



# The three tenants of geopolitics in the Middle East: Nexus water, energy and food

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## The Geopolitics of “water, energy and food ”

- The most important strategic issues for the security and social stability of the Middle East.
- National, Arab and international dimensions
- Interdependence of water and energy and their vital, economic and thus political importance for all the states



**Water is the symbol of life for future generations.**



# Water is an urgent need for sustainable development.

- In the Middle East; the total volume of available surface water resources in the Arab countries is estimated at 277 billion m<sup>3</sup> per year, of which only 43% originates from Arab countries and 57% coming from outside the region.
- **The first challenge** for policy makers in different countries: difficulty of satisfying the growing demand on water.
- **The second challenge**: the availability and the access to fresh water.

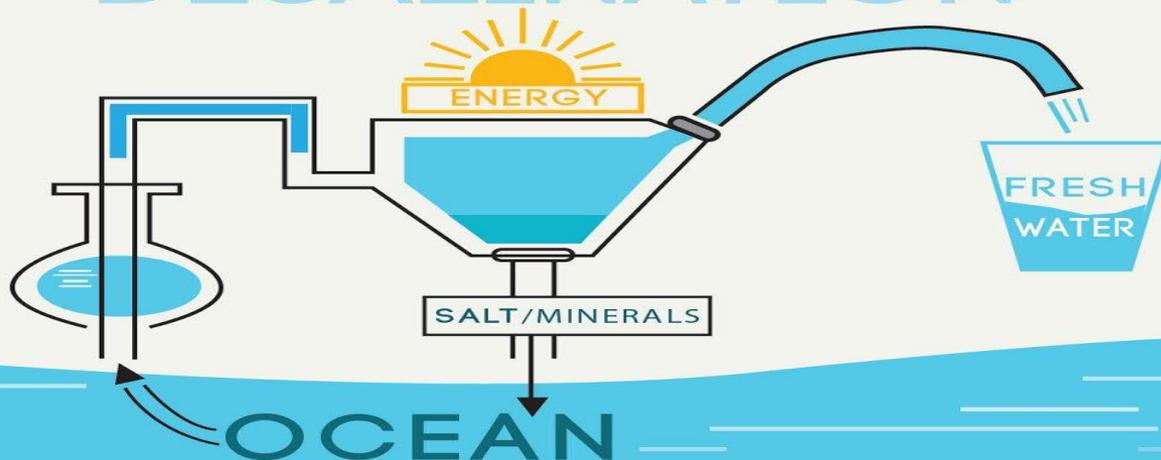


**The Arab region suffers from water depletion and exhaustion:**

The need to resort to non-traditional (non-conventional) means in order to produce fresh water suitable for consumption and irrigation, in particular:

- The desalination of seawater requiring a high energy consumption( Arab states of the Gulf devote about 30% of their energy production to the desalination of water).
- Drilling deep wells in non-renewable underground reservoirs (fossil aquifers)
- pumping water to feed the Arab cities with drinking water . This is what exposes underground reservoirs linked to food safety to exhaustion and to future conflicts over shared aquifers.

## DESALINATION





Yesterday

Today

Tomorrow

Day after  
tomorrow

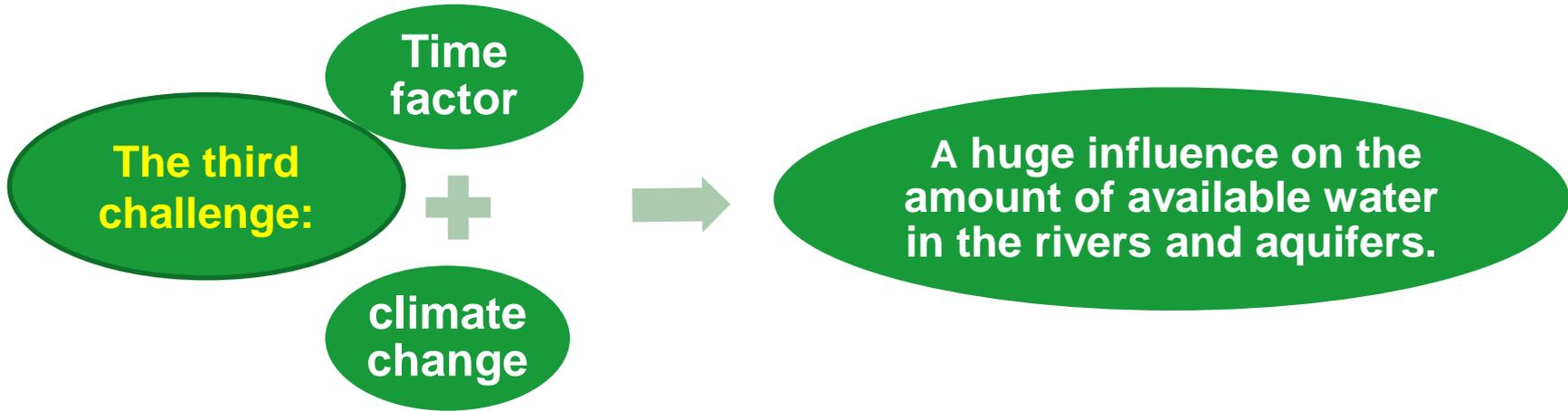
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## The irrigation sector in the Middle East:

-Uses around 80 % of the renewable fresh water; this large percentage is due to the use of old irrigation methods instead of modern ones such as the drip irrigation which consumes 6000 m<sup>3</sup> of water per hectare instead of 10000 m<sup>3</sup> / hectare.

-The absence of consumption of non-conventional waters





## How will the situation in the Middle East be?

A semi-arid climate that is turning into a completely dry climate because of the unsustainable Water management and energy sources; a management that is not based on integrated resource management (IWRM).

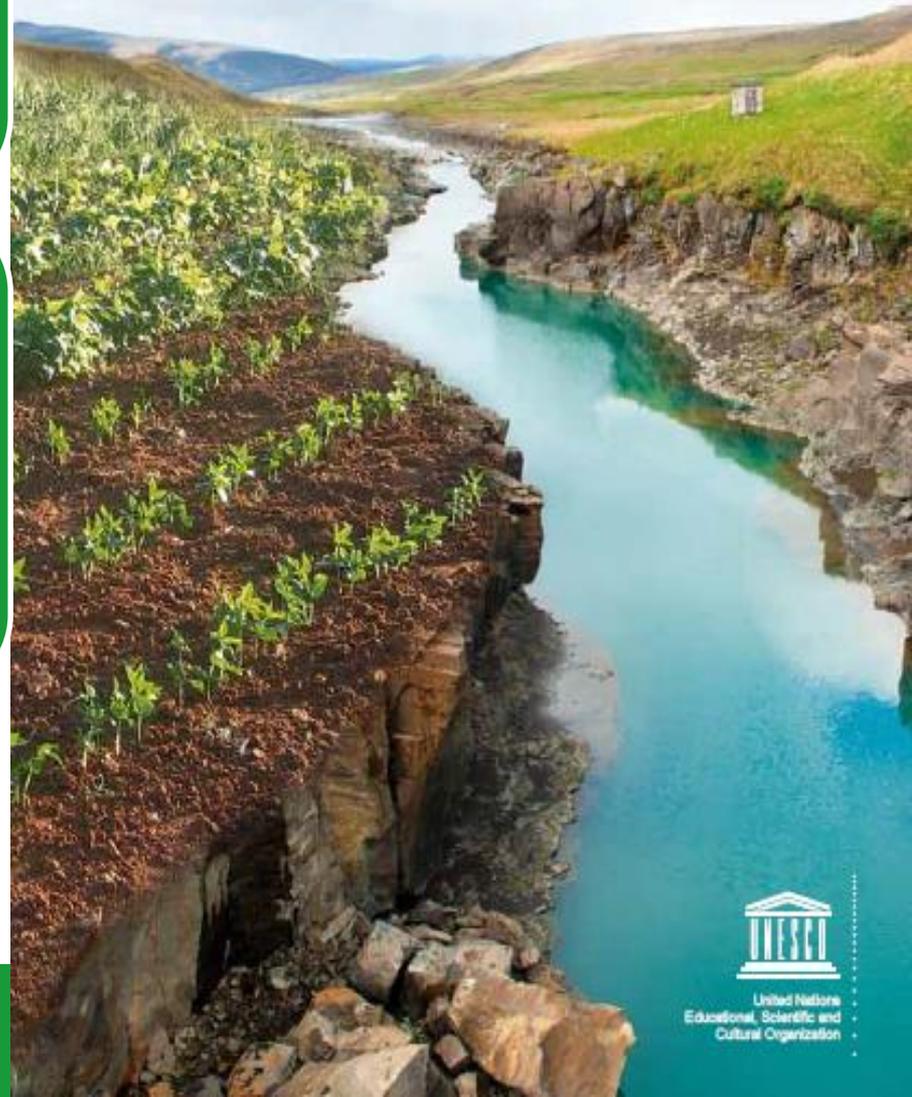
This reality turns the attention of states to the water of their neighbors ignoring international laws.



**Lebanon established a new concept: the “Hydro diplomacy”.**

**The concept of hydro diplomacy was adopted by UNESCO through which Dr. Comair published in 2015 a book entitled “Science diplomacy and transboundary water management : The Orontes river Case.”**

Science diplomacy  
and transboundary water management  
The Orontes River case



- The increase in fuel prices has led to the deprivation of large quantities of food on the world market, such as rice and sugar.



-These consequences have negatively affected the populations of the region and some countries have taken extraordinary measures to ensure a minimum of food for their citizens, Egypt deliberately for example prevented the export of rice from its territory in order to avoid its loss from the local market.



- Conditions of occupation and internal conflicts lead to malnutrition and food insecurity, especially among the poor categories of people.



# The Way Forward:

## Institutional Framework and Regional Cooperation:

Regional cooperation helps to facilitate the flow of production factors, capital and direct investment as a way to accomplish a sustainable development.

Regional cooperation - is now more than ever - a mandatory condition for achieving the common development goals in the Arab region in order to achieve the desired prosperity.



**We propose the establishment of a high authority for water, energy and food:**

**To identify all the needs of the Middle East**

To develop a general guideline and a comprehensive road map that should be adopted by Arab governments at very high level to face all risks and rush to solve the problems of water, energy and food in the Arab world, while relying on the concept of integrated management to maintain social security for future generations.



# Thanks for your Attention

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