

# UfM Med Green Week

## Implementing the Water-Energy-Food-Ecosystems Nexus in the Mediterranean : A new ambition for regional and local cooperation

Istanbul, 15 May 2024



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in the ENI Southern Neighbourhood region

## Water/Energy/Food/Ecosystems (WEFE) Nexus Strategy and Framework in the S2S Mediterranean Continuum

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# Water –Energy-Food-Ecosystems Interconnections



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All the four essential, for human societies, sectors are intrinsically linked:

- Agriculture is the largest freshwater consumer in the region.
- Energy generation depends on water for extraction of fossil fuels, hydropower, cooling thermal power plants, biofuel crops, etc.
- Food production and supply is responsible for approximately 25% of the total energy consumption.
- Up to 35% of the operating costs of water, wastewater utilities and desalination are energy-related.
- Water, energy and food sectors rely and impact on ecosystems.





## Antagonisms & tensions

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Antagonisms are mostly connected to “silo” sectoral priorities, related to investments, since there are notable differences in investment risks and readiness of exploitation and profitability. Still, investments in energy and agriculture externalize costs to water and mainly to ecosystems.

Though Nexus, we expect to better balance and address this challenge.



## WEFE Nexus: Overall premise



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**Water, Energy, Food/agricultural production, Ecosystems/environment** are four interconnected natural resources and sectors of major economic and social importance, generating considerable income and, at the same time, requiring funding for their proper management and in particular in order to transform their mutual relationships and interaction from a **Nexus of frequent tensions and antagonism into a Nexus of synergies.**

This will require the implementation of the “**no-harm**” principle, in other words, if not all four of them can benefit from the Nexus, **at least they should not become harmful** for any of the other three.

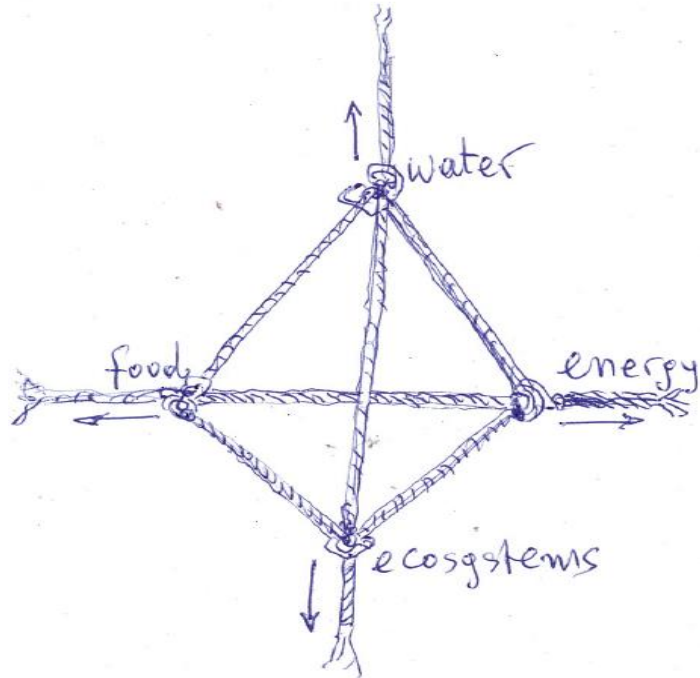
**Such transformation is not easy but it is necessary and doable.**



# The main aim of the WEF E Nexus approach

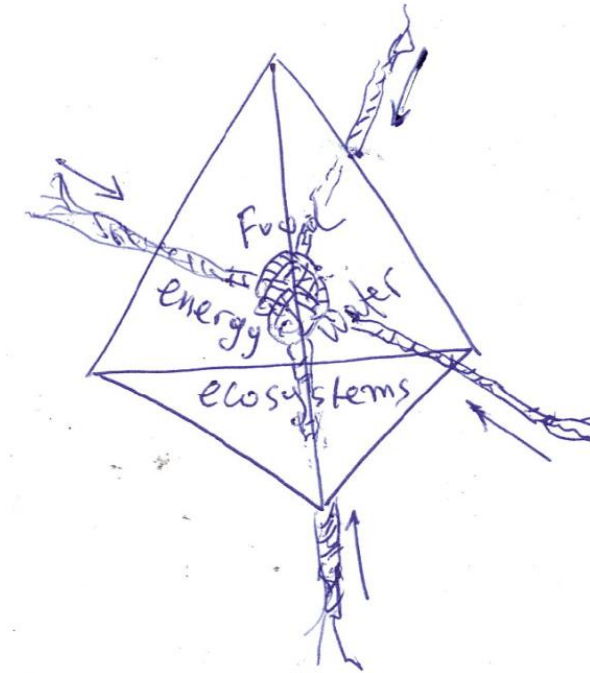


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from a system of  
"tensions"

to move



to a system of  
"convergence"

from frequently antagonistic  
finance and investment



to a synergetic one



## WEFE in the S2S Continuum



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While WEFE describes interaction & suggests **integration of policies among the four (4) sectors**, let's say at the level of line Ministries or relevant district and/or local authorities, interventions and development activities, including in food and agriculture, are taking place in particular sites affecting and being affected by the specific local conditions, including specific climate conditions, specific ecosystems and biodiversity.

All of them are linked to the water cycle, through rivers and runoff from mountainous areas to the sea, which requires **spatial management integration**, creating the notion of the **“Source to Sea” (S2S) Mediterranean continuum**.



# WEFE in the S2S Continuum

In the origins of the S2S is the pioneering work on the

## Integrative Methodological Framework (IMF),

that integrates/connects the:

- Integrated Water Resources Management (IWRM) to the
- Integrated Coastal Zone Management (ICZM) and the
- Ecosystem Based Approach (EBA)

<https://iczmplatform.org/storage/documents/b1wUPA4UtQvagztjcArnXKnDBVN0YoqUkg3EWpxi.pdf>



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Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem  
**MedPartnership**

Together for the Mediterranean Sea  
GEF UNEP

**An Integrative Methodological Framework (IMF)**

for coastal, river basin and aquifer management  
Towards converging management approaches  
for Mediterranean coastal zones



# Evolution of WEF E Nexus approach: planning, policies, operations & investment



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The need of moving from individual sectoral policies to integrated ones has been acknowledged early enough on bilateral and, later on, on trilateral level. The whole WEF E Nexus approach is, however, very recent.

**From:**

**Sectoral**



**to linear**



**to two-dimensional**



**to three-dimensional**



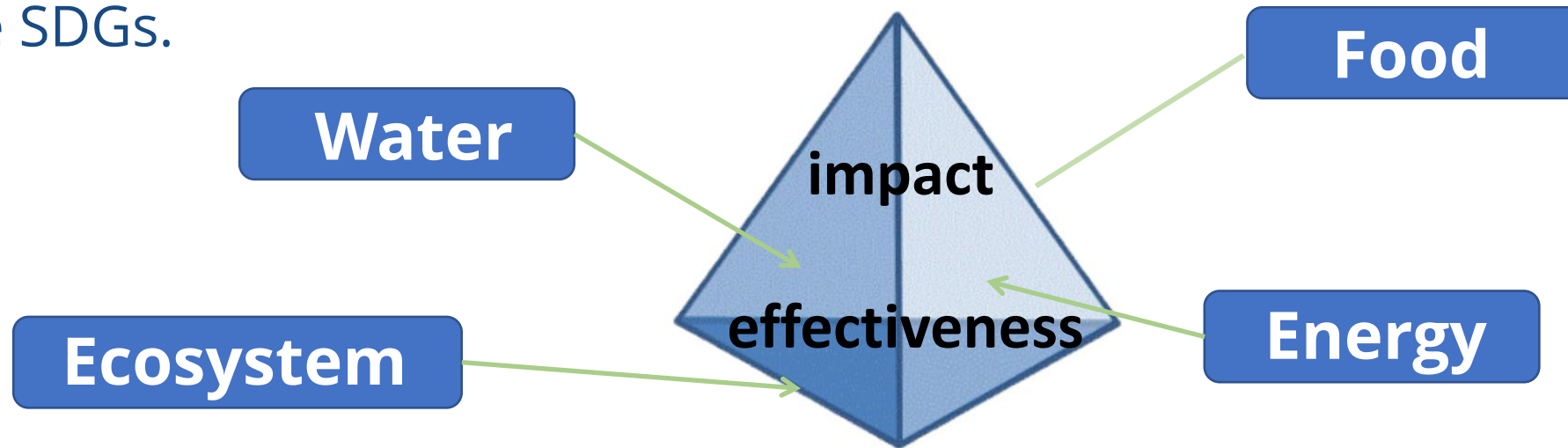


# The three-dimensional WEFE Nexus visualization



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The WEFE Nexus three-dimensional visualization facilitates the better understanding of the equal opportunities and legitimacy of all four sectors to be “entry points” and/or the “basis” of the Nexus. It also creates ample “space” for reasonable “trade-offs” within which the impact and effectiveness of policies, interventions and funding could be better coordinated and **optimized** in order to approach SD and achieve the SDGs.



# The WEFE Nexus Principles

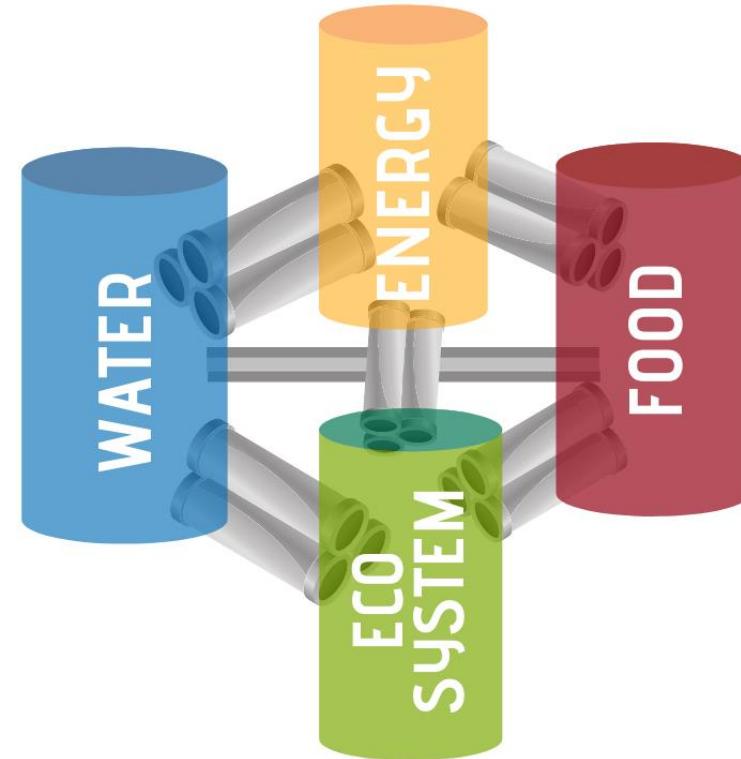


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Focusing on the **effectiveness, efficiency** and **equity** of the investment, and on the productivity of each one of the components.

Mutually recognizing among sectors the interdependencies and get involved in **rational and inclusive** dialogue and decision-making processes for **efficient** management of the components, allowing the implementation of synergies.

Encourage and maintain **coordination** and **appropriate investment**, including the need to optimize **sustainability of synergies**, by breaking down sectors silos.



# The Strategy for WEFE Nexus in the Mediterranean Source to Sea (S2S) Continuum



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Based on the outcomes and recommendations of the 1<sup>st</sup> Regional Roundtable that took place in Rabat (6-7 June 2023), endorsed by the UfM WEG, the drafting of the Strategy for WEFE Nexus in the Mediterranean Source to Sea Continuum was initiated, led by the UfM, the European Commission and UNEP MAP with the technical support of GWP-Med, WES and PRIMA to assist countries in enhancing integration of policy across sectors and to promote leveraging of necessary funding.

The WEFE Nexus was recognized as a priority in the Ministerial Declaration of the 23<sup>rd</sup> COP of the Barcelona Convention (Portoroz, 5-8 December 2023).

The draft strategy has undergone further broad consultations at the 2nd WEFE Nexus Regional Roundtable in 2024 in Tunis where regional and national players, representatives from local communities, financing institutions and academia have gathered to assess the added value of the WEFE Nexus approach.

The results have contributed to the currently ongoing finalisation of the Strategy.



# The Structure of the draft Strategy



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**Three Goals**, supported by a set of **eight Objectives**, are set to achieve the Strategy aim. The Goals and Objectives are complemented with **examples of directions for action**.

**Goal 1:** Appropriate institutional arrangements, policies, and cooperation frameworks are established at country and regional levels.

**Goal 2:** Efficient and effective planning, financing and implementation of management and technical solutions.

**Goal 3:** Informed decision making based on enhanced science-based knowledge, engagement of capacitated stakeholders, and increased public awareness.

The Strategy also provides the framework for the **implementation, monitoring and synergies** and elaborates on various types of necessary **financial means and capacities** to achieve the goals and objectives.



# The Objectives of the Strategy



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**Objective 1.1:** Develop and/or accordingly adapt appropriate governance structures at all levels to implement the Nexus approach in the S2S Continuum.

**Objective 1.2:** Mainstreaming WEFE Nexus approach in the S2S continuum into policies and strategies.

**Objective 2.1:** Shifting demo Nexus applications to mainstreamed implementation, through investments and market mechanisms.

**Objective 2.2:** Increasing capacities and financing for planning and implementation of Nexus interventions.

**Objective 3.1:** Promoting scientific research on WEFE Nexus and S2S aspects.

**Objective 3.2:** Ensuring data availability, harmonisation and sharing across sectors and borders.

**Objective 3.3:** Developing capacity of stakeholders to implement WEFE Nexus at the S2S Continuum.

**Objective 3.4:** Raising awareness and improving understanding concerning the WEFE Nexus at the S2S Continuum, and stimulating stakeholder's engagement for their implementation.



# “Gendering” of WEFE is also important



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Sustainable development and gender equality are intricately linked, as also stressed by Sustainable Development Goal 5. However, the management of water and the broader Water-Energy-Food-Ecosystems (WEFE) Nexus remain predominantly a male-dominated domain. Moving beyond and eradicating gender stereotypes and biases, necessitates the adoption of a gender transformative approach for a paradigm shift and eventually for a behavioural and cultural change in the Mediterranean region. Leveraging the rich cultural heritage of the Mediterranean, art can play a pivotal role in fostering this change and as a catalyst for reimagining societal perceptions and behaviours.

‘Gendering’ the Water-Energy-Food-Ecosystems (WEFE) Nexus, also within the UfM Water Policy Framework for Actions 2030, is a multi-dimensional endeavour requiring: the adoption of gender inclusive policies and governance reforms solidly informed by sex-disaggregated data; targeted capacitation and empowerment to enhance women's skills in leadership, entrepreneurship, and project management; the preservation and dissemination of traditional knowledge, with a focus on nature-based solutions and frugal innovations; and sustainable mechanisms for accessing diverse financial resources and achieving true economic empowerment.



LDK CONSULTANTS LDK Consultants Global EEIG



Together with more than 65 stakeholders and with interventions from esteemed panellists, the following recommendations -in random order- are suggested to urge the need for ‘gendering’ the WEFE Nexus, also within the UfM Water Agenda:

This Project is funded  
by the European Union



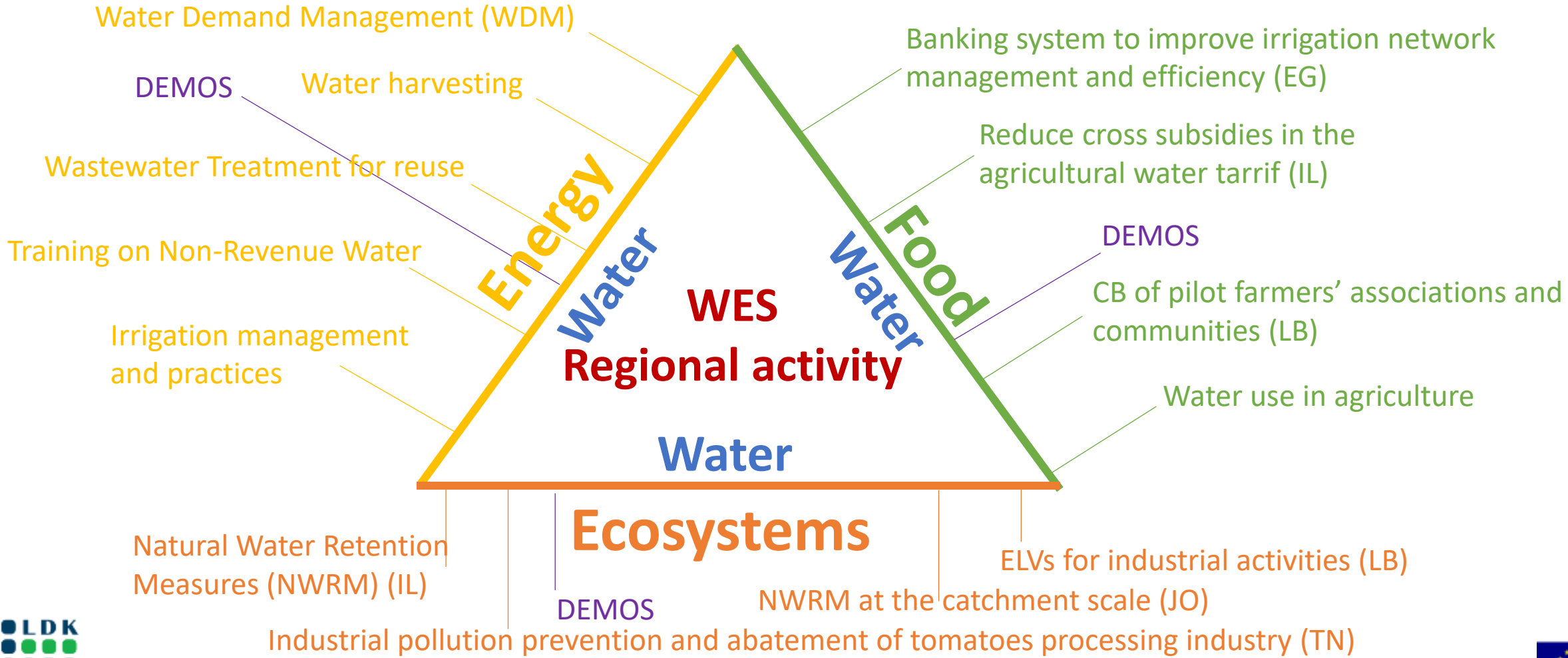
# Towards WEFE Nexus implementation

## Capitalizing on already active synergies across “interfaces”



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### The WES Regional and National attempts related to WEFE and S2S



# WEFE Nexus – Assistance to National & Local Action Planning & Investment prioritisation



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

## Regional (Mediterranean) / Sub-Regional (MENA and SEE)

What: **WEFE Nexus Multi-stakeholder Dialogue facilitated, Capacity Developed, Knowledge transferred**

**National: Albania, Lebanon**

**Local: Jordan, Palestine, Morocco (Tangiers-Tetouan)**

**Transboundary: Drin, Drini, Drina, North Western Sahara Aquifer**

What: **WEFE Nexus Assessment conducted, Strategy/Action Plan elaborated, Demos/Pilots implemented, Investments identified, Employability/Entrepreneurship promoted (Youth, Capacity developed, Knowledge transferred, Gender mainstreamed)**



**Supporting projects 2018-2025**

## MENA Water Matchmaker I & II



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



SWEDEN

## WEFE Nexus in SEE Project



Regional Cooperation Council



Austrian  
Development  
Agency

## 'GEF UNEP/MAP MedProgramme'



Mediterranean Action Plan  
Barcelona Convention





# Making Water Cooperation Happen in MENA: Piloting Tangibles

## MENA Water Matchmaker 2 Jordan & Palestine



The MENA Matchmaker (Sida/UfM) has elaborated 10  
fiches for Nexus pilot technical solutions in the field,  
and presentations to donors for financing.



# GEF UNEP/MAP MedProgramme Nexus Project: Methodology

Analysis



Identifications of Issues



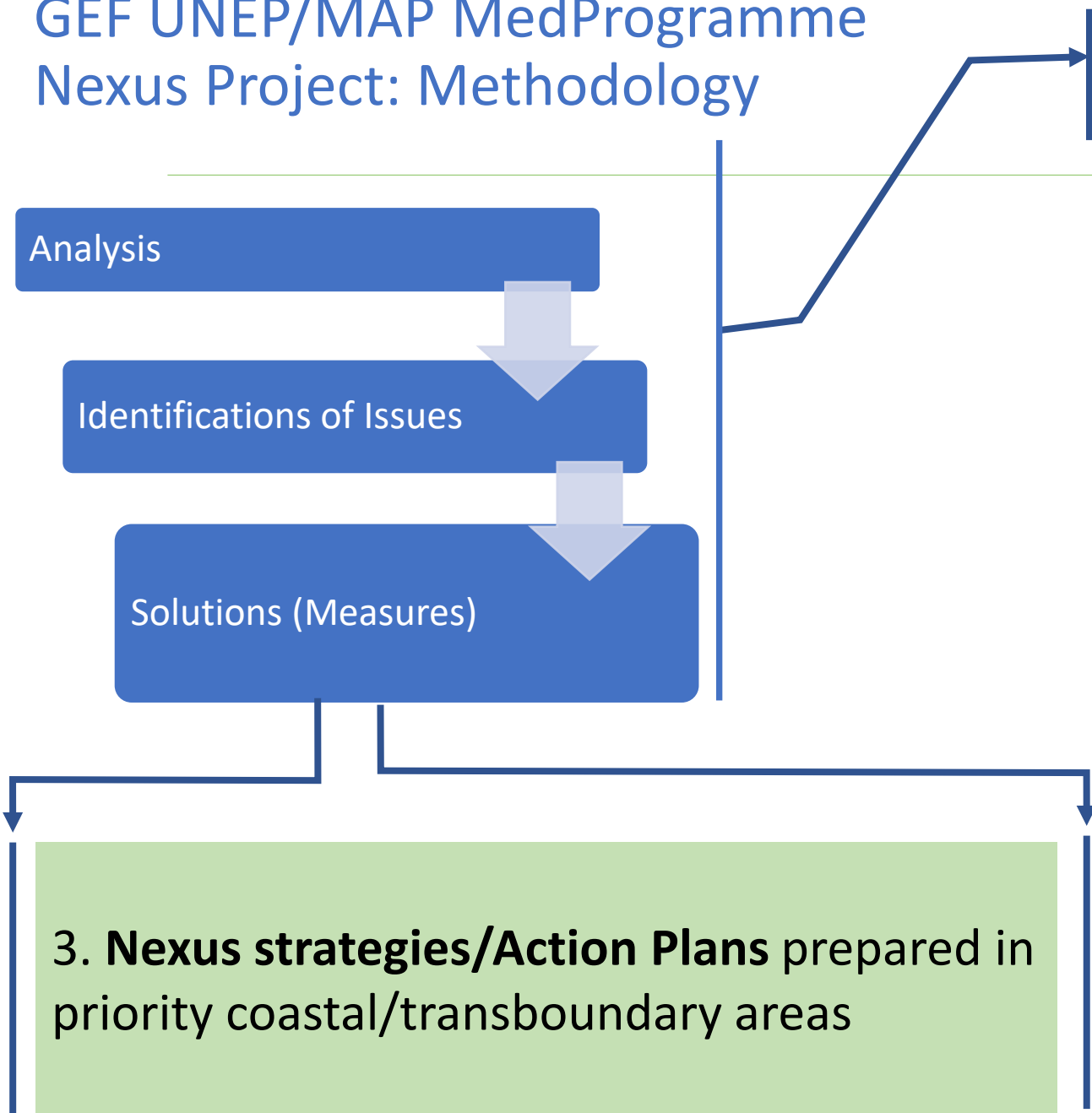
Solutions (Measures)

1. Water-energy-food-ecosystems **Nexus Assessments** in priority coastal areas

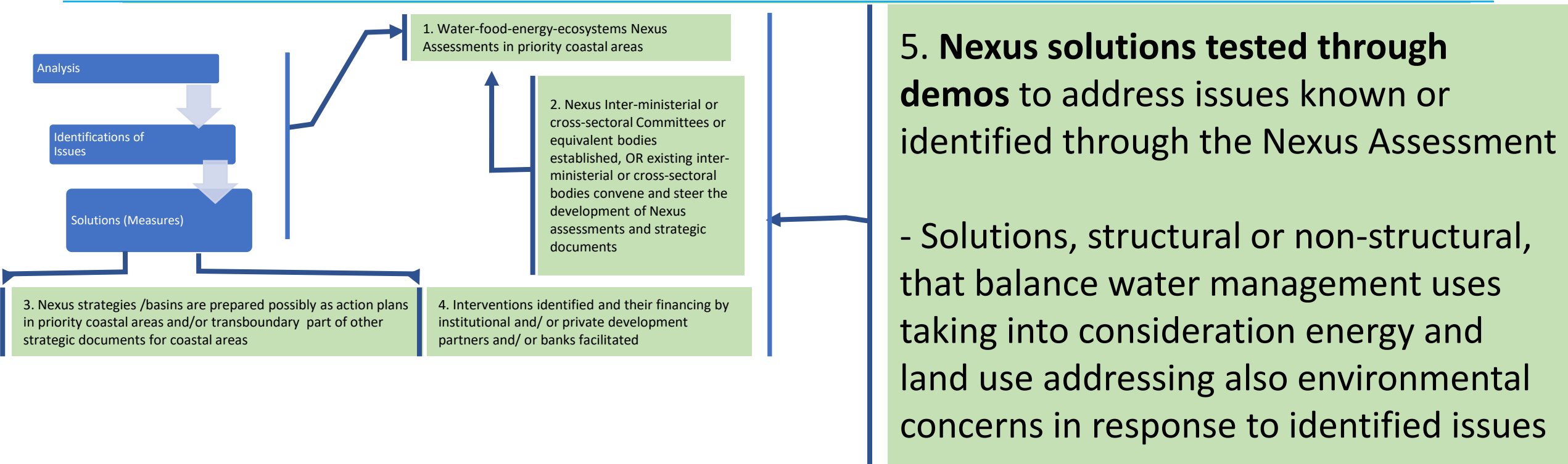
2. **Nexus Inter-ministerial or cross-sectoral Committees or equivalent bodies established, OR** existing inter-ministerial or cross-sectoral bodies steer the development of Nexus Assessments and strategic documents

3. **Nexus strategies/Action Plans** prepared in priority coastal/transboundary areas

4. **Interventions identified** and their **financing** by institutional and/ or private development partners and/ or banks facilitated



# GEF UNEP/MAP MedProgramme Nexus Project: Methodology



## Overarching activities:

6. **Capacity Building** on Nexus approach and Assessment
7. **Regional dialogue** on the Nexus approach
8. **Stakeholders Involvement and Gender Mainstreaming Strategy (SIGMS)**
9. **Information Communication and Outreach Strategy (ICOS)**



Thank you  
for your attention  
and keep up with  
our latest news!

**WES-MED.EU**

