

Qatar's Water Security: Our Journey has Just Begun

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Water security is at the very heart of Qatar's survival. Aside from our basic human survival, our geopolitical security, economy, industries and communities all rely on a guaranteed and safe water supply. Accordingly, bettering Qatar's water security outlook is one of the country's three Key Challenges in the National Vision 2030, along with energy security and cyber security.

The pressure on Qatar's water resources has grown significantly over the last decade and we are at the beginning of our journey of innovation and behavioural change to ensure that tomorrow's supply is safe. Our water resources today are becoming strained due to the fact that we only get seven inches of rain per year and the country's population is growing – today's 2.5 million residents are forecast to multiply eightfold by 2050. Plus, more water is needed for our expanding agricultural and industrial sectors.

Water demand in Qatar has grown by an annual average of 10.6% over the ten years, with last year's 535 million (m) cubic meters of water consumption expected to hit 900m cubic meters by 2025. If today's business-as-usual approach continues, Qatar will face serious and structural threats to its economic growth and national security over the coming decades.

We are not the only ones readdressing our traditional views of managing our

water. The World Economic Forum's Global Risks 2015 Report ranked water as the global risk with the greatest potential to impact economies and societies over the next decade, which will inevitably force all countries to better their water management strategies.

Kahramaa, whose water networks cover 99.8% of Qatar's water supply, ensures that everybody has access to clean water. Water conservation, efficient water use and water recycling are the most important drivers that support Qatar's quest for water security. Kahramaa launched Tarsheed, the National programme for the Conservation and Efficient Use of Water and Electricity, in 2012 with plans to reduce the country's water consumption by 35% within 5 years.

Kahramaa has also reduced the number of leaks in its water network to below 5%, while the level of non-revenue water losses – water that has been 'lost' in the distribution network before reaching customers – have fallen to around 19%. We are targeting 10% by 2018.

Water recycling and re-use have also undeniably climbed higher on the agenda of Qatar's water-related stakeholders, including the Ministry of Municipality & Environment and the public works authority Ashghal. Now, treated sewage and industrial water are used for garden irrigation, landscaping, construction

works and district cooling services.

Desalination plants have evolved rapidly over the last two decades and approximately 150 countries now rely on such technologies to meet their fresh water requirements. In Qatar, water from desalination feeds 99% of municipal demand.

The success of Qatar's desalination technology highlights the importance of investing human and financial capital into water-related research and development (R&D). Such efforts will be integral to developing efficient technologies and scalable infrastructure to meet water demand up to 2030, as well as ensuring we cope well with any natural disasters.

Our R&D team has built strong and cooperative relationships with similar teams in Qatar – a unified effort is the only way we can all succeed. We must collectively improve Qatar's water security by finding solutions that navigate the logistical and cultural barriers that stand in our way. ■