



REPORT

Regional Roundtable on

Debating the Water-Energy-Food-Ecosystems Nexus in MENA and the wider Mediterranean:

*How to make it deliver for sustainable
development at national & transboundary level*

22 November 2018

Hotel NH Brussels EU Berlaymont, Brussels

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Some 65 Members of Parliament (MPs), Journalists and NGOs from 20 countries gathered in Brussels on the 22nd of November 2018 to debate the Water-Energy-Food-Ecosystems Nexus (aka Nexus) in the Mediterranean. The aim of the event was to enhance the understanding of the Nexus framework and identify the needed actions to operationalise it in Mediterranean, focusing in particular on the role of MPs and Media.

1. Background

Water, food, energy and ecosystems are essential for human well-being, poverty reduction and sustainable development. They are interlinked through a nexus of natural, institutional, economic and social frameworks. For example, Water is used for agricultural production and is a keystone for the entire agri-food supply chain. Agriculture accounts for 70 % of total global freshwater withdrawals. Energy is required to produce, transport and distribute food. About 30 % of total global energy is used by the food sector. Water is used to produce energy, and energy is required to extract, pump, lift, collect, transport and treat water. Healthy ecosystems support the sustainability of the above and are negatively affected if water, energy or food are used in an unsustainable way. Demands for water, food and energy are increasing due to population growth and economic development. It is estimated that by year 2050, 60% more food and 80% more energy would be required globally; by 2030, the world is projected to face a 40% global water deficit under the business-as-usual climate scenario (2030 WRG, 2009). This is expected to have negative impacts on ecosystems.

Interactions between water-food-energy-environment sectors may result in synergies or trade-offs. For example, a large-scale hydro-energy infrastructure project may have benefits across sectors or even across boundaries like for producing hydropower, providing water storage for irrigation and urban uses, mitigating flood effects, etc. However, this can have negative effects for downstream agro-ecological systems, resulting in consequences in the socio-economic sphere, such as resettlements. Similarly, growing bioenergy crops in an irrigated agriculture scheme can help to improve the energy supply and it can generate new employment opportunities but it might also result in increased competition for land and water resources with subsequent negative consequences for local food security. Thus, trade-offs are a reality and should be taken into account when securing the needs of the three sectors. Each of the countries may take different decisions in terms of addressing trade-offs according to their strategic priorities.

The Euro-Mediterranean countries, coming together within the political formation of the Union for the Mediterranean (UfM), are well aware of related challenges. Although cross-sectoral integration is a constant effort, the latter have so far been addressed mostly within silos. This is due to

fragmentation of responsibilities, lack of coordination, inconsistencies between laws and regulatory frameworks, etc. If the sustainability of our water, energy, food and ecosystems are to be simultaneously secured, decision-makers, including those responsible for only individual sectors, need to consider their choices' and decisions' broader cross-sectoral consequences.

The Water-Energy-Food-Ecosystems Nexus (aka Nexus) approach was introduced in the natural resources management agenda to facilitate enhancement of water, energy and food security while preserving ecosystems and their functions and increasing climate resilience, by reducing trade-offs and shifting towards more sustainable consumption patterns while increasing efficiency, building synergies and improving governance across sectors.

A Nexus approach to sectoral management, through enhanced technical assessment, policy dialogue, governance improvements, investment mobilization, replicable applications, collaboration and coordination, is necessary to ensure that co-benefits and trade-offs are not only considered but also that appropriate safeguards are put in place to prevent and/or mitigate their detrimental effects especially regarding on the availability of water resources.

Because of this multiplicity of conceptual expansions, the Nexus represents a promising vehicle for promoting considerations on cross-cutting issues, like gender, stakeholder engagement, rights, poverty, etc. The Nexus can assist in the efforts to further mainstream these issues in addition to its pivotal role in promoting green job creation.

In that context, the role of Parliamentarians and civil society is recognized as key for promoting positive change towards more integrated approaches in policy making, law development, action planning and implementation, through structured institutional (MPs) and multi-stakeholders (NGOs) processes, while Media should play an even more dynamic role in informing and engaging the public.

2. Objective and Content

The main objective of the Roundtable on 'Debating the Water-Energy-Food-Ecosystems Nexus in MENA and the wider Mediterranean', 22 November 2018, Brussels, was to assist understanding of the *Nexus* framework and to identify needed actions to operationalise it in Middle East and North Africa (MENA) and the wider Mediterranean, as a contributor for sustainable development.

3. Content

The Roundtable was part of synergetic activities developed by regional organisations in the UfM framework to facilitate dialogue processes in the Region for the incorporation of Nexus considerations in national and transboundary water resources management planning, including the link between the Nexus approach and vulnerable groups (women, youth, poor), and to enhance related capacities of MENA institutions and stakeholders.

The following overarching questions provided the basis for discussion:

- what are the needed Nexus trade-offs and the possible synergies?
- how coordination among Nexus sectors and stakeholders at country and transboundary level can be enhanced?
- how could we effectively integrate and tackle gender, youth and employment objectives while designing and implementing Nexus approaches?
- what is the role of members of parliament, journalists and the civil society for achieving these?

4. Participants

The Roundtable was made by a gender-balanced audience of 65 Members of Parliament, Journalists, civil society organisations, international institutions and organisations, from 20 countries, primarily from MENA. The list of participants is in a separate document to this report.

5. Organisers

The Roundtable was organised by the Circle of Mediterranean Parliamentarians for Sustainable Development (COMPSUD), the Global Water Partnership – Mediterranean (GWP-Med) and the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE), with contributions by a number of institutions and organisations.

The event was part of the ‘Making Water Cooperation Happen in the Mediterranean’ (Water Matchmaker) Project supported by the Swedish International Development Cooperation Agency (Sida), and the 2018 Work Programme of MIO-ECSDE supported by LIFE+.

It contributed to and enriched the on-going dialogue and action of the Water Agenda of the Union for the Mediterranean (UfM), and particularly to its Nexus thematic area.

6. Introductory remarks

The Roundtable was opened by MP Prof. Moh Rejdali, Chairman of COMPSUD and Member of the Moroccan Parliament. Welcoming the participants, he referred to the range of sustainable development challenges faced in the region. He pointed to the interlinkages of water-agriculture-energy, including under conditions of chronic droughts and climate change, as well as to the alarming rates of biodiversity loss (more than 60% since 1970s). Prof. Rejdali urged for more action on raising awareness of the public and on properly informing decision makers on such challenges that are threatening livelihoods and nature. He noted the need for an active engagement of MPs as lawmakers and controllers of government policies and acts, and asked for a more structured information flow and capacity building on related agendas, including by regional organisations.

Ms. Marta Moren Abat, representing DG Environment of the European Commission and the UfM Co-Presidency, pointed to the Nexus contents in political, scientific and operational terms while recognizing that some tend to consider these exclusively on technical grounds. She noted Nexus solutions as valid contributors to climate resilience objectives and urged MPs to assist making positive change as influencers of policy making in their countries, highlighting the role of media and NGOs. She also referred to the UfM Water Agenda as a key political process in the region, noting Nexus as one of its four thematic areas.

Prof. Michael Scoullou, Chairman of MIO-ECSDE and Chairman of GWP-Med, referred to the recognition that Nexus has received over recent years, including by the UfM, EU, Arab League and other key institutions in the Mediterranean. He noted with appreciation the support of Sida and EC for promoting dialogue among the range of stakeholders on sustainable development issues in the region.

- Mr. Vangelis Constantianos, Executive Secretary of GWP-Med, presented the purpose and setting of the event, commented on the type of stakeholder groups around the table, and the key questions to be debated. He briefly presented the draft Chapters on the Nexus as well as on the Water-

Employment-Migration of the UfM Water Agenda, pointing to their interlinkages on applicable solutions, including towards promoting employability and market development objectives in the region; the related papers have been distributed to participants.

7. Setting-the-stage interventions

Aiming to provide information on the Nexus approach, challenges and solutions as a contribution towards increasing participants' understanding on the matters at stake and contributing in building participants' capacity for advocacy and action, seven 'setting-the-stage' presentations were made over the day, followed by questions & answers:

Prof. Michael Scoullou provided an overview of the Nexus framework, including its evolution and recent trends. Defining Nexus as 'integration in operation', he explained why it has gained momentum out of a necessity. He clarified that the Nexus does not compete nor substitute the Integrated Water Resources Management (IWRM) approach but furthers and substantiates its practices. He noted the need for clearly including also the Environment dimension in the Nexus, fact that is often neglected.

Prof. Khaled AbuZeid, Senior Regional Water Resources Director at the Centre for Environment & Development for Arab Region & Europe (CEDARE), explained the Nexus inter-dependency at national and transboundary levels, providing a number of concrete examples from the Arab Region, pointing to the need for a science-to-policy approach for informed decision-making.

Ms. Marta Moren Abat elaborated on the Nexus approach and objectives in the EU domestic and development assistance policies, highlighting on-going action supported by the EC at regional and national levels in the MENA countries. She emphasized the need for effective governance structure, legislation and regulation, i.e. 'having clear rules of game', for designing, implementing and monitoring effective policies.

Mr. Francois Brikke, Senior Network Officer, Global Water Partnership (GWP) explained the role of multi-stakeholder partnerships for applying Nexus approaches. He pointed to the need of a 'water democracy' that will assist meeting the needs of all within a human rights approach and will engage all those possible in a constructive debate. As element of these, he noted the potential contribution of a Nexus-Faith dialogue for ultimately further reaching out to the public.

Mr. Bernd Manfred Gawlik, EC DG Joint Research Centre, elaborated on how to build the knowledge basis for and increase understanding on the Nexus. Highlighting that 'water is the nature on which the Nexus seats', he pointed to the need for new approaches: 'it is annoying to flush the toilet with drinking water; we know it, but we continue doing it and we don't plan anything smarter either', he commented. He also presented an outline of the Nexus Atlas, a knowledge management product based on Nexus case studies from around the Mediterranean, under preparation by JRC, UfM and GWP-Med. He invited participants to spread the call towards submission of more cases, including from MENA countries. The Atlas aims to offer a scientific and cultural perspective on the Nexus issues addressed, and will be presented in a language that is accessible to a broad audience, ranging from the interested citizen to specialised stakeholders and experts.

Ms. Lesha Witmer, Women for Water Partnership, provided insights on tackling gender, youth, poverty and human rights objectives in designing and implementing Nexus approaches in the region, giving examples on evolution of related policies and approaches in MENA countries. She concluded with a plea for action on 'what we can do today, in our times, not in the future'.

Mr. Vangelis Constantianos closed the set of presentations elaborating on contents and status of water-employment-migration challenges in the MENA and ways to promote solutions through a Nexus approach. He provided examples of types of interventions, while referring to the UfM Water Agenda as a vehicle for building a framework for action with the engagement of a range of partners, including the private sector.

The presentations can be found in: <http://mio-ecsde.org/debating-the-water-energy-food-ecosystems-nexus-in-the-mediterranean/>

8. Debating Nexus

A great number of interventions, including by MPs and regional organisations, were made. They may be summarized as follows, with the understanding that contributions made presented contents and interlinkages the richness of which cannot be easily depicted in a brief report:

- The Sustainable Development Goals (SDGs) provide the framework for developing action towards specific objectives at country level. The Nexus approach can be a valid contributor to achieving targets set, also providing for interlinkages among SDGs and with the understanding that addressing one Goal cannot be done without tackling other related Goals. This is particularly true for Water, Energy, Food and Environment, though not only limited to these.

- Nexus focuses on the mutual interdependencies of water, energy and food, with the latter two sectors understanding the Nexus mostly on the demand side to meet their needs. Ecosystems, including biodiversity, should be considered in the Nexus with an equal weight as the other sectors. As biodiversity is coming under serious pressure, with around one in four species currently threatened with extinction, the EC has adopted an ambitious EU Biodiversity Strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. In order to achieve this objective, a better understanding of the links between biodiversity, ecosystem functions, ecosystem services and human well-being is needed. Lessons can be learned and related action may be adapted in MENA countries.

- While resources become scarcer while demand for them increases, the established 'silo' approach to policy making becomes more risky since spill-over effects across sectoral policies become more expensive and socially sensitive. The Nexus approach takes into account the links and dynamics between resource systems to ensure their coherent and responsible management. The MENA in particular is faced by a wide range of natural and socio-economic challenges, that governments cannot always effectively cope with. Climate change and migration aggravate the situation. Contributions by development partners make valid and much appreciated inputs to country efforts and should be enhanced while challenges grow.

- Depending on institutional setting in each of the MENA countries, the silos approach limits opportunities for integration of strategies and aligned implementation and monitoring of action plans, even in the cases where related provisions are done on paper. Inter-ministerial committees (for example by the Ministries and regulating authorities responsible for the Nexus sectors and beyond), under the coordination of a higher authority, working with set and output-oriented objectives, may assist for more efficient alignment of sectoral agendas. Examples on governance setting from Egypt, Morocco and Jordan were provided, demonstrating both progress and gaps encountered.

- Application of Nexus approaches in the design and operation of large-scale infrastructure, like related to desalination, irrigation, waste-water treatment plants (WWTP), hydropower, groundwater abstraction, domestic water supply, extensive installation of renewable energy sources related to

water, etc. can assist tackling their consequent environmental, land degradation and other related impacts, while producing co-benefits. The example of upgrading existing and building new WWTP with Nexus approach that could provide for water, reuse, energy savings, energy production through by-products, fertilizers production, etc., was mentioned.

- Development of extensive small/medium-scale Nexus infrastructure, ranging from public, business and, ultimately, household level could bring multiple benefits to the region. Nature-based Solutions for Water were noted among these as well as cases of traditional practices that are still in operation, mostly in remote areas like oasis, and can provide lessons for the future. Examples from Algeria, Tunisia and Greece, including water scarce islands, were shared. However, it was recognised that the needed investment is high, needs coordination, and the time required long. Still, 'one needs to move to get to an end'.

- Innovation, technology transfer and research can greatly promote the Nexus agenda. The EU and other development partners have substantially invested in these and should continue doing so. Particularly in water-scarce countries, innovation and technology is key for moving ahead; utilizing these should not be considered any more a luxury but a necessity. However, several MENA countries are still at the beginning of that race. The importance of informing policy with science was highlighted, however the traditional gap between the two was also noted; sharing science-to-policy lessons in a south-south and a north-south content, was noted. Documentation, including with financial figures and solid examples, of benefits vs losses/damages by not using integrated approaches, is also important for convincing decision makers and informing the public on needed shifts and the urgency they carry.

- Nexus presents opportunities for promotion of existing and creation of new markets, like through SMEs merchandizing related technologies as well as for designing, installing, operating and maintaining such infrastructure, at all scales. Lessons can be learned understanding growth drivers of the related energy market, including investments made on skills development and entrepreneurial support. Opportunities for market development may exist in agriculture/irrigation, urban, tourism, etc. fields. Among others, support to female entrepreneurship should enhance. Vocational training plays a critical role for making these happen.

- Youth, both females and males, should be in the focus of Nexus approaches, through inclusion in the curricula, capacity building including through hands-on pilot applications, promotion of employability opportunities including through vocational training, assistance for entrepreneurship opportunities including through mentoring, incubation, and support to start ups, etc. Youth platforms at regional and national levels can assist in that direction, while their inter-linking can assist for knowledge sharing.

- Contents of human rights and gender in Nexus approaches and practices were discussed. Applying such contents when analysing nexus problems contributes in determining the adequacy and effectiveness of political, institutional, and governance processes more generally, while it can promote participation, accountability, transparency, equity, the rule of law and empowerment of individuals and groups, leading to better outcomes for women and society as a whole. This involves disaggregating data by gender, social status, and other factors, considering the interrelationships between human rights to life, water, food, energy, health etc. and environmental resource management and planning, and analysing in detail in what manner such resources are allocated, accessed and distributed. However, participants noted that contents of these may not be clear to non-specialist while their tangibles may become visible only in the long-term and are influenced by a wide range of additional processes and factors. Furthermore, it was pointed that in some MENA countries where bodies for promoting equal opportunities exist, their role remain advisory with

limited influence in decision-taking. Overall, gender mainstreaming into policies including for sustainable development is weak, though dialogue on and visibility of gender issues are promoted. Overall, action lines leading to tangible outcomes on the benefit of gender issues remain limited so far, despite efforts, including by the international community.

- Financing is critical for promoting Nexus interventions. International and regional multi-lateral financing instruments (like the Green Climate Fund, the European Sustainable Development Fund, GEF, DG Research, PRIMA, etc.) and bilateral assistance, including through regional projects, can assist towards that direction. However, domestic resources should be further mobilized as part of national investment plans, including with a focus on Youth and Gender issues. The role of the national private banking sector as well as of the national central banks as their regulator, is important for providing options. Overall, there is scope to further understand, plan and mobilize a line of Nexus investments towards tangible co-benefits in related sectors.

- Parliamentarians can play a distinctive role in making these happen, acting as advocates, lawmakers, and controllers of government policies and budgets. Nexus could be promoted in Parliaments' work through Parliamentary Committees, like on Sustainable Development, Environment, Research & Innovation, Development, Financing, International cooperation, etc. Provision of Nexus contents is important for non-specialist like the MPs; this may be done through Parliaments' scientific advisory bodies. Regional organization should continue assisting through dialogue, capacity building, information provision, tailor-made assistance for advocacy activities, etc. Engagement with academia, media and the civil society is of importance for deepening understanding, shaping views and moving into actions. Parliamentarians should also engage in country planning and materialization of the SDGs National Implementation Plans, and may wish to raise points helpful for advancing the Nexus agenda within these. Overall, Parliamentarians have been instrumental in all countries for introducing progressive and socially-just clauses and amendments in their national legislation. The Media and the civil society have often played a pivotal role in their support for these.

- Communications, including through printed and electronic media, can play a huge role in promoting Nexus, like for all new concepts related to sustainable development. Currently, Nexus is not in the play in the MENA media nor understood on its contents. Capacitating journalists and consistently feeding them with suitable information is of key importance, keeping in mind that they are non-specialists and that they need to convey eligible information to the layman. Support to specialized 'green' media and related communication channels to reach the general public, is of clear added value.

- The role of stakeholders, including the civil society, is recognised in the MENA countries but, at times, faces challenges towards their actual and structured engagement. Along with the need for aligning Nexus sectors, the necessity of aligning the range of Nexus stakeholders was highlighted, including the absence of such platforms at national level.

- The regional dialogue on Nexus approaches, contents and solutions should continue, while it should expand at national and local level through a structured process that will allow sharing lessons and knowledge. On-going related actions by partners like GIZ, FAO, GWP-Med, etc. were noted, while support by the EC, UN, Sida, MAVA and other development partners was mentioned with appreciation. Information was provided on the upcoming regional Nexus project within the GEF UNEP/MAP MedProgramme. Alignment of and synergies among the later were recommended.

9. Concluding remarks

MP Prof. Moh Rejdali and Prof. Michael Scoullos concluded the Roundtable, pointing that:

- The Nexus is a valid no-regret approach, holding political, technical and socio-economic contents in the region. Its implementation can make valid contributions in a range of SDGs.
- Nexus builds on synergies and trade-offs. Members of parliaments, media and civil society are defined and positive partners in Nexus dialogue process, and wish to further engage, learn and contribute.

GWP-Med, with Sida support and in synergy with interest partners, informed that will be able to organize at least one more MENA/Med Nexus Roundtable of similar formation in 2019, within the Med Water Matchmake project. It will actively look for options towards more activities of the types recommended at the meeting.

The Roundtable closed by thanking participants for a vivid debate; UfM for providing the political framework for the dialogue; Sida and EC for their generous and continuous support; and GWP-Med and MIO-ECSDE for their long-standing assistance to COMPSUD and for providing the opportunity for dialogue and knowledge sharing.

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A G E N D A

09.00-09.15 Welcome remarks

- Prof. Moh Rejdali, Chairman of COMPSUD, Member of the Moroccan Parliament
- Ms. Marta Moren Abat, DG Environment, International Cooperation, European Commission, UfM Co-Presidency
- Prof. Michael Scoullos, Chairman MIO-ECSDE, Chairman GWP-Med

Purpose of the meeting

- Mr. Vangelis Constantianos, Executive Secretary, GWP-Med

09.15-11.00 Setting the stage

Co-Chair: Prof. Moh Rejdali, Chairman of COMPSUD, Member of the Moroccan Parliament

Co-Chair: Ms. Leila Ouled Bahri, Member of the Tunisian Parliament

- Clarifying the Water-Energy-Food-Ecosystems Nexus framework
Prof. Michael Scoullos, Chairman MIO-ECSDE, Chairman GWP-Med
- Understanding Nexus inter-dependency at National & Transboundary Levels in the Arab Region
Prof. Khaled AbuZeid, Senior Regional Water Resources Director, Centre for Environment & Development for Arab Region & Europe (CEDARE)
- The Nexus in the EU domestic and development assistance policies
Ms. Marta Moren Abat, DG Environment, International Cooperation, European Commission, UfM Co-Presidency
- The role of multi-stakeholder partnerships for applying Nexus approaches
Mr. Francois Brikke, Senior Network Officer, GWP

Questions & Answers – facilitated debate

11.00-11.30 Coffee break

11.30-13.30 Debating Nexus elements, and understanding roles

Co-Chair: Mr. Kostas Skrekas, Vice-Chairman of COMPSUD, Member of the Hellenic Parliament, f. Minister for Development & Competition

Co-Chair: Mr. Ali Laskri, Member of the Algerian Parliament

- Building the knowledge basis for and increasing understanding on the Nexus in the Mediterranean

Mr. Bernd Manfred Gawlik, DG Joint Research Centre, Sustainable Resources, European Commission

Facilitated discussion, including on the role of Parliamentarians, Media and the Civil Society

- Tackling gender & youth objectives in designing and implementing Nexus approaches in the region
Ms. Lesha Witmer, Women for Water Partnership

Facilitated discussion, including on the role of Parliamentarians, Media and the Civil Society

13.30-14.30 Lunch break

14.30-15.30 Debating Nexus elements, and understanding roles (cont.)

Co-Chair: Mr. Mohamed Khalifa, Vice-Chairman of COMPSUD, Member of the Egyptian Parliament

Co-Chair: Prof. Mohamed Ftouhi, Co-Chairman, MIO-ECSDE

- Promoting water-employment-migration objectives through a Nexus approach
Mr. Vangelis Constantianos, Executive Secretary, GWP-Med

Facilitated discussion, including on the role of Parliamentarians, Media and the Civil Society

15.30-16.00 Concluding remarks and next steps

- Prof. Michael Scoullos, Chairman GWP-Med, Chairman MIO-ECSDE
- Prof. Moh Rejdali, Chairman of COMPSUD, Member of the Moroccan Parliament