Addressing Water Scarcity (SDG 6.4) in the 2030 Agenda

Expert group meeting on Pursuing Improved Shared Water Resources Management within the Framework of Global and Regional Agreements

Cairo, Egypt; 29-30 November 2017

Economic and Social Commission for Western Asia

UNITED NATIONS

الاسكوا

ESCWA

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SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

1 Dedicated Water Goal with 6 Targets to *Ensure availability and sustainable management of water and sanitation for all*

Access to Basic Services

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 gir… those in vulnerable situations

Water Quality & Wastewater

6.3 by 2030, improve water quality b… ducing pollution, eliminating d… inimizing release of hazardou… aterials, halving the proportion… ntreated wastewater, and incre… and safe reuse globally

Water Use Efficiency & Water…

…y 2030, substantially increase water-…se efficiency across all sectors and ensu… ustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity

IWRM, Shared Water, Ecosystems

6.5 by 2030 implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

…y 2020 protect and restore water related …systems, including mountains, forests, …ds, rivers, aquifers and lakes

…ns of Implementation

…nd international cooperation and …ng support to developing …ter and sanitation related …rogrammes, including …g, desalination, water …stewater treatment, recycling and …logies

…d strengthen the participation of …mmunities for improving water and …itation management

Water Scarcity in Arab Context

Water & Sanitation

IWRM & Shared Water

Water Ecosystems

Waste water

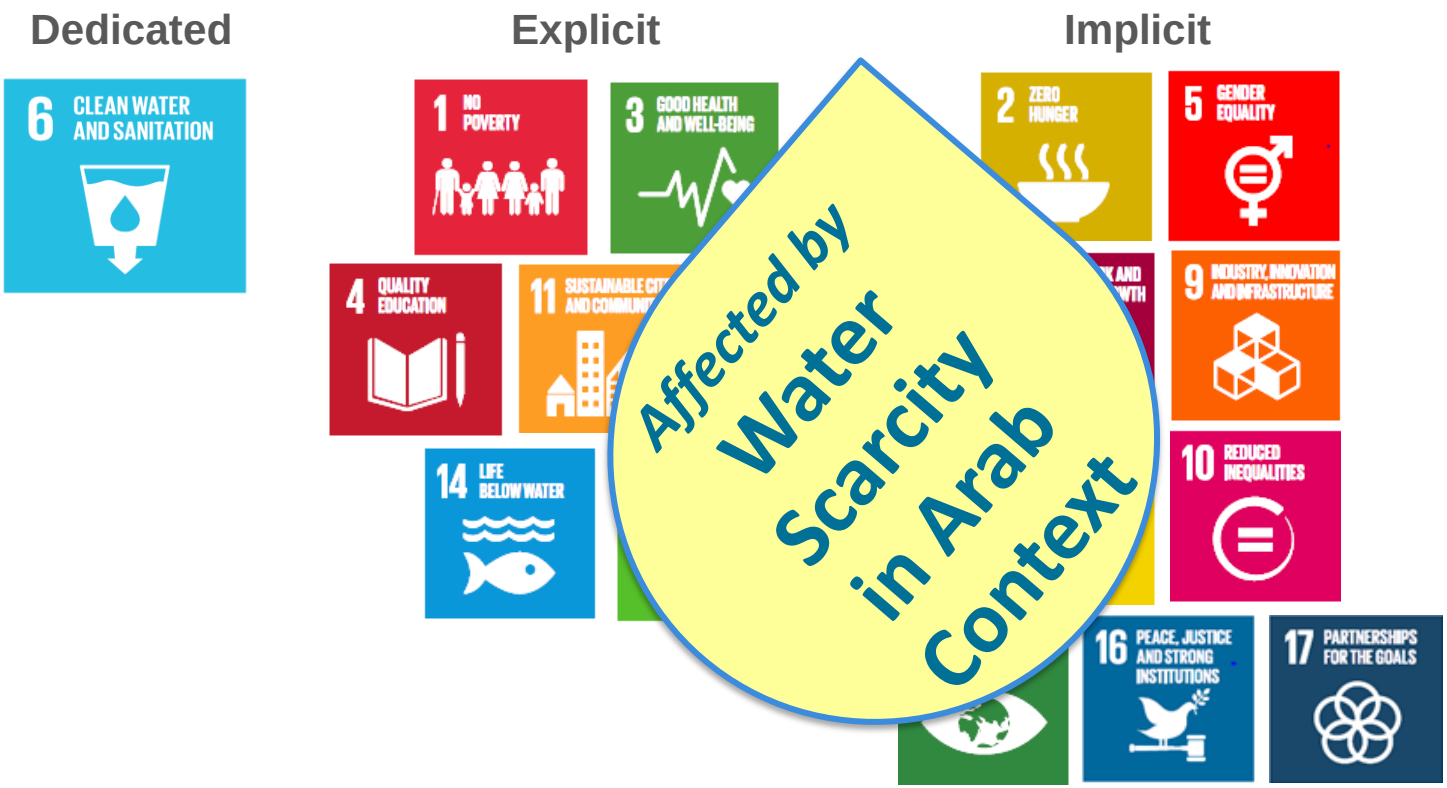
Water Quality

Water Scarcity

Water Efficiency

Water Stress

All 17 SDGs are Water-related



SDG6 Targets are Interconnected to other SDG Goals and Targets in many ways

SDG Goals & Targets Approved by UNGA

SDG Indicators vetted by UN Statistical Commission

Tiers for Indicator Approval

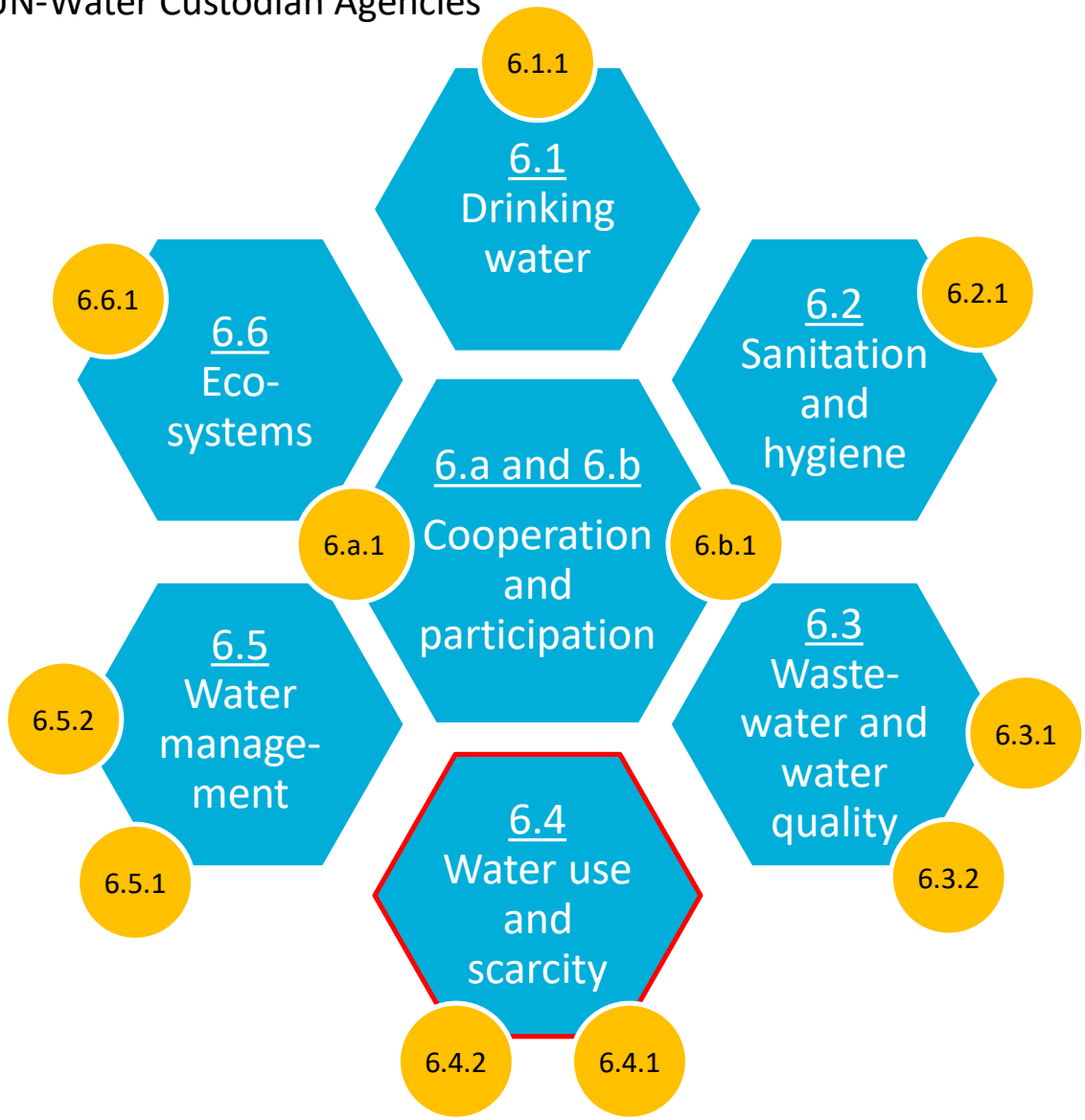
Tier 1: Indicator conceptually clear, **established methodology** and standards available and **data regularly produced** by countries

Tier 2: Indicator conceptually clear, **established methodology** and standards available but **data are not regularly produced** by countries

Tier 3: Indicator for which there are **no established methodology** and standards or methodology/standards are being developed/tested.

SDG 6 global indicators

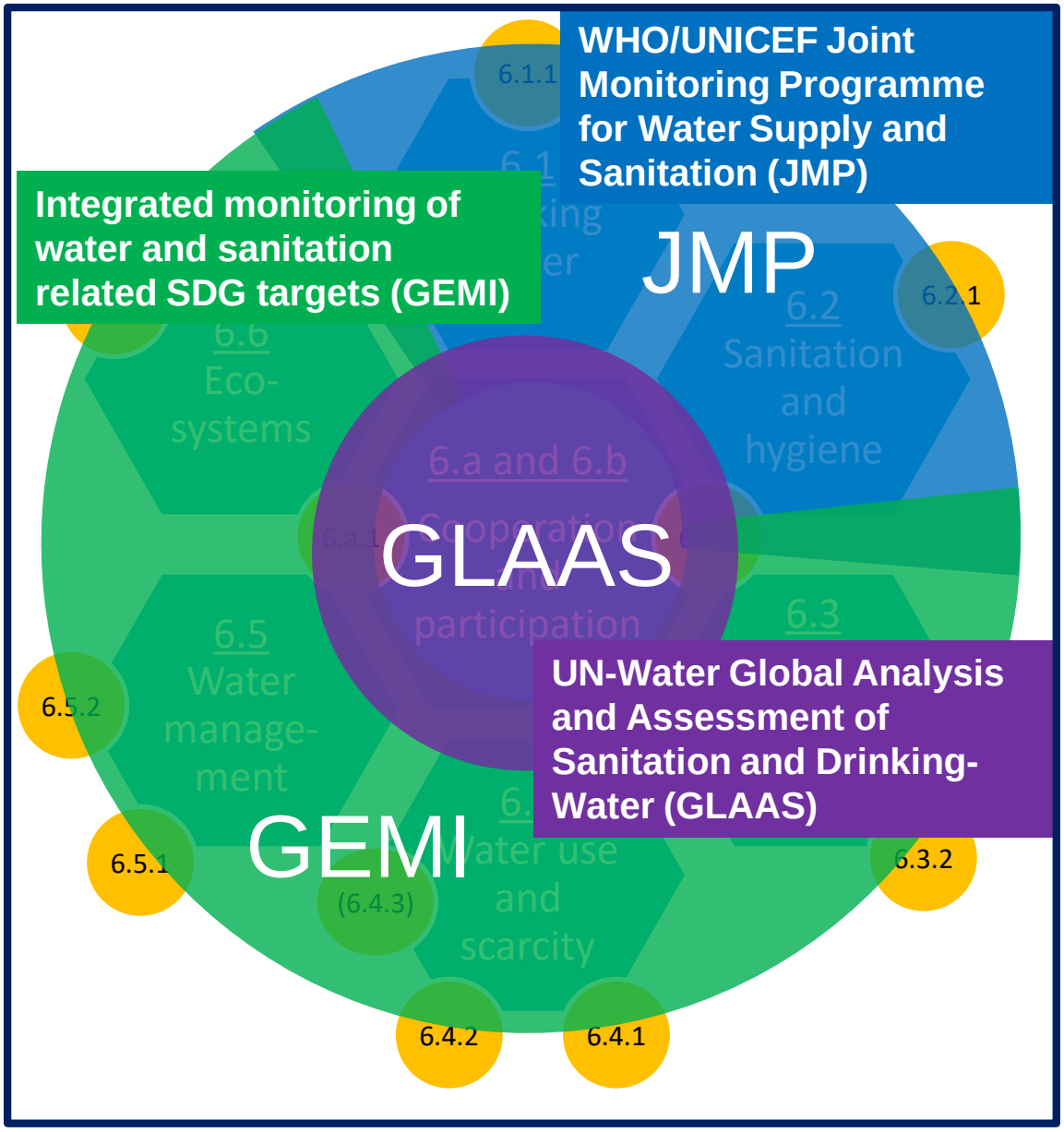
UN-Water Custodian Agencies



6.1.1	Safely managed drinking water services (WHO, UNICEF)*
6.2.1	Safely managed sanitation and hygiene services (WHO, UNICEF)*
6.3.1	Wastewater safely treated (WHO, UN-Habitat, UNSD)**
6.3.2	Good ambient water quality (UNEP)***
6.4.1	Water use efficiency (FAO)**
6.4.2	Level of water stress (FAO)**
6.5.1	Integrated water resources management (UNEP)**
6.5.2	Transboundary basin area with water cooperation (UNECE, UNESCO)**
6.6.1	Water-related ecosystems (UNEP)***
6.a.1	Water- and sanitation-related official development assistance that is part of a government coordinated spending plan (WHO, UNEP, OECD)*
6.b.1	Participation of local communities in water and sanitation management (WHO, UNEP, OECD)*

Based on: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

UN-Water Integrated Monitoring for SDG6 Initiative



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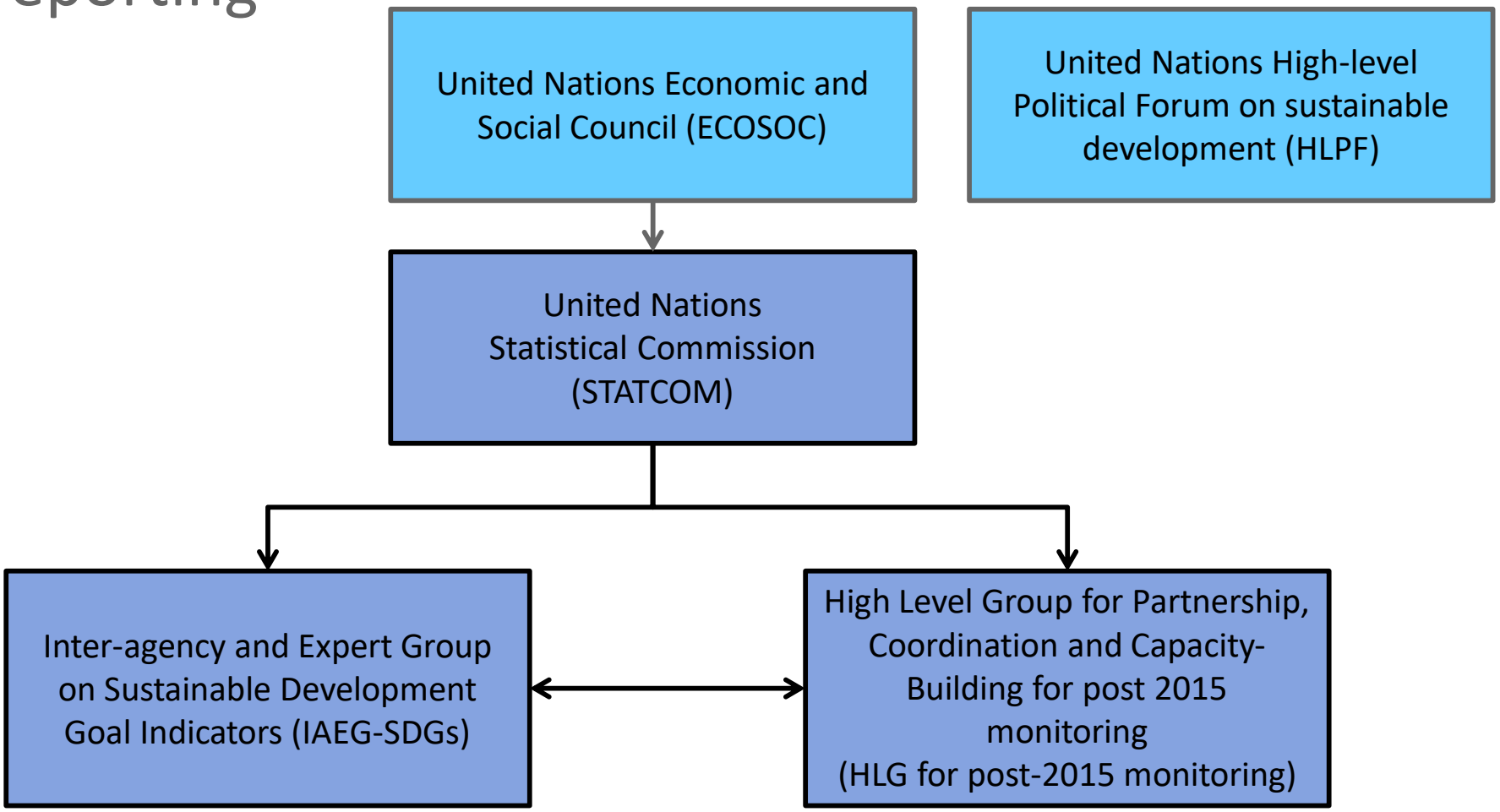
Based on: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

Statistical oversight of SDG indicators and methodological process – informing monitoring & reporting



Based on: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

Sustainable Development Goal Indicators

How to measure 17 goals and 169 targets?

- Global annual SDG Reports
  - Official Secretary General's Report (end of May)
  - Glossy progress report (in July)
  - SDG Indicators Global Database
- 2018 theme: "Transformation towards sustainable and resilient societies", focus on SDG 6,7,11,12,15 and 17

- Definition of a global indicator framework
  - By the Inter-Agency and Expert Group on SDG Indicators
  - Consisting of 27 National Statistical Offices

-> 232 global SDG indicators

Source: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

Sustainable Development Goal 6 Indicators

Tier Classification

- 81,8% (9) Tier I or Tier II indicators
- 18,2% (2) Tier III indicators
- **Custodian agencies submitted detailed plans for developing Tier III indicators**
- Ongoing review process for tier re-classification

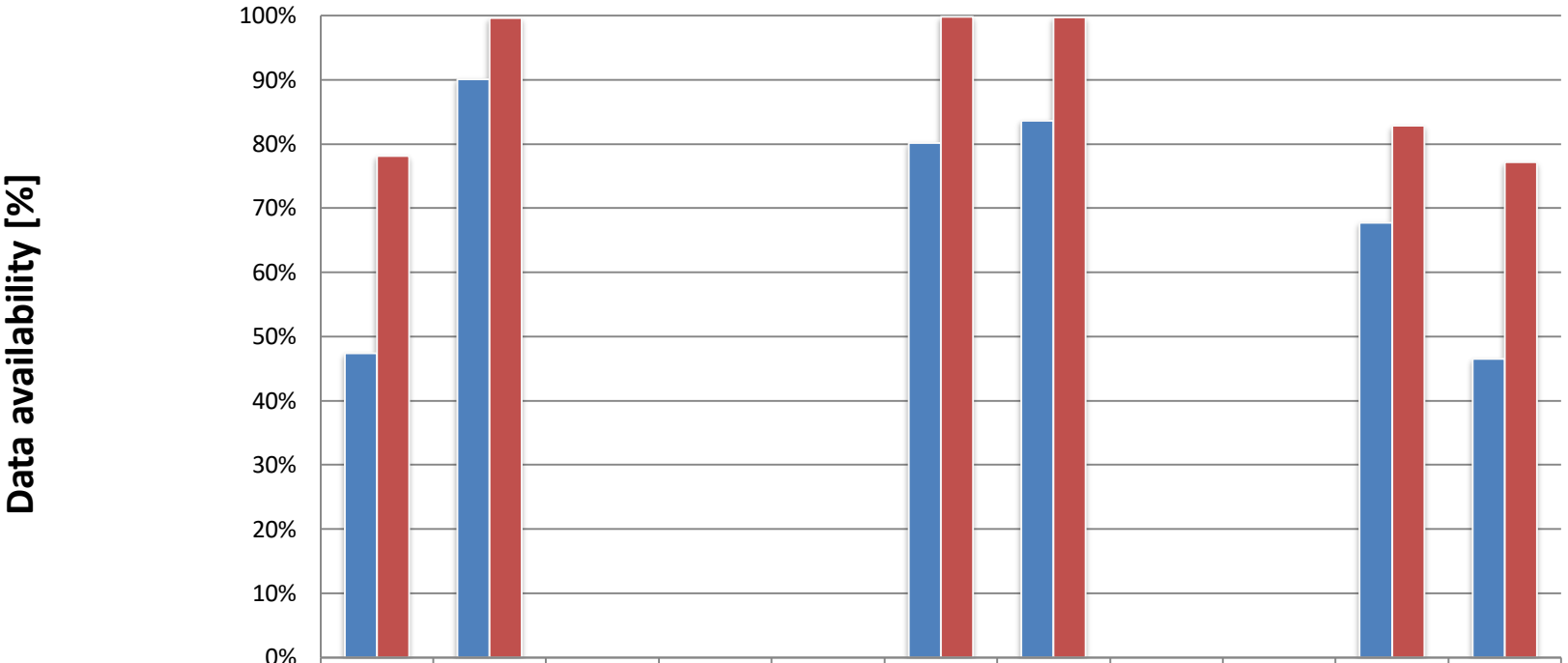
	Data availability*	Established methodology and standards available
Tier I	✓	✓
Tier II		✓
Tier III		

* for **at least 50% of all countries** and covers at least 50% of the population in every region of the world wherever the indicator is relevant

Source: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

Sustainable Development Goal 6 Indicators

Data availability in UN Database (globally)



	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	6.a.1	6.b.1
Data availability - Countries	47.4%	90.1%	0.0%	0.0%	0.0%	80.2%	83.6%	0.0%	0.0%	67.7%	46.6%
Data availability - Population	78.1%	99.6%	0.0%	0.0%	0.0%	99.9%	99.8%	0.0%	0.0%	82.8%	77.2%

6.4.1	Water use efficiency (FAO)**
6.4.2	Level of water stress (FAO)**

Based on: UN-Water Global Workshop on the Integrated Monitoring Initiative of SDG6 (The Hague, Nov 17)

SDG6.4

Water Efficiency – Water Stress – Water Scarcity

SDG 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.****"*

Indicator:

6.4.1 Change in water-use efficiency over time

Indicator:

6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Indicator:

None

6.4.1 - Change in water-use efficiency over time

Purpose/use of the indicator

- It provides information on the efficiency of the economic and social usage of water resources, i.e. the value added generated by the different main sectors of the economy (agriculture, industry, services) while using water
- The weighted sum of the three sectoral efficiencies provides a measure of overall water efficiency in a country
- It provides incentives to improve water use efficiency through all sectors, highlighting those sectors where water use efficiency is lagging behind

Source: Riccardo Biancalani and Karen Frenken, FAO delivered to MDG+ Initiative High level meeting on the water-related Sustainable Development Goals (SDGs), Amman, November 2016

6.4.1 - Change in water-use efficiency over time
Interpretation of Indicator

- Water use efficiency is strongly influenced by the economic structure and the proportion of water use intensive sectors
- A lower water use efficiency primarily means that the economic and industrial structure of the country is water use intensive. A less water use intensive economy would show a relatively high water use efficiency.
- The change in water use efficiency is influenced by both 'real' improvements and deteriorations, as well as by changes in economic and industry structure.
- Key message: Increasing values in time series indicate decoupling of the economic growth from water use. It does not necessarily indicate decline in total water use or a reduction of the impact of water use (see water stress – Indicator 6.4.2)

Source: Riccardo Biancalani and Karen Frenken, FAO delivered to MDG+ Initiative High level meeting on the water-related Sustainable Development Goals (SDGs), Amman, November 2016

6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Purpose/use of Indicator

- It shows the degree to which freshwater resources are being exploited to meet the country's water demand
- It measures a country's pressure on its water resources and the challenge on the sustainability of its water use
- It tracks progress in regard to "sustainable withdrawals and supply of freshwater to address water scarcity", i.e. the environmental component of target 6.4

…ensure sustainable withdrawals and supply of freshwater to address water scarcity….

Source: Riccardo Biancalani and Karen Frenken, FAO delivered to MDG+ Initiative High level meeting on the water-related Sustainable Development Goals (SDGs), Amman, November 2016

6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Interpretation of the indicator

- It shows to what extent freshwater resources are already used, and signals the importance of effective supply and demand management policies
- It can also indicate the likelihood of increasing competition and conflict between different water uses and users in a situation of increasing water scarcity
- Increased water stress, shown by an increase in the value of the indicator, has potentially negative effects on the sustainability of the natural resources and on economic development
- Low values of the indicator indicate that water does not represent a particular challenge or limiting factor for economic development and sustainability
- Spatial disaggregation of this indicator at subnational level is particularly important to increase its meaningfulness and usefulness for policy purposes

Source: Riccardo Biancalani and Karen Frenken, FAO delivered to MDG+ Initiative High level meeting on the water-related Sustainable Development Goals (SDGs), Amman, November 2016

Number of people suffering water scarcity

A target without a global indicator…

… but the potential for an Arab approach

SDG 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.**"*

This Additional SDG Indicator could provide an avenue for focusing on the 'human face' of water scarcity and water security in the Arab region in an integrated manner…

…and prioritize the needs of people, including vulnerable groups.

IAEG-SDG has open consultation forthcoming where additional indicators can be submitted, vetted and considered for adoption during 2020 indicator review period.

4th Meeting of the Inter-agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs)

Agenda Item 9. Refinements of indicators and future revisions to the indicator framework: Additional Indicators

17-18 November 2016 - Geneva, Switzerland

List of Targets where Additional Indicators may possibly be desirable

- 1.a
- 2.2
- 2.a
- 3.4
- 3.5
- 3.6
- 3.9 (3)
- 3.b
- 3.c
- 4.1 (2)
- 4.b
- 6.4
- 7.1
- 8.5
- 8.7
- 8.9
- 8.10
- 9.2
- 10.2
- 10.3
- 10.4
- 10.7
- 12.4
- 12.6
- 14.4
- 14.7
- 15.a
- 16.3
- 16.6
- 16.10
- 17.6
- 17.8
- 17.19

Arab Consultations on the Water-related SDGs

1) **Expert Group Meeting on the Water-related Sustainable Development Goals (SDGs) Beirut, 12-13 April 2016** – expert discussion on priorities for the region on water-related SDGs.

2) **AMWC Technical, Scientific & Advisory Committee Sessions (Cairo, Jan 2016, Oct 2016)** – with Arab member States and regional organizations

3) **MDG+ Initiative High Level Meeting on the Water-related Sustainable Development Goals (Amman, 1-2 November 2016)** – attended by National Monitoring Teams, their statistical focal points, ACWUA Board of Directors, and regulatory bodies in Arab States, as well as international and regional experts;

4) **Expert Consultation on SDG6 Indicators (Beirut, 21 December 2016)** – involved statistical representatives & MDG+ Counterparts in Arab States serving in the IAEG-SDGs or High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG)

5) **Expert group meeting on methodologies for meeting the water-related Sustainable Development Goals at the global, regional and national levels (Amman, 22-23 March 2017)** – to discuss regional perspectives and priorities

Summary of Operational Regional Recommendations from MDG+ High Level Meeting

1) **Continue collecting data on the MDG+ indicators by national monitoring teams**, for uploading to the regional data platform managed by the MDG+ Unit;
2) Supporting country-level processes developed to **support monitoring and reporting on the SDGs through cross-sectoral arrangements**;
3) Ensuring effective monitoring and reporting on **wastewater treatment and reuse**, and encouraging reporting on the types of wastewater reuse pursued at the country level under the SDGs, as pursued under the MDG+ initiative;
4) Building the **statistical capacity of member states** to collect, calculate and vet datasets related to the SDG indicators;
5) **Encouraging SDG monitoring at the subnational level**, noting that efforts are underway to increase data reporting at the subnational level;
6) Developing scenarios that include **demographic projections** could assist the assessment of efforts to achieve the SDGs.

Summary of Regional Recommendations on SDG Monitoring & Reporting across consultations

1) **Encourage the achievement of the SDG targets, even if there are insufficient indicators and data to monitor progress**, e.g., on drinking water affordability and intermittency for measuring equitable access;

2) Support discussions aimed at elaborating and adopting an additional indicator to monitor the number of people facing **water scarcity under SDG 6.4**, taking into account the applied water scarcity threshold;

3) Consider the **differences between measuring water quantity and quality** at the source compared with the point of consumption (e.g., at the household level) when determining water availability;

4) Clarify the **definitional differences between water stress and water scarcity** and consider how water budgets are calculated in Arab countries, i.e., consider whether to include **renewable and non-renewable water resources** and/or conventional and non-conventional water resources, such as desalinated water, brackish water used for desalination, treated wastewater for reuse, etc.;

Summary of Regional Recommendations on SDG Monitoring & Reporting (continued)

5) Pursue efforts to **harmonize criteria and standards** for defining secondary wastewater treatment, in view of efforts to encourage treated wastewater reuse;

6) Encourage reporting on **the purpose and type of treated wastewater reuse** pursued at the national level;

7) Consider **data availability at the country level** when prioritizing and classifying indicators to monitor and report upon at the global, regional and national levels, given that tier I indicators may not be tier I indicators for all countries;

8) Support processes that **draw upon administrative records and data from utilities** to inform monitoring and reporting on the SDG 6 indicators, particularly those related to access to water services, water quality, wastewater treatment and reuse;

9) Consider how advancements related to **desalination, treated wastewater reuse and water harvesting in** the region can be incorporated into monitoring and reporting on SDG 6

10) Review related efforts seeking to **define and measure water scarcity** and the economics of water scarcity.

Question remains: What affects the number of people facing water scarcity in the Arab Region?

Existing indicators on:

- Accessibility
- Efficiency
- Treatment / reuse
- Water Quality

Outcomes of initial consultations among Arab States (The Hague, Nov 2017); UN-LAS Agencies (Cairo, Oct 2017); AMWC HLPF Working Group (Cairo, Nov 2017)

Plus:

- Water Use Efficiency: Reducing non-revenue water as a new resource
- Dependency on External Waters: 66% dependency on transboundary waters
- Autonomous Control over water resources or Restricted Control
- Groundwater Resources: Renewable v/s unrenewable
- Climate Change Impacts on Water Resources / Drought / Disasters
- Implications for freshwater quantity, quality, desalination and reuse
- Conflict, Crisis & Vulnerable Groups *(analysis based on past trends won't work)*

Issues for consideration & discussion

- Different countries / regions may have different issues to consider when aiming to quantify ‘the number of people facing water scarcity’ – is a global, regional and/or national approach appropriate?
  - *UNECE linking water scarcity to water quality and health within the context of their Water Convention, back-to-back with climate protocol consultations*
- Target aims to ‘significantly reduce the number of people facing water scarcity’ – what does significantly mean?
- How elaborate of a methodology is needed to measure, monitor and report on this human component of the target? - given the likely politicization of the issue (e.g., defining vulnerable groups), should a national or regional approach be pursued? Do we need strict quantification or orders of magnitude? Interest in piloting an approach?
- How much measurement is needed in order to manage and pursue action for implementing & achieving this target?

Thank you!

www.unescwa.org

www.unescwa.org/our-work/water

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