

Understanding Traffic Safety Culture of Thai Youngsters

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A banner for the 14th ATRANS Annual Conference. The background is a blue-tinted image of a city skyline with a construction crane. The text is in orange and yellow. The main title is "14TH ATRANS ANNUAL CONFERENCE". Below it is the subtitle "TRANSPORTATION FOR A BETTER LIFE:". At the bottom is the theme "“FUTURE POTENTIAL OF TRANSPORTATION AND URBAN MODEL POST COVID ERA”".

14TH ATRANS ANNUAL CONFERENCE
TRANSPORTATION FOR A BETTER LIFE:
“FUTURE POTENTIAL OF TRANSPORTATION AND URBAN MODEL POST COVID ERA”

Background

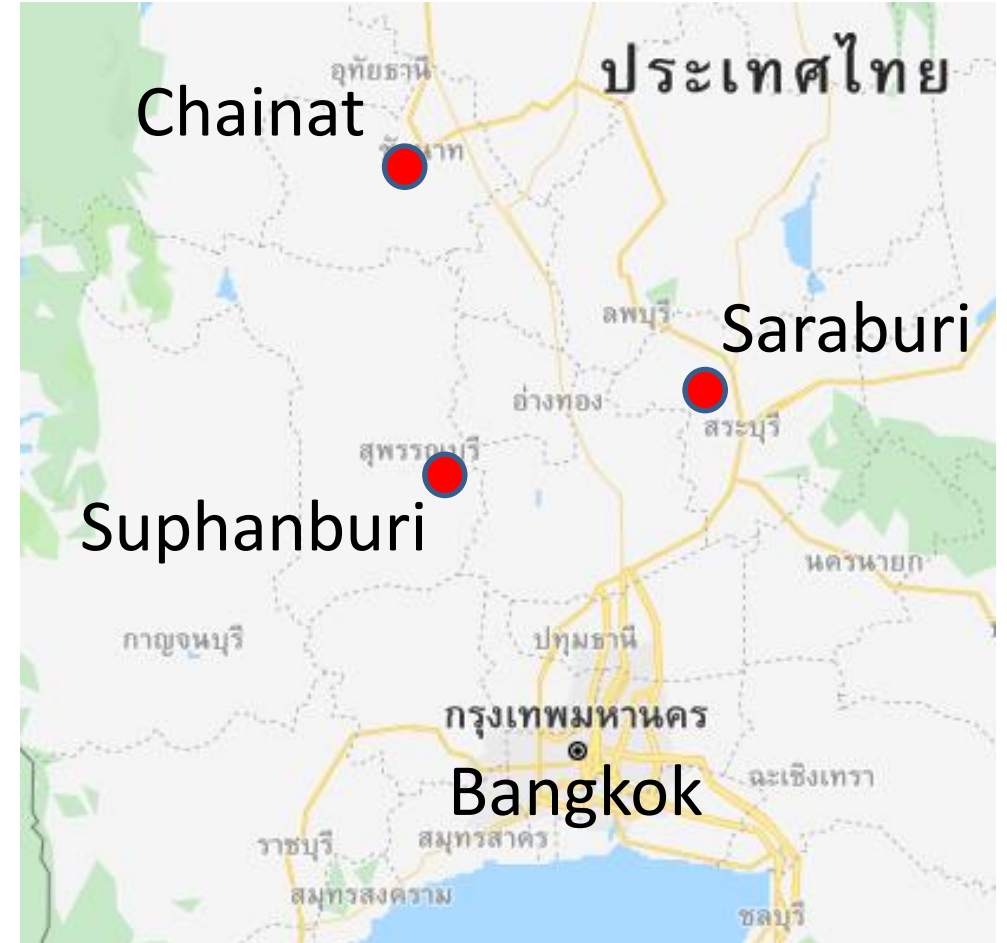
- Very high road traffic fatality rate in Thailand
- **Unsafe driving behavior** is the main cause of crashes
- \approx 70% of deaths are **motorcyclists**
- High proportion of **youngsters**
- Improving driving behaviour can decrease fatality rate significantly
- **BUT, how to manage change in unsafe driving behaviour?**

Related ATRANS Research Projects

- ATRANS Safety Map Application (2018-2020)
 - Project leader: Assoc.Prof.Dr Paramet Luathep
- Youngsters' driving behaviour (2017-2018)
- Road safety education for youngsters (2018-2020)
- Safe Routes to School Program in Thailand (2021-2022)

Case studies

- **Saraburi** - Thaluang Cementhaianusorn Technical College
- **Suphanburi** - Suphanburi Technical College
- **Chainat** - Chainat Technical College



Three key elements

1. Youngsters' driving behaviours
2. Stakeholders and Social norms
3. Infrastructure Systems

1. YOUNGSTERS' DRIVING BEHAVIOURS

Youngsters and road traffic crashes

Situation

- MC use is common
- No competitive transport mode to MC
- 80% use MC to schools
- MC use starting 10-11 years old
- $\approx 2/3$ no driving licence
- No proper road safety education



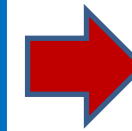
Perception

- $\approx 30\%$ perceive road crash as a serious problem
- Traffic congestion is perceived much more serious



Behaviour

- 1/3 always wear helmet
- Speeding
- Drink & Drive



Results

- $\approx 60\%$ ever involving road traffic crashes

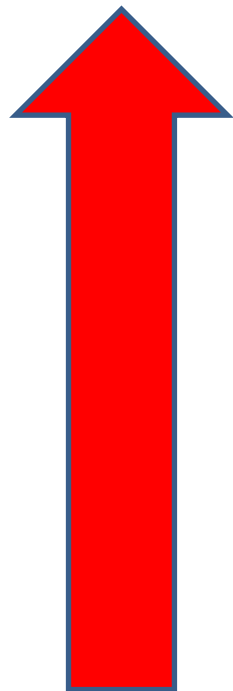
Based on the survey of youngsters (15-24 years old) in Saraburi and Suphanburi during 2018-2021

Changing unsafe behaviours

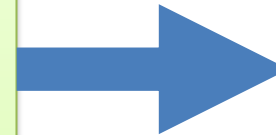
- **Top 2 risky behaviours** – no helmet wearing and speeding
 - Not wearing helmet when riding for short distance or on a small road
 - Speeding behaviour because of time saving, fun, available road condition and habit
- **Enforcement** by police is effective in short term
- **Education** is for long term
 - But providing knowledge of traffic rules and driving skills is not enough
 - Typical campaigns (TV, roadside messages, ...) is unlikely to influence behaviour (only intention)

2. STAKEHOLDERS AND SOCIAL NORMS

Actions and Interactions among Stakeholders



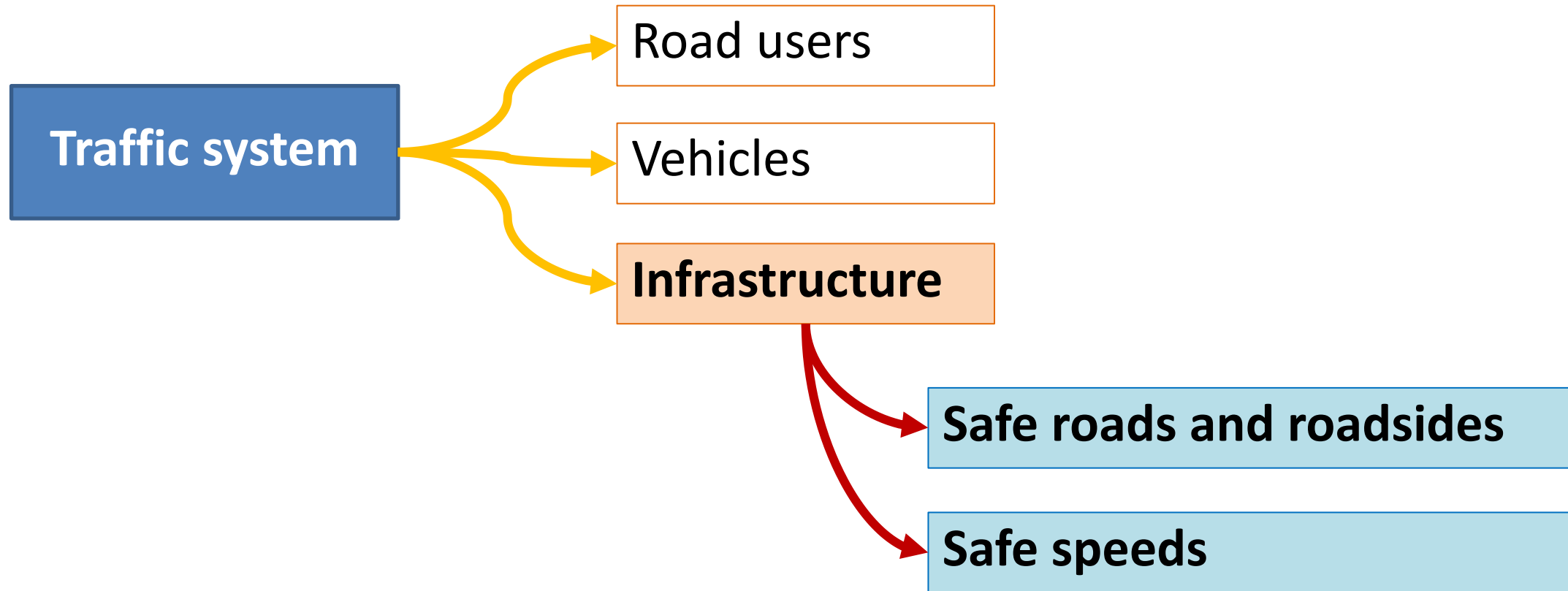
- Individuals
- Families/Peers
- Schools/workplaces
- Communities
- Government agencies
- Leaders



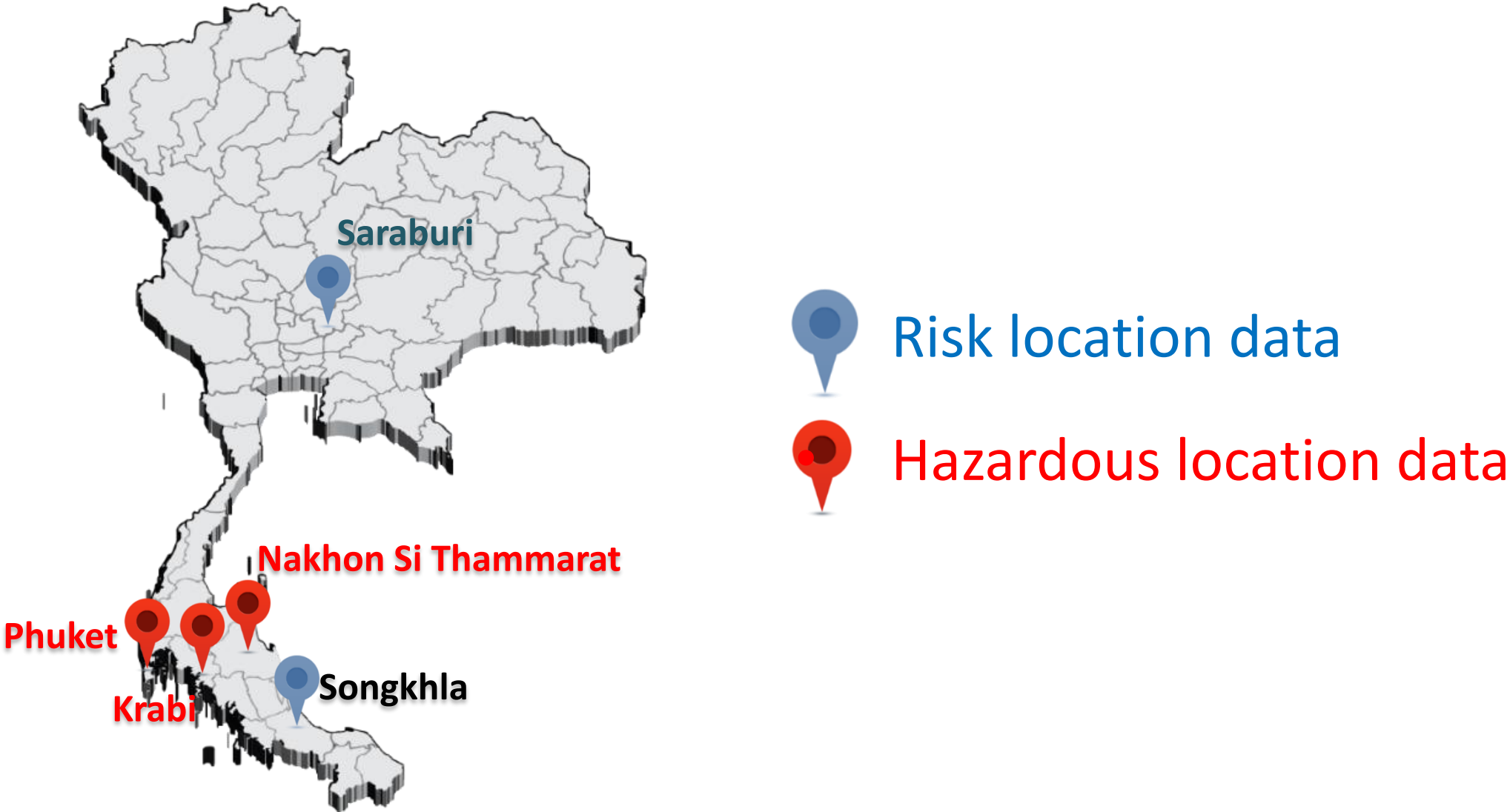
Social norms

3. INFRASTRUCTURE SYSTEMS

Safe Infrastructure system

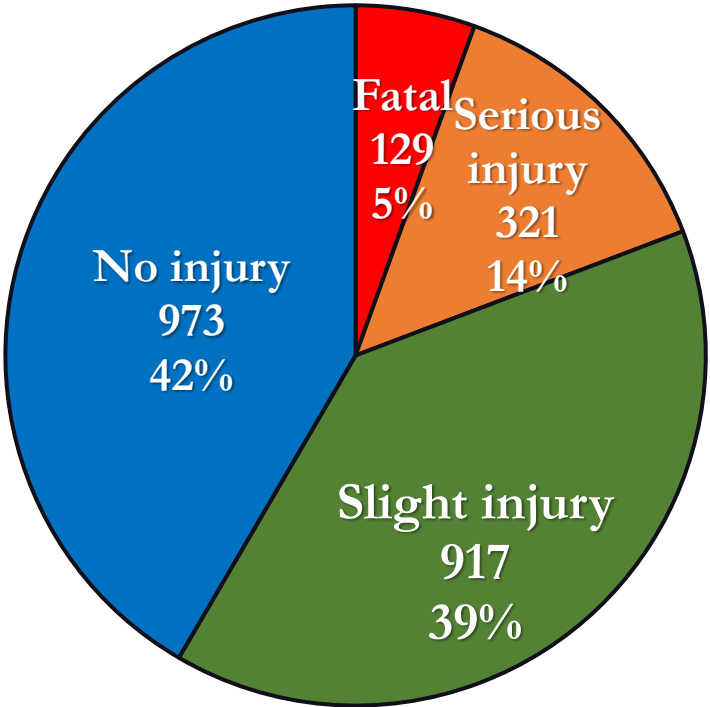


Data collected in ATRANS Safety Map App. (2018-2020)

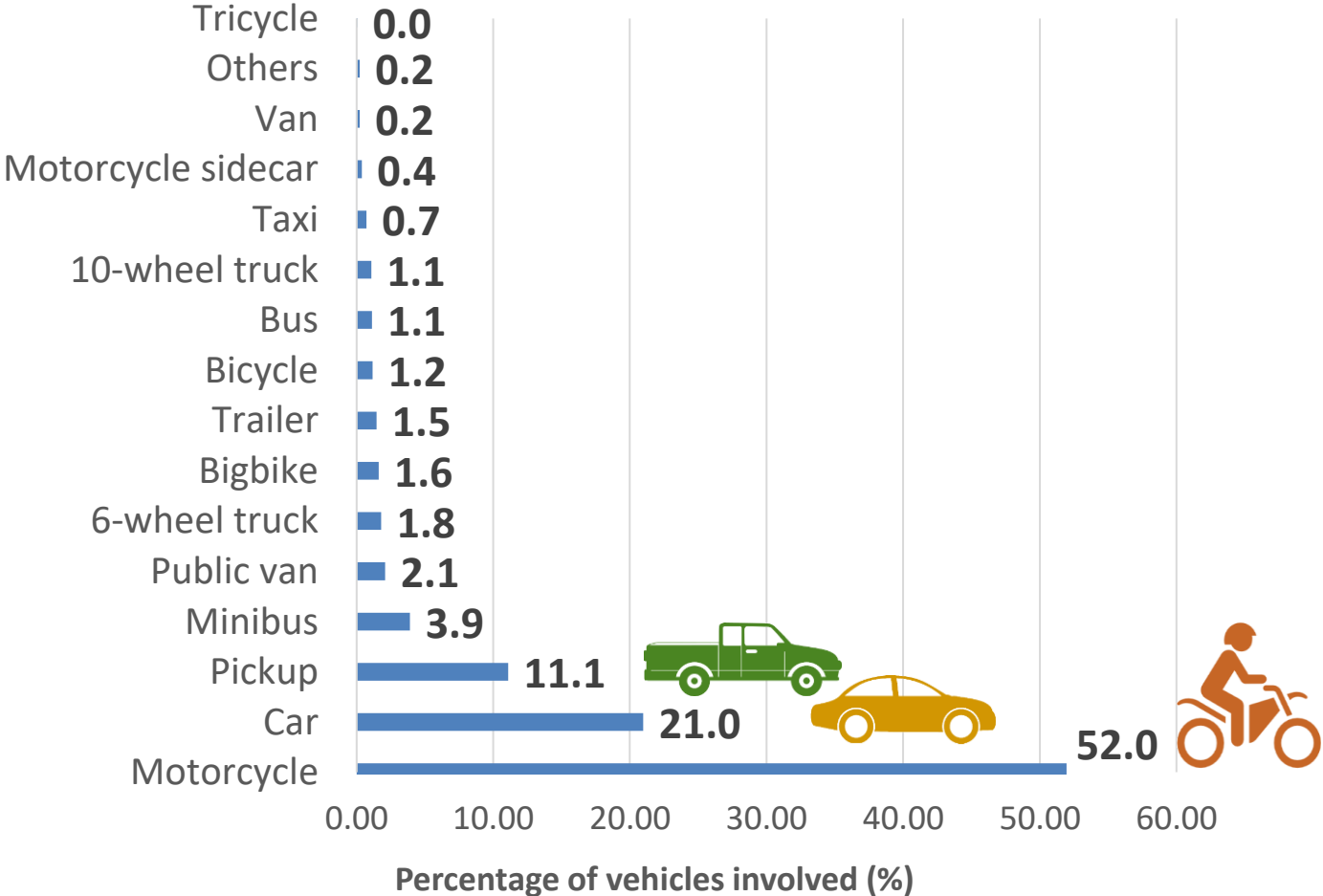


Crash data

- 3-year crash data (2018-2020)
- 1,171 crashes, resulting in 2,340 casualties and 2,044 vehicles
- More than half of the casualties are motorcyclists (52%)



2,340 casualties



Influencing behaviour change by design

- Arterial roads in developed areas
- Geometric roadway design – alignment and profile
- Safety devices – e.g., warning sign, barrier, delineator
- Road surface and drainage
- Night-time
- Speeding – self-explaining road and forgiving road and roadside

Based on the analysis of 3-year crash data (2018-2020) from ATRANS Safety Map App.

Perceptions on routes to school

Existing routes

- Fully with cars and trucks
- Speeding cars and trucks
- Shortest route
- Convenient
- Unsafe to travel

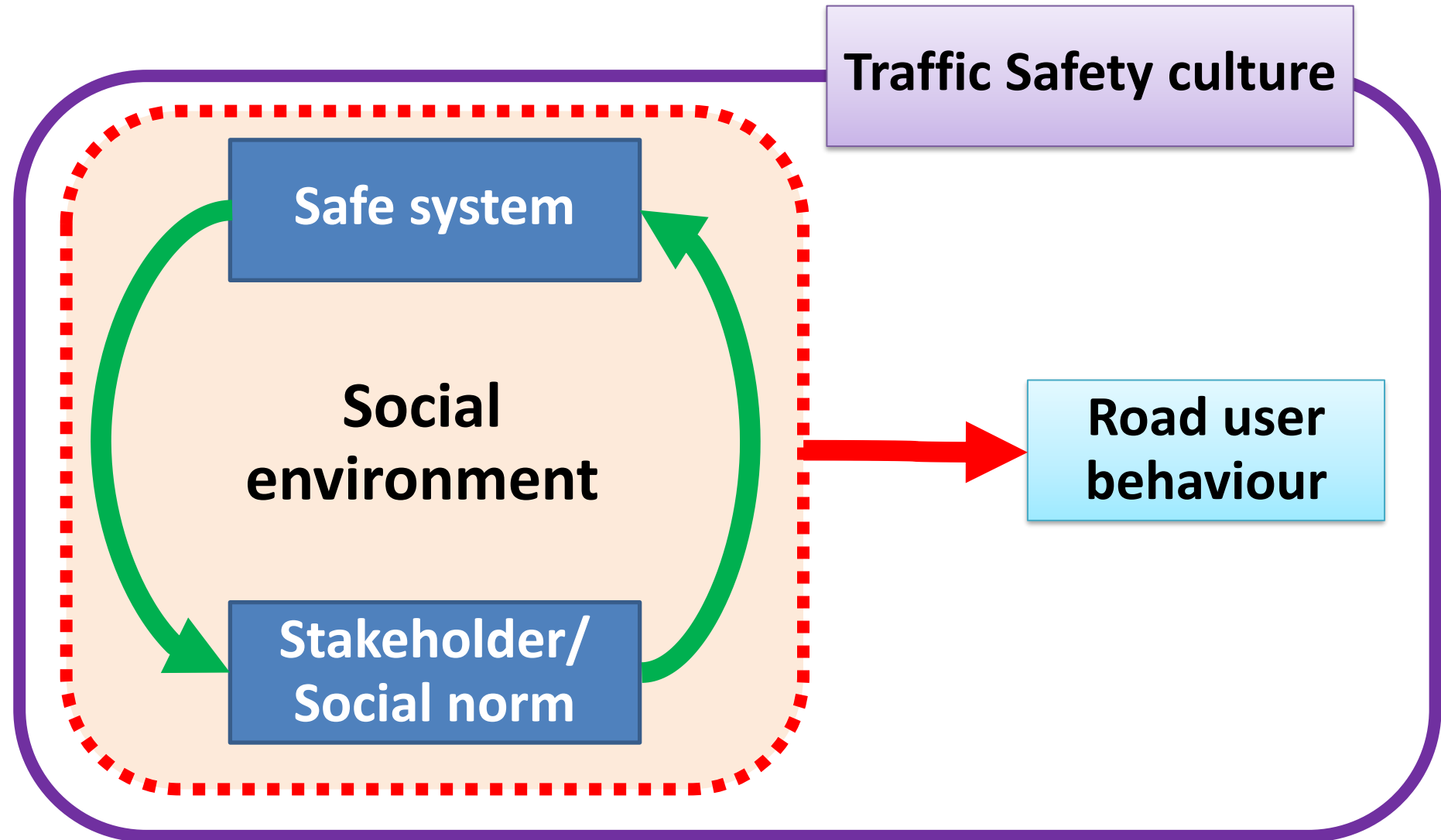
Needs

- Safe and convenient pedestrian crossing
- Safe and convenient motorcycle lane
- Standard bus service
- Route with shady trees
- Safe and convenient bike lane
- Safe and convenient walking route

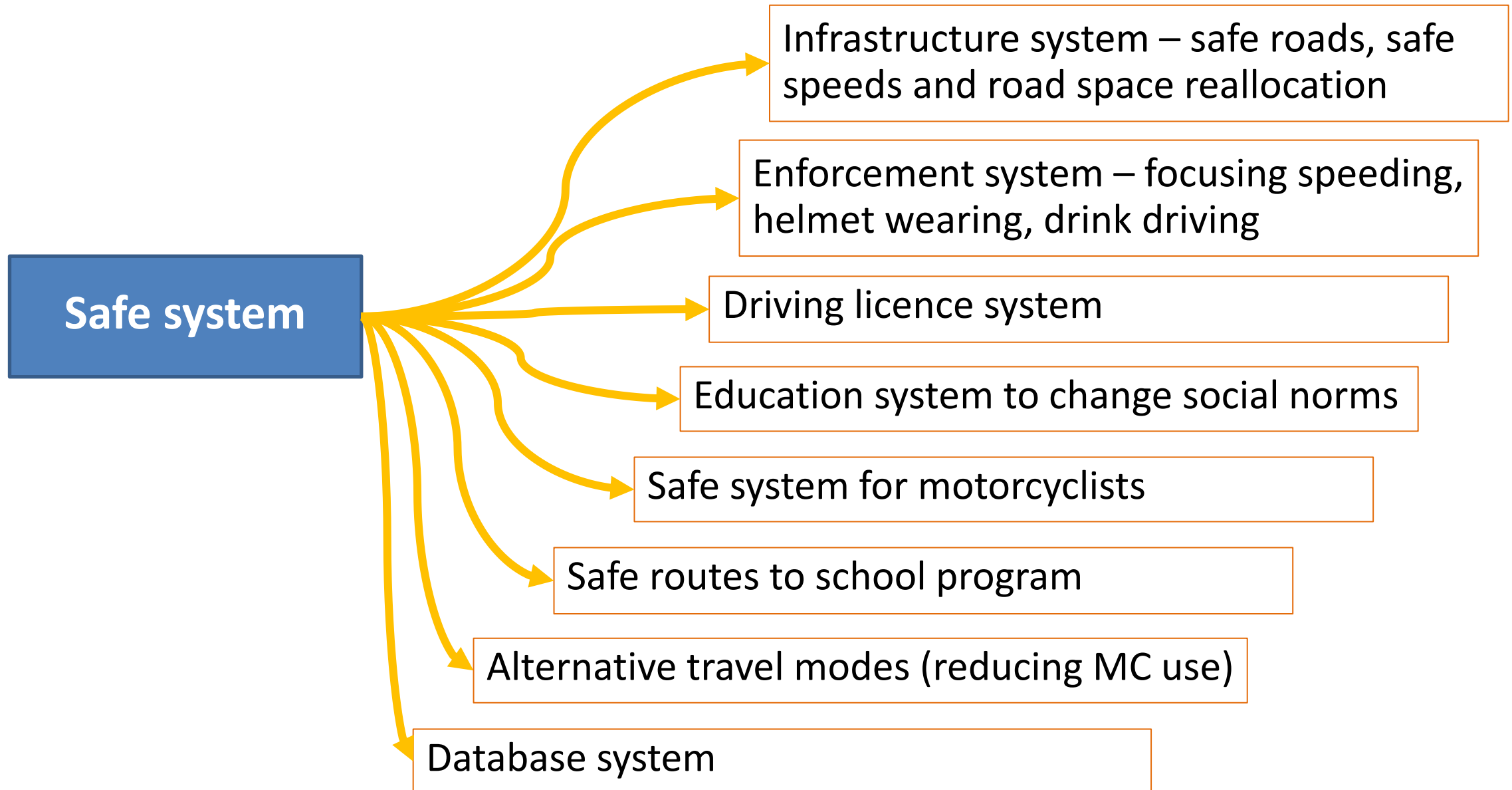
Road space reallocation

SUMMARY AND SUGGESTION

Framework for Conceptualising Traffic Safety Culture



Safe System for Creating Traffic Safety Culture in Thailand



“It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change.”

Smedly and Syme (2000)