

# Korea's experience of National Adaptation Planning



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The 1<sup>st</sup> National Adaptation Plan

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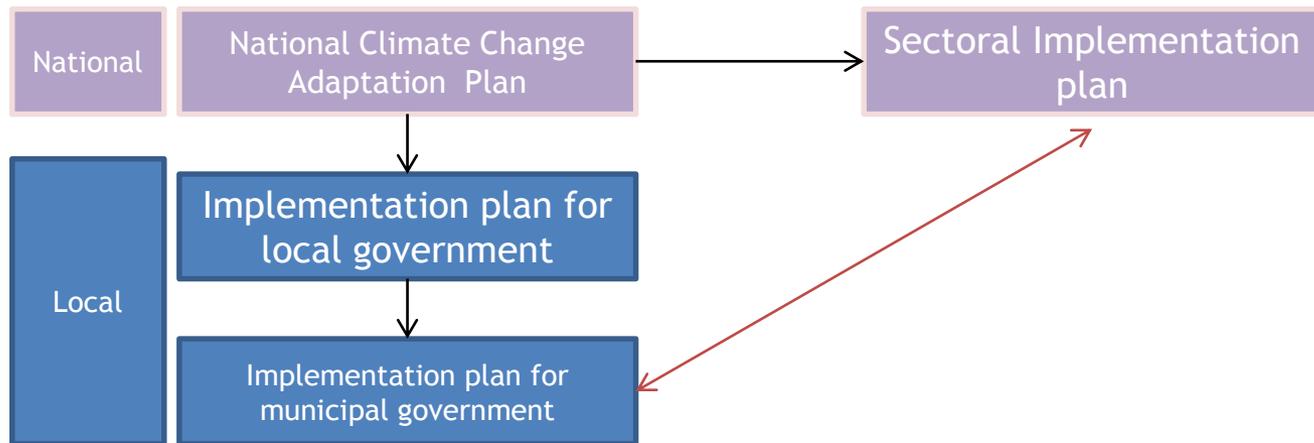
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# II . The 1st National Adaptation Plan

## 1. Legal basis and Structure

- (Legal Basis) According to the Clause 4, Article 48 of the Framework Act on Low Carbon, Green Growth and the Article 38 of its Enforcement Ordinance
  - The Government shall exert itself preferentially for preventive management to reduce damage that may be caused by climate change and shall establish and implement countermeasures for mitigating impacts of climate change or for coping with health and natural disasters, as prescribed by Presidential Decree

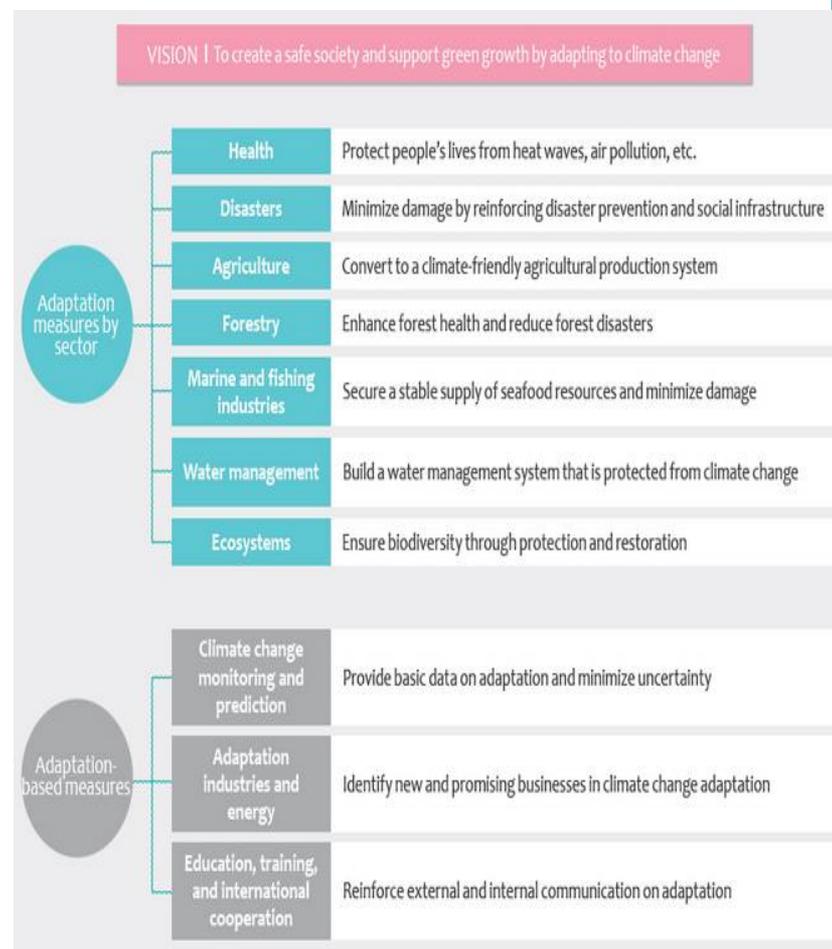
(Structure)



# II . The 1st National Adaptation Plan

## 2. Outline of the 1st Plan ('11~'15)

- The 1<sup>st</sup> National Climate Change Adaptation Plan('10.12)
  - (Period) 2011 ~ 2015
  - (Characteristics) As comprehensive national adaption plan, vision and direction of the national adaptation policy is suggested.
  - (System) 2 areas, 10 sectors, 87 measures
  - (Participated Ministries) 14 Ministries including Ministry of Environment
- Revision of the 1<sup>st</sup> Plan ('12.12)
  - Outcomes of RCP Scenario applied
  - 9 sectors, 67 measures



## II . The 1st National Adaptation Plan

### 3. Achievement of the 1st Adaptation plan

- National-scale framework for adapting to climate change established
  - Establish directions for the national adaptation, Implement sectoral/local measures
  - Establish local and municipal level adaptation plans
  - Support local governments to establish/implement adaptation plans
- Scientific basis of climate change adaptation provided
  - Provide standard and high resolution climate change scenarios, vulnerability maps, and assessment tools to local and municipal government
- Awareness and partnership of climate change adaptation increased
  - Climate change adaptation policy promotion, education, international cooperation

# II . The 1st National Adaptation Plan

## 3. Achievement of the 1st Adaptation plan (By sector)

Sector	Major Performance
Health	<ul style="list-style-type: none"><li>• Monitoring system on climate change health impacts<ul style="list-style-type: none"><li>- Climate change related diseases DB, etc.,</li></ul></li><li>• Health risk reduction strategies due to abnormal weather<ul style="list-style-type: none"><li>- Develop and supply a relevant manual, introduce what to do to prevent heat wave, etc.,</li></ul></li></ul>
Agriculture and Fisheries	<ul style="list-style-type: none"><li>• Monitoring system, predicted climate change impacts in agricultural and fisheries sectors<ul style="list-style-type: none"><li>- Produce high resolution scenario for agriculture, build fisheries monitoring system, etc.,</li></ul></li><li>• Climate change adaptation resource management, production technology development<ul style="list-style-type: none"><li>- Develop species adapt to climate change, disease diagnosis and prevention for conservation of aquatic resources</li></ul></li></ul>
Water Management	<ul style="list-style-type: none"><li>• Enhance prediction and water monitoring system through water resource monitoring network, aquatic ecology investigation</li><li>• Water resource management for safe water<ul style="list-style-type: none"><li>- Enhance water management system considering climate change, advance river management, etc</li></ul></li><li>• Enhance infrastructure facilities, dimension capability for floods and droughts<ul style="list-style-type: none"><li>- Flood-risk map for national stream, etc.,</li></ul></li></ul>
Natural Disasters	<ul style="list-style-type: none"><li>• Policy targeting high disaster risk areas and facilities vulnerable to natural disasters<ul style="list-style-type: none"><li>- Relevant standards and establish preventive measures, improve ability to predict landslide damages</li></ul></li><li>• Disaster preparedness for urban planning</li></ul>

# II . The 1st National Adaptation Plan

## 3. Achievement of the 1st Adaptation plan (By sector)

Sectors	Performance
Forest/Ecosystem	<ul style="list-style-type: none"><li>• Long-term ecosystem monitoring</li><li>- Research on long-term ecological changes, pilot project on national climate change biological indicators monitoring, etc.,</li><li>• Systemic management of biological resources through habitat and species protection</li></ul>
Land/Coast	<ul style="list-style-type: none"><li>• Climate change vulnerability analysis for land, infrastructure</li><li>- Guideline for vulnerability analysis, technical research, research development projects</li><li>• Improve disaster prevention system</li><li>• Reduction in climate change impacts and enhance adaptive capacity</li><li>-Expand green areas for heat island</li></ul>
Industry	<ul style="list-style-type: none"><li>• Climate change vulnerability assessment and risk management</li><li>• Enhance adaptive capacity through adaptive technology development</li><li>- R&amp;D investment, joint climate change adaptation plans, etc.,</li><li>• Climate change adaptation targeting private sectors, adaptation industries</li><li>- Extend agricultural insurance products</li></ul>

## II . The 1st National Adaptation Plan

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### 4. Limitation of the 1st Plan

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- Difficulty in making a tangible outcome
  - Absence of sectoral short-term, medium and long-term goals, adaptation priority, and indicators
  - Lack of monitoring and evaluation framework
  - Limited budget
- Insufficient strategic framework for promoting adaptation
  - Lack of decision supporting tools and experts
  - Lack of a efficient communication channel among adaptation stakeholders including local governments and business
  - Redundancy and cooperation deficit in measures due to each ministry-local government-driven project.

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## The 2nd National Adaptation Plan

# III. The 2nd National Adaptation Plan

## 1. Outline of the 1st Plan ('16~'20)

### ● Contents

- (Title) The 2<sup>nd</sup> National Climate Change Adaptation Plan (2016~2020)
- (Vision) Safe society and national happiness through climate change adaptation
- (Period) Short-term(2020) and mid-term goal(2035), Five year rolling plan(2016-2020)
- (Participation) 20 ministries

※ Ministries: Ministry of Strategy and Finance, Ministry of Education, Ministry of Science, ICT and Future Planning, Ministry of Foreign Affairs, Ministry of Unification, Ministry of National Defense, Ministry of Government Administration and Home Affairs, Ministry of Culture, Sports and Tourism, Ministry of Agriculture, Food and Rural Affairs, Ministry of Trade, Industry and Energy, Ministry of Health and Welfare, Ministry of Environment, Ministry of Employment and Labor, Ministry of Land, Infrastructure and Transport, Ministry of Oceans and Fisheries, Ministry of Public Safety and Security, Korea Meteorological Administration, Rural Development Administration, Korea Forest Service, Cultural Heritage Administration

# III. The 2nd National Adaptation Plan

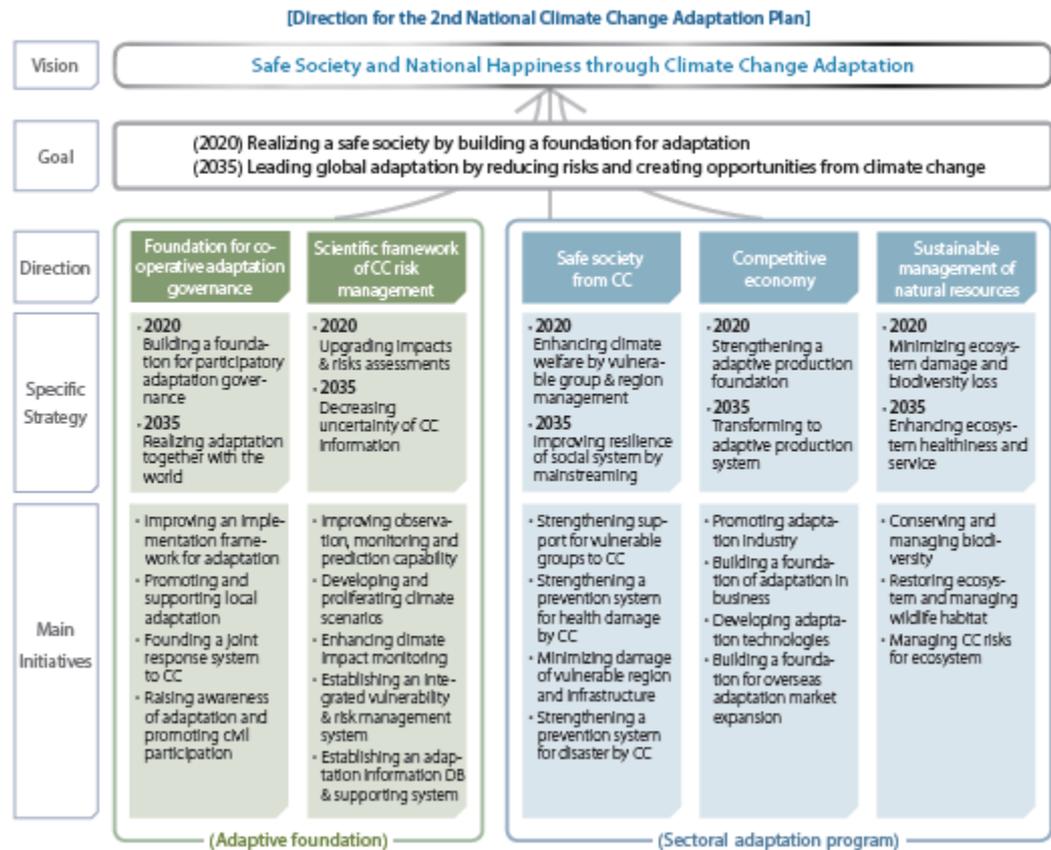
## 2. Difference from the 1st plan

- New policies reflecting internal and external policy environment changes
  - Continue the initiative & maintain consecutiveness
  - Add newly discovered sectors, and prioritize the existing measures based on risk assessment.
  - Explore co-benefit of climate change mitigation and adaptation
- Establish a strategic adaptation framework including phased vision and goals
  - Establish the long-term vision and short/mid term goals
  - Visualize a economic, social and environment virtuous circle through adaptation
- Expand investment in adaptation technology & international cooperation

# III. The 2nd National Adaptation Plan

## 3. Framework the 1st Plan ('16~'20)

- (Vision)
  - Safe society and national happiness through climate change adaptation
- (Goal)
  - 5 years short term, 20 years medium-long term
- (System)
  - 2+3 system
  - 5 policy areas, 20 sub-sectoral measures



# III. The 2nd National Adaptation Plan

## 4. Policy Areas

### (1) Foundation for Cooperative Adaptation Governance

Division	Contents
<b>Vision</b>	Build a foundation for implementation of national and int' adaptation policies
<b>Specific goal</b>	<ul style="list-style-type: none"><li>• (2020) Build a foundation for participatory adaptation governance</li><li>• (2035) Promote adaptation together with the world</li></ul>
<b>Planning indicator</b>	<ul style="list-style-type: none"><li>• Number of people who aware of adaptation</li><li>• Number of countries which benefits from int' adaptation training programs</li></ul>
<b>Focused initiatives</b>	<ol style="list-style-type: none"><li>1-1. Enhance effectiveness of adaptation policy</li><li>1-2. Promote local level adaptation activities</li><li>1-3. Enhance international cooperation on adaptation</li><li>1-4. Increase awareness of adaptation</li></ol>

# III. The 2nd National Adaptation Plan

## 4. Policy Areas

### (2) Scientific Framework of Climate Change Risk Management

Contents	
<b>Vision</b>	Establish a scientific climate change risk management framework
<b>Specific goal</b>	<ul style="list-style-type: none"><li>• (2020) Upgrade impacts &amp; risks assessments</li><li>• (2035) Reduce the uncertainty of climate change information</li></ul>
<b>Planning indicator</b>	<ul style="list-style-type: none"><li>• Number of climate change medium monitoring center</li><li>• New vulnerability map based on a new scenario</li></ul>
<b>Focused initiatives</b>	<ul style="list-style-type: none"><li>2-1 Establish a climate change monitoring and forecast system</li><li>2-2 Improve a Korean climate scenario and its application base</li><li>2-3 Enhance monitoring of climate change impacts on ecosystem and health</li><li>2-4 Realize an integrated vulnerability assessment and socioeconomic risk management</li><li>2-5 Improve an adaptation information service system</li></ul>

# III. The 2nd National Adaptation Plan

## 4. Policy Areas

### (3) Safe Society from Climate Change

Division	Contents
Vision	Build a safe society from climate change
Specific goal	<ul style="list-style-type: none"><li>• (2020) Enhancing climate welfare by vulnerable group &amp; region management</li><li>• (2035) Improving resilience of social system by mainstreaming adaptation</li></ul>
Planning indicator	<ul style="list-style-type: none"><li>• Number of institutions which utilizes integrated disaster management system</li><li>• Number of flood risk maps</li></ul>
Focused initiatives	<ul style="list-style-type: none"><li>3-1 Protect the vulnerable to climate change</li><li>3-2 Prevent from health damages by climate change</li><li>3-3 Minimize damages of vulnerable regions and infrastructures</li><li>3-4 Strengthen disaster management system</li></ul>

# III. The 2nd National Adaptation Plan

## 4. Policy Areas

### (4) Competitive Society by Climate Change Adaptation

Division	Contents
<b>Vision</b>	Enhance industrial competitiveness by response to climate change
<b>Specific goal</b>	<ul style="list-style-type: none"><li>• (20) Strengthen an adaptive production foundation</li><li>• (35) Transform to an adaptive production system</li></ul>
<b>Planning indicator</b>	<ul style="list-style-type: none"><li>• Number of newly developed adaptive species to climate change</li><li>• Number of businesses which establish adaptation plans</li></ul>
<b>Focused initiatives</b>	<ul style="list-style-type: none"><li>4-1. Enhance adaptive capacity of primary/secondary/tertiary industries</li><li>4-2 Expand adaptive infrastructure</li><li>4-3 Develop adaptation technologies</li><li>4-4 Build a foundation to expand an adaptation industry abroad</li></ul>

# III. The 2nd National Adaptation Plan

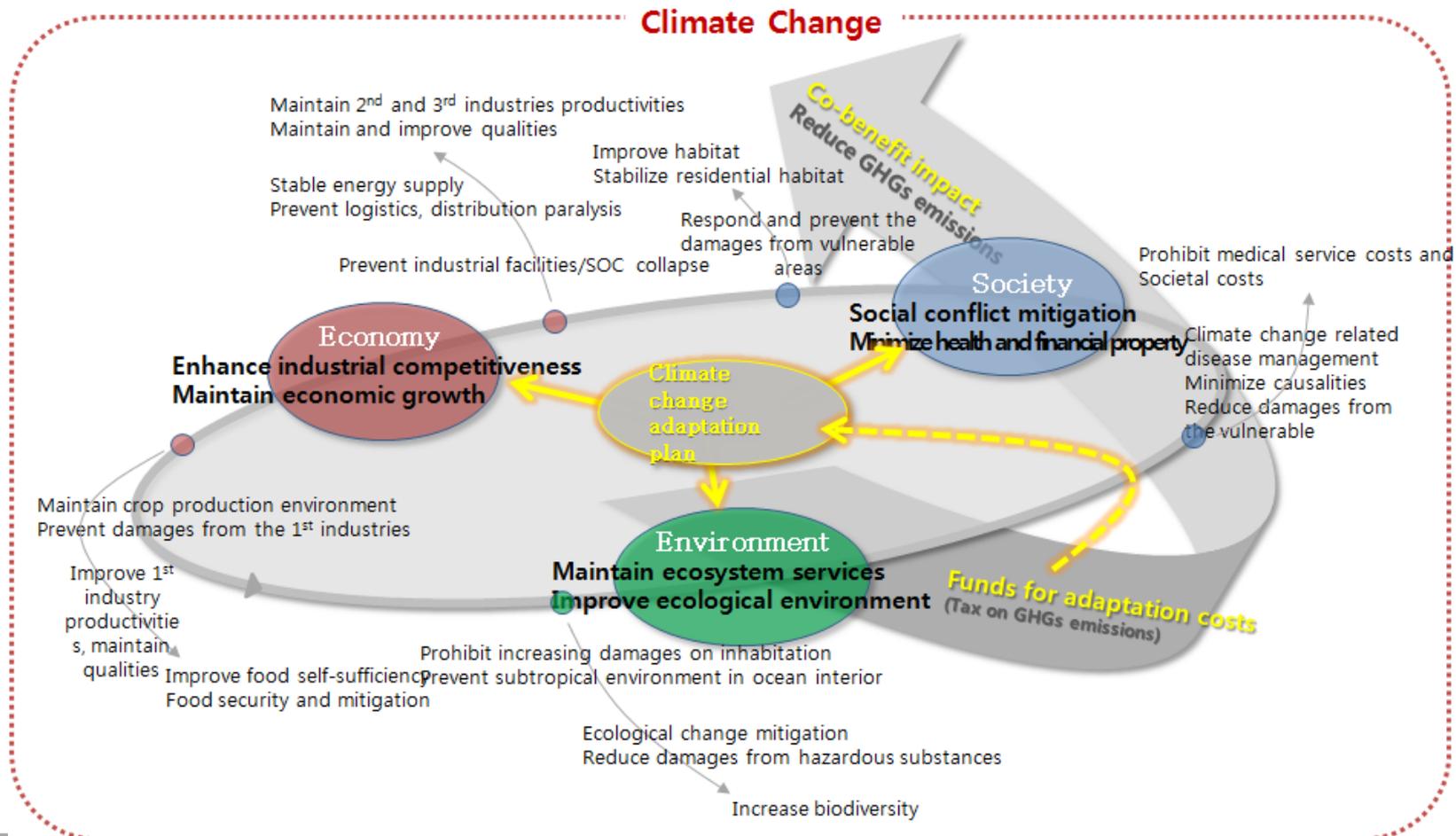
## 4. Policy Areas

### (5) Sustainable Management of Natural Resources

Division	Contents
<b>Vision</b>	Sustainable management of natural resources
<b>Specific goal</b>	<ul style="list-style-type: none"><li>• (20) Minimize ecosystem damage and biodiversity loss</li><li>• (35) Enhancing ecosystem healthiness and service by systemic ecosystem adaptation</li></ul>
<b>Planning indicator</b>	<ul style="list-style-type: none"><li>• Number of identified biological genetic resources</li><li>• Protected areas</li></ul>
<b>Focused initiatives</b>	<ul style="list-style-type: none"><li>5-1. Conserve and manage biodiversity</li><li>5-2 Restore ecosystem and manage wildlife habitats</li><li>5-3 Manage climate change risks for ecosystem</li></ul>

# III. The 2nd National Adaptation Plan

## 5. Effects from the 2nd Adaptation Plan



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## Adaptation Components of Korea's INDC

# IV. Adaptation Components of Korea's INDC

## 1. Adaptation Components of Korea's INDC

Division	Contents
NAP	Recognizing the urgent need to address climate change and reduce its adverse effects, Korea developed the National Climate Change Adaptation Plan in 2010, which is currently being implemented.
Local Adaptation Plan	In acknowledgement of their significant roles in adaptation, subnational and local governments are mandated to develop their own action plans for climate change adaptation by 2015 tailored to the local context.
Various Activities	At the national level, Korea is developing guidance and tools to support the assessment of vulnerability and risks, and is implementing projects on research and development for comprehensive and quantitative analysis of climate change impacts.
Adaptation Strategies	In order to promote Climate Friendly and Safe Society, Korea aims to strengthen its capacity for climate change adaptation by implementing the following strategic actions: <ul style="list-style-type: none"><li>☐ Strengthening infrastructure for climate change monitoring, forecasting and analysis;</li><li>☐ Developing a management system for disaster prevention and stable water supply;</li><li>☐ Developing climate-resilient ecosystem;</li><li>☐ Making a systemic transition to a climate-resilient social and economic structure; and</li><li>☐ Enhancing the system for the management of negative impacts of climate change on health</li></ul>

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Personal Thoughts on NAP & Adaptation in (I)NDC

# IV. Personal Thoughts on NAP & Adaptation in (I)NDC

## 1. Personal Thoughts on NAP & Adaptation in (I)NDC

- The timing of National Adaptation Planning should be harmonized with the NDC process.
  - It will be easier to plan and coordinate both NAP and NDC 1) if NAP is set up NAP 1-2 years in advance of NDC, or 2) if NAP is established as an action plan of NDC after NDC submission.
- The scope of NAP and (I)NDC needs to be carefully considered.
- An authority which works on both NAP and Adaptation in (I)NDC will be very helpful.
- It is needed to have a legal framework to promote NDC/NAP or both.

Thank You.

