

People who disregard or refuse to abide by traffic laws and signs are the main cause of accidents on the roads. The failure of certain drivers to read and follow traffic signs is another contributing factor. Over speeding is one of the main culprits, contributing to a daily number of accidents. Road traffic accidents are one of the leading causes of morbidity and mortality in the world. The etiological factors may be classified into human and environmental out of which human factor account for 90% of the accidents. The present study was conducted to know the causes and factors responsible for the accidents. Human error is responsible for accidents in 77% of cases in which drivers were at fault in 56.2% of cases followed by pedestrians and passengers of vehicles responsible for 17.8 and 3.0% cases respectively. Defects in vehicles, poor weather accounted for accidents in 8.4% cases respectively and bad roads were responsible for accidents in 4% cases only. None of the driver or passenger of the vehicles was wearing helmets or seatbelts, a very disturbing trend. The important human factors responsible for accidents were, over speeding, rash driving, not following traffic rules, carelessness while crossing roads, playing on road, alcohol intake, fatigue and sleepiness [4].

1.1.1 Drivers

Drivers bear significant responsibility for road safety, as their negligence can lead to accidents and fatalities. Factors such as fake licenses, speeding, distractions like phone use, and driving under the influence contribute to accidents. Estimates suggest fatigue plays a role in 5% to 50% of accidents in developed countries, highlighting challenges in determining its impact. In the US, approximately 28 lives are lost daily due to accidents involving alcohol-impaired drivers. The effectiveness of traffic laws in reducing such fatalities remains uncertain [5, 6].

1.1.2 Vehicle

Sometimes, the vehicle itself can be accountable for road accidents and fatalities. Overloading, inaccurate speedometers, and inadequate maintenance can increase accident risks. Defective vehicle parts like faulty steering, braking, or lighting systems contribute to accidents. Studies indicate that 2% to 8.5% of accidents in developed countries result directly from faulty vehicles. In developing nations, vehicle defects are more prevalent due to poor maintenance practices and vehicle conditions, often comprising older, poorly maintained vehicles. Logging vehicles, particularly

older ones, are disproportionately involved in accidents, with over half occurring in urban areas and a significant proportion near interstate highways [7, 8].

1.1.3 Environmental and weather conditions

Environmental and weather conditions can contribute to road accidents. Poor weather, such as excessive rainfall, dense fog, and strong winds, can create slippery roads and impair driver visibility, increasing accident risks. Studies suggest that bad weather can significantly elevate accident rates by 20% or more on some days, with factors like wind speed, precipitation intensity, and temperature playing significant roles. Bad/adverse weather and nighttime driving are identified as common environmental factors contributing to road accidents [9, 10].

1.1.4 Road Condition

Road conditions significantly influence accident occurrence. Factors like winding roads, steep hills, narrow lanes, uneven surfaces, construction zones, and poor maintenance pose risks. Wet surfaces from rain or flooding exacerbate dangers. Pavement condition, including macrotexture, microtexture, and surface roughness, plays a crucial role in reducing accidents by optimizing tire-pavement friction. Establishing higher friction levels can mitigate skidding and rutting effects [11].

The traffic system can contribute to fatal road accidents through inadequate control, lack of police presence, and absence of signs and signals. Traffic rule violations rank as the second-most significant cause of road traffic accidents. Factors such as age, gender, residence, education, occupation, and awareness about road traffic accidents (RTA) are closely linked to knowledge and awareness of traffic rules [12].

1.1.5 Others

Various factors contribute to road traffic accidents, including unplanned and illegal parking blocking roads, encroachment by roadside shops, unplanned walkways, and a shortage of footbridges. Pedestrian carelessness and unfair practices by traffic police also contribute. Distractions, weather conditions, sleep deprivation, unsafe lane changes, and night-time driving are major factors. Human errors account for 66.8% of accidents, with dozing at the wheel and careless driving being significant causes, followed by vehicle errors and environmental factors such as tire bursts and brake failures [13, 14].

2. Literature review

Numerous studies have been conducted on the topic of road accidents. Road traffic accidents are one of the most common causes of injury and death worldwide and are the 8th leading cause of death across all age groups. Every year, approximately 1.35 million people die on the road globally, with 20–50 million injured, and an average rate of 27.5 deaths per 100,000 population [1]. The highest rates of road traffic fatalities are 26.6 deaths per 100,000 people in Africa and 20.7 deaths per 100,000 people in South-East Asia [1]. Recent studies estimate that by 2030, traffic crashes will become the fifth leading cause of death worldwide [15].

In Bangladesh, thousands of people die annually due to road accidents, most of which occur on urban highways. Data collected from 2010 to 2016 shows an increase in the rate of accidents, injuries, fatalities, and casualties between 2014 and 2016 [16]. On Bangladesh's roads, approximately 3,000 police-reported vehicle crashes occur each year, resulting in an equivalent number of deaths. It is estimated that over

20,000 people are killed on the roads each year. National and regional highways account for about 61% of all vehicle crashes in Bangladesh and 66% of all road fatalities^[17].

Between 1971 and 2007, Bangladesh's population doubled, while the number of accidents and fatalities increased from 1.14 to 3.87 and 0.41 to 2.98 per 100,000 people, respectively. From 1999 to 2004, the number of accidents and fatalities per 100 million vehicle kilometers declined by 49.08% and 42.77%, respectively^[18]. Fatality rates in Bangladesh increased from 2.74 deaths per million people and 4.48 fatalities per 100 according to the RHD on roadways, but they have not increased significantly in the last decade. While overall fatalities per 10,000 on roads grew from 40 in 1972 to 53 in 2008, they have fallen by roughly 31% in the recent decade (78% to 53%)^[19].

The USA experienced a decline in highway fatalities from 2005 to 2011, followed by an increase in 2012. Subsequently, policy changes led to a decrease in accident fatalities in the USA. Bangladesh has one of the highest rates of road deaths in the world, with more than 60 deaths per 10,000 motor vehicles. Between 1982 and 2000, there was a 43% rise in accidents and a nearly 400% increase in deaths^[20].

There is a significant interaction between county and road type, indicating that differences in traffic safety between counties are not fully explained by different road type distributions. The ranking of counties in terms of incidence or severity varies according to the road type considered, highlighting the necessity of collecting and exploring characteristics of sub-levels of road types within counties^[21].

The breakdown of road traffic deaths by road user group varies dramatically across WHO sub-regions. The magnitude of pedestrian fatalities ranges from more than half in the African sub-region (55%) to 15% or less in America or Europe. The distribution also varies across low-income, middle-income, and high-income countries. In low-income countries, 45% of road traffic fatalities are among pedestrians, compared to an estimated 29% in middle-income and 18% in high-income countries. The burden of road traffic injuries on vulnerable road users differs substantially across income levels, with an estimated total of 227,835 pedestrians dying in low-income countries, compared to 161,501 in middle-income countries and 22,500 in high-income countries each year^[22].

Fatal crashes are more likely to involve speed, alcohol, and violations of road rules, with victims 2½ times more likely to be unrestrained inside the vehicle than non-fatal casualties, consistent with international evidence. After controlling for human factors, vehicle and road conditions make a minimal contribution to the seriousness of the crash outcome. Targeted interventions to prevent fatalities on rural and remote roads should focus on reducing speed, drink driving, and promoting seatbelt use^[23]. Alcohol is estimated to be responsible for 40% to 50% of fatalities and serious injuries, making it one of the most serious epidemics facing mankind in developed countries^[24].

Road traffic accidents (RTAs) and casualties (injuries and fatalities) are continuously increasing worldwide. Developing countries (DCs), where traffic accidents are a major cause of death, represent two-thirds of the world's RTA fatalities (about 750,000), with a 15% increase in the past decade, while the reduction in industrialized countries approached 20%. Studies indicate that in DCs, fatality rates

per 10,000 vehicles are among the highest in the world despite low car ownership (vehicles per 100 people)^[25].

Adolescents and young adults, particularly males, are at high risk of traffic injury and death, with prevalence rates ranging from 11.1% to 42.6% for the 20–30 age group and from 4.6% to 97.2% for males. There is an urgent need for further research on potential correlates for RTA in developing countries, as information in this field will help implement measures to prevent RTA-related fatalities, thereby reducing mortality and morbidity^[26].

The number of registered vehicles shows an increasing trend for low-income countries, as do the crash rate and crash severity. Compliance with seat belt and helmet laws is high in high-income countries. Recent seat belt and helmet safety programs in middle-income countries have helped curb fatalities. Noncompliance with safety laws in low-income countries is attributed to education, culture, and inefficient law enforcement^[27].

Road safety is more appreciated in developed countries, which have experience in applying effective road safety programs. However, applying the same safety programs in developing countries is more challenging. This research highlights countries' experiences in road safety improvements^[28].

3. Objectives

Road traffic injuries represent a significant yet often overlooked public health concern that necessitates robust endeavors for prevention, ensuring sustainability and effectiveness. Key objectives regarding traffic accidents include:

Engaging with the community, businesses, media, and government entities to solicit their support in curbing the significant loss of life.

Serving as an advocacy group to cultivate political determination and contribute to enhancing road safety conditions.

Enhancing community engagement concerning road safety by raising public awareness regarding the severity of road traffic fatalities and their consequences.

Advocating for a constructive approach towards law enforcement and fostering a culture of respect and empathy among road users.

Encouraging drivers to exhibit consideration towards fellow road users and to adopt a positive stance regarding law enforcement.

4. Materials and Methods

This study employs a descriptive research design to analyze road traffic accidents, injuries, and fatalities in Bangladesh, USA, and Australia. The methodology includes the use of both quantitative and qualitative data to provide a comprehensive understanding of the trends and impacts.

4.1 Data Collection

4.1.1 Quantitative Data Sources

Data were collected for the following sources: Road Transport and Highways Division (RHD)^[29]; Bangladesh Bureau of Statistics (BBS)^[30]; The National Highway Traffic Safety Administration (NHTSA)^[31]; Federal Highway Administration (FHWA)^[32]; Bureau of Transportation Statistics (BTS)^[33]. The Australian Bureau of Statistics (ABS)^[34]; Department of Infrastructure,

Transport, Regional Development, and Communications [35]; Passengers Welfare Association of Bangladesh, 2018 [36]; Fatality Analysis Reporting System (FARS), 2022 [37]; Federal Highway Administration (FHWA), 2022 [38].

Data Points

Number of registered vehicles from 2013 to 2022. Number of road accidents, injuries, and fatalities for the same period.

4.2 Data Analysis

4.2.1 Quantitative Analysis:

To analyze the data on road accidents, injuries, and deaths in Bangladesh, Australia, and the USA from 2013 to 2022, we will compare trends and calculate key statistics such as growth rates, average annual changes, and accident rates per 100,000 registered vehicles [39-41].

Growth rate is calculated by the following formula:

$$\text{Growth Rate (\%)} = \left(\frac{\text{Final value} - \text{initial value}}{\text{initial value}} \right) \times 100$$

Average Annual Change is calculated by the following formula:

$$\text{Average Annual Change} = \left(\frac{\text{Final value} - \text{initial value}}{\text{Number of years}} \right)$$

Accident Rate per 100,000 Registered Vehicles is calculated by the following formula:

$$\text{Accident Rate per 100,000 Registered Vehicles} = \left(\frac{\text{Number of accident}}{\text{Number of registered vehicles}} \right) \times 100,000$$

4.2.2 Tools

Microsoft Excel is used to organize, analyze, and visualize data. Bar diagrams and line charts are employed to present the findings clearly.

4.3 Comparative Analysis

4.3.1 Cross-Country Comparison

Compare the trends and rates of accidents, injuries, and fatalities among Bangladesh, USA, and Australia.

5. Results and Discussions

Number of registered vehicles, number of accidents, number of injured and number of deaths in road accident in Bangladesh, Australia and U.S.A are given below:

Table 1: Number of registered vehicles in Bangladesh, Australia and USA from 2013 to 2022

Year	Bangladesh	Australia	U.S.A.
	Number of registered vehicles	Number of registered vehicles	Number of registered vehicles
2013	136213	16853319	255876820
2014	159988	17200552	260350940
2015	307941	17558171	263610220
2016	397964	17931908	268799080
2017	419333	18312579	272480900
2018	495182	18635136	273602100
2019	497432	18924450	276491170
2020	377660	19229139	275936370
2021	445030	20142942	282214580
2022	578151	20680152	283400990

Source: [30-38]

Table 2: Number of road accidents in Bangladesh, Australia and USA from 2013 to 2022

Year	Bangladesh	Australia	U.S.A
	Number of Road Accident	Number of Road Accident	Number of Road Accident
2013	2029	22975	5687000
2014	5928	22362	6064000
2015	6581	21432	6296000
2016	4312	22275	6821000
2017	4979	18637	6453000
2018	5514	18799	6734000
2019	5516	18264	6756084
2020	4891	16584	5250834
2021	5629	18249	6103213
2022	6749	17555	5930496

Source: [30-38]

Table 3: Number of injured people in road accidents in Bangladesh, Australia and USA from 2013 to 2022

Year	Bangladesh	Australia	U.S.A.
	Number of Injuries	Number of Injuries	Number of Injuries
2013	1396	35001	2319000
2014	17523	35515	2343000
2015	21855	37082	2455000
2016	15914	38963	3062000
2017	16193	39339	2745000
2018	15466	39590	2710000
2019	13330	39866	2740141
2020	8600	37966	2282015
2021	9039	39505	2497869
2022	12356	61483	2382771

Source: [30-38]

Table 4: Number of deaths in road accidents in Bangladesh, Australia and USA from 2013 to 2022

Year	Bangladesh	Australia	U.S.A.
	Number of deaths	Number of deaths	Number of deaths
2013	1957	1186	32894
2014	8589	1150	32744
2015	8642	1206	35485
2016	6055	1294	37806
2017	7397	1223	37473
2018	7221	1135	36835
2019	7855	1186	36355
2020	6886	1097	39007
2021	7809	1129	42939
2022	9951	1194	42795

Source: [30-38]

Table 5: Rate of vehicles (%), Average annual change in vehicles, Accident rate per 100,000 registered vehicles in 2022, injuries per 100,000 registered vehicles in 2022, and Death per 100,000 Registered Vehicles in 2022

Country	Growth rate of Vehicles (%)	Average annual change vehicles	Accident per 100,000 registered vehicles in 2022	Injuries per 100,000 registered vehicles in 2022	Deaths per 100,000 registered vehicles in 2022
Bangladesh	325	44,193	1167	2137	1721
Australia	23	382,683	85	297	06
USA	11	27,52,417	2092	841	15

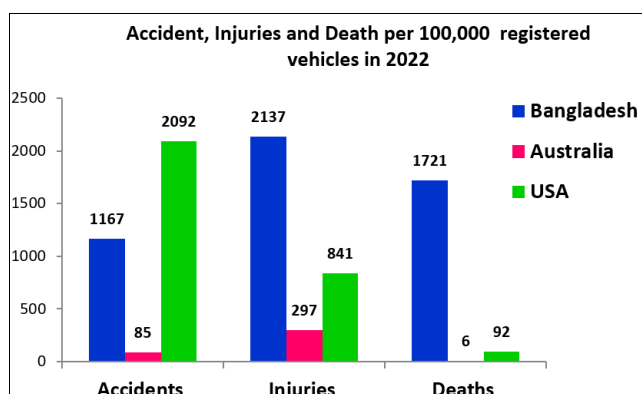


Fig 1: Accidents, Injuries and Deaths per 100,000 registered vehicles in 2022 in Bangladesh, Australia and USA

Bangladesh saw a dramatic increase in registered vehicles (324.5%). This rapid motorization likely outpaced improvements in road infrastructure and safety measures. With a growth rate of 233%, the increase in accidents was substantial, though less steep than injuries and deaths. The highest growth rates in injuries (785%) and deaths (409%) reflect severe road safety issues. The high rates per 100,000 vehicles (2,137 injuries and 1,721 deaths) further underscore the critical state of road safety, highlighting inadequate emergency response and healthcare facilities. Bangladesh faces severe road safety challenges, as evidenced by the dramatic increases in injuries and deaths relative to the number of accidents and vehicles. Urgent improvements in road infrastructure, safety regulations, and emergency response systems are needed.

Australia showed moderate growth in vehicle registrations (22.7%) indicates stable, manageable increases in vehicle numbers. The decrease in accidents (-24%) demonstrates successful road safety measures and effective law enforcement. Moderate increases in injuries (76%) and a slight rise in deaths (3%) suggest that while accident

numbers fell, the severity or reporting of incidents may have slightly increased. The low rates per 100,000 vehicles (297 injuries and 6 deaths) affirm Australia's effective road safety protocols. Australia exemplifies effective road safety management, with reductions in accidents and low rates of injuries and deaths, highlighting the success of its comprehensive safety measures.

Whereas in USA the lowest growth rate in vehicle registrations (10.8%) suggests a mature, stable vehicle market. The minimal growth in accidents (0.7%) indicates stable road safety conditions. With modest increases in injuries (30%) and deaths (0.7%), the USA's road safety measures show some stability. However, high rates per 100,000 vehicles (2,092 accidents, 841 injuries, and 92 deaths) suggest ongoing challenges and room for improvement in road safety measures and infrastructure. USA maintains relatively stable conditions but still experiences high accident rates. Continued efforts to enhance road safety measures are essential to further reduce accidents, injuries, and fatalities.

Table 6: Growth rate of road accidents, injuries and deaths along with average annual changes

Country	Number of road accidents		Number of injuries		Number of deaths	
	Growth rate of accidents (%)	Average annual change of accidents	Growth rate of injuries (%)	Average annual change of injuries	Growth rate of deaths (%)	Average annual change of deaths
Bangladesh	233	472	785	1096	409	799
Australia	-24	-542	76	2648	0.7	1
USA	4	24,349	3	6377	30	990

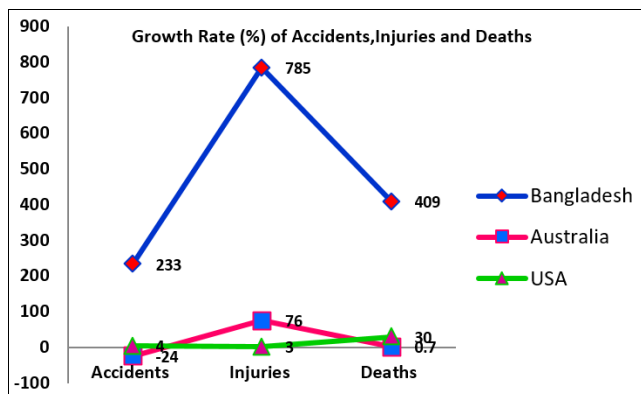


Fig 2: Growth Rate (%) of Accidents, Injuries and Deaths in Bangladesh, Australia and USA

The chart indicates that injuries and death rates are higher in Bangladesh compared to Australia and the USA. Despite having fewer accidents than the USA, Bangladesh experiences significantly higher rates of injuries and fatalities. Among the three countries, Australia demonstrates consistent road safety measures, with significantly lower numbers of accidents, injuries, and deaths than both the USA and Bangladesh. This data indicates severe road safety issues in Bangladesh, where the number of injuries and fatalities has escalated drastically over the observed period, even though the increase in accidents is less dramatic than the rise in injuries and deaths.

Australia's negative growth rate in accidents suggests effective road safety measures. The moderate increase in injuries and a marginal rise in deaths imply that while the number of accidents has decreased, the severity of those accidents might have slightly increased or that more effective reporting systems are in place.

The USA shows relatively stable statistics with marginal increases in all categories. This stability suggests that the road safety situation has not drastically changed over the period, but improvements are needed to further reduce the numbers.

5.1 Vehicle Registration Trends

Bangladesh exhibited the highest growth rate in vehicle registration at approximately 325%. The rapid increase indicates economic growth and rising vehicle affordability. Where in Australia, moderate growth in vehicle registration at 23%, showing a steady but less dramatic increase. In USA the growth rate of 11% was the lowest among the three countries, indicating a more saturated vehicle market.

5.2 Accidents Trends

Bangladesh showed significant increase in road accidents by 232.6%, with the highest accident rate per 100,000 vehicles in 2022. This suggests issues with road safety measures and infrastructure. A decrease in road accidents by 24% reflects effective road safety policies and measures for Australia. The accident rate per 100,000 vehicles was the lowest among the three countries. Slight increase in road accidents

by 4.3%, with a high accident rate per 100,000 vehicles, indicating persistent road safety challenges despite developed infrastructure in USA.

5.3 Injuries Trends

The number of injuries saw a dramatic increase by 785%, correlating with the rise in road accidents in Bangladesh. Injuries increased by 76%, which is substantial but significantly lower than Bangladesh, indicating better management of accidents in Australia. A modest increase of 3% injuries showing slight fluctuations in road safety outcomes in USA.

5.4 Deaths Trends

Road deaths increased by 409%, reflecting severe road safety issues in Bangladesh. Deaths remained stable with a slight increase of 0.7%, indicating effective fatality reduction measures in Australia. An increase of 30% deaths, suggesting significant room for improvement in road safety in USA.

Bangladesh experienced the highest growth in vehicle registration and the most alarming increases in road accidents, injuries, and deaths, reflecting severe road safety and infrastructure challenges. Australia demonstrated effective road safety management with declining road accidents and stable death rates, despite an increase in injuries. USA although having the lowest vehicle registration growth; the USA faced substantial increases in deaths and accidents, highlighting persistent road safety issues.

Overall, the data suggests that while vehicle ownership has increased across all three countries, the effectiveness of road safety measures varies significantly, with Bangladesh facing the most critical challenges.

6. Recommendations

6.1 For Government

Introduce more public transportation to reduce reliance on private vehicles, given their increasing rates. Enforce stricter traffic regulations to ensure road safety, maintaining and

implementing existing rules effectively. Consider lowering speed limits within cities to 60 kmph, with significant fines for violations.

Implement rigorous examination procedures for issuing driving licenses, addressing any instances of fraud. Enforce mandatory seat belt usage while driving, with substantial fines for non-compliance.

Increase the minimum age for obtaining a two-wheeler license to 20 years. Mandate helmet usage for both drivers and passengers of two-wheelers, with penalties including fines and imprisonment for violations.

Improve road conditions, including proper lane divisions and safe design of "U-turns" and highways. Ensure well-designed and functioning road lighting to reduce nighttime accidents, with regular monitoring.

Prohibit markets and roadside parking near highways. Enhance traffic signals and maintain road lighting for improved visibility.

Construct foot overpasses on busy roads. Design safe zebra crossings for pedestrians. Allocate sections of footpaths for wheelchair access.

Implement stringent recruitment processes for traffic police, overseen by experts. Provide adequate training and equipment for traffic police, empowering them to take immediate action.

Establish emergency services for road accidents, with government and private hospitals dedicated to treating victims. Integrate social awareness content on road safety into educational curriculum and media, such as literature, seminars, and dramas.

Offer rewards to districts/cities/areas that reduce road accidents compared to previous years. Regularly monitor and revise existing rules and regulations to adapt to changing circumstances and needs.

6.2 For Drivers

Ensure drivers are skilled and possess valid licenses. Enforce seat belt usage at all times. Prohibit mobile phone/radio use while driving. Require drivers to be physically and mentally fit while operating vehicles. Strictly prohibit driving under the influence of alcohol. Discourage teenagers from driving recklessly for fun. Encourage drivers to avoid speeding and reckless overtaking.

6.3 For Pedestrians

Encourage the use of foot overpasses and zebra crossings for road crossings. Discourage running or stopping in the middle of roads while crossing. Avoid congregating or loitering on road sides. Prohibit mobile phone usage while crossing roads. Promote adherence to traffic rules and regulations while using roads.

7. Conclusion

The comparative analysis of road safety policies and outcomes across Bangladesh, the USA, and Australia reveals significant disparities in road safety performance among the three countries. Bangladesh experienced alarming spikes in accidents, injuries, and fatalities, indicating severe road safety challenges exacerbated by rapid motorization. In contrast, Australia demonstrated effective road safety management with declining accident rates and stable death rates, reflecting successful policy interventions and infrastructure development. The USA maintained relatively stable conditions but faced persistent

road safety issues, suggesting the need for continued efforts to improve safety measures.

These findings underscore the critical importance of implementing comprehensive road safety policies tailored to each country's specific context. Prioritizing initiatives such as enhancing public transportation, enforcing traffic regulations, promoting responsible driving practices, and investing in infrastructure improvements can significantly mitigate the incidence of road accidents and enhance road safety outcomes globally. Collaboration between governments, policymakers, stakeholders, and communities is essential to address the multifaceted challenges associated with road safety and create safer road environments for all.

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