Future of Water Security

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Outline

- Water Security- Driving Forces
- Future Trends
- Responses/ Emerging Interventions
- The Nexus Approach

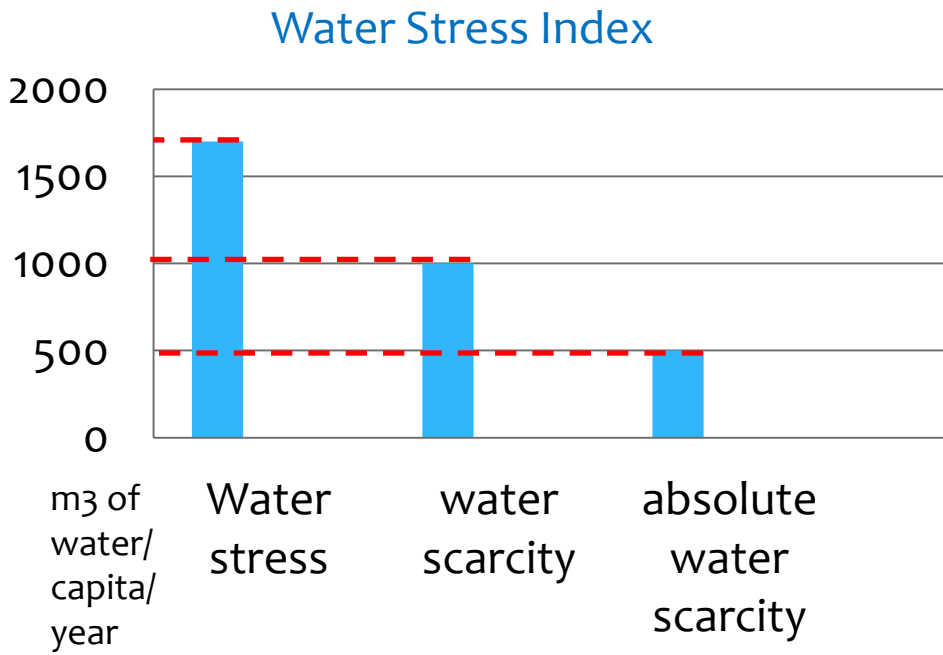
Water Security

"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". (UN-Water, 2013).

2030 Agenda for Sustainable Development

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Water Stress Index: defines water scarcity for countries in terms of the total water resources available for each person in the country.



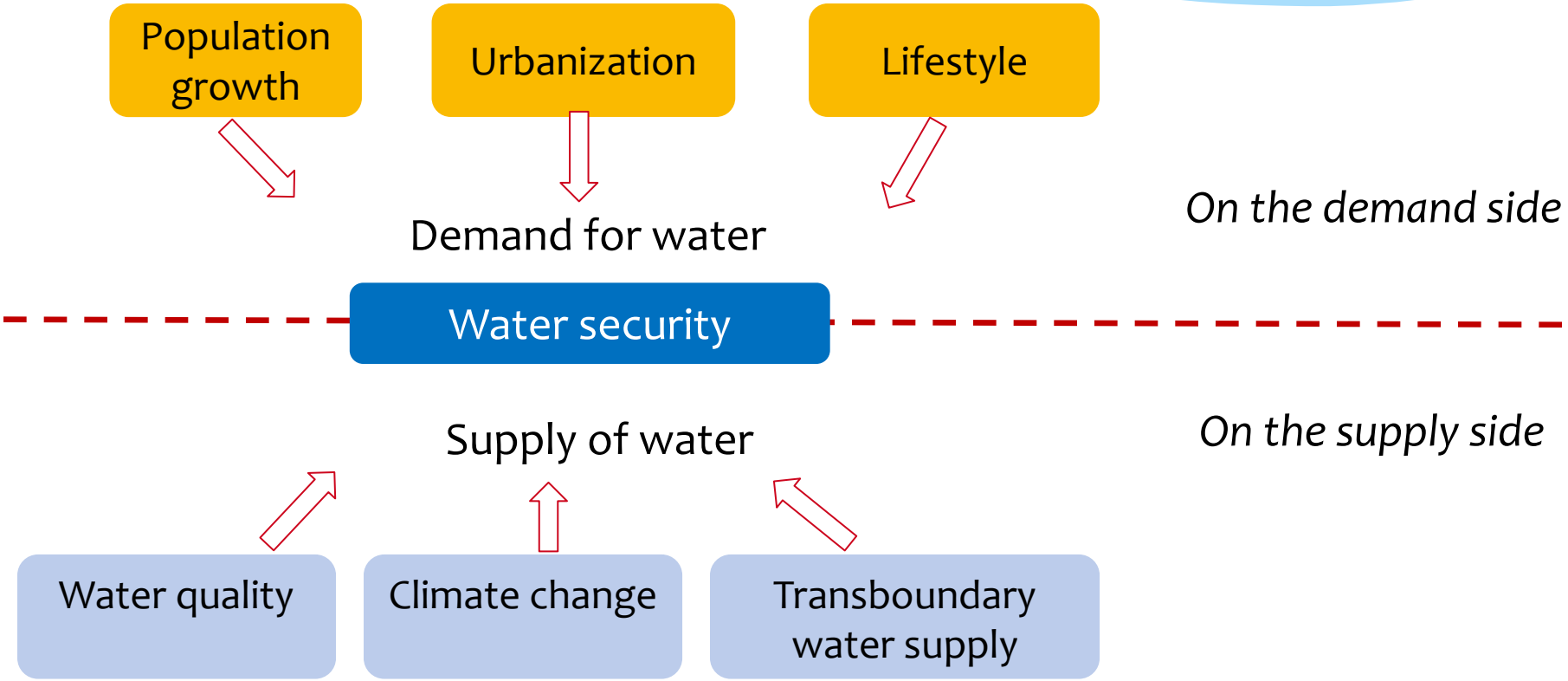
Water Scarcity Worldwide

- The world is already in a critical situation of water scarcity- Millions of people are suffering from water shortages.
- 1/3 of humanity does not have enough water.
- 1.1 billion people have no access to clean drinking water.

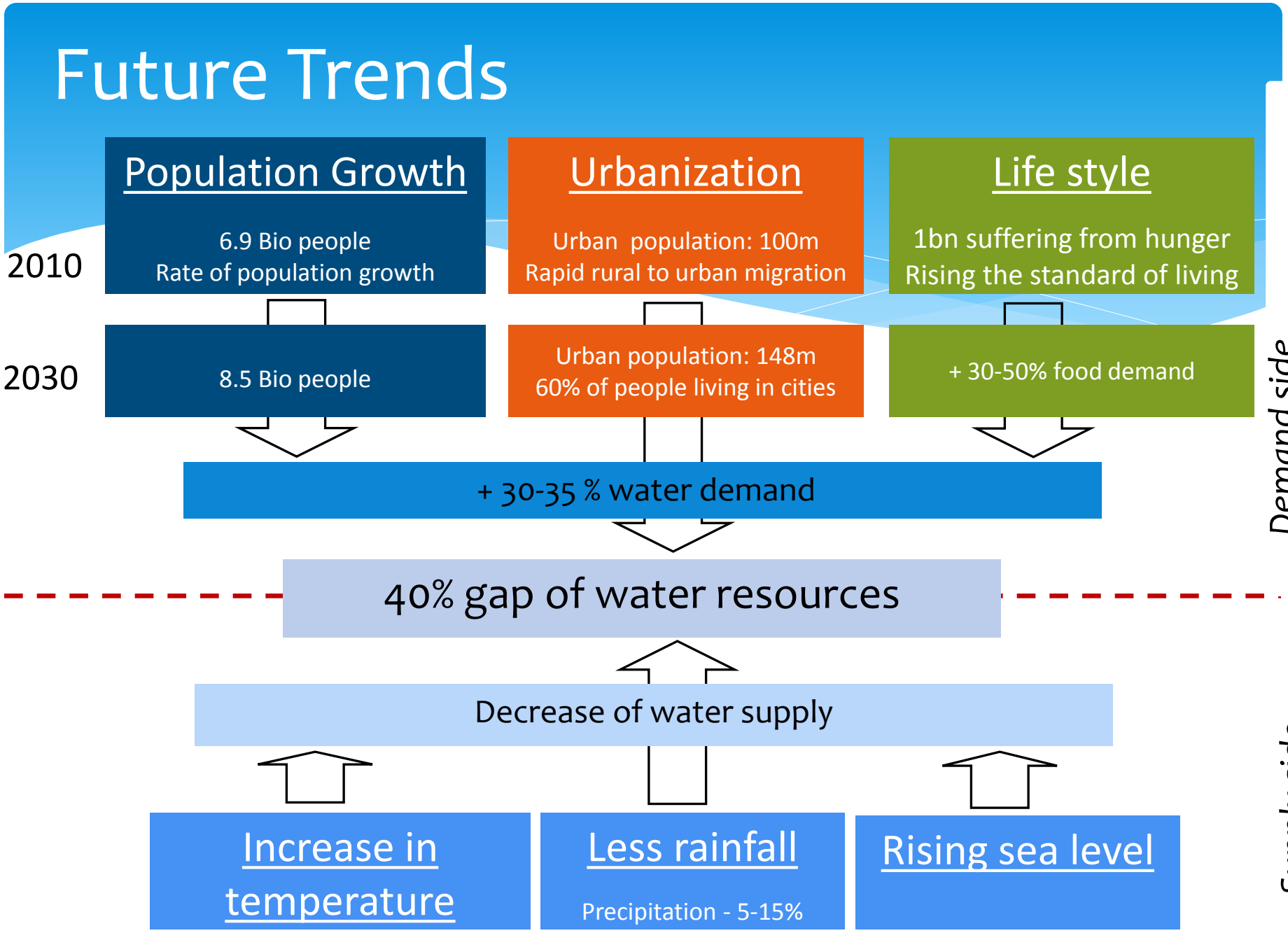


Driving Forces of Water Security

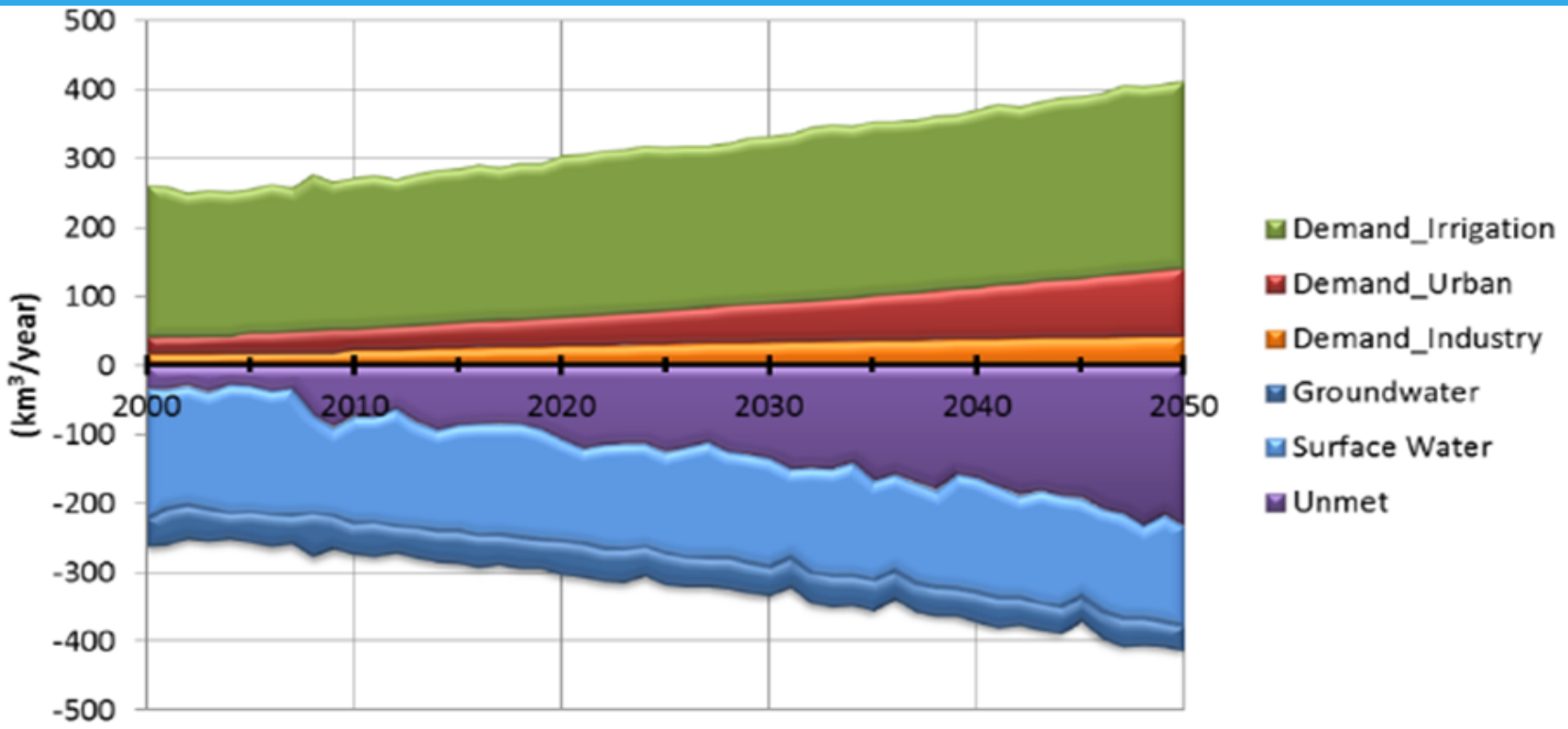
The future of water security will be determined by the driving forces



Future Trends



Future Water gap in the Arab Region



Water demand and supply in the Arab Region base on climate change scenario AVG (WB)

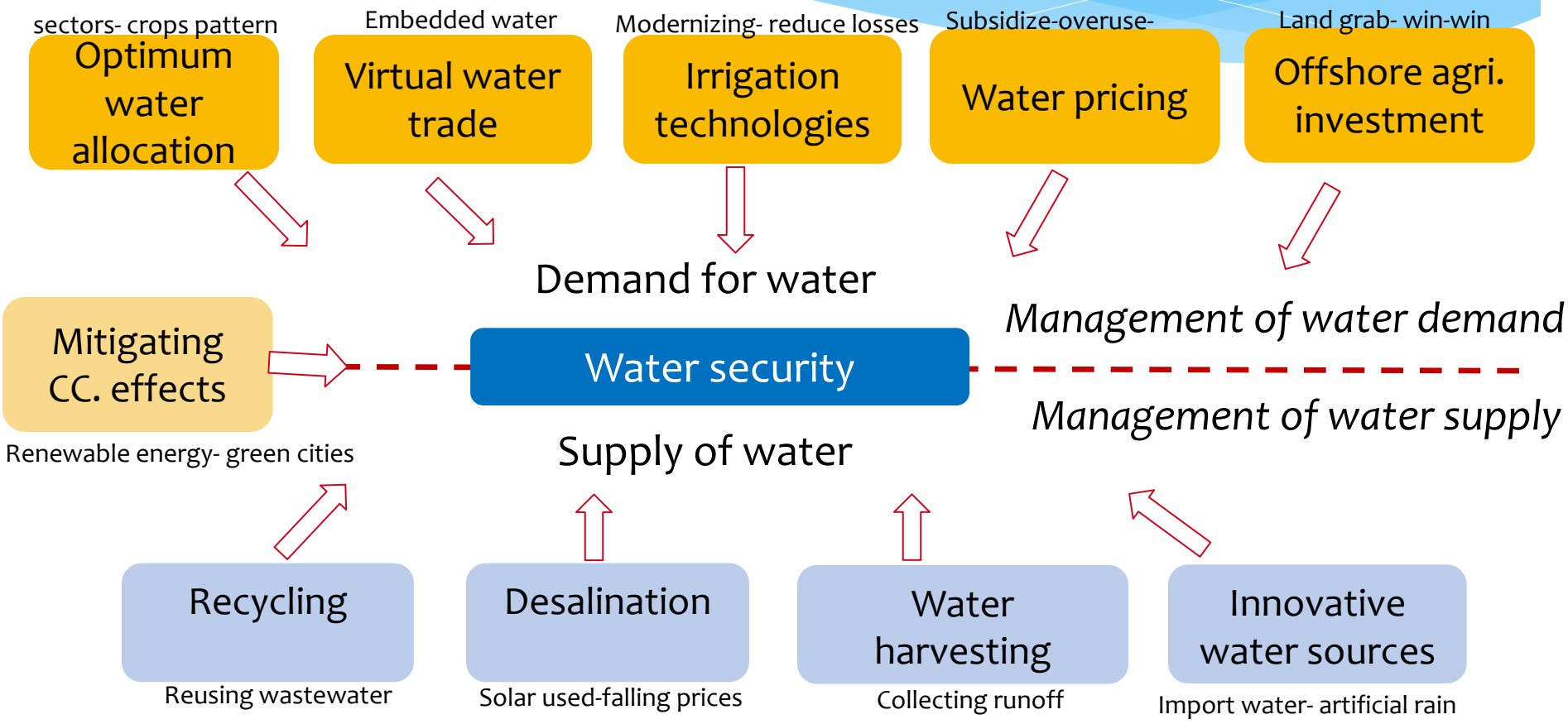
Water demand +25 % in 2030 - + 60% in 2050.

Renewable water supply -10% based on average climate change projection.

By 2050 all Arab countries will face serious rising 'unmet demand' from 16 % currently to 37 % in 2030 and 51 % in 2050.

Responses/ Emerging Interventions

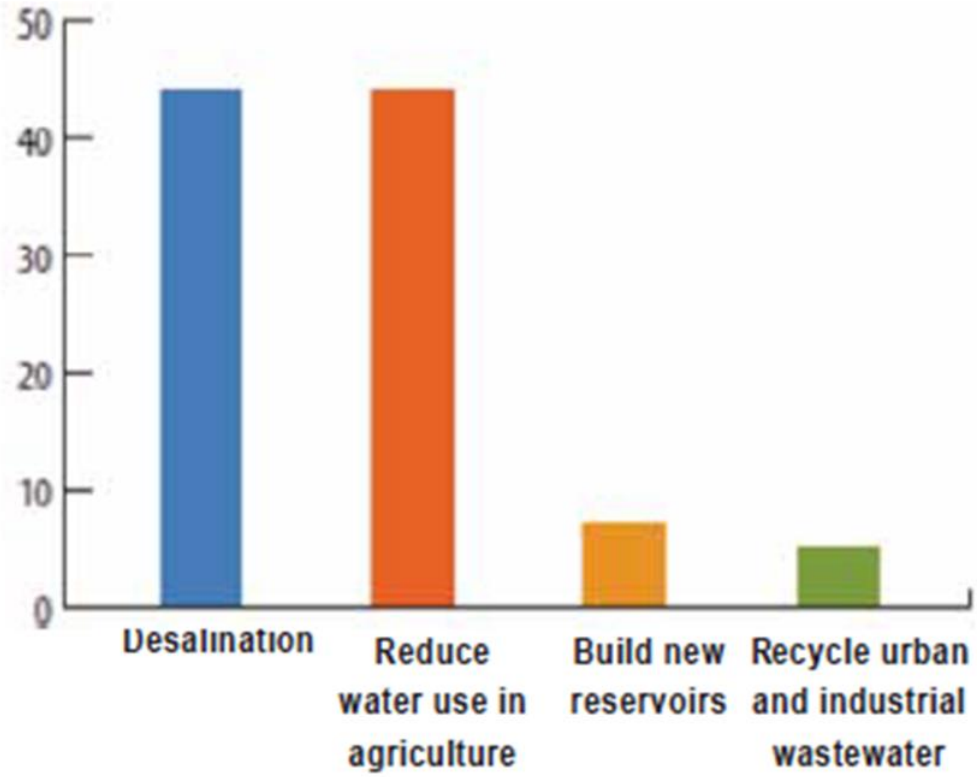
Meeting demand- Managing water resources



Managing Water Demand

The biggest water user is agriculture, consuming 70% of the world's freshwater- A modest water savings in the agricultural sector increase significantly water available for other sectors.

Managing water demand in agriculture is likely to produce as much water as desalination by 2050.



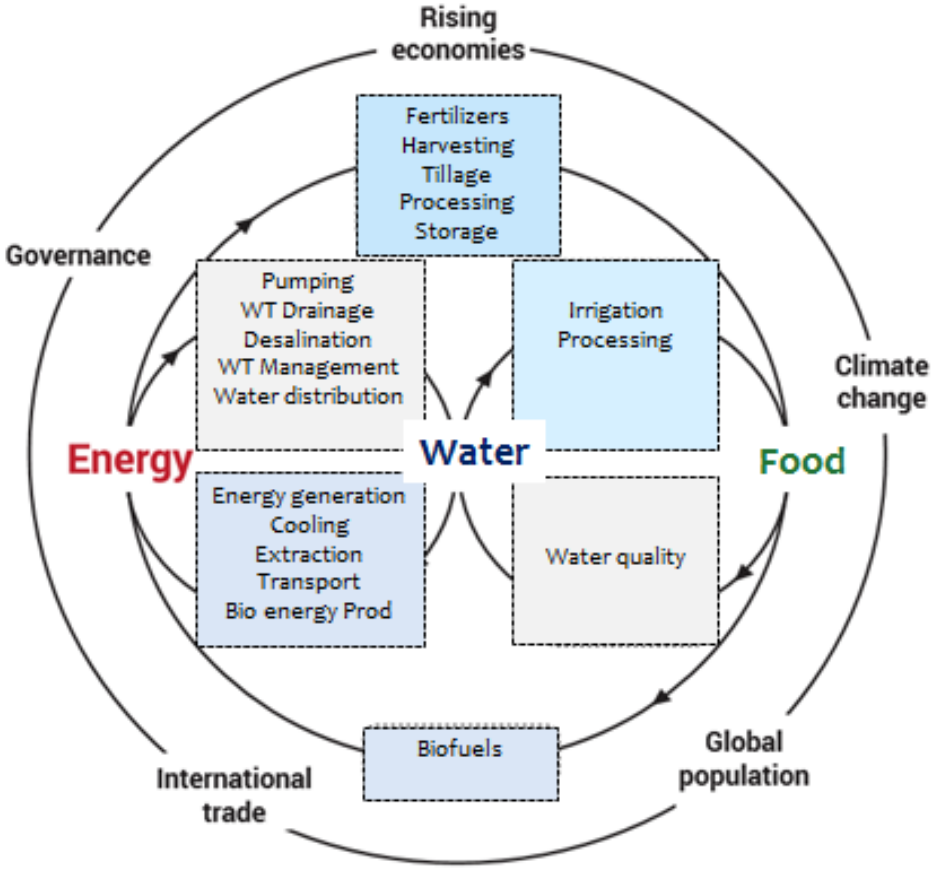
Sources of new water supplies by 2050 (%) WB- MENA development Report

Considering the Entire Water System

The different types of water demand compete with one another- water consumed by one sector is no longer available for other.

In agriculture the return per unit water is lowest in comparison with other sectors. (re-addressing food self- sufficiency for sustainability of water).

Countries) have to reconsider water allocation across all sectors and among different development activities, where production per cubic meter of water giving maximum return; optimization of water use.



Development objectives in one sector may constrain development objectives other sectors! coordination is needed: addressing nexus trade-offs

The Nexus Approach

Considering strong interconnections of key resources

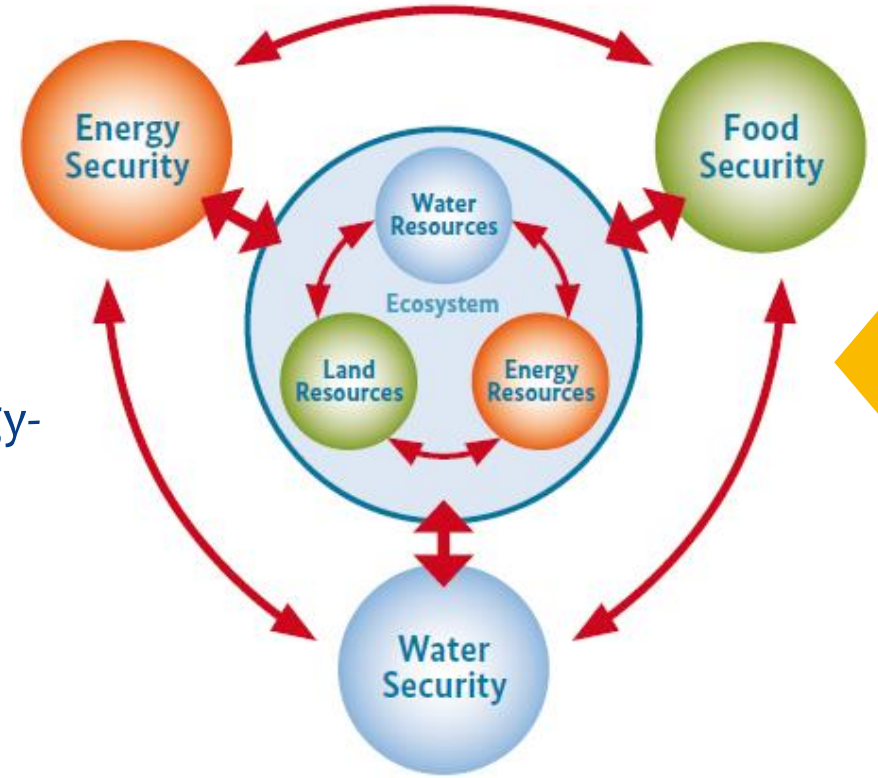
As part of the ecosystem, water, land and energy resources are interconnected.

A need for an integrated management system of natural resources.

Nexus as a tool to achieve sustainable development.

Subsidies reform for water-energy-food sectors.

LAS adopting WFE Nexus in the framework for sustainable development- coordination- incentives- capacity building.




Thank You