

The way urban areas of South-East Asia can improve their traffic conditions with Smart Mobility



# INCREASING THE USE OF SMART MOBILITY APPROACHES TO IMPROVE TRAFFIC CONDITIONS IN URBAN AREAS IN SOUTH-EAST ASIA

IN 2015, 193 COUNTRIES CAME TOGETHER AND FORMALLY ADOPTED THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT WHICH CONSISTS OF 17 SUSTAINABLE DEVELOPMENT GOALS AND 169 INDICATORS. SEVERAL GOALS DIRECTLY LINK TO TRANSPORT, WHICH IS CRUCIAL FOR ECONOMIC AND SOCIAL WELLBEING. TARGET 3.6: HALVE THE NUMBER OF WORLDWIDE DEATHS AND INJURIES FROM TRAFFIC ACCIDENTS, TARGET 9.1: DEVELOP QUALITY, RELIABLE, SUSTAINABLE, AND RESILIENT INFRASTRUCTURE AND TARGET 11.2: ACCESS TO SAFE, CHEAP, ACCESSIBLE, AND SUSTAINABLE TRANSPORTATION SYSTEMS; ARE JUST A FEW OF THEM.



## ASEAN SMART CITIES NETWORK

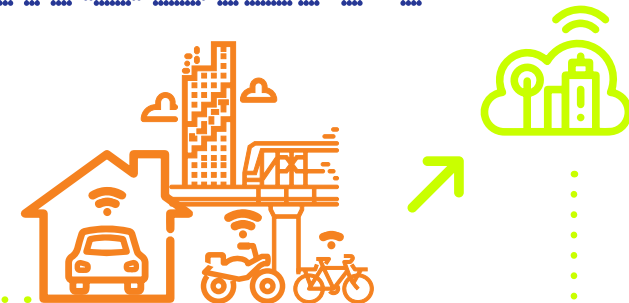
South-East Asia is one of the fastest growing economies in the world, with a population of more than 600 million. In 2019, the GDP was more than \$3 trillion representing 6¼ per cent of global GDP. The rate of urbanization is projected to rise from 42 per cent in 2010 to 49 per cent by 2025. Without change this will lead to even greater traffic congestion, safety issues and urban inequality.

Further, the transport sector in South-East Asia consumes more than 25 per cent of the total region's energy, which is directly related to an increase in emissions.

To address this problem and provide cost-effective mobility options in South-East Asia, the Asean Smart Cities Network is a concept that purposefully includes smart mobility and other smart transport systems as an integral part of its network.



## SMART MOBILITY



Transport is the movement of people and goods utilizing a vehicle whereas mobility is the ability to move freely and easily. Smart mobility, under the umbrella of smart transport systems, can be defined as the evolution of mobility, delivered as the output from the fourth industrial revolution through the advent of new technology such as smart devices.

Smart mobility stretches across our cities and urban environments, enhancing our travel experience. It shifts the paradigm by disrupting the existence and legacy of private transport, public transport and paratransit with customized, user-oriented services reducing inefficiency and inequity whilst helping people make more informed choices about how and where they travel using real-time information.

Smart mobility offers societal benefits in a safer, smarter, and more sustainable way by integrating information, technology, infrastructure, vehicles, and users to enhance traffic conditions in South-East Asia. Despite it being a relatively new concept, some countries have already adopted this concept and started relevant initiatives, such as the "Mobility-on-Demand" service in Singapore and the "EV-Shared Mobility" initiative in Thailand.



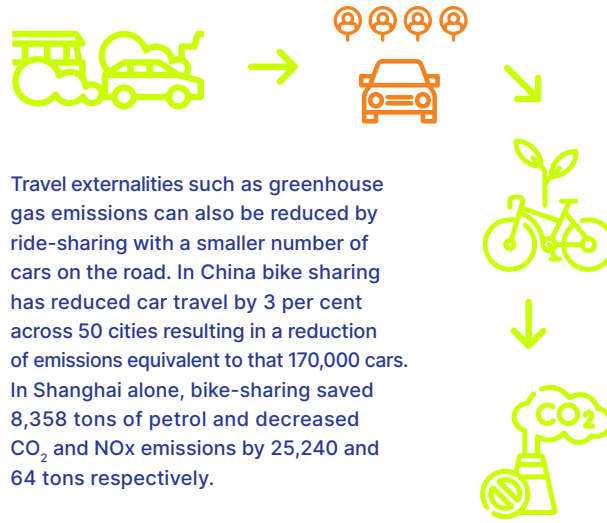
# ESCAP CASE STUDIES

To assess the efficiency and equity of public transport in Bangkok, Hanoi, Jakarta and Singapore, two newly developed indices (Mobility Boost Power Index and Mobility Boost Equity Index) have been employed. The findings of the case studies have concluded smart mobility improves the accessibility, interconnectivity, reliability and convenience of mobility services in vulnerable areas in target cities.



Ride-sharing, bike-sharing, demand-responsive transit, personal mobility, and Mobility-as-a-Service (MaaS) are all examples of smart mobility. Advantages are already found with initial efforts. Carpooling improves vehicle availability in hot spot areas during peak hours which can reduce travel distances of 2-3 km per trip on average (being 20-30 per cent of the average distance).

Concurrently the financial benefits accrued from carpooling could be redirected to other infrastructure projects. Ride-sharing has shown improvements in safety in terms of a reduction in driver-related crashes and driver-related offences by 1.2 and 1.9 times industry standards.



Demand-responsive transport can provide an affordable and convenient transport service for those with limited access to a private vehicle in areas of infrequent or inaccessible public transport.

National and subregional level policy recommendations include identifying and specifying the needs of smart mobility within the country, prioritizing smart mobility services, establishing national smart mobility plans and strategies, utilizing Big Data for smart mobility, developing subregional strategies, and cooperating and collaborating with neighboring countries, among others.

**This will enable policymakers to make relevant policy and strategy changes that greatly enhance the efficiency of transport systems and their associated societal benefits to achieve the Sustainable Development Goals.**

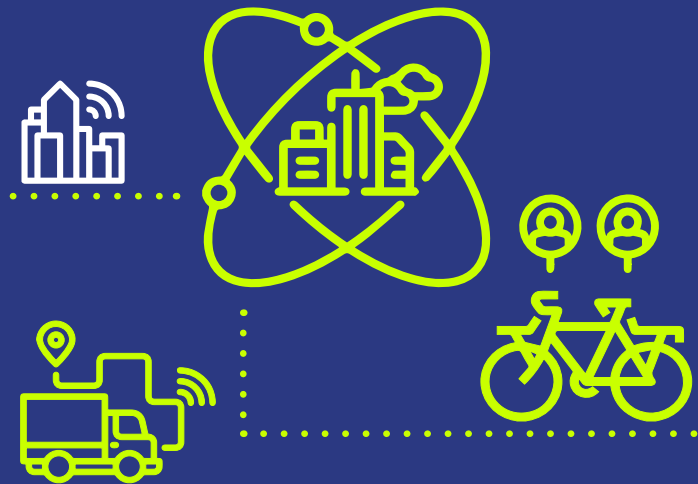


# CONCLUSION

**WELCOMING THE ADVENT OF A NEW PARADIGM FOR SMART MOBILITY, WHILE BREAKING DOWN THE BARRIERS TO ITS DEVELOPMENT, CAN LEAD TO A COMPLETELY NEW GENERATION OF PREDICTIVE SEAMLESS MOBILITY THAT TAKES THE TRANSPORT EXPERIENCE OF TODAY TO THE NEXT LEVEL.**



**FOR SOUTH-EAST ASIA TO EXPLORE THE SMART MOBILITY POTENTIAL, THE PUBLIC SECTOR, PRIVATE SECTOR AND ACADEMIA NEED TO COLLABORATE TO BRING SMART MOBILITY TO THE FOREFRONT OF SOUTH-EAST ASIA TRANSPORT STRATEGIES.**



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