

# Cambodia Road Crash and Victim Information System



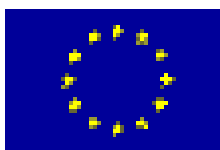
## Monthly Report January 2010



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European Union



Belgian Cooperation



World Health Organization



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# Cambodia Road Crash and Victim Information System Monthly Report – January 2010

## I. Introduction

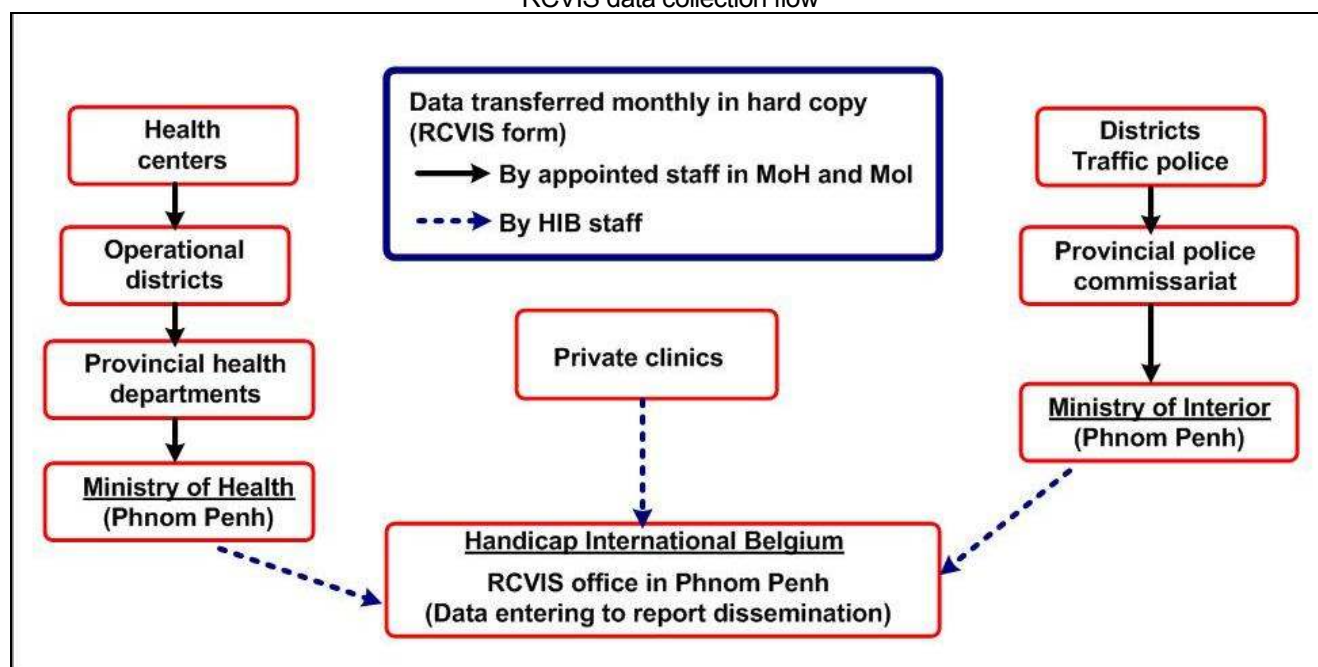
The Road Crash and Victim Information System (RCVIS) was launched in March 2004 by the **Ministry of Public Works and Transport**, the **Ministry of Interior** and the **Ministry of Health** in the framework of Action 2 (Road Accident Data Systems) of the **National Road Safety Action Plan** of the Royal Government of Cambodia, with the technical support of Handicap International Belgium.

The **objective** of the Road Crash and Victim Information System (RCVIS) is to provide government and development stakeholders in Cambodia with accurate, continuous and comprehensive information on **road traffic crashes and victims** for the purposes of increased understanding of the current road safety situation, planning appropriate responses and policy, and evaluating impact of current and future initiatives.

RCVIS collects, centralizes, analyses and disseminates information from **three different sources**:

- Traffic police.
- Public health facilities;
- Private clinics;

RCVIS data collection flow



RCVIS reports are **distributed monthly** and also available at [www.roadsafetycambodia.info](http://www.roadsafetycambodia.info)

### **Notice:**

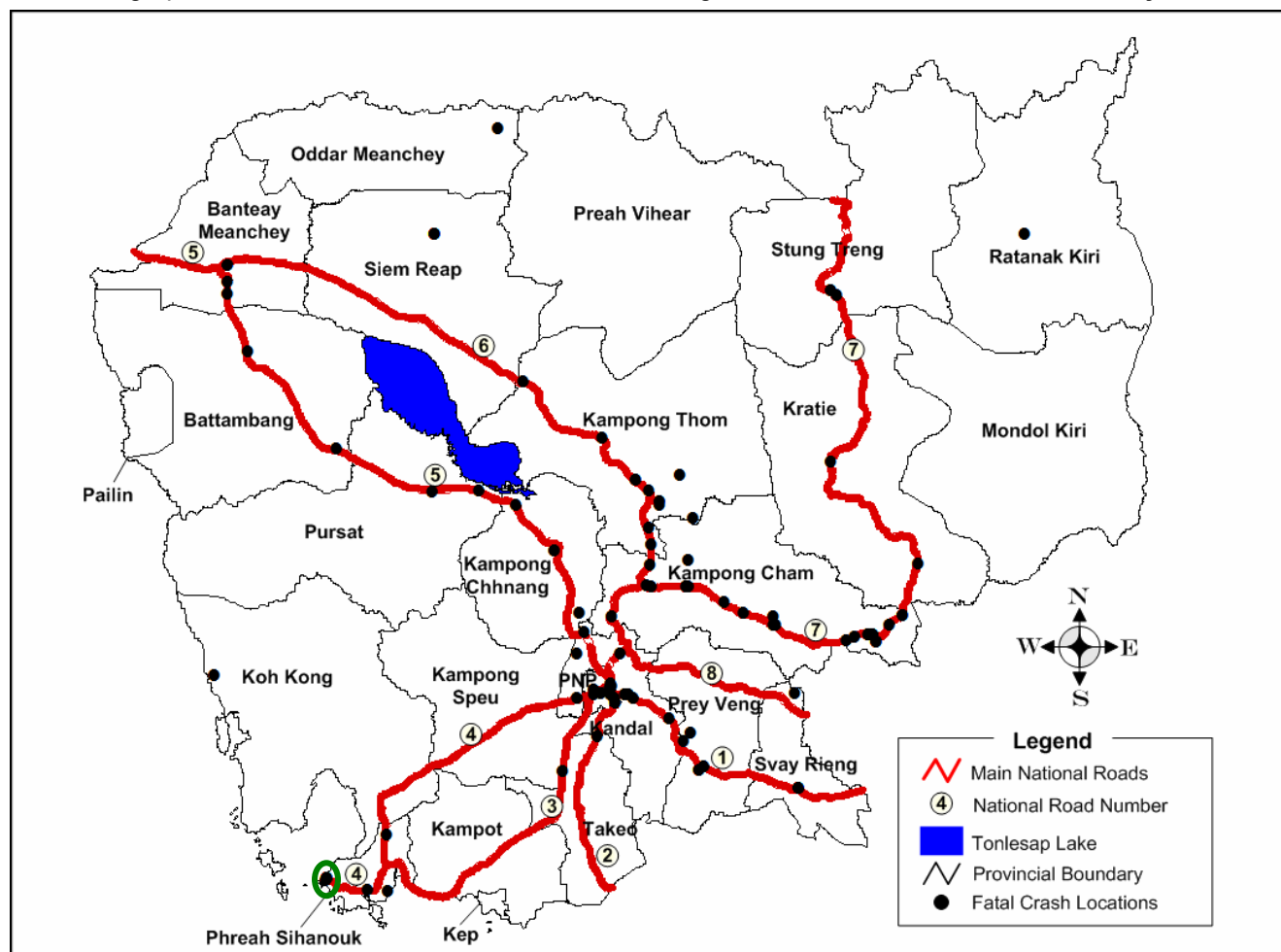
This monthly report is a snapshot of the situation at a particular time of the year. In-depth analysis is provided in the RCVIS annual reports. The annual report 2009 will be released in June 2010.

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### II. Locations of fatal crashes

GPS coordinates can be used to locate road crashes exactly into the system using GIS data and to identify blackspots along the Cambodian Road Network. 215 GPS devices and trainings were provided to traffic police in all districts of Phnom Penh and the entire national road network.

The graph below shows locations of fatal crashes along the National Road network in **January 2010**



### **O** The highest road crash fatality case in January 2010

<b>Location of crash</b>	National road 4, Sangkat Bei commune, Mittapheap district, Preah Sihanouk province
<b>Number and type of vehicles involved</b>	1 motorbike, 1 passenger vehicle (under 9 seats) and 2 goods vehicles
<b>Number of fatalities</b>	4 fatal
<b>Cause of crash</b>	Break failure
<b>Type of road</b>	Straight road
<b>Type of collision</b>	Rear-end

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### III. Executive Summary

In January 2010, a provisional number of **1,525 casualties** resulting from **717 crashes** were reported by the participating hospitals, health centres, and traffic police departments in the 24 reporting provinces. Among them, **171 were fatalities and 622 were severely injured**. **1,152 vehicles** were involved in those crashes. Compared to January 2009, the number of **fatalities increased by 10%**.

In **Phnom Penh**, only Calmette, Kuntha Bopha and National Pediatric hospital<sup>1</sup> and traffic police reported to RCVIS with total casualties of **228**. Among them, **16 died and 84 were severely injured**.

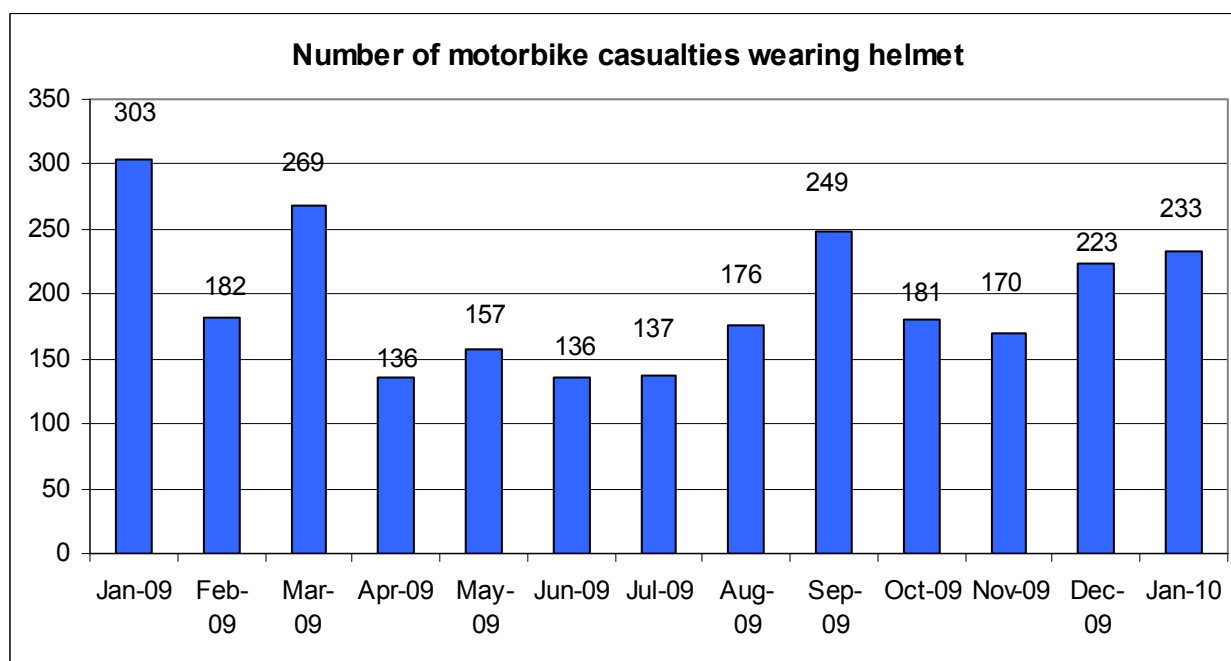
#### Key findings:

##### ○ General

- In comparison to December 2009, **the casualties increased only 7% but the fatalities increased 36%**.
- Total casualties arriving health care between 30 minutes to 1 hour **increased from 28% to 37%**, compared to December 2009, and arriving more than 2 hours decreased from 39% to 36%. On the other hand, **50% fatalities reached health care after 2 hours of crash happening**.
- **55% of casualties shared aged between 15 and 29 years old**. Among them, 30% was farmer, followed by student (25%) and worker (21%).
- **Serious crashes responsible for 52% of total crashes**, followed by 27% of fatal crashes and other 21% were slight crashes.
- More than 45% of vehicles were motorbike and 34% were passenger vehicle which involved in road crash.

##### ○ Motorbike Helmet Wearing

- **233 of motorbike casualties were wearing a helmet at the time of crashes**, this number slightly increased (4%) compared to December 2009.



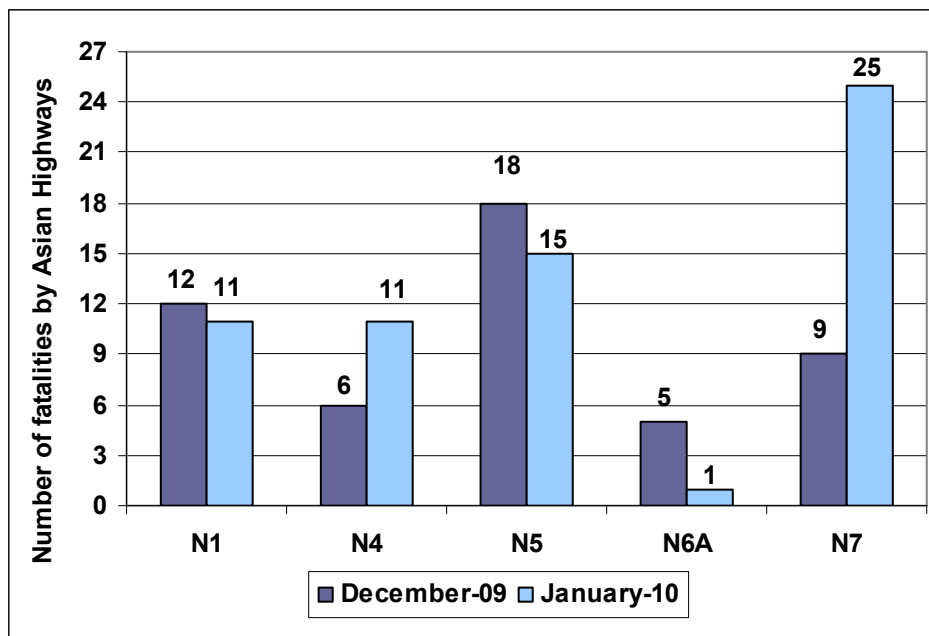
<sup>1</sup> In Phnom Penh, data from other main national hospitals did not send, such as Kossamak hospital, Khmer-Soviet hospital and Preah Ketumealea.

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### ○ Asian Highways

- 37% of fatalities were injured along the Asian highway network. Compared to December 2009, the total number of fatalities increased by 26%, a significant increase was observed at NR.7 (from 9 to 25 deaths).

Number of fatalities on Asian Highways



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**IV. Evolution of Main Indicators**

**IV.1 Victim information**

	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10
<b>Number of casualties</b>	<b>1,065</b>	<b>1,453</b>	<b>1,058</b>	<b>1,173</b>	<b>1,421</b>	<b>1,525</b>
<b>Severity of injuries</b>						
Percentage of death	12% (127 people)	9% (131 people)	10% (108 people)	8% (97 people)	9% (126 people)	11% (171 people)
Percentage of severely injured casualties (requiring surgical intervention of ICU)	36% (380 people)	38% (548 people)	41% (433 people)	35% (406 people)	37% (526 people)	41% (622 people)
Percentage of slight injury casualties	49% (525 people)	49% (706 people)	47% (496 people)	54% (632 people)	52% (736 people)	47% (723 people)
<b>Percentage of casualties' gender</b>						
Male	76%	71%	70%	76%	75%	75%
Female	24%	29%	30%	24%	25%	25%
<b>Percentage of casualties' age</b>						
0-4	3%	3%	3%	3%	3%	2%
5-9	4%	5%	4%	4%	4%	4%
10-14	3%	3%	4%	4%	3%	4%
15-19	14%	15%	17%	16%	14%	16%
20-24	23%	26%	23%	21%	22%	22%
25-29	17%	14%	14%	16%	16%	17%
30-34	10%	7%	8%	8%	7%	8%
35-39	6%	6%	7%	7%	8%	6%
40-44	6%	6%	5%	7%	7%	6%
>=45	15%	15%	15%	15%	16%	14%
<b>Percentage of type of road user</b>						
Driver	58%	58%	56%	59%	61%	61%
Passenger	35%	33%	33%	33%	32%	32%
Pedestrian	7%	9%	11%	8%	7%	7%
<b>Percentage of casualties by type of transport</b>						
Motorbike rider	77%	76%	74%	79%	70%	72%
Passenger vehicle rider	7%	7%	7%	4%	12%	9%
Bicycle rider	3%	4%	4%	5%	5%	4%
<b>Percentage of casualties' occupation</b>						
Student	16%	21%	22%	22%	24%	21%
Farmer	30%	32%	31%	34%	20%	32%
Worker	23%	16%	17%	14%	16%	15%
House keeper	4%	4%	4%	3%	4%	4%
Vendors/small businesses owner	6%	6%	5%	4%	6%	6%
Child	4%	4%	4%	3%	4%	3%
Motorbike taxi	4%	3%	2%	3%	3%	2%
<b>Safety Measures</b>						
Percentage of 4-wheeler driver having a driving licence	52%	17%	13%	70%	33%	67%
Percentage of motorbike casualties wearing a helmet	24%	26%	26%	22%	27%	23%
Percentage of motorbike casualties suffering from cranial trauma	45%	36%	39%	37%	34%	30%
Percentage of drivers having alcohol abuse	32%	27%	23%	28%	13%	31%
<b>Time to transfer casualties to hospital after crashes</b>						
Less than 10 minutes	4%	5%	5%	4%	2%	2%
Between 10 and 30 minutes	26%	22%	27%	31%	28%	37%
Between 30 minutes and 1 hour	12%	15%	16%	15%	16%	12%
Between 1 hour and 2 hours	14%	16%	15%	18%	15%	13%
More than 2 hours	44%	43%	37%	32%	39%	36%
<b>Ways to transfer casualties to hospital</b>						
By Samu/ambulance	42%	40%	36%	36%	37%	37%
By their private transportation	50%	60%	64%	64%	63%	63%
<b>Percentage of casualties received first aid during having crashes</b>	40%	36%	44%	28%	36%	35%
<b>Percentage of casualties was provided first aid by</b>						
Traffic polices	65%	62%	71%	64%	52%	65%
Royal arm forces	0%	0%	0%	1%	1%	0%
Samu/Ambulance staffs	22%	23%	21%	19%	27%	20%
<b>Percentage of casualties received first aid on</b>						
Bleeding	19%	28%	32%	24%	29%	27%
Unconsciousness	21%	23%	15%	16%	15%	17%
Wound	19%	19%	18%	25%	22%	21%
Broken bond	12%	17%	15%	14%	20%	15%
How to transfer victim	25%	10%	20%	16%	11%	16%
<b>Attendance of police</b>						
Percentage of cases were police was present on the crash site	87%	86%	88%	86%	81%	88%



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**IV.2 Crashes and vehicle information<sup>2</sup>**

	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10
<b>Number of crashes</b>	<b>399</b>	<b>724</b>	<b>531</b>	<b>643</b>	<b>717</b>	<b>717</b>
<b>Number of vehicle involved</b>	<b>934</b>	<b>1,206</b>	<b>986</b>	<b>1,068</b>	<b>1,200</b>	<b>1,152</b>
<b>Percentage of vehicle involved</b>						
Bicycle	4% (37)	5% (56)	5% (46)	5% (51)	6% (68)	3% (37)
Motorbike	66% (613)	72% (870)	64% (630)	67% (719)	67% (807)	49% (568)
Passenger vehicle	17% (162)	16% (192)	23% (230)	17% (184)	18% (220)	34% (392)
Good vehicle	9% (82)	1% (9)	2% (16)	7% (72)	5% (63)	8% (95)
Agriculture vehicle	2% (15)	1% (10)	1% (5)	2% (25)	3% (35)	4% (47)
<b>Day of crash</b>						
Percentage of crashes occurred during the weekend (from Friday 6 pm to Sunday midnight)	40%	32%	39%	42%	38%	41%
<b>Time of crash</b>						
Percentage of crashes occurred during nighttime (from 6 pm to 5.59 am)	48%	40%	41%	45%	44%	48%
Peak(s) of crashes	7pm-8pm	7pm-8pm	6pm-7pm	6pm-7pm	6pm-7pm	6pm-7pm
<b>Cause of crash</b>						
Percentage of crashes occurred due to human error	98%	98%	97%	97%	97%	97%
High speed	49%	51%	53%	51%	55%	49%
Alcohol abuse	14%	12%	10%	11%	9%	14%
Non respect of rights of way rules	13%	14%	13%	16%	12%	14%
Dangerous overtaking	10%	9%	8%	8%	9%	9%
Changing direction without due care	4%	5%	4%	2%	2%	4%
Driving against flow of traffic	2%	2%	3%	3%	1%	3%
Other	6%	5%	6%	6%	9%	4%
Percentage of crashes due to vehicle defect	4%	2%	3%	3%	1%	2%
Percentage of crashes due to road conditions	2%	2%	3%	2%	2%	2%
Percentage of crashes due to weather conditions	1%	1%	0%	0%	0%	1%
<b>Type of collisions</b>						
Head-on	25%	31%	25%	28%	28%	30%
Rear-end	18%	16%	16%	17%	16%	15%
Right-angle	27%	27%	30%	25%	26%	25%
Side-swipe	8%	8%	4%	10%	5%	9%
Single vehicle	5%	6%	5%	3%	6%	4%
Hit pedestrian	7%	5%	13%	9%	11%	10%
<b>Hit and Run crashes</b>	24%	26%	29%	21%	28%	28%
<b>Percentage of four-wheeler vehicles with</b>						
Left-hand-drive	66%	81%	79%	89%	81%	81%
Right-hand-drive	14%	19%	21%	11%	19%	19%
<b>Percentage of crashes occurred in urban areas</b>	31%	36%	40%	35%	33%	33%
<b>Type of roads</b>						
Percentage of crashes occurring on national roads	66%	58%	65%	58%	62%	60%
Percentage of crashes occurring on provincial roads	9%	12%	11%	16%	11%	14%
Percentage of crashes occurring on local/track roads	13%	14%	13%	16%	17%	13%
<b>Percentage of crashes occurring on paved roads</b>	86%	83%	85%	77%	78%	83%
<b>Characteristics by type of roads</b>						
Percentage of crashes occurring on straight roads	80%	74%	79%	81%	78%	79%
Percentage of crashes occurring on junctions (X, T, Y- junctions and roundabout)	11%	17%	14%	13%	13%	11%
Percentage of crashes occurring on curves roads	7%	9%	7%	5%	9%	7%

<sup>2</sup> The number of crashes and vehicles involved are estimated based on data from both sources: traffic police and health facilities.



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**V. Data by Provinces<sup>3</sup>**

	Oct-09					Nov-09					Dec-09					Jan-10				
Number of casualties	1,058					1,173					1,421					1,525				
Severity of injuries	Slight	Severe	Death	Unknown	Total	Slight	Severe	Death	Unknown	Total	Slight	Severe	Death	Unknown	Total	Slight	Severe	Death	Unknown	Total
Banteay Meanchey	54	43	14	0	111	37	19	6	0	62	52	28	6	0	86	44	34	9	0	87
Battambang	24	19	7	0	50	43	18	6	3	70	41	25	3	0	69	42	36	4	1	83
Kampong Cham	80	35	10	4	129	67	40	7	7	121	94	56	23	9	182	59	55	31	0	145
Kampong Chhnang	37	7	1	2	47	41	16	3	5	65	56	13	7	1	77	41	13	6	0	60
Kampong Speu	6	5	1	1	13	9	11	1	0	21	12	11	5	6	34	6	11	11	0	28
Kampong Thom	7	10	5	0	22	11	9	3	0	23	62	48	8	0	118	17	22	14	0	53
Kampot	21	41	2	3	67	35	22	3	1	61	34	23	2	2	61	14	21	2	0	37
Kandal	50	41	12	3	106	69	49	14	2	134	74	36	16	2	128	78	59	15	1	153
Kep	9	5	2	0	16	7	1	0	0	8	6	5	0	0	11	4	2	0	0	6
Koh Kong	13	6	1	0	20	14	2	1	0	17	11	4	0	0	15	24	9	1	0	34
Kratie	20	20	6	0	46	14	19	6	0	39	5	7	4	0	16	17	20	13	0	50
Mondol Kiri	0	2	0	1	3	5	2	1	3	11	2	2	0	0	4	0	1	1	0	2
Pailin	6	2	0	0	8	13	5	0	0	18	8	12	1	0	21	4	4	0	0	8
Phnom Penh	27	39	21	2	89	41	44	18	0	103	77	31	6	1	115	124	84	16	4	228
Preah Vihear	6	5	0	0	11	14	3	0	1	18	14	18	3	0	35	8	18	1	0	27
Prey Veng	11	19	0	0	30	21	10	4	0	35	21	22	8	0	51	21	10	8	0	39
Pursat	14	13	10	0	37	20	16	7	0	43	23	20	7	0	50	21	20	5	0	46
Ratanak Kiri	6	5	3	0	14	0	1	0	0	1	12	10	2	1	25	16	6	1	1	24
Siem Reap	30	61	4	1	96	48	55	3	8	114	41	77	9	0	127	56	100	7	1	164
Preah Sihanouk	16	19	2	1	38	15	14	0	0	29	15	11	0	0	26	15	25	8	0	48
Stung Treng	14	6	0	0	20	18	7	2	0	27	10	9	4	1	24	21	17	3	0	41
Svay Rieng	24	16	5	2	47	29	17	5	5	56	40	28	6	2	76	42	27	7	1	77
Takeo	7	9	1	1	18	17	12	3	0	32	25	26	6	8	65	41	23	7	0	71
Oddar Meanchey	13	4	1	0	18	44	14	4	3	65	0	3	0	0	3	8	5	1	0	14
Unidentified province	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0
<b>Sub total</b>	<b>496</b>	<b>433</b>	<b>108</b>	<b>21</b>	<b>1,058</b>	<b>632</b>	<b>406</b>	<b>97</b>	<b>38</b>	<b>1,173</b>	<b>736</b>	<b>526</b>	<b>126</b>	<b>33</b>	<b>1,421</b>	<b>723</b>	<b>622</b>	<b>171</b>	<b>9</b>	<b>1,525</b>

<sup>3</sup> January monthly data does not include data from health facilities in Oddar Meanchey, Banteay Meanchey, Kampong Speu, Kampong Thom, Kandal, Kampot, Koh Kong, Kratie, Mondul Kiri, Kep, Kratie, Pailin, Preah Vihear, Pursat, Stung Treng and Takeo. Because it has been sent later than the report release, it will be entered and analyzed in the 2010 annual report.



## Cambodia Road Crash and Victim Information System Monthly Report – January 2010

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### Contacts

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**Further analysis** and **additional information** is available on request. Please do not hesitate to contact one of the following persons

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