

## IATSS Forum Collaboration Project

2207A Development and implementation  
of road safety behavioural change  
programme in Cambodia



IATSS FORUM

Kenji Doi, Project leader  
Professor, Graduate School of  
Engineering, Osaka University

## Members

PL Kenji Doi	Professor, Graduate School of Engineering, Osaka University
Yuto Kitamura	Professor, Graduate School of Education, University of Tokyo
Akihiro Nakamura	Professor, Faculty of Economics, Chuo University
Nagahiro Yoshida	Associate Professor, Osaka Metropolitan University

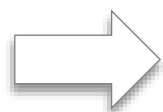
## Special researchers

Tadanori Yamaguchi	Professor, Faculty of Human Sciences, Osaka International University
Kento Yoh	Assistant Professor, Graduate School of Engineering, Osaka University
Or Vitou	Chair, Cambodia IATSS Forum Alumni Association (CIAA)
Heang Omuoy	Vice chair, CIAA
Prom Sophea	Vice chair, CIAA
Nuon Kossoma	IATSS Forum Cambodia Office/CIAA member
Chhaly Samsokrith	CIAA member

## Background

Developing countries in Asia are experiencing rapid motorisation and road development as they achieve economic growth, and an **increase in traffic accidents** caused by factors such as **increased driving speeds** is a common problem in the suburbs of large cities and in rural areas.

Similar issues are also arising in **Cambodia with the development and upgrading of arterial roads (National Highway 5)**. **Traffic safety education and behavioural change programmes** have been positioned as countermeasures in government action plans, and JICA has also launched a **traffic safety technical cooperation project**.

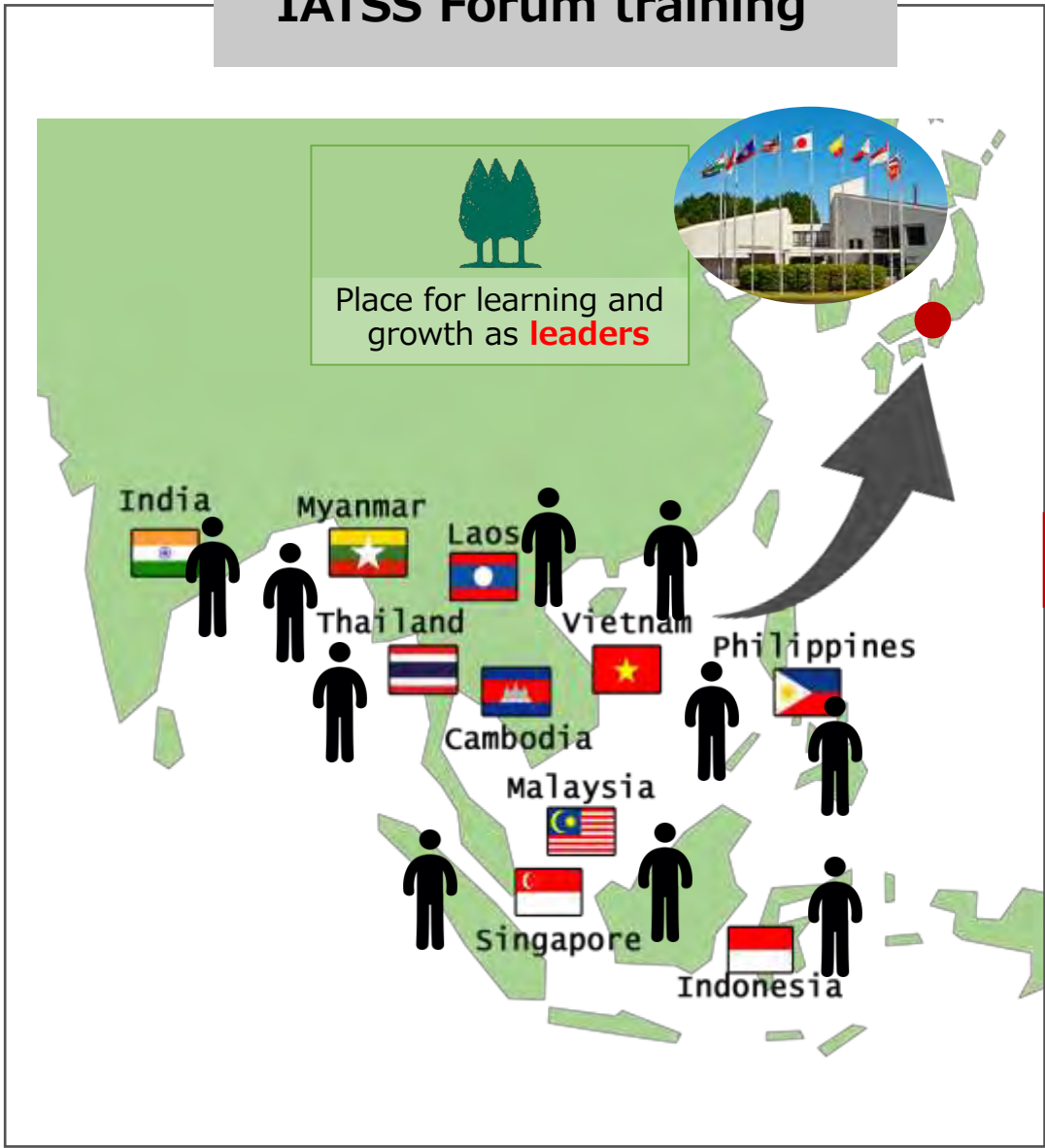


- **Cross-sectoral collaboration among various entities involved in the programme**
- **Cooperation of local personnel and organisations with high leadership ability to lead collaborative projects**

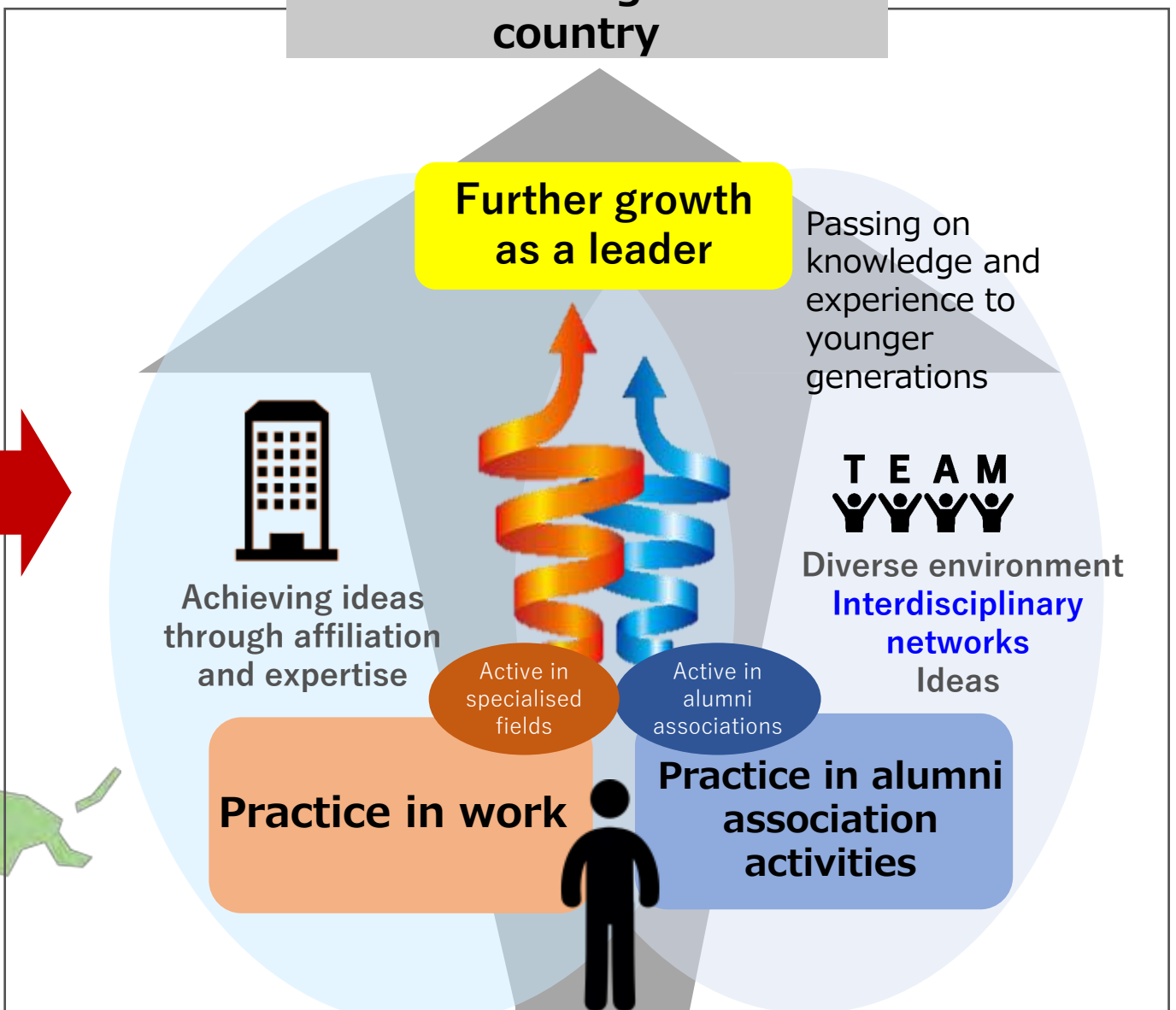
## Purpose

Establish a behavioural change programme team in collaboration with the **Cambodia IATSS Forum Alumni Association and JICA**. Furthermore, based on an understanding of the actual circumstances in the field and the latest trends in behavioural change theory, examine a **conceptual model of a new behavioural change programme** and a **survey method (for children and schoolchildren)** for its implementation from an interdisciplinary perspective.

## IATSS Forum training



## After returning to home country



## Alumni association activities

### IATSS Forum Alumni Association

Alumni wishing to contribute to the social improvement of their own countries independently organise and conduct social contribution activities



Place to put into practice the realisation of a prosperous, safe, and better society by utilising the knowledge and experience cultivated through training as well as the expertise, human resources, and networks of alumni

1. Activities aimed at the realisation of a prosperous, safe, and better society
  - ✓ Implementing alumni association projects
  - ✓ IATSS/IATSS Forum joint projects (transportation-related themes)
  - ✓ Promoting social contribution and volunteer activities
2. Developing junior leadership
3. Building diverse human resources and networks across industries and generations



Cambodia  
Efforts to reduce motorcycle accidents



Indonesia  
Community support after disaster recovery



India  
Building a waste disposal system

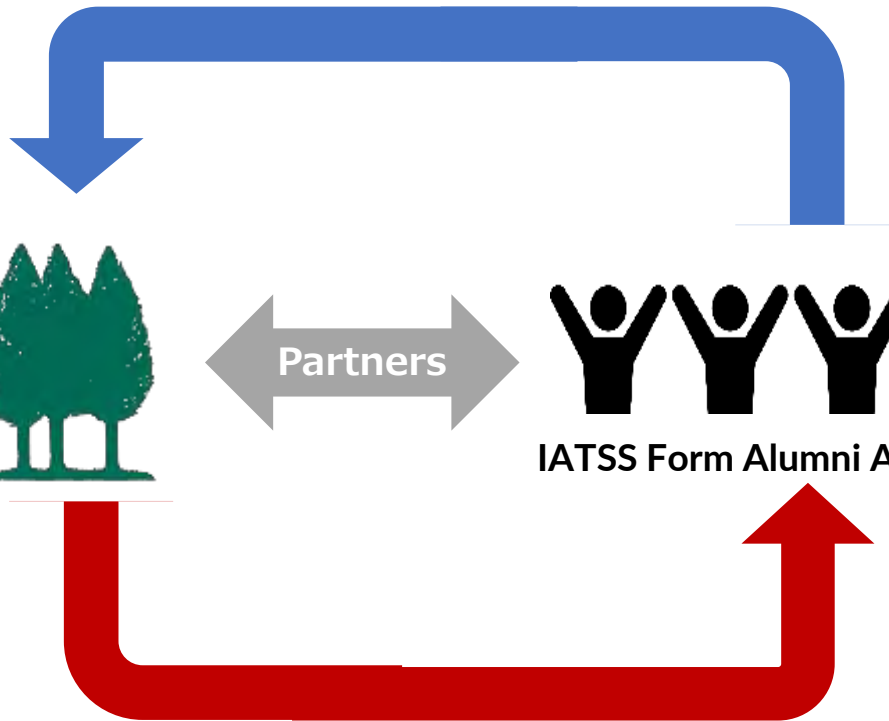


Malaysia  
Community revitalisation through tourism

IATSS Forum training backup  
IATSS Forum PR activities  
Trainee recruitment and selection  
Alumni information provision



IATSS Form Alumni Association



## Support for and collaboration with alumni association activities

1. Alumni association project support (approx. USD 2,000/alumni association in each country)
2. IATSS Forum collaboration project (traffic/safety area project)
3. Hosting of International Alumni Meeting (IAM) (once every 2-3 years)
4. Various types of information provision and collaboration



# Cambodia IATSS Forum Alumni Association (CIAA)

Year of establishment : 2000 (registered as group in 2015)  
 Members : 68 people (as of 2022)  
 Composition : Composed of IATSS Forum alumni (industry: 44%, government: 19%, NGO: 16%, academia: 11%, other: 10%)  
 Activity content : Chair (1), vice chairs (2), officers (9), others  
 Various projects with the aim of building a sustainable society, activities for developing the next generation of leaders, seminars, training activities



Activity content	Track record
Project 'Cooling Cambodia' Global warming/energy conservation education	7 times since 2012
Project 'Inspiring Cambodia' Youth empowerment	Twice since 2019
Project 'Trashure Cambodia' Environmental conservation/garbage issues	Twice since 2019
Mentorship programme/leadership camp Leadership training for youth	Continuously since 2019
Public Seminars (leadership seminars, etc.) Topic-based open seminars	Once a year since 2014 (13 times to present day)
School support, charity activities	Several times since 2012



Three or more people are frequently seen riding motorcycles without helmets.



Teaching materials for traffic safety education for elementary school students



- Aug. 8 (Mon.) Visit to the Ministry of Education, Youth and Sport, Battambang Province
- 9 (Tue.) **Observation of commuting situation at Otaki Elementary and Middle School, and Chrey High School**
- 11 (Thu.) Meeting with Forum Alumni Association (CIAA), Royal University of Phnom Penh, Ministry of Public Works and Transport, and local consultants
- 12 (Fri.) JICA office visit

## Commuting situation of Otaki Elementary School (along developed sections of National Highway 5)

Children's commuting area: within 5–6 km, means of school commuting:  
pick-up by parents (first–second grades), walking + bicycle + motorcycle (third–sixth graders)

Not prohibited  
because there is no  
law that prohibits it



Traffic safety is taught 20 hours a year in social studies (6th grade). Second grade and above are taught by social studies teachers using textbooks issued by the Ministry of Education, Youth and Sport.

After reading the textbook and being asked questions such as ‘What can you learn from this picture?’, students are taught the dangers of playing on the road.

Textbooks are used to teach students how to behave on the road and what to do to avoid danger. Handicap International (NGO) textbooks are available as teaching materials, but they are not used in class.

**Hazardous behaviour for children: Crossing the road without looking left and right. Running backwards.**  
⇒ Students are instructed to check left and right, and to listen carefully to sounds when crossing the road.

**Speed limit in school zone: Signs are set up, but no one follows them.**

**Comparison of National Highway 5 before (6 months ago) and after development (present-day)**  
⇒ I feel that the current situation is more dangerous. The speeds are fast, and vehicles fly by, even in front of the school. There are two lanes, so you can't cross immediately, and you have to stop at the median strip. During that time, vehicles will pass by, which is dangerous.  
⇒ I feel that it has become dangerous, but the section of National Highway 5 that is used is several hundred meters, and there have been no accidents during school commutes.

**Opinions from schools regarding the promotion of traffic safety: We want guidance on how to cross the road. We want teaching materials and documents that can be easily taught. We want a mobile barricade that allows for safe road crossings.**



# Commuting situation at Otaki Middle School and Chrey High School

▼ Walking to school. Umbrellas are rare.



▼ Middle school students also commute to school with motorcycles.



▼ Middle school parking space



Many  
Honda  
Dreams

▼ High school parking lot

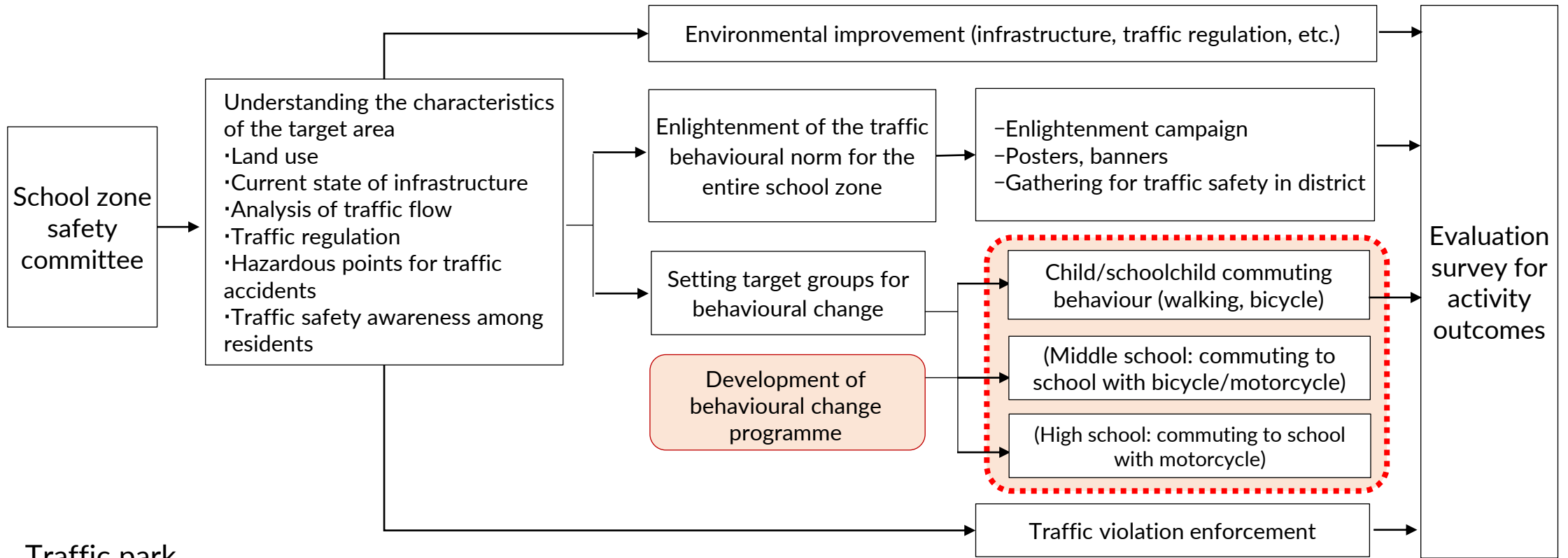


<Middle school> Elementary school is also adjacent within the same school grounds

- Classes 1) for students by teachers and 2) for teachers and students by traffic police (meaning of signs, etc.) are conducted once a week in accordance with the Commune Policy for Traffic. Teaching materials provided by the Ministry of Public Works and Transport are available.
- Understanding of traffic signs: unknown to what extent they are understood by students.
- Would be good to have a mobile barricade for safely crossing the road.

<High school> **40% commute to school on motorcycles.**





Traffic park

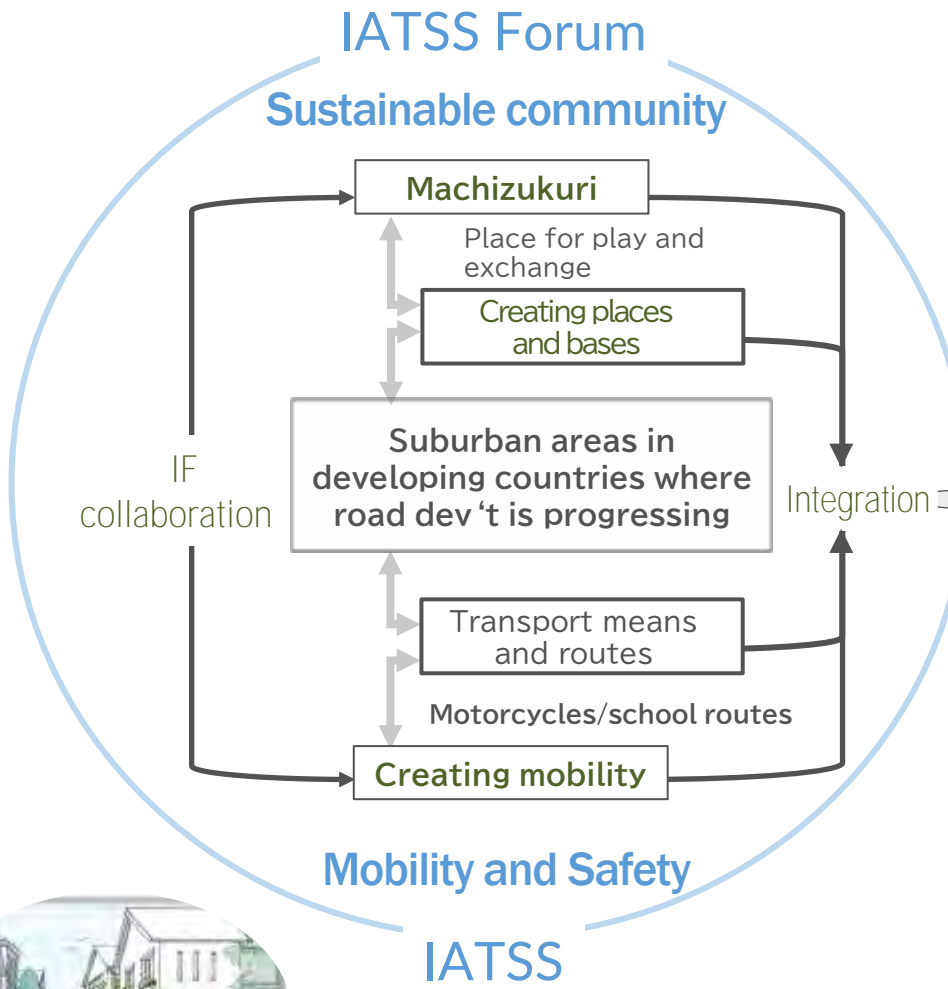


Examination of evaluation methods and creation of manuals (including attitude change analysis of traffic participants)

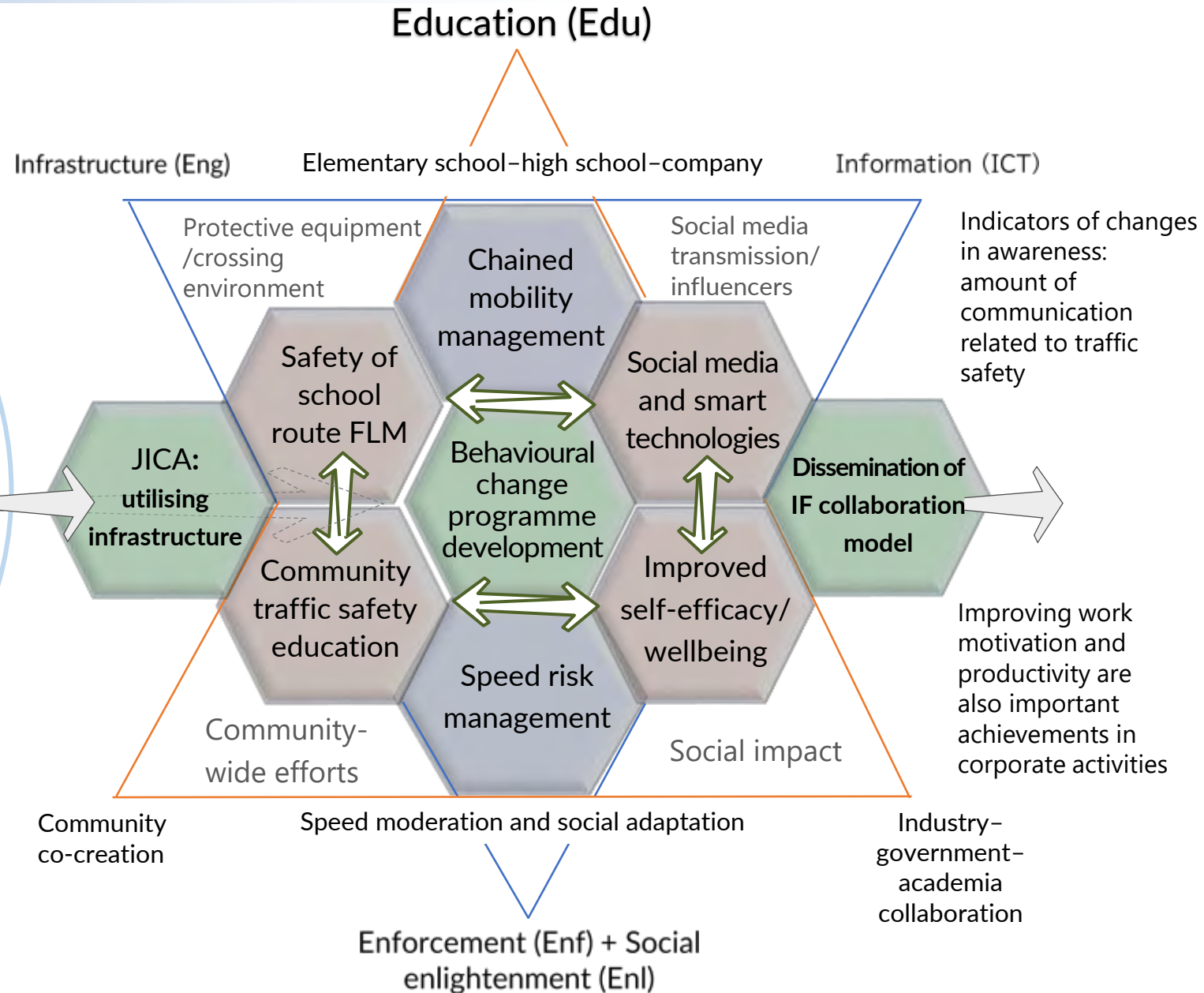
Evaluation of behavioural change programmes that consider psychological strategies and implementation of review meetings



# Conceptual framework of programme

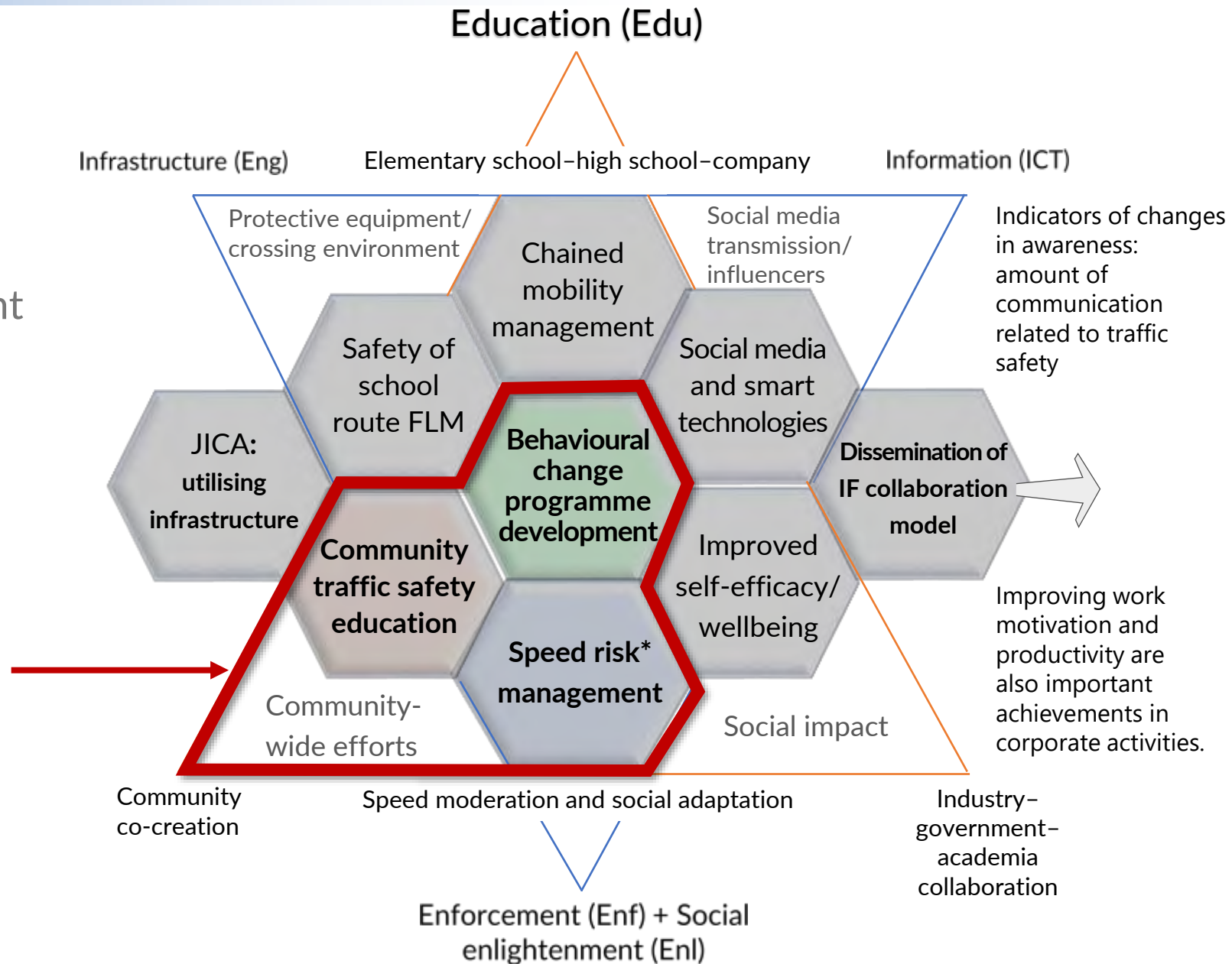


Safe transport machizukuri



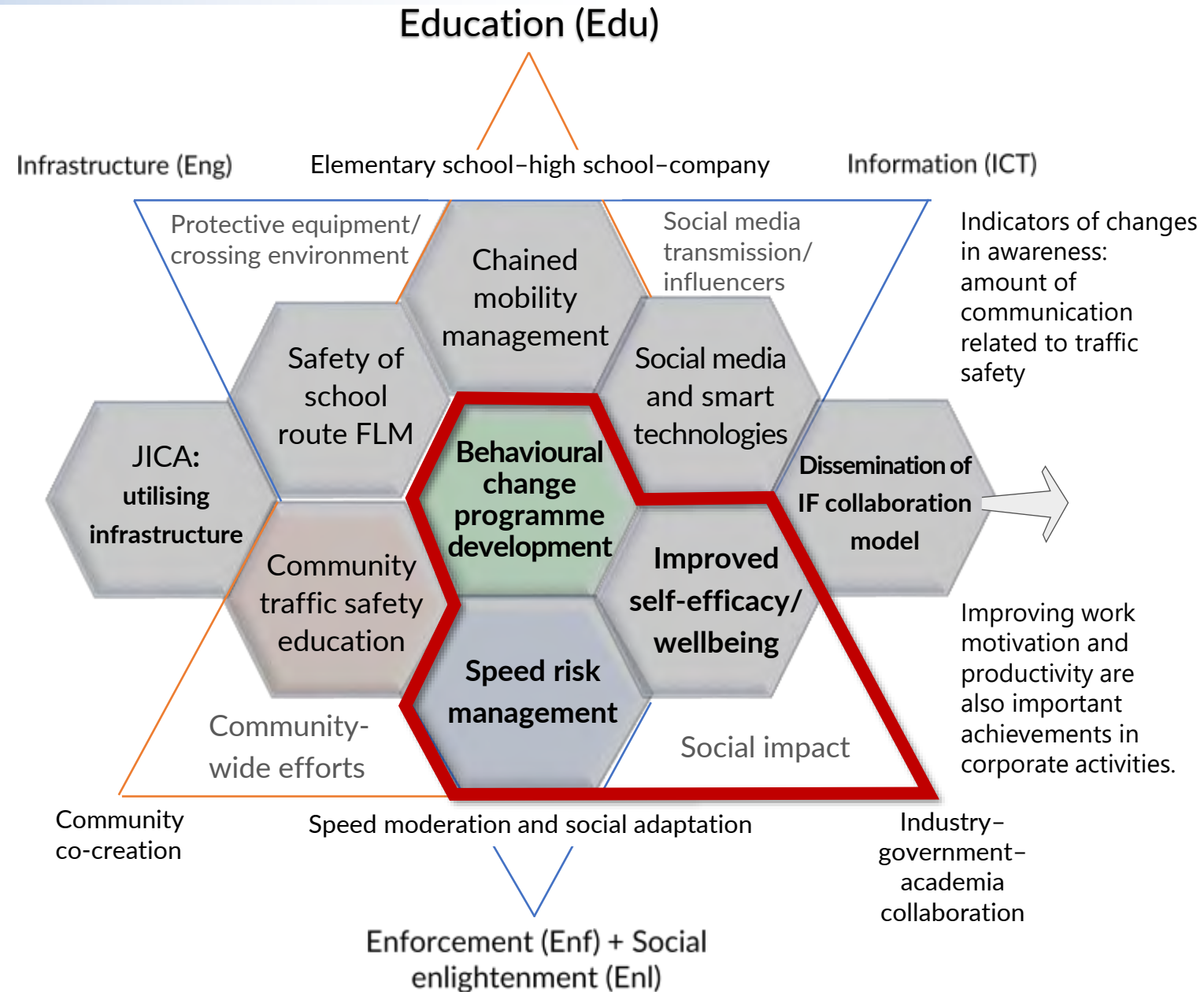
- Foster the qualities and abilities to support adaptations to road traffic environments where risks are present
- In other words, develop qualities and abilities related to **risk management** or **crisis management**
- Important to expand **risk awareness** according to developmental stages
- Risk of **'self → others → community'**

\*Includes various risks related to hazard prediction and avoidance due to speed





- The educational method of ‘instilling’ may not match the method derived from one’s own experience or may breed a sense of resistance to orders.
- It is important to think and judge for oneself and to ‘decide one’s own behaviour’, and a higher degree of **self-determination** is more likely to result in **behavioural change**.
- It is important to not only ‘reduce the disadvantage’ that is accident risk, but also to **‘increase advantages’**.



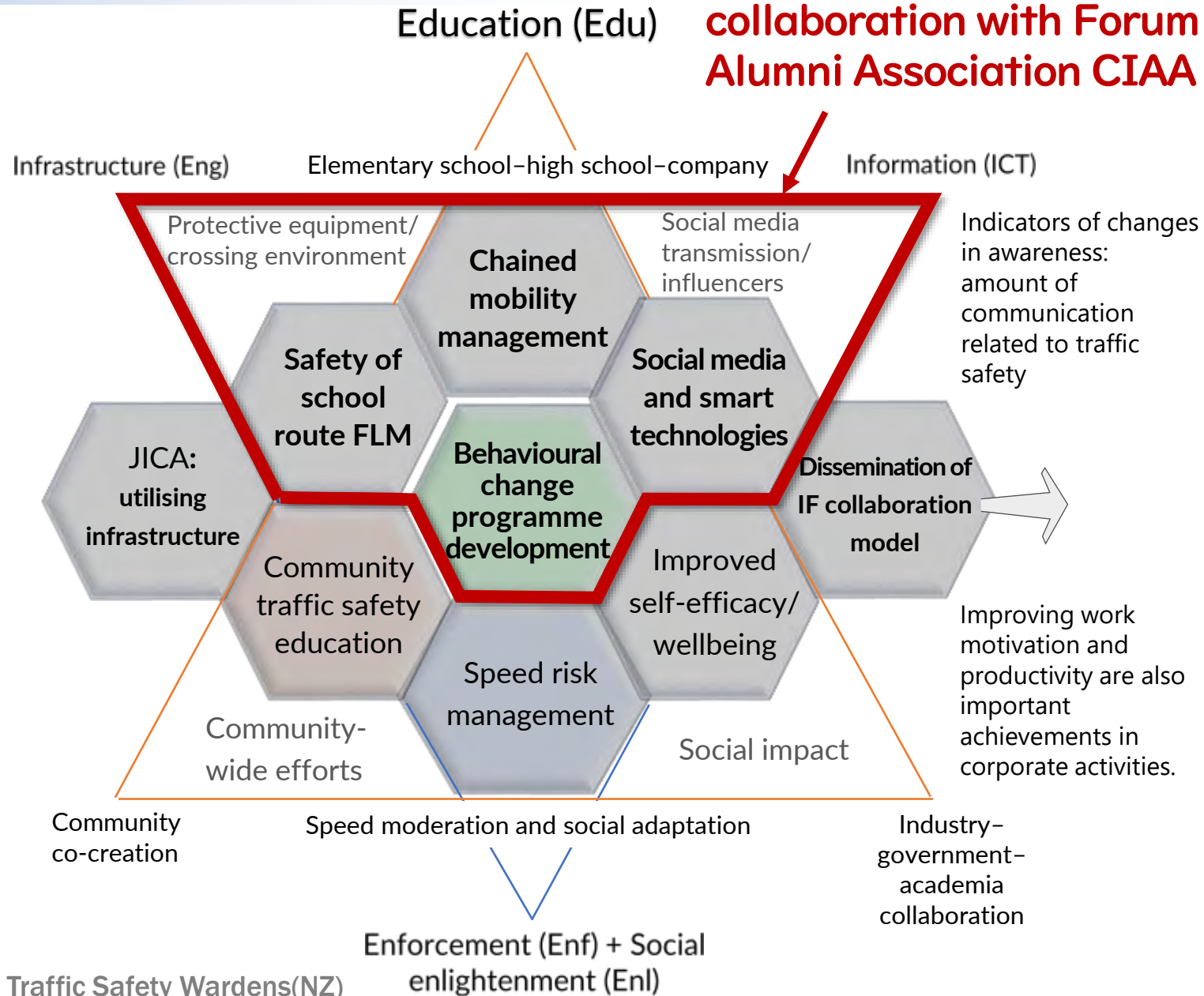


- Provide information about hazardous locations in the community
- Demonstrations such as skits to present specific hazard prediction and avoidance methods.
- Planning campaigns and coming up with slogans to raise awareness of traffic safety in the community.
- High school students doing so for middle school students, or middle school students for elementary school students.



School Traffic Safety Wardens(NZ)

**Starting point of collaboration with Forum Alumni Association CIAA**



# ATSS Survey on traffic safety awareness and behaviour among middle school students



On 10<sup>th</sup> March, we visited two middle schools in Kampong Chhnang, 81 km from Phnom Penh. The CIAA acted as a facilitator for the questionnaire survey and proposed a survey method suitable for the site. It has considerable practical experience in workshops targeting children, young people, and communities, and community engagement is a strength of CIAA.



**Did you know that there are rules for traffic?**



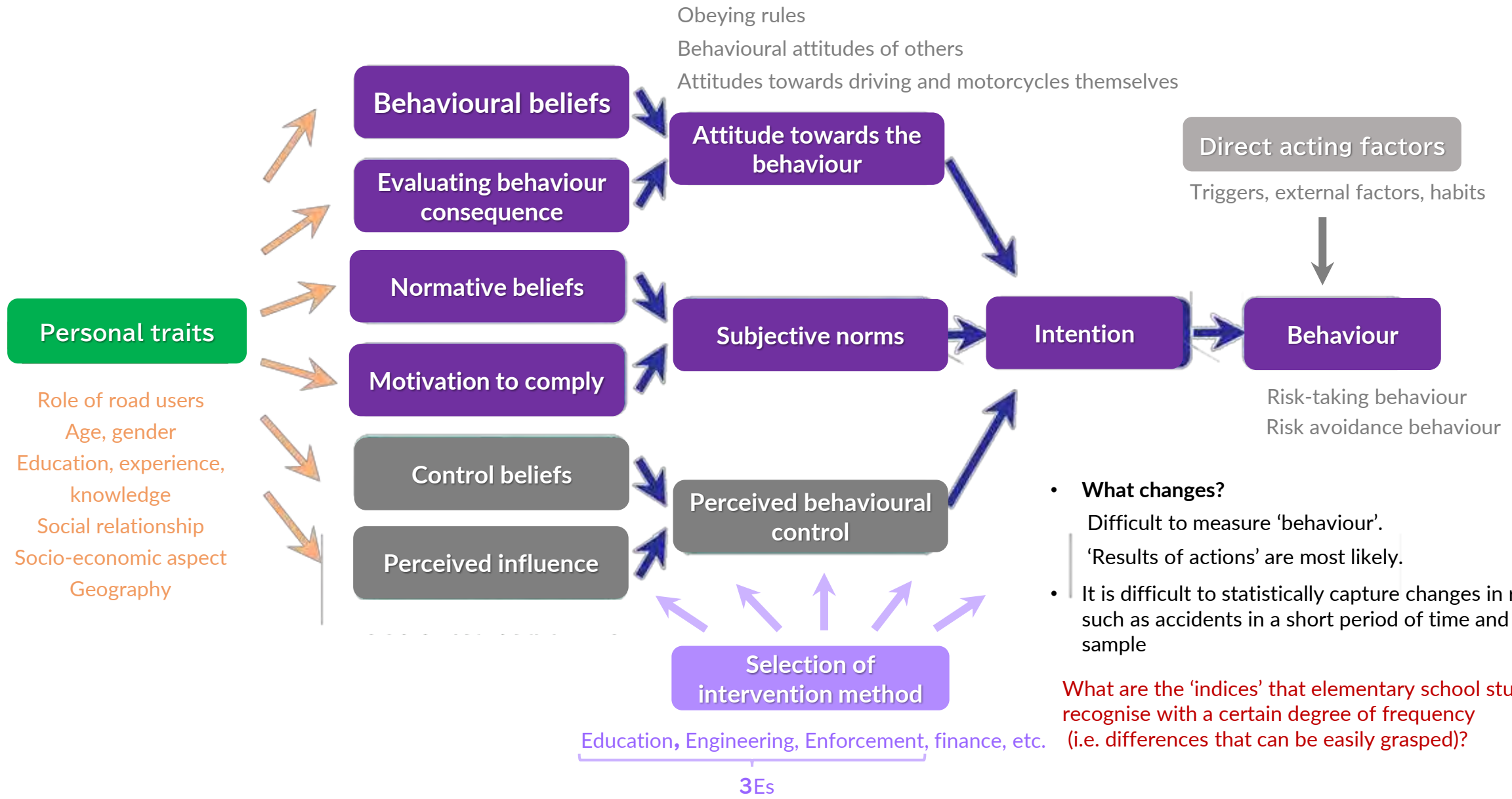
**Did anyone enjoy participating in today's survey?**



**Who didn't know the phrase 'traffic rules', but through today's survey realised that they knew what they were about?**



Photographs: Survey scenes in middle school in Kampong Chhnang



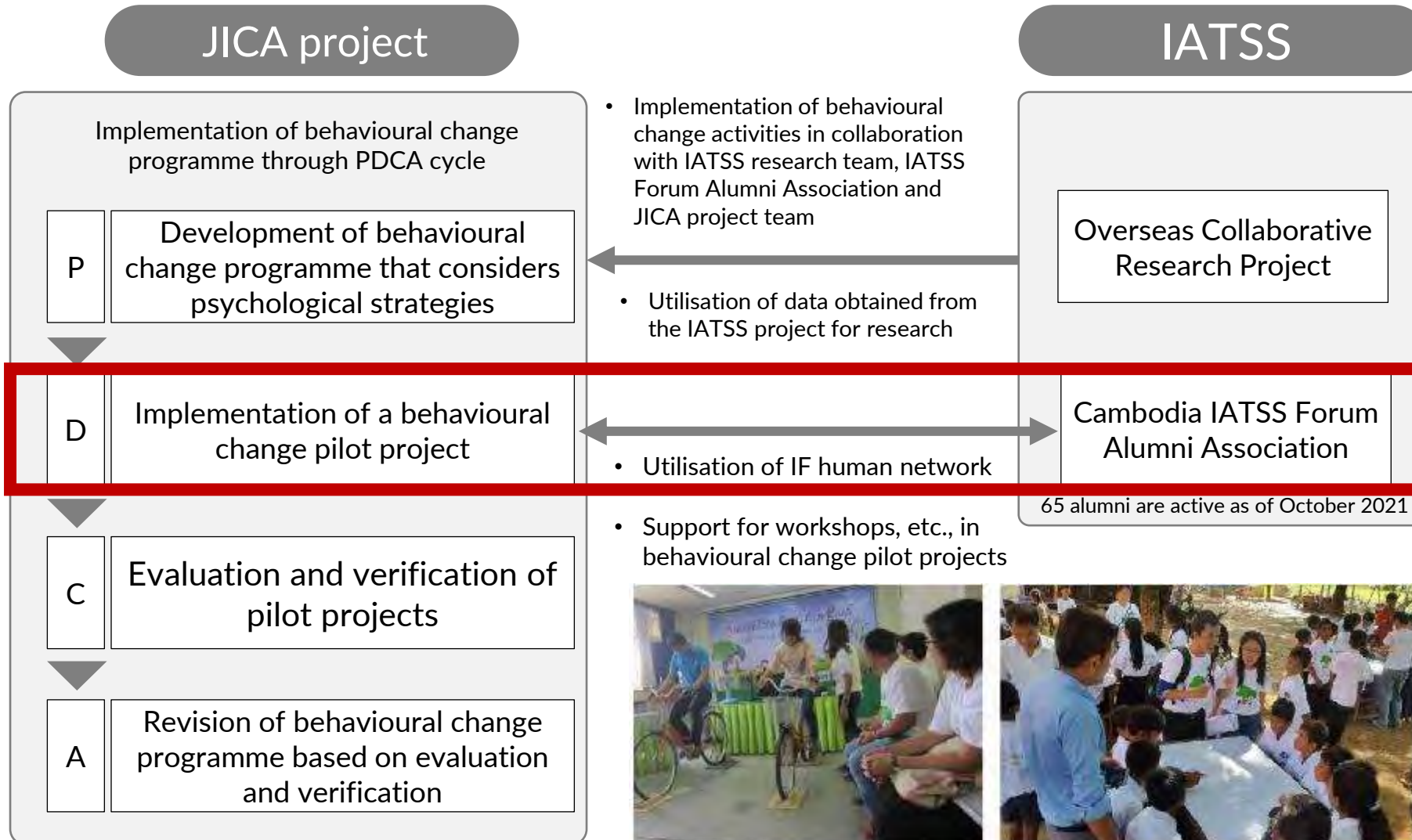
- **What changes?**  
 Difficult to measure 'behaviour'.  
 'Results of actions' are most likely.
- It is difficult to statistically capture changes in rare events such as accidents in a short period of time and with a small sample

What are the 'indices' that elementary school students can recognise with a certain degree of frequency (i.e. differences that can be easily grasped)?

# Current progress status

## Collaboration with JICA project

## Collaboration with the IATSS Forum Alumni Association



**Validity of the conceptual model and survey method was verified based on the results of the pilot questionnaire survey conducted in March.**



Photographs: IATSS Alumni Association activity example: Programme 'Cooling Cambodia' since 2012

Thank you for your attention.



公益財団法人 国際交通安全学会

International Association of Traffic and Safety Sciences