

Waste Management and Circular Economy Policy Support System

Empowering UN Member States to Advance Sustainable Waste Management and Resource Circularity

National Policy Support for Evidence-based Decision-making

Chaela Shin, UNOSD

The Waste Crisis: Key Statistics

2.1
Billion Tons

Municipal solid waste (MSW) **generated annually.**



2019 @ South Tangerang, Banten, Indonesia

55%

Percentage of MSW that is **managed in controlled facilities**

90%

Percentage of waste in **low-income countries** that is discarded in **unregulated dumps or burned openly**

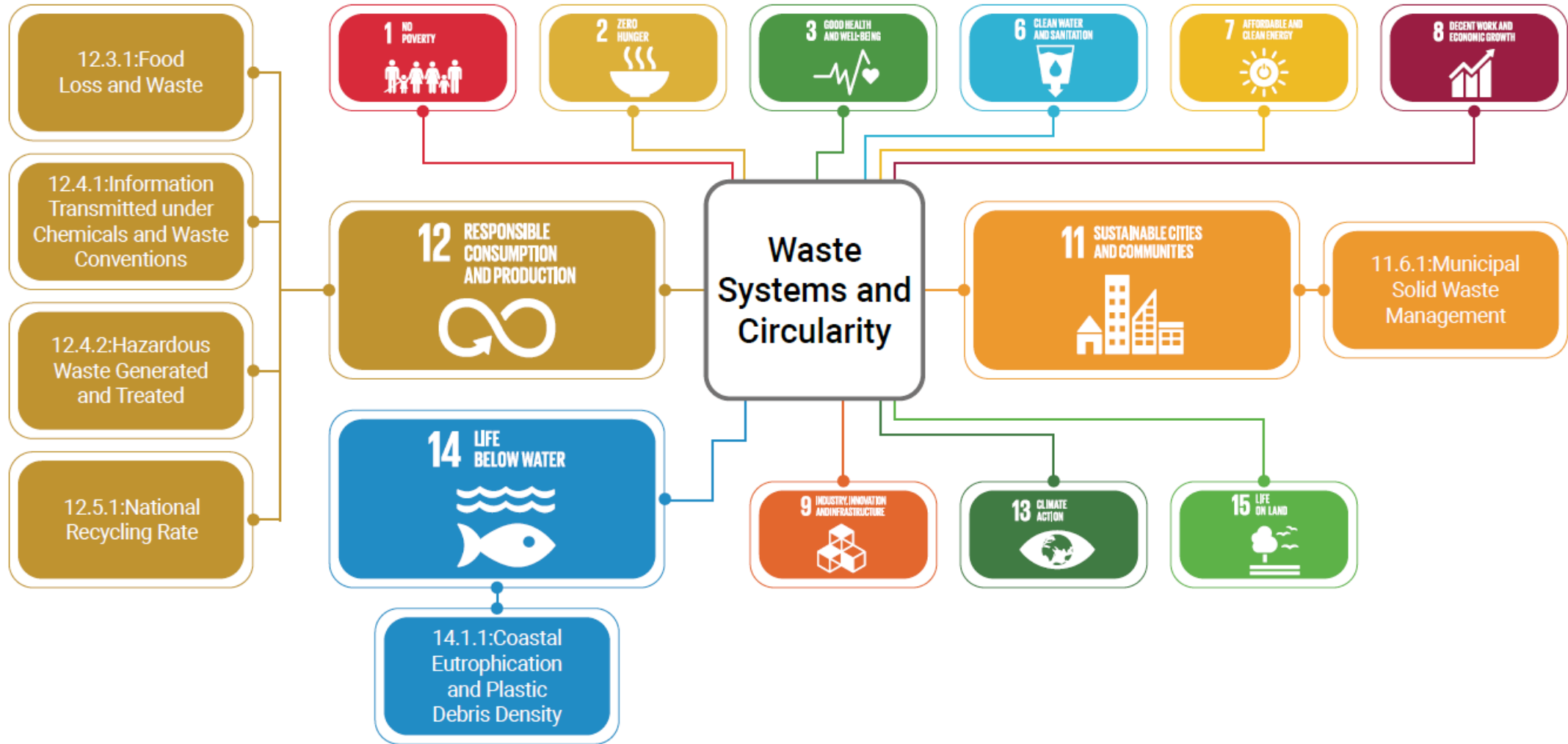


2021 @ Buriganga river, Bangladesh

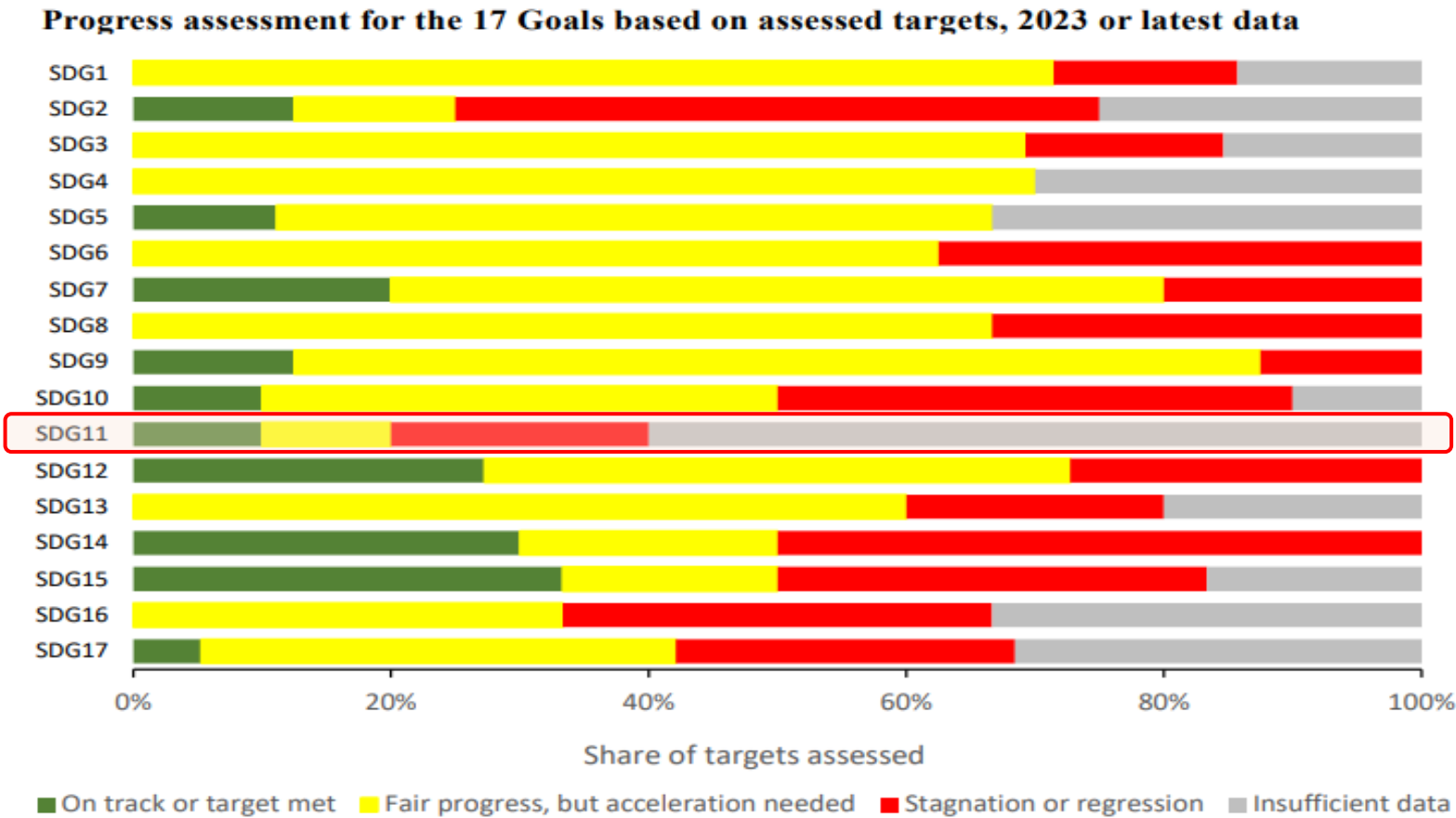
400,000
People

Number of people in developing countries who **die each year due to diseases from mismanaged waste**

Waste Impacts ALL Sustainable Development Goals



SDGs and Data Gaps for Solid Waste Management



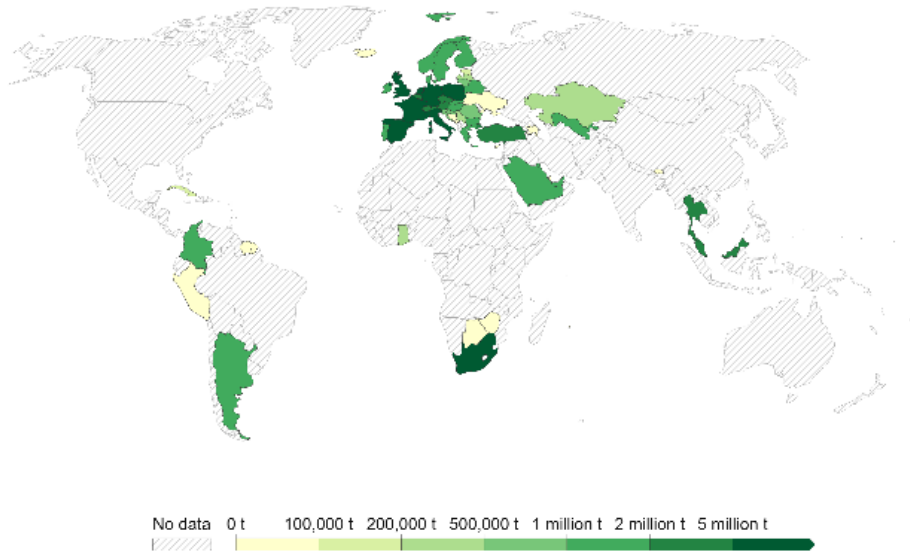
SDG 11, related to MSW management, has the most insufficient rate of reliable data

SDGs and Data Gaps for Solid Waste Management

Municipal waste recycled, 2021

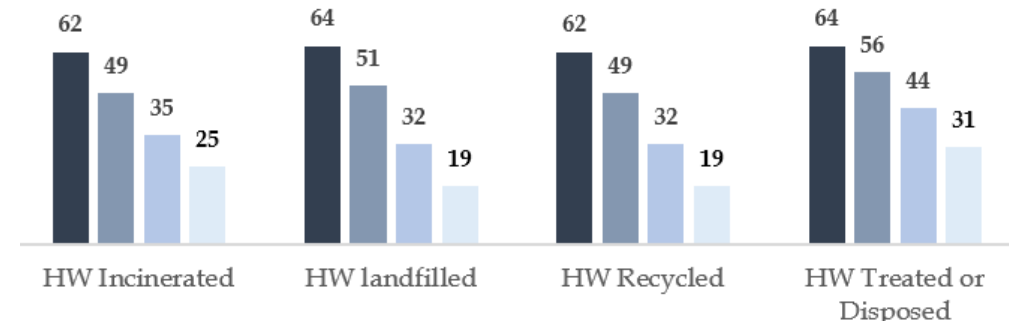
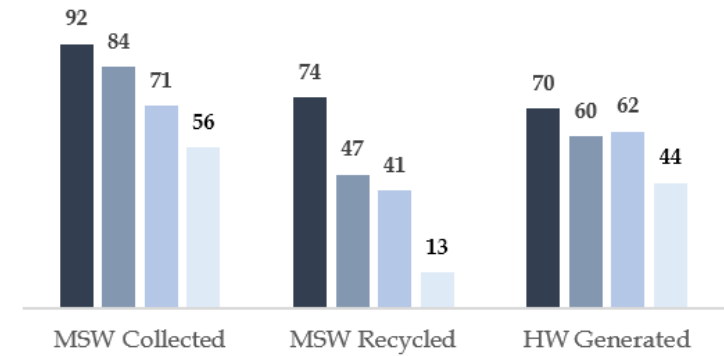
Municipal waste is waste from households and businesses, that would be collected by local authorities.

Our World
in Data



Source: UN Statistics Division

OurWorldInData.org/waste-management - CC BY



■ High Income ■ Upper-middle Income ■ Lower-middle Income ■ Low-Income

Indicator 12.5.1: **Very limited Recycling data** globally,
Lack of capacity at local levels.

Reporting rates of SDG indicators **vary by income level.**

A Critical Need for Bridging Data Capacity Gaps



Expert Group Meeting for Consultation

21–23 November 2023, Incheon, Republic of Korea



Indonesia



Morocco



Cambodia



Ethiopia



Ghana



Vietnam



UNITED NATIONS
UNIVERSITY
UNU-IAS
Institute for the Advanced Study
of Sustainability



Global Alliance for Incinerator Alternatives
Global Anti-Incinerator Alliance **gaia**

Key conclusions of EGM

1

The rate of global natural resource exploitation is unsustainable, and production and consumption rates cannot continue on the current trajectory.

2

Policy support needs to be context specific and account for; **varying definitions** within the sector, **differing composition** of waste by country and rural-municipal areas, **split ministerial responsibilities** – including for **budget management, and cultural sensitivity**.

3

The lifecycle approach is key for resource circularity and sustainable solid waste management.

4

Coordination between key stakeholders in national and local governments, businesses, and the scientific community **are necessary** for successful programmes.

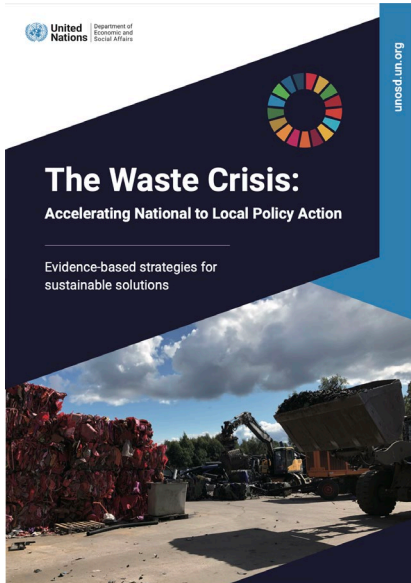
5

The informal sector is a vital part of SWM in developing countries, the sector needs to be treated with sensitivity and integrated into policy support systems, policies and strategies.

6

Implementation of policies and strategies is a main challenge in many developing countries, and implementation of behaviour change strategies requires more focus in many countries.

Waste Management Data for Evidence-based policy



15
Years

Average age of waste management data from low-income countries

Reliable waste management data:

- Informs decision making
- Allows for identification of baselines and trends
- Allows for appropriate resource allocation
- Attracts financial investment
- Provides the opportunity to monitor progress

MAIN
PUBLICATION



SUMMARY FOR POLICY
MAKERS



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Key matrix of WMPSS

- **Waste Lifecycle**

- Generation
- Source segregation
- Collection, transport
- Sorting
- Treatment, disposal

- **Policy Assessment Components**

- Capacity
- Public governance
- Engagement
- Finance
- Monitoring
- Status



Capacity

Public Governance

Engagement Of Key Stakeholders

Finance

Monitoring

Status

Human Resource Section

Technology & Infrastructure

General

Is there an Integrated Solid Waste Management (ISWM) system in place?

Yes

Almost

Partially

Developing

No

Is there ongoing research and public projects for modernizing and building waste management facilities?

Yes

Almost

Partially

Developing

No

Generation

Is there technology and infrastructure available to help reduce waste generation? (e.g. biodegradable plastic, home composting facilities)

Yes

Almost

Partially

Developing

No

Key outcome of PSS

- Progress assessment with color code
- Waste data trends analysis

UNSD/UNEP Questionnaire on Environment Statistics (Waste)

Data

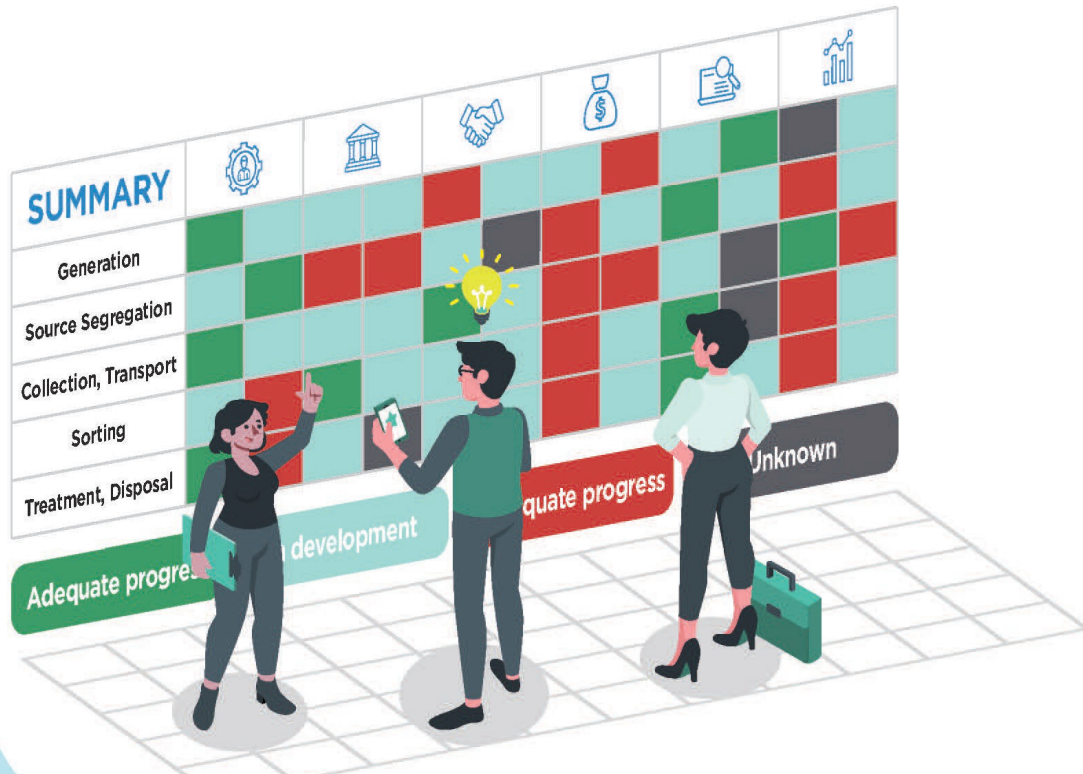
Data collection is implemented through the biennial Questionnaire on Environment Statistics. Data collection started in 1999. UNSD environmental indicators derived from these data, as well as for the eight other themes, are now available.

- UNSD environmental indicators
- Country Snapshots
- **Country Files** (waste and water)
- Questionnaires (waste and water)

Waste

Morocco (2016)

Progress to be updated



Based on the success story in the field of SDG 6

[ENGLISH | FRENCH | SPANISH | PORTUGUESE | KOREAN]

SDG 6 Policy Support System (SDG-PSS)

SDG-PSS is designed as part of the project 'Water in the World We Want' to enable government actors and stakeholders to better collaborate to create national-level evidence around SDG 6, its targets and indicators.

Introduction

Components

Summary View

Online course

Target	Indicator	Capacity			Finance			Policy & Institutional			Gender			DRR/Resilience			Integrity		
		Current capacity	Overall Progress	Strengthening mechanisms	Accountability	Financial Planning	Public Incentives	Policy Planning and Equity	Coordination & cooperation	Public awareness	Gender analysis	Participation of Women	Training and Resources	Strategic Planning	Funding Mechanisms	Infrastructures	Accountability and Transparency	Fairness and equity	Regulatory process
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all 6.1.1 Proportion of population using safely managed drinking water services	Adequate	Inadequate	No evidence	Adequate	Adequate	In progress	Adequate	Adequate	Adequate	Adequate	Adequate	Adequate	No evidence	Adequate	Adequate	Adequate	Adequate	Adequate
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 6.2.1 Proportion of population using safely managed sanitation services, including hand-washing facility with soap and water	Inadequate	Inadequate	Inadequate	No evidence	Adequate	Inadequate	Adequate	In progress	Adequate	Adequate	No evidence	Inadequate	Adequate	In progress	Inadequate	Inadequate	No evidence	In progress
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 6.3.1 Proportion of wastewater safely treated	In progress	Adequate	No evidence	In progress	Inadequate	No evidence	Adequate	Adequate	Inadequate	Adequate	No evidence	Inadequate	Inadequate	Adequate	No evidence	No evidence	In progress	Adequate
	6.3.2 Proportion of bodies of water with good ambient water quality	Adequate	Inadequate	In progress	Adequate	In progress	In progress	Adequate	Inadequate	No evidence	Adequate	In progress	Adequate	Inadequate	In progress	In progress	Adequate	Inadequate	
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawal and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 6.4.1 Change in water-use efficiency over time	Inadequate	No evidence	Adequate	Inadequate	Adequate	Adequate	Adequate	No evidence	In progress	Adequate	Adequate	Inadequate	Adequate	No evidence	Adequate	Adequate	Inadequate	No evidence
	6.4.2 Level of water stress - freshwater withdrawn as a proportion of available freshwater resources	No evidence	Adequate	Adequate	No evidence	Adequate	Inadequate	Inadequate	In progress	Adequate	Inadequate	Inadequate	Adequate	Adequate	In progress	Inadequate	Inadequate	No evidence	In progress
6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate 6.5.1 Degree of integrated water resources management implementation (0-100)	Inadequate	Inadequate	Inadequate	In progress	Inadequate	No evidence	Adequate	Adequate	Inadequate	Adequate	No evidence	Inadequate	Inadequate	Adequate	No evidence	No evidence	In progress	Adequate
	6.5.2 Proportion of transboundary basin areas with an operational arrangement for water cooperation	Adequate	Inadequate	Adequate	Adequate	In progress	In progress	Adequate	Inadequate	No evidence	In progress	In progress	Adequate	Adequate	Inadequate	In progress	In progress	Adequate	Inadequate
6.6	By 2030, protect and restore water-related ecosystems, including wetlands, rivers, lakes, aquifers and deltas 6.6.1 Change in the extent of water-related ecosystems over time	Inadequate	No evidence	Adequate	Inadequate	Adequate	Adequate	Adequate	No evidence	In progress	Adequate	Adequate	Inadequate	Adequate	No evidence	Adequate	Adequate	Inadequate	No evidence

Based on the success story in the field of SDG 6

- ✓ Consultation platform between multisectoral experts in national context
- ✓ Assistance to SDG 6 indicator reporting
- ✓ Assessment of national progress in SDG 6 enabling environments

- Using PSS to assess progress and consult with multisectoral experts



- PSS help include SDG 6 in VNR 2021 and prioritize it

Turkiye



- PSS introduction with national/provincial workshops

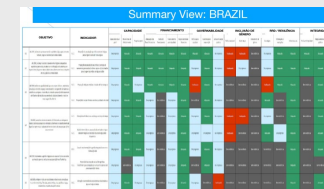


- SDG 6 reporting with PSS assistance

Pakistan



- Publishing national PSS experience
- Action plan to overcome weaknesses



Brazil



Next Steps

Launch the online system for country users

- Enhance system interface for better user experience
- Questionnaire guideline/reference links to be added

Regional Workshops in 2025

- East Africa: End of March in Madagascar
- LAC: May in Brazil (World Circular Economy Forum)
- **West Africa: August in Ghana**

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THANK YOU

If you're interested, please contact UNOSD/DSDG
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