

PRESERVING the DESERT



Ski Dubai in the city's Mall of the Emirates boasts 22,500 square meters of year-round ski area.

ON THE SURFACE, THE UNITED ARAB EMIRATES may seem an unusual place to find solutions to some of the key environmental challenges facing the world.

Eighty percent desert, scorching summer temperatures, and famed for manmade islands, towering skyscrapers and air-conditioned malls—with ski slopes; it's perhaps not surprising that the country topped World Wide Fund for Nature's biennial Living Planet Report back in 2006 as having the largest per-capita "ecological footprint"—higher even than the United States.

Yet despite these challenges, or perhaps because of them, the United Arab Emirates, a signatory of the United Nations' Sustainable Development Goals, has since put sustainability at the forefront of its agenda.

Its efforts haven't gone unnoticed. The country was this year ranked 40th on Earth.Org Global

The airconditioned UAE may seem like an unlikely model of sustainability. But there's a long history of respect for the environment in the Arabian Peninsula, writes Brunswick's **SIMON PLUCKROSE.**

Sustainability Index, while in July, the United Nations Office for Outer Space Affairs announced it would open a project office in the UAE's capital city, Abu Dhabi, to develop a database of space-based solutions to support the Sustainable Development Goals. The International Renewable Energy Agency has also had its headquarters in Abu Dhabi since 2015.

There is, of course, still more to do, particularly as the country strives to move away from an oil-based economy to a knowledge-driven one.

We perhaps should not be that surprised that the UAE is so passionate about sustainability. After all, living in harmony with the natural environment is an integral part of the history of the Arabian Peninsula, going all the way back to the days of the Bedouin, who were renowned for their resourcefulness in overcoming harsh conditions.

Indeed, the nation's founding father, the late Sheikh Zayed bin Sultan Al Nahyan, said: "We pay the utmost care and attention to our environment for it is an integral part of the country, our history and our heritage.

"Our forefathers and our ancestors lived in this land and coexisted with its environment, on land and sea, and instinctively realized the need to preserve it."

The country's initiatives include investing AED 600 billion (\$160 billion) over the next three decades to ensure a sustainable growth of the economy under the UAE Energy Strategy 2050. The strategy aims to increase the contribution of clean energy in the total energy mix from 25 percent to 50 percent by 2050 and reduce the carbon footprint of power generation by 70 percent—an equivalent savings of AED 700 billion. It also seeks to increase the consumption efficiency of individuals and businesses by 40 percent. The strategy targets a mix of renewable, nuclear and clean energy sources.

The strategy includes building the largest single-site solar energy project in the world, the Mohammad bin Rashid Al Maktoum Solar Park, based on the Independent Power Producer model. The \$13 billion park was launched in 2012 to be built in five phases in Dubai, with work on the fifth and final phase due to begin next year. By 2030, the park will have a total production capacity of 5,000 megawatts. Dubai Electricity and Water Authority predicts the park—just one of 1,700 solar projects across the city—will reduce carbon emissions by 6.5 million tonnes.

According to a study published by Japan's Nikkei Asian Review, the UAE's fascination with renewable energy production has contributed to a global reduction in the cost of solar energy projects.

Sustainability is also one of the three subthemes of Expo 2020 Dubai, which is now due to open its doors next year after being delayed by the COVID-19 pandemic. The organizers describe the subtheme as addressing the "environmental, economic and social dimensions of the places where we live," adding it explores "how we can connect to them in a way that protects and enhances our natural resources." Visitors to the six-month World Expo will learn about issues such as climate change, green growth, natural ecosystems and biodiversity, and sustainable cities.

Her Excellency Reem Al Hashimy, UAE Minister of State for International Cooperation and Director General of the Expo 2020 Dubai Bureau, described the world Expo, which previously predicted 25 million visits—70 percent from overseas—as an

**THE STRATEGY
AIMS TO INCREASE
THE CONTRIBUTION
OF CLEAN ENERGY
IN THE TOTAL
ENERGY MIX FROM
25 PERCENT
TO 50 PERCENT
BY 2050 AND
REDUCE THE
CARBON FOOTPRINT
OF POWER
GENERATION BY
70
PERCENT -
AN EQUIVALENT
SAVINGS OF
AED 700 BILLION.**

SIMON PLUCKROSE is a Director in the Dubai office. Prior to joining Brunswick, he worked for 20 years as a journalist in the United Arab Emirates and the UK.

"opportunity to advance the UAE's own sustainability goals and the United Nations Sustainable Development Agenda."

The Expo has a dedicated Sustainability District built around a Sustainability Pavilion topped with 1,055 solar panels across its 130-meter wide canopy. The panels will generate 4 gigawatt hours of alternative energy per year—enough to charge more than 900,000 mobile phones. Meanwhile irrigation techniques, including a graywater recycling system, aim to cut water use in the landscape by 75 percent.

And it won't just be the UAE championing sustainability, with the Czech Republic Pavilion looking at how fertile land can be created in barren conditions by extracting water vapor from air, and The Netherlands focusing on integrated climate systems that harvest water, energy and food through innovation such as vertical farms. Once the doors close, the event site will be transformed into District 2020 with a focus on advancing smart technology, smart infrastructure, wellness and sustainability.

Meanwhile, just down the road from Expo, is Masdar City, a sustainable urban community. The city is a low-carbon development made up of a clean-tech cluster, business free zone and residential neighborhood with restaurants, shops and public green spaces, all harnessing real-world solutions in energy and water efficiency, mobility and waste reduction. The City is working on long-term initiatives for sustainable power, the environmental performance of buildings, mobility programs and sustainable urban agriculture. It is described as a "greenprint" for the sustainable development of cities.

Mohamed Jameel Al Ramahi, Chief Executive Officer of Masdar Clean Energy, the company behind Masdar City, was recently recognized for his work in advancing the clean energy transition at the fourth Middle East Energy Summit in London.

In accepting the Gulf Intelligence International Energy Diplomacy Person of the Year Award, Al Ramahi said that in 2006, when Masdar was established, few believed Abu Dhabi's target of 7 percent renewables by 2020 was realistic, yet the Emirate—the largest of the seven that make up the UAE—has surpassed that goal.

Masdar will also shortly inaugurate the 800-megawatt third phase of the Mohamed Bin Rashid Al Maktoum Solar Park in Dubai together with Dubai Electricity Water Authority and EDF Renewables, after setting a record-low price for solar power generation.

It will be yet another major milestone for the UAE on its journey toward a greener future for all. ♦