A Study on Water & Sustainable Development Goals(SDGs) in Korea and Developing Countries



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Water & SDGs



Water & SDGs

- Implications of SDGs
 - Inclusive growth, SD, peace & security as core agendas
 - Useful and necessary for both developed & developing countries
- *Economic growth-*related goals
 - No.1 No Poverty, No.2 End Hunger, No.8 Economic Growth, No.9 Infrastructure, No.10 Reduced Inequality, No.12 Sustainable Consumption, No.17 Partnerships for the Goals, total 7
- Social development-related goals
 - No.2 End Hunger, No.3 Good Health, No.4 Education, No.5 Gender Equality, No.11 Sustainable Cities, total 5
- *Environment*-related goals
 - No.6 Water, No.7 Energy, No.13 CC, No.14 Life below Water, No.15 Life on Land, total 5

Water & SDGs

- Direct connectivity of water for other SDGs
 - No.3 Good Health, No.11 Sustainable Cities, No.12 Sustainable Consumption, No.1 Life on Land
 mentioning water, confirmation of connectivity of water to other SDGs
 - 3.3 reduction of water-born diseases, 3.9 reduction of water pollution & decrease of relevant diseases and death, 11.5 reduction of waterrelated disasters, i.e., typhoons, flashflood, and tsunami
 - 12.4 reduction of chemical pollution from various water bodies, i.e. rivers and lakes, 15.1 protection from the intrusion of alien species in freshwater ecosystems, 15.8 conservation and rehabilitation of freshwater ecosystem services
- Water, connected to every sector of development
 - No.2 End Hunger: water and food
 - No.3 Gender Equality: water & women
 - No.7 Energy: water & energy
 - No.13 CC & 14 Life below Water: water & CC, marine ecosystems



- SDG 6 is central to sustainable development
- Water affects more than 40% of the world's population, which causes concern as there are dwindling supplies of safe drinking water.

Water Sub-goals & Indicators

- No.6 Water Sub-goals
 - Clean water, sanitation, water quality control, water use efficiency, IWRM & transboundary water, water & ecosystems
 - 6.a expansion of international cooperation, 6.b local communities' participation encouraged for institutional support
- Contents of water sub-goals
 - Clean water & sanitation, fundamental & core issues
 - The other four sub-goals to facilitate achieving sub-goals for water & sanitation services
 - 6.a, 6.b providing institutional platforms

The Water Cycle in the Sustainable Development Goals



Water Sub-goals & Indicators

- No.6 Water & Sanitation Indicators
 - Selection of adequate indicators for achieving water subgoals & the need to elaborate based on regions, sectors, and levels
 - Opening Working Group's work on 11 indicators in 2016 (a total of 241 indicators in SDGs) → 10 indicators confirmed in 2019
 - MDGs (2000-2015): lack of related information & data & distorted, lack of adequate analyses by sector & little consideration of water quality, inequality & sustainability
 - Improvement: Specific, Measurable, Attainable, Realistic, Timely → SMART principles

Target	Description
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all
6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
6.5	By 2030, implement integrated water resources management (IWRM) at all levels, including through transboundary cooperation as appropriate
6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
6.a	By 2030, expand international cooperation and capacity-building support to developing countries in water and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
6.b	Support and strengthen the participation of local communities in

improving water and sanitation management

6.b

No.6 Water & Sanitation Goal Targets

ource: ttps://sustainabledevelopm ent.un.org/sdg6

Target

Description

- 6.1.1 Proportion of population using safely managed drinking water service
- 6.2.1 Proportion of population using safely managed sanitation service including a hand-washing facility with soap and water
- 6.3.1 Proportion of wastewater safely treated
- 6.3.2 Proportion of bodies of water with good ambient water quality
- 6.4.1 Change in water-use efficiency over time
- 6.4.2 Freshwater withdrawal as a proportion of available freshwater resources
- **6.5.1** Degree of integrated water resources management implementation (0-100)
- 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation
- 6.a.1 Amount of water and sanitation-related official development assistance that is part of a government-coordinated spending plan

Proportion of local administrative units with established and operational6.b.1 policies and procedures for participation of local communities in water and sanitation management

No.6 Water & Sanitation Goal Indicators

Source: <u>https://sustainabledevelopm</u> <u>ent.un.org/sdg6</u>

Table 1-1 Projected distance from reaching selected targets by 2030 (at current trends)

GOAL	WITHIN 596	5-10%	>10%	NEGATIVE LONG-TERM TREND
👫 👬 👬 Goal 1		1.1. Eradicating extreme poverty	1.3. Social protection for all	
😃 Goal 2		2.1. Ending hunger (undernourtshment)	2.2. Ending malnutrition (stunting) 2.5. Maintaining genetic diversity 2.a. Investment in agriculture*	2.2. Ending malnutrition (overweight)
₩ Goal 3	3.2. Under-5 mortality 3.2. Neonatal mortality		3.1. Maternal mortality 3.4. Premature deaths from non-communicable diseases	
🔰 Goal 4	4.1 Enrolment in primary education	4.6 Literacy among youth and adults	4.2. Early childhood development 4.1 Enrolment in secondary education 4.3 Enrolment in tertiary education	
🧳 Goal 5			5.5. Women political participation	
👿 🛛 Goal 6		6.2. Access to safe sanitation (open defecation practices)	6.1. Access to safely managed drinking water 6.2. Access to safely managed sanitation services	-
🔅 Goal 7		7.1. Access to electricity	7.2. Share of renewable energy* 7.3. Energy Intensity	_=
📹 🛛 Goal 8			8.7. Use of child labour	
🚓 Goal 9		9.5. Enhancing scientific research (R&D expenditure)	9.5. Enhancing scientific research (number of researchers)	-
😑 Goal 10			10.c. Remittance costs	inequality in income*
🖌 🔓 Goal 11			11.1. Urban population living in slums*	
ᅇ Goal 12				12.2. Absolute material footprint, and DWC*
Goal 13				Global GHG emissions relative to Parts targets*
👼 Goal 14				14.1. Continued deterioration of coastal waters* 14.4. Overfishing*
🖆 Goal 15				15.5. Biodiversity loss* 15.7. Wildlife poaching and trafficking*
🏒 🛛 Goal 16			16.9 Universal birth registration **	

SDG Progress and Current Status 2019 (SDG6)

GOAL	WITHIN 5%	5-10%	>10%	NEGATIVE LONG-TERM TREND
👿 Goal 6		6.2. Access to safe sanitation (open defecation practices)	6.1. Access to safely managed drinking water 6.2. Access to safely managed sanitation services	

6.1 Access to Safely Managed Drinking Water6.2 Access to Safely Managed Sanitation Services(Open defecation practices)



SDG 6 Progress Report (March 2021)

Source: UN-Water (2021) Summary Progress Update 2021: SDG 6- water and sanitation for all. March 2021.

Korea's Strategies for SDGs

- Korea's Sustainable Development plans
 - Sustainable Development Basic Law in August 2007 → Sustainable Development Law in 2010
 - SD Basic Plan established every 5 years → the 3rd SD Basic Plan established in 2016
- The 3rd Sustainable Development Basic Plan (2016-2035)
 - Balance between economy, society & the environment
 - Healthy land & environment, integrated safe society, inclusive innovative economy, global responsible country
 - 14 Strategies, 50 Agendas for Implementation



National Sustainability Assessment

Comparison between SDGs & the 3rd SD Basic Plan

번호	지속가능발전목표 (SDG)17개	제3차 기본계획(Basic plan) 14개 전략 (Strategies)
1	빈곤 Poverty	2-1 사회 계층간 통합 및 양성평등 촉진 Integration among social classes and promotion of gender equality
2	식량/농업 Food / agriculture	2-2 지역간 격차해소2-2 Narrowing the regional gap 2-3 예방적 건강서비스 강화2-3 예방적 건강서비스 강화2-3 Strengthening Preventive Health Service
3	건강/웰빙 Health / Well-being	2-3 예방적 건강서비스 강화 Strengthening Preventive Health Service
4	교육 Education 양성평등 Equality of the sexes	2-1 사회 계층간 통합 및 양성평등 촉진 Integration among social classes and promotion of gender equality
6	Water & Sanitation	1-3 Clean Water Use & Efficient Management (꺠끗한 물 이용 보장과 효율적 관리)
7	에너지 Energy	3-3 지속가능하고 안전한 에너지체계 구축 Building a Sustainable and Safe Energy System
8	경제성장/일자리 Economic growth/job	
9	산업화/혁신 Industrialization/innovation	- 3-1 포용적 성장 및 양질의 일자리 확대 Inclusive growth and quality job growth
10	불평등 Inequality	Integration among social classes and 2-1 사회 계층간 통합 및 양성평등 촉진 Integration among social classes and
11	도시/공간 city/space	1-1 고품질 환경서비스 확보Securing High Quality Environmental Services Expanding the Safety Management Foundation
12	지속가능한 생산, 소비 Sustainable Production, Consumption	3-2 친환경 순환경제 정착 Establishment of eco-friendly environment system
13	기후변화 Climate Change	4-2 기후변화에 대한 능동적 대응 Active response to climate change
14	해양생태/자원 Marine ecology/resources	1-2 샌태계 서비스의 가치화대 Expanding the Value of Ecosystem Services
15	육상생태/자원 Terrestrial ecology/resources	1-2 생태계 서비스의 가치확대 Expanding the Value of Ecosystem Services
16	정의 Justice	지속가능발전 이행기반 강화 Strengthening the Implementation Base of Sustainable Development
17	글로벌 파트너십 Global Partnership	4-1 2030 지속가능발전의제 파트너십 강화 4-3 동북아 환경협력 강화4-1 Strengthening Partnership on the Agenda for Sustainable Development in 2030 4-3 Strengthening Environmental Cooperation in Northeast Asia

제3차 지속가능발전 기본계획 전략 1 건강한 국토환경 전략 및 이행과제

전략(3개)	이행과제(10개)
	1-1-1 깨끗한 대기질 확보 Ensuring Clean Air Quality
1 1 그 표 기 히 거 니니니 사 히 니	1-1-2 도시 생태공간 확충 Urban Ecological Space Expansion
1-1 고품질 환경서비스 확보 Ensuring High Quality Environmental Services	1-1-3 사전예방적 국토환경 관리 Proactive Land Environment Management
	1-1-4 오염배출 관리 체계 선진화 Advancement of Pollution Emission Management System
	1-2-1 육상 및 담수 생태계 보전 Conservation of Land and Freshwater Ecosystems
1-2 생태계서비스의 가치 확대	1-2-2 생물다양성의 보전 및 위협요인 저감 Conservation of Biodiversity and Reduction of Threat Factor
Expanding the Value of Ecosystem Services	1-2-3 연안, 해양 생태계 보호와 지속가능한 이용 Conservation and sustainable use of coastal and marine ecosystems
	1-3-1 Access to safe drinking water (안전한 식수에 대한 접근성 보장)
1-3 Clean Water Use & Efficient	1-3-2 Enhancement of water quality in water intake points
Management (깨끗한 물 이용 보장과 효율적 관리)	(상수원 수질개선 대책강화)
	1-3-3 Improvement of water cycle (물순환 체계 강화)

Korea's Strategies for SDGs

- 'Korean-Sustainable Development Goals' created in 2018
 - Reflecting Korea's unique circumstances on its economy, society and environment for achieving sustainable development
 - Following guidelines for mainstreaming the 2030 agenda for SD by the United Nations
 - Development of a monitoring & reporting system for the implementation of the SDGs according to Korea's indicator system
 - K-SDGs, a system to assess the implementation status of SD & the quality of life of the public in economic, social & environmental aspects
 - ≻5 Strategies, 17 Goals, 122 Targets & 214 Indicators → 14 new targets & 119 new indicators

Relationship between K-SDGs & SDGs



Source: Ministry of Environment (2019) *A Report on Korean-Sustainable Development Goals (K-SDGs)*.

Internal Review of SDGs Korea, 2020



Remarks: evaluation of 99 indexes Source: Commission on SD (2020) *National Sustainable Development Report 2020*.

VERALL PERFORMANCE

COUNTRY RANKING Korea, Rep. 28/165



STATISTICAL PERFORMANCE INDEX 0 (WORST) TO 100 (BEST)





External Review of SDGs Korea, 2021

SDG DASHBOARDS AND TRENDS



The full title of each SDG is available here: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals

Source: Sachs et al. (2021) Sustainable Development Report 2021.

▼ AVERAGE PERFORMANCE BY SDG



AVERAGE PERFORMANCE BY SDG

Note: The full title of each SDG is available here: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals

Source: Sachs et al. (2021) Sustainable Development Report 2021. 70.7

74.1

90.1

94.2

95.8

97.7

98.3

100.0

External Review of SDG6 Korea, 2021, 2022

• Performance by indicator (2021)

SDG6 – Clean Water and Sanitation

Population using at least basic drinking water services (%)99.82017Population using at least basic sanitation services (%)100.02017Freshwater withdrawal (% of available freshwater resources)85.22014Anthropogenic wastewater that receives treatment (%)76.82018Scarce water consumption embodied in imports (m³/capita)17.72013Population using safely managed water services (%)98.22017Population using safely managed sanitation services (%)99.92017

• Performance by indicator (2022)

SDG6 – Clean Water and Sanitation

Population using at least basic drinking water services (%)	99.9 2020 🔹 🛧
Population using at least basic sanitation services (%)	99.9 2020 🔹 🛧
Freshwater withdrawal (% of available freshwater resources)	85.2 2018 🔍 🔍
Anthropogenic wastewater that receives treatment (%)	76.8 2018 • •
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	2208.0 2018 😐 🔳
Population using safely managed water services (%)	99.2 2020 🍨 🛧
Population using safely managed sanitation services (%)	99.9 2020 🔹 🛧

Source: Sachs et al. Sustainable Development Report 2021. 2022.



SDG 6 snapshot in Republic Of Korea

https://sdg6data.org/en/country-or-area/Republic%20of%20Korea

AVERAGE PERFORMANCE BY SDG



Sustainable Development Report 2022.

Note: The full title of each SDG is available here: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals

International spillover index



Performance by indicator •

SDG6 – Clean Water and Sanitation

Population using at least basic drinking water services (%)	85.5 2020 😐 🎵	
Population using at least basic sanitation services (%)	67.72020 🔍 🎵	
Freshwater withdrawal (% of available freshwater resources)	3.4 2018 🔍 🔍	1
Anthropogenic wastewater that receives treatment (%)	3.3 2018 • •	1
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	1823.8 2018 😐 🔍	1

Korea •



Source: Sachs et al. Sustainable Development Report 2022.



https://sdg6data.org/en/country-or-area/Mongolia

AVERAGE PERFORMANCE BY SDG

SDG

4

sdg 5

sdg 6



External Review of SDGs Kazakhstan, 2022

Source: Sachs et al. (2022) Sustainable Development Report 2022.

Note: The full title of each SDG is available here: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals

• International spillover index



• Performance by indicator

SDG6 – Clean Water and Sanitation

Population using at least basic drinking water services (%) Population using at least basic sanitation services (%) Freshwater withdrawal (% of available freshwater resources) Anthropogenic wastewater that receives treatment (%) Scarce water consumption embodied in imports (m³ H₂O eq/capita) • Korea



Source: Sachs et al. Sustainable Development Report 2022.



https://sdg6data.org/en/country-or-area/Kazakhstan



https://sdg6data.org/en/country-or-area/Kyrgyzstan

Future Tasks

- Mission :
 - "The goal is to establish a network with major developing countries by promoting sustainable development policy consulting to reconsider environmental sustainability of developing countries"
- Task details :
 - A Study on the Policy Status in the Domestic and Foreign Products and Sanitation
 - Policy Diagnosis and Research in Developing Countries
 - Analysis of SDG-PSS utilization results and derivation of improvement opinions