

A roadmap to normalizing and formalizing nature-based solutions in the Middle East and North Africa

Despite their growing popularity in policy and development circles, scaling nature-based solutions faces significant obstacles.

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Over millennia, Middle Eastern farmers and pastoralists have developed systems to maintain a delicate balance between ecosystem exploitation and preservation to ensure their own subsistence, that of their animals, and the regeneration of soil and grasslands.

A prime example is the community-managed, ancestral grazing system known as *Hima* in Jordan and Lebanon and *Gdel* in Tunisia. Still practiced today, this system restricts animal grazing in certain rangeland areas, allowing vegetation to recover through rotational grazing and enhancing the land's — and communities' — resilience to drought and climate change.

Hima is considered a Nature-based Solution (NbS), alongside scores of traditional water-saving, soil fertility enhancing, erosion blocking, and pest-ridding techniques refined by savvy Arab farmers over generations. As defined by the International Union for the Conservation of Nature, NbS leverages nature's power and healthy ecosystems to protect people, optimize infrastructure, and ensure a stable, biodiverse future.

And while they aren't systematically documented, the region exhibits a wealth of NbS, such as reed and tree fences to protect crops from sand encroachment, restored mangrove forests to stabilize coastlines and fend off sea-level rise, aquifer recharge systems to capture and store water from rain and snow melt,

and gabions of natural materials to protect communities and fields downstream from rushing floodwaters.

Scaling challenges

Despite the growing popularity of NbS in policy and development circles, scaling these solutions faces two significant obstacles: the terminology and concept of NbS are not yet widely understood, and there is a lack of comprehensive data on their costs, benefits, and the necessary skill sets required for effective implementation.

The International Water Management Institute (IWMI), through Al Murunah, its flagship NbS project in the MENA region, is laying the groundwork for normalizing and eventually formalizing NbS practices.

To lift the opacity surrounding NbS, Al Murunah project partners undertook a rapid review of existing Nature-based Solutions across the MENA region and beyond that will be published soon. “There is a wealth of local knowledge and innovation embedded in how communities shape and manage their natural and built surroundings to elevate their livelihoods and security,” explains Wasudha Abeyrathna, Al Murunah’s Project Coordinator.

Furthermore, to fill the data gap surrounding NbS’ cost structures and economic implications, IWMI is actively exploring these financial aspects. By gathering quantitative data, the project aims to build a stronger case for NbS, making it easier to secure funding from government agencies and facilitate the scaling of these solutions.

A Capability and Skillset Framework

Apart from its work to ‘normalize’ NBS, IWMI is developing a Capability and Skillset Framework to ‘formalize’ them. A UNESCO report published in 2022 identified the lack of systematization of NbS as the greatest challenge to their adoption and dissemination – despite their tremendous potential – especially for poorer countries with a greater reliance on natural ecosystems for their prosperity.

This Framework systematically lists the skills, capabilities, and training required for specific actors to effectively implement NbS in the water and agriculture sectors. It outlines 187 relevant individual skills, organized into 16 knowledge categories for six priority 'NBS users.'

Stephen Fragaszy, Al Murunah Project Lead, remarks, "Until you understand the skills required to implement something new, you cannot build human resources and associated training and qualification systems around it. Nor can you think systematically about the types of teams required and how they should interact."

Farmers, government officials, and heads of cooperatives are among the six priority NBS users identified in the Framework. They fall into two distinct categories based on their level of technology access. In addition to clarifying knowledge needs for NbS, this Framework provides tailored tools for organizations to evaluate the presence or absence of relevant training options in-country.

Mirja Michalscheck, the project's scaling lead, emphasizes, "To effectively scale Nature-based Solutions, we must bridge the gaps in understanding and implementation. This requires a solid framework for training and a commitment to fostering collaboration among all stakeholders involved."

Unlike highly regulated professions such as engineering or architecture, and because they cut across sectors, NbS lacks a structured and formalized skill set framework. "This new Framework is a crucial first step toward establishing that structure," Fragaszy stresses, emphasizing the need to build human capital through a blend of hard and soft skills for effective implementation.

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Mirja Michalscheck

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