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Pursuing Water Security within the Context of the 2030 Agenda for Sustainable Development

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United Nation Economic and Social Commission for Western Asia
(ESCWA)





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Overview

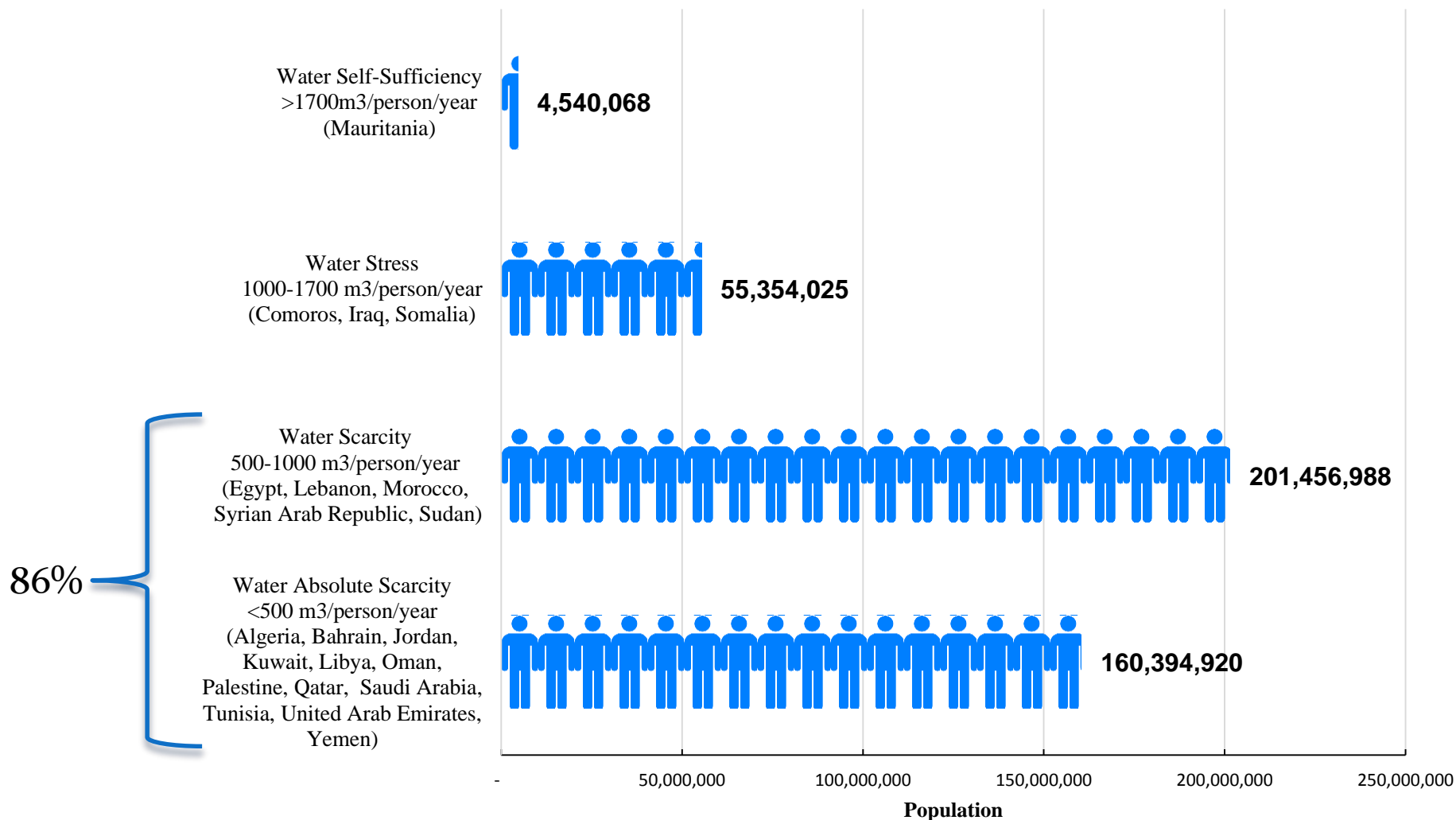
- Introduction: Water Security under Regional Systemic Conditions
- Water Security Concepts, Human Rights and Sustainable Development
- Means of Implementation
- Conceptual Framework for Water Security in the Arab Region



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Freshwater Scarcity in the Arab Region



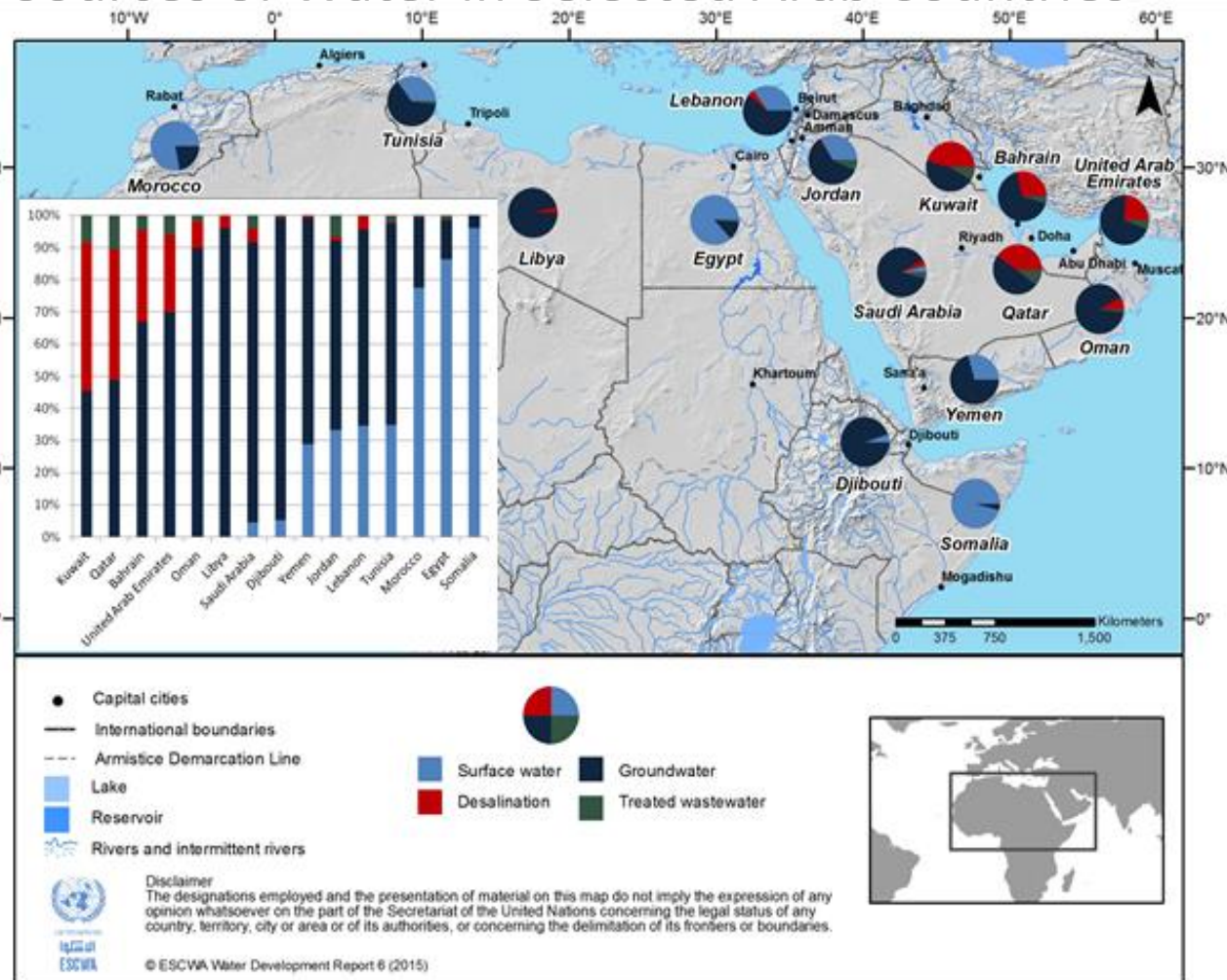


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Water Sources in the Arab Region

Sources of Water in Selected Arab Countries



- **Groundwater** is the major source of water in most Arab countries
- Gulf countries largely depend on groundwater both renewable and **non-renewable/fossil** followed by desalination
- **High energy demand** for water resources (Water-Energy Nexus)



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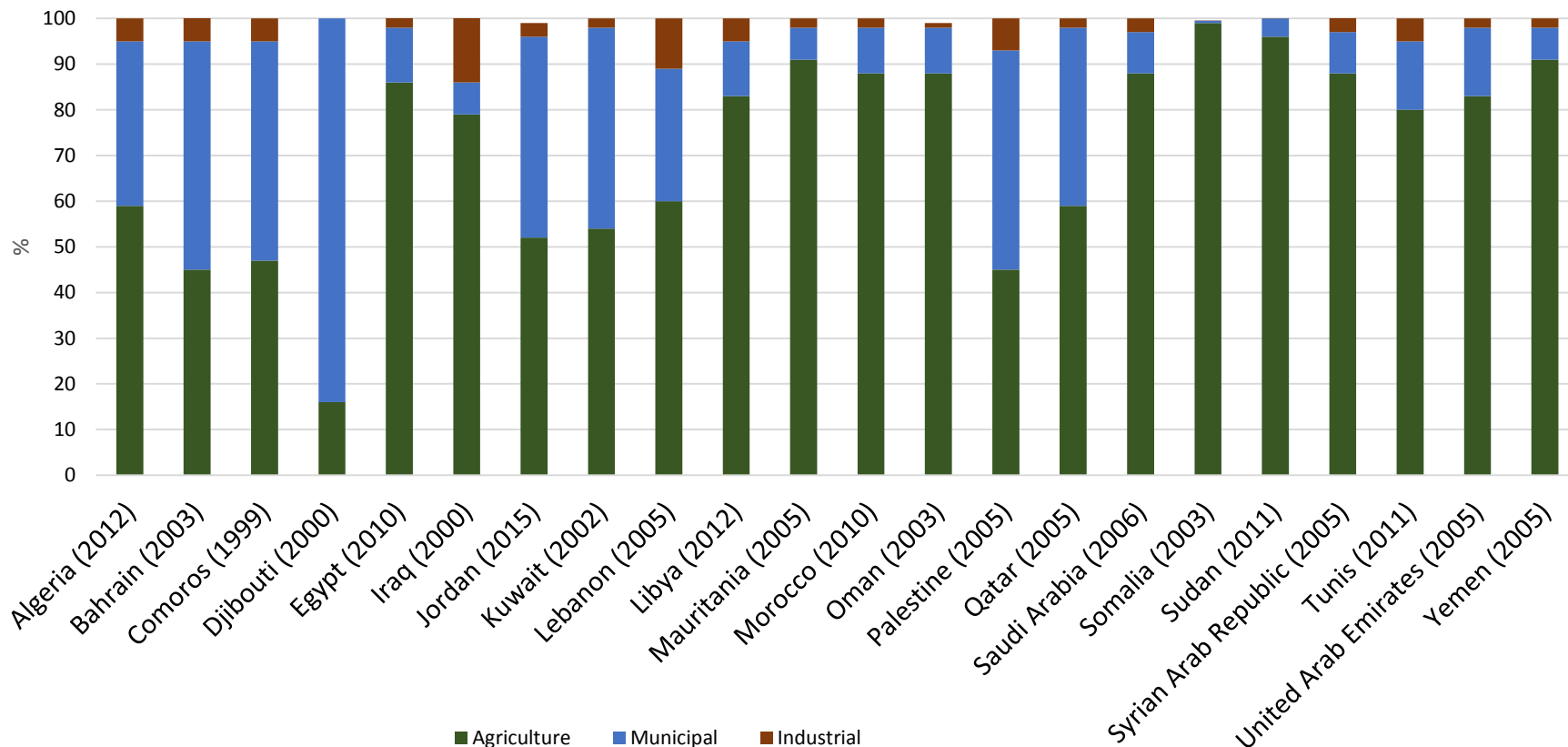
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Water for Food Security



Local food production and hence the agriculture sector is the biggest consumer of water in the Arab region with **84 % of all water withdrawals going to the agriculture sector**

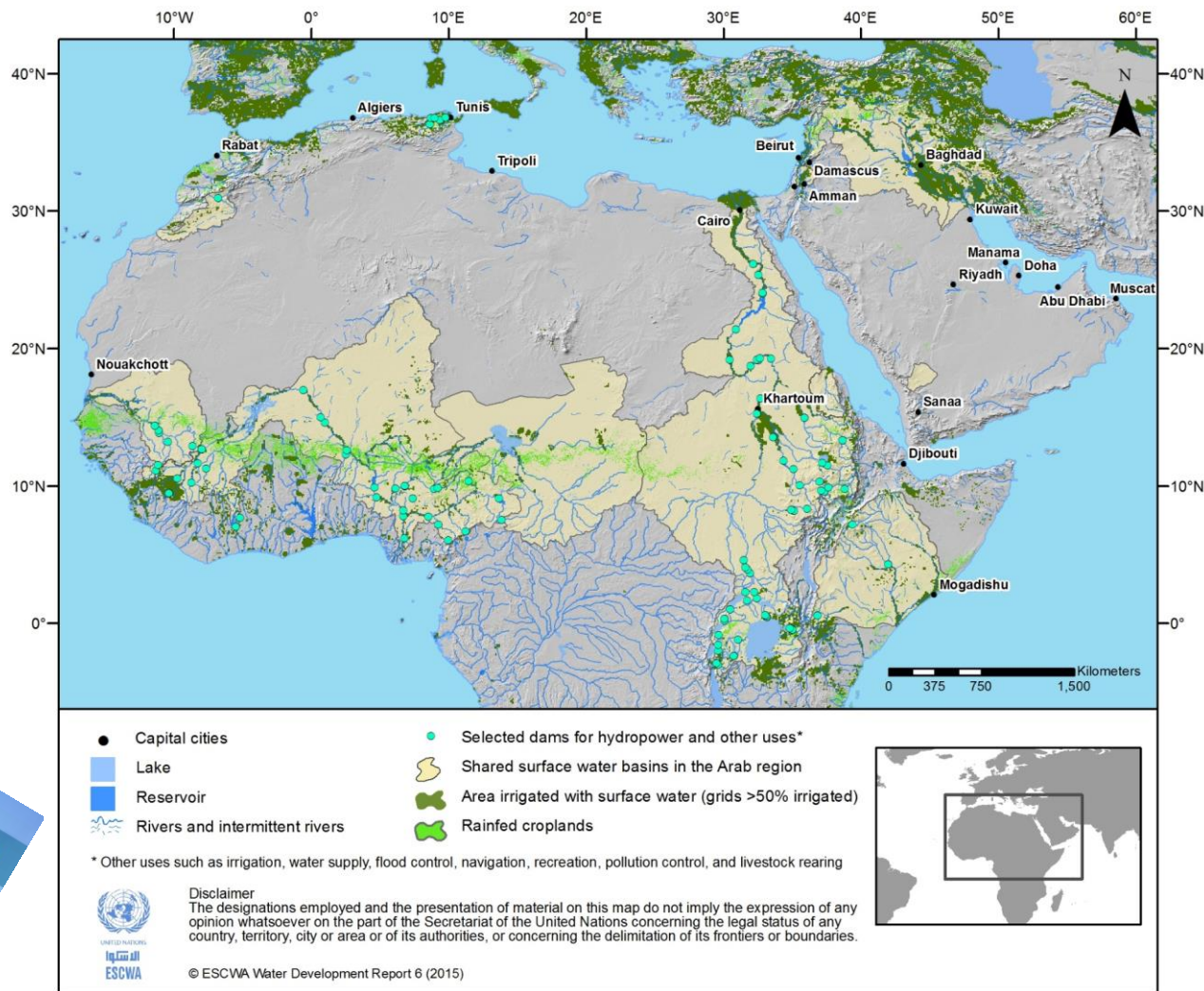


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Shared Surface Water Resources in the Arab Region

- Shared water resources represent two-thirds of fresh water resources in the Arab region.
- 27 shared Surface water basins with 14 of 22 Arab countries are riparian States with a shared surface waterbody



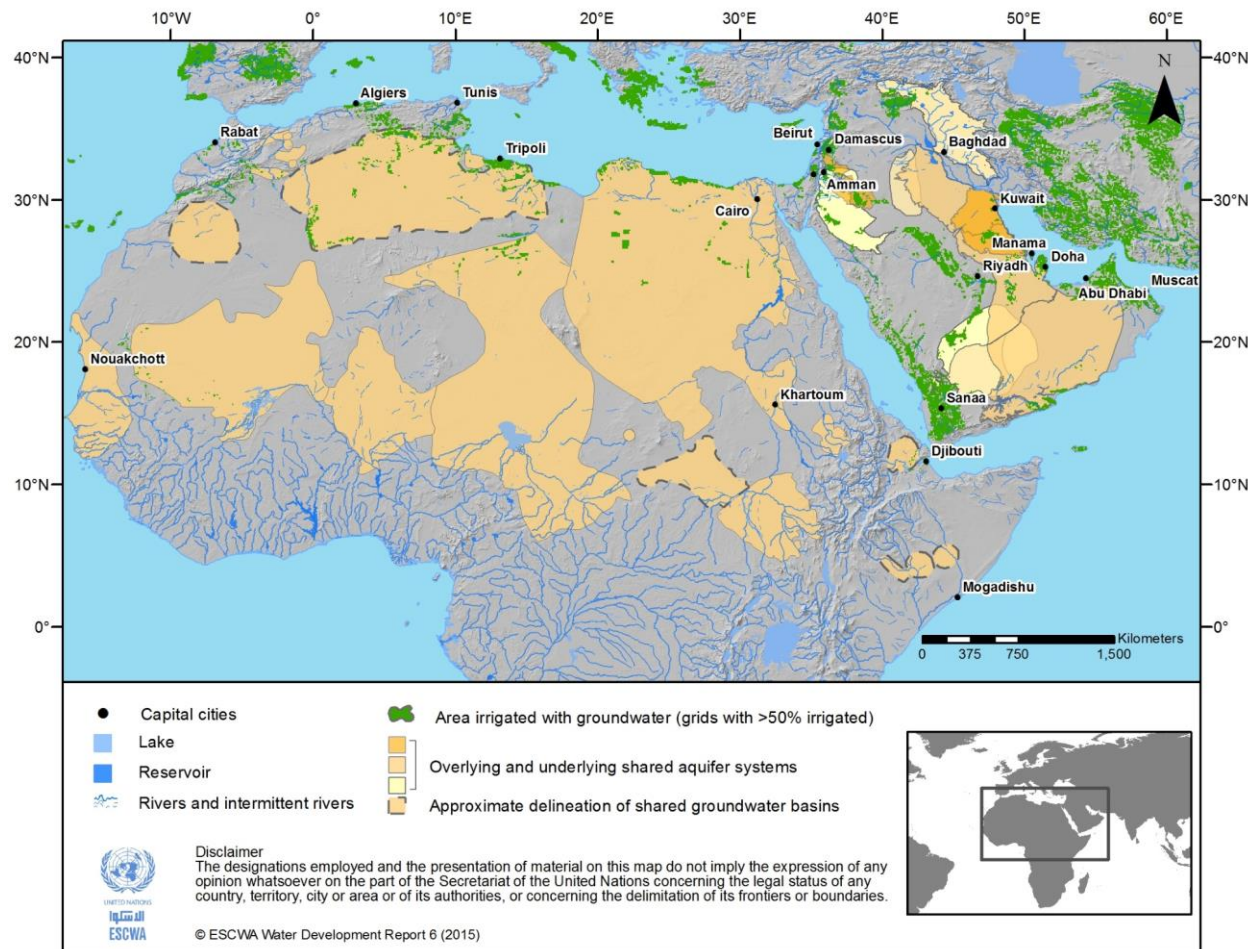


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Shared Groundwater Resources in the Arab Region

- 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.





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Climate Change and Water Resources in the Arab Region

- Based on the results of the Regional Initiative for the Assessment of the Impact of Climate Change on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR), climate change will in general negatively impact water resources in the Arab region.
 - The temperature in the Arab region is increasing and is expected to continue to increase until the end of the century.
 - Precipitation trends are largely decreasing across the Arab region until the end of the century, although some limited areas are expected to exhibit an increase in the intensity and volume of precipitation.
 - RICCAR projections suggest trends towards drier conditions by the end of the century with an increase in the number of consecutive dry days for several areas in the region





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Water for Cities

- 58% of the Arab region's population living now in cities, increasing stress on urban water and sanitation infrastructure
- Access to water and sanitation services is still lacking in rural areas compared to urban areas
 - 23% in rural areas still lack basic drinking water service compared to only 6 % in urban areas.
 - 32% in rural areas still lack basic sanitation services compared to 10% in urban areas (WHO and UNICEF, 2018)
- Shift In water allocation from rural to urban could lead to an even more significant shift in demographics amplifying the current urbanization trend in the Arab region



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Conflict, Refugees and Occupation

- Armed conflicts in the region have resulted in the destruction of the water and sanitation infrastructure and increased vulnerability to the outbreak of water borne diseases
- The Arab region hosts around 41% of the world's internally displaced persons (IDPs) who live in overcrowded refugee camps lacking the basic hygiene
- The Syrian crisis has resulted in millions of registered Syrian refugees in Egypt, Iraq, Jordan, Lebanon and Turkey.
 - This sudden influx of population caused increased water crowding that affected the host communities as well as the refugee population
- The Arab region is perhaps the only region in the world which still suffers from occupation that affects access to water resources and the ability of countries to properly manage and provide the required water and sanitation
- In Palestine, access to basic water and sanitation services severely restricted due to the continued import restrictions on goods that Israel considers having a dual military and civilian use such as pumps, drilling equipment and water treatment chemicals.



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Water for Health

- Waterborne diseases intrinsically linked to deficiencies in the wastewater and sanitation system, insufficient access to water supply and lack of hygienic facilities.
- In the Arab Region, 74 million people are still lacking a basic sanitation service

Country	Mortality rate attributed to exposure to unsafe WASH services (per 100 000 population) (SDG 3.9.2)	SDG 3.9.2 WASH deaths
	2016	2016
LDCs		
Comoros	50.7	404
Djibouti	31.3	295
Mauritania	38.6	1,659
Somalia	86.6	12,396
Sudan	17.3	6,856
Yemen	10.2	2,814
Mashreq		
Egypt	2	1,916
Iraq	3	1,129
Jordan	0.6	59
Lebanon	0.8	47
Syrian Arab Republic	3.7	676
Maghreb		
Algeria	1.9	758
Libya	0.6	37
Morocco	1.9	671
Tunisia	1	116
GCC		
Bahrain	<0.1	1
Kuwait	<0.1	1
Oman	<0.1	2
Qatar	<0.1	0
Saudi Arabia	<0.1	30
United Arab Emirates	<0.1	3



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Introduction: Water Security

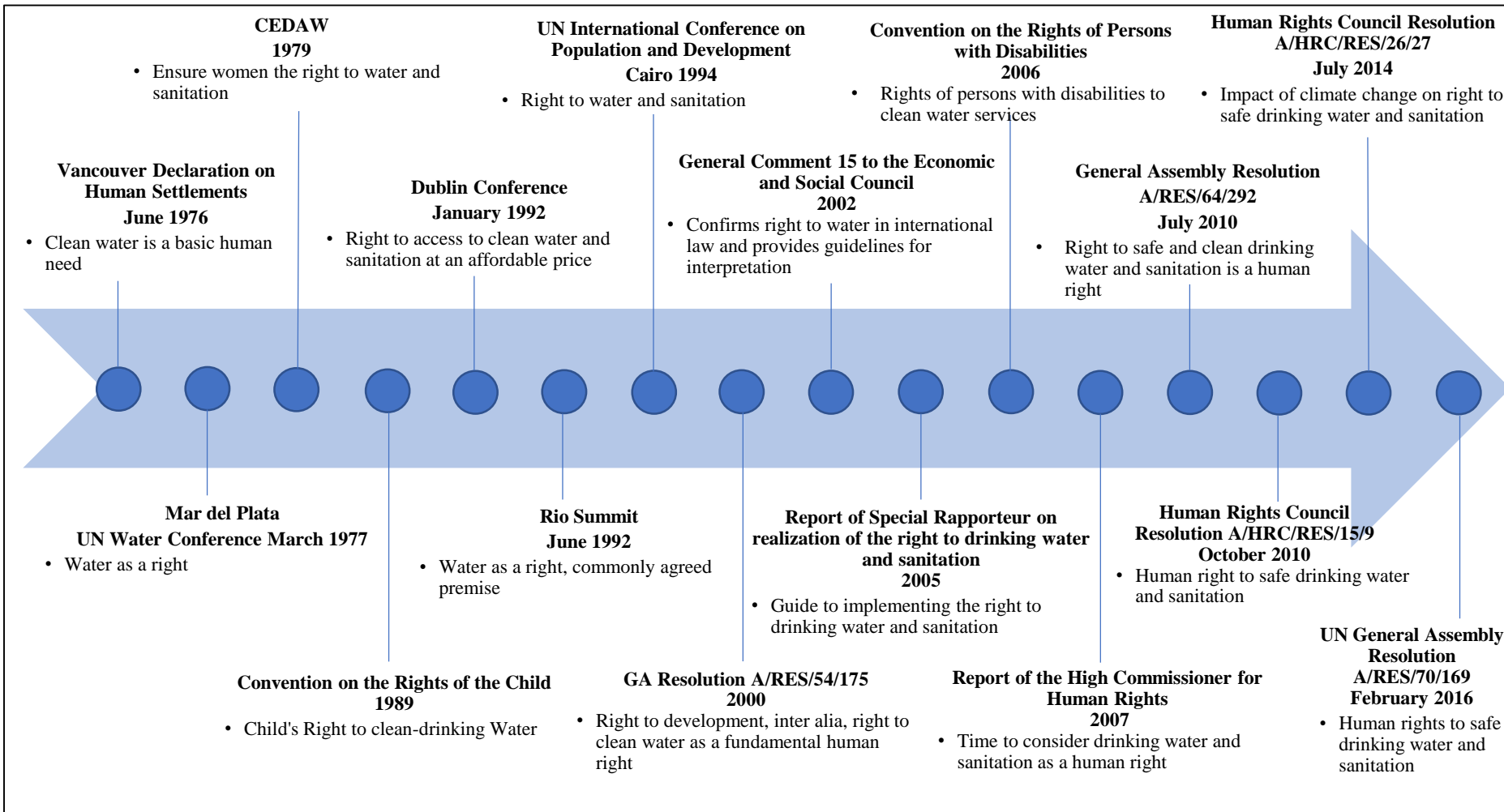
- **NO** universal definition has been agreed upon
- Up to 1990's: Water Security largely used to express a condition of having sufficient water supply to satisfy the demands of a state's population
- Water Scarcity perceived as tantamount to water insecurity
- Dependency on external flows viewed as a key security risk (Water Independence)
- Various more recent attempts at defining water security incorporating more of the Human security factors and sustainable development considerations



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Human Rights Considerations in Water Security





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Water Security Definitions

- More recent shift in definitions towards a multidisciplinary definition that addresses: **Human security, sustainable development in its three pillars, health, non-military threats,...**

The Hague Ministerial Declaration (2000)

- *“ensuring that freshwater, coastal and related ecosystems are protected and improved; that sustainable development and political stability are promoted, that **every person** has access to enough safe water at an affordable cost to lead a healthy and productive life and that the vulnerable are protected from the risks of water-related hazards”*

Grey and Sadoff (2007)

- *“The availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people, environments and economies”*

UN Water (2013)

- *“The capacity of **a population** to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability”*

6

CLEAN WATER
AND SANITATION

SDG 6 Clean Water and Sanitation: Targets and Means of Implementation



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SDG 6: Ensure availability & sustainable management of water & sanitation for all

Targets:

- **6.1** By 2030, achieve universal & equitable access to safe & affordable drinking water for all
- **6.2** By 2030, achieve access to adequate & equitable sanitation & hygiene for all & end open defecation, paying special attention to the needs of women & girls & those in vulnerable situations
- **6.3** By 2030, improve water quality by reducing pollution, eliminating dumping & minimizing release of hazardous chemicals & materials, halving the proportion of untreated wastewater & substantially increasing recycling & safe reuse globally
- **6.4** By 2030, substantially increase water-use efficiency across all sectors & ensure sustainable withdrawals & supply of freshwater to address water scarcity & substantially reduce the number of people suffering from water scarcity
- **6.5** By 2030, implement IWRM at all levels, including through transboundary cooperation as appropriate
- **6.6** By 2020, protect & restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers & lakes

Means of Implementation:

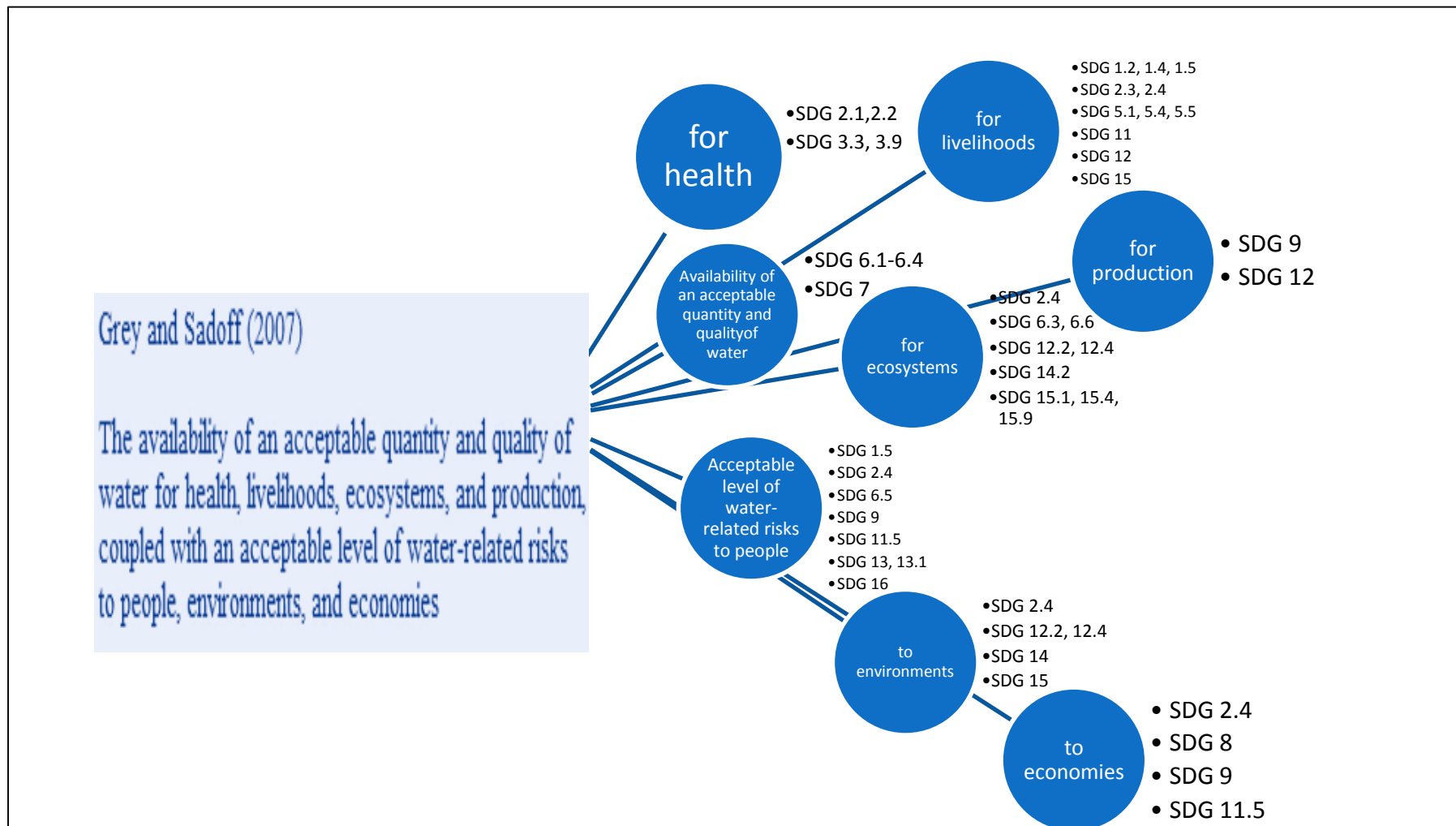
- **6.a** By 2030, expand international cooperation & capacity-building support to developing countries in water- & sanitation-related activities & programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling & reuse technologies
- **6.b** Support & strengthen the participation of local communities in improving water & sanitation management



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Water Security Definitions from the Lens of Agenda 2030: Grey and Sadoff (2007)





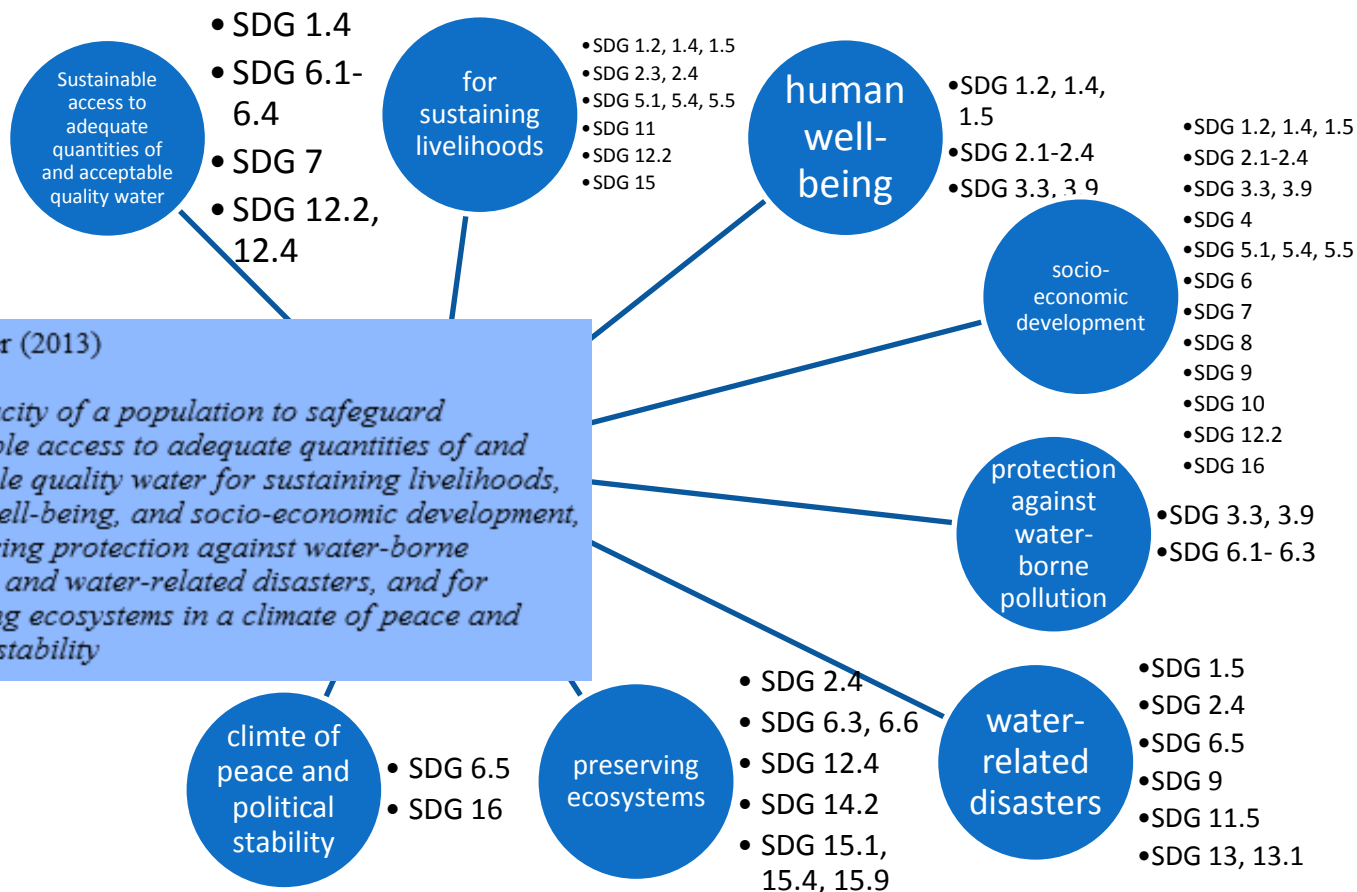
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Water Security Definitions from the Lens of Agenda 2030: UN Water (2013)

UN Water (2013)

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Human rights-based approach for water security and sustainable development

- A human rights-based approach to sustainable development and water security is an approach that anchors analysis, policies, plans and projects in a system of rights and obligations
- **The development of the capacities of “duty-bearers” to meet their obligations and of “rights-holders” to claim their rights**
- This entails interventions at all stages of governance from policies to plans to legislations to regulations to budgets in order to achieve water security for all and at all scales with a holistic view across sectors where **rights are universal, indivisible, interdependent and non-discriminatory**



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- The Gulf Cooperation Council (GCC) Unified Water Sector strategy which has “a vision by 2035 for the GCC countries to have established **sustainable**, efficient, **equitable**, and **secure water** resources management systems contributing to their **sustainable socio-economic development**.”



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Water Security in Arab Region: Priorities and Means of Implementation

In the Regional Preparatory Meeting on Water Issues for the 2018 Arab Forum on Sustainable Development and High-level Political Forum that was held in Beirut in March 2018, member State representatives of the AMWC, in addition to senior representatives from national, regional and international institutions and civil society organizations engaged in water-related issues that affect Arab States, agreed on the four regional priorities identified during the meeting:

1. Strengthening IWRM to cope with water scarcity
2. Enhancing cooperation on shared water resources
3. Water is a core component of climate change adaptation and natural disaster risk reduction
4. Access to water services for all through improving water-related infrastructure

These means of implementation were proposed

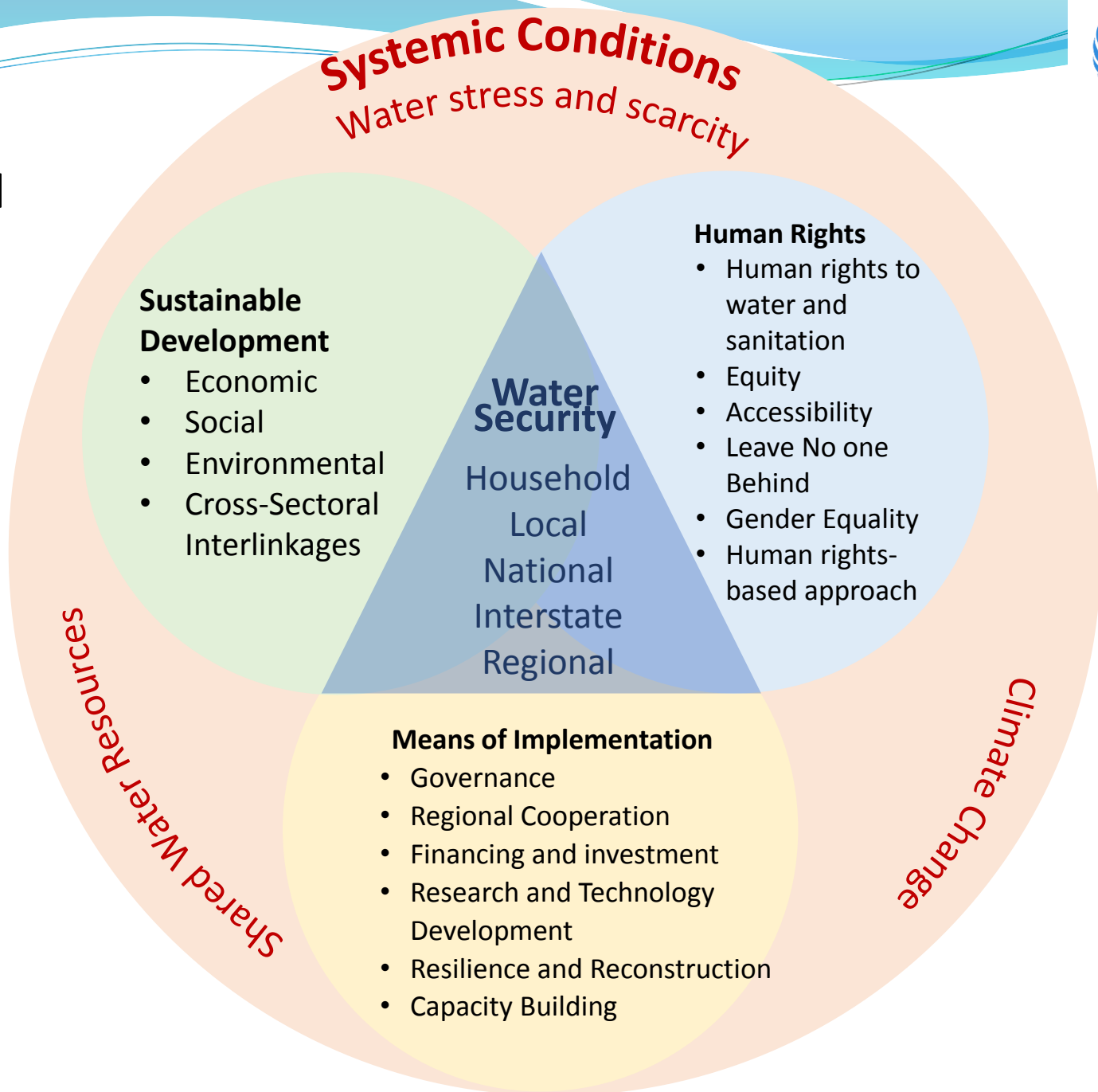
1. Regional Cooperation
2. National coherence and coordination across sectors through a participatory approach
3. Technology transfer
4. Financing and investment
5. Capacity Development



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Conceptual framework for water security in the Arab Region





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Conclusion & Recommendations

- Water security as a regional and national priority must be mainstreamed within national development planning utilizing various means of implementation that address several systemic conditions simultaneously to maximize synergies across sectors and build coherence at all levels
- **People are at the centre of all water issues and water security.** A human rights-based approach ensures this and facilitates broader participation and consensus while providing a wider lens of analysis based on the international human rights principles.
- Women have a critical role to play in achieving water security at all scales. States should facilitate the **empowerment of women** and their engagement in the water sector through targeted initiatives including setting minimum employment quotas in the water sector and targeted financing for women schemes.
- Transparency and accountability must advance beyond the policy rhetoric as they are key pillars to the success of attracting new funding sources, successful private sector participation and increasing efficiencies.

Thank you



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