



# SATREPS Program to Realize Low Carbon Society The Project of Smart Transport Strategy for Thailand 4.0



## Goals: What is the Project Working Towards?

### Goals by 2023

1. Development of a methodology to evaluate the policy packages for realizing the concept of the Smart Transport Strategy to improve citizens' QoL and a low carbon society.
2. The 'Sukhumvit Model', a policy package for the Sukhumvit Road area for to realize the concept of the Smart Transport Strategy, will be proposed as an application of the methodology.

### Goal by 2026

Dissemination of a 'leap-frog' strategy based on the concept of the Smart Transport Strategy to improve QoL and a low carbon society.



## Background: What are the Key Issues in Thailand?

Our everyday activities, such as driving cars, consume energy and produce greenhouse gases (GHGs). Increasing GHGs drives global warming and makes threats to life more likely. A key global issue is how to develop low carbon societies by reducing GHGs. This issue requires international efforts as it cannot be solved by one country alone. Bangkok, the capital city of Thailand, has experienced dramatic economic growth, with an increased population, numbers of private cars and traffic jams, all of which cause air pollution and GHGs to increase. To tackle such problems, the Royal Thai Government has developed an economic model called 'Thailand 4.0'. One of its priorities is to develop innovative urban city planning, via the concept of a 'smart city' that uses advances in technologies such as artificial intelligence (AI) which will contribute to environmental protection and people's quality of life (QoL). In response, research institutions from Thailand and Japan have been implementing a Science and Technology Research Partnership for Sustainable Development (SATREPS) programme, called 'The Project of Smart Transport Strategy for Thailand 4.0'.

## Outputs: What is the Project Going to Produce?

1. To develop a simulation model for understanding how to enhance citizens' QoL and how to use land and transportation in a more energy efficient way.



2. To propose a smart transport and district design, realizing a "street for all" that caters for pedestrians, bicycles, smart transport such as electric vehicles and an easy to use public transportation system.



3. To develop a QoL evaluation method to understand what aspects of land use and transport systems make citizens happier.



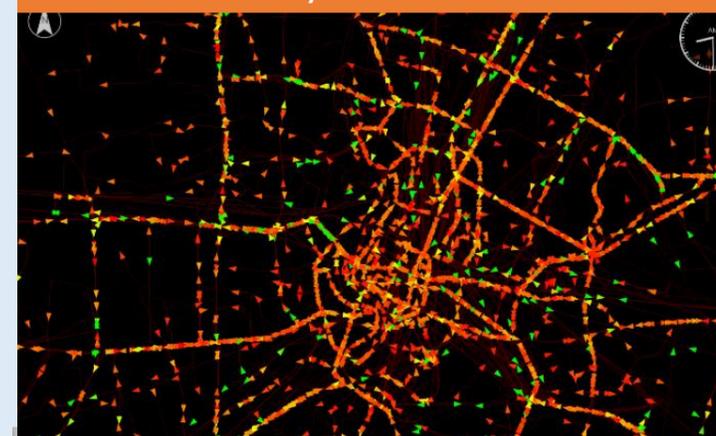
4. To develop a digital earth system with visual time-spatial data to help us think about a smart transportation strategy.



## Approach: How are the Thai-Japanese teams collaborating to solve the problem?

Sukhumvit Road in Bangkok, which usually has the heaviest traffic congestion.

### Prediction by Simulation Model



AI/Human Co-operative Evaluation

### Experiment with Smart Transport



Visual Time-Spatial Data

