



**Economic and Social Commission for Western Asia (ESCWA)**



Committee on Water Resources  
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**Round-table discussion: regional priorities in the field  
of water resources for the period 2021-2025**

**Summary**

The present document serves as a background paper for a round-table discussion on regional priorities for the period 2021-2025 in the field of water resources. It provides an account of the challenges that the region is facing in accelerating the pace towards the water-related Sustainable Development Goals (SDGs) and water security. The present document aims to trigger a discussion on how to accelerate achievement of the water-related SDGs by leveraging global and regional initiatives with a focus on innovation, data and information, governance and financing to improve water security under climate change in the region.

The Committee on Water Resources is invited to engage in the round-table discussion and enrich its content by discussing national challenges and ideas for the future.

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## Introduction

1. The present document was prepared as guidance for the round-table discussion on regional priorities for the coming years in the field of water resources. It provides an overview of the challenges currently facing the Arab region, and proposes strategic directions for the work of the Economic and Social Commission for Western Asia (ESCWA) with regard to accelerating achievement of the water-related Sustainable Development Goals (SDGs) by leveraging global and regional initiatives with a focus on innovation, data and information, governance and financing to improve water security under climate change in the region over the period 2021-2025.

### I. Challenges in the Arab region

2. Arab States are among the most water scarce in the world with 18 out of 22 States falling below the renewable water resources annual scarcity threshold of 1,000 cubic meters per capita and 13 States falling below the absolute water scarcity threshold of 500 cubic meters per capita per year. The freshwater scarcity situation in the Arab region is aggravated by several factors, including:

(a) **Shared water resources dependency:** Most Arab States largely rely for their water supply on rivers and/or aquifers that are shared with neighbouring countries, within the region and with countries from outside the region. There are a number of shared surface water basins with 14 countries out of the 22 Arab countries being involved as riparian States. Arab countries are also heavily reliant on groundwater in a number of shared aquifers. The number of shared groundwater resources in the Arab region outnumbers that of shared surface water basins, with 41 shared aquifers present in 21 out of 22 Arab countries. Shared groundwater basins cover almost 58 per cent of the Arab region in terms of area;

(b) **Economic implications:** A complementary driver to water scarcity is demand-driven scarcity due to the increasing difficulty and cost of mobilizing water resources in a region where most countries depend heavily on groundwater and desalination, both of which are energy intensive and costly. Even countries that usually depend on surface water are relying more and more on groundwater and desalination. As a result, groundwater is being depleted and the water table is falling beyond economic limits related to the cost of pumping. Additionally, some pumping takes place in non-renewable fossil aquifers. The Gulf region is also facing increased cost of mobilizing water resources as all its countries are below the absolute water scarcity level and are heavily dependent on desalination, as evidenced by the fact that more than 50 per cent of the global desalination capacity is already in the Gulf Cooperation Council (GCC) countries and this figure is increasing;

(c) **Climate change:** Climate change and climate variability impose additional pressures, with adverse impacts on the quantity and quality of freshwater resources in an already water scarce region, jeopardizing its ability to ensure food security, sustain rural livelihoods and preserve ecosystems. A higher frequency and intensity of floods, droughts and extreme weather are also being experienced in many Arab States. The Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) has conducted a comprehensive regional assessment of the impact of climate change on water resources in the Arab region by generating ensembles of regional climate and hydrological modelling projections up to the year 2100 for two greenhouse gas trajectories, RCP 4.5 and RCP 8.5. The temperature projections for the region indicate a general increase, with a general change in temperature for RCP 4.5 of 1.5°C to 2.3°C and for RCP 8.5 of 3.2°C to 4.8°C by the end of the century. Precipitation projections vary considerably across the region with a reduction of 8-10 mm in the average monthly precipitation by the end of the century in the coastal areas of the region, around the Atlas Mountains in the west and in the upper Euphrates and Tigris rivers in the east. Projections indicate an increase in precipitation for other areas such as the south-eastern Arabian Peninsula and some parts of the Sahel;

(d) **Access to water and sanitation services:** The Arab region has made important strides on improving access to water and sanitation services over the last two decades. However, this still meant that in

2020 nearly 28 million people lacked access to basic water services, and nearly 64 million lacked access to basic sanitation services. Furthermore, these numbers do not reflect inequality of access, which is still lacking in rural areas compared to urban areas. This indicates a need for more balanced investment and development policies prioritizing the unserved in the water and sanitation sector. The COVID-19 pandemic has sounded a wake-up call on the importance of ensuring access to clean water, sanitation and hygiene for all to protect health and welfare in the region. The affordability of water services is also a challenge in countries facing economic crises and conflict;

(e) **Armed conflict:** Armed conflicts in the region have resulted in the destruction of the water and sanitation infrastructure and hampered the provision of safe drinking water and sanitation. Armed conflicts have also resulted in internally displaced population and refugees, further stressing already water-scarce communities. The host countries to the majority of the refugees are mostly water scarce and are not able to provide needed services to their residents; with the influx of refugees concentrated in the most needy and deprived regions of these countries due to lower costs of living, the situation has only deteriorated;

(f) **Occupation:** The Arab region continues to suffer direct military occupation in the Israeli occupation of Arab territories. This occupation affects access to water resources and the ability of States to properly manage and provide the required water and sanitation services, not to mention the rippling effects on food security, health and development in general. This is most evident in the occupied Palestinian territory, particularly in Gaza, where access to basic water and sanitation services remains severely restricted due to the Israeli blockade and recurrent Israeli military offensives;

(g) **Water for food security:** Local food production is the largest consumer of water in the Arab region, with 84 per cent of all freshwater withdrawals going to the agriculture sector. This share of the agriculture sector is comparable to the global average of 80 per cent, yet in a water-scarce Arab region such a share calls for immediate action, particularly when combined with relatively low water-use efficiency and low crop productivity;

(h) **Expanding urbanization:** The Arab region is one of the most urbanized regions in the world with over 58 per cent of the population now living in cities. The region has witnessed significant and uneven urban transformations where some countries are undergoing rapid wealth generation, others are confronting economic challenges and others yet have been afflicted by conflicts that have caused major displacement and migration. Such urban trends pose stresses on the urban infrastructure and particularly the water infrastructure, given the water scarcity in the Arab region.

## II. Programmes and partnerships for improved water security

3. ESCWA is responsible for promoting inclusive and sustainable development in the Arab region. It provides support by publishing research, information and data, developing interactive policy simulation tools, providing evidence-based policy support and building the capacity of Governments to formulate and implement policies for sustainable development.

4. The ESCWA secretariat works with member States on integrated natural resources management for sustainable development and on climate change through the Arab Centre for Climate Change Policies that it hosts. It will focus on improving water security through integrated water resource management. Additionally, it will enhance the capacity of member States to develop integrated policies for a transition to sustainable energy, sustainable agriculture for increased food security and informed action on climate change.

5. The Commission will further consolidate its strategic and historic partnership with the League of Arab States on regional priorities, including on monitoring and reporting on progress made in the implementation of the 2030 Agenda, the Paris Agreement, regional strategies and the Water Action Decade. The two bodies cooperate on the normative and capacity development dimensions of regional economic integration and sustainable development, including with regards to water, energy, electricity, food security, environment,

meteorology, climate change and other transboundary and regional development challenges. Continuous collaboration on water resource management and water use efficiency with respect to the agricultural sector to support water security objectives is pursued through League of Arab States organizations, including the Arab Center for the Study of Arid and Drylands (ACSAD) and the Arab Organization for Agricultural Development (AOAD).

6. ESCWA also continues its work with regional and global partners to advance monitoring, reporting and the achievement of water-related goals and targets articulated in the 2030 Agenda for Sustainable Development, the Paris Agreement with respect to adaptation, the Sendai Framework for Disaster Risk Reduction with respect to water-related disasters and through partnerships that advance water accesses through a human rights-based approach in formal and informal human settlements. Partnerships in support of these activities will continue through joint programming with the League of Arab States as well as the United Nations Economic Commission for Europe, the United Nations Office for Disaster Risk Reduction, the United Nations Environment Programme, the United Nations Educational, Scientific and Cultural Organization and activities pursued through UN-Water and the Arab Integrated Water Resources Management Network (AWARENET).

7. Programmes to advance the water and adaptation agendas with respect to climate change are also a mainstay of collaborative work with partners contributing to the Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) and institutionalized cooperation underway with the Islamic Development Bank, the World Bank, the Global Center for Adaptation and United Nations System entities, including the Food and Agriculture Organization, the United Nations Framework Convention on Climate Change, the United Nations Human Settlements Programme (UN-Habitat) and the World Meteorological Organization.

8. Groundwater resource management is also of strategic importance for Arab States as freshwater scarcity and regional challenges affecting water resource availability, accessibility, affordability and dependency intensify. ESCWA efforts to expand regional knowledge on groundwater in the Arab region and ensure member State engagement in regional preparations for the Groundwater Summit in December 2021 and the Water Action Decade Midterm Comprehensive Review in March 2023 will help to ensure that regional water issues and priorities are incorporated in global and regional forums and programmes.

### **III. Suggested work in the field of water resources over the period 2021-2025**

9. Moving towards improved water security under changing climate in the region, through concerted regional and national efforts by the ESCWA secretariat, entails the following:

(a) Contribute to the advancement of integrated and sustainable policies in the areas of water security, by strengthening institutions and engaging member States in cross-sectoral dialogue and promoting and advancing the identification and adoption of sustainable solutions in the areas of integrated water resources management (IWRM), transboundary water cooperation, groundwater management, water-use efficiency and access to water and sanitation;

(b) Support cooperation between the water and agriculture sectors in the Arab region, contributing to coherent policies that enhance water and food security and build the resilience and sustainability of water resources under changing climate conditions;

(c) Leverage existing partnerships with other UN entities, international financial institutions, regional organizations and other international bodies and Governments to help member States progress towards achieving various Sustainable Development Goals and their targets;

(d) Support regional reporting on and monitoring of progress in achieving SDGs in an integrated manner, contributing to the achievement of Goal 6 by fostering integrated water resources management at all levels, including through transboundary water cooperation and greater focus on groundwater resources;

(e) Contribute to the advancement of climate action, through strengthening the engagement of member States and their capacities in building climate resilience through localized initiatives by elaborating scientific, policy and financial tools for mainstreaming climate considerations in development planning, budgeting and financing;

(f) Strengthen capacity to pursue climate mainstreaming in development planning, and decision-making on climate commitments designed to achieve global and national development goals;

(g) Provide technical assistance to facilitate access to science-based knowledge resources and support informed policymaking.

10. To continue supporting Arab countries in the field of water resources, the ESCWA secretariat will focus its work on thematic policy areas and issues, including the following:

(a) Integrated water resources management;

(b) Groundwater management through improved access to data and information;

(c) Climate mainstreaming;

(d) Water-related goals, including those related to the 2030 Agenda and adaptation under the Paris Agreement;

(e) Water resources and climate change data and information accessibility through digital platforms;

(f) Transboundary water cooperation.

#### **IV. Topics for discussion**

11. The round-table discussion aims to identify priorities for the Arab region in the coming years in the field of water resources, so as to guide collective work at the regional level and the work of ESCWA.

12. All the above-mentioned topics can be discussed, with a focus on the following:

(a) Improved water security in the Arab region under climate change, including cross-sectoral coordination and integrated policies, transboundary cooperation, climate mainstreaming, innovation and new technologies, data and information availability and accessibility, groundwater management, transboundary cooperation, accelerating progress on water related SDGs and related initiatives;

(b) Particular challenges faced by Arab countries in those areas and means to overcome them;

(c) Proposals for ESCWA future work in that regard.

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