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Implementing WEFE Initiative "Water Diplomacy Center: The Opportunities and challenges

Jordan University of Science and Technology
22 November 2023

تنظيم



Riyadh, Saudi Arabia



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



Blue Peace



Blue Peace Middle East Initiative

The Blue Peace Middle East Initiative, launched 2011, works to transform water from a source of crisis into a catalyst for socioeconomic development, cooperation and peace in the region.
Iraq, Jordan, Lebanon, Turkey, Syria and Iran



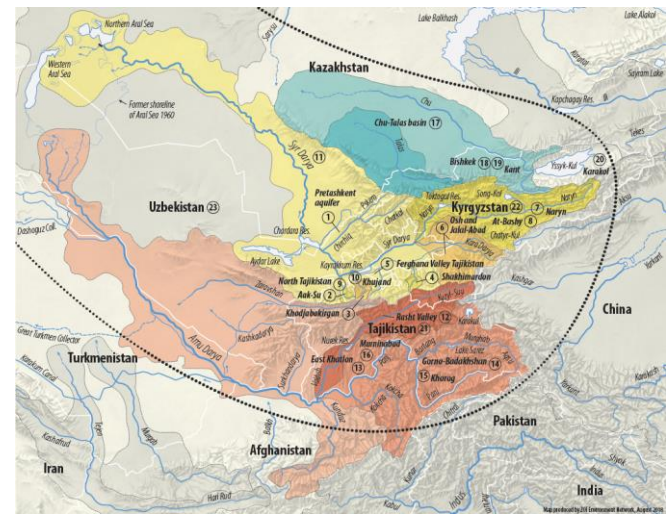
Yarmouk Future project
JUST and East Anglia
University

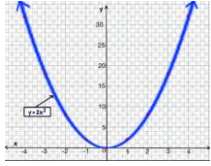


Blue Peace, launched in 2011, is a world movement turns competition over limited freshwater resources into collaboration, resulting in more peaceful, cohesive and sustainable societies.

Blue Peace Central Asia Initiative

In 2014, The Blue Peace Central Asia Initiative was launched to help foster dialogue among the Central Asian nations in the face of increasing competition for water resources, heightening the political tensions and risks of conflict.



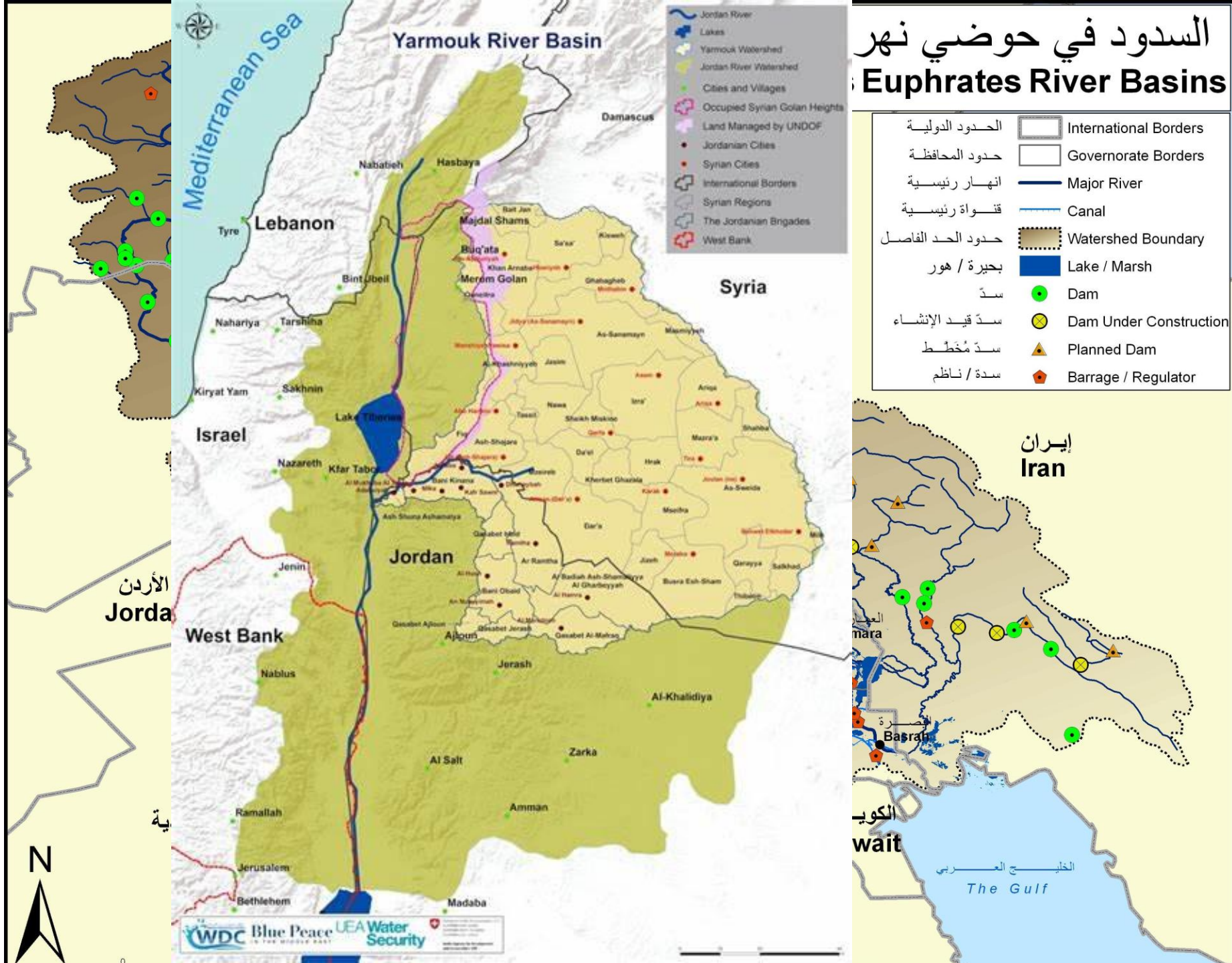


Challenges, Water and War

- **Fierce national competition over water resources has prompted fears that water issues contain the seeds of violent conflict,** Kofi Annan, Secretary General, United Nations
- **“The next war in the Middle East will be over water, not politics.”** (Boutros Boutros-Ghali, Secretary General, United Nations)
- **“The only matter that could take Egypt to war again is water.”** (Anwar Sadat, President of Egypt)
- **“Water is the one issue that could drive nations of the region to war.”** (King Hussein, Jordan)
- **“Many of the wars in this century were about oil, but wars of the next century will be about water.”** (Ismail Serageldin, Vice President, World Bank)



Transboundary Water Political Tension





Vision

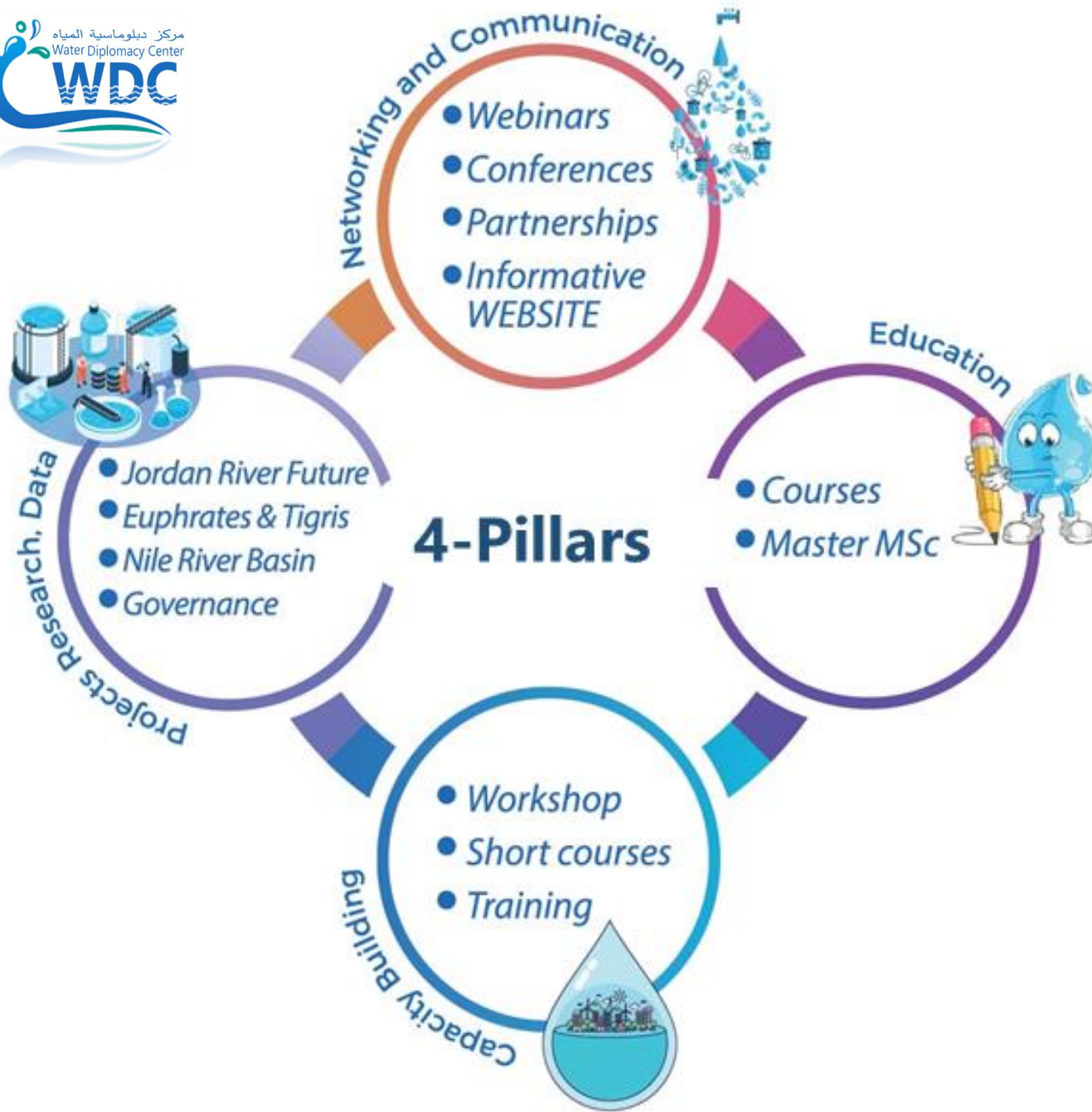
To become a distinguished hub for coordinating research studies and providing training in the field of water in WANA



Mission

Provide evidence-based knowledge, tools, and training in transboundary water management and negotiations for reaching equitable and sustainable arrangements guided by the principles of international water law.





Capacity Building and Education 2023-2026

- **SHORT Course/ Workshops/Training**
 - Water conflicts and cooperation (*1 -12 December, IHE-Delft*)
 - Water Conflict: Negotiations and Mediation.
 - Transboundary Climate Diplomacy
 - **International water law and water conventions (*3-7 Dec. 2023*)**
 - Water Governance
 - Remote sensing
 - Water information processing, management and analysis
 - Water-Peace Training, GWH, IHE, independent trainers
- **Master/PhD Fellowships** supporting transboundary water research
- **Master program on water diplomacy:** in collaboration with relevant international institutions.

Research projects

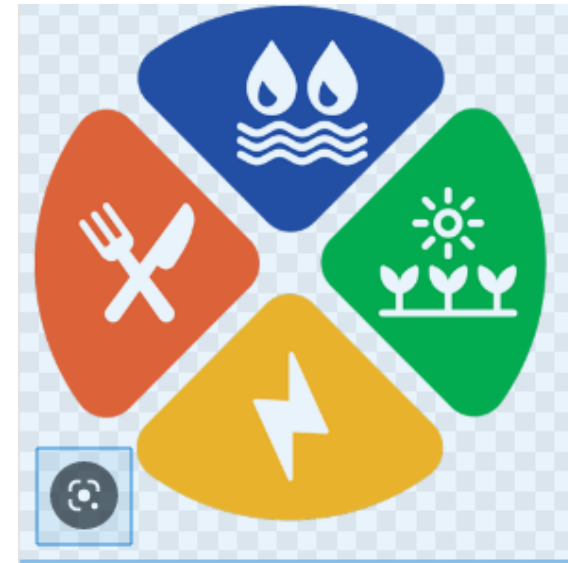
Research on Transboundary Basins



Baseline and Assessment of Transboundary GW Azraq and Hammad Basins



Hydro-political studies in Iraq



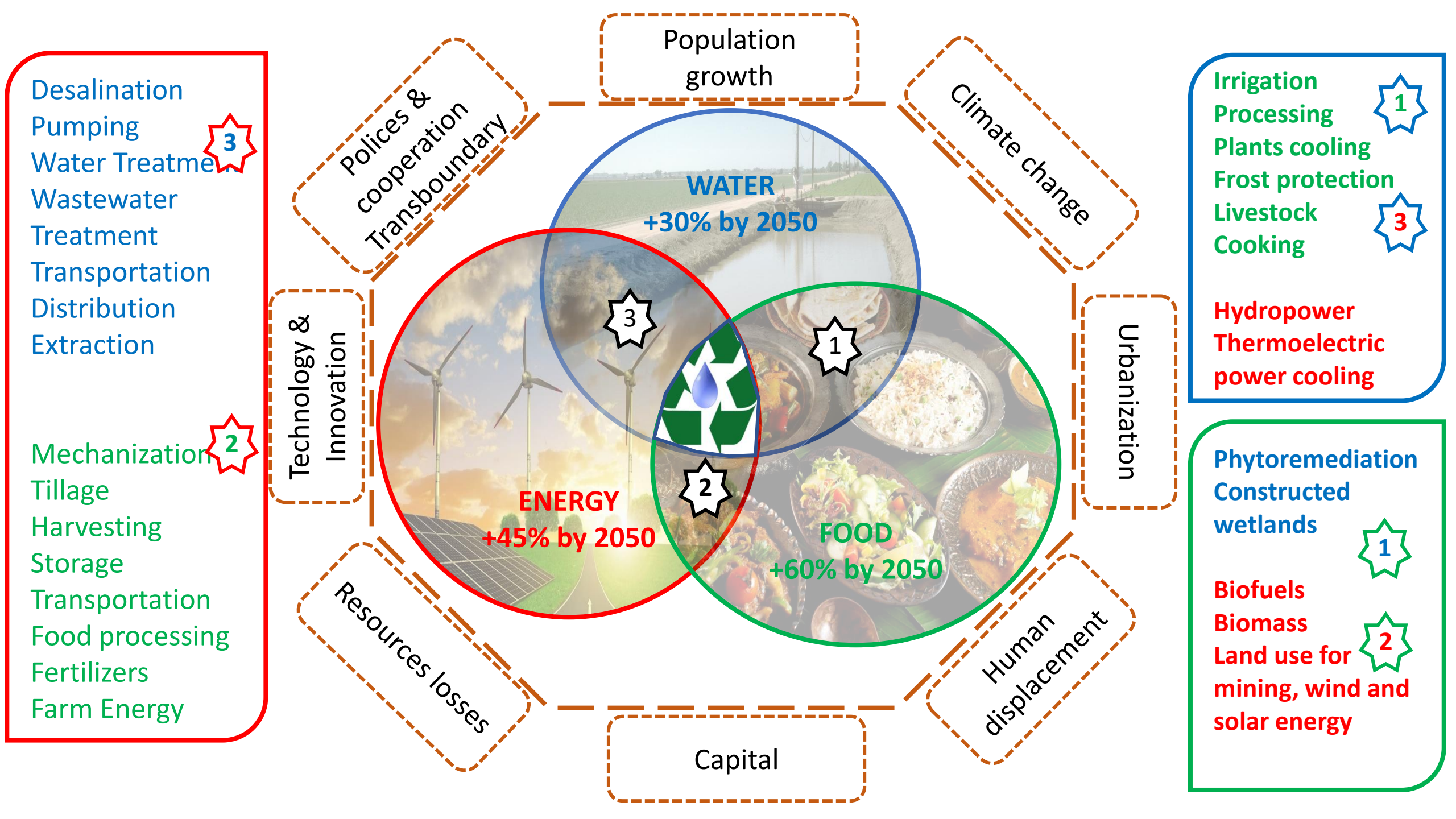
WEFE NEXUS

THE WATER-ENERGY-FOOD NEXUS



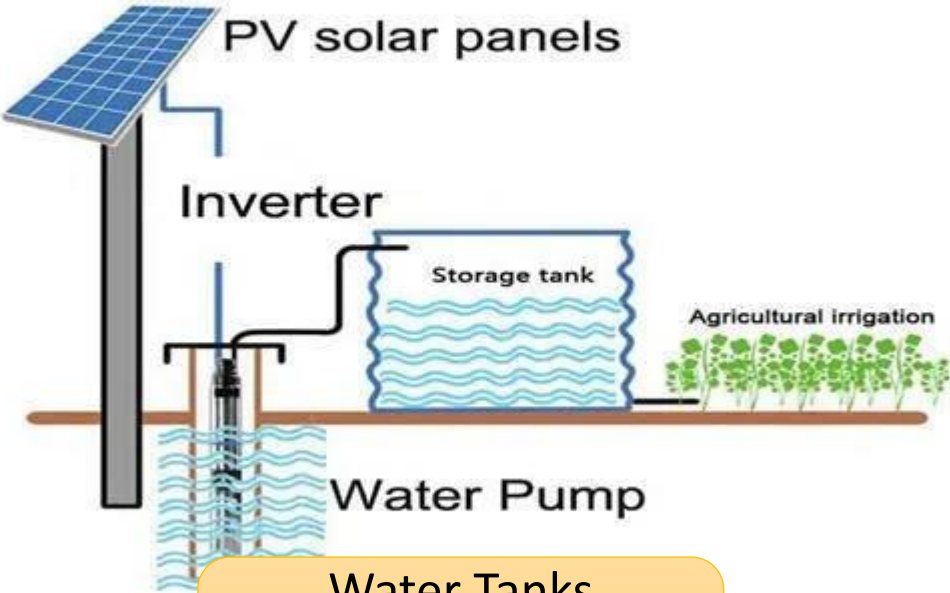
WEF

Insuring Water-Energy-Food security and promoting equitable and sustainable growth in a resilient and productive environment



Water-Energy-Food nexus

Energy Harvesting
Rainwater Harvesting



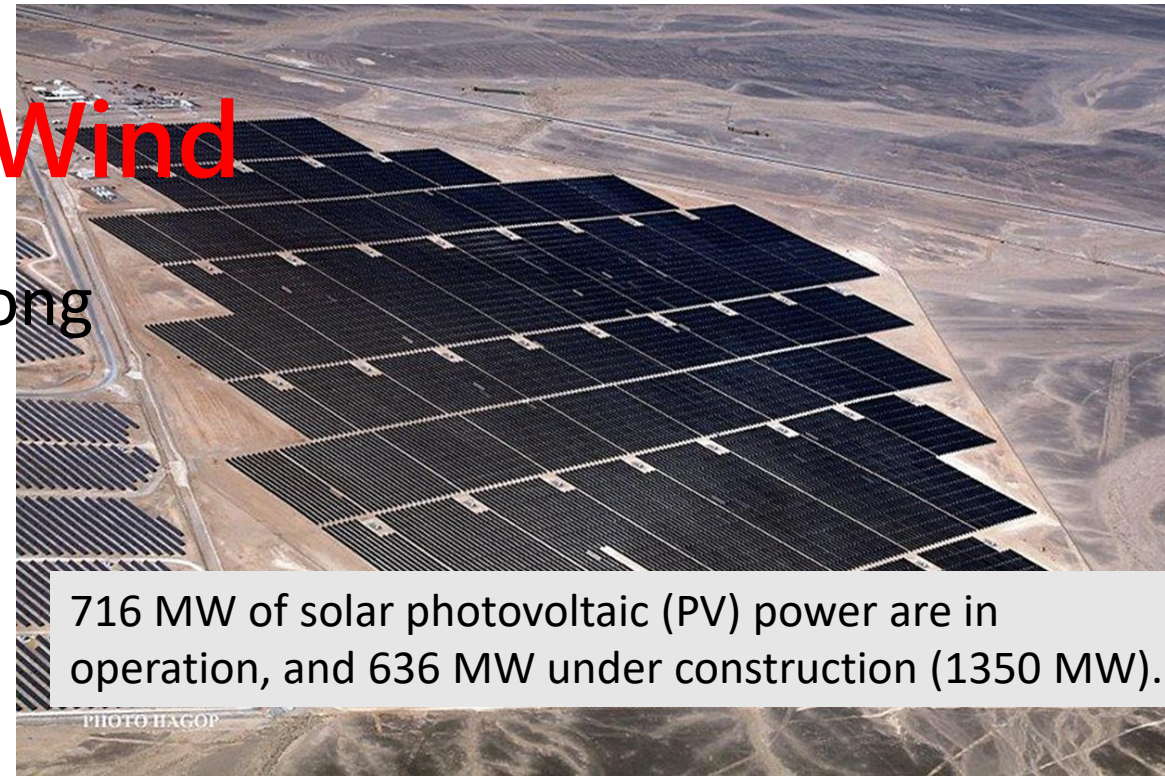
Water Tanks
Infiltration well
Sand ditches



Renewable Energy Solar & Wind

- The potential for renewable energy is among the most promising in the world:
 - Vast desert lands
 - 310-330 days of sun a year,
 - Average solar irradiance 5-7 kWh/m²
 - Strong winds exceed 7 meters/second

- In Jordan 94% of Energy is imported, 20% of GDP



716 MW of solar photovoltaic (PV) power are in operation, and 636 MW under construction (1350 MW).



Currently, 279 MW in operation, and 334 megawatts under construction (600 MW).

Water-Energy-Food nexus

THE JORDAN TIMES

Renewable energy a glimmer of hope for sustainable water development in Jordan

Mar 26, 2022 - Last updated at Mar 27, 2022

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Having achieved the Millennium Development Goals, which the world's nations have unanimously implemented by 2015 as per the United Nations World Declaration of the year 2000, the world's nations have come to the conclusion for the need of a more ambitious and detailed plan to achieve a sustainable world through social and economic development that preserves the environment and improves people's standard of living for generations to come without draining natural resources. In addition to the previous goals on poverty and hunger, the 17 goals (SDGs) have focused on vital issues and sectors such as climate change, water, the environment, sanitation, and energy.

The Arab Region, particularly Jordan, may be the most in need to achieve these goals in the face of a chronic and complex equation between population growth, which has been marred by forced increase due to influx of refugees, and limited water resources. All is exacerbated by the pressing upcoming climate change, regional tensions and wars that have negatively impacted achievements of sustainable

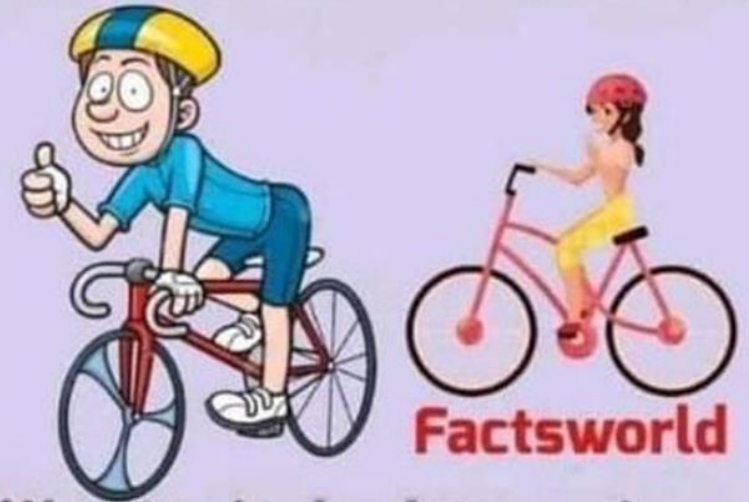


- 300 M JOD/Year could be saved by using PV energy (400 MWh) for large water infrastructures, e.g. Disi-Mudwwara, Azraq and Dhualeel

Renewable Energy Dilemma, WHY ??

- Huge Potential for production and large scale applications (transportation, pumping, electricity, etc.)
- Issues in Governance and policies and implementation
- Abrupt policy changes, confusion and misdirection
- Unclear institutional setup, long term planning, and other big issues:
- The coordination between energy and other sectors
- Some still thinks RE is bad for the Economy

CYCLING IS BAD FOR THE ECONOMY



Hilarious but true too

A cyclist is a disaster for the country's economy -
He does not buy the car & does not take a car loan -
Does not buy car insurance - Does not buy Fuel -
Does not send his car for servicing & repairs -
Does not use paid Parking - Does not become Obese

Yes,.....and well, damn it !! Healthy people are not needed for economy. They do not buy drugs. They do not go to Hospitals & Doctors. They add nothing to country's GDP. On the contrary, every new fast food outlet creates at least 30 jobs - 10 Cardiologists, 10 Dentists, 10 weight loss experts apart from people working in the outlet. Choose wisely: A Cyclist or a KFC ? Worth thinking about!!

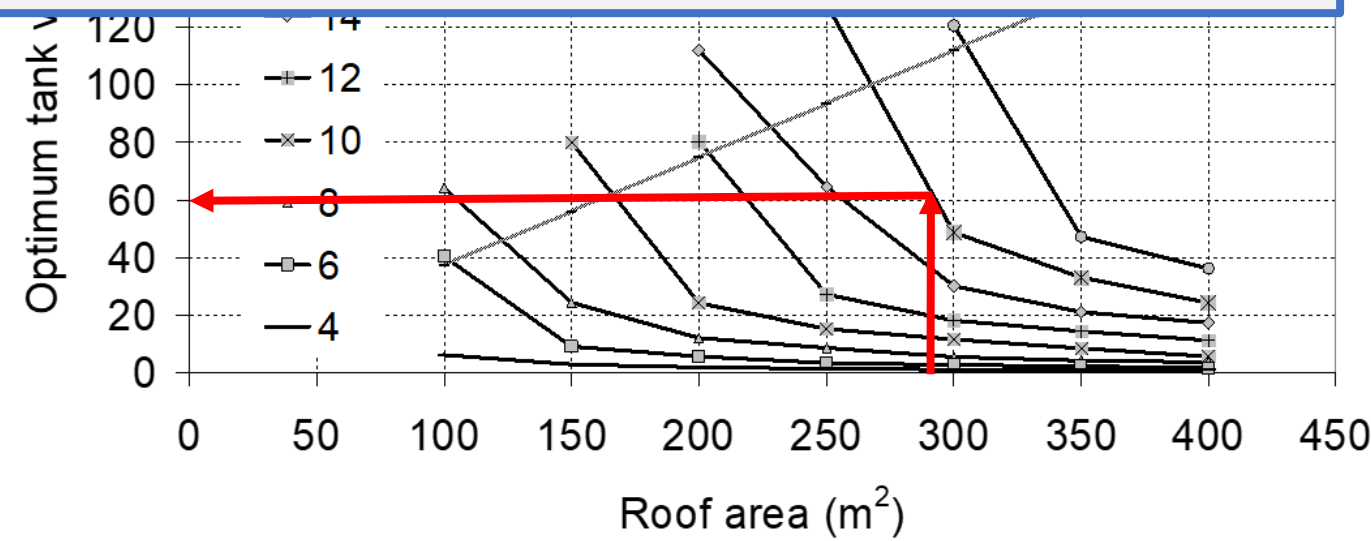
PS: Walking is even worse. They do not even buy a bicycle!!

Rooftop Rainwater Harvesting Case study

- 280 m²
- Average rainfall = 410 mm/year
- Family of 7 members
- Consumption about 4 m³/week (16 m³/month)
- 60 m³ of Rainfall Harvesting Tank
- **Cover water needs for 7 months**



Rooftop rainfall volume can increase domestic water supply by about 30 MCM/year comprising 8% of the domestic national water supply.



Regional WEF E Collaborations

- **Project in Five Countries (Iraq, Jordan, Syria, Lebanon, Turkey):**
- **Assess Strengths and Weaknesses:** The project evaluates the potential, strengths and weaknesses of each country concerning the WEF E Nexus approach, acknowledging the unique resources and challenges in each region.
- **Identify Opportunities:** Identify opportunities for developing and strengthening WEF E Nexus connections among these nations, fostering regional cooperation for more efficient resource management

Recommendations

1.Cooperation Potential, JOR-LIB-Syria: Jordan could import freshwater from Lebanon and Syria and export renewable energy, meeting its water needs and energy demands. Lebanon could benefit from Jordan's agricultural production, improving food security. Turkey plays a pivotal role in regional integration, acting as an energy and water hub.

2.Turkey's Role: Turkey serves as a key player in the MENA region, facilitating the transport of oil and gas, infrastructure development, conflict resolution, and water security. It contributes to regional food security while other countries focus on food production and trade.

3.Syria's Role, SYR-IRAQ-TUR: Despite conflict, Syria can participate in water resources management due to its position in the Tigris-Euphrates basin. This could contribute to regional water security efforts.

4.Iran-Iraq Collaboration: Iran and Iraq, with abundant energy resources, can collaborate on energy infrastructure development. Iraq can supply agricultural products to Iran. Both nations can supply energy to neighboring countries, with Iraq benefiting from water management expertise.



شكرا لكم!

تنظيم

