

# Road safety risk mapping for international business travelers: experience from the World Bank Group (WBG)

**Joint Bank Group/Fund Health Services Department**

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# Exposure of WBG staff to road safety risk

## Mission Travelers (2009 data)

- Business travelers 75% of WBG staff
- Number of missions/year 36,394
- Days on missions/year 333,432
- Destinations :  
Developing countries- Trend of increasing road safety risk  
(Traffic fatalities and economic growth. Kopits E, Cropper M. Accid Anal Prev. 2005 Jan;37(1):169-78.)

## Staff in Country Offices:

33% of WBG employees in 124 countries

# Methodology

## Staff survey

Responses collected	3,760
Gender	48% male
Base	44% in Country Offices
Travelers	86%

## Data collected

Location and circumstances of crashes and near-crashes

## Results

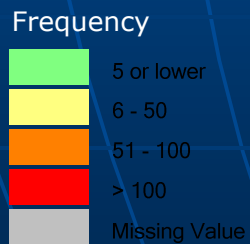
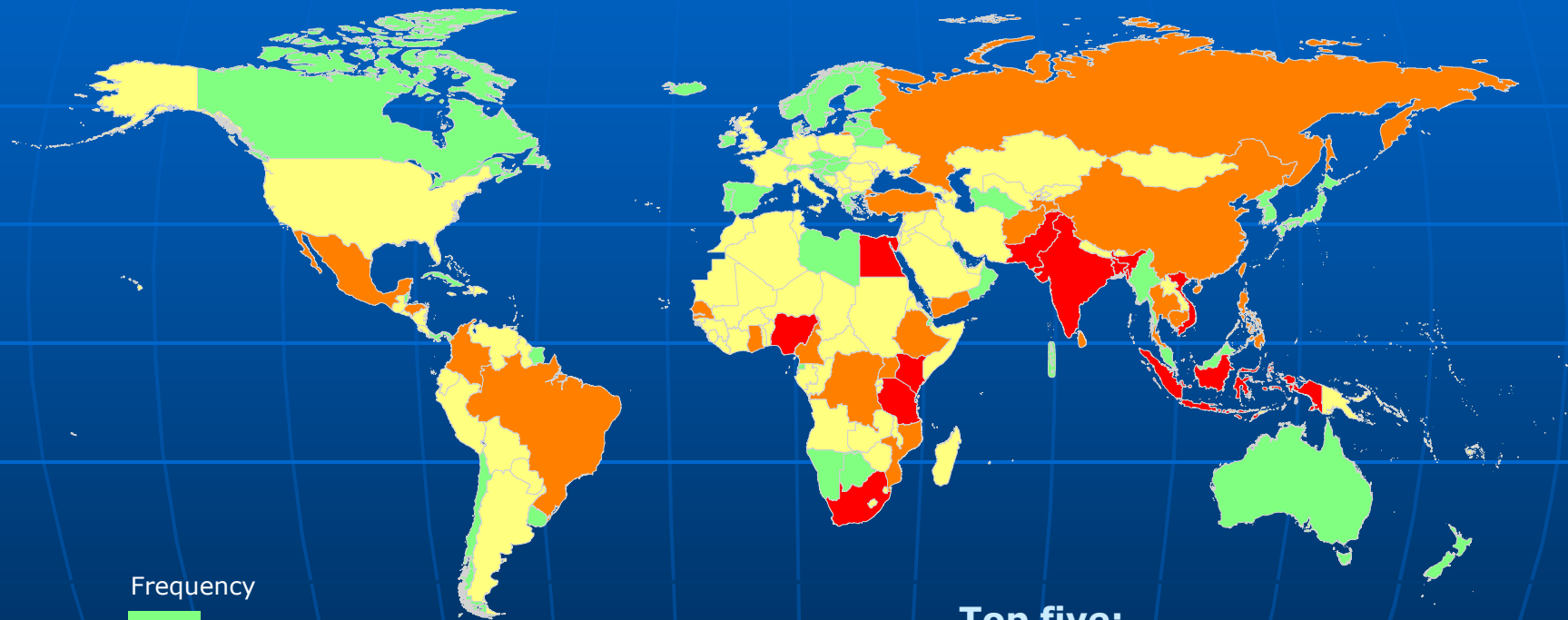
- Number of crashes and near-crashes on missions (2005- 2007)
  - 341 road crashes => 1 crash per 175 missions
  - 4,100 near crashes => 1 near crash per 15 missions
- Two and more factors contributing to crash: 50%
- Most often reported: driver's decision error, speeding, road/weather conditions
- 50% reported incidents in taxis, 20% in WBG's cars
- 40% of victims reported NOT wearing seat-belts at the time of their crash

# Road safety risk indicators

1. Number of crashes
2. Number of near-crashes
3. Perception of risk
4. Incidence rate of crashes
5. Incidence rate of near crashes
6. Five risk indicator
7. Incidence rate of crashes and near crashes
8. Sum of crashes and near crashes

# Perception of road safety risk by country

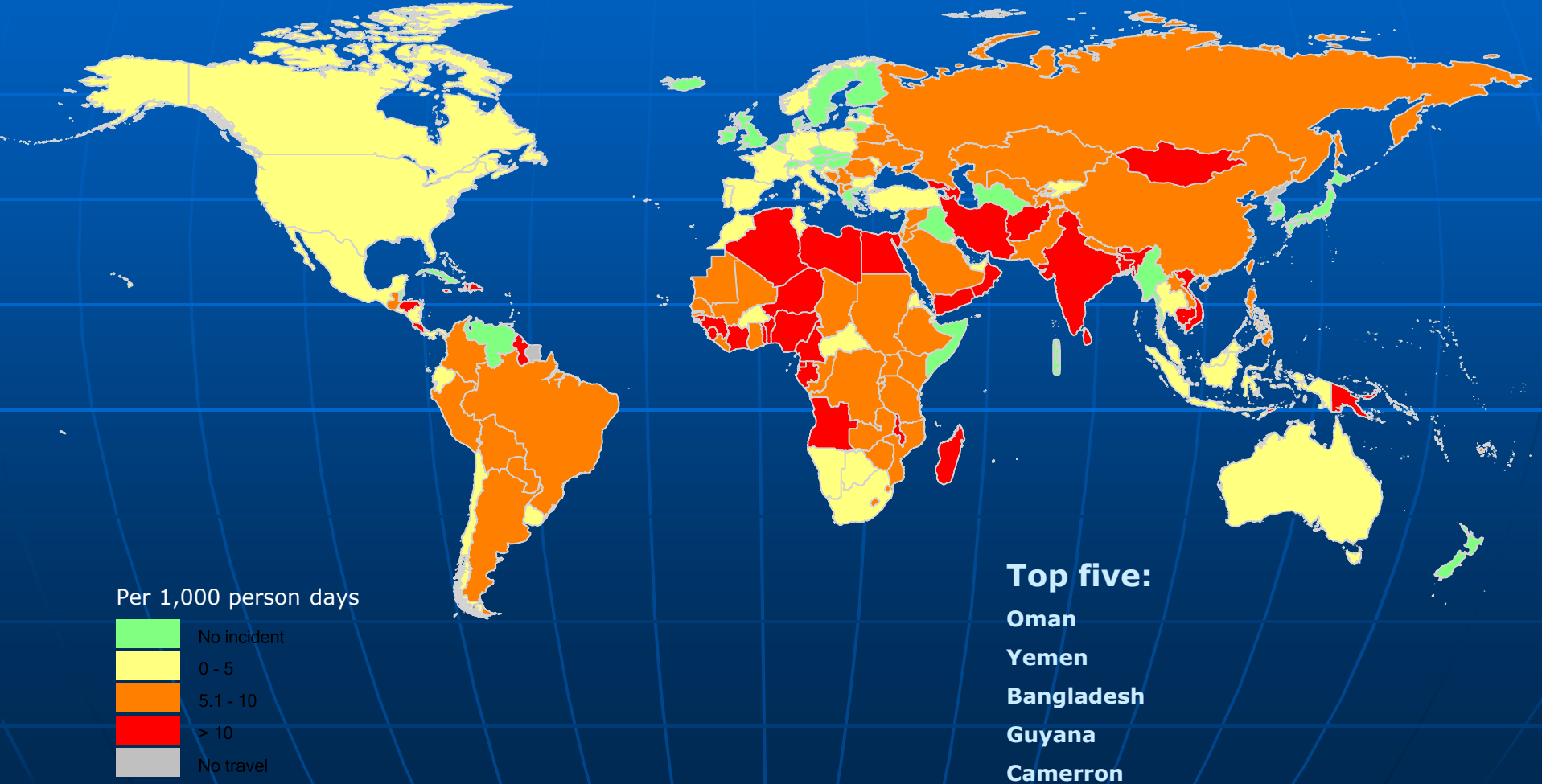
Q: Please check all the countries where you FELT MORE AT RISK from the road safety viewpoint while traveling on mission in the past 3 years



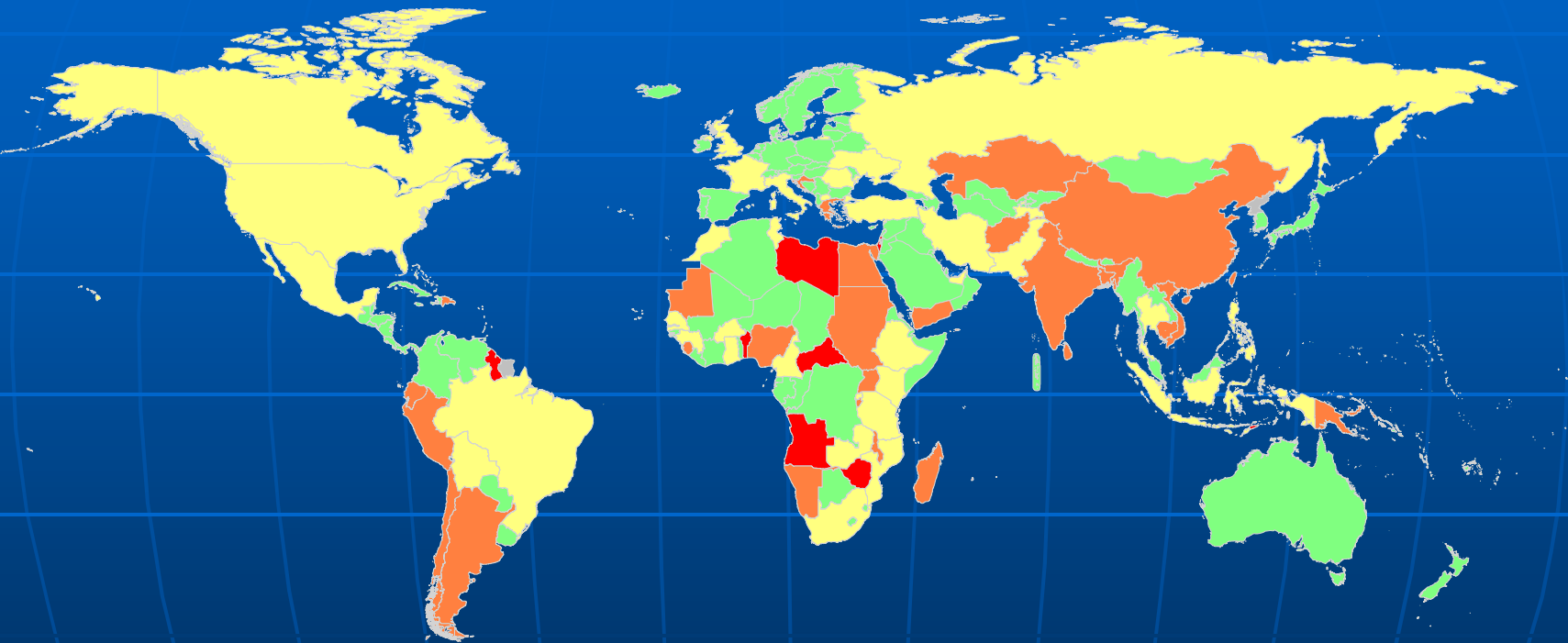
## Top five:

India  
Kenya  
South Africa  
Egypt  
Nigeria

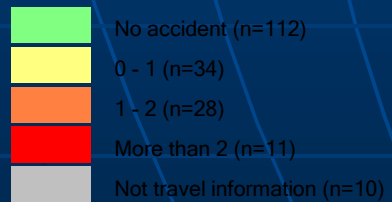
# Incidence rates of near crashes by country



# Incident rates of road crashes by country



Per 1,000 person days

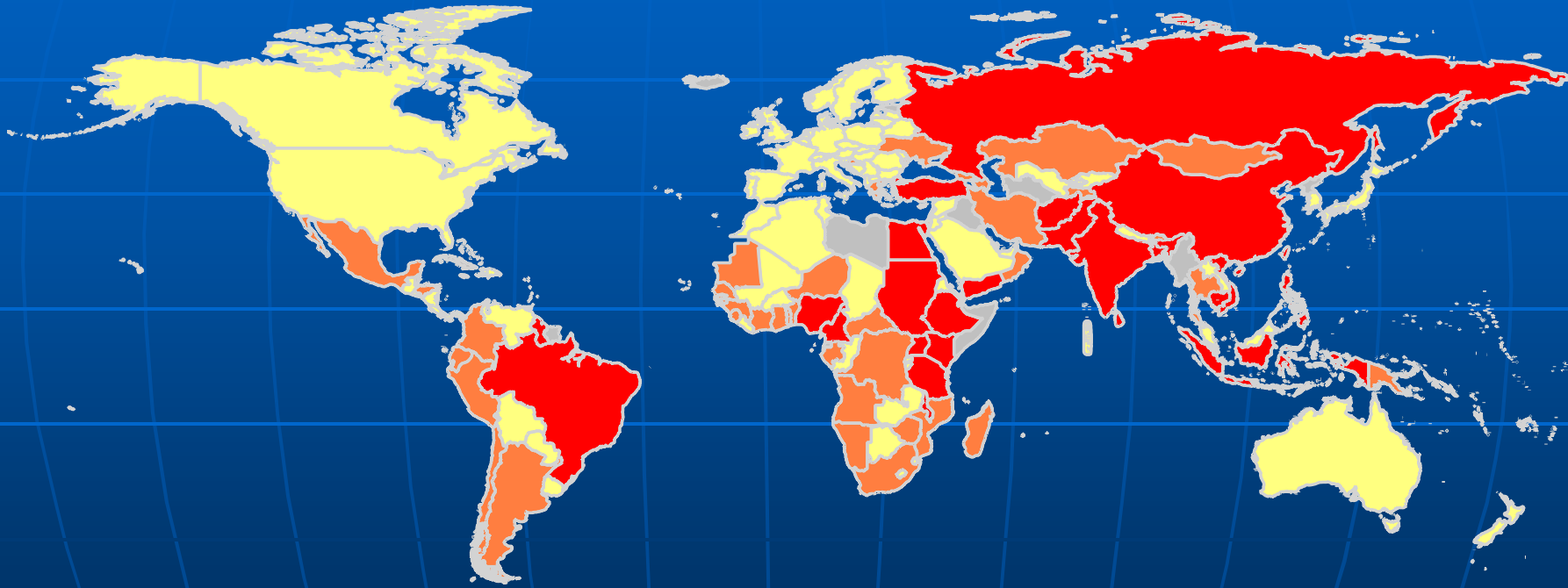


**Top five:**

Bahrain  
Guyana  
Mauritius  
Saint Lucia  
Zimbabwe

# Five indicators map-

incidence of near crashes, incidence of crashes, safety concerns, number of near-crashes, number of crashes



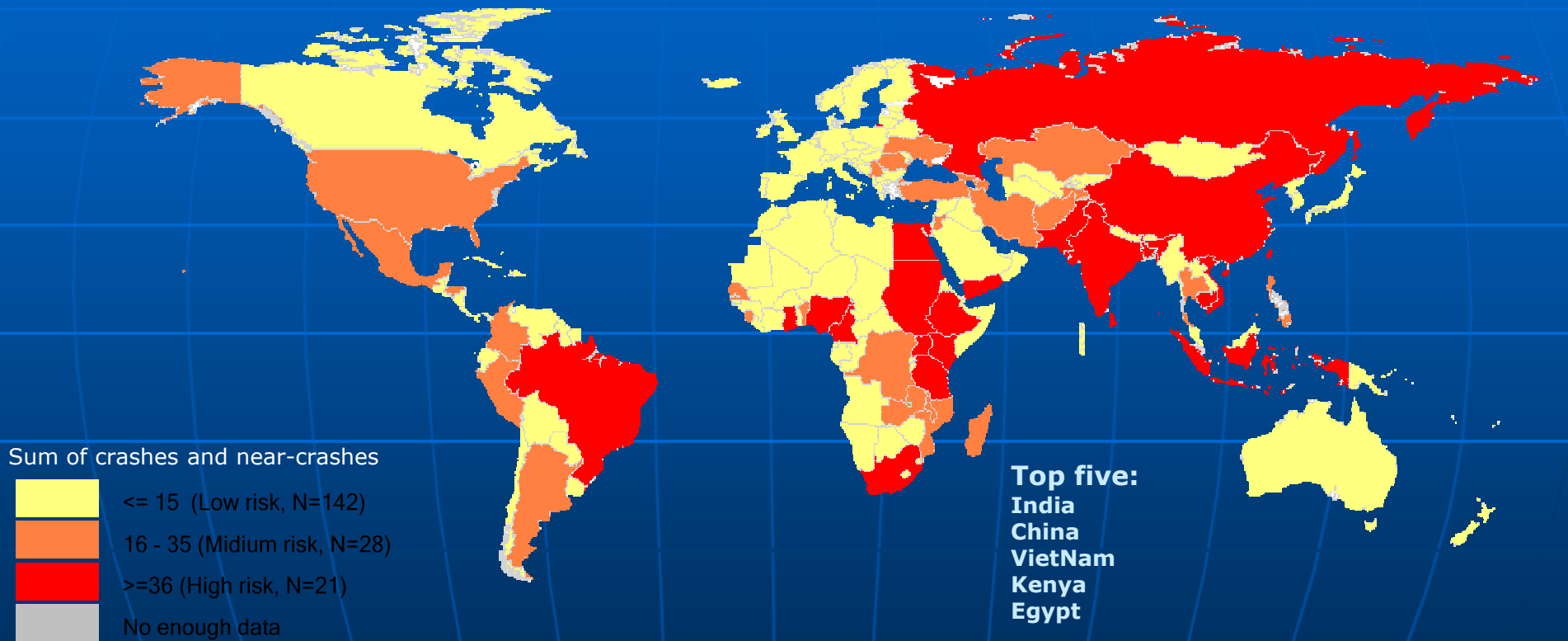
Number of indicators

Yellow	0 - 0
Orange	1 - 2
Red	3 - 5
Grey	No enough travel data

**Top six:**  
Afghanistan  
Bangladesh  
Cambodia  
Egypt  
China  
India



# Sum of crashes and near-crashes



**Top 15 countries accounted for 50% (1,395) of all reported crashes and near-crashes and 78% of fatalities (7/9)**

## How to improve road safety risk mapping system?

- Harmonization of data collection process
- Agreement on the content of the reporting systems (crashes AND near-crashes)
- Improvement of road safety risk exposure indicators for international travelers
- Development of the common risk mapping methodology

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