



CREATING SUSTAINABLE & SMARTER CITIES IN SOUTHEAST ASIA:

A ROADMAP FOR US-ROK COOPERATION

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PRESENTATION PROCEEDINGS



Rise of Smart Cities

International efforts to tackle climate change & rise of smart cities



ASEAN Smart Cities Network

ASEAN's existing smart city projects & their limitations



External Assistance & U.S.-ROK Cooperation

ASEAN's existing Smart Cities projects and contributions by the U.S. & South Korea



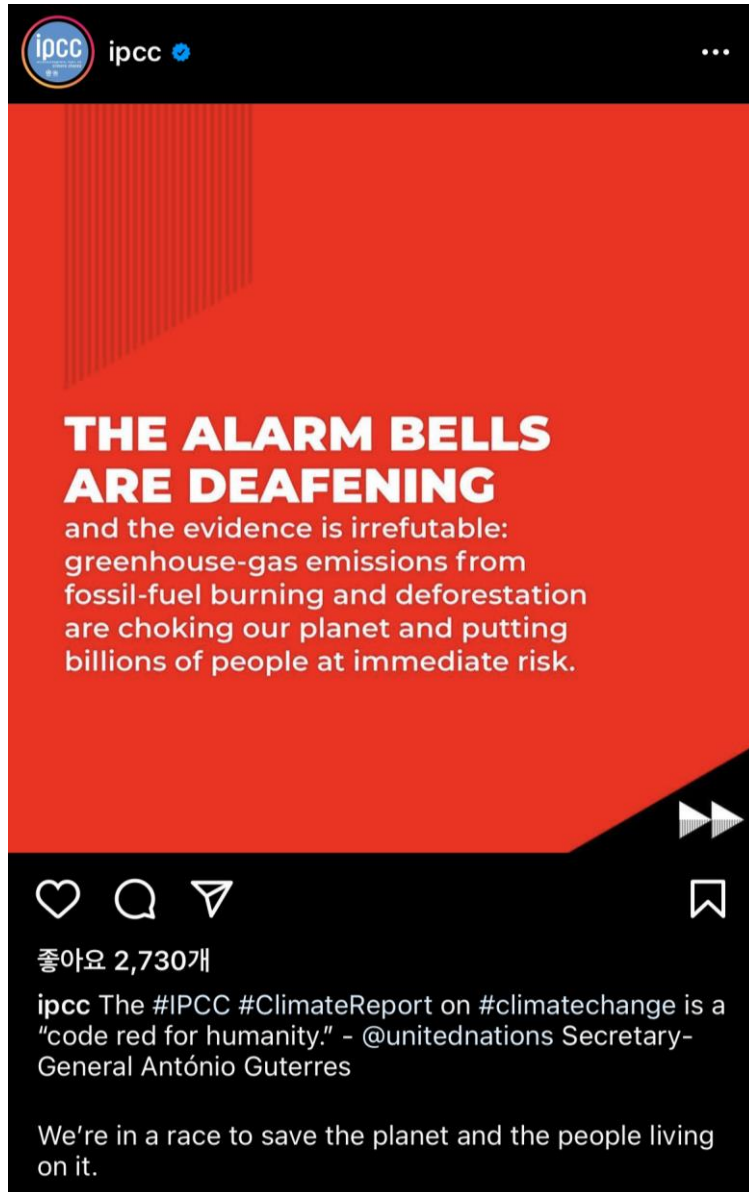
Recommendations & Roadmap

Recommendations for increasing U.S.-ROK cooperation on smart cities in ASEAN

RISE OF SMART CITIES

CLIMATE CHANGE, URBAN PROBLEMS & SMART CITIES IN ASEAN

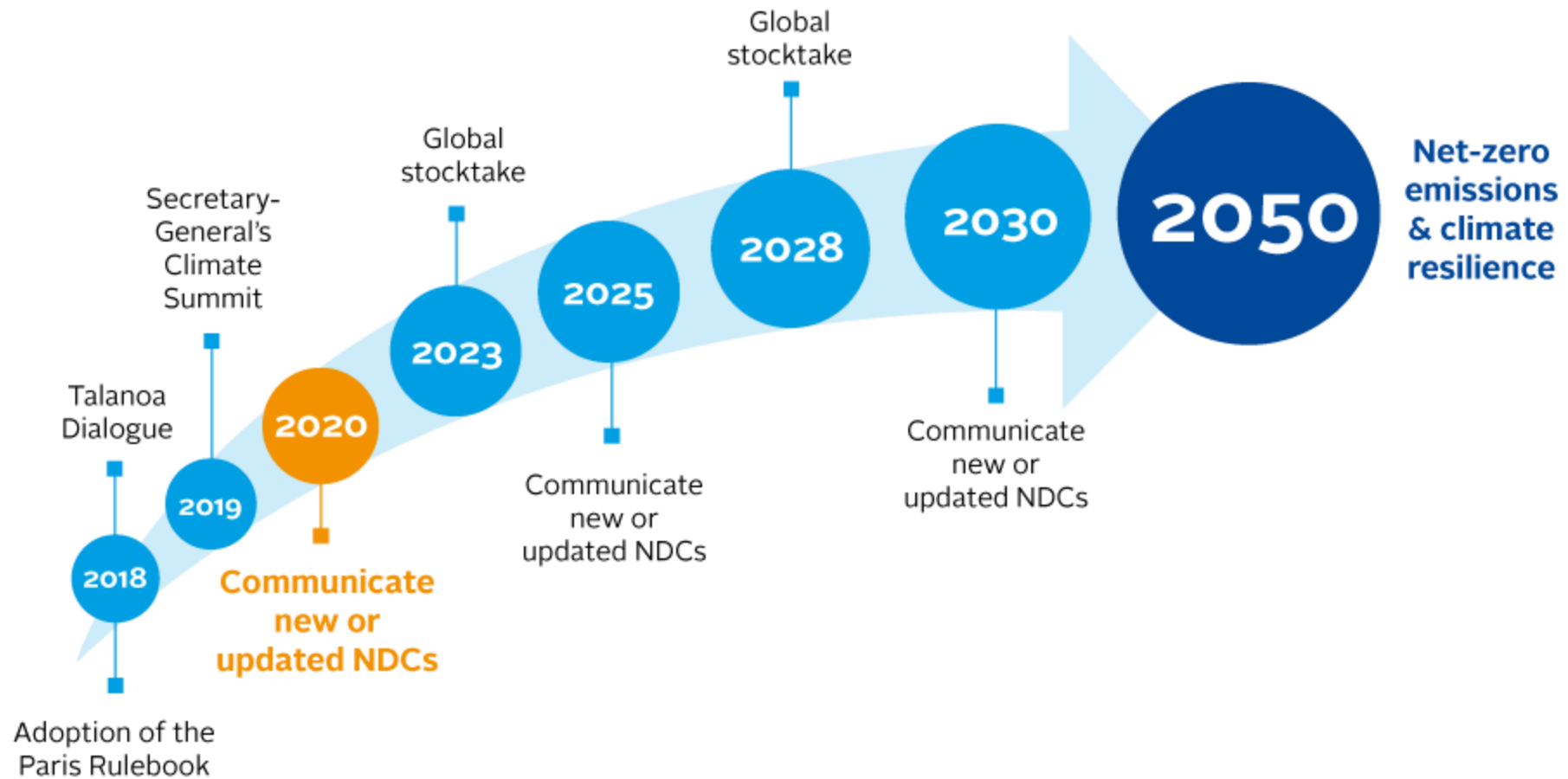




“Code Red
for Humanity”

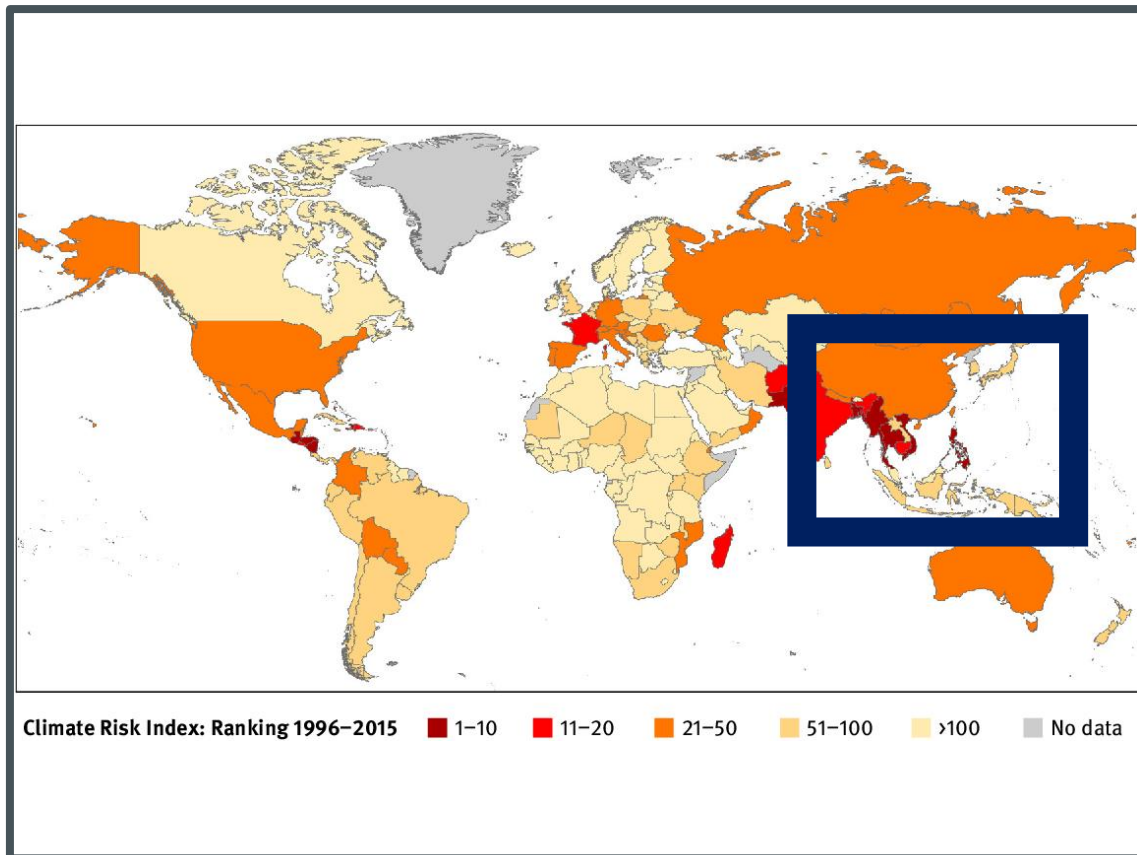
- IPCC Report, 2021

AMBITION MECHANISM IN THE PARIS AGREEMENT





WHY SOUTHEAST ASIA?



- “**World’s most vulnerable**” region to climate change (ADB, 2009)
- **Extensive experience with natural disasters** including floods, typhoons, as well as heat and humidity
- ASEAN member states **signatories to the Paris Agreement**, and committed to emissions cuts in **2015 Nationally Determined Contributions (NDC)**
- Various **existing frameworks** for climate change related discussions under ASEAN
 - ASEAN Ministerial Meetings on the Environment (AMME), ASEAN Working Group on Climate Change (AWGCC), etc.

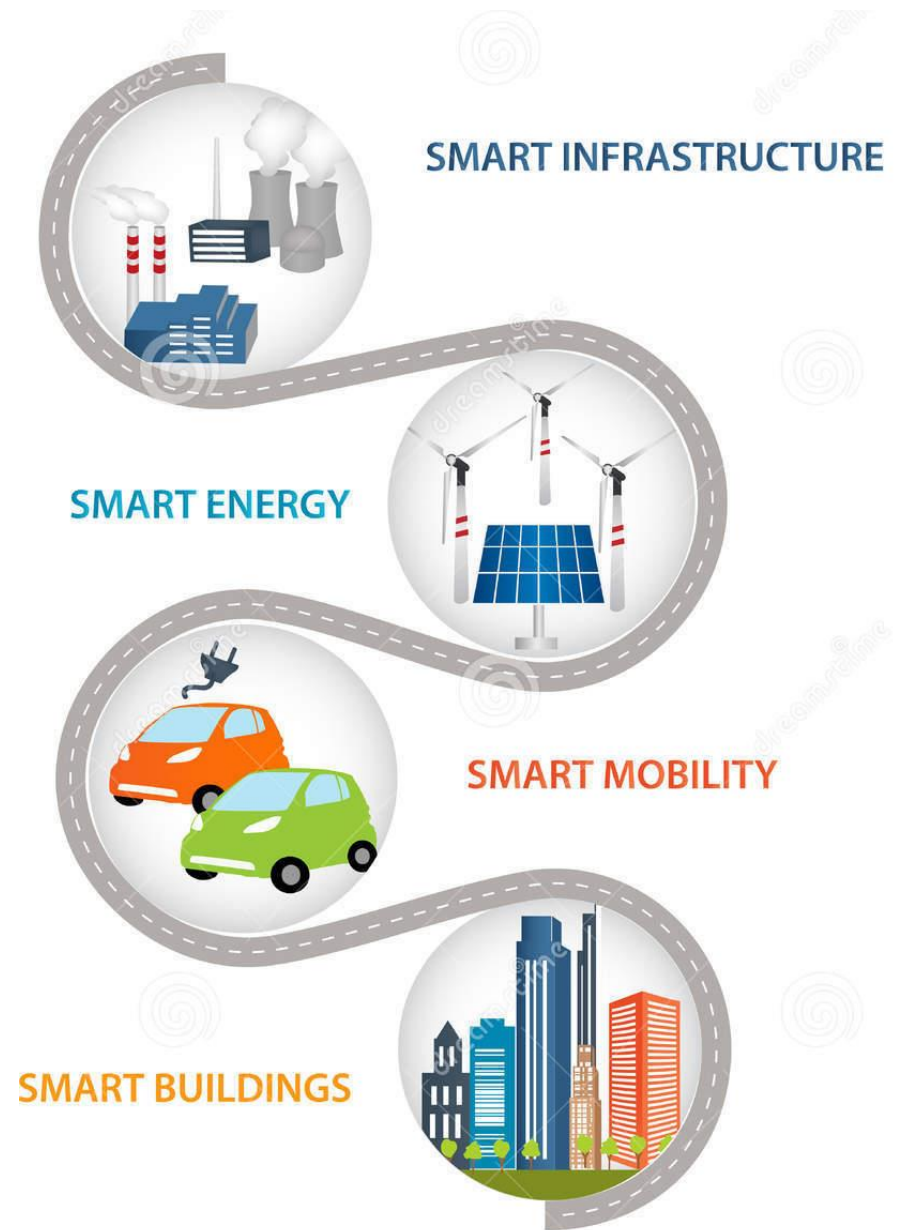
CLIMATE CHANGE: NEED TO TACKLE CITIES

- Cities account for 2% of the world's landmass, but **70% of global greenhouse gas emissions** (Martinus, 2020)
- **2.5 billion people** likely to be added to the urban population by 2025 (UN, 2018)
- **Southeast Asia**
 - Nearly **50% of ASEAN's population** believed to reside in cities (Martinus, 2020)
 - Urban population drives **2/3 of the region's economic growth** (McKinsey, 2018)



WHAT IS A “SMART CITY”?

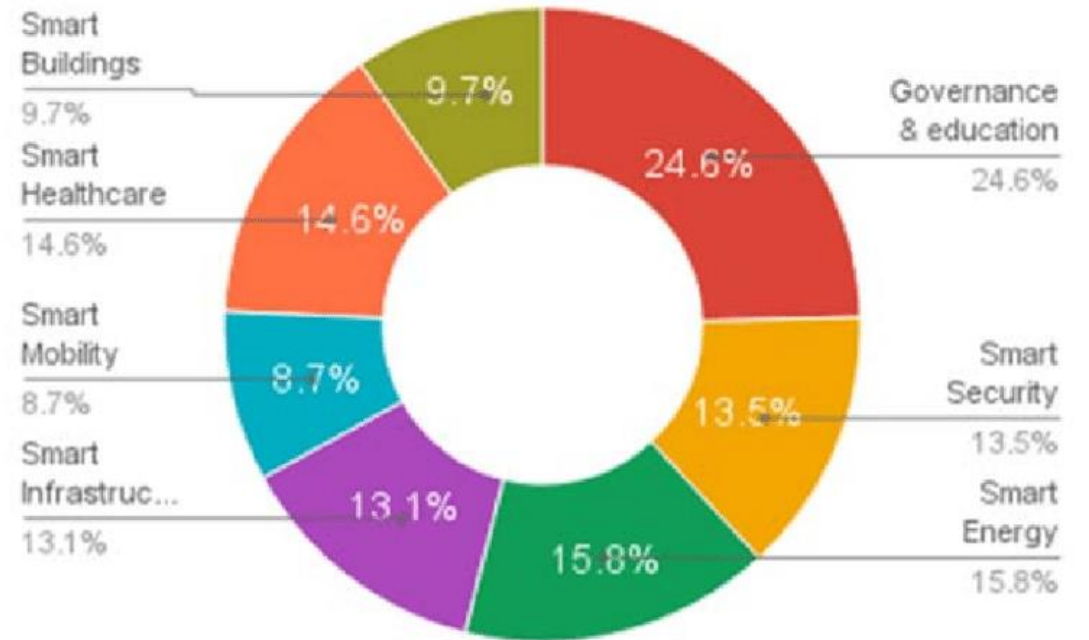
- A **digital, knowledge-driven city** that utilizes various **Internet of Things (IoT) and other technologies** to improve the quality of life and ensure **better sustainability** (safety, transportation, waste management, etc.)
- Examples of smart city initiatives: carbon recycling, smart grids, wastewater treatment, and zero energy house development, smart mobility





https://spri.kr/posts/view/22759?code=industry_trend

Smart City Market Segments



<https://www.ieee.org/content/dam/ieee-org/ieee/web/org/about/corporate/ieee-industry-advisory-board/ieee-smart-cities-trend-paper-2017.pdf>

ASEAN'S SMART CITY EFFORTS

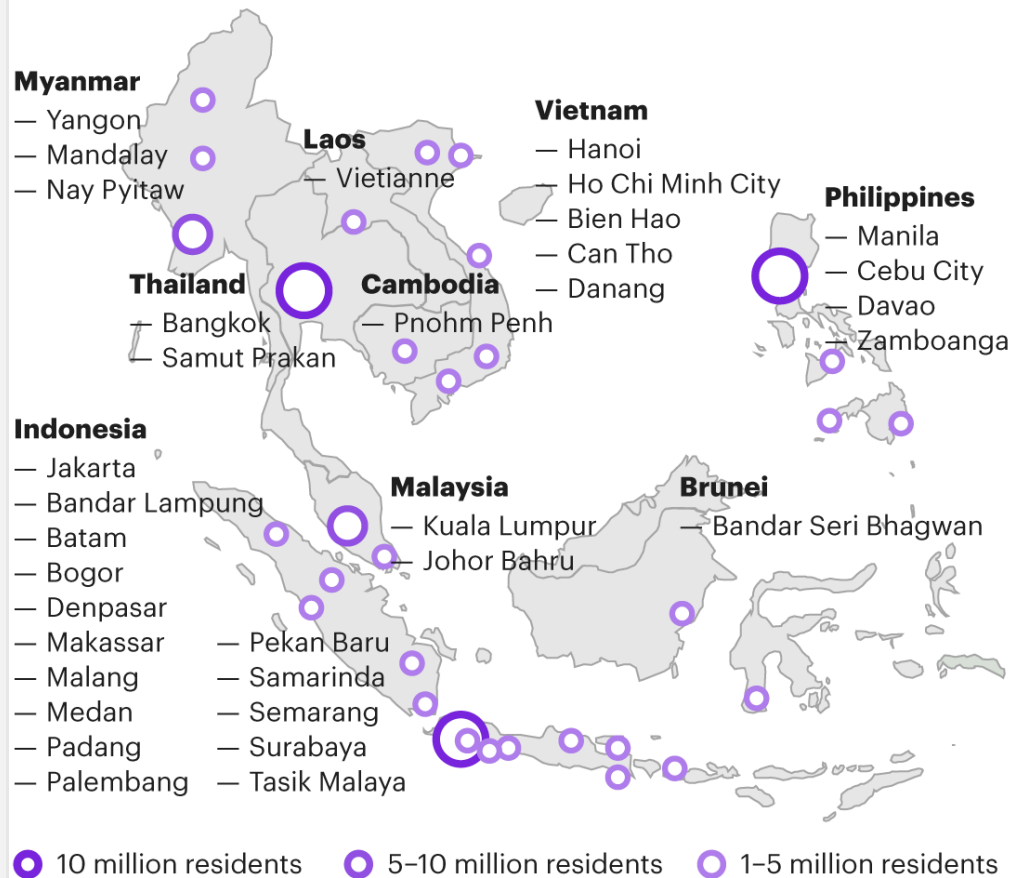
- Establishment of ASEAN Smart Cities Network (ASCN) in 2018
- 26 pilot cities including Bangkok, Da Nang, Manila, etc.
- Various ongoing programs/meetings
 - City-specific Action Plans for Smart City Development (2018-2025)
 - Annual Meeting of ASCN
 - Twinning Program and city-to-city linkages



Figure 11

A plan for ASEAN smart cities

smart cities across 10 countries



Source: Kearney analysis

...deploying IoT and green technology across key dimensions

Smart energy	<ul style="list-style-type: none"> — Smart grid — Energy storage — Smart meters
Smart environment	<ul style="list-style-type: none"> — Renewable energy — Water and wastewater management — Sanitation
Smart transport	<ul style="list-style-type: none"> — Technologies to reduce traffic congestion — Green transport: electric and hybrid — Railways: metro and monorail
Smart IT	<ul style="list-style-type: none"> — Cloud computing and analytics — Security and surveillance — Disaster management
Smart buildings	<ul style="list-style-type: none"> — Intelligent building management systems to save water and electricity — Smart waste management
Smart healthcare	<ul style="list-style-type: none"> — Remote patient monitoring — E-health and m-health systems



Vision

Kuching aims to improve the citizens' quality of life and achieve Smart City status through digital transformation.

Focus Areas

Mobility Urban Resilience

Project 1

Smart Mobility
- Integrated Smart Traffic Light System

Project 2

Integrated Flood Management and Response System

Read More

www.asean2018.sg



Vision

Vientiane Capital intends to develop a detailed Smart City action plan that integrates IT-enabled solutions in various spheres of government functions, for example e-governance, GIS-based land management, smart economy, green transport, etc.

Vientiane Capital aims to be the political, economic, cultural, and educational centre of the country. By 2025, Vientiane Capital envisions to be a Liveable city and a logistics hub catering to regional demands.

Focus Areas

Health and Well-being Quality Environment

Built Infrastructure

Project 1

Establishment of an Effective Drainage System

Project 2

Sustainable Transport Plan

Read More

www.asean2018.sg

ASEAN SMART CITIES: KEY PROBLEMS

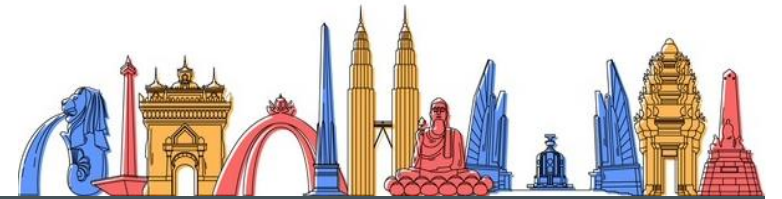
- Implementation, capacity building, and coordination of resources
 - **Cities themselves** appealing to donors
- ASEAN members **lack a “strong political will”** in driving smart city projects (Tan, Taihagh and Sha, 2021)
 - **Novelty** of projects
 - Difficulty in **resource procurement**
 - **Division of labor**



Source: ASEAN | GETTY IMAGES/WP graphic

EXTERNAL ASSISTANCE

UNITED STATES & SOUTH KOREAN EFFORTS TO ASSIST ASEAN SMART CITIES





U.S. Mission to ASEAN

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The U.S. Vision for the Indo-Pacific

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Key Regional Programs

U.S.-ASEAN Smart Cities Partnership (USASCP)

The U.S.-ASEAN Smart Cities Partnership (USASCP), announced by Vice President Pence in November 2018, seeks to harness the expertise of U.S. public and private sectors and collaborate with the ASEAN Smart Cities Network (ASCN) to meet the varied challenges of rapid urbanization and help improve the lives of people in the region. With an initial investment of \$10 million, the USASCP develops activities and programs to promote U.S. private sector engagement in smart city solutions and the digital economy in ASCN cities, share best practices and promote collaboration between innovative programs in U.S. cities with their ASCN counterparts strengthening capability and capacity at the sub-national level. This is a whole of government effort that includes participation from, among others, the Department of State, Department of Commerce, Department of Transportation, National Science Foundation, USAID, U.S. Trade and Development Agency, and U.S. International Development Finance Corporation. For further information please visit www.usascp.org or contact USASCP@state.gov.

UNITED STATES- ASEAN COOPERATION

- Establishment of the U.S.-ASEAN Smart Cities Partnership (USASCP) at the 2018 U.S.-ASEAN summit in Singapore
- Around 20 projects dedicated to transportation, resource and waste management, as well as healthcare development
- 10 million USD as initial investment



“On this 55th anniversary of U.S.-Singapore diplomatic relations, I’m happy that we are embarking on new areas of partnership. We concluded three agreements between our cyberdefense and finance industries, agencies.

Singapore and [the] U.S. are also launching a **climate partnership**, and we are also pleased with our **joint smart city capacity building initiatives.**”



VICE PRESIDENT KAMALA HARRIS ANNOUNCES NEW USAID ASSISTANCE IN VIETNAM

For Immediate Release

Wednesday, August 25, 2021

Office of Press Relations

press@usaid.gov

During her first official visit to Vietnam, Vice President Kamala Harris announced U.S. government funding provided through the U.S. Agency for International Development (USAID) to help Vietnam continue to fight COVID-19, as well as **new initiatives to increase clean energy and natural resource conservation efforts**, boost Vietnam's inclusive business environment, strengthen higher education, and continue improving the lives of people with disabilities. These new efforts are expected to total nearly \$100 million in new activities in Vietnam.

Combating Climate Change

- **Leveraging the private sector in climate action:** USAID and the Vietnam Chamber of Commerce and Industry (VCCI) signed a Memorandum of Understanding (MOU) to boost Vietnam's competitiveness, expand market opportunities for U.S. companies, and strengthen Vietnam's environmental policy. The MOU will improve VCCI's focus on sustainability, green technology, and climate change. USAID plans to support VCCI's development of a Green Index to help U.S. businesses select provinces that are investing in green operations.
- **Expanding clean energy and electric vehicles:** The U.S. government announced the Vietnam Low Emission Energy Program II (V-LEEP II), a five-year, up to \$36 million USAID project which aims to accelerate Vietnam's transition to a clean, secure, and market-driven energy system. The project will work to improve government energy planning, increase competition to encourage U.S. private sector involvement in energy service provision, and increase renewable and zero emissions energy systems. The project will help Vietnam scale up adoption of electric motorbikes and implement the Direct Power Purchase Agreement mechanism to allow businesses to procure electricity directly from private firms producing renewable energy.
- **Protecting the Mekong Delta region:** Through USAID, the U.S. government launched the Mekong Coastal Habitat Conservation project, a new three-year, up to \$2.9 million project with the International Union for Conservation of Nature. This project aims to protect key coastal habitats in the Mekong Delta region to increase the sustainability of fisheries, enhance climate change adaptation and improve biodiversity conservation.

EMPHASIS ON PRIVATE SECTOR ENGAGEMENT

- A core element to promote **private sector engagement** in smart city solutions and digital economy in ASCN cities
- Encouragement of **entrepreneurship and commercialization** of smart city technologies
- Looking to establish a **Smart Cities Business Innovation Fund** to help ASEAN cities under the 20.5 million USD U.S.-ASEAN Climate Futures initiative (White House, 2021)
- **New U.S. commercial initiatives in Indo-Pacific** to include a smart city project in Vietnam (U.S. Department of State, 2021)



NEED FOR U.S. SMART CITY ENGAGEMENT WITH ASEAN

- Domestic criticisms: lack of incentive and strategy (Wray, 2021)
 - Lack of coordination and “strategic vision” for smart city research at the national level
- China’s smart city efforts in Southeast Asia
 - China pioneering around **500 pilot projects** – around half of the world’s smart cities (Xinhua, 2018)
 - Yet China is neglecting **environmental concerns**
 - Ex. Marine pollution while promoting smart city efforts in the Forest City of **Johor Bahru, Malaysia**

Table 1. Key Chinese-invested Built-from-scratch Smart City Projects in Southeast Asia

Country	Project	Chinese Investor(s)	Project Value (in USD)	Project Start Year	Project Status
Malaysia	Forest City	Country Garden Group as a joint-venture partner (60%)	4 Billion (100 Billion Est. Total)	2013	1st Phase Completed in 2019
Philippines	New Clark City	China Construction Engineering Corporation	2 Billion (China Industrial Park)	2016	Initial Operation in 2019
Philippines	New Manila Bay-City of Pearl	UAA Kinming (Filipino-Chinese Developer Consortium)	1.48 Billion (1st Phase)	2017	Reclamation Contract Signed in 2019
Thailand	Eastern Economic Corridor (EEC)	China Development Bank, Tus-Holdings, Huawei etc as partners	54.2 Billion (Total)	2017	MOUs Signed in 2018
Myanmar	New Yangon City Development	China Communications Construction Co. (CCCC) as the main partner	1.5 Billion	2020	Swiss Challenge Started in 2020; Now Suspended

Source: Tritto and He, 2020. Updated by authors.

https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1000&context=patterson_reports

SOUTH KOREA'S NEW SOUTHERN POLICY PLUS

- **New Southern Policy** initially announced in November 2017
- Revised **New Southern Policy Plus** announced in November 2020 to emphasize challenges following Covid-19, including climate change and other non-traditional threats
- **Green growth** with a **digital focus**
 - Sustainable ways to achieve/maintain economic development
 - Investment in artificial intelligence and 5G wireless technology

Initiative 7

SHAPING A COMMUNITY OF GREATER SAFETY AND PEACE



Transnational cooperation for the fostering of safety and peace

Enhance people-centered non-traditional security cooperation in such areas as the environment (climate change), marine and water resources, transnational crime, and multi-dimensional projects to enhance the resilience of the Mekong region.



- 1 Cooperation to address to climate change and reduce the carbon footprint**
 - Sharing Satellite (Cheollian) geostationary orbit satellite data
 - Launch of an ASEAN-ROK carbon Dialogue
- 2 Consolidate disaster response capability and cooperation system**
 - The building of Flood forecast and alarm systems (Laos, Philippines)
 - Seek to establish an Indonesia Forest Fire Disaster Management Center
 - Continue to provide assistance through the ASEAN+3 Emergency Rice Reserve
- 3 Cooperation to protect the oceans and environment**
 - Provision of marine pollution response vessels (Philippines, '25)
 - Indonesia Maritime pollution management capacity enhancement (joint studies, monitoring, policy development)

PRIORITIZING AREAS OF COOPERATION



Policy

About

03. E Countries

Corporate social

Archives

Sustainability and local community involvement

KOR

ENG



Vision & Objectives

What is the NSP?

History

NSP+



5



Supporting rural villages and urban infrastructure development

Develop remote rural areas through One-Team Korea, upgrade living standards through smart city and infrastructure projects.

01. Improve quality of life by supporting rural development



02. Strengthen agricultural and fishery production and export capabilities



03. Develop smart cities and improve infrastructure



- G2G partnership such as ASCN (ASEAN Smart Cities Network)
- Expanding participation in Indonesia new administrative capital city construction
- Participating in MPAC (Master Plan on ASEAN Connectivity) infrastructure projects

04. Facilitate the financing of infrastructure projects



SOUTH KOREA- ASEAN COOPERATION

- South Korea announcement of support for ASCN at the **2019 ASEAN-ROK Commemorative Summit**
- **Ministerial-level consultative body** for sustainable cooperation in the smart city sector
- Multiple **MOUs** signed with ASEAN (Singapore, Vietnam, Thailand, etc.)



“ASCN project is a matter of great interest to my administration. Korea will share its strengths to the greatest possible extent and actively take part in it.”

President Moon Jae-in
(ASEAN-ROK Summit, NOV 2018)



ASEAN-ROK SMART CITIES COOPERATION

Shared Future :
Smart and Sustainable Cities

Smart City Solutions



OVERALL NEED TO PRIORITIZE AREAS OF COOPERATION

1 SECURITY



- 1.1. Road Depression Monitoring
- 1.2. Climate Risk Management
- 1.3. Real-time Response System for Accidents
- 1.4. Safety Check for Public Structures
- 1.5. Maritime Safety System

2 HEALTH CARE



- 2.1. Emergency Patient Management System
- 2.2. Elderly Care System
- 2.3. Air Quality Monitoring System
- 2.4. Remote Diagnostic System

3 MOBILITY



- 3.1. Tunnel Violation Enforcement Service
- 3.2. Smart Parking Information System
- 3.3. Driving Danger Warning System
- 3.4. Illegal Parking Enforcement System
- 3.5. Bicycle Sharing Service
- 3.6. Ships Navigation Support System
- 3.7. Bus Information System
- 3.8. Public Transport Fare Integration System

4 ENERGY



- 4.1. Zero Energy House
- 4.2. Smart Lamp Post
- 4.3. Electricity Bill Management Service

5 WATER



- 5.1. Smart Water Supply System
- 5.2. Smart Water Metering System
- 5.3. Fountain Water Quality Information System
- 5.4. Smart Water Treatment System
- 5.5. Intelligent Wastewater Treatment System
- 5.6. Pipeline Leakage Management System

6 WASTE



- 6.1. Mobile Payment System For Waste Disposal
- 6.2. Carton Recycling Reward Service
- 6.3. Smart Trash Bin Service

7 E-GOVERNMENT



- 7.1. Cadastral Resurvey Service Using Drones
- 7.2. Interactive Legal Knowledge Service
- 7.3. Cultural Heritage Management Service
- 7.4. Digital Tax Payment Service
- 7.5. AI Math Education Platform (KnowRe)
- 7.6. Open GIS Platform
- 7.7. Digital Land use and Building Permit
- 7.8. Online Self-Diagnosis of Permit Process

8 PARTICIPATION



- 8.1. Blockchain-based Local Currency Service
- 8.2. Blockchain-based Voting System
- 8.3. Smart VOC Management System
- 8.4. Citizen Participation Platform (Wemap)
- 8.5. Digital Citizen Service

SOUTH KOREA'S ASSISTANCE

Financial

- ASEAN-Korea Cooperation Fund (AKCF)
- Green New Deal Fund
 - 5 million USD to aid carbon neutrality development in developing countries
- Multilateral means
 - Green Climate Fund (GCF)
 - Global Green Growth Institute (GGGI)

Technical

- South Korea's domestic smart city project since 2006
 - U-City Construction Activation General Plan by Ministry of Information and Communication
- Smart city project in Songdo
 - 2008 U-city Strategy Plan
 - Incheon Free Economic Zone

EXISTENCE OF PUBLIC & PRIVATE STAKEHOLDERS

ASEAN-ROK SAMRT CITY COOPERATION

10

ROK's Efforts

GOVERNMENT

- Presidential Committee on New Southern Policy (NSP)
- Ministry of Economy and Finance (MOEF)
- Ministry of Foreign Affairs (MOFA)
- Ministry of Land, Infrastructure and Transport (MOLIT)
- Ministry of Science and ICT (MISIT)
- Ministry of Environment (MOE)

STATE-OWNED ENTERPRISE

- Korea Land and Housing Corporation (LH)
- Korea Water Resources Corporation (K-water)
- Korea Trade Promotion Agency (KOTRA)
- Korea Electric Power Corporation (KEPCO)

RESEARCH INSTITUTE

- Korea Institute for International Economic Policy (KIEP)
- Korea Research Institute for Human Settlements (KRIHS)
- The Korea Transport Institute (KOTI)
- Korea Environment Institute (KEI)
- Electronics and Telecommunications Institute (ETRI)
- Korea Association for ICT Promotion (KAIT)

OTHER PARTNERS

- Smart City Alliance (Public-Private Smart City Alliance in Korea)
- ASEAN-KOREA Centre (AKC)
- World Smart Cities Organization (WeGO)

Research Projects for ASCN Cooperation (APR 2019 ~ DEC 2019)

SUPPORTIVE METHODS

KIEP+KRIHS
+KOTI+KEI

URBAN & HOUSING

KRIHS+LHI

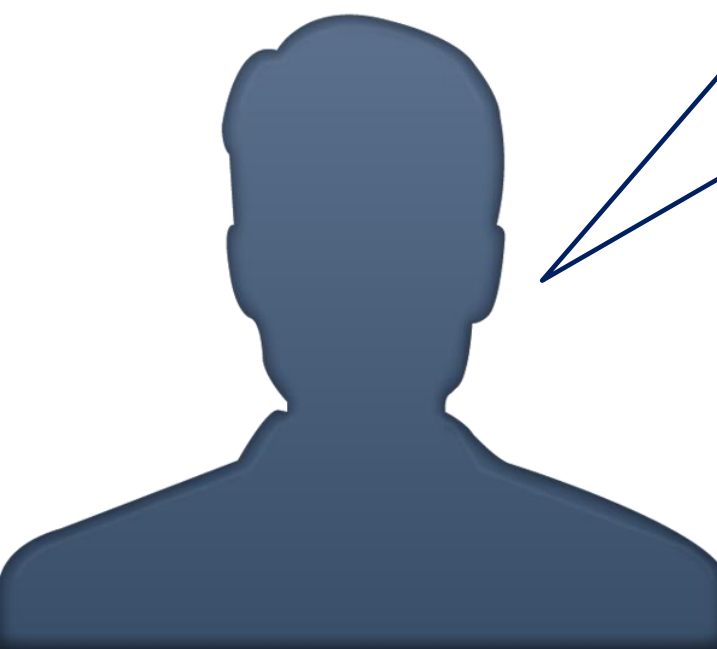
TRANSPORT & ICT

KOTI+ETRI+KAIT

ENVIRONMENT & WATER

KEI+KRIHS+K-WATER

NEED FOR ROK SMART CITY ENGAGEMENT WITH ASEAN



South Korea, through the NSP Plus, has attempted to regroup and prioritize the different agenda for cooperation with ASEAN. Climate change is likely to continue as an agenda of cooperation with ASEAN.

From author's interview with Deputy Director-general of the Planning and Finance Division of the Ministry of Foreign Affairs, Republic of Korea, formerly contributor to the revision of the NSP Plus agenda

U.S.-ROK COOPERATION

SMART CITIES COOPERATION IN SOUTHEAST ASIA



PUBLIC & PRIVATE PARTNERS OF USASCP

November 4, 2019

PARTNERS

The **U.S.-ASEAN Smart Cities Partnership (USASCP)** is a whole-of-government effort that includes participation from

- **U.S. Department of State**
 - Bureau of East Asian and Pacific Affairs (EAP)
 - Bureau of Economic and Business Affairs (EB)
 - Bureau of Energy Resources (ENR)
 - Bureau of Oceans and International Environmental and Scientific Affairs (OES)
- **U.S. Department of Commerce**
 - International Trade Administration (ITA)
 - National Institute of Standards and Technology (NIST)
- **U.S. Department of Transportation (USDOT)**
 - Office of International Transportation and Trade
- **National Science Foundation (NSF)**
 - Directorate for Computer and Information Science and Engineering (CISE)
- **U.S. Agency for International Development (USAID)**
 - Bureau for Asia, Office of East Asian Affairs (ASIA/EAA)
- **U.S. Trade and Development Agency (USTDA)**
 - Indo-Pacific, South and Southeast Asia
- **U.S. International Development Finance Corporation (DFC)**

U.S. Mission to ASEAN

Programs under the **U.S. Mission to ASEAN**:

- [U.S.-ASEAN Connect](#)
- [Young Southeast Asian Leaders Initiative \(YSEALI\)](#)
- [Inclusive Growth in ASEAN through Innovation, Trade, and E-Commerce \(IGNITE\)](#)

U.S. Vision for the Indo-Pacific

Programs supporting the **U.S. Vision for the Indo-Pacific**:

- [Lower Mekong Initiative \(LMI\)](#)
- [Third Country Training Program \(TCTP\)](#)
- [International Visitor Leadership Program \(IVLP\)](#)

Programs announced at the **Indo-Pacific Business Forums**:

- [Digital Connectivity and Cybersecurity Partnership \(DCCP\)](#)
- [Enhancing Development and Growth through Energy \(Asia EDGE\)](#)
- [Infrastructure Transaction and Assistance Network \(ITAN\)](#)
 - [Transaction Advisory Fund \(TAF\)](#)
- [Blue Dot Network](#)

International Partners

Like-Minded Partners

- **Japan:** [Joint Statement by the U.S. and Japan on Furthering the Development of Smart Cities in the Indo-Pacific](#)
- **South Korea:** [Joint Statement on the 4th Republic of Korea-United States Senior Economic Dialogue](#)

ASCN Pilot Cities

- [ASEAN Smart Cities Network \(ASCN\)](#)

CURRENT FLAGSHIP PROJECT IN TAM KI CITY, VIETNAM (QUANG NAM PROVINCE)

- Included in the “ROK and the U.S. Working Together to Promote Cooperation between the New Southern Policy and the Indo-Pacific Strategy” Factsheet, under the smart cities sector (2019)
- Project led by **KOICA (Korea International Cooperation Agency)**, with the Quang Nam provincial government
 - Total budget: \$11 million
 - Duration: 2 years (2020-2022)
 - KOICA also supporting the Smart City Valley Program in Vietnam with USASCP
- Main objectives; capital and technology transfer, with an emphasis on **data management** (KOICA Concept Note, 2019)
 - Establishment of smart city administrative data (residence, traffic, safety and environmental management), e-government, data platform, spatial analysis system, demonstrative service in pilot area



OTHER FORMS OF COOPERATION: STANFORD UNIVERSITY IN SONGDO, SOUTH KOREA

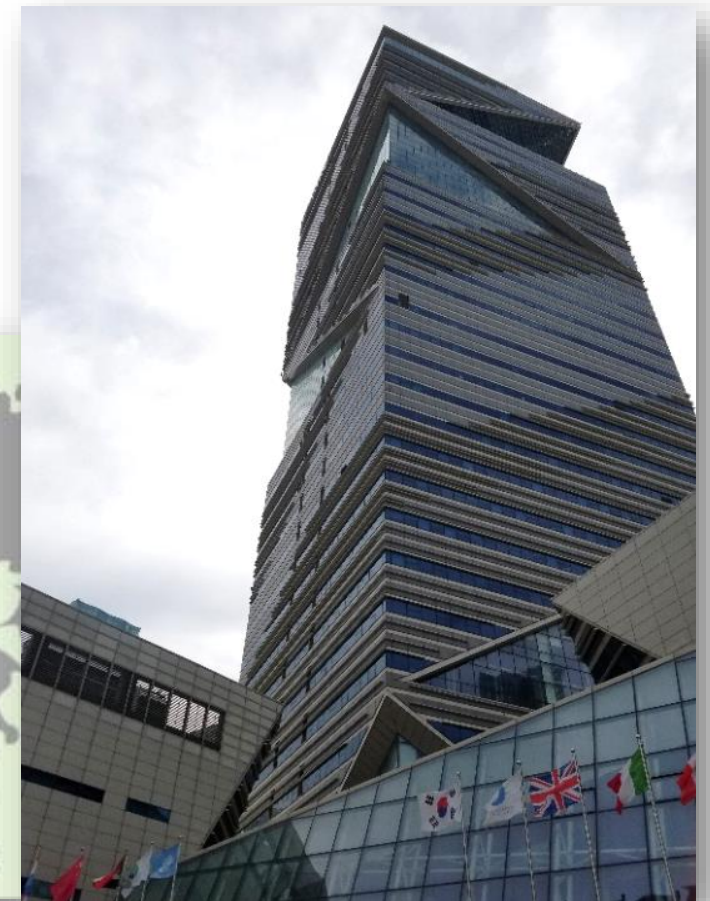
- **Stanford University's Smart City Research Center** at the Incheon Global Campus in Songdo, South Korea (June 2021)
- Main objectives:
 - Improving **data collection**, storage and visualization for smart city technology implementation
 - Synthesis and integration of **sensor data**
 - Serve as hub of cooperation **connecting Silicon Valley and South Korea** and a key research center for the Incheon Free Economic Zone



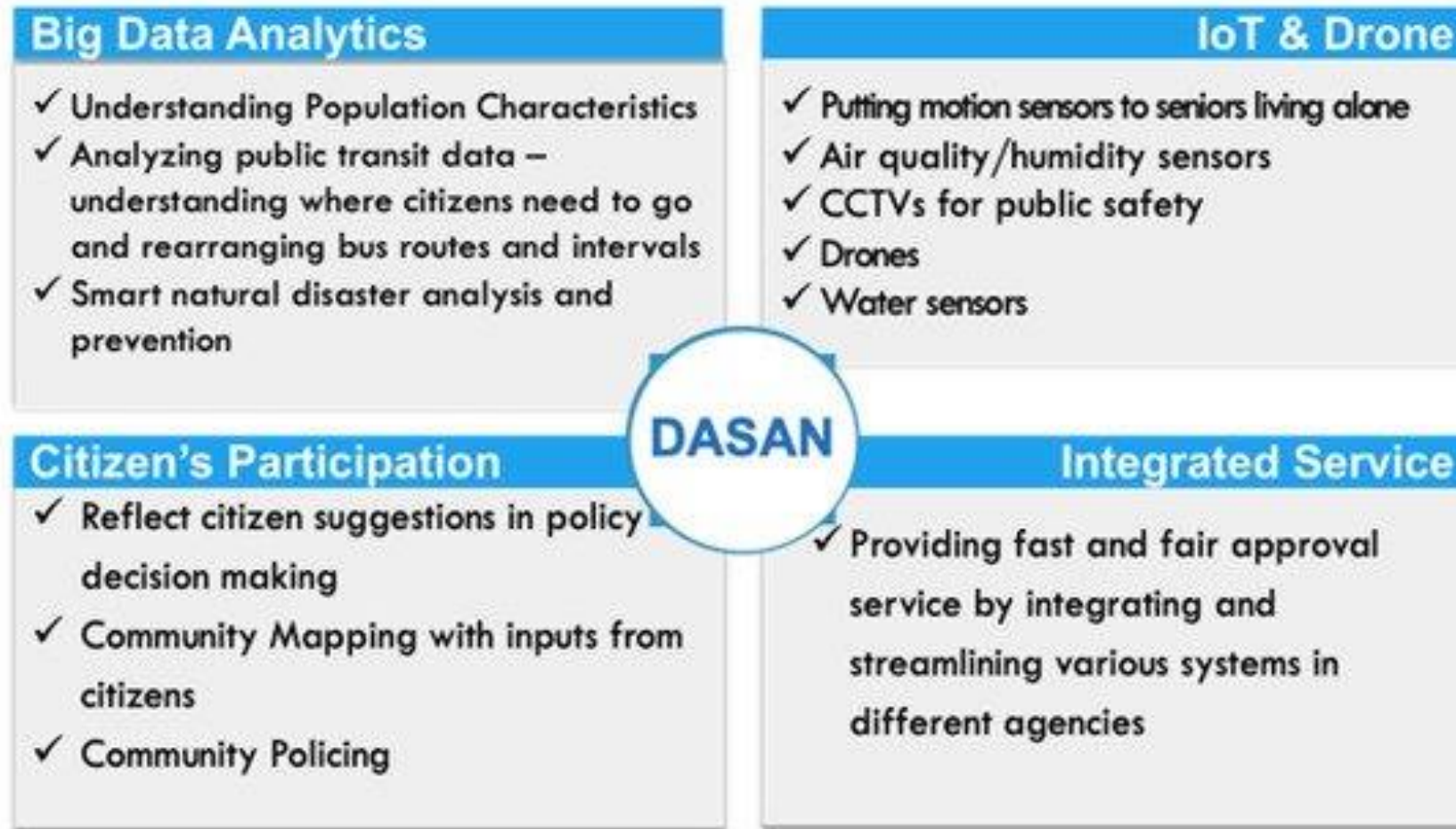
<https://smartcity.go.kr/en/>

INCHEON FREE ECONOMIC ZONE & SMART CITY IN SONGDO, SOUTH KOREA

- Port city which is an integral part of the **Incheon Free Economic Zone (IFEZ)**
- Songdo as the “**most integrated operations command center**” in South Korea (Lee et al., 2016)
- **G-Tower** as the central command center: monitors traffic system, temperatures, and alerts emergency responses using a network of CCTV surveillance cameras.
- Near the **Incheon International Airport**

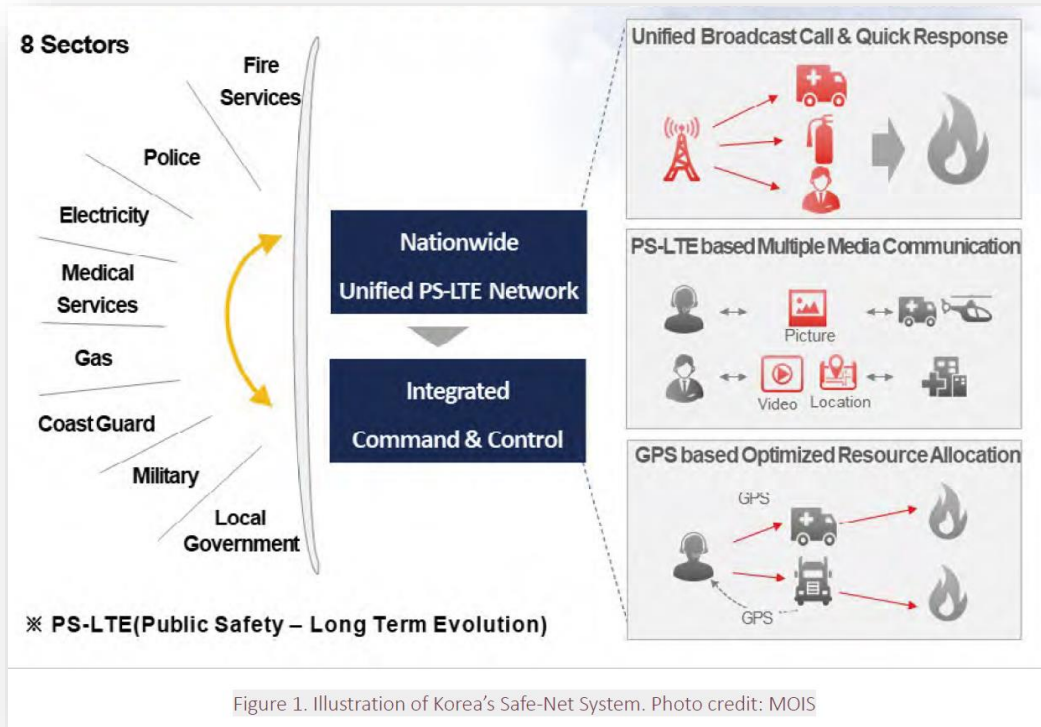


OVERARCHING FOCUS ON BIG DATA



(Myeong, Kim, and Ahn, 2020)

SOUTH KOREA'S "SAFE-NET" SYSTEM



Type	Phase 1 (Central Korea) Dec. 2018 - Sep. 2019	Phase 2 (Southern Korea) Nov. 2019 - Sep. 2020	Phase 3 (Capital Region) Jun. 2020 - Mar. 2021
Zone A	Daejeon, Sejong, Chungnam	Daegu, Gyeongbuk, Jeju	Seoul
Zone B	Gangwon	Gwangju, Jeonbuk, Jeonnam	Gyeonggi
Zone C	Chungbuk	Busan, Ulsan, Gyeongnam	Incheon

Figure 2. Safe-Net deployment phases. Credit: MOIS

POTENTIAL FOCAL POINT: MONITORING TECHNOLOGIES

- Disaster monitoring technologies
 - Smartphone applications for sharing information with the public considered “signature” projects

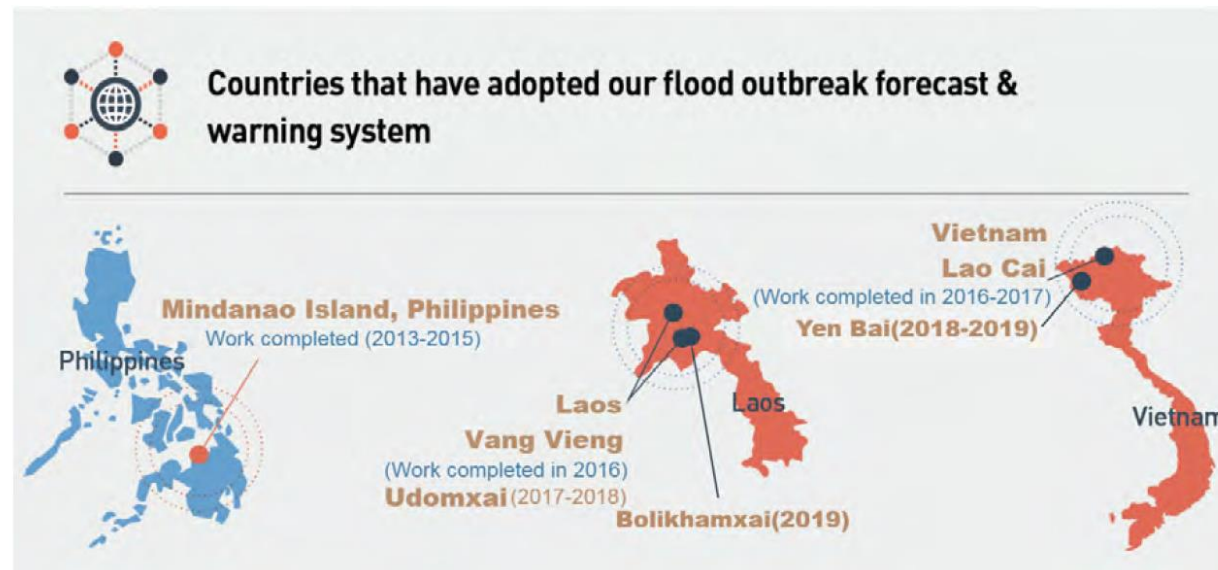


Figure 2. Countries with Korean flood Forecasting systems.

Photo credit: National Disaster Management Research Institute (NDMI) of the Ministry of the Interior and Safety (MOIS).

WHY U.S. AND SOUTH KOREA SHOULD COOPERATE: ACCESS TO ADVANCED TECHNOLOGIES

- South Korea's indigenous **geostationary weather satellite Chollion-2A**, released in early 2019
- Access to more advanced technology and data with U.S. assistance
- Example: **Korea Water Resource Development Corporation (K-Water)** between the U.S. and South Korea in Southeast Asia
 - **Joint project with National Aeronautics and Space (NASA)** on development of satellite technology for water management and water disaster prevention (including droughts and flooding)
 - Signed a research cooperation deal with countries in the **Mekong region (Cambodia, Laos, Myanmar, Thailand and Vietnam)** in 2019



<https://koreajoongangdaily.joins.com/news/article/article.aspx?aid=3070951>

WHY U.S. AND SOUTH KOREA SHOULD COOPERATE: LIKE-MINDED PARTNERS FOR DATA MANAGEMENT

- Data management problems
 - U.S. concern with **protection of personal privacy** and data management
 - South Korea, and Japan as **more experienced partners** in handling private data (Hayashi, 2020)
 - Example: Debate surrounding digitalization of Covid-19 vaccination certificates
- Need for **cybersecurity cooperation**
 - Cooperation on smart cities closely intertwined with cybersecurity efforts
 - First U.S.-ROK ICT Cooperation Committee held in 2021



<http://www.koreaherald.com/view.php?ud=20210805000282>

WHY DATA MANAGEMENT & MONITORING TECHNOLOGIES?

1. **Need** for Disaster & Resource Monitoring in ASEAN (Maritime & Continental)
2. ROK & U.S. Desire to **Export Domestic Technology & Capital** Abroad
3. **Comparative Advantages** of ROK: Data Management / U.S.: Technology
4. **Existing Infrastructure**
 - Ongoing cooperation projects within the Mekong region
 - Various smart cities in South Korea based in coastal areas (Songdo)
5. Technology as an Emerging Area of **Global Focus**

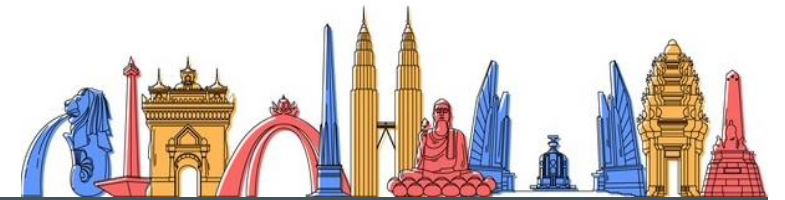
SMART CITY PROJECTS: FUTURE CONSIDERATIONS

- Smart city projects in their beginning stages
 - Need energy and thought input to sustain momentum of **key projects** (tangible outcome)
 - **Lack of public awareness** in both the U.S. and South Korea
 - Other challenges: Covid-19 pandemic, upcoming presidential election in South Korea
- Where do smart city projects belong?
 - **Overarching** among different sectors including those related to climate change, infrastructure, foreign policy (communication, funding, and division of labor problems)



SPECIFIC RECOMMENDATIONS

FOR SUSTAINABLE COOPERATION ON SMART CITIES



1

Improve domestic coordination among the different sectors, governmental bodies, and corporations dedicated to smart cities

- The U.S. and South Korea have numerous bodies dedicated to smart city projects, yet inter-communication seems to be generally lacking
- Increased coordination will also help monitor the projects' developments and fundings

2

Collaborate on an overarching roadmap for cooperation:
Look at key geographical areas as a starting point

- Instead of agreeing to cooperate on a city-to-city basis, the U.S. and South Korea need to conceptualize a roadmap for cooperation
- A starting point could be looking at certain geographical focal areas (such as the Mekong region) where there is already existing infrastructure for cooperation

3

Work on tactical and tangible projects to motivate further cooperation, including monitoring technologies

- Smart city initiatives are wide ranging, and ASEAN lacks overall will to implement them
- The two parties need to outline key areas of cooperation where interests align with capabilities, such as monitoring technologies in the Mekong region

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THANK YOU FOR LISTENING

