



Safeguarding the livelihood of rural communities and the environment in the Mediterranean through Nature-based Solutions



Farmers and water managers express views on local governance framework

As documented in our Second e-Newsletter issued in July 2023, farmers in several of Mara-Mediterra's hotspots of land and water degradation expressed the viewpoint that they are unlikely to embrace agro-ecological practices unless, first, the barriers and obstacles which were identified during the First Series of Roundtables would be addressed by policy- and decision-makers in a satisfactory manner.

The Mara-Mediterra partnership considers that these barriers and obstacles can be overcome by creating governance arrangements that involve the full spectrum of local actors in adaptive and ongoing cycles of learning and institutional and practical adjustments. To drive this process, Living Labs made up of farmers and local water managers have started co-testing and co-validating the agro-ecological practices in real-life settings. In parallel, it was deemed essential to capture the viewpoints of the stakeholders on the local governance framework so as to obtain a sound understanding of key priorities for policy recommendations. The analysis adopted a stepwise approach, as presented in Figure 1.

To start with, a general overview of the governance framework was drawn up on the basis of a desk review of published reports. Consequently, an aggregate of 25 local land/water/soil managers took part in semi-structured interviews, while an aggregate of over 450 farmers took part in a public perception-value-attitude survey. Consequently, the viewpoints thus collected were contrasted using the SWOT analysis approach.

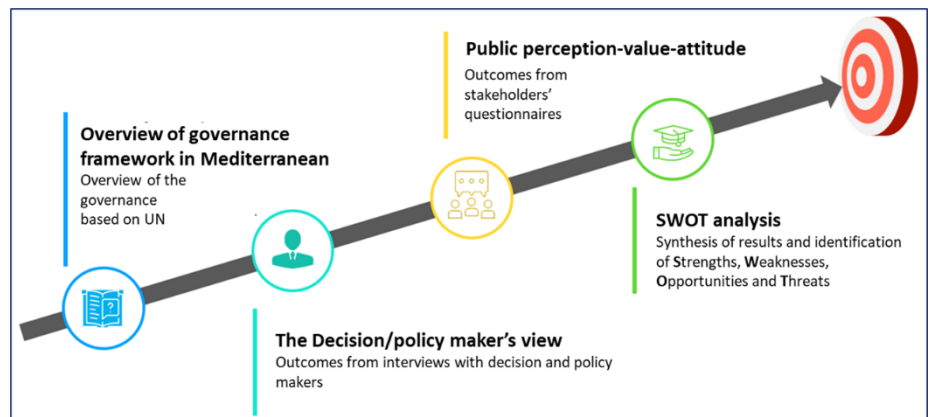
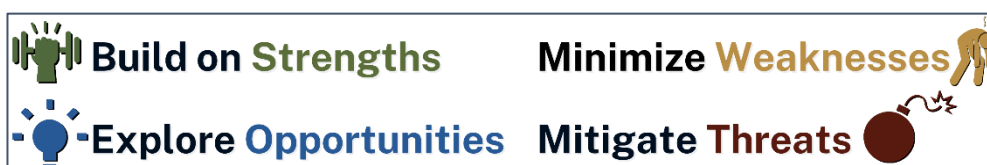


Figure 1 Methodological approach adopted for the analysis of local governance framework

This approach now permits the formulation of policy recommendations which build on the identified Strengths, minimize the Weaknesses, explore the Opportunities and mitigate the Threats as depicted in the schematic illustration below. Once formulated, these policy recommendations will be presented for validation during the Second Series of Roundtables, which will also invite participants to brainstorm the nature of the decision-criteria which should be considered to arrive at 'optimum' action plans towards the wider uptake of agro-ecological practices.



Mara-Mediterra Special Session at Cairo Water Week 2023



The Cairo Water Week ran from 29 October to 3 November 2023 bringing together more than 90 International and Regional Organizations, 1045 Keynote speakers and over 21,800 participants. The Egyptian Chinese University (ECU) as member of the Mara-Mediterra partnership, seized this opportunity to organize a Special Session during the Cairo Water Week on 31 October, where the most recent achievements of the PRIMA funded Mara-Mediterra project were presented (Fig.2), with focus on the novel Aquaponic Wetlands facility established by ECU. The over 50 participants in the Special Session were welcomed by Dr. Sonata Ebrahim, Representative of the ECU Board of Trustees. Prof. Rasha Elkholy and Prof. Alaa El-Din Abdin introduced ECU's role at different levels of society in general and its assigned research tasks in the Mara-Mediterra project in particular. Dr. Mohamed Embaby and Eng. Mohab Negm spoke about the successful implementation of the Aquaponic Wetlands system and about the activities being performed by the Living Lab in the Kafr el-Sheikh governorate in the Nile Delta. The project coordinator, Dr. Vasileios Takavakoglou (SWRI), Eng. Dirk De Ketelaere and Anna Spiteri (IRMCo), provided, respectively, a general overview of the project, its technical interventions and its stakeholder engagement activities.



Figure 2 A lively discussion at the end of the presentations on Mara-Mediterra at Cairo Water Week

The Egyptian Chinese University (ECU) presented its PRIMA funded Aquaponic Wetlands facility. The novel system simulates the provisioning and regulatory services of wetland ecosystems for growing plants on floating rafts and for nature-based water quality improvement in a closed loop system. More details about its functioning, including two video clips, can be accessed on the project website, via [this link](#).



Figure 3 From left: Dr. Mohamed Embaby, Anna Spiteri, Dr. Vasileios Takavakoglou, Dr. Sonata Ebrahim, Prof. Alaa El-Din Abdin and Eleanna Pana at the PRIMA funded Aquaponic Wetlands facility on the Egyptian Chinese University campus

Significantly, the unconventional approach of soilless agriculture presents a novel means to address both the challenge of water as well as that of food security. A crowning moment was the visit by the Mara-Mediterra project coordinator and team members, who had joined the Cairo Water Week, to the Aquaponic Wetlands facility installed at ECU's campus in Cairo (Fig.3). The design, construction and installation of an automated monitoring and control system at the facility had been achieved more than 6 months ahead of the originally foreseen schedule!

The Egyptian newspaper, Al-Ahram Weekly, brought extensive coverage of the Cairo Water Week in its issue no. 1662, 2-8 November 2023. The coverage pays tribute for the event to have placed the water issue at the forefront of shaping global climate action. It also informs that Dr. Mahmoud Abu Zeid, president of the Arab Water Council, spoke to Al-Ahram about the recently signed cooperation agreement with the Chinese Ministry of Water Resources that aimed to confront the effects of climate change on the water sector in the Arab regions, by enhancing, among other, the reliance on modern technology to confront water challenges with unconventional methods. Clearly, the aquaponic wetlands facility fully attests itself as an example of a modern technology in line with the aspirations expressed by Dr. Mahmoud Abu Zeid, President of the Arab Water Council.



PRIMA Project Day and WEFE Nexus Community of Practice: Empowering synergies and collaboration in Med

PRIMA Project Day, held on 21 November 2023 in Sitges, Spain, saw the participation of 70 PRIMA funded projects. Mara-Mediterra was represented by its coordinator, Dr. Vasileios Takavakoglou and project manager, Eleanna Pana (Fig.4). During this highly engaging event, the participants had the opportunity to interact and explore collaborations, innovations, and synergies among the PRIMA funded projects. The event was followed by a WEFE Nexus Community of Practice (CoP) Design Workshop on 22 November 2023. In partnership with PRIMA and in collaboration with the WEFE4MED project consortium, the workshop established the fundamental principles of the WEFE Nexus CoP, highlighted the importance of interdisciplinary cooperation and set the stage for future initiatives.



Figure 4 From left: Dr. Vasileios Takavakoglou and Eleanna Pana of SWRI presenting Mara-Mediterra during PRIMA Project Day in Sitges, Spain

Mara-Mediterra at Arab SME Summit, Marrakech, Morocco



Figure 5 From left: Abbes Hamani and Yacine Hafied of AMENHYD welcome Dr. Octavi Quintana Trias, Director of PRIMA Foundation, and Dr. Ahmed Wageih, PRIMA Project Officer, to their Mara-Mediterra booth at the Arab SME Summit in Marrakech, Morocco

Mara-Mediterra is thrilled to have joined the United Nations Economic and Social Commission for Western Asia (ESCWA) Arab SMEs Summit in Marrakech, Morocco during 12 to 14 December 2023! Thanks to the PRIMA programme, the Algeria partner, AMENHYD, made connections with entrepreneurs, investors, and stakeholders, participated in workshops, policy dialogue, and exciting side events. The booth set up by AMENHYD showcased its ambition to develop novel agro-ecological solutions (Fig.5). The innovative approach involves creating micro-ecosystems around each tree planted at the experimental afforestation site in Djelfa, known as the Gateway to the Sahara. The strategy includes using renewable energies, valorizing wastewater treatment by-products, and implementing digital monitoring tools. Still, AMENHYD's mission extends beyond ecological balance restoration! AMENHYD's ultimate goal is to reinstate productivity in pastoral and agricultural lands, providing fuelwood to rural communities, and uplifting their socio-economic conditions.

Upcoming Activities and Events

12-13 March 2024: Presentation of Mara-Mediterra by SWRI in the [EU CAP Network Workshop 'Circular water management'](#), in Seville, Spain.

Mid-March till end of May 2024: **Mara-Mediterra Second Series of Roundtables** which will invite stakeholders in Algeria, Egypt, Greece, Lebanon and Turkey to express their views on the decision-criteria to arrive at optimum action plans for the wider uptake of agro-ecological practices.

19-21 May 2024: Special session on [Nature-based solutions for sustainable soil and water management](#), convened by UNIFI, during the **centennial celebration** of the International Union of Soil Sciences (**IUSS**) in Florence, Italy.

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