



Contextualizing the Nexus Approach for the MENA Region

Making it Work for Municipalities

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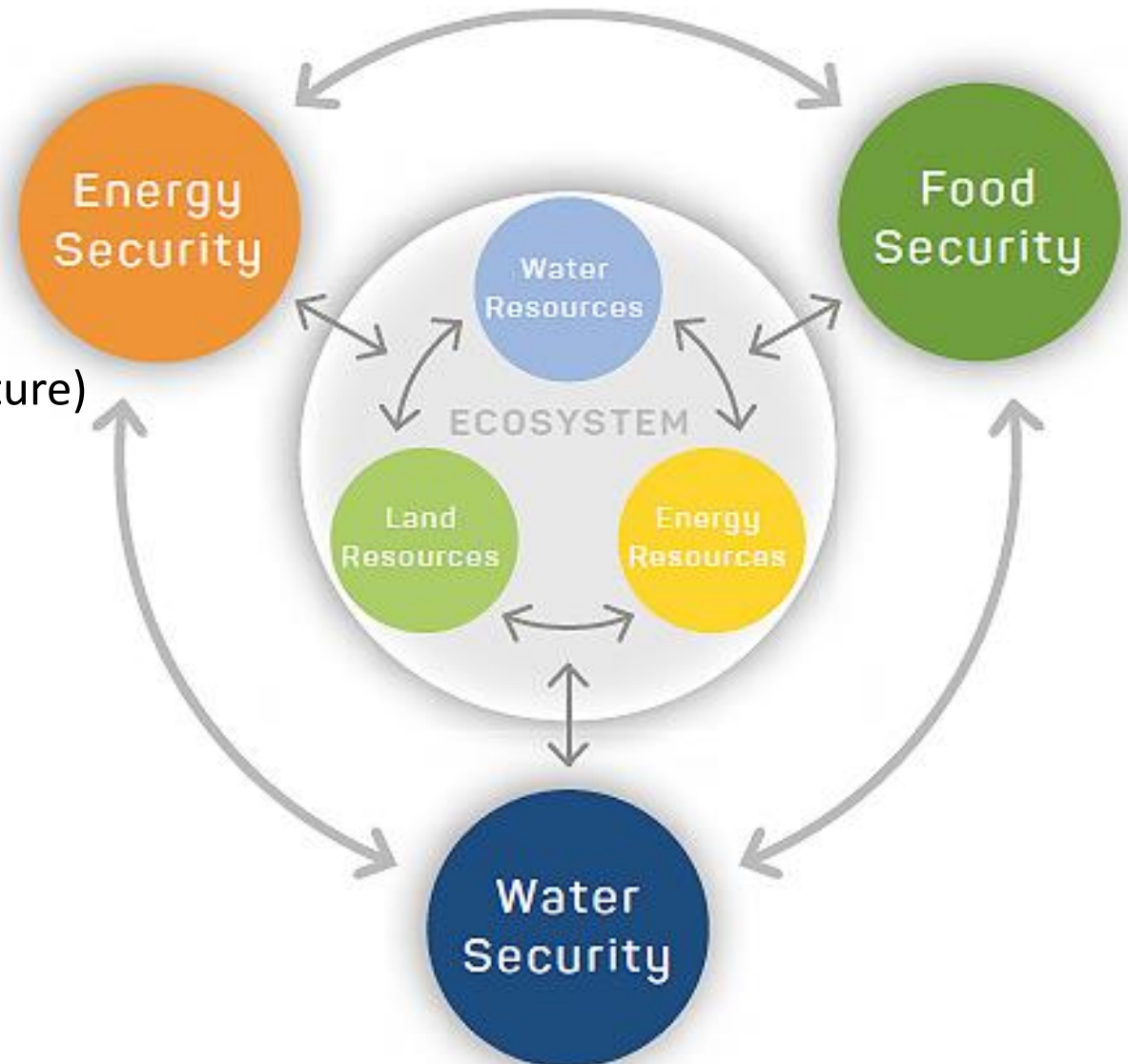
What is a nexus approach?

Nexus [latin: interlinkages]

focus on linkages
-> better integration

horizontal integration:
between sectors
(e.g. water, energy, agriculture)

vertical integration:
between levels and scales
(e.g. local and national)



What is a nexus approach?

integration (like landscape or ecosystem-based approach or IWRM)

more synergies, less negative externalities

-> improving resource use efficiency (water, land, energy, biomass etc.)

“more with less”:

more benefits with less resource use and less environmental pressure

-> improved human securities and human rights (water, energy, food)

-> less conflict / migration / human right violations

co-benefits, e.g. health, environmental quality, climate protection

What is a nexus approach?

an analytical lens

a means to an end, not an end in itself

a nexus project adds value to existing activities or policies

-> improved management and governance of natural resources

the nexus approach needs to be adapted to the respective context
and implemented via mainstreaming

How to contextualize and mainstream a nexus approach?

- 1) adapting the nexus approach to the MENA region context:
water (and land) scarcity,
climate change,
abundant renewable energy (in particular solar)
low resource use efficiencies
- 2) mainstreaming the nexus approach into
existing or new policies, strategies, plans or activities
- 3) not: nexus policies,
but: horizontal and vertical integration
e.g. aligning water and energy (Jordan)
e.g. aligning municipal and national level policies

What prevents nexus implementation?

a vicious circle:

lack of good examples / empirical evidence of nexus benefits

-> no understanding of the nexus

-> no uptake in policies and business (not convinced),

-> no support, no enabling environment

-> no implementation

-> lack of good examples

move from vicious to virtuous circles !

opportunity for municipalities to become sustainability leaders
with the help of MINARET !

Opportunities for municipalities supported by the MINARET project

MINARET dual objectives:

“to improve policies, regulatory and legal frameworks....promote reforms”



“to implement a nexus approach with renewable energy technologies”

through case studies and pilot implementations

to demonstrate benefits of these pilot implementations
for replication and upscaling

Opportunities for municipalities

nexus implementation via multi-functional systems

green cities / urban farming

-> local food production (reducing transportation, energy and land demand, mitigating heat, noise and air pollution) – co benefits

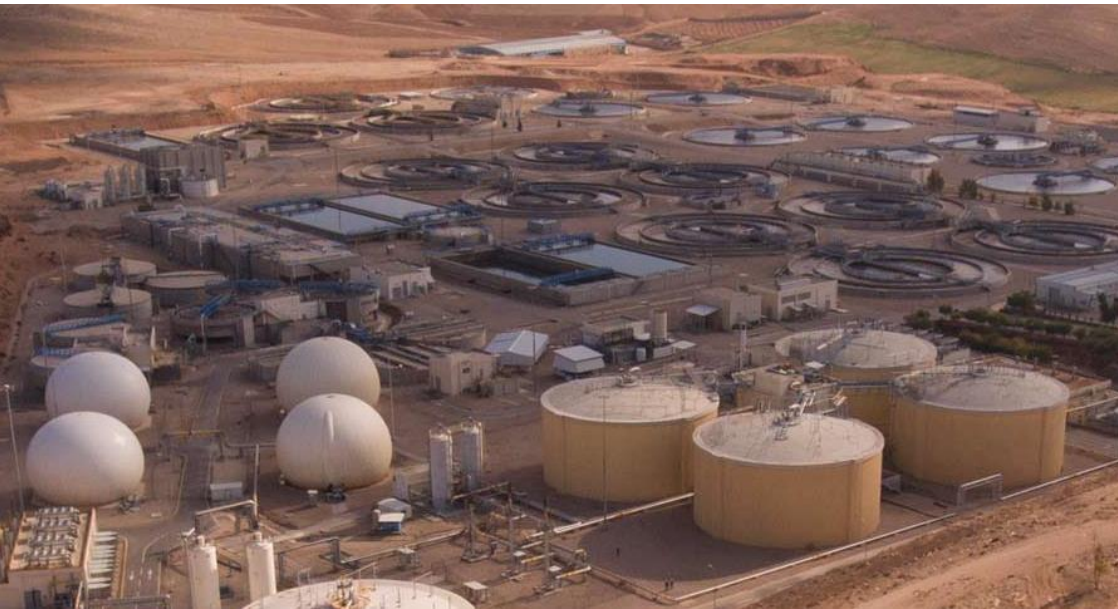


Opportunities for municipalities

nexus implementation via multi-functional systems

rainwater harvesting & storage
increasing infiltration,
groundwater recharge,
“local water”, no pumping / energy

water and energy recycling (As Samra)

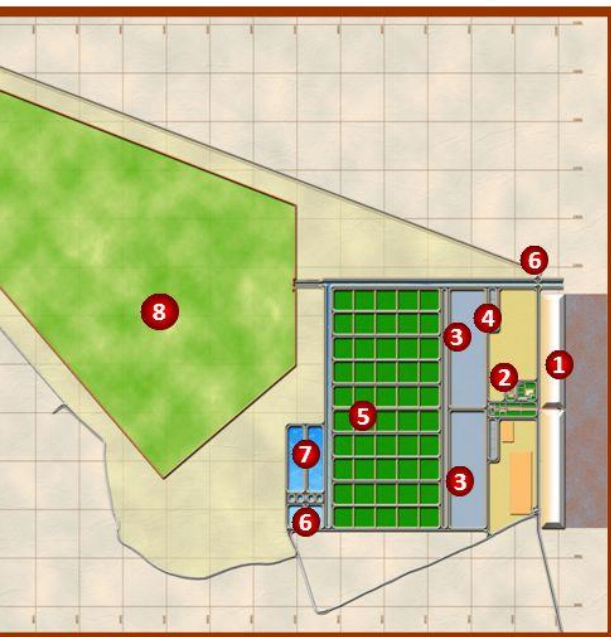


Opportunities for municipalities

nexus implementation via multi-functional systems

Lake Manzala Engineered Wetland

Detailed Project Elements



I. Collection works:

- 1- Intake channel
- 2- Pumping station

II. Treatment works:

- 3- Sedimentation basins
- 4- Drying Beds
- 5- Surface flow beds
- 6- Subsurface Flow beds

III. Treated effluent disposal:

- 7- To Bahr El Baqr Drain
- 8- To Reuse area
- 9- Fish ponds

natural infrastructure
for cleaning wastewater
lower energy demand
no chemical treatment
co-benefit: fishponds



Opportunities for municipalities

nexus implementation via multi-functional systems

renewable energy

for seawater desalination and agriculture (e.g. Sahara Forest Project)

also: renewable energy for smart transportation



Opportunities for municipalities

nexus implementation via multi-functional systems

SMART nexus cities

recycling water

reducing energy demand

reducing urban sprawl (into agricultural land)

renewable energy, low carbon transition

recycling / zero waste



Opportunities for municipalities



SMART nexus cities

require:

participatory approaches

use of new media and data

explaining co-benefits (e.g. health, environmental quality, climate protection)

MINARET questionnaire: no preference for solar energy

Opportunities for municipalities

SMART nexus cities

require:

support for startups, entrepreneurs, incubators
to generate nexus business opportunities

Startup Haus Tunis

60 coworking seats
3 offices
workshop room
event space
downtown Tunis



Opportunities for municipalities

SMART nexus cities

require:

change of mindset

education and outreach

enabling environment and institutions

economic incentives (sustainable subsidies)

a platform for knowledge generation and exchange



Thank you