

Use of SDG-PSS in Republic of Korea



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Korea Environment
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Ministry of Environment



United Nations Office for
Sustainable Development
Incheon - ROK



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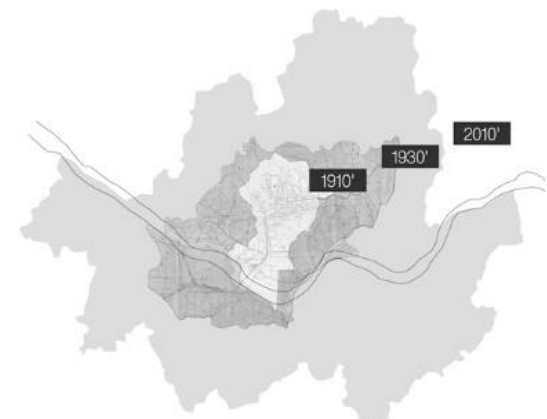
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Africa & Middle East Regional Workshop, 3-4 July 2019, Tunis, Republic of Tunisia

- I. Introduction
- II. Project TIMELINE in Korea
- III. Case study
- IV. Enabling Environment
- V. Conclusion – Further steps



Seoul, South Korea



I. Introduction – Republic of Korea



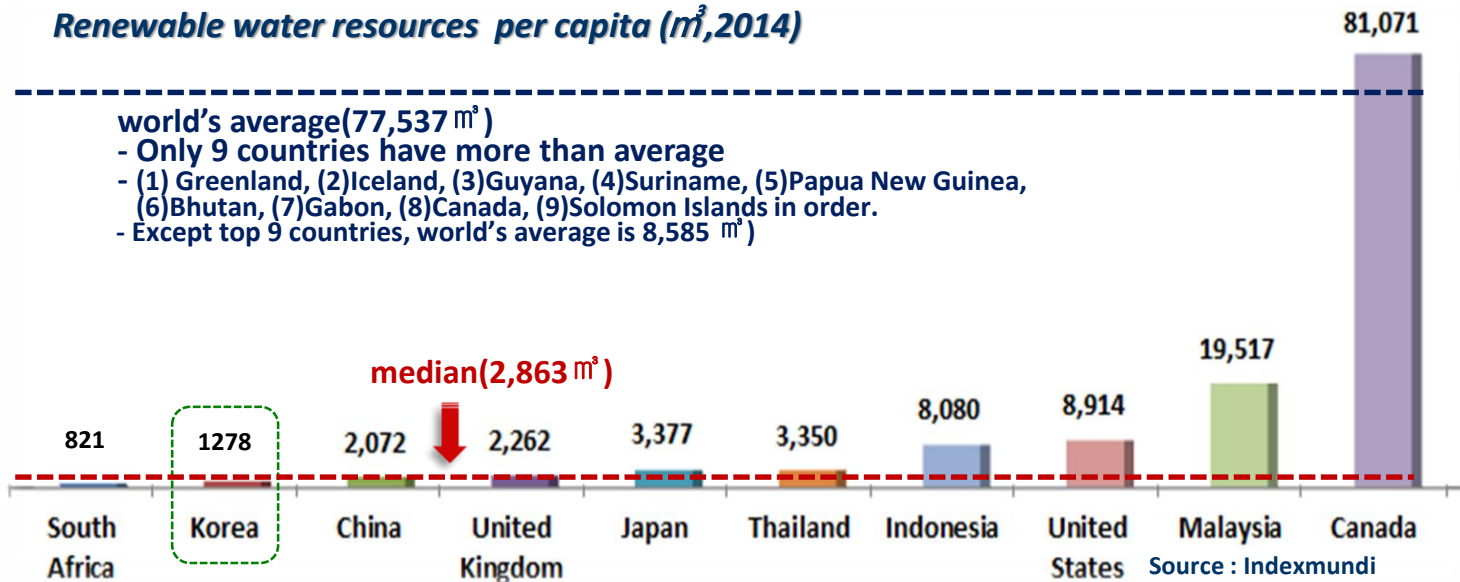
- Location : East Asia
- Capital : Seoul
- Area : 100,339 km²
✂ Tunisia: 163,610 km²
- Population : 51.6 millions

Renewable water resources per capita (m³, 2014)

world's average (77,537 m³)

- Only 9 countries have more than average
- (1) Greenland, (2) Iceland, (3) Guyana, (4) Suriname, (5) Papua New Guinea, (6) Bhutan, (7) Gabon, (8) Canada, (9) Solomon Islands in order.
- Except top 9 countries, world's average is 8,585 m³)

median (2,863 m³)



116th among
175 countries

* Renewable represent
the long-term average
annual flow (availability)
of rivers (surface water)
and groundwater

Source : Indexmundi

II. Project TIME LINE in Korea



1st Korea National Workshop

► Key aspects

- Description of Detailed structure and process of PSS, and demonstration
- Discussion on generating data to be entered into PSS
- Group discussion and results presentation by SDG 6 targets

► **Participants** : About 30 participants
(2 government departments and 4 national agency)



2nd Korea National Workshop

► Key aspects

- Description and demonstration of PSS for new attendees not present at 1st national workshop
- Verifying the data discussed in the 1st Workshop
- **Collecting individual opinions for each component for the responsible indicators**

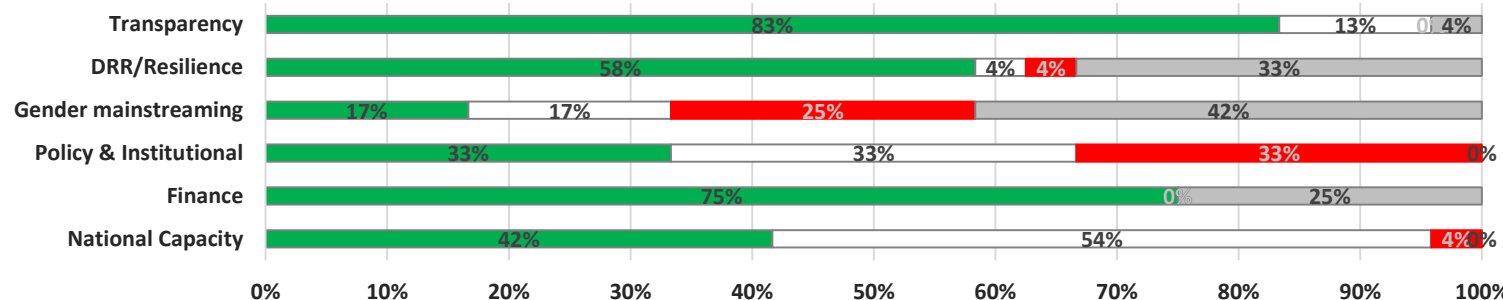
► **Participants** : About 20 participants
(2 government departments and 4 national agency)

+ Additional Individual Expert Interviews

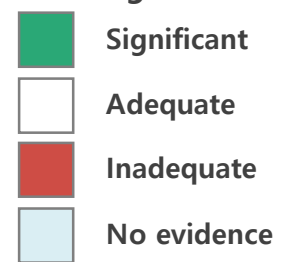
III. Case study – Summary View

Home | Summary View: Sustainable Development Goal 6, Evidence Base

	Status	National Capacity			Finance			Policy & Institutional			Gender Mainstreaming			DRR/Resilience			Transparency			
	% Goal	Overall current capacity	Strengthening mechanisms	Overall Progress	Adequacy of financial flows	Accountability	Incentives for sustainability	Public-private partnership	Coordination & cooperation	Awareness	National policy	Governance	Organisation mainstreaming	Strategies	Information and Assessments	Infrastructure	Policy and Integrity	Public Sector Integrity	Whistle-blower Protection	
6.1.1 Drinking water	정보관리 필요	충족	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	부족	아주 좋음	충족	충족	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	
6.2.1 Sanitation	정보관리 필요	충족	충족	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	부족	부족	부족	정보관리 필요	부족	아주 좋음	충족	정보관리 필요	아주 좋음	아주 좋음	충족	
6.3.1 Wastewater	정보관리 필요	충족	충족	충족	아주 좋음	아주 좋음	정보관리 필요	부족	부족	충족	충족	정보관리 필요	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	충족	정보관리 필요	
6.3.2 Water quality	정보관리 필요	충족	충족	아주 좋음	아주 좋음	아주 좋음	아주 좋음	충족	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	부족	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	
6.4.1 Water-use efficiency	정보관리 필요	충족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	충족	충족	충족	충족	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	충족	아주 좋음	아주 좋음	
6.4.2 Water stress	정보관리 필요	충족	충족	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	부족	충족	부족	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	
6.5.1 IWRM	정보관리 필요	충족	부족	아주 좋음	정보관리 필요	아주 좋음	정보관리 필요	아주 좋음	충족	충족	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	
6.5.2 Transboundary basin		Greyed Out																		
6.6.1 Ecosystem	정보관리 필요	충족	아주 좋음	아주 좋음	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	부족	아주 좋음	부족	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	



<Legend>



III. Case study – Status

Indicators	Questionnaires	Unit	Baseline (2016)	Current (2017)	Aspiration (2030)
	National population (number of people '000,000)	10 ⁶ People	51.25	51.47	52.94
6.1.1	1 Population using improved water sources	10 ⁶ People	52		
6.2.1	1 Population covered by improved sanitation	10 ⁶ People	49		
	2 Population that has a hygiene facility with soap and water at home	10 ⁶ People			
6.3.1	1 Wastewater produced from commercial establishments	10 ⁹ m ³			
	2 Wastewater produced from non-hazardous industries	10 ⁹ m ³			
	3 Wastewater produced from hazardous industries	10 ⁹ m ³			
	4 Wastewater treated from hazardous economic activities	10 ⁹ m ³			
	5 Wastewater from household sources that is safely treated	%			
6.3.2	1 Number of waterbodies classified as holding a good general status				
	1 Number of classified water bodies classified as having a good quality (methodology ver. 20180301)	Number		45	
	2 Total number of waterbodies classified as being good quality				
	2 Total number of monitored and classified water bodies (methodology ver 20180301)	Number	115	115	
6.4.1	1 Gross value added by industry [including energy]	10 ⁶ USD	455,132	475,981	
	2 Volume of water withdrawn by the industries [including energy]	10 ⁶ m ³	2,500		3,000
	3 Gross value added by agriculture [excluding river and marine fisheries and forestry]	10 ⁶ USD	41,173		
	4 Proportion of agricultural GVA produced by rain-fed agriculture	%	26		
	5 Volume of water withdrawn by the agricultural sector [including irrigation, livestock and aquaculture]	10 ⁶ m ³	14,600		13,900
	6 Gross value added by services [water collection, treatment and supply]	10 ⁶ USD	696,156	710,876	
	7 Volume of water withdrawn by the service sector	10 ⁶ m ³	7,400		7,600
6.4.2	1 Total [internal and external] renewable freshwater resources	10 ⁹ m ³	132		
	2 Total freshwater withdrawn	10 ⁹ m ³	20.90		
	3 Environmental requirements in 2016	10 ⁹ m ³	19.27		
6.5.1	1 Enabling environment	0-100		44	
	2 Institutions and participation	0-100		70	
	3 Management instruments	0-100		56	
	4 Financing	0-100		78	
6.6.1	1 Area/extent of water-related ecosystems	Km ²			
	2 Stream-flow	10 ⁶ m ³	76,000		76,000
	3 Volume of water storage in open water (lakes and reservoirs)	10 ⁶ m ³	23,110		
	4 Volume of groundwater	10 ⁶ m ³	4,090		
	5 Percentage of water bodies with good quality (based on 6.3.2)	%	0%	39%	
	6 Percentage of change of ecosystem health relative to natural state	%	20%		



Status	
	% Goal
6.1.1 Drinking water	정보관리 필요
6.2.1 Sanitation	정보관리 필요
6.3.1 Wastewater	정보관리 필요
6.3.2 Water quality	정보관리 필요
6.4.1 Water-use efficiency	정보관리 필요
6.4.2 Water stress	정보관리 필요
6.5.1 IWRM	정보관리 필요
6.5.2 Transboundary basin	Greyed Out
6.6.1 Ecosystem	정보관리 필요

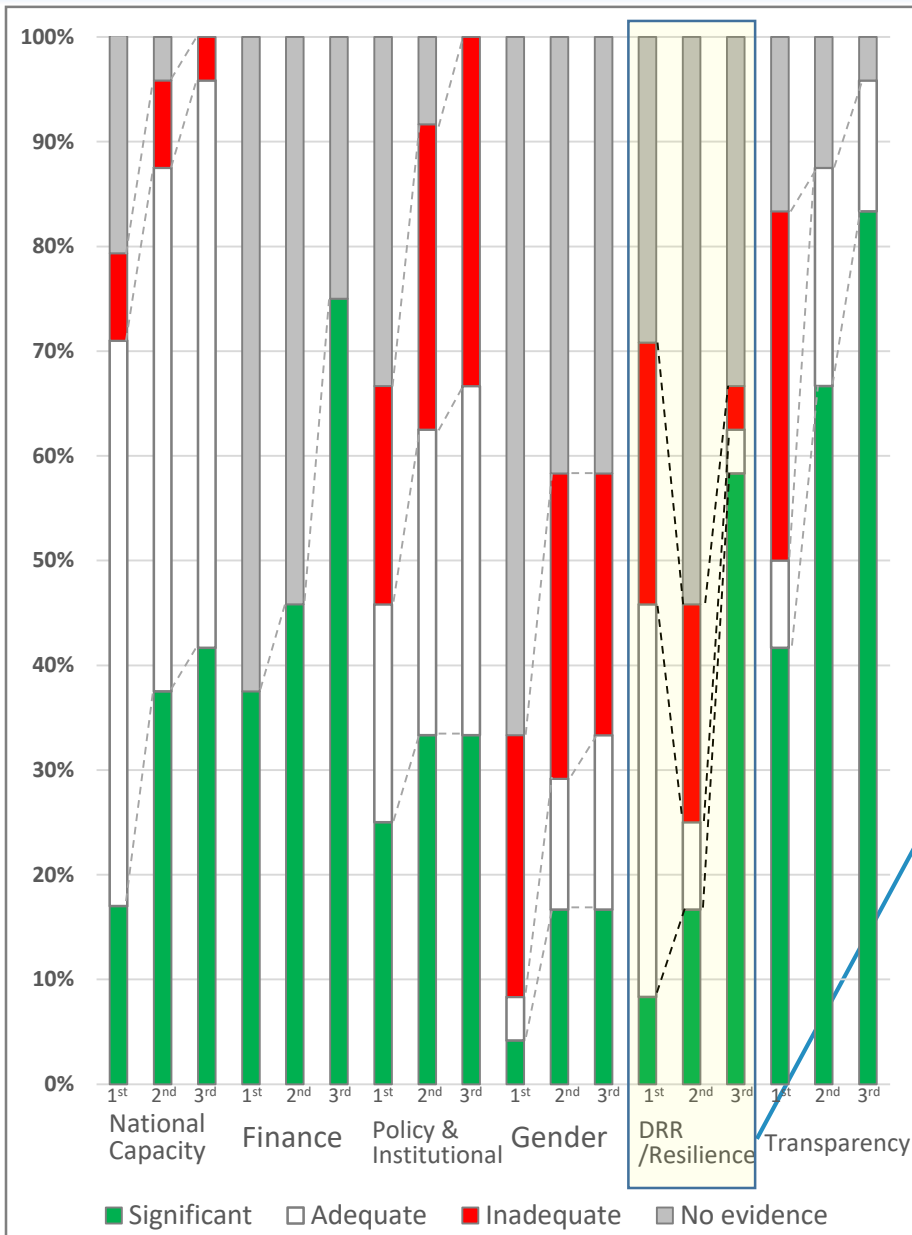
No evidence

III. Case study – 6 Components

Home | Summary View: Sustainable Development Goal 6, Evidence Base

	Capacity			Finance			Policy & Institutional			Gender			DRR/Resilience			Transparency		
	Overall current capacity	Strengthening mechanisms	Overall Progress	Adequacy of financial flows	Accountability	Incentives for sustainability	Public-private partnership	Coordination & cooperation	Awareness	National policy	Governance	Organisation mainstreaming	Strategies	Information and Assessments	Infrastructure	Policy and Integrity	Public Sector Integrity	Whistle-blower Protection
6.1.1 Drinking water	좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	부족	아주 좋음	좋음	좋음	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음
6.2.1 Sanitation	좋음	좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아주 좋음	부족	부족	부족	정보관리 필요	부족	아주 좋음	좋음	정보관리 필요	아주 좋음	아주 좋음	좋음
6.3.1 Wastewater	아름	아름	아름	아주 좋음	아주 좋음	정보관리 필요	부족	부족	아름	아름	정보관리 필요	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아름	정보관리 필요
6.3.2 Water quality	아름	아름	아주 좋음	아주 좋음	아주 좋음	아주 좋음	아름	부족	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	부족	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음
6.4.1 Water-use efficiency	아름	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아름	아름	아름	아름	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	아름	아주 좋음	아주 좋음
6.4.2 Water stress	아름	아름	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	부족	아름	부족	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음
6.5.1 IWRM	아름	부족	아주 좋음	정보관리 필요	아주 좋음	정보관리 필요	아주 좋음	아름	아름	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음
6.5.2 Transboundary basin	Greyed Out																	
6.6.1 Ecosystem	아름	아주 좋음	아주 좋음	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	부족	아주 좋음	부족	정보관리 필요	정보관리 필요	아주 좋음	아주 좋음	정보관리 필요	아주 좋음	아주 좋음	아주 좋음

III. Case study – 6 Components



Contextualized SDG PSS

- Modify sub-component
- Except for less relevant questionnaires

⋮

Increase response rate & quality

- Decrease No evidence (38% → 17%)
- Increase Positive answers (43% → 72%)

[Notable points]

DRR /Resilience	<u>1st</u>	<u>2nd</u>	<u>Individual Interview</u>
Significant	<u>8%</u>	<u>17%</u>	<u>↑ 58%</u>
Adequate	<u>38%</u>	<u>8%</u>	<u>4%</u>
Inadequate	<u>25%</u>	<u>21%</u>	<u>4%</u>
No evidence	<u>29%</u>	<u>↑ 54%</u>	<u>33%</u>

III. Case study – Gender Mainstreaming


□ Gender Mainstreaming

[1st & 2nd Workshops]

- Water sector working group
- **Results**
 - Difficult to find connectivity with each indicator
 - ※ No-evidence(42%) and Inadequate(29%)



[Additional Expert Interview]

-  Korean Women's Development Institute
- **Results**
 - Evaluate by indicators except for 6.4, 6.6
 - No significant changes in the results
 - ※ Most of the answers are **Negative or No-evidence**
- **Comments**
 - **Separation of sanitary facilities** between men and women **in private sector** is required
 - Management of water pollutants from the **perspective of women's reproductive health** protection should be conducted

	Gender		
	National policy	Governance	Organisation main-streaming
6.1.1 Drinking water	좋음	좋음	부족
6.2.1 Sanitation	부족	정보관리 필요	부족
6.3.1 Wastewater	좋음	정보관리 필요	부족
6.3.2 Water quality	아주 좋음	정보관리 필요	아주 좋음
6.4.1 Water-use efficiency	좋음	정보관리 필요	정보관리 필요
6.4.2 Water stress	부족	정보관리 필요	정보관리 필요
6.5.1 IWRM	아주 좋음	정보관리 필요	아주 좋음
6.5.2 Transboundary basin	Greyed Out		
6.6.1 Ecosystem	부족	정보관리 필요	정보관리 필요

III. Case study – DRR/Resilience

DRR/Resilience

Strategies
Information
and
Assessments
Infra-
structure

6.1.1 Drinking water	아주 좋음	아주 좋음	정보관리 필요
6.2.1 Sanitation	아주 좋음	매우 좋음	정보관리 필요
6.3.1 Wastewater	아주 좋음	아주 좋음	정보관리 필요
6.3.2 Water quality	부족	아주 좋음	정보관리 필요
6.4.1 Water-use efficiency	아주 좋음	아주 좋음	정보관리 필요
6.4.2 Water stress	아주 좋음	아주 좋음	정보관리 필요
6.5.1 IWRM	아주 좋음	아주 좋음	정보관리 필요
6.5.2 Transboundary basin	Greyed Out		
6.6.1 Ecosystem	아주 좋음	아주 좋음	정보관리 필요

□ DRR/Resilience

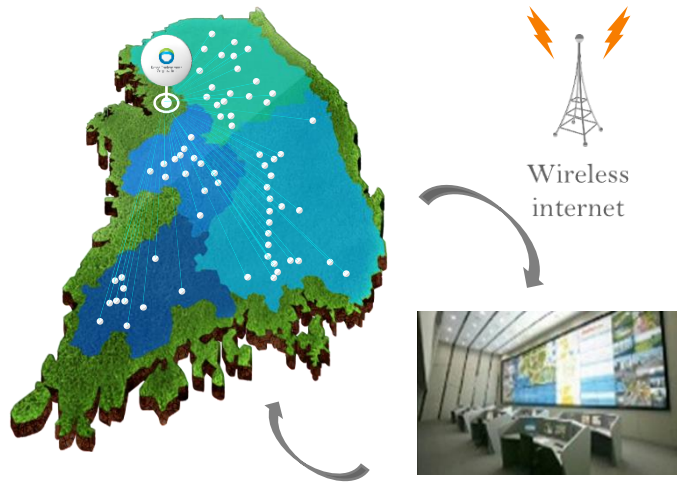
- Unable to evaluate by indicators, replacing with an overall assessment of SDG 6 target
- Need to define Water-related disaster and make a linkage with each indicators
- Need to continue the discussion with relevant ministries and experts on 'Hazard/disaster risk'

(Example) water-related disasters

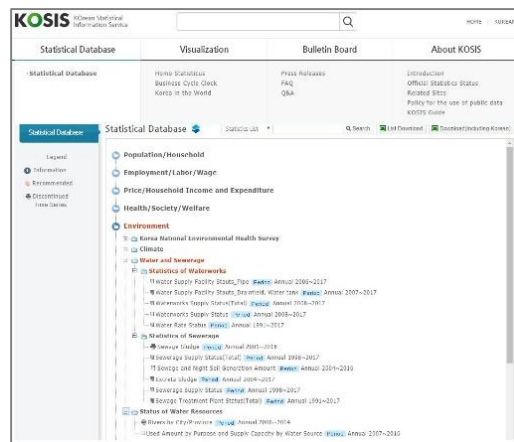
indicator	6.1.1	6.2.1	6.3.1	6.3.2	6.4.1	6.4.2	6.5.1	6.5.2	6.6.1
Flood			■		■		■	×	■
Drought	■	■			■	■	■	×	■
Slides								×	■
Wave								×	
Storm								×	
Epidemic	■	■						×	
Degradation		■	■	■			■	×	■

IV. Enabling Environment

- Data Gaps between National and International water-related data

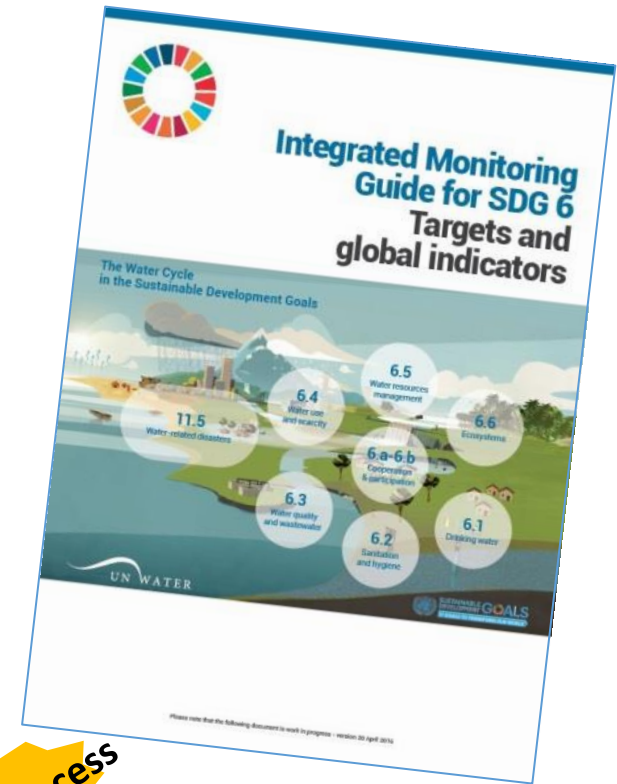


Water-related Data Production & Management



National Strategy

Korea Statistical Database



On going process

Tier Classification for
Global SDG Indicators(22 May '19)

SDG 6 : 6 Tier I, 5 Tier III → 6 Tier I, 5 Tier II

IV. Enabling Environment

- Water Management Unification

Water Quality Management



Ministry of Environment

Water Quality & Quantity Management

Target	Indicator	K-SDG indicator
6.1	Proportion of population using safely managed drinking water services	Rate of water supply Number of water shortage municipality
6.2	Proportion of population using safely managed sanitation services	Rate of public sewage in rural area Rate of public mngt. of private sewage treatment fertility Rate of sewage odor reduction
6.3	Proportion of wastewater safely treated Proportion of bodies of water with good ambient water quality	Rate of sewage re-use Rate of watershed with grade I WQ Rate of watershed with over grade B HAE Number of newly added chemical in discharge standard
6.4	Change in water-use efficiency over time Level of water stress:	Rate of Leakage Rate of stable water supplied municipality
6.5	Degree of IWRM Proportion of transboundary basin area	Degree of IWRM North-South water cooperation agreement
6.6	Change in the extent of water-related ecosystems over time	Degree of linked river ecosystem
6.b (6.7)	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	Rate of organization of water governance Rate of participate of public

V. Conclusion – Further steps

- **In-depth Analysis of SDG-PSS implementation in Korea**

- ✓ **Seeking ways to overcome Water-related Data Gaps**

- Expand the working group operation and generate Country-derived water-related data

- ✓ **Including SDG-PSS in the high-level processes of national SDG implementation**

- Use for progress reporting on national SDGs implementation

- **Strengthening the linkage with K-SDGs**

- ✓ **Contextualization of SDG-PSS for K-SDGs**

- ✓ **Including K-MGoS in the SDG-PSS working group**

✂ **K-MGoS** is Major Groups and Other Stakeholders in Korea according to the UN guidelines.

15 Major Groups represented by 88 Organizations, and 56 individuals

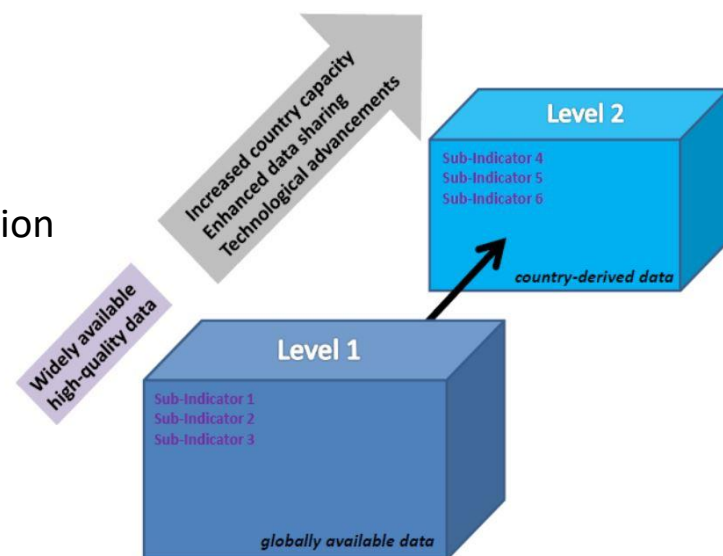


Figure 1 Indicator 6.6.1 Progressive Monitoring Approach



Thank you !



Ministry of Environment

“KOREA WATER CLUSTER”



Korea Environment
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