



Mediterranean dimensions of the Water-Energy-Food-Ecosystem Nexus

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Executive Secretary, GWP-Med

17 February 2022

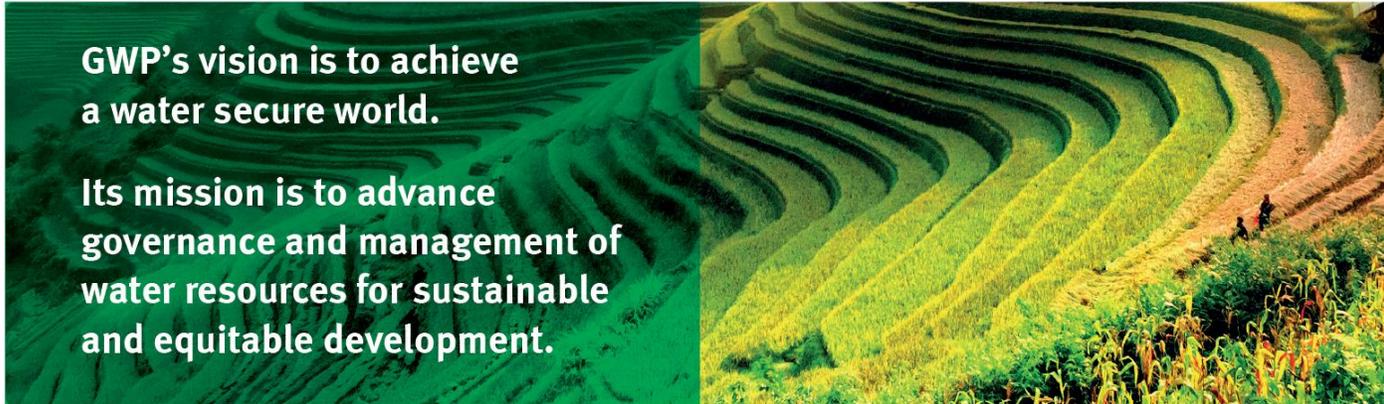
CA-EED2 Meeting, Malta
Energy Savings in the Water Sector



GWP and GWP-Med

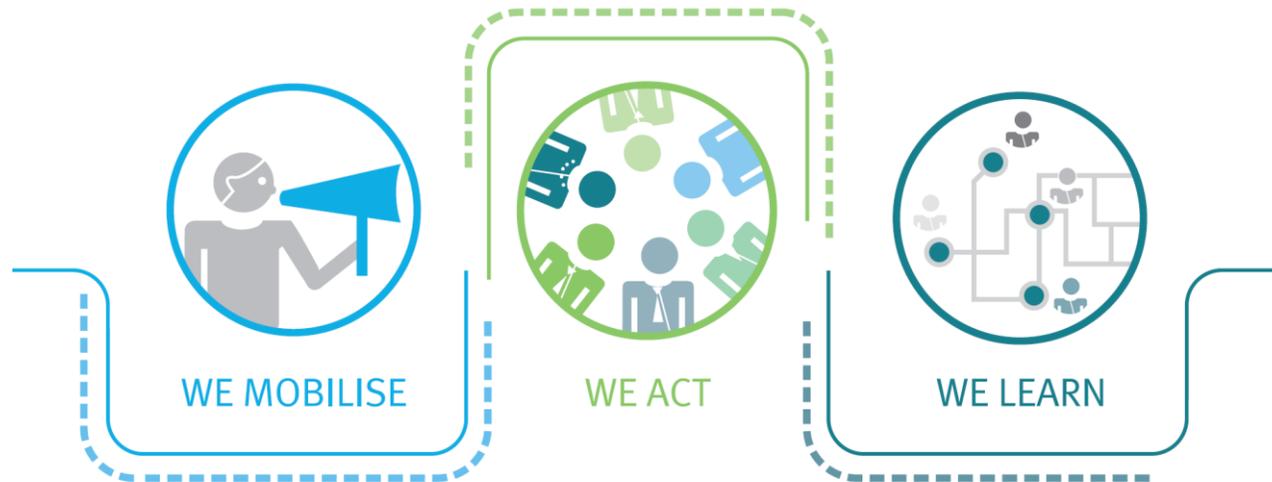


Global Water Partnership (GWP)



HOW WE DRIVE CHANGE

Leveraging global policy frameworks, we will inject motivation, opportunity, and capacity into processes that have the potential to lead to systems changes at all levels.



Global Water Partnership (GWP)



Multi-Stakeholder Platform
for Water Security (est. **1996**)

Intergovernmental
Organisation
(since **2002**)

3300+
Partner organisations
in **178** Χώρες

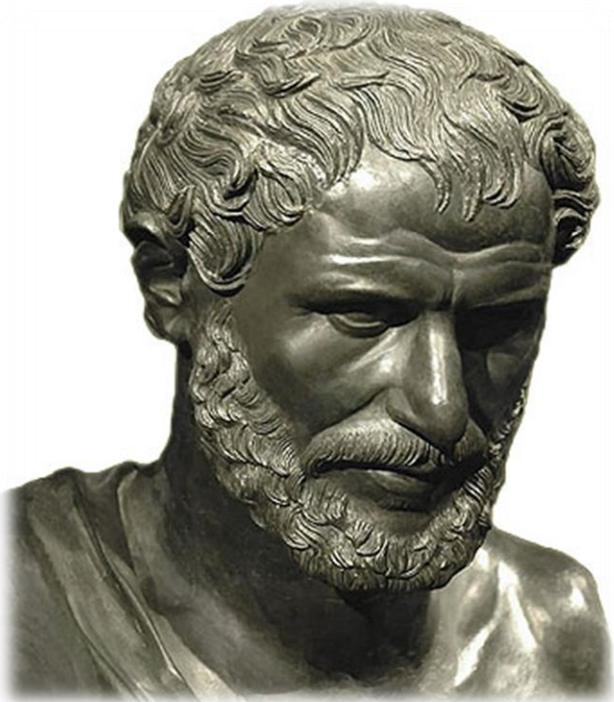
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Regional Water Partnerships



Water-Energy- Food-Ecosystems Nexus



The notion of Integration in natural systems

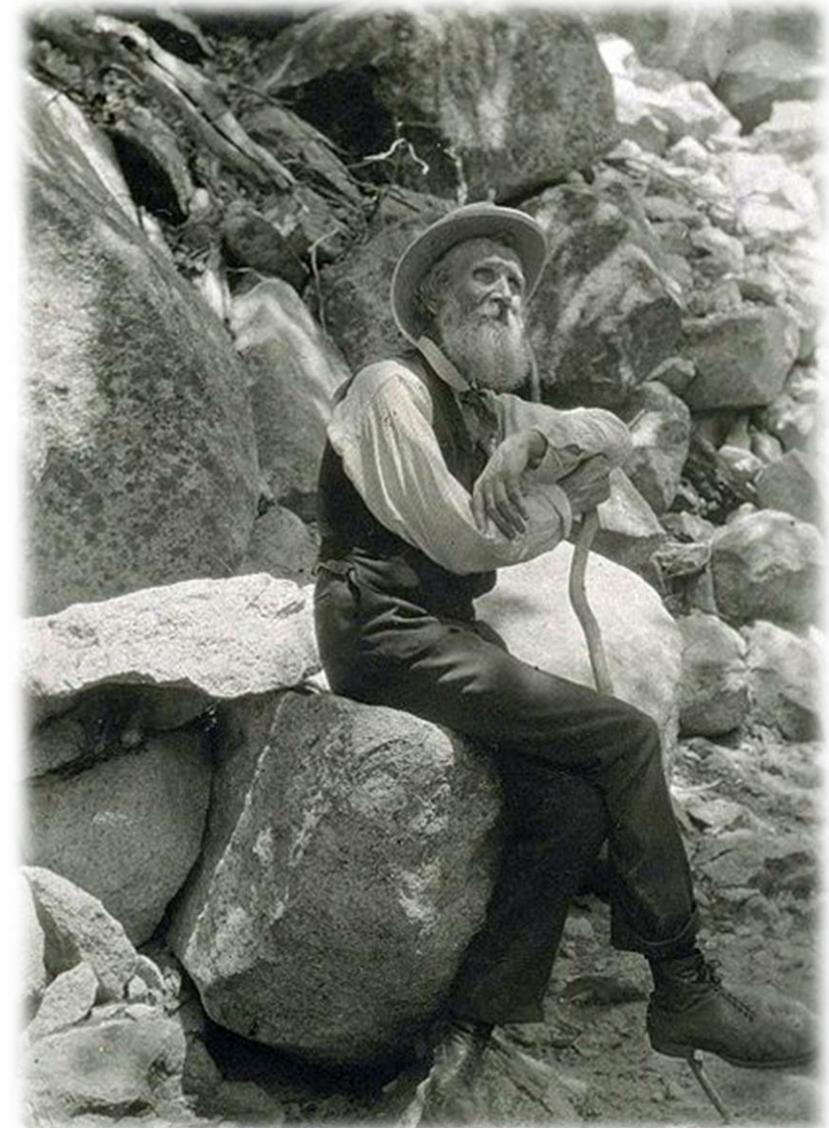


'... everything is interconnected'

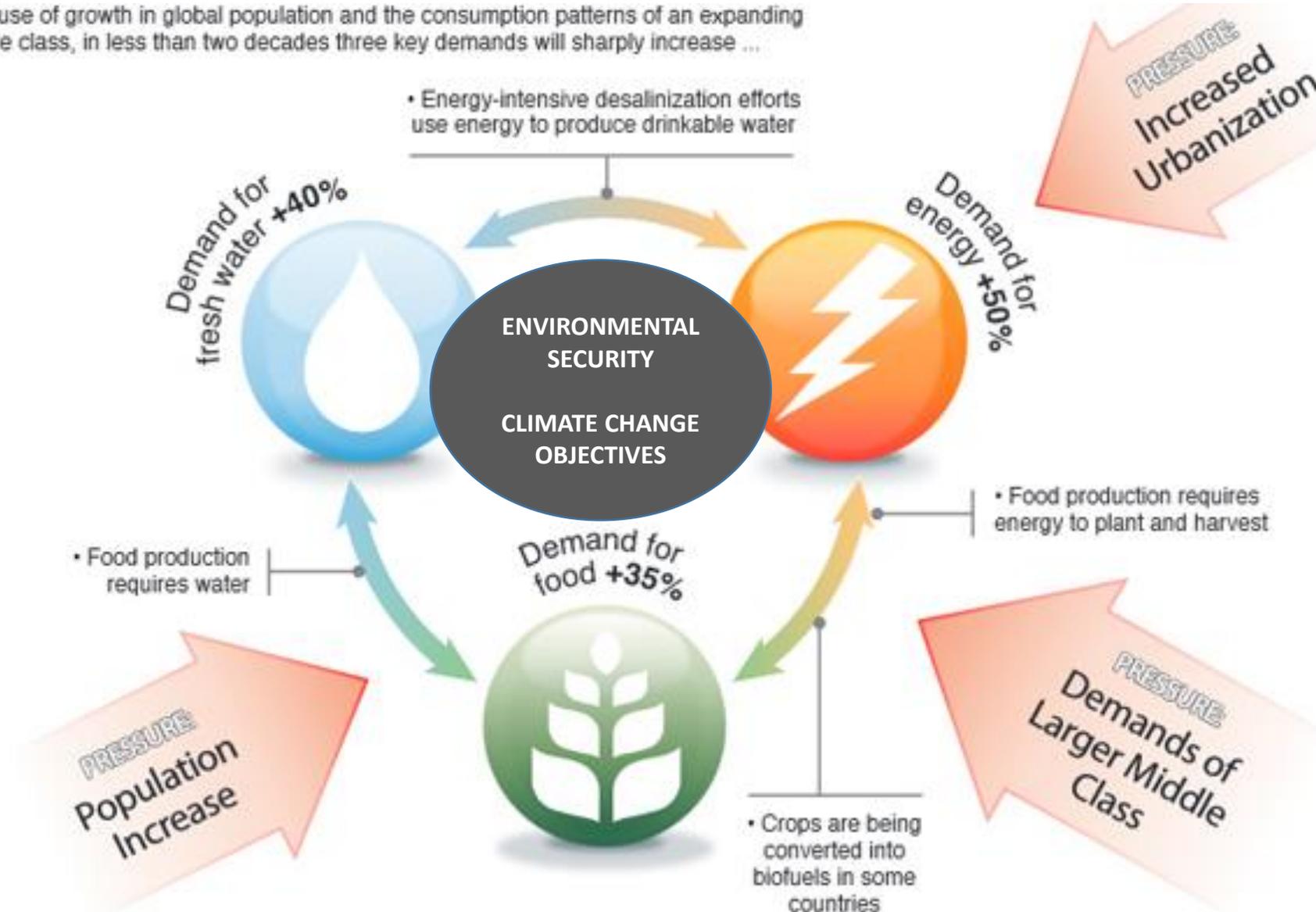
*Heraclitus, philosopher, 5th
century BC*

*'...when we pick out anything by
itself in nature, we find it
hitched to anything else in
universe...'*

*John Muir, founder of the Sierra
Club, 1911*

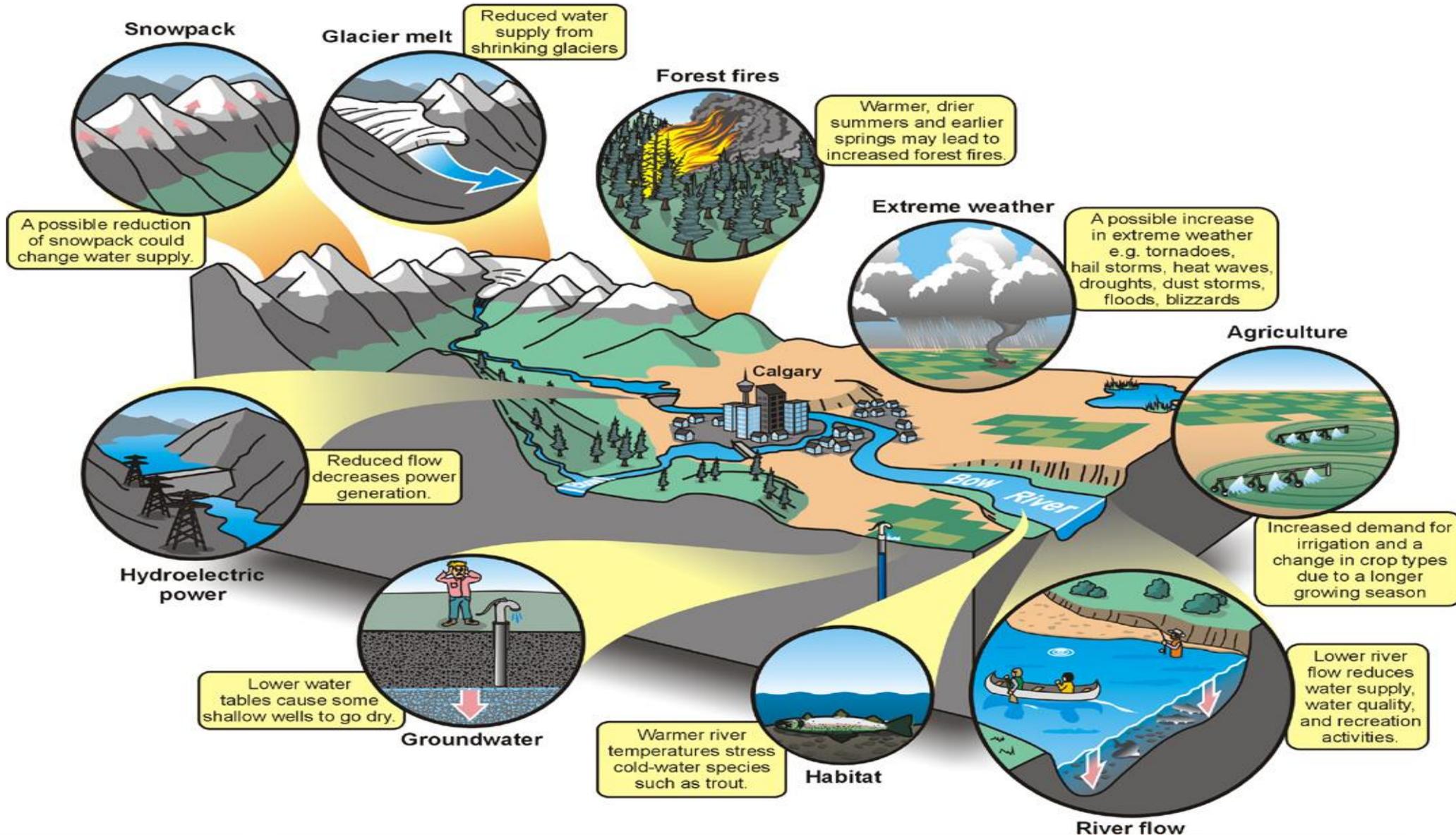


Because of growth in global population and the consumption patterns of an expanding middle class, in less than two decades three key demands will sharply increase ...



The Water-Energy-Food-Ecosystems Nexus approach

The Source-to-Sea approach



Some WEFE Nexus linkages we sometimes ignore

Digitalisation

Jobs

Blue Economy

New Markets

Circular economy

Sustainable Consumption & Production

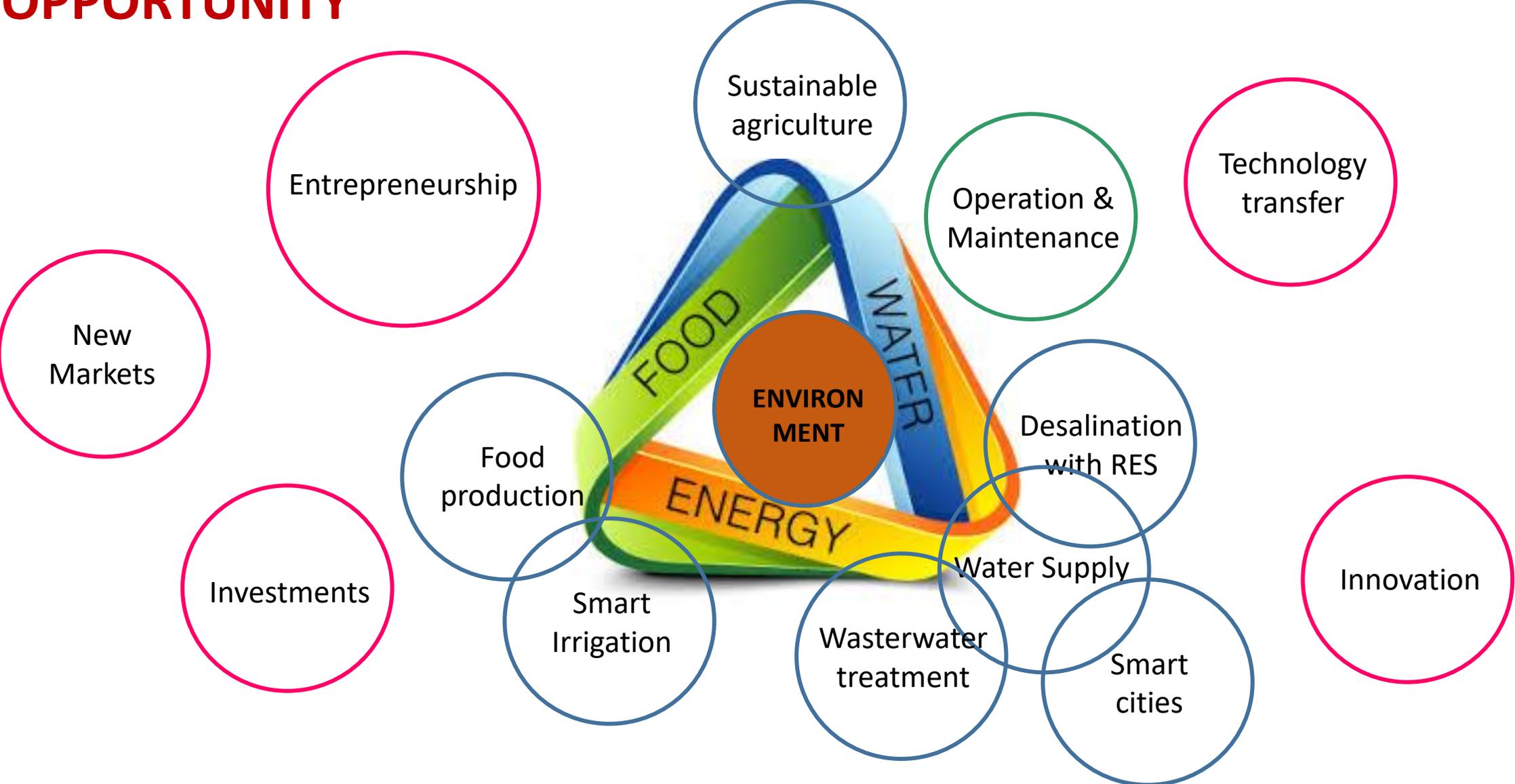
**COVID-19
recovery**



Gender

Youth

The Water-Energy-Food-Ecosystems Nexus OPPORTUNITY



Gaps in applying WEF E Nexus responses in MED

Need to further:

- enhance cross-sectoral coordination of institutions, users, investors, research
- develop, implement, monitor Nexus strategies / action plans
- increase and coordinate Nexus infrastructure, including through optimization of existing assets
- enhance market opportunities
- increase science-to-policy feed
- enhance common understanding and share knowledge through Nexus CoP



Enhance understanding & share knowledge in the MED



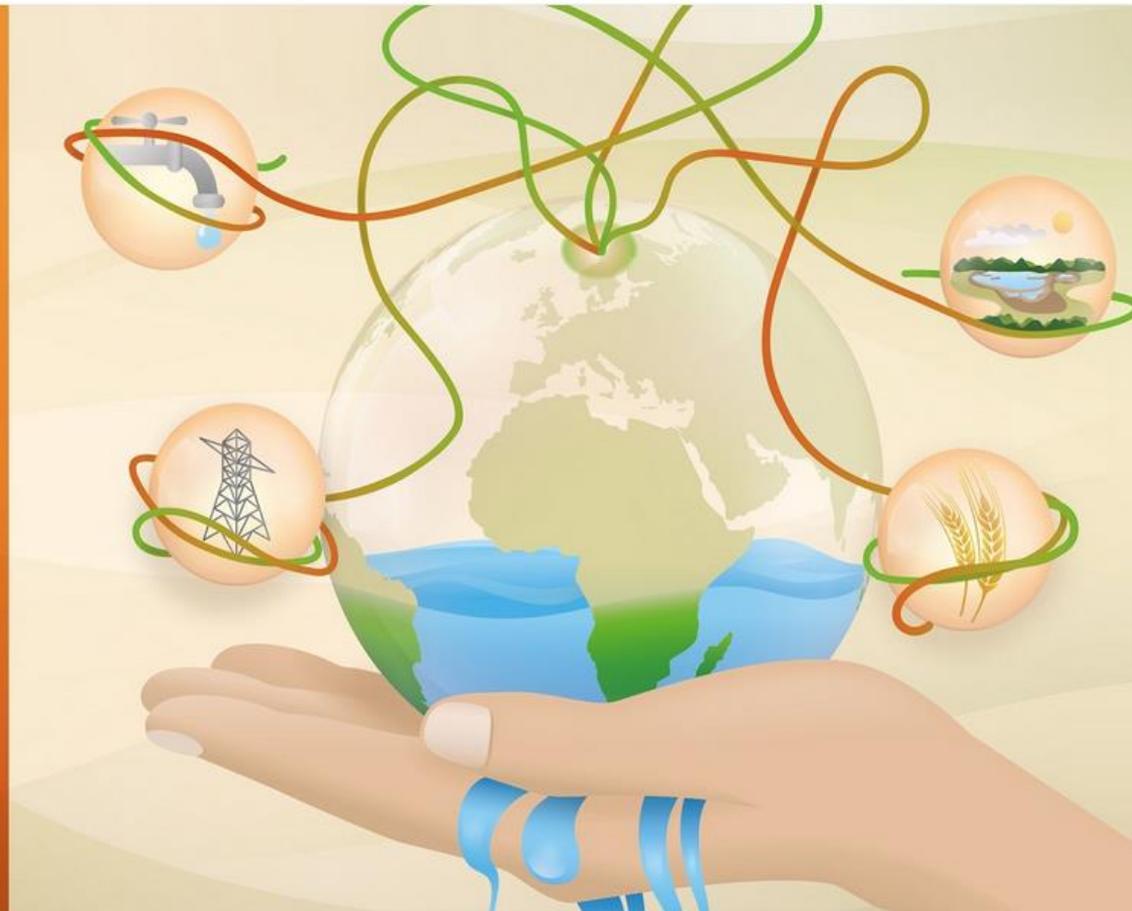
Union for the Mediterranean
Union pour la Méditerranée
الإتحاد من أجل المتوسط



HOME PROGRAMME REGISTRATION POSTER SESSIONS BIOS ORGANISERS KEY LINKS ▾ OUTCOMES CONTACT

WEFE Nexus Science Advances CONFERENCE

Online from Nicosia, Cyprus
27–29 September 2021



Increasing WEF Nexus investments in the MED

Need for more:

- socially-responsible and economically viable private sector / blended investment
- promotion of market approaches to WEF Nexus investments, including through enabling SMEs, also for Youth & Gender entrepreneurship
- utilisation of opportunities for water and climate adaptation financing from other sectors (energy, agriculture/peri urban, digitalization, blue economy, Covid responses, etc)
- utilisation of international climate financing opportunities
- utilisation of the new Agenda for the Mediterranean



Examples for WEFE Nexus investments

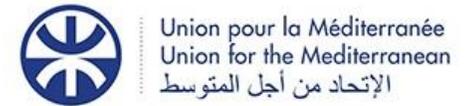
- Green/Blue urban interventions (key role of local authorities)
- Renewables/solar for wastewater treatment and reuse, including for bi-products (key role of utilities, but also of tourism, industry, etc. at smaller scale)
- Renewables/solar power for irrigation (key role of irrigators communities)
- Irrigation systems and IoT (key role of irrigators communities)
- Nature-based infrastructure, like related to wastewater management / floods and extreme events management (key role of regional and local authorities)
- Multipurpose dams (hydro, irrigation, flood mitigation, etc.), including optimization in cascades of dams in transboundary basins
- Renewables/solar for desalination (key role for utilities)

Some WEFE MED Nexus regional processes & projects



✓ On-going UfM WEFE Nexus in the UfM Water Agenda

- Country-driven, work-programme on-going, partnership engaged
- GWP-Med technically facilitating the WEFE Nexus thematic area
- Pilot Nexus tech interventions in MENA, linked with job creation (2021-2022, UfM/Sida, GWP-Med))



✓ GEF UNEP/MAP MedProgramme: WEFE Nexus Project

- Assistance to Policy-making at Regional Level; National and local Nexus Assessments; Pilot Nexus tech solutions (2020-2023, GEF, GWP-Med)



✓ RCC Growth Strategy and Roadmap 2030

- Regional WEFE Nexus Policy Dialogue Process
- Nexus in SEE Project (2018-2022, ADA/UBA/GEF, GWP-Med)





A WEFE Nexus example from MENA

MENA Water Matchmaker 2
Supported by UfM/Sida



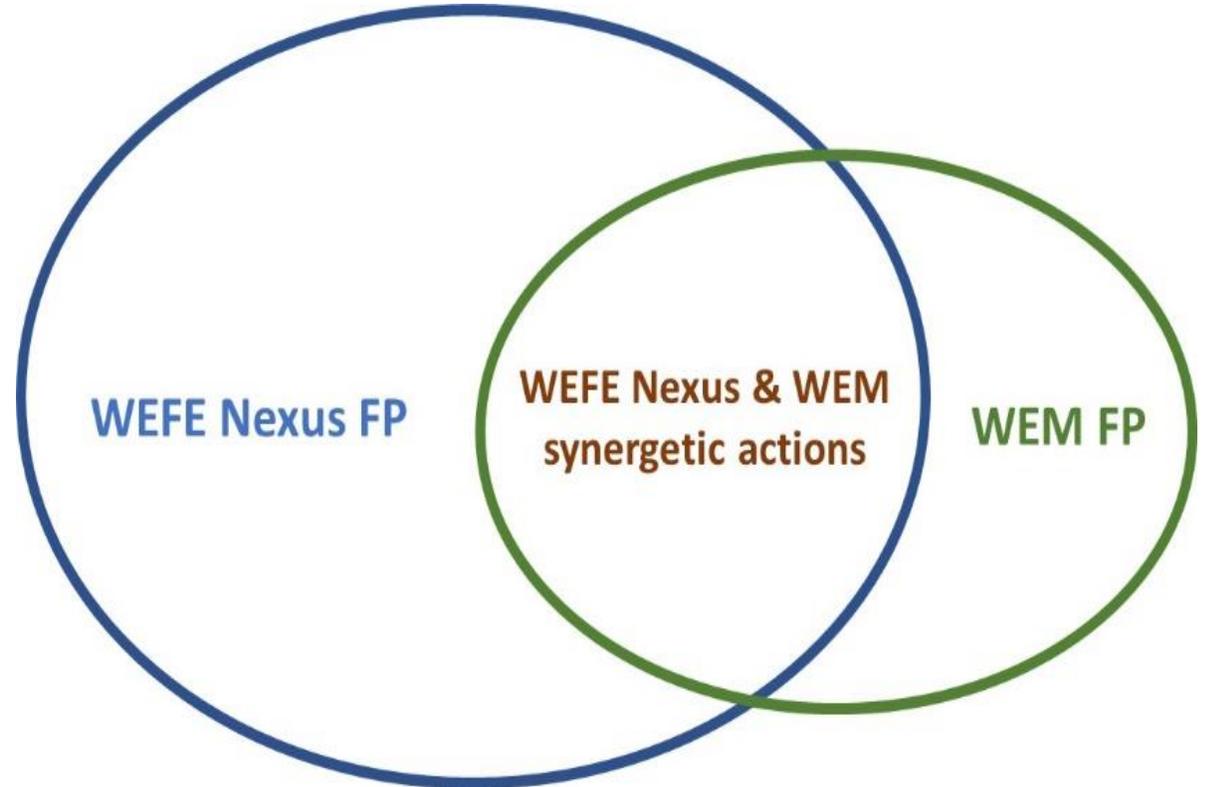
Regional political and contextual background



Union pour la Méditerranée
Union for the Mediterranean
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UfM Water Agenda

WEFE Nexus & Water-Employment-Migration Synergetic Framework Programmes



Sweden

Sverige

MENA Strategy 2021-2025

UfM WEG 10 Meeting (June 2019, Brussels) agreed on:



WEFE Nexus in Coastal, Urban and Rural Areas (small/medium scale demos)

- Facilitate national & local Nexus **action planning** and **investment prioritization** for sustainability targets, through **structured stakeholder engagement**
- Implement local (urban, rural, coastal) **pilot Nexus interventions** and **upscale them** for water security and climate resilience, through Youth engagement
- Promote **employability and entrepreneurship objectives for Youth and Women**, in Nexus-related fields
- Facilitate public, donor and private **investments**
- Promote **knowledge sharing**, including interlinking related regional & national projects



Making Water Cooperation Happen in MENA: Piloting Tangibles

MENA Water Matchmaker 2

Jordan & Palestine / cross-country
10/2020-12/2022
1,6 mil euros (16,4 mil SEK)



MENA Water Matchmaker 2: Project Objective



Prove, through piloting,

the integrated concept of applying **local WEFE Nexus technical solutions** while capacitating beneficiary groups on **employment options,**

offering measurable and **scalable** contributions for more MENA applications

and assisting the **UfM Water Agenda** to enter and mark progress on tangible benefits,

contributing to **Sweden's Strategy for MENA 2021-2025**



MENA Water Matchmaker 2: WEFE Nexus approach

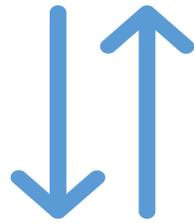
The Project technical pilots incorporate the WEFE Nexus and their inter-relations:

- **Water:** Utilising tertiary treated wastewater, through a nature-based solution (NbS) ie. constructed wetlands, for irrigation.
- **Energy:** Utilising solar power infrastructure for irrigation while lowering costs, reducing the carbon footprint, and increasing water efficiency for energy production (where applicable).
- **Food:** Utilising treated wastewater for agriculture production.
- **Ecosystem:** Assisting local ecosystems and the services they provide through constructed wetlands towards increasing food production; increasing the irrigated farms' ecological niche; improving environmental conditions over the irrigated area e.g. soil conditions, including compared to the direct application of wastewater coming from a plant (that does not include tertiary treatment).



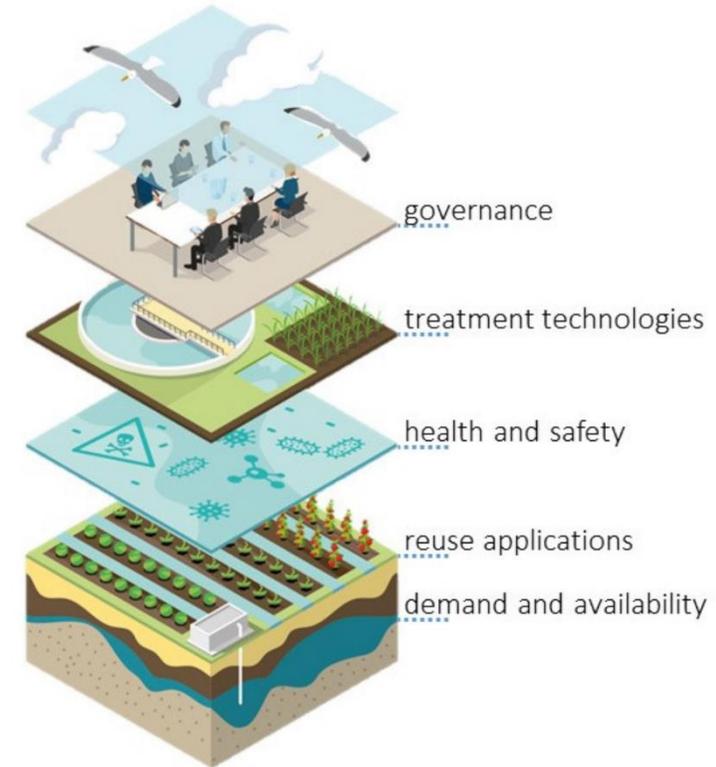
MENA Water Matchmaker 2: Local Interventions

Jordan: Nexus-based scalable model for conjunctive Water use and high-value Agricultural Practices in the Upper Jordan Valley



Palestine: Reuse of treated wastewater to increase water and food security in a Hebron community

Convergence of interventions: WEFE Nexus technical solutions with farmers as direct beneficiaries, and with agribusiness promotion, with benefits to the environment



MENA Water Matchmaker 2: National & MENA activities

Contribute in

- Developing the knowledge basis on WEFE Nexus and Employability/ Entrepreneurship/ Gender/ Youth
- Capacitating MENA Youth, including Women, for green/blue entrepreneurship
- Advancing contents of the UfM Water-Employment-Migration agenda
- Engaging with and promoting through Media the WEFE Nexus & WEM agendas



Some take-aways



- Adapt to evolving challenges
- Go beyond the 'water-box'
- Integrate the 'integrated'
- Mobilize new financing
- Synergize for win-win(s)
- Engage citizens, media, civil society

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Thank you
for your kind attention

مع خالص شكري
وامتناني