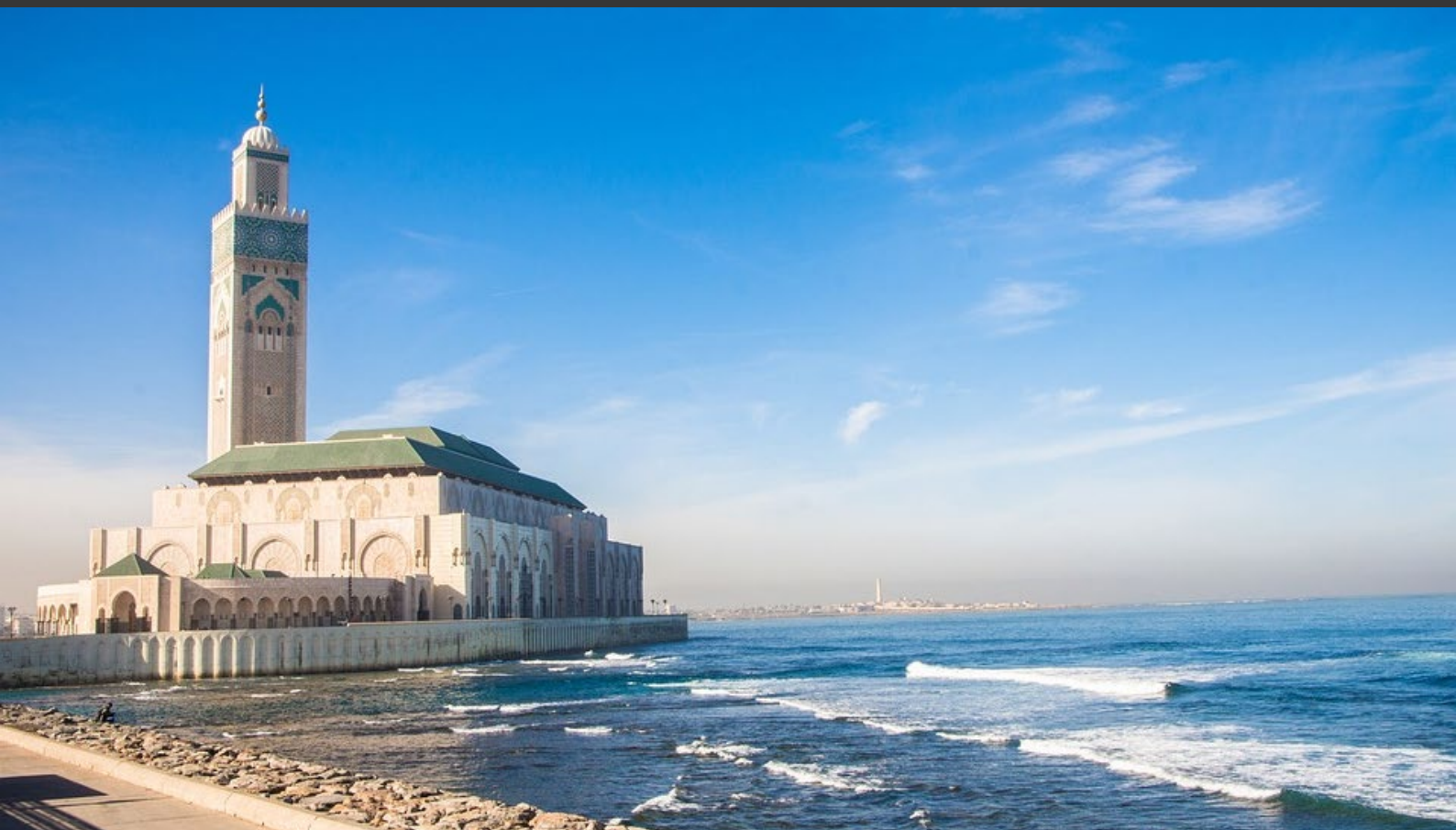
WATER FOR ALL IN MOROCCO

Unlocking business opportunities and partnerships for Swedish companies in Morocco's water sector



SWEDISH INNOVATION FOR SUSTAINABLE WATER IN MOROCCO

In the face of escalating global water scarcity, Morocco emerges as a critical focal point, as it grapples with severe water shortages. This report delves into the country's water crisis, explores governmental initiatives, and underscores the pivotal role Swedish companies can play in providing innovative and sustainable water solutions.

According to the United Nations, over 2 billion people currently live in countries experiencing high water scarcity. This number is expected to rise as the global population continues to grow. Additionally, a lack of access to clean and safe water remains a critical concern, contributing to health crises and exacerbating socio-economic disparities.

Africa is the driest inhabited continent globally, with limited freshwater from renewable sources, and approximately 90% of its wastewater left untreated. North Africa is amongst the regions most affected by droughts, with Morocco being the second most water stressed country. North Africa is expected to see one of the most rapid increases in water usage in the world over the next 30 years, as well as increased efforts towards securing water supply and water access.

The water shortages currently faced in Morocco and the region not only necessitate critical measures to mitigate its impact on communities but also present significant opportunities for innovative solutions and sustainable water management practices.

Water technologies play a pivotal role in addressing global water challenges, and Swedish companies are well-positioned to contribute. By leveraging innovation and technology, and by collaborating with local government bodies and international infrastructure firms, Swedish companies can provide solutions for efficient water use and wastewater treatment.

ZAKARIA BENABDELJALIL-SJÖBERG

Country Manager for Morocco & Regional Manager North & West Africa

zbs@business-sweden.se

ALEXIS VINETTE

Project Manager

Alexis.vinette@business-sweden.se

RAOUIA KHALLAAYOUN

Consultant

Raouia.Khallaayoun@business-sweden.se

Tackling water scarcity in North Africa and the urgency for sustainable solutions

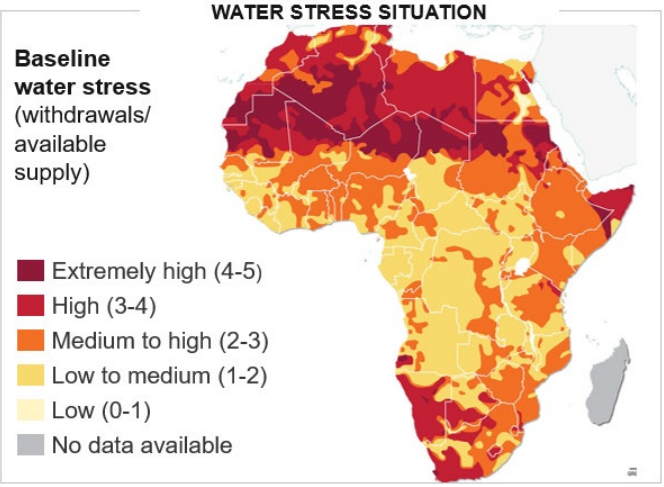
Africa, the world's driest continent

In Africa, nearly half of the landmass is considered dry and more than a third classified as hyper-arid or desert.

The increasing demand for clean water due to population growth, industrialisation, and changing consumption patterns, coupled with the impact of climate change, has led to a scarcity of freshwater.

With nearly 20% of the world's population and less than 10% of the planet's water resources, access to sustainable clean water is fast becoming a matter of urgency.

Amongst the various African regions, North Africa experiences the most severe water shortages, with three countries amongst the 30 most water stressed in the world (Libya, Morocco and Algeria) according to the *World Resources Institute*.



Source: WRI, 2022

At current rates, water-related hazards due to climate change – drought, heavy rains, storms, and their associated societal damages, will occur at a higher frequency with every degree of global warming.

Rising tides: Governmental initiatives and market opportunities in North Africa's water revolution

To answer these pressing challenges, regional governments have embarked on a wider set of regulatory trends, to provide clean water for all.

Regulations and initiatives to promote wastewater treatment and reuse, to ensure water safety and to upgrade aging water infrastructure systems are growing throughout the region.

In Egypt, authorities have launched a National Water Plan aimed at strengthening institutional and legal capacities of water resources management agencies to ensure water preservation by 2030. Meanwhile, the Algerian government has established a special programme that aims to reuse 60% of treated wastewater in the agricultural sector by 2030. Finally, Tunisia has implemented a "Water 2050" strategy, that looks at increasing the availability and equitable access to water resources by 2050.

Those regulations and government initiatives **create *de facto* market opportunities for companies**. In recent years, water projects have increased in size and numbers – from improved water management and irrigation systems, upgraded water supply technologies, and increased number of wastewater plants. Desalination projects alone represent a total value of almost US$4 billion, with Morocco accounting for more than half of that.

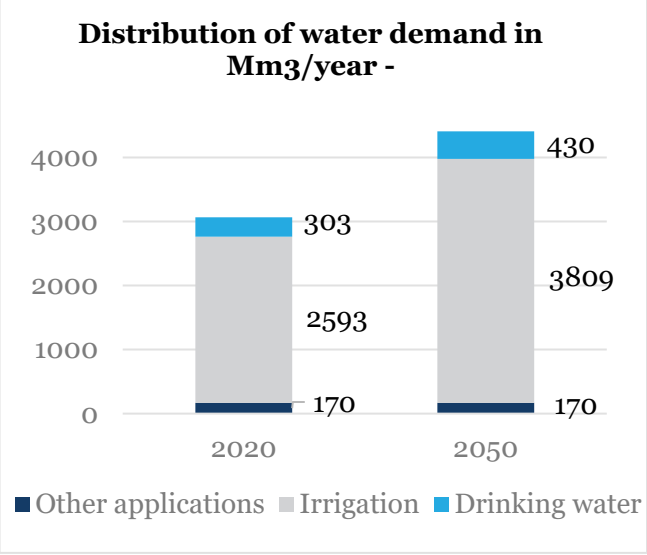
Navigating water shortages in Morocco: Adaptive strategies for sustainable resource management

Current situation and governmental strategies

Morocco is the 22nd most water stressed country in the world. By 2050, the country will lose 30% of its water resources annually (Moroccan Ministry of Equipment and Water).

The high demand for water, especially in the agriculture sector, is intensifying pressure on already strained water resources, posing a serious threat to sustainability.

Source: Moroccan Ministry of Equipment and Water



The Moroccan government, acknowledging the severity of the water crisis, has implemented comprehensive strategies.

The two main programmes launched by the Moroccan authorities are the *National Water Management Plan 2020-2050*, boasting a budget of US$38 billion, and the *National Priority Programme for the Supply of Drinking and Irrigation Water* 2020-2027, with an allocation of US$14.2 billion.

Collaboration among key stakeholders is vital for the effective oversight and implementation of Morocco's water strategies:

- The *Ministry of Equipment and Water Management* oversees key areas such as dam construction, desalination of seawater, wastewater reuse, development of the water transmission network, groundwater exploration, and enhancement of rural drinking water supply.

- The *Ministry of Interior* plays a crucial role, overseeing the launch of strategic water programmes and approving water projects at the country level; therefore ensuring alignment with national priorities.

- The *Directorate of Water Research and Planning (DRPE)* leads research and strategic planning.

- The *National Office of Electricity and Drinking Water (ONEE)* implements plans, oversees project execution and infrastructure management.

Priority areas for water management in Morocco

Water resource management

Morocco has allocated an annual budget of US$10 million to expand the exploration of ***groundwater resources***. Additionally, new projects are planned for rainwater collections in nine regions in 2024.

- **Stormwater management** – upgrade of the rainwater collection process in the city of Meknes, with precise monitoring and measurement of water resources.

- **Groundwater management** – national development of real-time water monitoring tools and evaluation of groundwater levels.

Wastewater treatment and reuse

In the ***wastewater treatment*** sector, Morocco is looking at increasing its treatment capacity from 70 million m3 per year to one billion m3 per year.

The country has already successfully raised its urban treatment rate to 56%, accounting for 167 operational water treatment plants and planning the building of 41 new facilities.

New industrial areas will also be equipped with wastewater treatment plants. Treated water will find applications in industries such as phosphate washing, irrigation, and groundwater recharge, particularly benefiting the agricultural sector.

In the area of ***wastewater reuse***, Morocco is also increasing its capacity. A total investment of US$232 million is aimed at allowing a 100 million m3 of treated wastewater annually by 2027.

Water supply and distribution

Morocco is committed to expanding ***drinking water supply*** in remote rural areas, achieving an access rate of over 98%.

In the Northern region of Tanger-Tétouan-Al Hoceima, the Ministry of the Interior and ONEE agreed on a US$65 million investment to implement drinking water supply projects in rural areas.

Overall, the government has allocated US$430 million to supply 119 rural centres and 2,400 villages nationwide in 2022.

Water infrastructure and engineering

The Moroccan authorities are looking to bolster the nation's current ***dam capacity*** of 20 billion m3 with the building of 20 new dams, contributing an additional 6.6 billion m3.

Furthermore, plans for ***inter-dam transfer*** projects aim to balance water resources across regions, complementing the 17 water transfer structures already in place.

A noteworthy advancement is the waterway project aimed at connecting water basins between the cities of Rabat and Casablanca to serve around 12 million people, about a third of the country's population.

Seawater desalination

The use of seawater desalination remains the primary solution for addressing the country's water crisis. Morocco's goal is to provide 50% of its drinking water supply through desalination by 2030.

In this context, the number of ***desalination plants*** is set to increase from 15 to 50 by 2050. Seven desalination plants are currently being built all over the country, with an additional nine plants scheduled for completion by 2030. This includes the Casablanca-Settat water desalination plant, which aims to be the largest of its kind in Morocco with a 300 million m3 supply of water per year by 2030.

Irrigation and agricultural water

In 2020, authorities launched a 10-year US$5 billion investment programme aimed at mitigating water shortages in the agriculture sector, which accounts for over 80% of water use.

These initiatives focus on transitioning to ***water-efficient irrigation***, particularly localised irrigation at the parcel level, and improving water distribution networks by converting open-channel systems to closed pressure pipelines.

One example of such a project is the hydro agricultural development project in the Northern Gharb region, which aims to expand irrigation by over 30,000 hectares.

The project is currently under study for financing by the Japan International Cooperation Agency and construction work is targeted to start this year.

Swedish expertise and collaboration in addressing Morocco's water challenges

Swedish companies' expertise and technologies can contribute to addressing Morocco's water needs, fostering mutually beneficial collaborations and contributing to sustainable water management initiatives.

Swedish technologies and applications are present throughout the entirety of the value chain and play a crucial role in optimising efficiency, reducing waste, and ensuring the reliability of water supply.

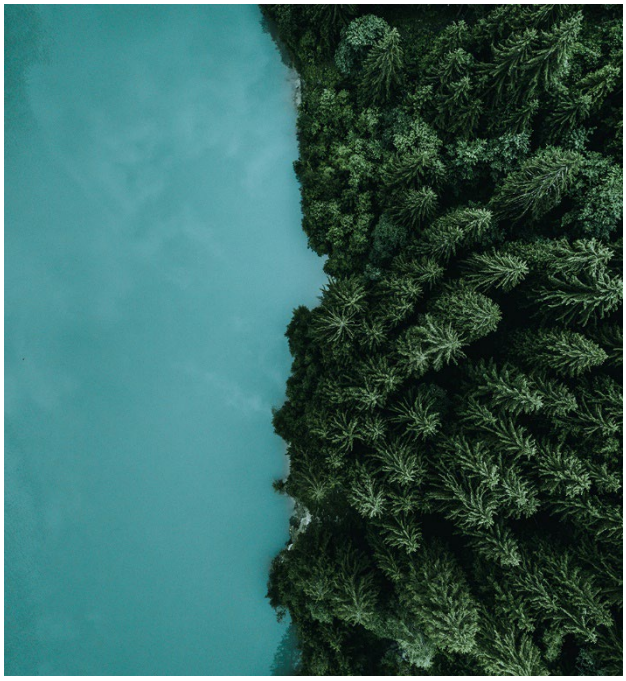
Why Sweden?

Sweden, known for its **abundance of water resources** (9% of the country's surface), has strong international standing in regards to sustainable solutions in the water sector.

Sweden is known for its **advanced water treatment technologies** and expertise in the field. The country has made significant progress in developing innovative solutions for water purification and wastewater treatment.

The Swedish government has a strong focus on sustainable water management. **Policies and initiatives** are in place to protect and preserve water resources, reduce pollution, and promote efficient water use.

Sweden is at the forefront of the **knowledge-intensive and development-oriented water sector** where scientists, private companies and government agencies have a tradition of collaboration.



Sweden's key export strengths in the water sector

Today, Swedish water expertise, which is worth SEK6 billion, is exported annually. Export opportunities in the water sector focus on three key segments.

First, in the **water supply and distribution** area, Sweden has a strong tradition of water engineering and well-developed expertise in environmental engineering. Sweden is also a pioneer in implementing sustainable water management practices, including energy-efficient distribution systems.

International EU-projects have led to the implementation of Swedish tools and methods in foreign markets, allowing companies to accumulate experience.

Second, Sweden has strong international standing with regards to **wastewater management** and is at the forefront of developing and implementing advanced water treatment technologies.

This is a result of the early introduction of stringent requirements for phosphorous and nitrogen removal at municipal wastewater treatment plants, followed by significant investment over the past twenty years. Again, a great opportunity for exports.

Finally, Sweden has a lot to bring in the **water resource management** segment, with very strong know-how related to sustainable water management in municipalities that can be export products.

Cities such as Malmö have become international examples of integrating stormwater issues into urban planning. Modelling tools and technology for treatment and the use of stormwater are examples of products with considerable export potential.

Swedish solutions: Navigating Morocco's growing water market with innovation and expertise

In Morocco, Swedish companies will compete in a water market valued at more than US$20 billion over the next three to four years.

Local project owners are looking for companies that can contribute to prioritised projects, namely the building of dams, desalination plants, reservoirs waterway, wastewater treatment facilities and drinking water supply in remote rural areas.

Among the much sought-after solutions and technologies are:

Pumping and distribution systems, to ensure a consistent and uninterrupted water supply. Applications include pumps, pipelines and tubes, valves water and storage tanks.

Water and wastewater treatment technologies, including filtration systems, desalination plants, and membrane-based processes.

Software and IT solutions for water management systems, including remote sensing technologies, water monitoring systems and data analytics platforms.

The size, budget and timeline of water projects vary significantly from one to another. This allows both large multinational groups and smaller, more

specialised water equipment suppliers with solid position on the international markets to compete.

Positioning Swedish expertise through collaboration

To capture these opportunities, companies can count on a trade-oriented water sector in Sweden where financiers, private companies and government agencies have a tradition of collaboration.

By bringing together *Team Sweden* – Business Sweden, the Embassy, the financing institutions EKN and SEK and Swedfund etc. – Sweden ensures better positioning for companies in the water sector.

It is also crucial for Sweden to work with international engineering procurement and construction companies (EPCs) who answer to the projects' tenders. Only by engaging with the large turnkey contractors will Swedish companies be able to position their competitive offers.

Building on a strong network of international EPCs, Business Sweden matchmakes Swedish export companies with relevant infrastructure players on the global market to create strategic partnerships and offer unbeatable Swedish export credit financing solution to back their offer.

We help Swedish companies grow global sales and international companies invest and expand in Sweden.

BUSINESS-SWEDEN.COM

BUSINESS SWEDEN Box 240, SE-101 24 Stockholm, Sweden
World Trade Center, Klarabergsviadukten 70
T +46 8 588 660 00 F +46 8 588 661 90
info@business-sweden.se

LINKEDIN.COM/COMPANY/BUSINESS-SWEDEN

TWITTER.COM/BUSINESSSWEDEN

FACEBOOK.COM/BUSINESSSWEDEN

INSTAGRAM.COM/BUSINESSSWEDEN