ماجد الفطيم
MAJID AL FUTTAIM

GREAT MOMENTS
FOR EVERYONE,
EVERYDAY

WATER IN THE SUPPLY CHAIN

THE CHALLENGES AND OPPORTUNITIES FOR MANAGING WATER IN MAJID AL FUTTAIM'S SUPPLY CHAIN

LEADING BY EXAMPLE: SUSTAINABILITY THOUGHT LEADERSHIP SERIES

IN THIS REPORT

Water is essential for our survival and way of life. It's the backbone of our economies and food systems, it is deeply ingrained in our cultures and traditions, and it's the most important element in our climate system. Yet, its quantity and quality are in imminent danger. Substantial overuse and pollution, as well as physical climate risks such as drought resulting from human induced climate change, are leading to widespread water shortages and millions of people without access to clean water.

In 2021, we launched our Responsible Procurement Policy, a significant step towards engaging our suppliers to improve their sustainability performance and build resilience against environmental challenges. As a responsible business, we know our impact extends much further than our direct operations to the suppliers that we work with. Whilst operating in some of the most water scarce countries in the world, it has never been more important to ensure that our sustainable approach to water use is applied across our supply chain too. By collaborating with our supply chain to find innovative solutions, we can reduce our water footprint and achieve our target to be Net Positive in water by 2040.

Ibrahim Al-Zu'bi
Chief Sustainability Officer
Majid Al Futtaim

RETHINKING RESOURCES

We **DARE TO** rethink our use of resources to make a Net Positive Impact

OUR ALIGNMENT TO THE SDGS

DARE TODAY, CHANGE TOMORROW

In 2018, we launched our Company-wide sustainability strategy, *Dare Today, Change Tomorrow*. Our five-year strategy aims to reflect the world we live in and defines our commitment to transform the way we do business and embed sustainability thinking in everything we do.

The strategy sets out 21 material issues and 11 Sustainable Business Commitments (SBCs) across three strategic focus areas: Transforming Lives, Rethinking Resources and Empowering Our People. Within this white paper, we discuss the topic of water in our supply chain and the actions which can be taken to optimise our water use and reduce our demand for water.

OUR NET POSITIVE WATER COMMITMENT

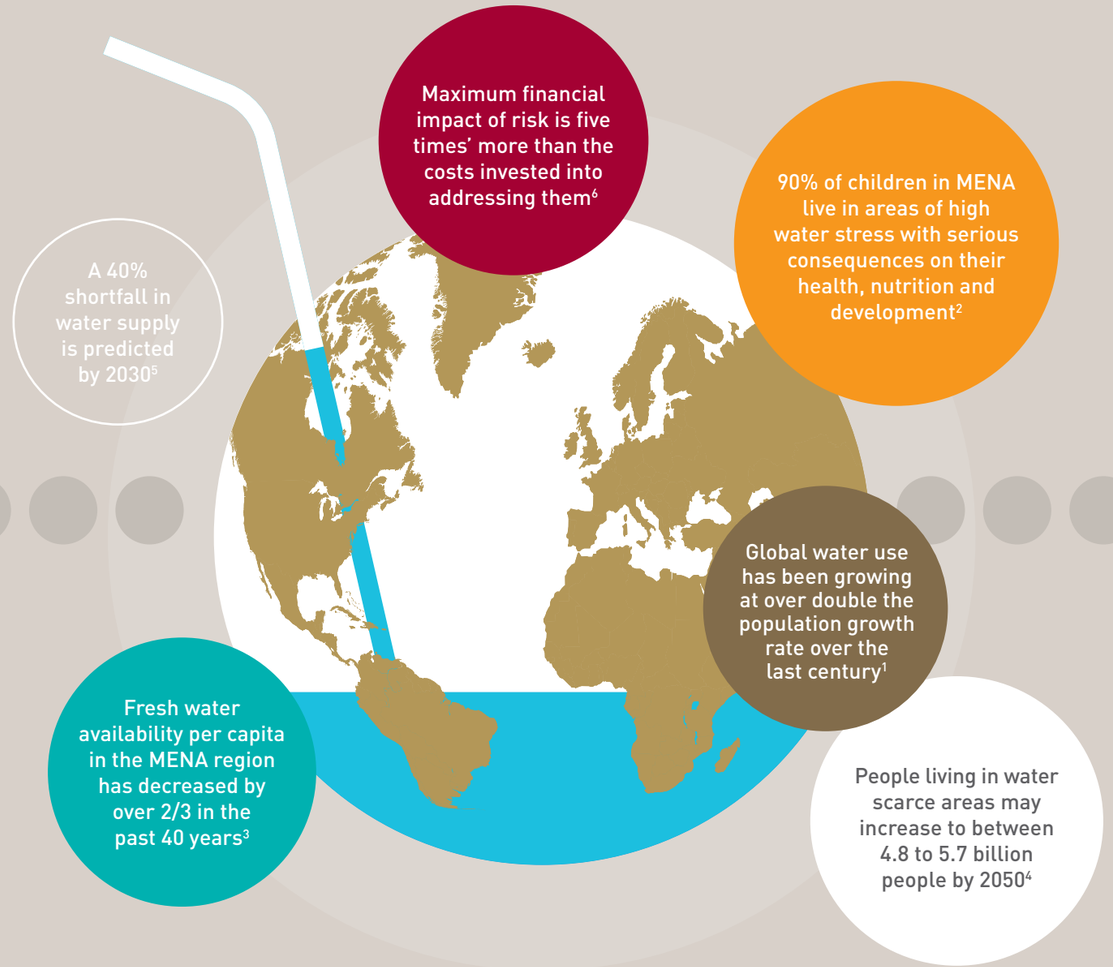
Majid Al Futtaim operates in some of the most water-scarce countries in the world and with a commitment to achieve Net Positive water by 2040, it is crucial that we use water in the least intensive manner possible. We have undertaken extensive research of the solutions needed to optimise our water use and reduce our demand including the on-site treatment of wastewater. For the solutions to be as effective as possible, they must be examined in terms of their local feasibility and water re-use potential, aligned with specific local guidance and regulations, and explored in close consultation with local planning authorities. By managing our water use responsibly and applying these same principles to our supply chain, we can help protect the resource that gives us life.

Majid Al Futtaim's first Net Positive Carbon Building

THE IMPORTANCE OF WATER IN THE SUPPLY CHAIN

Water is key for sustainability, affecting many topics including health, economics, and even social inclusion. Despite its importance, many consider it to be an unlimited resource and worrying trends have led the United Nations to declare 2018-2028 as the International Decade for Action on Water for Sustainable Development.

The Middle East and North Africa (MENA) region is considered one of the most arid and water scarce areas on Earth, having twice the average level of water stress relative to the rest of the planet[7] (see figure 1). Its rapid growth in population has led many of its countries to rely heavily on an ever-depleting amount of ground and surface water. Modelling by the Arab Forum for Environment and Development predicts that total demand for water in the region could grow by 58% from 2010 to 2050 without even considering the effects of climate change[8].



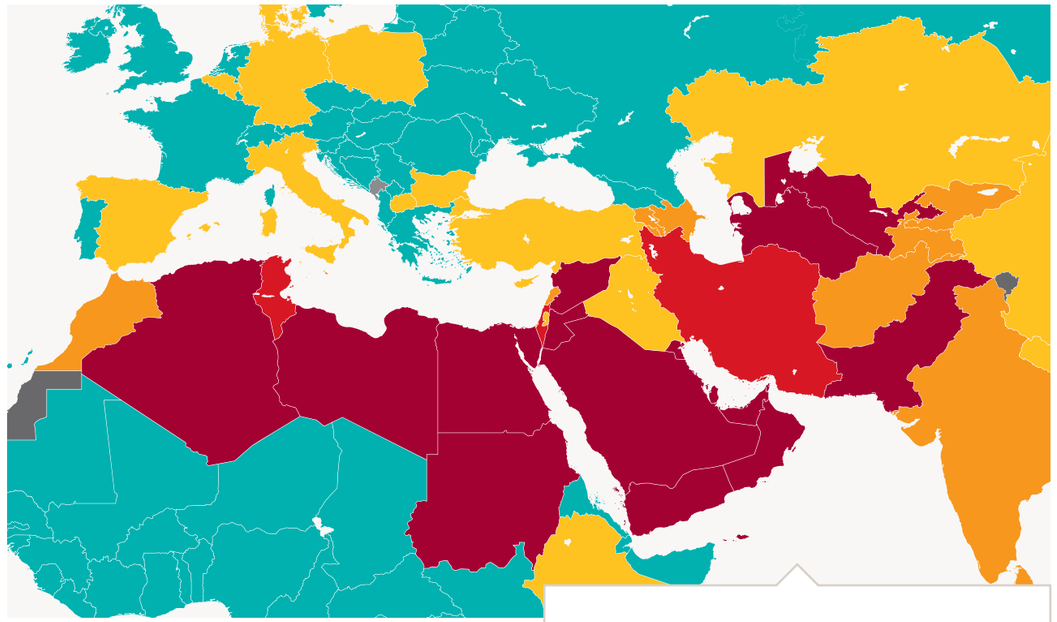


Figure 1: UN Summary Progress Update 2021: SDG 6 — water and sanitation for all[5].

Freshwater withdrawl as a proportion of available freshwater resources.

Key:

No stress	0-25%
Low stress	>25-50%
Medium stress	>50-75%
High stress	>75-100%
Critical stress	>100%
Data not available	
Not applicable	

The importance of water in MENA means that nations and businesses are creating and implementing policies to mitigate this growing issue. Existing and emerging technologies are likely to play a strong role in lifting the water burden. Desalination plants already make significant contributions to freshwater supply in some countries. For example, the United Arab Emirates (UAE) receives over 40% of its supply from desalinated water[9] (see figure 2). Despite this, the costs of desalination plants can be very high (particularly when moving water inland) and energy intensive (requiring large amounts of renewable energy to be considered sustainable). It therefore is pertinent to look at ways in which relevant parties can reduce their demands for water in their operations.

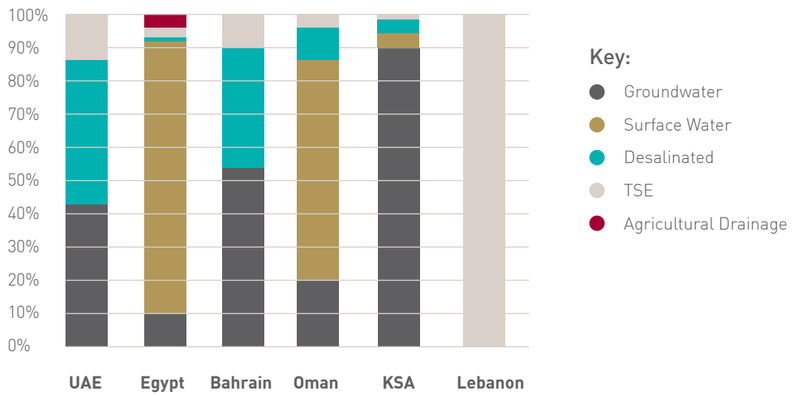


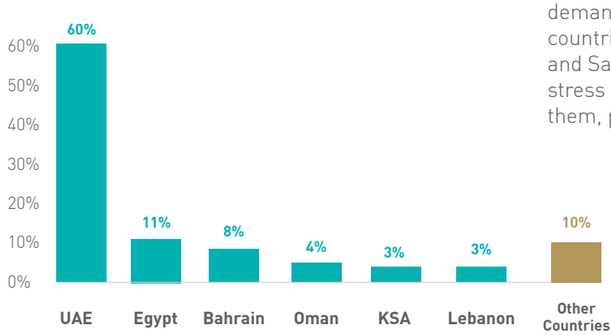
Figure 2: Water supply by source in countries representing 90% of Majid Al Futtaim's Water Footprint.

THE IMPORTANCE OF WATER FOR MAJID AL FUTTAIM

Majid Al Futtaim has a wide reach, operating in 17 countries of which ten are critically water stressed and six are either high or medium water stressed.

Business activities also include high water impact industries like food, beverages, and fashion, which rely on agriculture and other water intensive processes. Agriculture alone is responsible for 60% of the world's freshwater withdrawals. In the MENA region, this proportion is higher for most countries[10].

Most of Majid Al Futtaim's water footprint (90%) is located in seven countries (see figure 3). Most demand comes from the UAE (60%). Other prominent countries include Bahrain, Egypt, Lebanon, Oman, and Saudi Arabia which are all located in high water stress areas, so actions should be prioritised within them, particularly in the UAE.



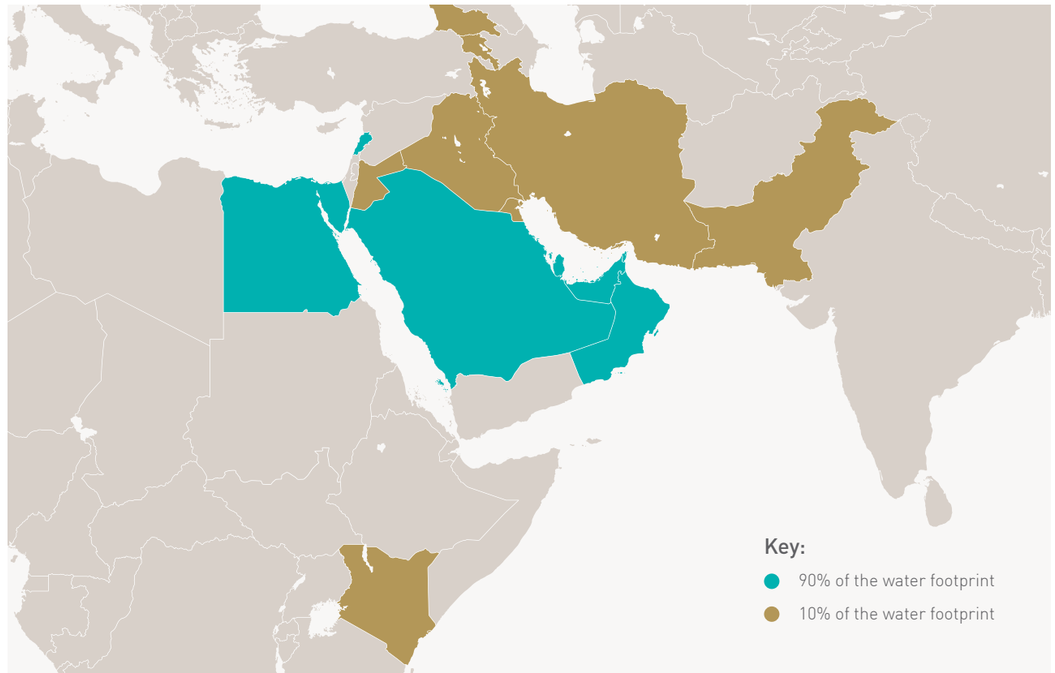


Figure 3: Majid Al Futtaim's water footprint for directly controlled supplies.

To understand the options for reducing operational water demand in these countries, it is important to look at how policy and investments can prioritise reducing water usage and re-using it where possible. For a large company such as Majid Al Futtaim, it could have a highly positive impact to explore how water management can be improved within its supply chain.

Through our sustainability strategy, Majid Al Futtaim looks to address our impacts on socio-economic and environmental issues. With the organisation working across the Middle East, Africa and Asia in multiple water scarce countries, the very material problem of water use is important to achieving these goals.

Water is fundamental to human life and plays a significant role in the prosperity of communities. A lack of water could result in communities with limited access to water for drinking or sanitation as well as for agriculture which could lead to food shortages and price increases. Such issues cause decreases in quality of life that can be further exacerbated by the increasing number of droughts expected in the coming decades[11].

As a business we understand our role in transforming the lives of our communities, and our commitment to become Net Positive for water by 2040 will play a significant role in supporting and driving the transition to a more sustainable world. Although water use and extraction in Majid Al Futtaim's supply chain is not within the goal's scope, engagement and improvement to water in the supply chain could have a positive impact in the region due to the significant challenges with water scarcity where Majid Al Futtaim operates.

Majid Al Futtaim's Air to Water pilot

ALIGNING WITH INTERNATIONAL EFFORTS

Our sustainability strategy is aligned with 14 of the UN Sustainable Development Goals (SDGs), including SDG 6 which aims to ensure access to clean water and sanitation for all. Through our operations and engagement with our stakeholders, we strive to deliver a significant impact and directly contribute to the goals of the 2030 Agenda for Sustainable Development.

Pressure on global water supply is reflected in the expanding guidance and targets for company water use. The UN Global Compact, to which Majid Al Futtaim is a signatory, aims to give more contextual guidance and stresses its importance in addressing the locational variation between regions, countries, and even water basins. The World Wildlife Foundation (WWF) also published material that emphasises the need for contextual advice and goals. The WWF believes that targets should be 'science-based', aligning to the latest local hydrological data or a science-based definition of what is a "sustainable" state for water issues in a chosen basin.

Additionally, the Science Based Targets Initiative sets clear and comparable goals for climate change and is currently expanding the scope of these goals with the sister group 'Science Based Targets Network' to develop nature-based targets for businesses and cities. Included in the scope are water targets which aim to substantially improve water-use efficiency to ensure more sustainable water withdrawals and reduce those exposed to water scarcity[12].

Our sustainability strategy is aligned with 14 of the UN Sustainable Development Goals, which directly and indirectly connect with efforts to improve water quality and use.

LEARNINGS FROM OTHER COMPANIES

With a growing understanding of the social, environmental, and economic imperative to address water use, companies are looking to innovate to seek the untapped benefits of managing water. In this section, we provide an overview of key examples from companies who are pioneering in how they manage their water consumption.

MARS Food

In 2017, Mars realised that reducing its direct water use could only do so much. As a global producer of food products for humans and pets, the company looked towards its water intense agricultural suppliers. Mars calculated that within their extended operations, over 99% of their water use was associated with crops and livestock used for ingredients in Mars products.

The company mapped its total supply chain water use to see which of its direct and indirect suppliers were relying on irrigation (rather than rainfall) as well as the areas that were subject to water stress. Irrigated rather than rainfed agriculture means higher water consumption, especially if it is not well managed. Based on this assessment, Mars focused on crops from its larger suppliers in high water stressed areas who relied on irrigation.

After focusing on eliminating water intensive practices, Mars improved its irrigation techniques including alternate wetting and drying (AWD) for rice and drip irrigation. In Pakistan, the business delivered a 32% increase in farmer income and 30% reduction in water use through these measures. Overall, Mars has estimated savings of US$60-180 million through its wet-dry rice farming from avoiding supply shortages.

Mars set its own context specific water targets and collaborates with organisations such as the Pacific Institute, WWF, UN CEO Water Mandate, and World Resources Institute (WRI) in developing an accepted method to define science-based corporate water targets. It is monitoring and contributing to the development of Science-Based Targets for Water (via the Science-Based Targets Network).

One of the largest cosmetic companies in the world, L'Oréal has focused on water efficiency and re-use in its factories, which has earned it an 'A' rating for its CDP water security submission. Rationing by local water suppliers prompted the business to look at how it could transform its factories to consume less water. L'Oréal factories aim for its internal 'Waterloop' standard whereby all its processed water is either re-used or recycled on-site. Some factories even provide water, hygiene, and sanitation services to its employees as part of the Waterloop. Through this system L'Oréal no longer need to rely on municipal water suppliers and have significantly reduced its impact on local water supply in water stressed areas. Currently, Waterloop factories are established in Italy, Belgium, Russia and Mexico, but by 2030 L'Oréal aims to have started the implementation of the Waterloop standard in all its factories, beginning with those in water stressed locations[13 14].

Burberry measure and report water across its value chain and use WWF's water risk assessment tool and the Aqueduct Water Risk Atlas to examine current and future water risks. It reports to the CDP and was given an 'A' rating for its submission. Its strategy revolves around using water efficient materials, improving water management practices, and implementing technologies to improve water recycling. When sourcing raw material, Burberry has set targets to attain more sustainable cotton, wool, and leather as well as using more recycled polyester and nylon. When considering its manufacturing suppliers, the company has nurtured a transparent and respectful relationship to improve measuring and reporting. Additionally, Burberry has enacted its 'Water Conservation Programme' which actively engages its supply chain to assess its water management with a strong emphasis on water intense processors such as textile mills, tanneries, and dyehouses, as well as developing an online climate action training for the fashion industry supply chain.

An agribusiness firm headquartered in Abu Dhabi, Al Dahra specialises in the cultivation, production, and trading of animal feed and essential food commodities as part of its end-to-end supply chain management. The company has a prominent position in the Middle Eastern and Asian markets and boasts a land bank in excess of 400 thousand acres and a fleet comprising more than 2,000 farming assets. Furthermore, it owns and manages 20 grain hubs in the UAE. Al Dahra has a strong focus on food security and sustainable development. It has a vision of transparency and social responsibility.Amongst other metrics, Al Dahra reports its water consumption in its annual sustainability report. Within this report, the company express the aim of improving efficient water use and its sustainability. It explains the crucial need to improve the "crop per drop" efficiency of water to ensure food security while effectively managing the planets resources. Al Dahra has several initiatives on water management that are based around the concepts of land reclamation and irrigation development, drip irrigation systems for water usage optimisation, precision farming application, and even using satellite data for better farming control. In the UAE where water and agricultural land is scarce, Al Dahra's operations promote minimal usage of water, chemicals and fertilisers. Agriculture uses special farming beds and drip irrigation systems to reduce soil degradation and water use. Fertilisers are designed to improve water retention in soil and therefore reduce the demand for irrigated water. These methods can help achieve food security in countries like the UAE in a more sustainable manner[15].

UNDERSTANDING WATER FOOTPRINTING METHODS

Environmental data from suppliers is not always available but is required for accurate measurement and reporting of water use in a supply chain. Companies have historically focused on what they can control and for what they are directly responsible, despite the fact that value chain water use is far greater than operational demand[16].

The CEO Water Mandate, an initiative from the UN Global Compact, has published Corporate Water Disclosure Guidelines[17] on how companies should measure and report their water performance. The advanced level reporting requires companies to measure water withdrawals by source type, water intensity, water consumption, and water discharge by destination type at a specific location. Companies can take this further by looking at water performance across their value chain, measuring beyond both their direct and indirect consumption to have a more complete understanding of how their extended operations relate to water and water related financial risk.

An outline of this process begins with the company accounting for its total direct and indirect withdrawals from water stressed and water scarce areas. The total withdrawals are then categorised by different value chain stages. The CEO Water Mandate suggests a minimum inclusion of the supply chain, direct operations and product use. Companies should also report water consumption in the value chain, the proportion of its suppliers that adhere to water quality standards, and those with improved water, sanitation, and hygiene services implemented. These should be consistently maintained in a manner similar to how a company controls its own operations.

If a company is unable to acquire data within their value chain, then estimations are allowed by extrapolating from a subset of suppliers. The percentage of suppliers from which data can be obtained should also be reported as well as the extent to which companies can accurately evaluate risks, opportunities, and impacts in their value chain.

Companies can also disclose water performance to the CDP's Water Security questionnaire which broadly reflects the structure of the CEO Water Mandate. The CDP has the aim of reducing their environmental impacts by using the power of investors and customers and using collected data to advise decision makers on reducing risk, finding opportunities, and taking action towards a more sustainable world.

The key elements of the CDP's general water questionnaire include water dependence and water accounting metrics; value chain engagement activities; business impacts; risk assessment procedures, risks, opportunities, and responses to these; facility water accounting; water governance and business strategy; targets and environmental linkages. Further to these, companies in some sectors considered high impact for water optimisation measures are presented with sector specific requests for information, either in addition to or instead of the general water data points.

Another water measuring guideline has been published by the Water Footprint Network. The organisation describes itself as a "platform for collaboration between companies, organisations and individuals to solve the world's water crises by advancing fair and smart water use". Their guideline is designed to be applicable globally and across many sectors. It can be used by businesses to help achieve more sustainable water management processes for their direct and supply chain. It has a four-phase process to quantify and map green, blue and grey water footprints, evaluates the efficiency and equitability of water use and helps identify and prioritise strategic actions.

Published tools which could assist in measuring and estimating water use in the value chain are currently limited; however, the Water Footprint Network is currently expanding its existing tool to do so. The tool can currently give a world, country and river basin-based perspective and is raising funds to expand the tool to include raw products, commodities, or businesses.

PRIORITY AREAS FOR TACKLING OUR WATER FOOTPRINT

As a diverse business operating across a range of industries, from fashion to community development, Majid Al Futtaim is present in several sectors which are typically characterised by high water use. To effectively minimise our water footprint, the following activities have been identified as priority areas for action.

FOOD AND BEVERAGES

At Majid Al Futtaim - Retail, our stores offer over 500,000 food and non-food products, around 80% of which are sourced locally from the region. With agriculture currently accounting for around 70% of water withdrawals globally and required for almost all food products[18], we must assess ways of improving practices across our supply chain.

Drip irrigation is a form of micro irrigation that uses localised pipes, tubes, valves and emitters to distribute water more directly to the roots of crops. Through reducing evapotranspiration, this method can reduce water and nutrient loss from soil. These systems can have greater initial capital costs than other irrigation methods and must be installed correctly with consideration to soil, water, crop, climatic and topographical conditions.

We have already piloted some of these innovative systems at Majid Al Futtaim – Retail locations. Following the success of the first retail hydroponic farms in the region at My City Centre Masdar and Yas Mall in Abu Dhabi, we expanded this solution to now include six farms in total. The farms grow a wide variety of unique leafy green herbs and vegetables, using 90% less water than traditional soil agriculture.

FASHION

Each year, the entire fashion industry uses 93 billion cubic meters of water: enough to meet the consumption needs of five million people[19]. Moreover, 17-20% of the world's industrial water pollution comes from fabric dyes and treatment[17]. An effective measure in reducing the impact of the fashion industry is to simply reduce the gathering of new resources to create products.

Majid Al Futtaim can:

- Engage with fashion suppliers to offer products designed to last longer and offer repairs to customers
- Engage with fashion suppliers to create products which can be dissembled and re used and offer opportunities for customers to recycle old clothing

Cotton accounts for 16% of global pesticide usage globally, which are often washed into surface waters soils thus disrupting ecosystems and causing harm to humans[20]. Certified organic cotton does not use harmful pesticides and polluting nitrogen fertilisers (Soil Association, Global Organic Textile Standard, Organic Content Standard).

Majid Al Futtaim can:

- Engage with fashion suppliers to produce products using organic cotton and other more sustainable materials for their products (such as recycled nylon and polyester)

COMMUNITIES

Majid Al Futtaim undertakes development projects to build new community spaces. The engagement does not simply end, however, with the construction of buildings. Majid Al Futtaim has always made strong efforts to engage with the community to develop the support systems that will enable them to flourish and to connect with other parts of the towns and regions in which they operate. It is in these communities that there is a huge amount of potential to effectively manage water in the supply chain. Options for interventions can begin with the buildings themselves. A full exploration of such options was reviewed in Majid Al Futtaim's paper titled "On-site water positivity: Opportunities for the use of water treatment technologies" where Majid Al Futtaim outlines options including effective garden watering practices, effective irrigation practices, optimised design features for white good appliances, and the potential for using wastewater treatment technologies.

Options for reducing water consumption extend beyond this to engaging the surrounding communities – especially if they are agricultural ones – to optimise water use in small-scale water generation practices and, through this, to develop water offsetting projects. The options for such generation are outlined in detail in another report that Majid Al Futtaim developed entitled Investing in the Future

MEASURING YOUR PROGRESS

There are multiple steps required for a company looking to embark on the process of reducing their water use in the supply chain. Managing your water footprint is vital and there are several ways that you can begin monitoring, measuring, and reporting on your progress.

TARGETS

- Set contextual based water targets using the UN Global Compact, SDGs or CEO Water Mandate
- Explore the possibility of setting water targets using the Science-based targets for Nature

COLLABORATION

- Collaborate with global, regional, national, and local water stewardship groups to align and achieve common goals and targets for maximum impact
- Foster partnerships that encourage knowledge and skills sharing

MEASUREMENT

- Use guidance from water measurement methods, such as the UN CEO Water Mandate's Corporate Water Guidance or the Water Networks Footprint Assessment
- Use water-based assessment tools such as 'Water Risk Filter', Aqueduct, Water Footprint Tool, and materiality-based assessment tools such as 'ENCORE' to help assess the materiality of different areas of the supply chain

AUDITS

- Conduct research efficiency audits, prioritising the most material supply chain processes and locations, to create potential action lists to improve water efficiency

IMPLEMENTATION

- Develop an action plan for implementing the most appropriate actions, chiefly options for engaging experts
- Develop capacity building sessions for stakeholders

REPORT

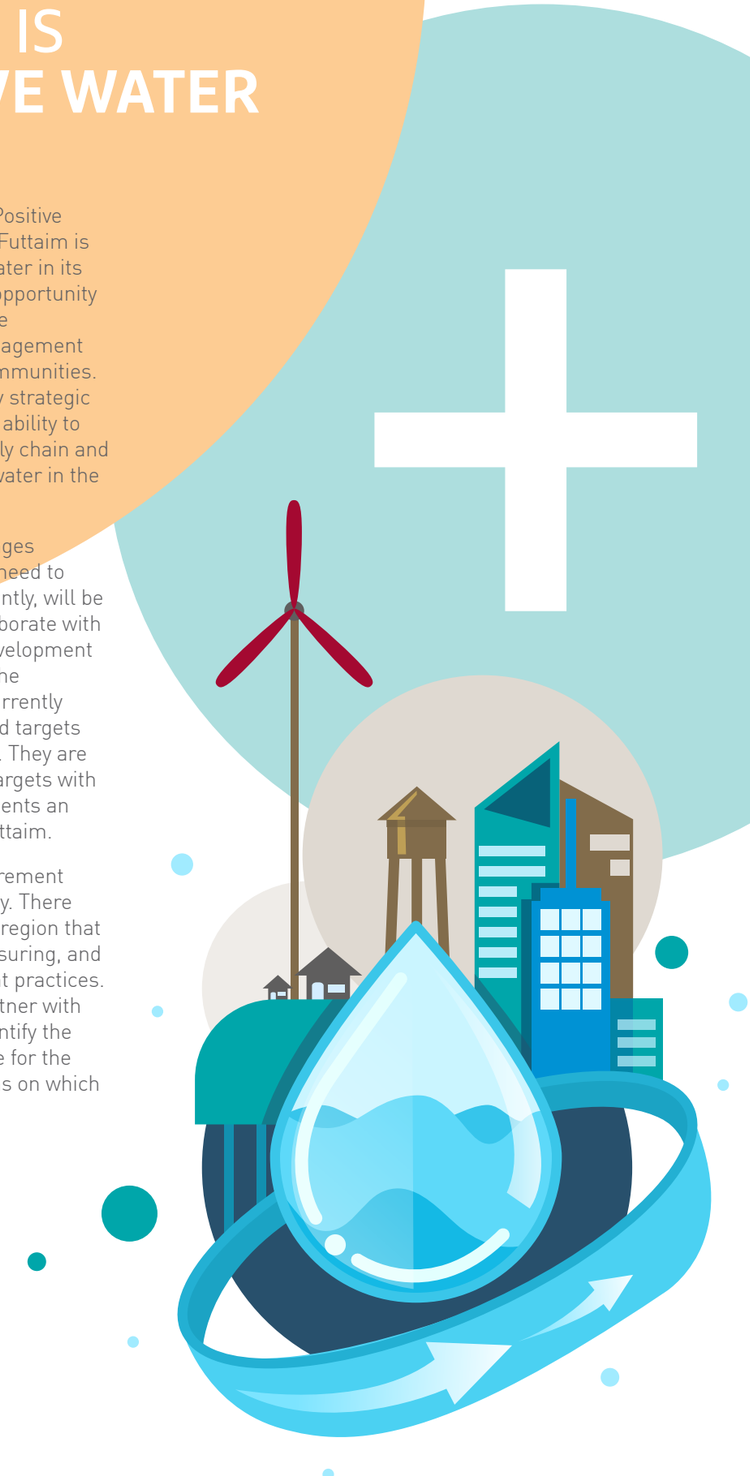
- Publicly disclose your measured water use and implementations to the CDP Water Security Survey and to the AWS Standard for certification

THE FUTURE IS **NET POSITIVE WATER**

Even though it is not part of the Net Positive Water by 2040 target scope, Majid Al Futtaim is committed to effectively managing water in its supply chain. We have identified key opportunity areas for doing this including effective agricultural management, smart engagement on fashion, and planning with our communities. Of these, agriculture presents the key strategic opportunity due to Majid Al Futtaim's ability to engage the various parts of this supply chain and the demand that agriculture has on water in the region.

To drive the water management changes outlined above, Majid Al Futtaim will need to pursue several actions. Most importantly, will be the need to develop targets and collaborate with existing entities in the region. The development of targets can take many forms and the Science-Based Targets Initiative is currently developing and piloting science-based targets for nature including targets for water. They are seeking to trial the roll out of these targets with early adopter participants which presents an important opportunity for Majid Al Futtaim.

Given the complexity of water measurement and management, collaboration is key. There are many institutions throughout the region that are dedicated to understanding, measuring, and ensuring effective water management practices. Majid Al Futtaim is well placed to partner with one or several of these entities to identify the most effective actions to drive change for the region and therefore the supply chains on which Majid Al Futtaim depends.



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