

• Republic of Korea's Carbon Neutral Policies. •

2022. 8. 19.



환경부

Ministry of Environment

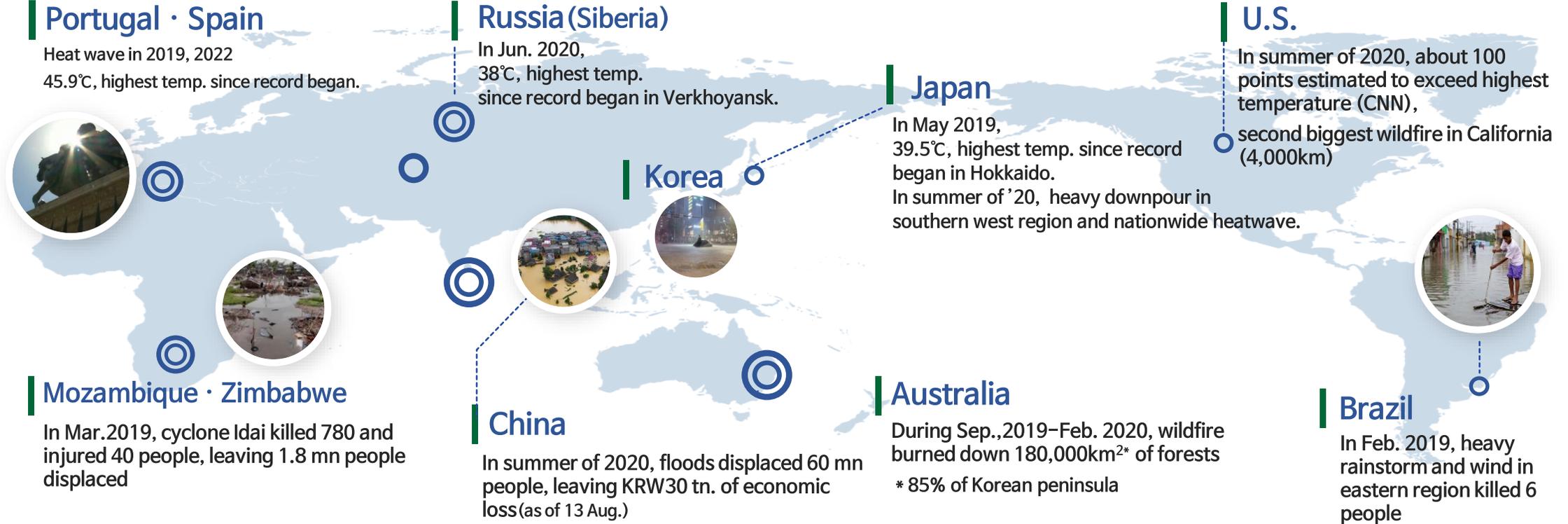
01

Korea's Circumstances



Background (背景)

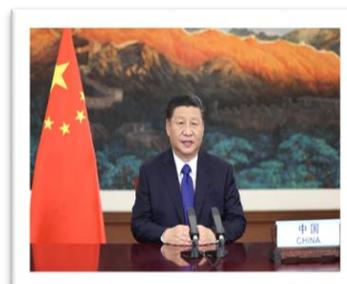
Frequent Extreme Weather Events · Movement of Major Countries



Europe
European Green
Deal Adoption (Dec. '19)



U.S.
Speech at Leaders'
Climate Summit
(April, '21)



China
Speech at UN
General Assembly
(Sep. '20)

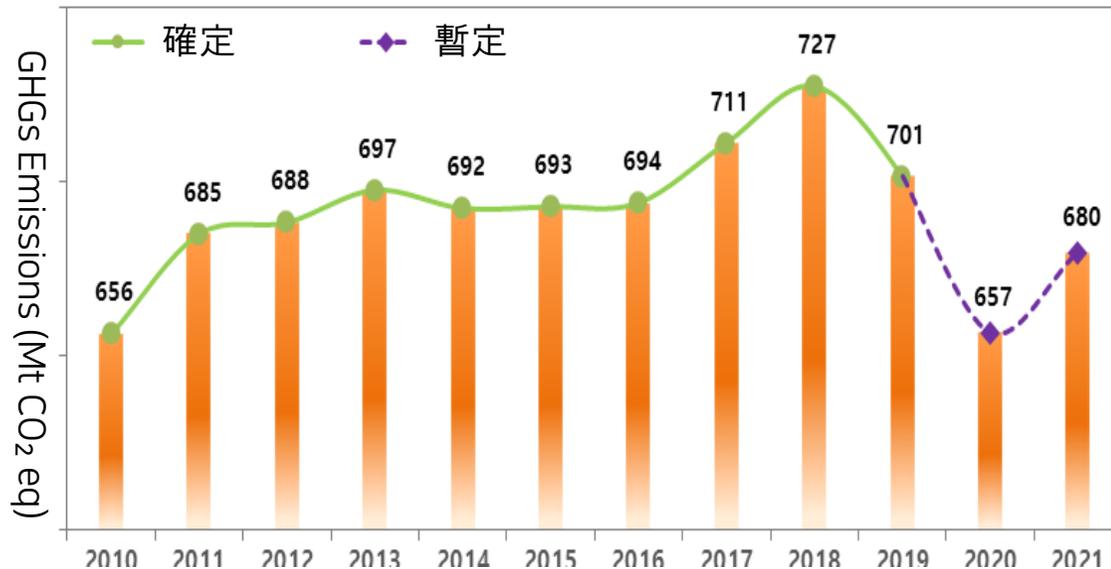


Japan
Speech at
Parliament
(Oct. '20)

The Accomplishments (成果)

The Tendency of Quantity of GHG emissions

- ✓ Descending tendency of GHGs Emissions



The Vision & Implementation for Net-Zero

- ✓ 2050 Carbon Neutral Scenario, Rebalancing the 2030 NDC (2018年比 26.3% → 40%)
- ✓ Establishment of Carbon Neutral Act(2021.9.24)

The Transition to Green & Circular Society

- ✓ Law Enactment for Green Finance, Green Industry Cluster
- ✓ Act and Policy Establishment for Circular Economy



(Image source : greenium.kr)

The Further Directions (改善方向)

The Necessity of Concrete Roadmap to Net-Zero

- ✓ Rebound of GHGs emissions regarding COVID19 resilience

Countries	Estimated Increase Rate of GHGs Emissions ('21 by '20) ※ Source : Enderdata
 USA	5.2%
 EU	2.0%
 China	5.0%
 Japan	1.8%
 Korea	3.5% (NGMS, potential value)

- ✓ Controversy among Viability of 2030 NDCs and 2050 Net-Zero

Base Reinforcement for Green Transition

- ✓ Relatively Low-Level Green tech by Leading Countries

- 81.1% Green Tech-level Difference by USA·EU
- Tech-Gap 3.7 years difference by USA·EU ('20)

- ✓ Substantialization

- Increasing Market Size(14% increase rate, '20 by '19),
- Proportion of Small Business 74.4%

Distribution of Green Vehicles

- ✓ Decrease of Diesel Vehicles, Increase of Green Vehicles

- Decreasing Low-Energy level Diesel Cars : 2.58 M ('18) → 1.31 M ('21)
- Increasing Green Cars : 56 K ('18) → 257 K ('21) (1.03% of Total Vehicles)

- ✓ Response to Major Market's Change

 USA Prohibition of Selling Diesel Car(by '35)

 EU Transition of Newly manufactured Car by 50%(by '30)

    Suspension of Manufacturing Diesel Cars(by '40)

- ✓ Enlargement of Infrastructure for Green Vehicles

Flexible Circular Economy Policy

- ✓ Delivery Enlargement(COVID19, Social Distancing)

Package Waste Increase (Delivery Service 21% ↑, Food Delivery 78% ↑)



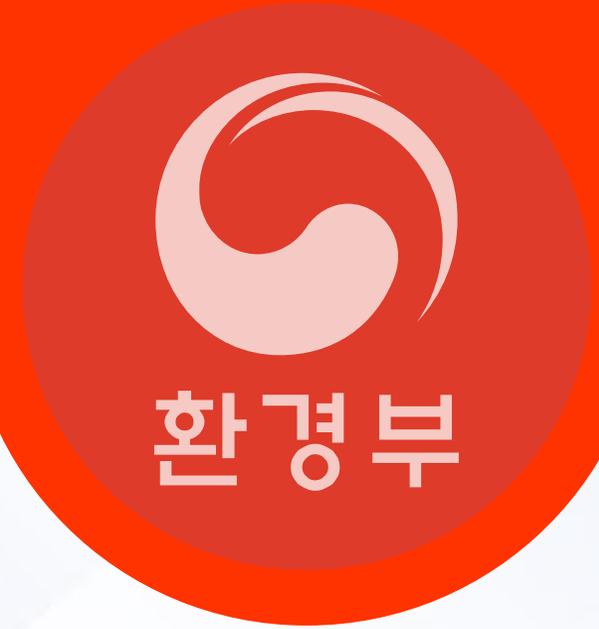
Img source : Google

Package Waste ('20 Q1 by '19 Q1)

- Plastic 20% ↑
- Paper 15% ↑
- Vinyl 8% ↑

02

Policy Direction of The New Administration



Carbon Neutrality Policies (炭素中立定策)

Implementation through Plans, Policies, Schemes

- ☑ Establishment of Basic National Plan
 - Establish Basic National Plan for Carbon Neutrality and Green Growth
 - Improve Communication with Stakeholders(Industry representatives, etc)
- ☑ Mitigation Policies
 - Climate-Responsive Budgeting, Climate impact Assessment, etc

Response to Major Market Change

- ☑ Improvement of K-ETS for Carbon Barriers to Trade
 - Modify of auctioning rate considering global market standard(CBAM, etc)

< Phasing out of EU ETS Free allowance allocation('22.6.22) >

	2027	2028	2029	2030	2031	2032
	93%	84%	69%	50%	25%	0%

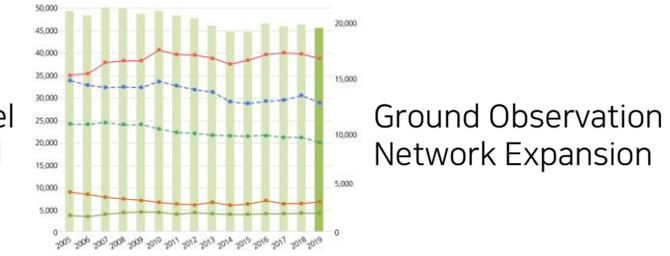
- Supporting the Industries by Auctioning on K-ETS
 - Enlarges the installment of facilities reducing the carbon emissions
 - Promote investment on Reducing endeavors of industries

Act with Local Governments and People

- ☑ Strengthen the Capacity Building of Local Governments
 - Establish the Carbon Neutrality Support Centers
 - Discover Regionally Customized Complex Models for Carbon Neutrality
 - Establish the GHGs emissions & absorptions information system on local governmental level



Img source : Ministry of Environment



Img source : Seoul Metropolitan Government

Metropolitan level
→ Municipal level

Ground Observation
Network Expansion

- ☑ Enlarge the Participation of the People

- Carbon Points Scheme
- Carbon-Neutral Action Point Scheme



Refill
Station



E-Receipt

Img source : Amorepacific website

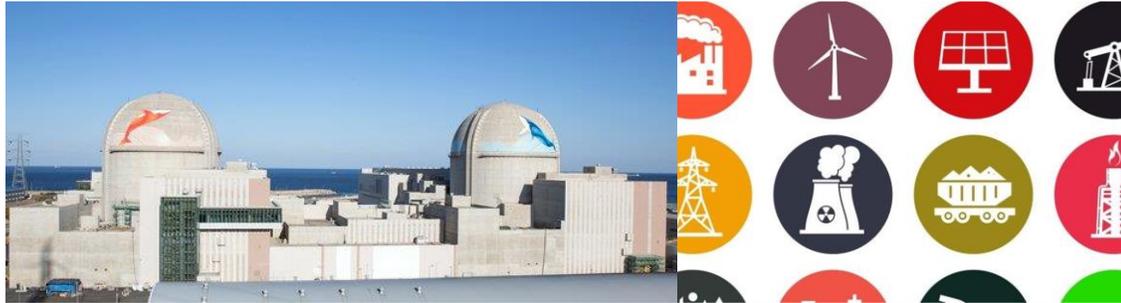
Img source : Koit webpage

Carbon Neutrality Policies (炭素中立定策)

Energy Mix Change and Response to Market

☑ Management for Reasonable Energy Mix & Market Change

- Science-based measures to Achieve Carbon Neutrality and NDC goal
- Management for Energy mix concerning Nuclear Power and Renewable E



Img source : Chungang Newspaper

Img source : Parliament Magazine

- Improvement for Renewable Energy Industry
- Infrastructure Development for Stable and Clean Hydrogen Produce



Img source : Voice of Jeju Newspaper

Img source : Energy-Environment Newspaper

Transition to Green & Circular Society

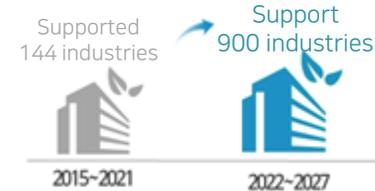
☑ Decarbonizing the Economy and the Industries

- Revise of K-Taxonomy('21.12) considering EU Taxonomy



Img source : Blue Auditor

- Investment and Promoting for Industries towards ESG



- Support for Environmentally Responsible Investment
- Support for Business to Adapt to the New order
- ESG Management Consulting

- Transition to Green Consumption



- Reinforce the Eco-Labeling Standards (Towards 30% top Percentages)
- Add More Products for Eco-Labels

Carbon Neutrality Policies (炭素中立定策)

Transition to Green & Circular Society

Focus on Promotion for Green Industries and Green Tech

- Intensive Investment in Environmental R&D (Goal : 2.1 Trillion Won '22~'26)
- Green Industry Cluster for Growth of Green Industries
- Promotion for 10 Major Green Industries (Clean Air, Hydrothermal E, Climate Tech, Biogas, Post-Plastic Materials, etc)



Transition to Green Vehicles

- Regulations for Diesel Vehicles
- Promotion for Green Vehicle and Green Vehicle Infrastructures



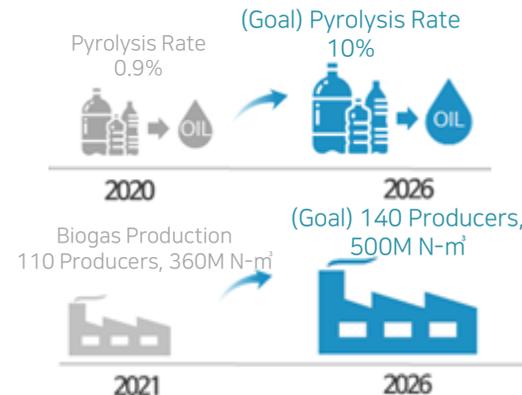
Circular Economy at Total Life Cycle by Every Level

- Decoupling for Economy Growth and Waste Reduction



- Reduce Waste generation
- Ban single-use products
- Promote the Usage of multi-use products
- Advanced Waste Screening Technology

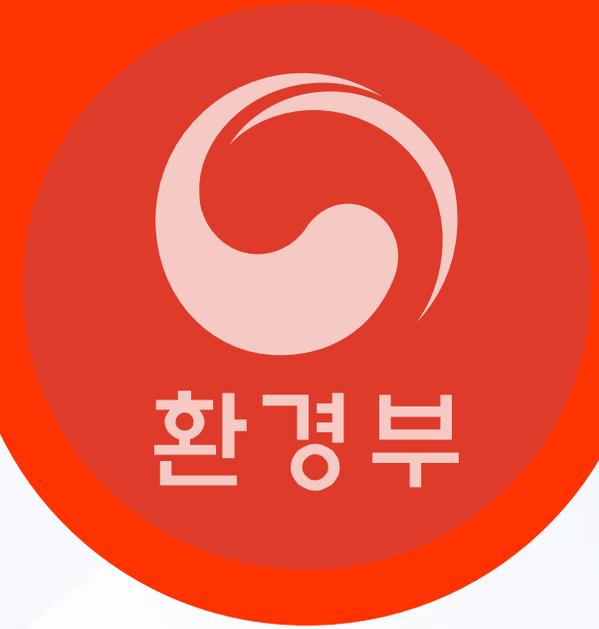
- Expansion of the Recycling for Higher Value



- Mandatory Use for Recycles Plastics
- Production of Plastic Pyrolysis based Oil
- Production of Biogas using food, sludges

03

Carbon-Neutral Cities And Climate Change Adaption Plan of Korea



Cases of Carbon-neutral cities in Korea

Foundation of local governments carbon neutrality

- ☑ “Framework Act on Carbon Neutrality and Green Growth to Cope with Climate Crisis” emphasizes the responsibility and role of local governments to achieve carbon neutrality

Local governments carbon neutrality by 2050

- ☑ All the local governments declared carbon neutrality by 2050 at the 2021 P4G summit seoul



Cases of Carbon-neutral cities in Korea

Cases of Carbon-neutral cities in Korea

- ✓ Dobong-gu, Seoul is the first local government to enact an ordinance for carbon neutrality
- ✓ Chungcheongnam-do is leading a clean energy transition
 - First East Asian region to declare "climate emergency"
 - Announcement of early carbon neutrality by 2045

- ✓ Daeduck-gu, Daejeon prepared ordinance for the operation of carbon cognitive budget system
- ✓ Jeollanam-do is operating a carbon-neutral TF to cope with high carbon emission sectors, such as petrochemical, steel, and shipbuilding
- ✓ Gwangju declared carbon neutrality and energy independence by 2045



National climate change adaptation plan of Korea

The 3rd national climate change adaptation plan

- ✓ Korea establishes national climate change adaptation plan(NAP) for every five years
*(1st) 2011~2015, (2nd) 2016~2020, (3rd) 2021~2025
- ✓ The NAP is based on “Framework Act on Carbon Neutrality and Green Growth to Cope with Climate Crisis”



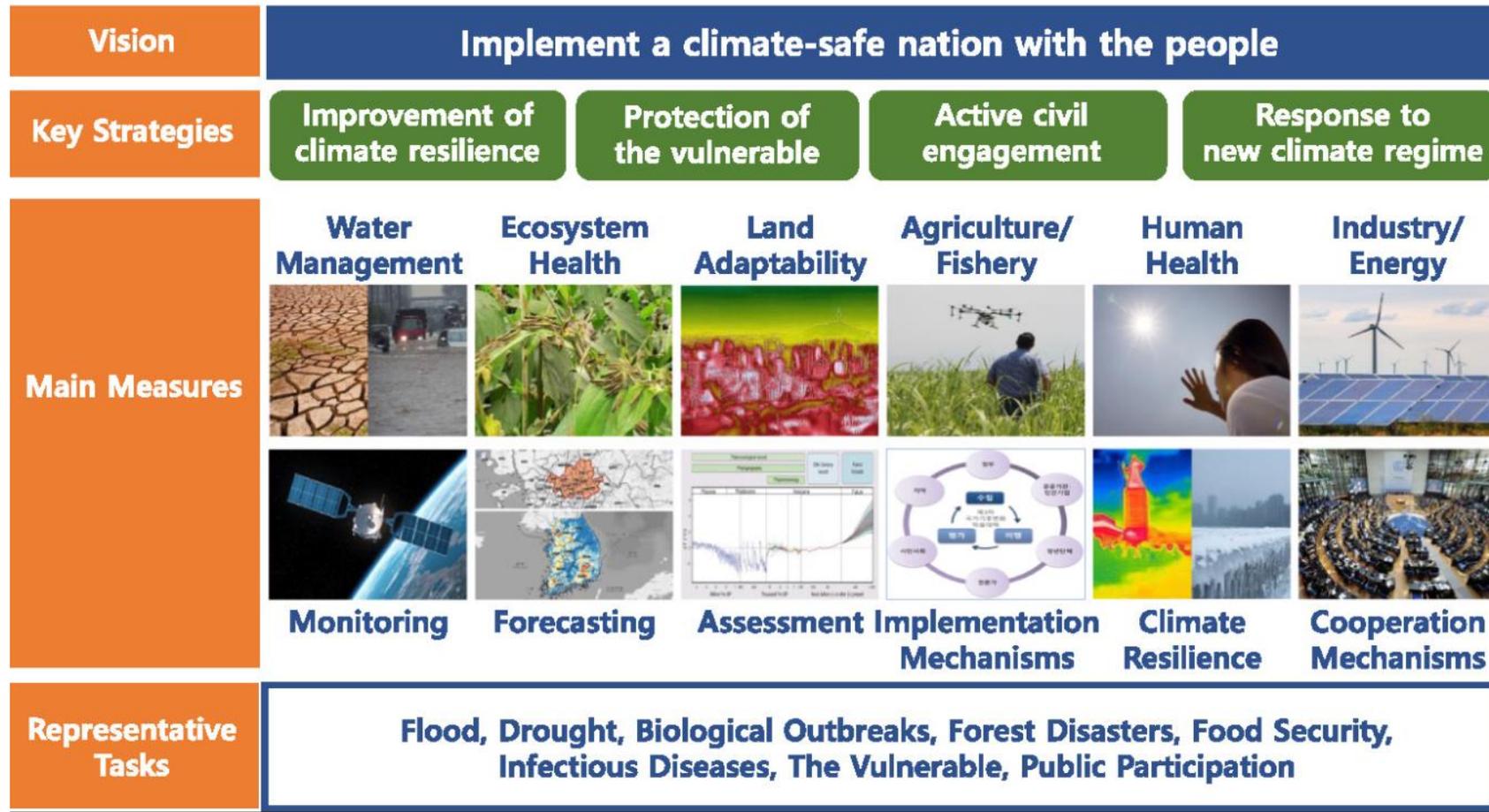
Expected achievement of 3rd NAP

- ✓ Upgrading climate change monitoring and forecasting system for more accurate and prompt information
- ✓ Protecting people’s lives and property through special management of the vulnerable to climate change
- ✓ Making contribution to international society
- ✓ Enhancing sustainability of nature and protect species vulnerable to climate change
- ✓ Enhancing public participation in the entire adaptation process

Vision and schematic diagram of 3rd NAP of Korea



The 3rd National Climate Change Adaptation Plan (2021-2025) of the Republic of Korea

**Monitoring****Forecasting****Assessment****Implementation Mechanisms****Climate Resilience****Cooperation Mechanisms**