

The Middle East & Africa Forum for Sustainability Leaders

Views You Can Use - Best of Series

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Climate change will stress water supply and demand

There is a need for urgency to achieve water security. Climate change will increase Saudi Arabia's already existing challenges in accessing water supply, whether having to rely on desalination or limited groundwater supply. Water scarcity and drought will become more severe and constrain available water further.

As temperatures increase there will be more demand for water, both in urban areas and to meet agricultural requirements. This underscores the importance of developing new technologies and for enhancing the adoption of existing green technologies, which will better equip Saudi Arabia and the region to meet the challenges of climate change and its impact on water supply.

A testing laboratory for water technologies

Saudi Arabia has a unique opportunity to become a testing environment for pilot projects that can potentially take water technologies to the next level. Many countries have restrictive regulatory and policy checks in place, which delay approvals and become barriers for experimental technology tests to take place. The willingness and flexibility of the Saudi government towards trying out new technologies makes it easier for such trials to take place in the Kingdom, while the country's water-scarce environment makes it an ideal location to test water-stress technologies.

The short-term pathway: leveraging existing technologies

For example, when we think of agricultural water use, which accounts for the largest water usage in the Kingdom, we can look at ways to improve drip irrigation technologies for more efficient use of water while reducing water loss in the system. In the urban environment, we have systems in place that can transform wastewater to non-potable water standards, and water treatment technology that can convert non-potable water to drinking water standards. Given the willingness and flexibility of the Saudi government, the Kingdom has a unique opportunity to become a leader in testing and enhancing existing water solutions.