Qatar’s Sustainability Story

Qatar is committed to addressing the causes of climate change and promoting sustainability by diversifying its petrochemical-based economy, incorporating sustainable practices into a variety of development projects, and investing in renewable energy sources. In accordance with the United Nations’ Sustainable Development Agenda 2030, Qatar has codified sustainability as one of the four pillars of Qatar National Vision 2030 and has since become a global leader in sustainable technology and design. Since the blockade in particular, Qatar has accelerated efforts to sustainably secure its food supply.

- Qatar launched 10 sustainable development projects, such as the Msheireb downtown renewal project and the planned Lusail City. Likewise, Qatar is working through organizations like the 2022 FIFA World Cup committee and Hassad Food to promote its sustainability agenda.
- Qatar’s electricity and water utility company, Kahramaa, has invested in regulatory powers, consumer penalties, and awareness campaigns to reduce electricity and water usage by 18% and 20% (respectively) between 2012 and 2016.
- Qatar is also committed to self-sourcing 60% of its domestic food supply by doubling the number of Qatari farms by 2020.

Energy and Water Conservation

Even though Qatar is the world’s largest natural gas producer, its petrochemical industry is making a concerted effort to minimize unnecessary greenhouse gas emissions by reducing emission-intensive gas flaring and developing transport technology that can carry 80% more liquid natural gas per carrier.

Kahramaa – Qatar’s electricity and water utility service – has reduced water consumption by 20% and electricity consumption by 18% through its conservation and awareness program, Tarsheed. The reduction in consumption has saved 8.5 million tons of CO₂ emissions between 2012 and 2016.

Infrastructure and Design

Sustainability initiatives have been incorporated into infrastructure and construction plans, including Msheireb district, Lusail City, the 2022 FIFA World Cup, and more.

Msheireb
- Msheireb downtown Doha is the world’s first sustainable development project.
- Msheireb aims to reduce energy usage in the area by 32%, with all buildings targeting LEED Gold if not Platinum certification. Much of the neighborhood will be powered through solar panels.
- Msheireb streets are oriented and shaded to capture wind from the sea and naturally cool streets and buildings.

Lusail City
- Lusail, a new city being built in Qatar, is incorporating sustainable best practices, and is expected to house more than 200,000 residents.
- Lusail will feature a water-sensitive landscape and local Qatari vegetation to minimize water needs.
- The Wadi Conservation Park will mimic natural wadi (valley) water systems, collecting rainwater runoff and retaining it to support natural vegetation.
- Lusail’s cooling system is one of the largest in the world and is expected to save 65 million tons of CO2 annually.

FIFA World Cup
- Qatar’s World Cup stadiums will incorporate energy efficient cooling technology to minimize energy requirements.
- The Supreme Committee for Delivery and Legacy is planning to secure Global Sustainability Assessment System certification for all its stadiums. Khalifa International Stadium has already received a four-star GSAS rating.
- The 40,000-seat Ras Abu Aboud Stadium will be constructed largely of shipping containers, removable chairs, and other modular components so that it can be dismantled and used in other projects after the World Cup.
- Following the tournament, Qatar will dismantle and donate 170,000 seats to build stadiums in developing countries and solidify the World Cup’s legacy.
Qatar Solar Technologies (QST)
Qatar will construct the first production facility for polysilicon – a key component in solar panels – in the Arabian Peninsula. QST will invest over half a billion dollars to build the facility, which is expected to produce 3600 tons of high-purity solar polysilicon annually.

Qatar Science and Technology Park (QSTP)
QSTP hosts technology companies and start-ups from around the world. QSTP helps organizations develop sustainable technologies and supports Qatar's knowledge economy. Current members include Chevron, ExxonMobil, GE, Microsoft, Shell, and Total.

Sustainable Agriculture and Food Security
In 2012, Qatar launched the Qatar National Food Security Program (QNFSP) – a framework to develop Qatar’s domestic agriculture sector and reduce the country’s reliance on imports. The plan aims to increase the number of farms in Qatar from 1,400 to 3000 and meet 60% of domestic food demand locally by 2024. The program is a staggeringly ambitious undertaking for Qatar, which has no fresh water and, in 2012, cultivated 1% of its land area and imported 90% of its food. QNFSP has the potential to serve as an example around the world for as countries brace for climate change to exacerbate global food and water security.

In 2017, after the illegal blockade on Qatar, two more major food security initiatives were launched:
• Hassad Food, Qatar’s premier investor in food and agriculture sectors launched the Iktefa initiative, which will target unproductive local farms and encourage production by buying farm products and selling them back to local markets.
• Qatar Islamic Bank announced funding of $435.8 million to build a 530,000 sq. meter food security facility to manufacture and store rice, sugar, and edible oils.

Sustainability Events, Institutes, and Programs
• Sustainability Summit: Qatar hosts an annual Sustainability Summit for practitioners, regulators, and researchers to gather and discuss sustainability and climate change. The Summit offers discussions on technology and policy solutions for regional actors to meet their obligations under the Paris Agreement and to foster a more sustainable construction industry.
• Qatar Sustainability Week: The Qatar Green Building Council and the Qatari Minister of the Interior Sheikh Abdullah bin Nasser bin Khalifa al-Thani began organizing Qatar Sustainability Week in 2016. The initiative attracts thousands of participants to over a hundred events across Qatar, engaging the community in events like beach clean-ups, carpool application drives, healthy food lessons, lectures on sustainable building, gardening events, and recycling drives. The week is synchronized with the Green Life app, allowing Qatars to check-in to events and earn points and rewards for their participation. Qatar Sustainability Week is sponsored by several private organizations, including Vodafone, the Arab Engineering Bureau, and Msheireb Properties.
• Qatar Environment and Energy Research Institute: The Qatar Environment and Energy Research Institute (QEERI) is a research institute within the Hamad Bin Khalifa University focused on the research and development necessary for Qatar to meet its sustainability priorities. QEERI has six research portfolios: water security, photovoltaics, smart grid, energy storage, energy efficiency, and climate change. QEERI presents its findings in quarterly workshops to disseminate cutting-edge solutions to reduce Qatar’s carbon footprint and meet its environmental goals.
• UN Climate Change Conference COP 18 - Doha, Qatar: The December 2012 conference showcased climate-smart approaches and discussed concrete steps to support resilience in the agricultural sectors. Attention was given to programme, policy and financial mechanisms supporting the transition to climate-smart and resilient systems, e.g. through resource efficiency and reduction of losses in the whole value chain from production to consumption.