Overview of Transboundary Water Cooperation in the Arab Region

Enhancing Transboundary Water Cooperation in the MENA Region – Progress, Challenges and Opportunities, Beirut, 3-4 March 2020

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• Water scarce region:
• High dependency ratio on external waters
• Climate change effects
• Agricultural sector major consumer of water (Water-Food Nexus)
• High cost of desalination (Water-Energy Nexus)
• Accessibility constraints due to occupation and conflict
• High population growth rates coupled with increased urbanization:
• Non-renewable “fossil aquifers”
• Declining water quality
• Shared water resources represent **two-thirds** of fresh water resources in the Arab region.

• 27 shared Surface water basins

• 14 of 22 Arab countries are riparian States with a shared waterbody
Transboundary Surface Water Resources in Western Asia

- Jordan River
- Orontes River
- Euphrates-Tigris-Shatt Al Arab
- El Kabir River
- Qweik River
## Transboundary Surface Water Resources in Western Asia

<table>
<thead>
<tr>
<th>Shared Basin</th>
<th>Riparian Countries</th>
<th>Agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan River</td>
<td>Israel, Jordan, Lebanon, Palestine, Syria</td>
<td>No basin wide agreement, Bilateral agreements and cooperation (Israel-Jordan, Jordan-Syria on Yarmuk, Israel-Palestine)</td>
</tr>
<tr>
<td>Orontes River</td>
<td>Lebanon, Syria, Turkey</td>
<td>No basin wide agreement, Bilateral agreements and cooperation (Lebanon-Syria, Syria-Turkey)</td>
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<tr>
<td>Euphrates-Tigris-Shatt Al Arab</td>
<td>Euphrates: Iraq, Jordan*, Saudi Arabia*, Syria, Turkey</td>
<td>No basin wide agreement, Bilateral agreements and cooperation (Iraq-Syria, Iraq-Turkey, Syria-Turkey)</td>
</tr>
<tr>
<td></td>
<td>Tigris: Iran, Iraq, Syria, Turkey</td>
<td>No basin wide agreement, Bilateral agreements and cooperation (Iran-Iraq, Iraq-Turkey, Iraq-Syria, Syria-Turkey)</td>
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<tr>
<td></td>
<td>Shatt Al Arab: Iran, Iraq</td>
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<tr>
<td>El Kabir River</td>
<td>Lebanon, Syria</td>
<td>2002 – Agreement between Lebanon and Syria to share the water of the Nahr el Kabir and build a joint Dam</td>
</tr>
<tr>
<td>Qweik River</td>
<td>Syria, Turkey</td>
<td>1921 – Franklin-Bouillon Agreement in which reference is made to the rule of equitable utilization and the importance of ensuring water supply to the city of Aleppo</td>
</tr>
</tbody>
</table>
Transboundary Surface Water Resources in Africa Shared by Arab Countries

- Atui
- Awash
- Baraka
- Congo/Zaire
- Daoura
- Dra
- Gash
- Guir
- Juba-Shibeli
- Lake Chad
- Medjerda
- Niger
- Nile
- Oued Bon Naima
- Senegal
- Tafna
- www.waterinventory.org
- waterinventory@un.org

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<table>
<thead>
<tr>
<th>Shared Basin</th>
<th>Riparian Countries</th>
<th>Number of Agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awash</td>
<td><strong>Djibouti</strong>, Eritrea, Ethiopia, <strong>Somalia</strong></td>
<td>--</td>
</tr>
<tr>
<td>Baraka</td>
<td>Eritrea, <strong>Sudan</strong></td>
<td>--</td>
</tr>
<tr>
<td><strong>Congo/Zaire</strong></td>
<td>Angola, Burundi, Cameroon, Central African Republic, Congo, Gabon, Malawi, Rwanda, South Sudan, <strong>Sudan</strong>, Tanzania, Uganda, Zambia</td>
<td>2/ International Commission of Congo-Oubangui-Sangha (CICOS)</td>
</tr>
<tr>
<td>Daoura</td>
<td><strong>Algeria</strong>, Morocco</td>
<td>--</td>
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<tr>
<td>Dra</td>
<td><strong>Algeria</strong>, Morocco</td>
<td>--</td>
</tr>
<tr>
<td>Gash</td>
<td>Eritrea, Ethiopia, <strong>Sudan</strong></td>
<td>2</td>
</tr>
<tr>
<td>Guir</td>
<td><strong>Algeria</strong>, Morocco</td>
<td>--</td>
</tr>
<tr>
<td>Juba-Shibeli</td>
<td>Ethiopia, Kenya, <strong>Somalia</strong></td>
<td>5</td>
</tr>
<tr>
<td>Shared Basin</td>
<td>Riparian Countries</td>
<td>Number of Agreements / Basin Organizations</td>
</tr>
<tr>
<td>-------------</td>
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<tr>
<td>Lake Chad</td>
<td>**Algeria, Cameroon, Central African Republic, Chad, **Libya, Niger, Nigeria, <strong>Sudan</strong></td>
<td>3 (Cameroon-Chad-Niger-Nigeria) / Lake Chad Basin Commission (LCBC)</td>
</tr>
<tr>
<td>Medjerda</td>
<td><strong>Algeria, Tunisia</strong></td>
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</tr>
<tr>
<td><strong>Niger</strong></td>
<td>**Algeria, Benin, Burkina Faso, Cameroon, Chad, Côte D'Ivoire, Guinea, Mali, <strong>Mauritania</strong>, Niger, Nigeria, Sierra Leone</td>
<td>5 / Niger Basin Authority (NBA)</td>
</tr>
<tr>
<td>Nile</td>
<td>Burundi, Central African Republic, Congo, <strong>Egypt</strong>, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan, <strong>Sudan</strong>, Tanzania, Uganda</td>
<td>22, (1929 and 1959 Egypt-Sudan Agreements) / Nile Basin Initiative</td>
</tr>
<tr>
<td>Oued Bon Naima</td>
<td><strong>Algeria, Morocco</strong></td>
<td>--</td>
</tr>
<tr>
<td><strong>Senegal</strong></td>
<td>Guinea, Mali, <strong>Mauritania</strong>, Senegal</td>
<td>7 (Senegal River Charter 2002) / Organization for the Development of Senegal river (OMVS),</td>
</tr>
<tr>
<td>Tafna</td>
<td><strong>Algeria, Morocco</strong></td>
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• All Arab Countries with the exception of the Comoros share one or more of 40 plus aquifers.

• Shared groundwater basins cover almost 58% of the Arab region in terms of surface area.
Challenges with Transboundary Aquifers

- Renewable / Non-renewable Groundwater
- Differences in Recharge and Use Areas
- Spatial Extent of Surface and Groundwater Catchments
- Aquifer Management Units ≠ Entire Aquifer / Aquifer System
Transboundary Groundwater Resources in the Arab Region: Cooperation Modalities

- North Western Sahara Aquifer System: Scientific cooperation/consultation mechanism under the Observatory for Sahara and the Sahel (OSS)
- Nubian Sandstone Aquifer System: Joint Authority for the study and development of Nubian Sandstone Aquifer
- Saq/Disi Aquifer: Cooperation Agreement
Regional Initiatives for Cooperation: League of Arab States

- Arab Strategy for Water Security adopted by Arab Ministerial Water Council (AMWC), League of Arab States in 2011, calls for the pursuit of legal agreements and arrangements that support shared water resources management between Arab States.

- Eighth session of AMWC in 2016 called for preparation of *guidance principles on shared water resources cooperation in the Arab region*, currently under discussion.
Response to United Nations Transboundary Water Conventions


- Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 5 Arab States have indicated interest in accessing: Iraq, Jordan, Lebanon, Palestine, Tunis.
Key Findings

1. There are more shared water resources than generally assumed.
2. Water quantity and allocation dominate the discourse on shared water resources in this water-scarce region.
3. Water quality is rapidly deteriorating, a fact that is largely neglected.
4. The lack of accurate data hampers joint water resources management.
5. Cooperation over shared water exists, but is rarely basin-wide.
6. There are limited agreements on shared groundwater resources in the region.
7. The region's groundwater is largely non-renewable and aquifers are rapidly being depleted.
8. Groundwater plays an important role in surface water basins, a link which is often overlooked.
9. A new thinking is required to deal with large regional aquifer systems from a shared perspective.
10. It is already too late to save some shared waters.
Thank you

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