

Assessment of the Food-Energy-Water Nexus Governance in Lebanon

Raji Maasri

Water Resource Management & Environmental Expert
(General Manager, MORES s.a.r.l.)

Sami Atallah

Institutional/Governance Policy Expert
(Director, The Policy Initiative)

24 August 2022

The NEXUS Approach

- The **NEXUS approach** is a method that **perceives** the sectors of **agriculture, water, and energy** that are related as **one cohesive and intertwined sector**
- It is a **process** through which a holistic framework can be developed **to ensure that policies anticipate and better manage conflicts** between different stakeholders and uses of the resources
- The **NEXUS approach** considers interactions between diverse goals and sectors to **address interconnected challenges by identifying synergies and trade-offs.**

Lebanon's Case

- In Lebanon, the **Water-Energy-Food-Ecosystems (WEFE)** sectors and natural resources **suffer from various problems** affecting their performance and **preventing them from meeting the various needs of the country's** residents (including refugees).
- The **series of crisis** in the past few years (COVID-19 pandemic, economic and fiscal crises, Beirut port explosion, etc.) **affected the selected Nexus sectors** considerably, and **highlighted their interlinkages**

Lebanon's Case

- **Climate change implications** has become a rapidly **growing concern** for most governments, and **Lebanon is no exception**. It is a cross-cutting issue affecting the four **WEFE sectors** to various extents and **increasing pressure on natural resources**
- Intrinsic sectorial policies and regulations have directly led to depletion of natural resources and **limit the replenishment of water reservoirs**
- **Human activities are impacting natural resources** through:
 - **Hap-hazard Urbanization (and paved infrastructure) and over-exploitation** leading to resource depletion
 - **Pollution of these scarce resources** due to various activities

The Dilemma

Balancing of competing water uses through WEFE integrated governance to enhance environmental security and sharing of benefits in its four sectors, is faced by:

- **Non-alignment with boundaries** (watersheds and political),
- **Lack of science in policy making** (geology, supply rather than demand, etc...)
- **Opposing & destructing processes in territorial management and real estate** that's is mainly led by demand, spear headed by engineering, contracting and brokerage
- Depletion of aquifers & diversion of water from recharge through the works of central and local authorities: MoPWT; MoIM, (municipalities, DGUP/Order of engineers), MoEW, Engineers & contractors, “agricultural projects”, etc.

All result in weakening the resilience to climate change, and countering adaptation....

The Project

- Part of phase 1 of in the framework of Child Project 2.2 (CP 2.2) of the GEF/UN Environment “Mediterranean Sea Programme (MedProgramme)”
- **Assesses current situation of WEFE sectors on various levels**
- **Assesses Governance**
- **Identifies main interlinkages** between sectors
- The final product:
 - **proposition of WEFE Nexus priority thematic issues, concepts and projects**
 - **recommendations**

Objective

Aim is to achieve food, energy, and water **securities**, ecosystem protection, well being, poverty reduction and sustainable development

Need an **integrated approach** to reduce tradeoffs and increase **synergies** ... however the technical lens failed as interlinkages are “**mediated**” by institutions & **governance** ... which “includes the full complexity of processes and interactions, as formulated and implemented by diverse state and non-state actors, to steer and/or coordinate resource use (Pahl-Wostl 2009)

Landscape of WEFE nexus governance in Lebanon

The WEFE sectors in Lebanon have traditionally been managed independently, with plans/strategies being developed without effective consultation of involved stakeholders.

Existing frameworks featuring WEFE interlinkages

- Water Code (law 77/2018 amended by law 192/2020)
- Nationally Determined Contributions (NDC, 2020)
- National Agriculture Strategy (2020-2025)
- Ministerial Committee for Food Security (formed on March 2022)

Main Challenges with “Nexus” Attempts

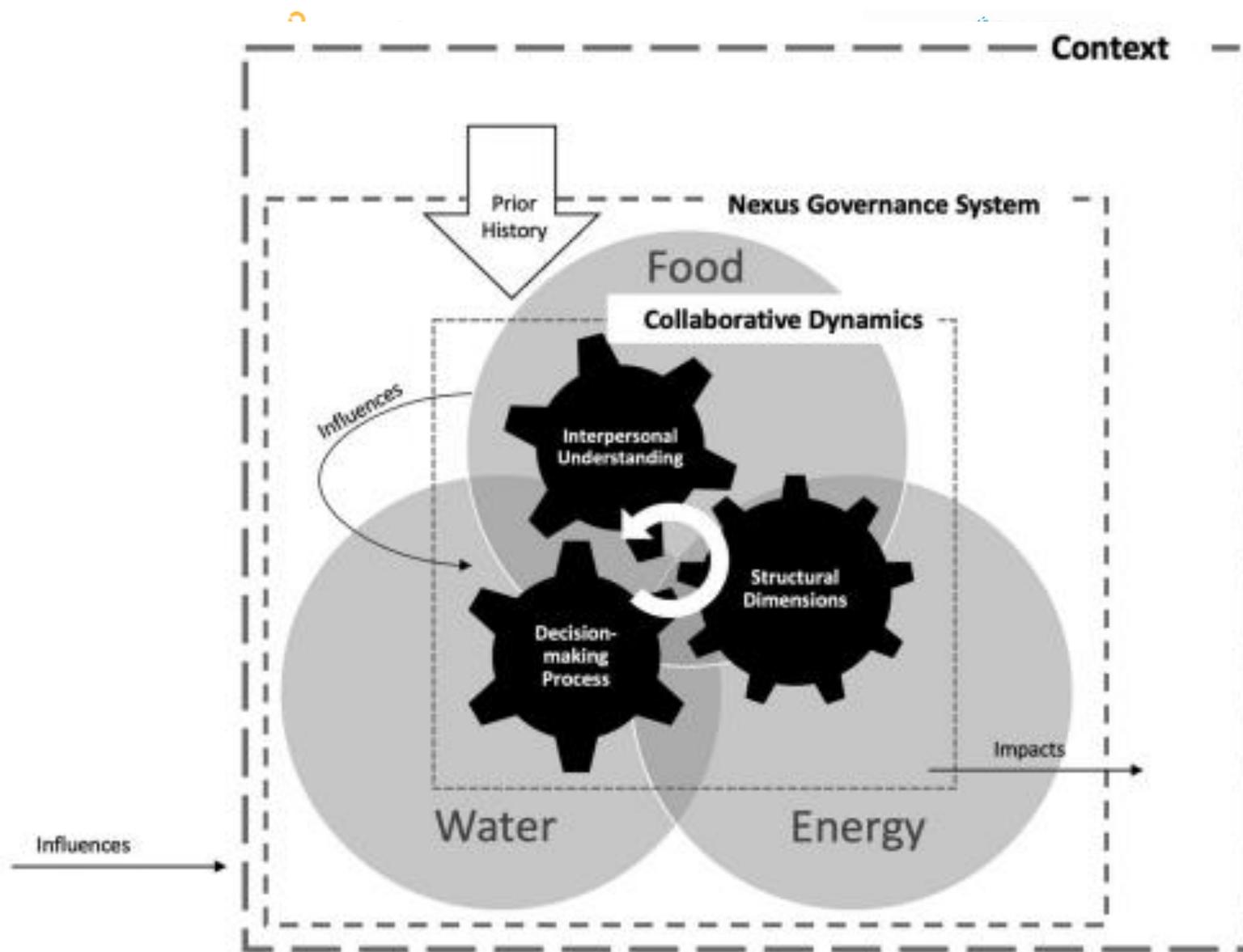
- The **Water Code** features a National Water Council bringing together relevant ministries from WEFE sector and promotes Integrated Water Resource Management, that “promotes the coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems” (UNEP).
- The Water Code still lacks executive decrees, impeding implementation
- The amendment of the Water Code was stripped the National Water Council of decision-making authority, limited to advisory

Main Challenges with “Nexus” Attempts

- **NDCs** include cross-sectoral priorities and activities based on sectoral strategies, however without clear regulatory or institutional framework to enable implementation, nor indications on the sources of funding.

Main Challenges with “Nexus” Attempts

- The **National Agriculture Strategy** introduces an inter-ministerial committee, with decision-making and policy-making authority without specifying particular involved institutions. The committee is yet to be formed.
- The **Inter-Ministerial Committee for Food Security** only approaches the issue of food security from an import perspective, does not tackle local production, and lacks a representation of MoEW while including other less involved ministries such as Culture.



- Source: J. Leah Jones-Crank, Dave D. White, Rimjhim Aggarwal & Rob Melnick (2022): An Assessment Framework for Integrated Food-Energy-Water Nexus Governance: Application to the Cases of Phoenix and Cape Town, Society & Natural Resources, 2022

Dimensions	Definitions
Structural Dimensions	Refers to socio-political arrangements between the sectors and the actors w/in the sectors, encompassing capacity for joint action
- Institutional Support	Structure of stakeholders' interactions with one another that support cross sector collaborative governance
- Actor Inclusivity	Inclusion of different actors from food, energy, and water sectors in engagement
- Intentional Leadership	Intentional leadership by an actor or sector to bring actors to the table or keep the process moving
- Shared Resources	Finances, time, skills, personnel, or capital resources shared in engagement
- Knowledge Sharing	Knowledge, data, or information shared between sectors
Decision-Making	Ways in which stakeholders w/in each sector evaluate alternatives and outcomes to make informed choices under specific contexts and uncertainties
- Shared Goals	Shared purpose, vision, or goals between the food, energy, and water sectors
- Open Communication	Effective and open communication or dialogue across food, energy, and water sectors
- Power Balance	Efforts to overcome or understand power dynamics between sectors
Interpersonal Understanding	Focuses on the relational elements within the collaboration and provides a needed foundation of common understanding or agreement for coordination that must be established before or in the beginning stages of the engagement
- Trust	Presence of trust or belief that all actors are acting in good faith or with good intentions
- Commitment	Shared commitment or dedication to the cross sector collaborative process and a willingness to participate
- Shared Values	Shared interests, values, or perspectives between sectors

Thank You!