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UNITED ARAB EMIRATES MINISTRY OF FOREIGN AFFAIRS

The Next Drop: Capital and innovation for water security

Key takeaways from a PwC-moderated roundtable at Abu Dhabi Sustainability Week 2026





Introduction

As momentum builds towards the United Nations Water Conference in the UAE in December 2026, the focus is now shifting from recognising the scale of the water challenge to how action can be accelerated.

Against this backdrop, a high-level dialogue on water investment and innovation was held during Abu Dhabi Sustainability Week 2026. Organised by PwC Middle East, the Ministry of Foreign Affairs and Masdar, the closed-door session brought together leaders from government, multilateral institutions, development finance organisations, private investors and technology innovators. This paper captures the key themes and takeaways that emerged from the discussion.

Water is fundamental to human dignity, social stability and prosperity. It supports health, livelihoods and economic development, while contributing to sustainable development. As climate change intensifies water-related risks, secure and equitable water management is becoming increasingly important to economic resilience, supporting industries and communities to thrive.[1]

Yet financing and governance systems have not kept pace with growing water stress. Global water infrastructure needs are estimated at US$6.7trn by 2030, potentially rising to US$22.6trn by 2050. Despite this scale of need, the water sector currently attracts less than 2% of public spending globally.[2] Population growth, urbanisation and climate pressures are also increasing water demand worldwide, further straining already burdened systems.



Held under the Chatham House Rule, the discussion explored how water systems can move beyond a predominantly donor-funded model towards one capable of mobilising private and blended capital at scale.

A consistent theme emerged across the discussion: participants highlighted that capital is not the primary constraint; rather, the challenge lies in de-risking water and making it investable. They pointed to the practical requirements for unlocking investment, including clearer regulatory frameworks, stronger project development and structuring and more credible revenue models. The discussion also considered the role of private capital, technology and operational expertise within transparent and accountable governance structures, as well as the potential contribution of institutional investors such as pension funds, sovereign wealth funds and investment banks.

The discussion emphasised that resilience should be built into water infrastructure from the start. Participants spoke about the need for a mix of conventional and non-conventional sources to ensure water security, including desalination, wastewater treatment and reuse, efficiency measures and nature-based approaches, depending on local circumstances.

The following sections explore the key themes that emerged and the areas participants identified for consideration ahead of the 2026 United Nations Water Conference.

1 Water risk has moved into the economic mainstream

A key takeaway was that water can no longer be viewed solely as a sectoral issue. Participants highlighted that water risk is increasingly an economic resilience challenge, cutting across energy security, food systems and industrial competitiveness. As one speaker noted, many climate-related risks are linked to the water cycle, including floods, droughts and changing rainfall patterns. However, water continues to be significantly under-financed.

The Global Commission on the Economics of Water estimates that by 2050, the combined effects of changing precipitation patterns, rising temperatures, declining water storage, and inadequate access to clean water and sanitation could reduce GDP by an average of 8% in high-income countries and by 10% to 15% in lower-income countries.[3]

Participants pointed out that for businesses, water stress translates directly into supply chain disruption, production risk, asset impairment and higher operating costs. In a world where resilience increasingly underpins competitiveness, the discussion positioned water security as a strategic consideration rather than a background assumption.



2 The limits of a public-only financing model

Speakers emphasised that substantial capital exists across markets, yet it is not flowing into the water sector at scale. They pointed to the limited availability of bankable, well-structured opportunities, with unclear revenue models and uncertain tariff frameworks making it difficult for some projects to meet investment thresholds. As a result, funding may not always be fully deployed, even when capital is available.

They highlighted the need to develop well-prepared, investable projects that capital providers can assess and support. The discussion also recognised that public finance alone is unlikely to address the full range of water infrastructure needs, creating a role for private investment, development finance and blended approaches.

Participants discussed how financing approaches could be matched to different circumstances rather than applying a single model across all water services and markets. Blended finance, for example, can help allocate risk across public, concessional and private capital, potentially improving the investability of water projects.

The discussion also highlighted the importance of designing financing structures around service performance, resilience and long-term operational sustainability. Participants noted that some water services may require continued public or concessional support, while others may be able to attract commercial investment.

Another area that participants identified as having significant potential was wastewater reuse, particularly in urban and industrial systems across the region. Expanding reuse can create a complementary source of supply while supporting more circular water systems. In the UAE, for example, treated wastewater has increasingly been used in applications such as district cooling and construction, including during the development phase of Expo 2020.[4]

3 Scaling requires systems, not pilots

Participants highlighted a significant challenge for the water sector: moving promising technologies from pilot projects to commercially viable, repeatable deployment. Digital technologies can support improved monitoring, measurement, network management, operational efficiency and investment decision-making. Better data can help demonstrate operational performance, quantify efficiencies and provide greater confidence to investors and operators.

They emphasised that many promising technologies stall at the pilot stage. The challenge is not always innovation itself, but creating the conditions for scale, including repeatable deployment pathways, standardised accreditation, aggregated procurement and early-stage catalytic equity.



Speakers felt that collaboration among technology developers, utilities, investors, governments and research organisations could help shorten the path from innovation to adoption.

Platforms such as the XPRIZE Water Scarcity competition and the Mohamed bin Zayed Water Initiative were highlighted during the discussion as examples of initiatives intended to support innovation in areas such as desalination and agricultural water efficiency.[5]

However, participants noted that innovation alone does not deliver impact. What matters is proving performance in real operating conditions and reducing risk for buyers and financiers. This depends on credible validation data, clear accreditation and standards, and procurement models that enable early adopters to contract at scale. In many markets, participants identified the scarcity of early-stage catalytic equity and risk-taking offtake as constraints that can hinder the transition from pilot to bankable deployment and the unlocking of debt financing.

The discussion also explored how digital tools, satellite monitoring and performance-based financing could help link measurable outcomes to investment returns, particularly in agricultural efficiency and non-revenue water reduction, reducing information asymmetry and strengthening confidence in performance.

For the private sector, participants highlighted opportunities not only to invest, but also to help shape standards, procurement models and operating portfolios that demonstrate commercial viability.

Private investors in the discussion emphasised that bankability thresholds remain high, highlighting predictable tariff frameworks, long-term offtake agreements, creditworthy counterparties and regulatory clarity as important considerations. Without credible revenue streams and transparent risk allocation, participants noted that attracting capital at scale remains challenging.

4 Governance as the foundation for scale

Across the discussion, one point was consistent: capital is more likely to flow where regulatory and revenue frameworks are clear. Participants highlighted the need for water policy to balance several objectives simultaneously, including universal access, affordability, environmental sustainability, efficiency and investment viability. As water systems become increasingly digital, speakers also pointed to the role of stronger measurement, data governance and interoperability standards in improving transparency and building confidence.



Participants agreed that countries that have clarified regulatory mandates, strengthened utility governance and established transparent PPP frameworks are better positioned to attract private capital. The discussion highlighted the role that government can play in creating investable markets through clear standards, transparent procurement processes, appropriate pricing frameworks and a predictable allocation of responsibilities. Participants also pointed to the importance of greater coordination between water authorities, finance ministries, regulators, utilities and investors to help align national water priorities with available capital.

Speakers highlighted the role that international cooperation can play in supporting knowledge sharing, project development and access to finance, while allowing solutions to remain responsive to local needs.

5 Making water investable

The 2026 UN Water Conference was positioned as a “conference of action”. Participants emphasised that it should focus on implementation rather than commitments. Five priorities emerged from the discussion for consideration ahead of the 2026 conference:

1

Countries could consider developing costed, nationally owned water compacts aligned with fiscal frameworks, outlining financing, revenue and affordability considerations, alongside the blended-finance requirements that could help mobilise private capital.

2

Multilateral development banks, development finance institutions and climate funds could align around coordinated financing structures that help mobilise private investment at scale, while reducing fragmentation and transaction costs.

3

Finance ministries and regulators should be systematically engaged to integrate water risk and investment into macroeconomic planning.

4

Deployable innovation should be accelerated through aggregated procurement, certification frameworks and early-stage catalytic equity.

5

Measurable commitments and bankable project pipelines should be identified ahead of the 2026 conference, with a focus on actionable investment opportunities and structured investment platforms rather than conceptual discussions.

Together, these priorities highlight the need to move beyond commitments towards practical implementation, supported by coordinated financing, stronger governance and scalable innovation to accelerate progress on water security.

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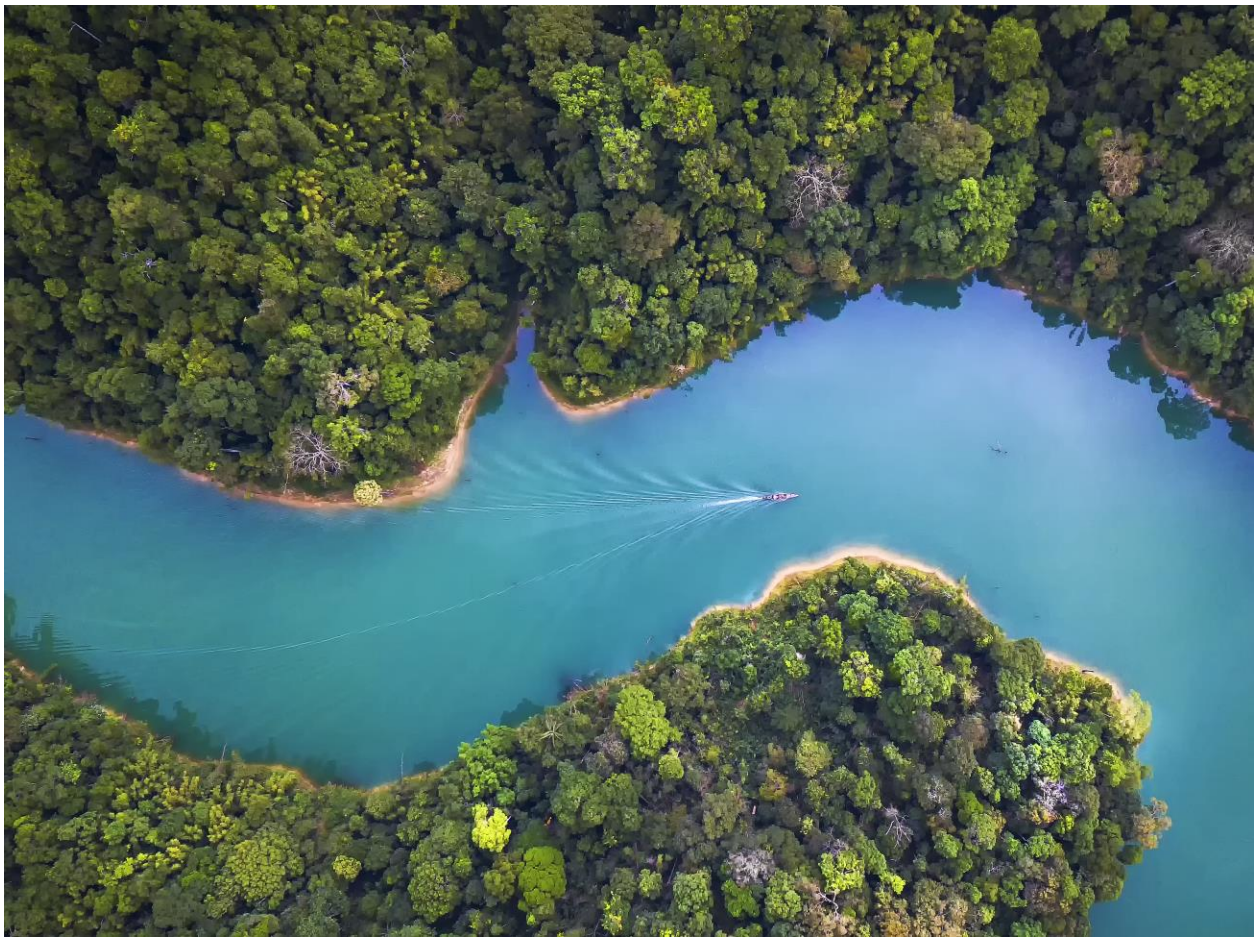

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