



Integrated WEFE NEXUS Governance in Jordan- Drivers and benefits

Moderated by:
Dr. Bassel Daher
Texas A&M University, GIZ

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NEXUS

Session Objectives



1. Examine **existing barriers** and the **key drivers and benefits** of establishing an **integrative framework for the governance** of the **Water, Energy, Food, and Environment (WEFE) NEXUS**, for an effective and sustainable management of resources and climate protection in Jordan.
2. Highlight **national efforts** toward improving WEFE NEXUS governance structures and arrangements.
3. Facilitate a **dialogue on challenges and opportunities** of enhancing cross-sectoral strategy coherence and the potential role of a dedicated WEFE governance structure in achieving this goal.

Session Agenda



Moderator: Dr. Bassel Daher, Texas A&M University; GIZ	
Topic/Presentation	Speaker
Introducing the WEFE Nexus: Framing the Imperative for Integrated Governance	Dr. Bassel Daher , Research Scientist, Texas A&M Energy Institute; Research Fellow-Institute for Science, Technology, and Public Policy-Texas A&M University; Consultant, Gesellschaft für Internationale Zusammenarbeit (GIZ)
International WEFE NEXUS Governance Examples and lessons learned	Dr. Nadejda Komendantova , Senior Research Scholar, The International Institute for Applied Systems Analysis; Consultant, Gesellschaft für Internationale Zusammenarbeit (GIZ)
Introduction of the New WEFE NEXUS governance framework in Jordan and the link to the Public Sector Modernization	Eng. Widad Qutaishat , Public Modernization Implementation Office-PM
Panel Discussion	
<p>Panelists:</p> <ul style="list-style-type: none"> • H.E. Dr. Jihad Mahamid-Secretary General of MWI • Eng. Widad Qutaishat-Public Modernization Implementation Office-PM • Mr. Ahmad Al Hawyan, Assistant Secretary General and Public Investment Management Unit, MoPIC • Eng. Yacoub Marar, Director of Renewable Energy & Energy Efficiency Department • Eng. Talal Judeh-Secretary General of MoA 	



Introducing the WEFE Nexus: Framing the Imperative for Integrated Governance

Bassel Daher, PhD

Texas A&M University; GIZ

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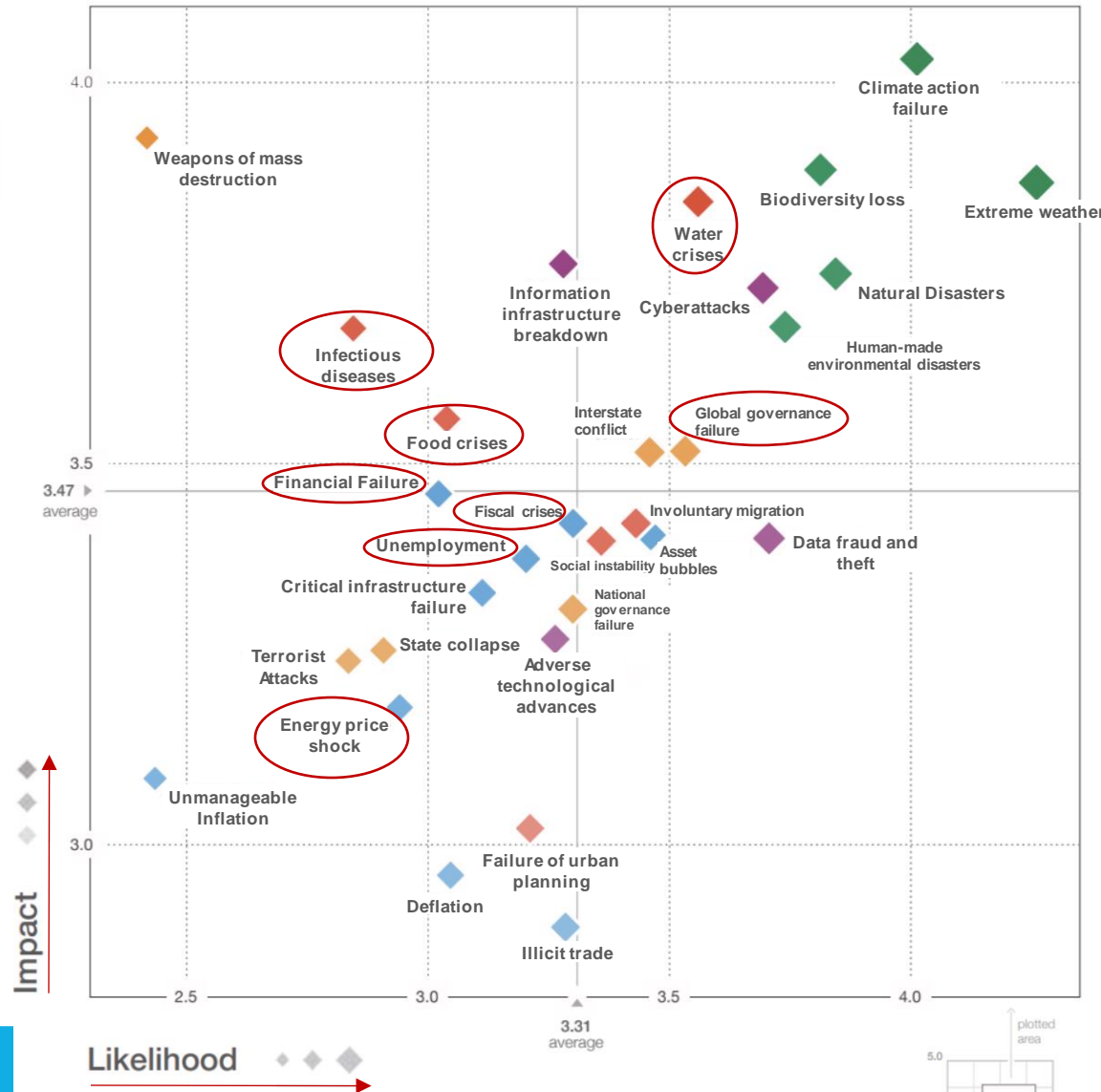
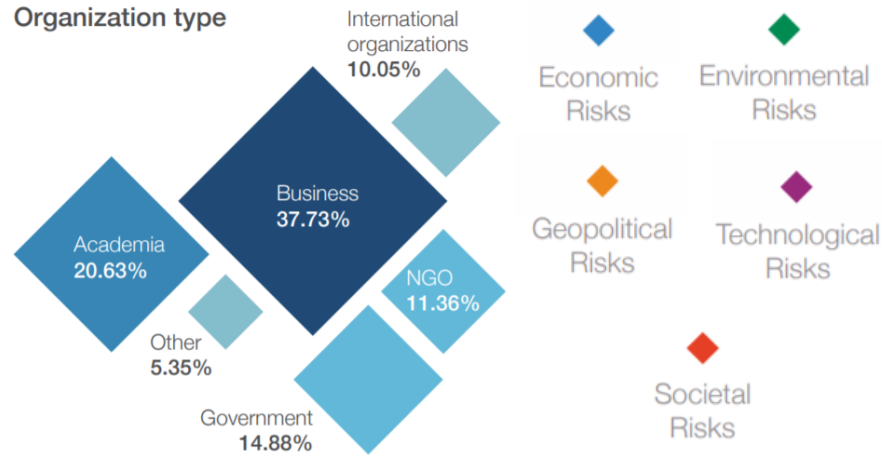
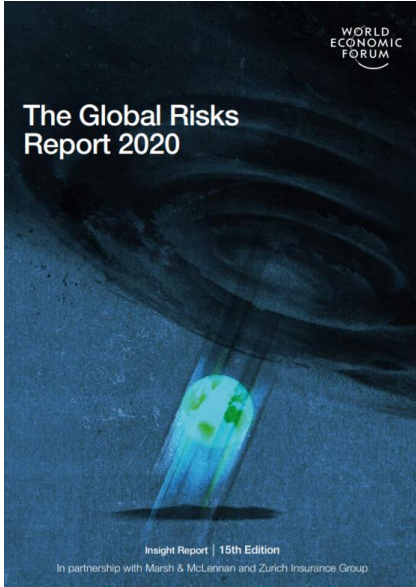
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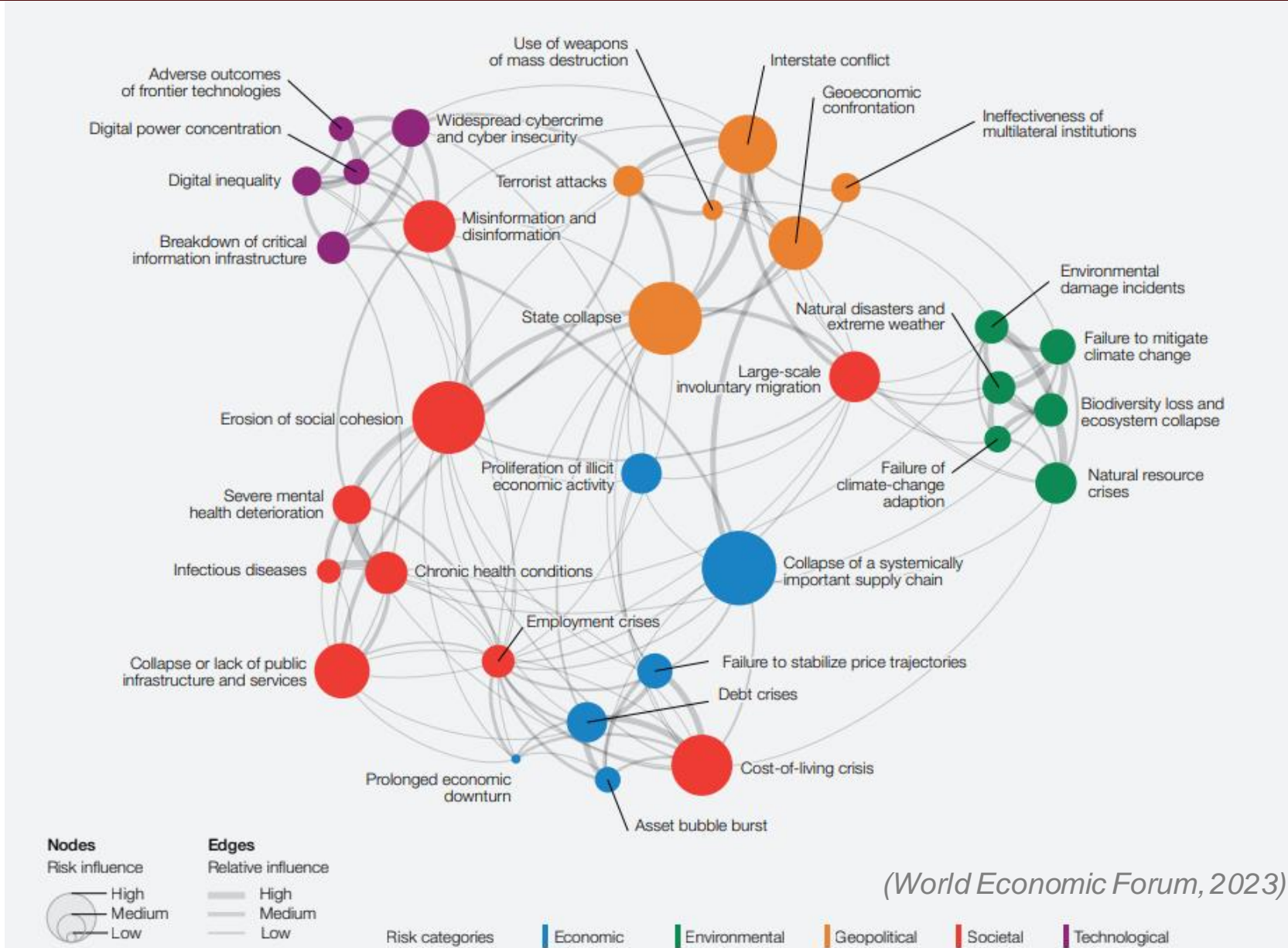
Global Risks Landscape 2020



- Wide range of **complex challenges**
- **Highly interconnected** challenges
- **Hard to predict**
- Need for **systems thinking**
- Require **rapid response**
- Require **high level of cooperation**

- **Infrastructure for improving future resilience:**
 - environments to innovate at the interface of different disciplines
 - environments to innovate in ways diverse actors cooperate

Global Risks Landscape 2023



2.2 Billion people
lack access to
safe drinking water

WATER
+55%
by 2050

70% of freshwater
used by
agriculture sector

15% of global freshwater
withdrawals for energy
production

30% of world energy
consumed by food sector

FOOD
+50-60%
by 2050

783 Million people
suffer chronic hunger

746 million people
lack access to
electricity

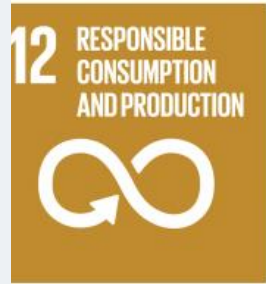
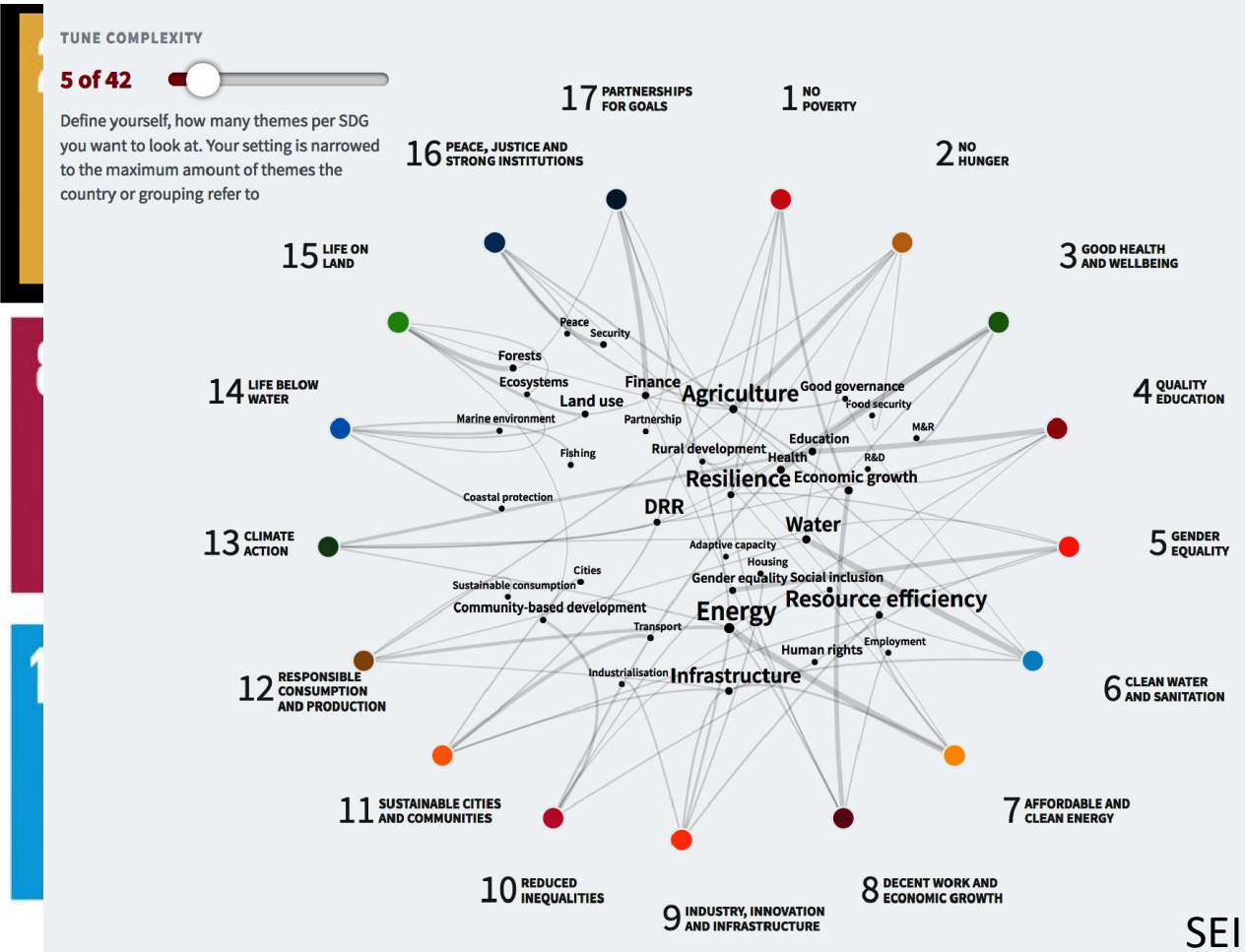
ENERGY
+80%
by 2050

United Nations Sustainable Development Goals

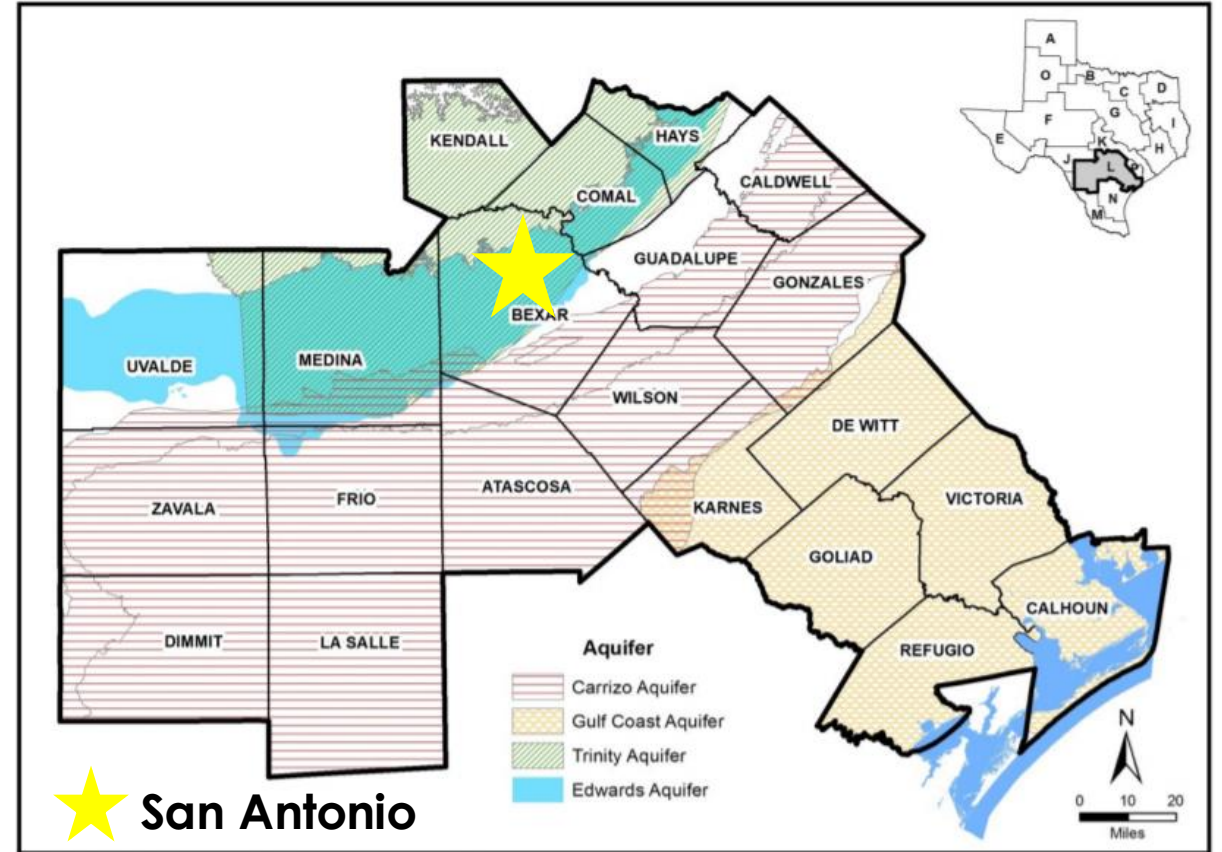
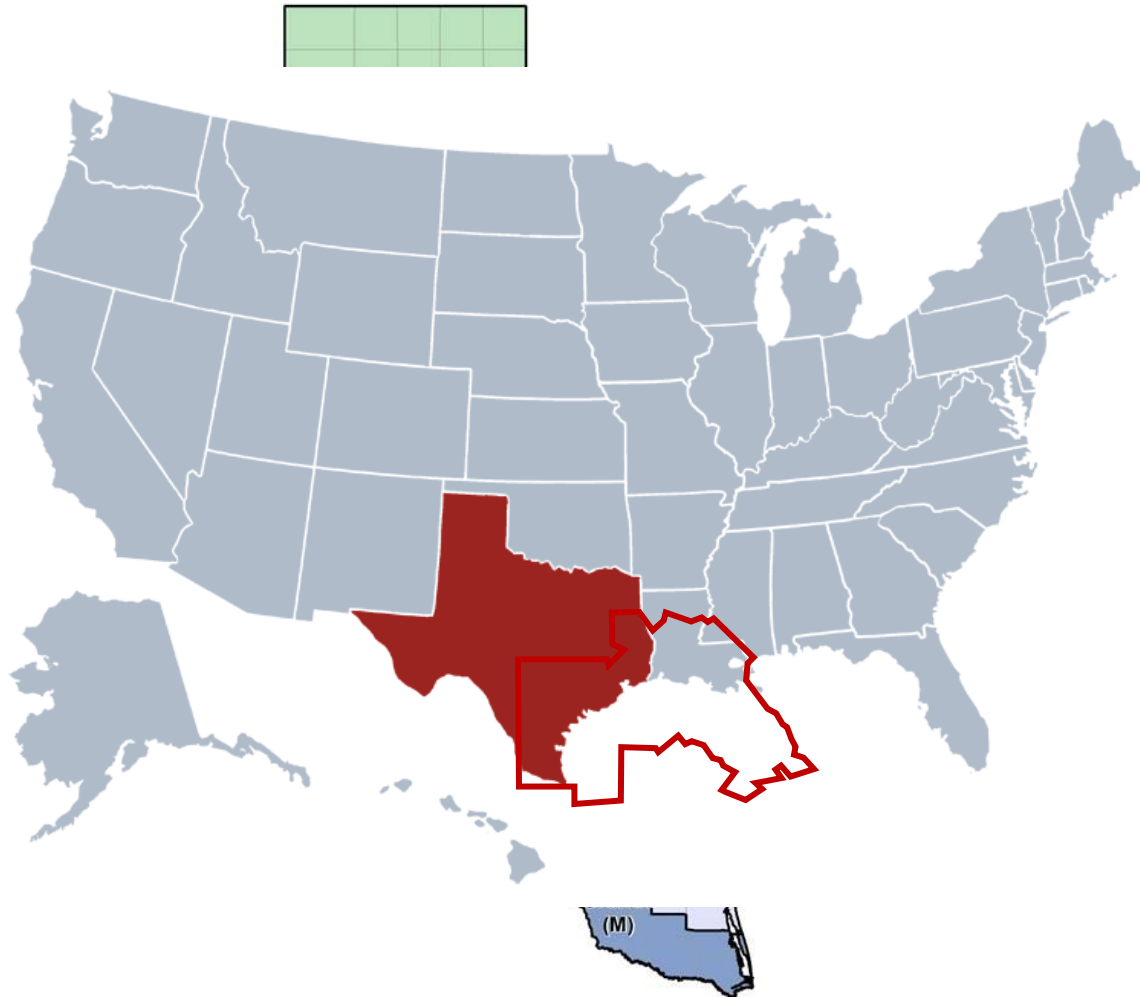


SUSTAINABLE DEVELOPMENT GOALS

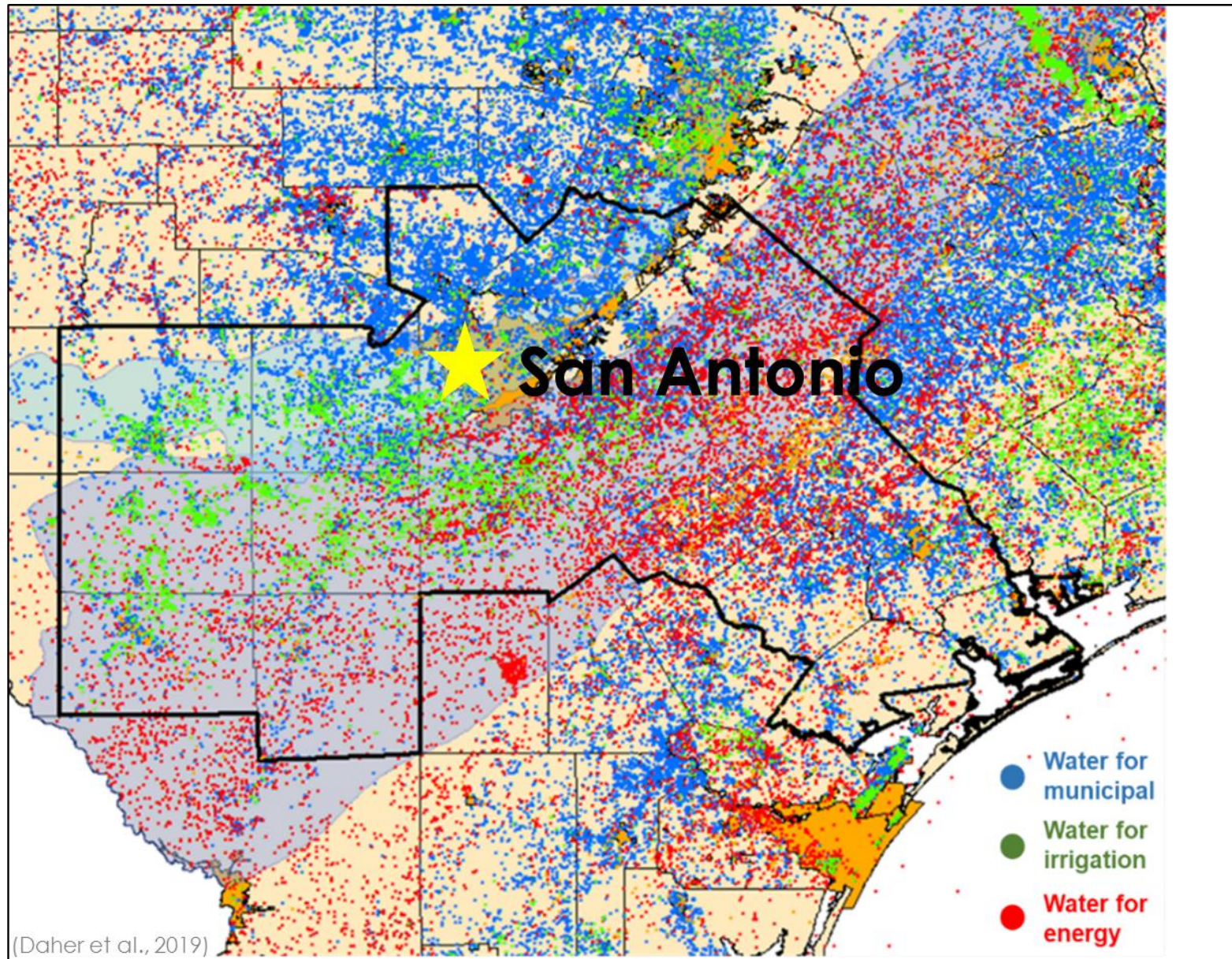
17 GOALS TO TRANSFORM OUR WORLD



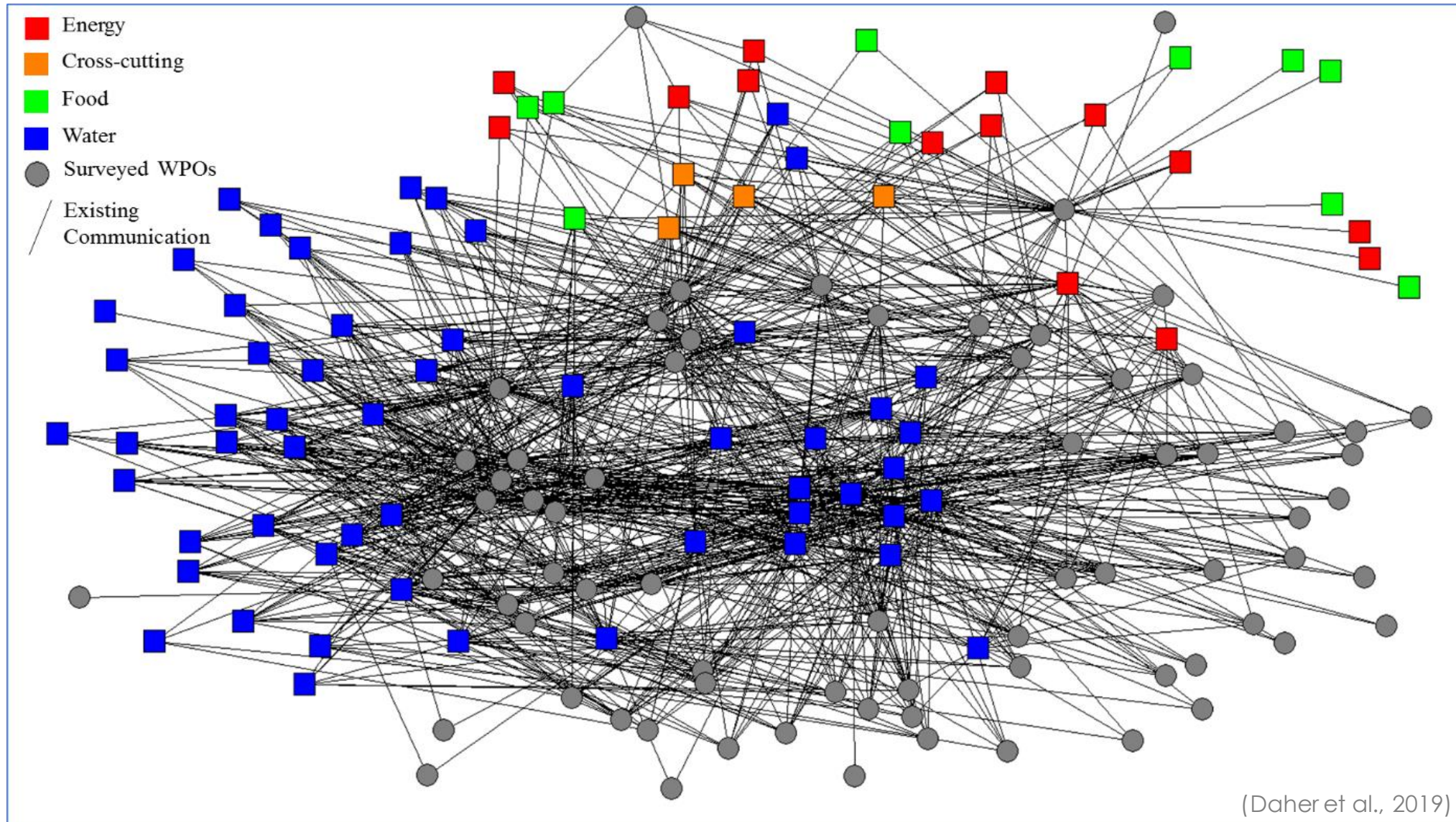
Study Area: San Antonio Region, Texas



Water-Energy-Food Nexus Hotspot



Network Map: any level of communication



Stakeholder Engagement Workshop



Barriers to Communication



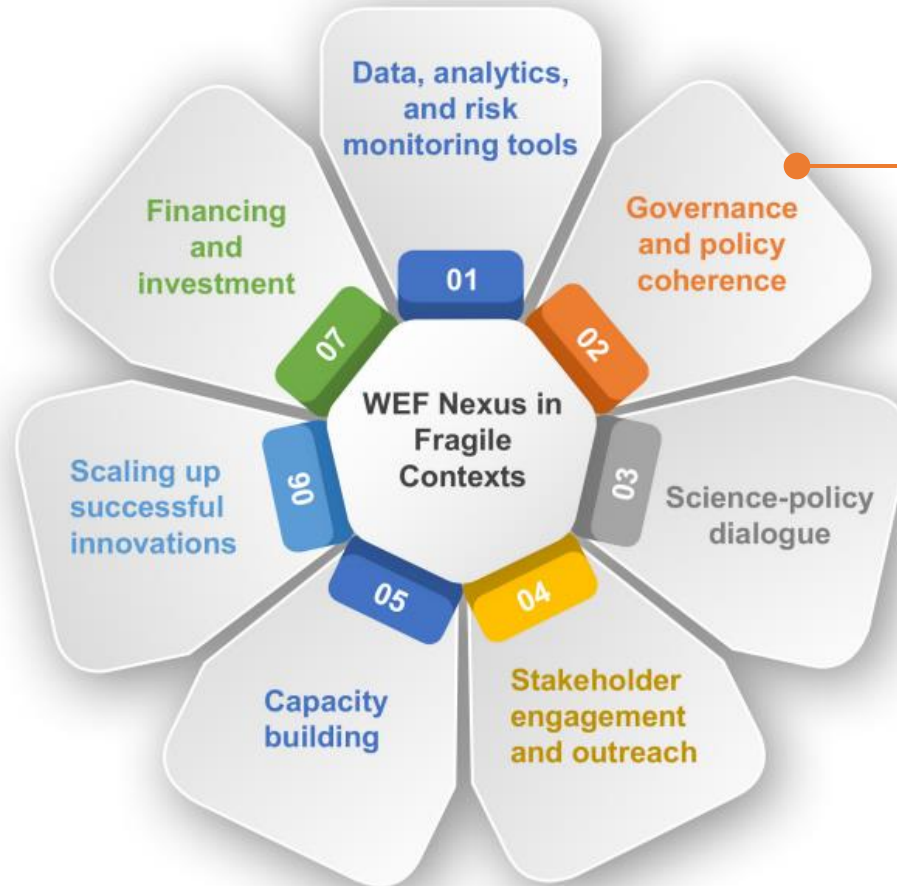
*Stakeholder Engagement Meeting in
San Antonio, TX*

1. **Legal and procedural barriers:** Institutional mandates and lack of coordination mechanisms.
2. **Financial:** who will pay for the time and effort involved in pursuing increased communication?
3. **Uniformity of Language** (units, abbreviations, syntax and context of problems and solutions).
4. **Planning Horizons** differ for water, energy, and food (10 to 50 years) causing ideological differences and creating barriers.
5. **Different values systems** differ across sectors and organizations.
6. **Competition** between local, regional, global organizations and across industries leads to issues of confidentiality, restricted data.
7. **Self-interest versus collective goals** - Silo mentality
8. **Lack of common goals** and collaborative projects

Governance and Policy Coherence



Seven Strategic Action Areas



- Foster coordination and policy coherence between sectors and empower stakeholders through bottom-up approaches in policy formulation and implementation.
- Refine alignment of strategies across different sectors through the development of collective outcomes and goals, to enhance transparency and foster synergies.

(Al-Zu'bi, M.; Daher, B.; Brouziyne, Y.; Laamrani, et al., 2023)

IWMI
International Water Management Institute

Policy Brief

Building resilience in fragile and conflict-affected agrifood systems through a water-energy-food nexus approach

Fragility has become a prevailing reality in an increasing number of countries in various areas, including Central and West Asia and North Africa (CWANA) [1]. The concept of fragility encompasses a range of dimensions, including armed conflict, migration, economic and political instability, erosion of the social fabric, and scarcity, depletion, and contamination of natural resources [2]. The World Economic Forum's recent survey data highlights the significant risks the region is least prepared to face, with water crises ranking among the top risks, followed by profound social instability, state collapse, and interstate conflict [3]. These risks are all interconnected with situations of fragility posing existential threats to the prosperity and well-being of millions of people living in the region.

The CWANA region, which spans a vast area across Central and West Asia and North Africa including all countries covered by the United Nations Economic and Social Commission for

Drying water pond in Jordan, July 2020 (photo: Semra Akaba / IWMI)



Overall reflections



- **Despite growing evidence of the tight interconnectedness** of WEFE systems across scales, **little coordination exists for planning, financing, and governing** these sectors.
- **Plans are often developed within institutional silos** with little recognition to the interdependencies.
- Adopting a **systems approach** is at the core of understanding these interconnections and ensuring coherent and effective actions are adopted across sectors.
- There is a need for developing **new innovative frameworks and coordination mechanisms** that allow a proper evaluation of the *synergies and trade-offs* associated with different technical and policy interventions being considered across sectors.
- This requires the development of a **common vision** and **success metrics** to ensure **coherence between cross-sectoral policies**.
- It also requires the development of innovative **shared financing and governance models** that can ensure the implementation of solutions that address the tight interconnectedness between sectors.

Contact Details

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