Chapter 6

Cambodia

*This chapter presents the most recent crash data for Cambodia, as well as an update on the Cambodian road safety strategy and recently implemented safety measures.**

* All data stem from National Road Safety Committee unless otherwise noted. The National Road Safety Committee joined the International Road Traffic and Accident Database (IRTAD) group in 2010. Data presented in this report are data reported by police and are under validation by IRTAD. Actual numbers are likely to be higher. For more information please contact: voun.chhoun@gmail.com.

Rapid increases in motorisation and large numbers of young people have resulted in steadily increasing road fatalities in Cambodia. Road deaths rose 51% between 2006 and 2014. Road crashes disproportionately affect the most vulnerable road users. Motorcycles make up 80% of registered vehicles and account for nearly 70% of fatalities. The Royal Government of Cambodia has committed to a national road safety action plan to reduce road fatalities by 50% in 2020.

Road safety data collection

Definitions applied in Cambodia

- Road fatality: Person who died immediately in a crash or within 30 days.
- Seriously injured person: Person injured in a traffic crash and hospitalised for at least eight days due to crash injuries. At this stage, it is not envisaged to adopt a definition based on the Maximum Abbreviated Injury Scale.

Data collection

The Road Crash and Victim Information System (RCVIS) was initiated and developed by Handicap International, in close collaboration with the Ministry of Health, the Ministry of the Interior, and the Ministry of Public Works and Transport. Data are reported by traffic police and health facilities nationwide. Currently, the ministries of health and interior are in charge of data collection at provincial level and provide a soft copy to the National Road Safety Committee (NRSC).

The NRSC combines data from the ministries of health and interior using a data-linkage system developed with support from the Institute for Road Safety Research (SWOV) of the Netherlands, in the framework of twinning under the International Road Traffic and Accident Database. Duplicate entries are automatically identified. Work is ongoing to assess the level of underreporting.

Most of the data are available from 2006. Data presented in this report are data *currently reported* by the police and are under validation process by IRTAD. Actual numbers are likely to be higher.

Most recent safety data

Road crashes in 2014 – provisional data

Based on provisional data for 2014, the number of reported road fatalities increased by 11.3%.

Road crashes in 2013

In 2013, RCVIS reported 1 950 fatalities, a 1% decrease compared to 2012. On average, road crashes caused more than five fatalities and 15 injuries every day. Vulnerable road users (pedestrians, cyclists and users of motorised two-wheelers) represented 80% of all road fatalities.

Trends in traffic and road safety (2006-14)

Traffic

Cambodia motorisation is rapidly increasing. Since 2006, the number of motorised vehicles has tripled. In 2013 alone there was a 13% increase in the number of registered vehicles. Powered two-wheelers account for 80% of the motor vehicle fleet and play an important role in day to day life of people and in the transport sector.

Road safety

Crashes and casualties

Between 2006 and 2014, the reported number of fatalities in RCVIS increased by 51%. This dramatic increase is explained by the economic boom, the tripling of registered vehicles and the young population, as well as the reconstruction of paved roads over the last five years. Road crashes disproportionately affect the most vulnerable road users (motorcyclists, pedestrians and cyclists).

Traffic crashes have major impacts on both the social economy and welfare of Cambodia and are one of the major causes of mortality. Unless additional road safety actions are taken, the number of fatalities in Cambodia could increase to 3 200 by 2020. Therefore, the Royal Government of Cambodia has committed to develop a national road safety action plan 2011-20 in order to reduce the number of road fatalities in 2020 by 50% from the estimated forecast of 3 200 road deaths.

Rates

In 2014, the reported death rate per 100 000 inhabitants was 14.3, an increase by nearly 10% compared to 2013.

From 2006 to 2014, the reported fatalities rate per 10 000 vehicles decreased rapidly from 18.1 to 7.9 as the number of number of registered vehicles increased rapidly. The figure is high compared to other IRTAD countries.

Table 6.1. **Road safety and traffic data**

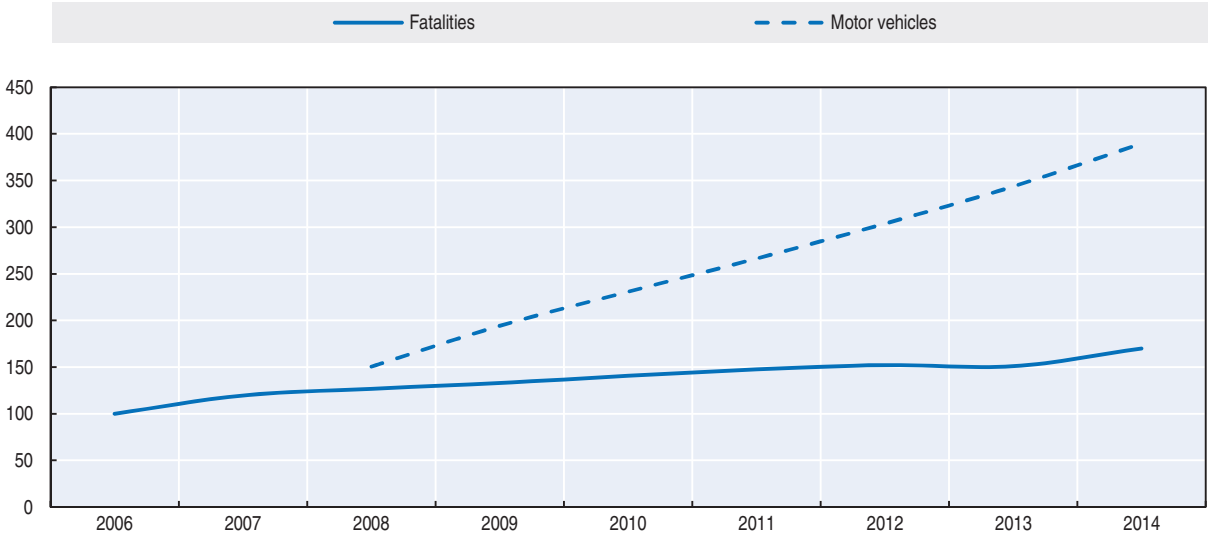
	2006	2010	2012	2013	2014	2014 % change over		
						2013	2010	2006
Reported safety data								
Fatalities	1 292	1 816	1 966	1 950	2 170	11.3	19.5	50.9
Injury crashes		18 287	15 615	16 227				
Deaths per 100 000 inhabitants	9.6	12.7	13.3	13.0	14.3	9.7	12.6	35.7
Deaths per 10 000 registered vehicles	18.1	11.0	9.0	7.9	7.8	-1.3	-29.1	-56.4
Traffic data								
Registered vehicles (thousands)	715	1 650	2 175	2 457	2 786	13.0	48.9	243.6
Registered vehicles per 1 000 inhabitants		115	147	149	151	1.3	29.2	

Source: RCVIS. Safety data are those currently reported by the police. Actual numbers are likely to be higher.

Road safety by user group

Vulnerable road users (motorcyclists, pedestrians and cyclists) represent more than 80% of traffic casualties in Cambodia. Riders of motorised two-wheelers are the most vulnerable road users. In 2014, they represented 80% of the motorised vehicle fleet and 72% of all fatalities. Improving the safety of motorcyclists is a key priority in Cambodia.

Figure 6.1. **Road safety and traffic data index 2006 = 100**



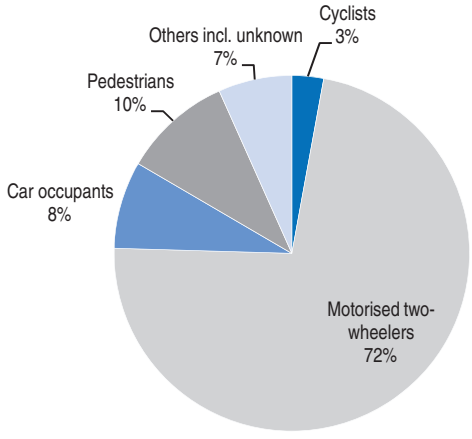
Source: RCVIS.

Table 6.2. **Reported road fatalities by road user group**

Road users	2008	2009	2010	2011	2012	2013	2014	*2014 % change over*		
								2013	2010	2008
Cyclists	71	65	72	51	77	45	63	40.0	-12.5	-37
Motorised two-wheelers	1 107	1 218	1 209	1 262	1 340	1 351	1 574	16.5	30.2	22
Passenger car occupants	115	79	140	144	155	165	173	4.8	23.6	43
Pedestrians	207	215	217	255	207	246	215	-12.6	-0.9	19
Others incl. unknown	138		178	254	187	143	145	1.4	-18.5	4
Total	1 638	1 717	1 816	1 905	1 966	1 950	2 170	11.3	19.5	19

Source: RCVIS. Safety data are those reported by police. Actual numbers are likely to be higher.

Figure 6.2. **Share of road fatalities by user group, 2014**



Source: RCVIS.

Road safety by age group

In 2013, the 20-24 age group accounted for 21% of total fatalities, while they represented only 11% of the total population. About half of total fatalities are between 15 and 29 years old. In 2014, the 21-24 age group has the highest fatality rate with 31 deaths for 100 000 inhabitants.

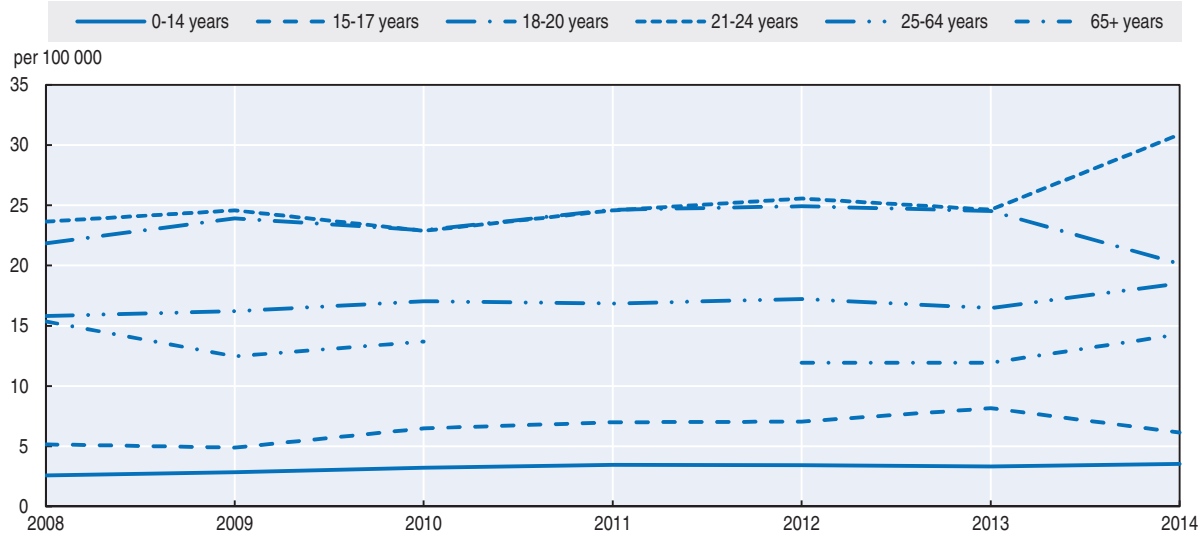
The elderly (above 65) are particularly vulnerable as pedestrians.

Table 6.3. **Reported road fatalities by age group**

Age	2010	2011	2012	2013	2014	*2014 % change over*	
						2012	2010
0-5	49	47	43	50	60	*20.0*	*22.4*
6-9	50	60	58	66	45	*-31.8*	*-10.0*
10-14	49	51	55	35	55	*57.1*	*12.2*
15-17	68	73	73	83	61	*-26.5*	*-10.3*
18-20	228	250	257	254	208	*-18.1*	*-8.8*
21-24	271	302	325	322	412	*28.0*	*52.0*
25-64	1 000	1 020	1 075	1 061	1 231	*16.0*	*23.1*
65+	84	90	77	79	98	*24.1*	*16.7*
Total incl. unknown	1 816	1 905	1 966	1 950	2 170	*11.3*	*19.5*

Source: RCVIS, data are those reported by police. Actual numbers are likely to be higher. 2014 data are provisional.

Figure 6.3. **Reported road death rates by age group**
Fatalities per 100 000 inhabitants in a given age group, 2008-13



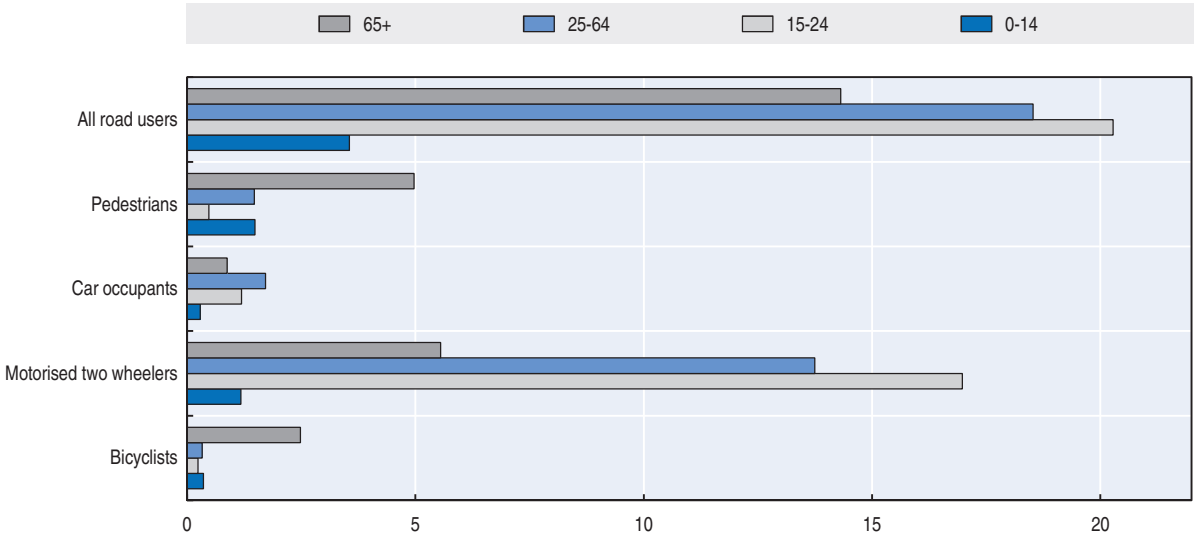
Source: RCVIS. Data are those reported by the police. Actual numbers are likely to be higher.

Road safety by road type

In Cambodia, the roads are classified as follows:

- National roads: Long roads connecting provinces.
- Provincial roads: Roads connecting districts within a province.
- Main and minor roads in cities and towns: Small/short roads.
- Local road/track: Small roads in villages.

Figure 6.4. **Reported road death rate by age and road user group**
Fatalities per 100 000 inhabitants, 2013



Source: RCVIS. Data are those reported by police. Actual death rates are likely to be higher.

There is no motorway network in Cambodia. The large majority of fatalities (65%) occur on national roads.

Economic costs of traffic crashes

It is estimated that in 2013 the economic cost of road crashes equalled approximately USD 337 million. This represents 2.3% of the Gross Domestic Product of Cambodia. The cost was estimated by Handicap International based on a methodology developed by the Asian Development Bank and updated by Handicap International Belgium and Hasselt University (2012).

The capital approach (human capital method) was used to calculate the cost of road crashes, which includes property damage costs, administrative costs, medical costs, lost output cost and human costs.

Recent trends in road user behaviour

Impaired driving

Drink driving

The maximum authorised blood alcohol content (BAC) is 0.5 g/l for all drivers. A drink-driving related crash is defined as a crash caused by a road user with a BAC over the limit.

Drink driving is the second major cause of road crashes and casualties in Cambodia after speeding. In 2013, 14% of reported fatalities were due to drink driving. The number of alcohol related fatalities increased by 14% over 2012.

In 2013, a peak of drink-driving fatalities was observed between 6 p.m. and 7 p.m. (13%). Saturdays, Sundays and Mondays had the highest percentages of alcohol related fatalities: 20%, 16% and 15% respectively. The percentage of fatalities during night time (57%) was higher than during day time. According to RCVIS, 92% of at-fault drivers in drink-driving crashes were motorbike drivers.

Drugs and driving

Cambodia has neither a legal framework nor facilities to enforce drug driving penalties.

Distraction

The new land traffic law bans hand-held mobile phones while driving. Hands-free phones can be used.

Speed

Excessive speed is the leading cause of traffic crashes in Cambodia, responsible for nearly half of fatalities in 2013.

The number of speeding related fatalities decreased by 12% in 2013. Until 2013, the number of speeding related fatalities was increasing annually due to the development of roads and road rehabilitation throughout the country, allowing drivers to drive faster.

The table below summarises the main speed limits in Cambodia.

Table 6.4. **Speed limits by road type and vehicle type, 2015**

	Motorcycles, tricycles	Passenger cars
Inside built up areas	30 km/h 40 km/h on national roads	40 km/h
Outside built up areas	90 km/h	90 km/h

Source: RCVIS.

Seat belts and helmets

Seat belt wearing has been compulsory on front seats since 2007. Seat belt wearing is not compulsory for rear-seat passengers. Enforcement is weak and the rate of use is low.

Babies less than 10 months old must use a baby seat with the safety belt firmly attached. Children between 10 months and 4 years old must use a child seat with safety belt attached. Children less than 10 years old in front seats must be accompanied by an adult and must wear a seat belt. The compliance rate is low.

In 2013, 83% of passenger car drivers who died in a crash did not wear a seat belt.

Table 6.5. **Seat belt wearing rate by car occupancy and road type**

%

	2009	2010	2011	2012
General	23	30	27	16
Urban roads (driver)	52	41	44	
Rural roads (driver)	42	35	41	

Source: RCVIS.

Helmet wearing is compulsory since 2007 for operators of powered two wheelers over 49 cc, for motorcycles with trailers and for motorised tricycles. Helmets are not compulsory on mopeds below 49 cc. The mandatory use of helmets by passengers is under discussion and could become law in 2015.

The helmet wearing rate is low, and 80% of motorcycle drivers killed in a road crash did not wear a helmet, and 99% of killed child passengers did not wear a helmet.

National road safety strategies and targets

Organisation of road safety

The National Road Safety Committee (NRSC) was established in 2005 as the lead agency for road safety, under the responsibility of the Ministry of Transport and Public Works. Its role is to manage and co-ordinate all road safety activities in Cambodia. In the framework of the new traffic law, expected to come into force in 2015, oversight of the NRSC will be shifted to the Ministry of Interior.

Road safety strategy for 2011-2020

In order to respond to the current situation with road traffic accidents, the NRSC has developed the National Plan for Road Safety 2011-20, based on the Action Plan developed to support the United Nations Decade of Action for Road Safety. The plan was submitted to the Prime Minister and was approved by the Council of Ministers in 2014.

The IRTAD twinning programme allowed the NRSC to collaborate with Handicap International, the Institute for Road Safety Research of The Netherlands and Road Safety for All. Collaboration was instrumental in developing the road safety strategy and defining targets and performance indicators to monitor progress. The Action Plan consists of seven Pillars:

- road safety management
- infrastructure
- safe vehicles
- safe road user behaviour
- post-crash care
- traffic law legislation and enforcement
- driver licensing
- better transport services for passengers and cargo.

Measures are chiefly focused on the main risk factors, which are the absence of helmets, speeding and drink-driving.

Road safety targets

This plan includes, for the first time, quantified national targets and safety performance indicators. The main target is to reduce the forecasted number of fatalities by 50% by 2020, as recommended by the United Nations.

Monitoring

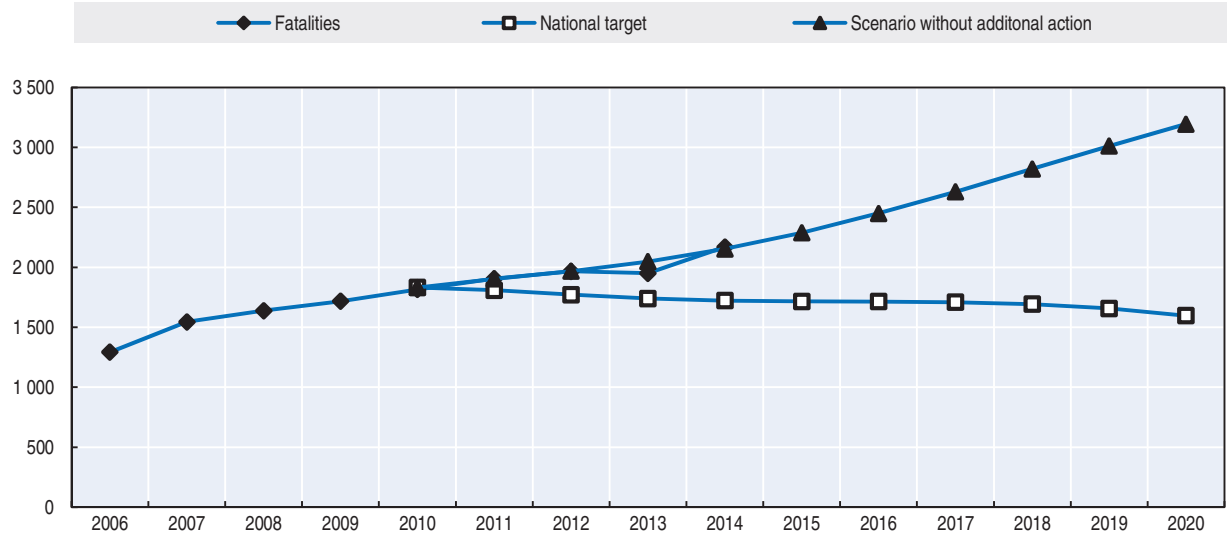
Monitoring tools have been developed in the co-operation between Cambodia and the Netherlands. The tools include:

- Analysis of data from the RCVIS:
  - fatalities and trends (by age groups, road users, provinces, etc.)
  - fatalities caused by head injuries, speeding and drink-driving.
- Observational studies:
  - helmet-wearing rate during daytime and night-time
  - drink driving measurement
  - speed measurement: average speed, percentage of drivers exceeding the limit, etc.

- Roadside surveys/interviews to improve knowledge on attitudes and practices:
  - helmet wearing
  - drink-driving
  - speeding.

It is estimated that unless additional road safety actions are taken, the number of fatalities in Cambodia will increase up to 3 200 by 2020. The target is therefore to reduce the number of fatalities to less than 1 600. If the targets is achieved progressively, 7 350 lives will be saved.

Figure 6.5. **Trends in road fatalities towards national target**



Source: RCVIS. Data are those reported by police. Actual death rates are likely to be higher.

Recent safety measures (2013-14)

Infrastructure

- Measures implemented since 2012 focus on engineering solutions to reduce speed, particularly in zones with a high volume of vulnerable road users, such as schools and residential areas.
- Black-spot improvement programmes along the national road network, as well as road safety audits, are planned.

References

Handicap International Belgium and the Institute of Mobility – Hasselt University of Belgium (2012), *Cost Analysis of Road Crashes in Cambodia*. Phnom Penh: Handicap International Belgium, 2012.

Website

- National Road Safety Committee**:** *www.nrsc.gov.kh*.