# **The Smart City of Phnom Penh**

# **Mr. KEO CHANNARITH**

Governor of Phnom Penh City Bus Authority Phnom Penh | Cambodia

International Training Workshop on Smart Cities for

Building Inclusive, Resilient, Liveable, and Sustainable Cities and Communities in Asia and the Pacific

29 August- 1 September

Naqoya, Japan





Smart & Sustainable City Secretariat

### Introduction of Phnom Penh City

Phnom Penh Capital Administration Smart & Sustainable City Secretariat

- As Cambodia's capital and largest city, Phnom Penh is also its most populated. Phnom Penh is in the south-central region of Cambodia, and fully surrounded by the Kandal province. Phnom Penh has an area of 692.46 square kilometres.
- The autonomous municipality is subdivided into 14 administrative divisions called khans (sections). The districts are subdivided into 105 sangkats and further subdivided into 953 phums (villages).
- As of 2023, Phnom Penh had a population of 2,281,000 people.
- Public transport modes have been introduced and expanded: public bus services from 2014 and water taxi services since 2018.



- The smart city for Phnom Penh needs to monitor, notify, and update all the details of the land use master plan.
- Effective the several coordination processes and plans, needed for its continuous smart & harmonized development.
- Possessing a more detailed understanding of the city's state, plans, and evolution models is necessary.
- Safety for pedestrians and in public areas needs to be improved.
- Safe transportation, commuting, and promenades are essential and should be enhanced in Phnom Penh.
- More CCTV should be installed on roads to ensure people's privacy and safety.
- Regulating parking in inappropriate places is something we must do to reduce inconvenience.
- Require better driving mapping layout in certain locations (one way lane, connection roads, etc.).



- Require the walking paths, which are intended for public areas, will assist accessibility and safety.
- Need to improve the optimized management of traffic in the capital, participating in reducing congestion and pollution.
- Develop more global shared mobility applications for public transportation more easily.
- Effective services and waste collection schedules must be provided to citizens.
- Require a platform for a smart safety system (fire, pollution, pandemic, etc.).
- Increasing the number of vehicles in the city, which causes pollution and harms citizens' health.



#### Challenges in Phnom Penh City

- Encourage on start up technology research from public and private sector (Transportation sector)
- Highly encourage on open data for innovation technology development to reach to smart living
- Provide financial support innovation on technology
- Widely announce and promote to all education institution to focus on and arrange learning course related to new technology especially smart technology.
- Deeply encourage on advance technology development such as ITO (Internet of Things) and AI (Artificial Intelligence)



#### VISION

Smart Phnom Penh, a Capital City that uses information & technology to better respond sustainably to its community and business needs

GOAL: Position Phnom Penh as a model Smart & Sustainable Capital City for a Developing Nation

#### **FIVE MAIN PRIORITY TOPICS**

Land used

## Safety and security



Phnom Penh Capital Administration

Smart & Sustainable City Secretariat

## • Detailed and decentralized Implementation

- Get an Accurate Vision & Coordinate plans
- City Real time Services integration
- Real time vision of city urban development & related data
- Pedestrian safety
- Vehicles and urban mobility safety
- Public space safety
- Maximized monitoring & ensured privacy

- **I**.

#### **Urban Mobility**



#### Environment





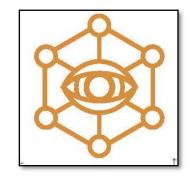
Smart & Sustainable City Secretaria

- Smart parking
- Vitalizing driving map
- Safe walk
- Integrated traffic management
- Public transportation
- Inter-connected mobility hubs / platforms
- Freight & logistic transport optimization
- Integrated roads pattern development in and around the city
- Improved collection
- Clear regulation and definition of actors' roles
- Coordinated strategy along process to harmonize
- Ensure fair competitiveness and waste framework enforcement.
- Coordinate all "3Rs" actions (Reduce, Reuse, and Recycle).
- Green corridors and places for vegetation growth
- Blue corridors and spaces
- Wind corridors
- Pollutions mixed land use basic services accessibility
- Climate disaster emergencies: all linked
- Smart city early warning system effective & inclusive
- One major climate local risk: floods
- Integration into main smart city tools: one map
- New climate behavior new cautions to settle

- Smart city providing adequate detailed regulatory framework
- The integrated smart city system will allow its actors to optimize their coordination and process.
- Smart city brings new technologies, in a clear regulated environment regarding their management
- City effective information communication & inter-active dialogue with citizens
- Synchronize people and projects
- Inclusiveness through the time
- Smart integrated education program
- Scientific & technic researches: sustainable city and environment related, data management, and the potential of AI



## **Digital Management**



#### **SMART CITY PROJECT 1: 11 SIDEWALKS REJUVENATION**

- 3/11 boulevards rehabilitation
- 1/11 boulevards designed
- 2/11 boulevards are in designing stage
- CCTV camera and smart lighting installed
- Detailed studies on pedestrian connectivity and mobility of Peah Sisowath Quay.

Before

After

- Studies on the 13-Boulevard project integration to public transport hub and public space in favor of mobility facilitation has been done in late 2021.
- Peer-to-peer with Boston City in the framework of U.S.-ASEAN Smart Cities Partnership in a project "Complete Streets for All Users".



Phnom Penh Capital Administration Smart & Sustainable City Secretariat

# <u>SMART CITY PROJECT 2</u>: Improving efficiency of Phnom Penh public transport

- 13 bus-routes was in operation (activity resumed 1 year after Covid-19).
- Using of non-cash payment system (card, smartphone, QR code) and real-time traffic via mobile application.
- Traffic control center in PP City Hall.
- Detailed study on integrated urban transport and interconnected-transport hub with ADB has been finished in December 2022.
- Collaboration between city and universities to tackle current traffic issue.
- AGT and Bus priority studies.
- On-going project: "Formulation Study on Smart Bus Shelters" as part of - Smart JAMP's initiative between Phnom Penh and MLIT (Ministry of Land, Infrastructure, Transport and Tourism) of Japan.



Phnom Penh Capital Administration

Smart & Sustainable City Secretariat



#### Expectation from the smart city training workshop

- Will obtain knowledge and excellent work for ideas for urban development from cities that have been implemented in the past.
- Share the progress of the work of the smart city in Phnom Penh that has been achieved.
- Exchange beneficial new concepts to improve the development process.
- Get innovative concepts for developing smart systems and smart technology for managing, regulating, and enhancing smart cities.
- increasing the competitiveness, resilience, liveability, and sustainability of cities and communities is helping officials get insights into smart city strategies and measurements.

