Water, Energy, Food Security Nexus
in the MENA Region

within the GIZ Programme
“Adaptation to Climate Change in the Water Sector in the MENA Region” (ACCWaM)

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Outline of the presentation

1. Objective of the study
2. Methodology adopted for the pilot countries
3. Presenting the case study in Jordan:
   - Key critical interlinkages of the WEF Nexus
   - Existing policy framework for WEF nexus
   - Existing coordination modalities
   - New coordination modalities
   - Priority capacity development needs
Why a nexus study in the MENA region

The study’s core objectives

➢ Identify entry points, processes and partners for WEF nexus mainstreaming into regional and national policies and institutions in the MENA region

➢ Through adoption of a nexus approach support to national SDG implementation and climate change adaptation
Which nexus? Resources & Securities
National approach of the WEF nexus

1. Evidence base: identify priority WEF interlinkages
2. Identification of cross-sectoral institutional mechanisms and policies
3. Identification of a capacity development needs related to priority interlinkages
4. National dialogues to validate recommendations for WEF nexus mainstreaming
5. Guidelines for policy integration in selected countries
National WEF nexus steps

Assisting countries to have a nexus vision:

1. **Evidence Base** on resources and human security situation and trends in the region and in the pilot countries

2. **Institutional and Capacity Assessment** based on a review of the most important strategies, policies and institutional arrangements and on interviews with key stakeholders

3. **Guidelines for mainstreaming of the WEF Nexus** to be jointly developed with the concerned stakeholders for implementation at national and regional level
Priority key interlinkages for WEF nexus

1. Energy use for water treatment and conveyance
   - Around 15% of Jordan’s total power production goes into pumping water.
   - The energy bill of the Jordanian water sector in 2014 amounted to 301 million JD (of which 54% were energy subsidies that the government paid)
   - The energy demand of the water sector is projected to increase by more than 50% from 2017 to 2025

Opportunities:
- increasing energy efficiency in water treatment and conveyance (reducing pressure and leakages)
- reducing disincentive subsidies
- increasing use of renewable energy in the water sector
- exploiting potential to generate energy from wastewater
2. Water use for power generation

✓ Jordan’s strategy includes objectives to increase domestic production through oil shale, and nuclear energy

✓ Some of these solutions can be water intensive, e.g. production from oil shale and cooling of nuclear power plants

Opportunities

✓ existing objectives to promote renewable energy (planned to reach 10% of the energy mix by 2020)

✓ focusing on non-water intensive renewable energy sources
Priority key interlinkages for WEF nexus

3. Water use for food production

- The agricultural sector uses 65% of total water resources (but generates only 3% of GDP)
- Efforts to increase food security need to take into account effects on water security

Opportunities

- increasing water-use efficiency, improving agricultural practices, including drip irrigation
- promoting reuse of treated wastewater and non-conventional water sources for agricultural irrigation
- reducing disincentives, such as energy subsidies for pumping water in the agricultural sector
Existing policy framework for WEF nexus

“Resource Security” within the framework of Jordan’s Vision 2025

- “Sustainable long-term management of food, energy and water requirements” as part of an efficient and effective Government response
Existing policy framework for WEF nexus

1. Executive Development Programme (2016-2018)
Covers WEF sectors without capturing important interlinkages
- opportunity to ensure that the preparation of the next EDP
- adopting a WEF nexus approach
- priority programmes and plans includes key interlinkages

2. Significant and solid policy framework and which can be used as an entry point for WEF Nexus mainstreaming in Jordan
- National Water Strategy 2016-2025 and the Water Policies,
- National Strategy for Agricultural Development 2016-2025
- Pathways towards a Green Economy
- Sustainable Consumption and Production Action Plan in the agricultural sector and food production
- Intended Nationally Determined Contribution (INDC) of Jordan
Existing coordination mechanisms

At the level of each sector
- technical committees established cross-sectoral in nature
- mandates not dedicated to mainstreaming of WEF nexus
- Example: National Committee for Water Scarcity

At a more cross-sectoral level
- national committees for the Rio Conventions: CC, BD, CCD
- National committee for Disaster Risk Reduction

Other inter-sectoral mechanisms
- mandated with aspects related to the WEF nexus
- exist at the highest political levels in Jordan
- Supreme National Committee for Sustainable Development
- Highest Committee for Green Economy
New coordination mechanisms

1. Establishing a WEF Nexus Council at the level of the Prime Ministry
   - similarly to the Economic and Social Council
   - institutionalize participatory actions and partnerships between the public and private sector
   - advance WEF Nexus interlinkages at the highest political level

2. Establishing a WEF Nexus Committee at the level of the Ministry of Planning and International Cooperation
   - composed of the sectors’ “Liaison Officers” (ضابط ارتباط)
   - mainstream WEF nexus within policies and programmes under the Executive Development Programme (EDP) of Jordan in line with the Jordan Vision 2025
Priorities for Capacity Development Needs

1. Strengthening M&E systems for mainstreaming priority WEF Nexus interlinkages

2. Data bases and data/information management for mainstreaming the WEF Nexus

3. Strengthening the technical capacities related to the priority WEF Nexus interlinkages

4. Communication and outreach on the WEF Nexus approach
Thank you!