



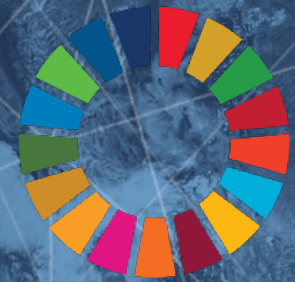
Network Korea

# Accelerating Climate Actions by Cities

August 29, 2023

Int'l Forum on Low Carbon Cities

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UN Global Compact Network Korea



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## Key Messages

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Now is the Time for Climate Action.

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2

Now is the City's Time for Climate Action in a Glocalization Era.

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Transition & Transformations are Key to City's Climate Action.

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4

Innovative Technology for Decarbonization & Digitalization is Critical to City's Transition.

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5

For that to happen, No Single Actor Can Deliver in Tackling Climate Change.

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## <Prologue: UNGC, UN Global Compact>



- The former UN Secretary-General Kofi Annan called for the Global Compact in the World Economic Forum on Jan 31, 1999.
- The UN Global Compact was established in the UN headquarters, NY in July 2000.  
(Joined by world business leaders, corporations, UN organizations, labor and civil groups)
- The backgrounds
  - ⇒ Expansion of the influence of corporations on environmental and social issues
  - ⇒ Recognition of the importance of corporations to achieve the UN's goal
  - ⇒ Necessity of the establishment of the UN agency for corporate's social responsibility
    - \* UN Global Compact Network Korea was founded in 2007.

# UNGC 10 PRINCIPLES + SDGs (adopted in 2015)

Pursue the 10 principles in the 4 sectors based on the existing international agreement and sustainable development goals

HUMAN RIGHTS	Universal Declaration of Human Rights (1948)
LABOUR	ILO Declaration on Fundamental Principles and Rights at Work (1989)
ENVIRONMENT	Rio Declaration on Environment and Development (1992)
ANTI-CORRUPTION	United Nations Convention against Corruption (2003)



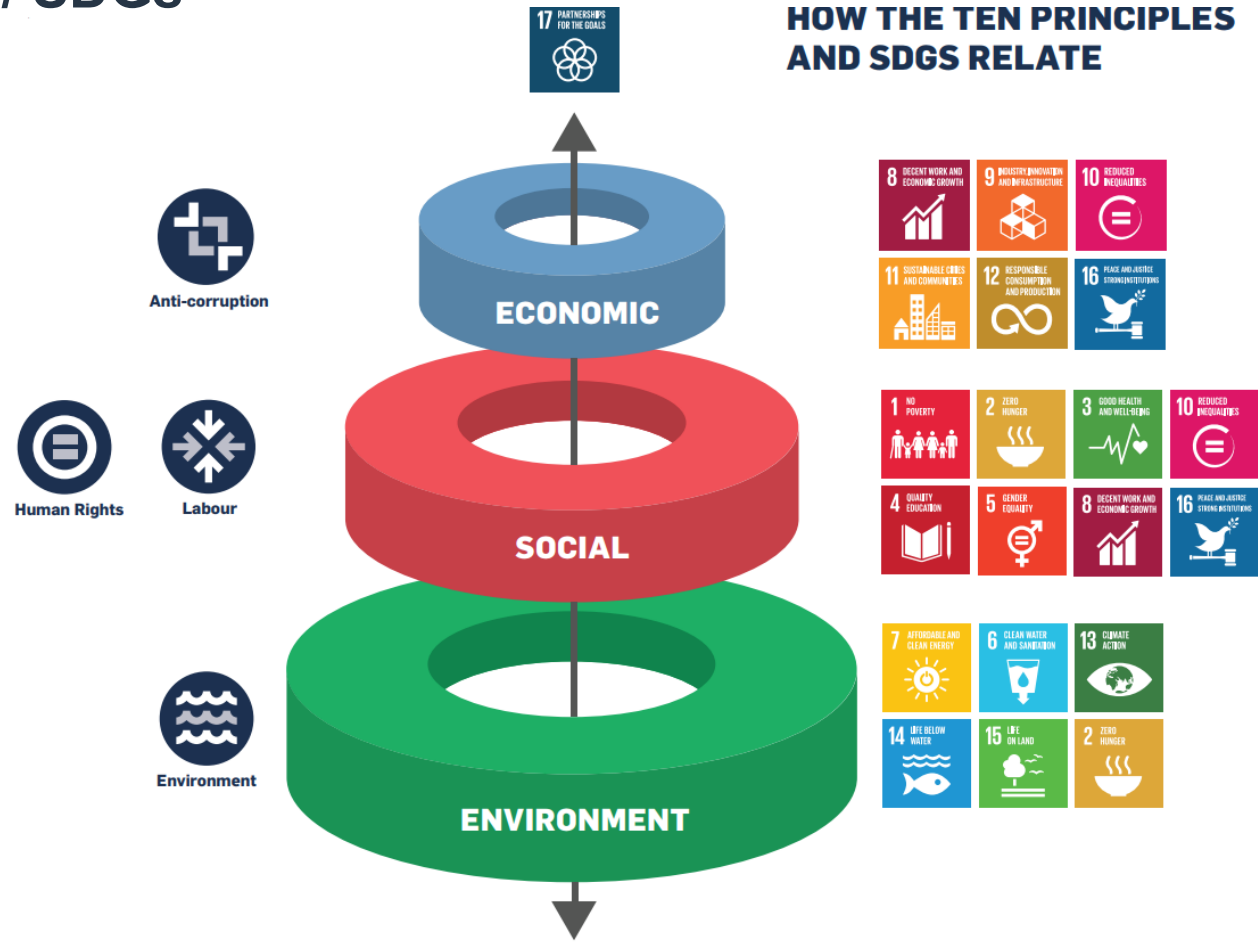
Sustainable Development Goals (SDGs)



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# UNGC/ESG/ SDGs

## HOW THE TEN PRINCIPLES AND SDGS RELATE

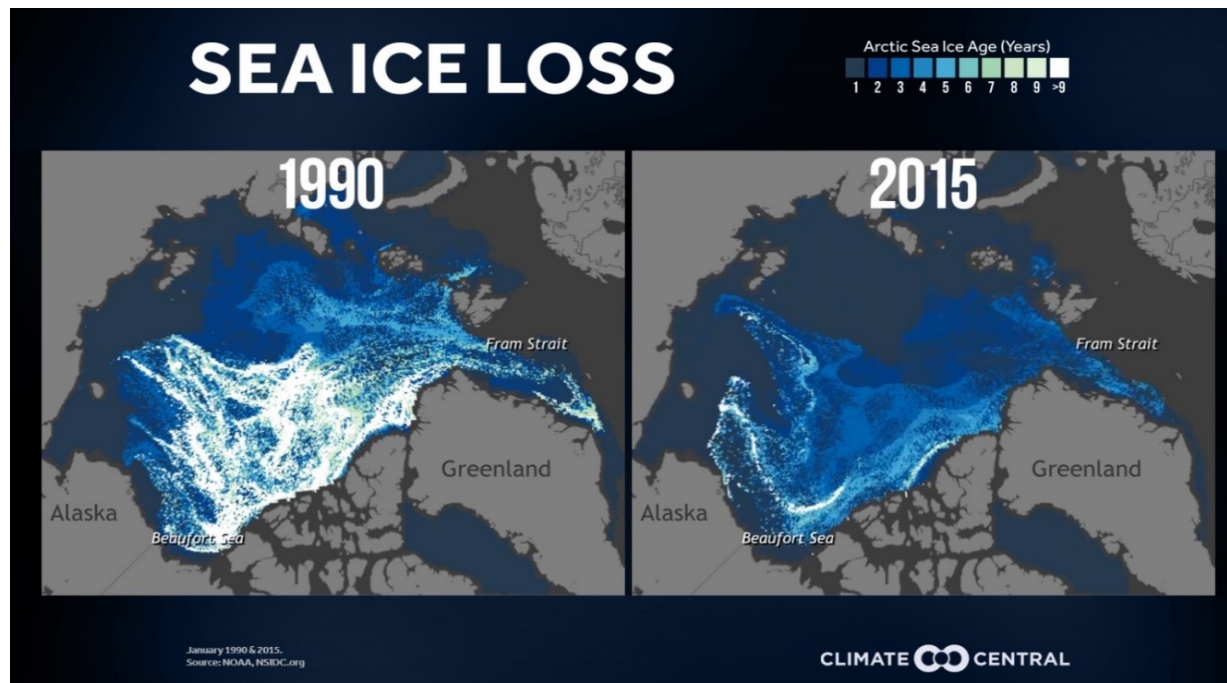




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## The Impact of Climate Change

An Inconvenient Truth : “Truth” much more inconvenient than said by Al Gore (2006)



<https://www.youtube.com/watch?v=ggvgrpNB0HI>

<https://www.youtube.com/watch?v=fo1Boie7mtI>



# Global Warning on Global Warming=> Boiling



## ★ 2023 Summer (highest record)

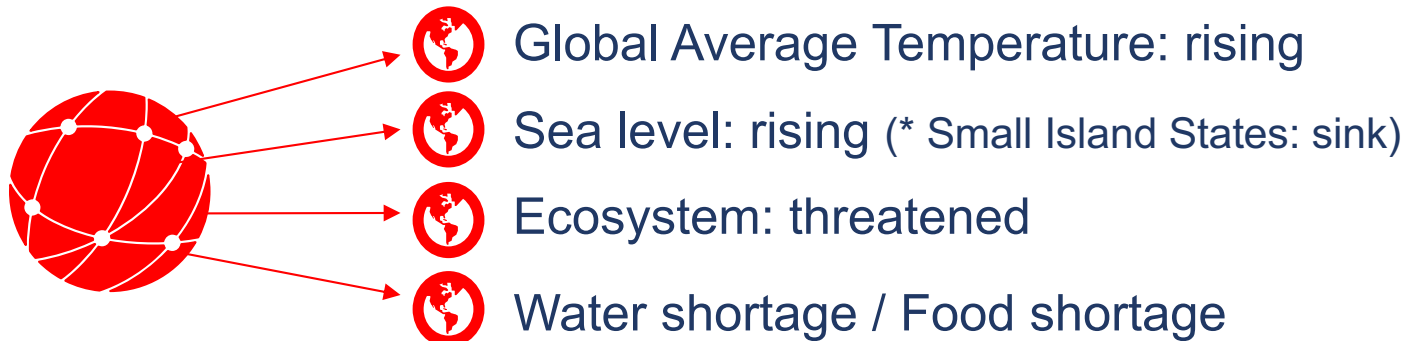
Heat waves, droughts, floods, typhoons, etc.

- Not only in Korea but also in the other parts of the world

→ Importance of Adaptation : “Future is now”  
in response to climate change

=> Abnormal is New Normal

## Adverse effects of climate change



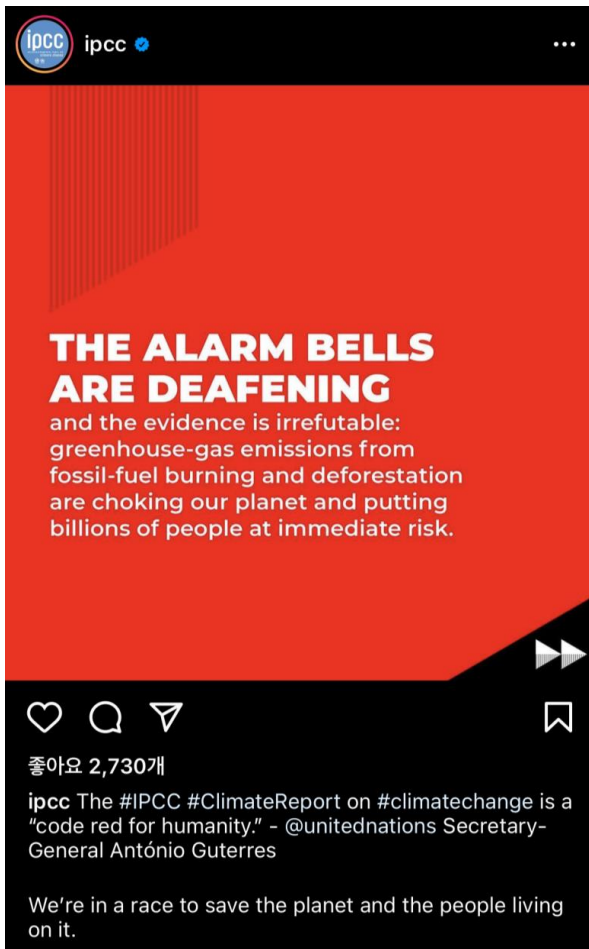
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- **IPCC(Intergovernmental Panel on Climate Change):**

Independent Scientific Body (Former Chairman : Dr. Lee Hoesung)

- 1st Report('90): Observation for **Climate Change**
- 2nd Report ('95): Climate Change caused by **Human Behaviors**
- 3rd Report('01): Its Possibility (66%)
- 4th Report('07): Its Possibility (90%)
- 5th Report('14): Its Possibility (97%)
- 6th Report ('23) : Its Possibility (**Unequivocal**)

※ To Address Climate Change: Importance of R&D for Green Technology



“Code Red  
*for Humanity*”

- IPCC Report, 2021

## Significance of Cities: Glocalization & Tackling Climate Change

- The Shift from Globalization to Glocalization
  - Glocalization: combination of Global and Local Considerations
    - “Think Globally, Act Locally”
    - “Making Global Goals Local Business” (UNGC Slogan)
- Tackling Climate Change
  - Collective Efforts Needed
    - Public & Private (companies, citizens, etc)
    - National & local government (city)
- City: Driving Force for Addressing Climate Change



### 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)



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## Key ISSUES & Areas to be addressed by cities

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\*Keynote speech: providing the basis for discussions in the next sessions

### ■ Key Issues

(1) Setting the Goal of Mitigation & Adaptation

- 2050 Net Zero Target / Application of Green New Deal Policy
- Adaptation Strategy & Plan

(2) Energy Transition From Fossil Fuel to Renewable Energy

(3) A Paradigm Shift From Linear Economy to Circular Economy

(4) Nature-Based Solution

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## Key ISSUES & Areas to be addressed by cities

### ■ Approaches and Areas

(1) Approaches: contribute to **decarbonization**

#### ■ Digital-Based Approach

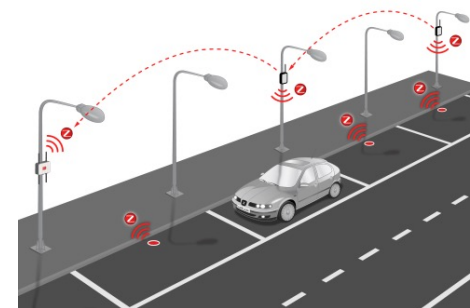
– Innovation of production & logistics through digital technologies:

contribute to drastically **reduce the use of resources** and

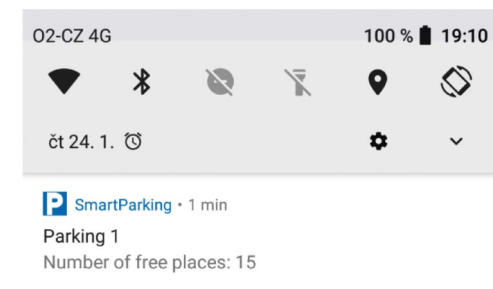
**increase the efficiency of energy / Ex> Smart Parking**

#### ■ Nature-Based Approach: harmony with Planet

#### ■ Market-Based Approach: cost-effective



<https://www.ecointelligence.com/2011/11/21/internet-of-things-smart-city/> CC BY-SA



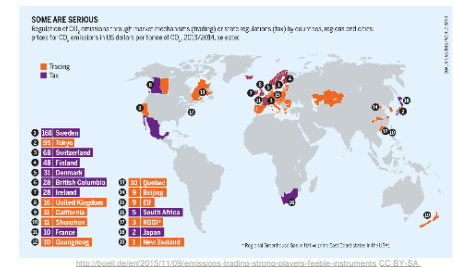
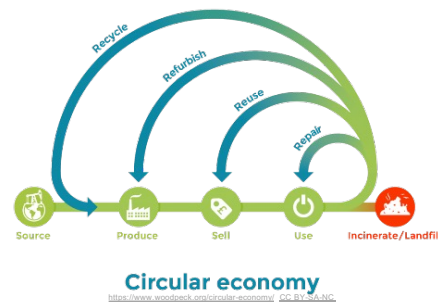
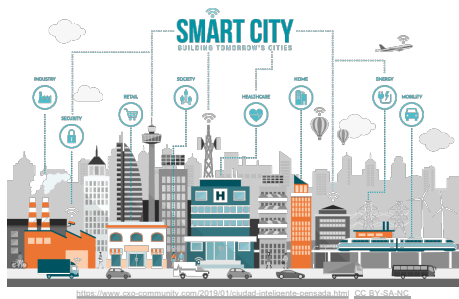
<https://www.hindawi.com/journal/misy/2020/8975301/> CC BY

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## Key ISSUES & Areas to be addressed by cities

### (2) Areas

- Through Digitalization -> Smart City
- Through Circular Economy -> Waste Management & Utilization
- Through Nature-Based Resources -> City Forests / Mangroves
- Through Market Mechanism -> Int'l Carbon Market / Emission Trade System





## 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



## Connection with Other Stakeholders

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\*City's Obstacles: Lack of Resources, Capacity and Authority

### 1. With National government

- (1) Request financial support
- (2) Voice the position in formulating national policy
- (3) Request transferring the responsibility on the energy system

### 2. With Companies

- (1) Int'l carbon market mechanism
  - \*Article 6(Market Mechanism) Guidance: completed in COP26, Glasgow, UK, Nov. 2021
- (2) Various Projects: Like CDM Projects in the Kyoto Protocol
  - \*Under CDM Projects, only 1% of projects have been submitted by municipalities

### 3. With Citizens

- (1) Youth Forum/ Campaign
- (2) Training & Education

\*226 Korean local governments declared 2050 Carbon Neutrality (2021)

### 1. Finance

- (1) ODA/ ARCF (ASEAN-ROK Cooperation Fund)
- (2) GCF/ GGGI

### 2. Technical Assistance

- (1) Smart cities for mitigation
- (2) disaster monitoring for adaptations

### 3. Capacity Building

- (1) Education
- (2) Training



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## SOUTH KOREA'S ASSISTANCE

### Financial

- ASEAN-ROK Cooperation Fund (ARCF)
- 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)

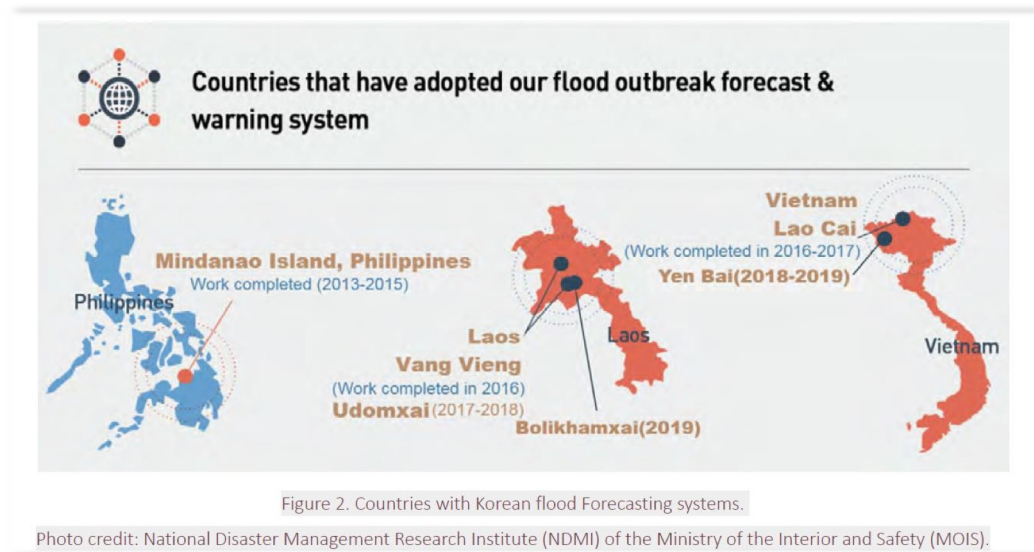
### Technical

- 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
  - "Most integrated operations command center" in South Korea (Lee et al., 2016)

## POTENTIAL FOCAL POINT: MONITORING TECHNOLOGIES

### ■ Disaster monitoring technologies for Adaptation

- South Korea's indigenous [geostationary weather satellite Chollion-2A](#), released in early 2019
- [Smartphone applications](#) for sharing information with the public considered "signature" projects



## ❖ Next 10 years: Decade of Decarbonization and Digitalization



**Fast mover will be the winner in a glocalization era.**