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creating green communities for a better tomorrow

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Expo 2020 Dubai unites
millions around the world

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Škoda Enyaq Coupé iV:
Elegance in electromobility



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Chairman's Message

The entire world witnessed the potential of humanity at the opening of Expo 2020 Dubai as it marked the beginning of six incredible months for 192 participating countries and millions of visitors, who will get to experience the world in one place.

Under the banner "Connecting Minds and Creating the Future", the Expo has become the global platform to seek out solutions to global challenges impacting humanity. Merging culture, technology and architecture, Expo 2020 Dubai is truly a demonstration of ingenuity, and a place where global challenges such as climate change, conflict and economic growth can be addressed together.

While the UAE will showcase its answer for the next-gen innovative technology with a first glimpse of the highly anticipated Hyperloop transport, Terra - The Sustainability Pavilion, reinforces the message that the future of Earth hangs in the balance and there's no Planet B. Country pavilions highlight the importance of net-zero energy, equitable development, and self-sustaining ecosystems, and will



**Prof. Mohammed
bin Fahad**
Executive Editor

encourage people to foster stronger relationships between nature and the built environment.

When the coronavirus pandemic brought the world to a standstill, the UAE was one of the first countries to open for businesses. Here, under the UAE leadership's direction, we saw airlines return to the skies, schools and educational institutes plan a phased opening and offices return to full attendance.

The opening of Expo 2020 Dubai is an outstanding testimony of how large-scale events can return to our calendars without putting public health at risk.

In the drive for excellence, the word "impossible" does not exist in the UAE dictionary for this is a place where ambitious visions and bold plans come together to fulfil grand goals. As Expo 2020 Dubai gets underway, it underlines once again the resilient and competitive spirit of this incredible emirate.

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Upcoming events

ReThink - Sustainable Business Forum

Date: 06 October 2021

Location: Hong Kong Convention and Exhibition Centre

The annual ecosystem event unites stakeholders, demonstrating the business case and strategies for change against a backdrop of innovation and the sustainable solutions needed to achieve a circular economy and strive for a carbon-neutral Hong Kong by 2050.

Conversation for Hope: Advancing Best Practice in Wildlife and Biodiversity Conservation

Date: 06 October 2021

Location: Expo 2020 Dubai

Hear expert conservationists and private sector representatives highlight effective, replicable and scalable interventions to protect global biodiversity, while learning how you can play your part in effecting positive change.

Reuters IMPACT

Date: 07 October 2021 1

Webinar

Climate change presents the greatest challenge in history. Reducing global emissions requires the private sector to identify and realize commercial opportunities that sustainable climate action presents. It is now down to business to turn their climate goals into concrete actions.

Reuters, the world's largest multimedia news provider, will host an agenda-setting leadership forum, which will place climate action at the heart of the mainstream business discussion, under 5 interlinking themes: Energy | Transport | Food and Land Use | Built Environment | Finance.

Speakers include Former U.S. Vice President, Al Gore; President of Finland, Sauli Niinistö; and Jennifer Morgan, CEO, Greenpeace.

Expo 2020 Dubai Unites Millions Around The World

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and HH Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces welcomed delegations from across the world participating in Expo 2020 Dubai at the event's spectacular opening ceremony on September 30.



A glittering line-up of stars helped welcome the world to Expo 2020 Dubai as the most inclusive World Expo ever officially got underway

Participants from 192 countries have converged in Dubai for the megaglobal event that celebrates human innovation, enterprise and achievement, and which is being held for the first time in the Middle East, Africa and South Asia region.

HH Sheikh Mohammed bin Rashid Al Maktoum said the opening of Expo 2020 is a historic moment for the UAE that is the culmination of the collaborative efforts of national teams who have worked with dedication, passion and pride to deliver an exceptional event.

"Today, the UAE starts another chapter in its journey to the future with a new sense of purpose. It is a journey filled with exciting possibilities. The UAE has shown the world that it always embraces challenges, and can emerge stronger from crises by creating new opportunities for development," he said.

'Expo 2020 Dubai showcases the best of human accomplishment and excellence. It offers a platform to forge a united worldwide effort to build a more sustainable and prosperous future for all of mankind'
- HH Sheikh Mohammed bin Rashid



"Expo 2020 Dubai showcases the best of human accomplishment and excellence. Connecting minds across the world, the event brings countries, cultures and institutions together to share groundbreaking ideas and build bridges of understanding. It offers a platform to forge a united worldwide effort to build a more sustainable and prosperous future for all of mankind," HH Sheikh Mohammed noted.

His Highness said Expo 2020 Dubai will provide a strong impetus to the world's post-pandemic recovery. "It will generate fresh insights on how we can combine our capabilities and work together as one global community for the greater good of humanity," he said.

HH Sheikh Mohamed bin Zayed Al Nahyan said the UAE, under the leadership of President His Highness Sheikh Khalifa bin Zayed Al Nahyan, is

delighted to welcome people from across the world to Expo 2020. Welcoming global participants, His Highness said the Expo provides an unparalleled platform for new international economic, technological and commercial partnerships, and a worldwide dialogue to unlock new avenues for progress.

Through unique forums for exchange of ideas and insights, Expo 2020 Dubai will explore fresh horizons of global development, His Highness said. The event is also an opportunity for the world to discover new solutions for its most daunting challenges including the pandemic and climate change, in keeping with the spirit of its overarching theme "Connecting Minds, Creating the Future".

His Excellency Sheikh Nahayan Mubarak Al Nahayan, UAE Minister of Tolerance and



Coexistence and Commissioner General of Expo 2020 Dubai, welcomed the world to Expo 2020 Dubai – and to the UAE – in his speech, saying: “Expo 2020 Dubai is a great platform for all people to connect, discuss and work together. Together, we will convey, from the UAE to the world, on our 50th anniversary, a message of tolerance, coexistence and peace; a message of progress, prosperity and growth; a message of brotherhood, happiness and an unwavering will to create a brighter future for everyone.”

Dimitri S. Kerkentzes, Secretary General, Bureau International des Expositions, said: “All the world is coming together, for the first time since the pandemic began, to connect, to exchange and to learn on this extraordinary global stage. Expo 2020 Dubai is an Expo that marks the era, that plays a defining role in the global recovery, and that contributes to a better future.”

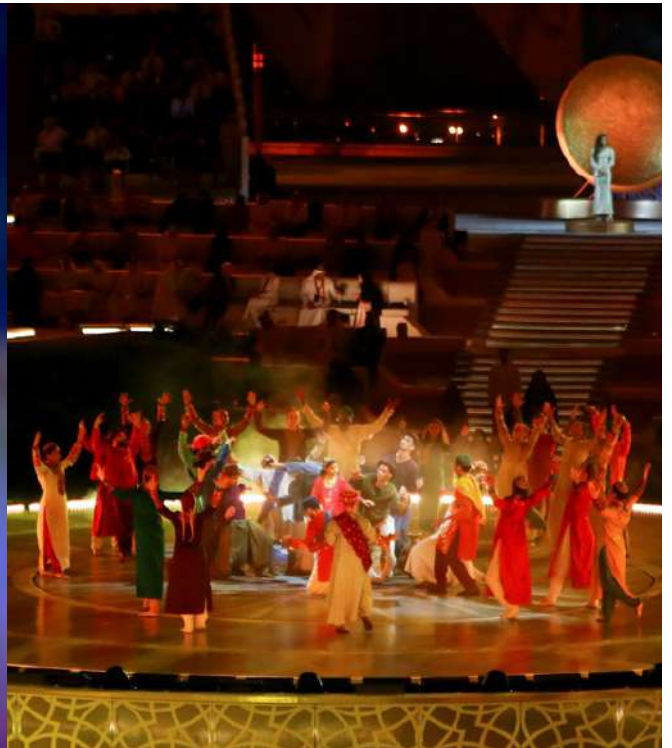
The flags of Expo’s 192 participating nations, revealed via a domino effect as flags were opened one by one, was a proud and visually stunning moment that signified a reawakening of the world.

H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, announced the official opening of Expo 2020 Dubai, saying: “Today, the entire world gathers in the United Arab Emirates. Today, we witness, together, a new beginning, as we inaugurate, together, with the blessings of Allah, Expo 2020 Dubai. May God grant us success.”

Spectacular opening ceremony

Aside from the 3,000-strong audience inside Al Wasl Plaza, millions across the globe tuned in to virtually view the eagerly awaited event. With the golden ring of connectivity – the inspiration for the Expo 2020 Dubai logo – raised to the trellis of

Until March 31, 2022, Expo 2020 Dubai will host the biggest cultural gathering in the world with participation of over 190 countries



the magnificent Al Wasl Plaza, the beating heart of the Expo site and the spectacular setting for the captivating ceremony, the most inclusive World Expo ever was officially underway.

In addition to music from some of the most influential artists on the planet and a beautiful live orchestra, a sensory overload of powerful visuals was beamed across Al Wasl Plaza's dome, the world's largest 360-degree projection screen. More than 3,000 lighting fixtures, 1,000 speakers, 1,300 costumes and buckets of passion and emotion from every one of the 1,000-plus participating performers and volunteers also contributed to a one-of-a-kind spectacle of masterful artistic collaboration.

It was celebrated tenor Andrea Bocelli who brought the house down, rounding off the night's electrifying proceedings with one of his all-time

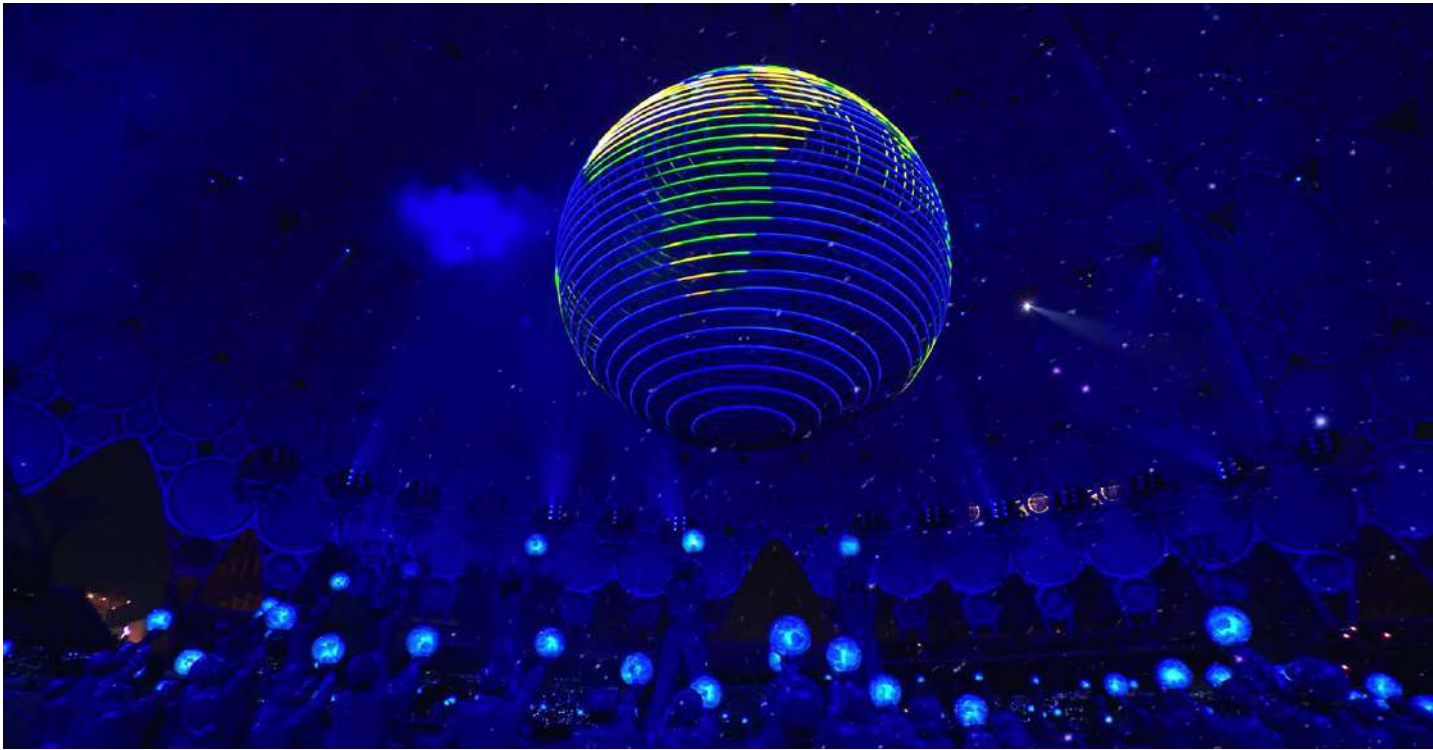
classics, The Prayer, its lyrics of human connection crescendoing into the grand finale.

With more than 80 million albums under his belt, classical music's biggest-selling living artist said that performing at Expo 2020 was a "great honour" and that his presence at Al Wasl "reflects all of the affection my audience has been giving me for many years and I hope to give it back".

Andrea Bocelli said: "We have all gone through a year that no one could ever have imagined. For a year, we have lost the essentials, our freedom and, in a sense, even our dignity. Now we finally see the light and I hope that this event will help instil in everyone a sense of optimism, a desire to achieve and to put what has been behind us."

Before that, chart-topping British vocalist Ellie Goulding belted out a resounding, uplifting

A futuristic extravagant ceremony, featuring some of the most influential artists on the planet, marked the spectacular opening ceremony



version of Anything Can Happen; Andra Day enraptured the audience with Rise Up; Chinese concert pianist Lang Lang wowed with his wizardry; and four-time Grammy winning singer-songwriter Angelique Kidjo, together with renowned Saudi singer Mohammed Abdu, sang John Legend's powerful If You're Out There?, with its moving lyrics imploring the world to join together.

Other highlights included the official Expo song, This Is Our Time, sung by Arab artists Hussain Al Jassmi, Almas and Mayssa Karaa, while Emirati singing sensation Ahlam Alshamsi completed the formidable regional line-up. The artistic prowess of Oscar-winning composer A.R. Rahman's all-women ensemble, the Firdaus Orchestra, comprising 50 musicians from across the Arab world, also proved a pivotal part of the ceremony's inspiring journey.

Scott Givens, Executive Producer, Expo 2020 Opening Ceremony, who co-curated and co-produced the show with Franco Dragone, Artistic Director, said: "We picked artists that had songs that belonged in the ceremony and that tied in with Expo's themes."

A feeling of warmth, respect, togetherness and camaraderie was palpable throughout the celebration, which also demonstrated that the world is primed and ready to re-embrace live events. The stage is now set for Expo 2020 Dubai where more than 192 nations as well as millions of visitors will create the largest and most diverse World Expo ever.

Expo 2020 Dubai is open until 31 March 2022, from 10am to midnight (Saturday to Wednesday) and 10am to 2am on Thursday and Friday.

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Expo 2020 Dubai Brings Global Goals To Life

The Sustainable Development Goals (SDGs) will be brought to life at Expo 2020 Dubai with a physical presence at the event, in the form of Mission Possible – The Opportunity Pavilion, an interactive exhibition journey that addresses the most fundamental global challenges of our time.

The United Nations (UN) will have a dedicated



space, the UN Hub (#UNHub), at Mission Possible, where the experience will focus on water, food and energy – key elements of the SDGs. Three innovative projects will represent these themes.

Abel Cruz from Peru addresses water shortages through fog nets that harvest fog and turn it into water; UAE National Mariam Al Juneibi is a sustainable organic farmer who promotes sustainable farming and healthy eating practices, while encouraging people to grow their own vegetables; and Fatma Juma Haji, a master trainer who teaches other women to install solar panels, helps create sustainable energy in Zanzibar, where less than four per cent of the population has access to electricity.

The experience concludes with the Pledge Room, an upside-down space entered ‘through the clouds’, where visitors are asked to commit to an

action that will make a difference in their own and their community’s lives. Their pledges are transported to the ‘garden’ – a representation situated on the ceiling of the room.

Throughout the six months of Expo 2020, Mission Possible will inform, inspire and engage visitors to contribute to the SDGs, while examining how the potential of communities and individuals can be unlocked to help shape the future and create an equal playing field for everyone.

Designed by AGi Architects, Mission Possible – The Opportunity Pavilion was conceived as a large plaza. Floating 32 metres above the ground, its canopy represents clouds, while a terracotta ‘carpet’ covers the ground and the pavilion’s facade, representing Earth and inviting visitors to share their experiences.

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عام الخمسين

YEAR OF THE FIFTIETH

٢٠٢١

UAE

نرفع أسمى آيات التهاني والتبريكات



إلى مقام صاحب السمو الشيخ

خليفة بن زايد آل نهيان

رئيس الدولة "حفظه الله"

وإلى مقام صاحب السمو الشيخ

محمد بن راشد آل مكتوم

نائب رئيس الدولة رئيس مجلس الوزراء
حاكم دبي "رعاه الله"

وإلى إخوانهما أصحاب السمو الشيوخ أعضاء المجلس الأعلى للاتحاد - حكام
الإمارات وإلى شعب دولة الإمارات العربية المتحدة

بمناسبة اليوبيل الذهبي لدولة الإمارات
(عام الخمسين)

مطعم
بيت المندي
BAIT AL MANDI
RESTAURANT



UK Artist Mat Collishaw's 'Equinox' Adds Wild Magic To Expo 2020

Equinox, an animated sculpture by celebrated British artist Mat Collishaw, and commissioned by Expo 2020 Dubai, was unveiled at Terra - The Sustainability Pavilion.

The 3D artwork harnesses zoetrope technology, an early form of animation, to create a captivating optical illusion. The centrepiece is a giant lotus flower, featuring an orbit of insects, spinning on



The spectacular zoetrope-inspired sculpture was unveiled at Terra – The Sustainability Pavilion at the Expo 2020

its vertical axis. Its petals act as 'shutters' – animating the insects within as they appear to fly, eat and pollinate in perfect harmony. The petals of the flower function as a sacred chalice conserving insect ecology, with their enhanced scale underscoring the cataclysm that would follow their decline.

Accompanying the work, which stands more than five metres-high and three metres-wide, is a selection of poems that praise the sanctity of nature, including those by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and celebrated English poet and painter William Blake.

The entire installation and setting is a poetic commentary on the delicate calibration of the Earth's natural ecosystems and will inspire

The centrepiece is a giant lotus flower, featuring an orbit of insects, spinning on its vertical axis



millions of visitors to re-examine their relationship with the natural world.

Mat Collishaw said: "My work engages with subject matter that involves an engagement with how we as humans navigate the world and the choices we make. The sustainability theme of Terra provided a context, literally and metaphorically, for an experience that invites contemplation and reflection on the precarious nature of the earth's ecosystem."

Mona Al Ali, Senior Manager, Terra - The Sustainability Pavilion, Expo 2020 Dubai, said: "Standing at the very heart of Terra, Equinox honours the core purpose of The Sustainability Pavilion - to showcase the wondrous delicacy of our natural world and our shared duty to protect it for the betterment of both people and planet. I have no doubt that this beautiful installation,

born from a fruitful collaboration between Mat, Futurecity and the Terra team, will capture the imagination of each and all who encounter it - inspiring them to become the change makers of tomorrow."

Mark Davy, Founder & CEO, Futurecity, said: "Mat Collishaw's Equinox has the power to make complex ideas accessible to everyone, acting as a lens and catalyst for visitors to contemplate their relationship with nature in the context of living sustainably. Equinox creates the ultimate and intoxicating moment in the Sustainability Pavilion that responds to the content of the exhibition and the architecture of the central core, transporting the audience to a place of wonder and appreciation for their natural environment."

Tickets to Expo 2020 Dubai are available online and through more than 2,500 Authorised Ticket Resellers, including online travel agents, tour operators, hotel groups and airlines from 100-plus markets around the world.



UAE Embassy In Vienna Organizes Seminar On Climate Change

The UAE Embassy in Vienna organised a seminar titled, "Climate Change Challenges and Initiatives," as part of the launch of the National Climate Change Plan 2017-2050.

This was organised in line with the UAE's keenness to support regional and international initiatives aimed at halting climate change by reducing emissions and increasing the efficiency



of clean and renewable energy.

During the virtual seminar, Ibrahim Salim Al Musharrakh, UAE Ambassador to Austria, delivered a speech via video conferencing on the UAE's role in the global efforts to address climate change, noting the country has achieved many successes in the environmental field and relevant multilateral cooperation, such as its hosting of the permanent headquarters of the International Renewable Energy Agency (IRENA) in Abu Dhabi.

The UAE was also the first country in the region to sign and ratify the Paris Agreement and commit to reducing emissions across all economic sectors, he added.

During the conference, Al Musharrakh presented the UAE's initiatives and projects aimed at reducing the impact of climate change, most

notably those related to clean and renewable energy, in addition to an Emirati project that aims to produce hydrogen through the Abu Dhabi Hydrogen Alliance.

Participants discussed climate-related challenges and the initiatives of the UAE and Austria to counter climate change, in addition to potential opportunities for cooperation.

Prominent participants at the session included Helmut Hojesky, Head of Austria's Climate Policy Coordination Department; Qais Bader Al Suwaidi, Director of the Climate Change Department, UAE; Jürgen Streitner, Head of Department of the Austrian Chamber of Commerce; Hana Al Hashimi, Head of the Office of the UAE Special Envoy for Climate Change; and Zainab Al Ali, Head of Outreach & Stakeholder Relations at Masdar.

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UAE

نرفع أسمى آيات التهاني والتبريكات



إلى مقام صاحب السمو الشيخ

خليفة بن زايد آل نهيان
رئيس الدولة "حفظه الله"



وإلى مقام صاحب السمو الشيخ

محمد بن راشد آل مكتوم
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الإمارات وإلى شعب دولة الإمارات العربية المتحدة

بمناسبة اليوبيل الذهبي لدولة الإمارات
(عام الخمسين)

دي تو دي
DAY TO DAY

'Natural Gas To Play Pivotal Role In Powering UAE's Economic Growth'

Natural gas is set to play a pivotal role in powering economic growth in the UAE over the next 50 years, according to Dr. Sultan Ahmed Al Jaber, Minister of Industry and Advanced Technology and Managing Director and Group CEO of the Abu Dhabi National Oil Company (ADNOC).

Delivering the opening address of Gastech 2021,



Dr. Sultan Ahmed Al Jaber,
Minister of Industry and
Advanced Technology and
Managing Director and
Group CEO of the Abu
Dhabi National Oil
Company (ADNOC) delivers
opening address of
Gastech 2021

Dr. Al Jaber highlighted the UAE's leadership in natural gas and said, "Natural gas will support the nation's vision for economic growth as set out by the leadership in the 'Principles of the Fifty'."

"The Principles of the Fifty is a mandate for progress driven by 10 guiding principles aimed at making the UAE the most dynamic economy in the world. Gas will play a pivotal role in this blueprint for growth, as the essential fuel stock for our downstream hub in Ruwais and our industrial joint venture, TAZIZ," Dr. Al Jaber said.

Speaking virtually, he explained that the UAE is strengthening its position as a regional leader in natural gas and the emerging blue Hydrogen market. He attributed this leadership position to the foresight of the Founder of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan, who

The Principles of the Fifty is a mandate for progress driven by 10 guiding principles aimed at making the UAE the most dynamic economy in the world



recognised the enormous potential natural gas offered and the need to balance economic growth with environmental protection.

"Our Founding Father Sheikh Zayed's commitment to the environment and truly sustainable development was the key driver. In 1973, at his direction, ADNOC stopped burning the associated gas from all its operations, and instead captured it and shipped it," he explained.

"In short," Dr. Al Jaber added, "we turned an environmental liability into a commercial opportunity. From that moment, when it came to gas, we never looked back. For almost 50 years, the UAE has viewed gas in all its forms as one big opportunity, and we've built our gas business on a number of firsts."

He pointed out that the country was the first in the region to stop flaring and find economic uses

for gas, the first to build a Liquefied Natural Gas (LNG) plant, the first to produce ultra-sour gas at an industrial scale, and the first to store carbon dioxide and use it in Enhanced Oil Recovery (EOR) to liberate more gas.

The UAE is on track to achieve gas self-sufficiency as ADNOC leverages advanced technologies to expand into unconventional gas, tap into gas caps and unlock new reservoirs, as part of the company's integrated gas strategy launched in 2018.

"Construction of artificial islands is underway and we are leveraging our experience in world-class developments to ensure costs are minimized and commercial benefits maximized for all our partners. Together, these projects will deliver over 3 billion standard cubic feet of gas per day, enough to power several million homes."



He went on to share his perspectives on natural gas markets and the role natural gas will play in the energy transition. "As the world consolidates its recovery from the COVID-19 pandemic, LNG and broader gas markets globally are tightening, with demand outpacing supply."

Dr. Al Jaber added that as innovations are helping to make gas even cleaner and more sustainable, the UAE is applying technology to create zero-carbon fuels from gas such as Hydrogen. "Already at ADNOC, we produce about 300,000 tons of hydrogen a year. By leveraging our existing gas infrastructure and commercial-scale CCUS capabilities, the UAE can and will become a major player in the emerging blue hydrogen market."

Concluding his remarks, Dr. Al Jaber extended an open invitation for partnership in the UAE's gas industry, noting that building strong partnerships

across the world is one of the key principles for the UAE's economic vision. "This has always been at the center of our approach to growth and it will remain the key to the future."

Gastech is the world's foremost gas, LNG, hydrogen, and energy event. The 2021 edition took place in Dubai from September 21 - 23 under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.



NYUAD Researchers Uncover New Insights On Date Palm Evolution

Using a leaf uncovered from the archaeological site of an ancient Egyptian temple, researchers from NYU Abu Dhabi's (NYUAD) Center for Genomics and Systems Biology have successfully determined the ancient hybrid origin of some date palms, which could prove useful for modern date palm breeding as the plant remains a cornerstone of Middle Eastern and North African agriculture.

UAE NEWS



The findings, published in the journal 'Molecular Biology and Evolution', corroborate hybridization with wild relatives first reported by NYUAD researchers two years ago (Flowers et al. 2019).

They follow another project in which the researchers first sequenced the genomes of date palm plants from ancient germinated seeds.

In this instance, NYUAD researchers in collaboration with lead researchers at the UK's Royal Botanic Gardens sequenced the nuclear and plastid genomes of an approximately 2,100-year-old date palm leaf found in a temple at a UNESCO World Heritage site located near Cairo, Egypt and radiocarbon dated it to the late period of ancient Egypt, roughly 357-118 BCE.

Researchers then used population genomic tests, molecular clock models, and gene-flow-aware

multi species coalescence (MSC) approaches on plastid and nuclear genome wide-data sets to detect ancient gene flow and to provide a temporal framework for diversification and reticulated evolution in the plant.

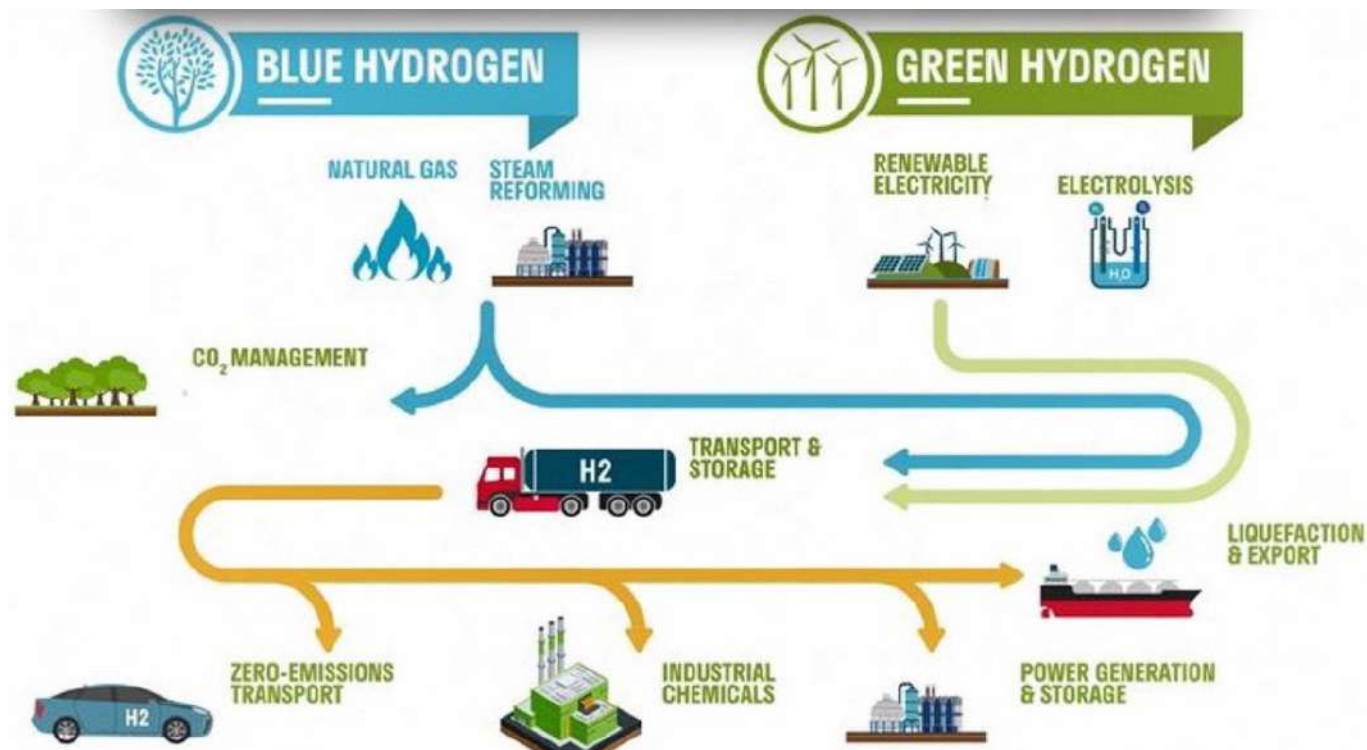
"This paper is one of the very few studies that have looked at the genomes of plants found in archaeological sites," says NYUAD Professor of Biology Michael D. Purugganan. "The work sheds light on the importance of hybridization in the evolution of date palms, especially those from North Africa.

"It shows that by 2,200 years ago, date palms from Egypt already had genetic material from another species, *Phoenix theophrasti*, which today grows only in Crete, some of the other Greek islands and parts of southwest Turkey."

UAE To Play Leading Role In Emerging Global Hydrogen Market

The UAE has laid the foundations and enhanced its competitive advantages to become one of the largest and lowest cost producers of low-carbon hydrogen in the world, according to a recently published report entitled 'The United Arab Emirates' Role in the Global Hydrogen Economy'.

Authored by Dr. Julio Friedmann, a Senior

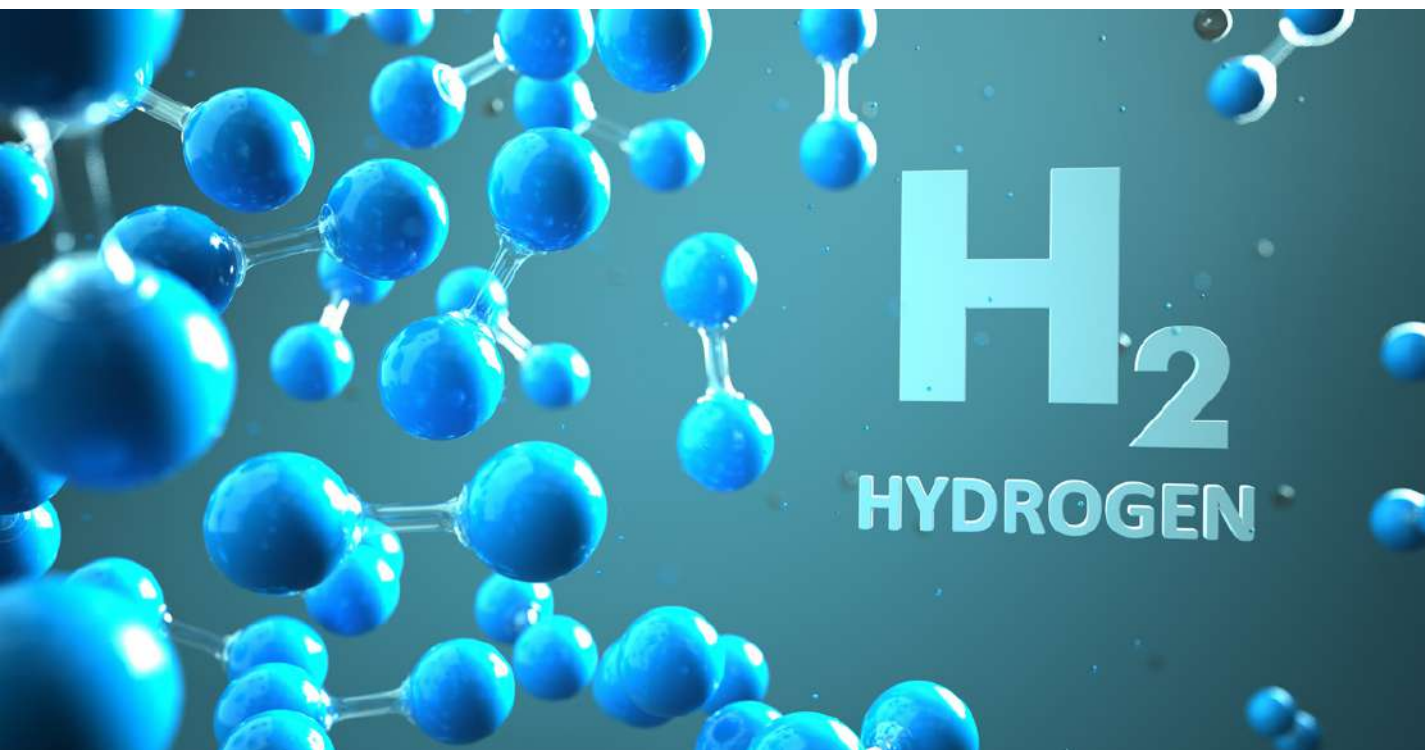


The UAE has the competitive advantages to become one of the largest and lowest cost producers of low-carbon hydrogen in the world

Research Scholar at the Centre on Global Energy Policy at Columbia University SIPA, and Robin Mills, CEO of Qamar Energy and a non-resident fellow at the Arab Gulf States Institute in Washington D.C, the report details the importance of hydrogen as a potential fuel of the future and the UAE's strong start in leveraging existing assets to position itself at the forefront of the market.

Hydrogen is expected to play a critical role as an enabler of international decarbonisation and sustainable development strategies, and the global transition to lower carbon energy sources. It is predicted to account for as much as 18 percent of global energy demand by 2050, with over 30 countries having released hydrogen roadmaps and more than 228 large-scale projects underway across the hydrogen value chain, according to the Hydrogen Council.

Hydrogen is a critical enabler of international decarbonisation and sustainable development strategies, and aids the transition to lower carbon energy sources



Tapping into this emerging demand represents a significant opportunity for global energy players.

In the UAE, ADNOC with its many announcements related to hydrogen and its carrier fuels, demonstrate that progress is already being made. Recently the company announced the sale of three blue ammonia cargos to customers in Japan as well as plans to develop a new one million tonne per annum blue ammonia plant at TA'ZIZ in Ruwais.

The UAE is pursuing a balanced strategy covering both blue and green hydrogen, with blue hydrogen being easier to scale-up and is therefore crucial to supporting the growth of the emerging global market.

Blue hydrogen refers to hydrogen produced from natural gas with the associated carbon captured and stored underground; while green hydrogen refers to hydrogen made from the electrolysis of

water with renewable electricity and minimal CO₂ emissions. Blue hydrogen is currently at a lower cost and is considered an important step in the development of the low-carbon hydrogen economy; however, the cost of producing green hydrogen is expected to fall over time.

According to the report, the UAE has considerable natural advantages, in addition to its existing infrastructure and production capabilities for both types of hydrogen. The UAE's competitive blue hydrogen production is enabled by its abundant and competitive hydrocarbons, existing large-scale hydrogen and ammonia production facilities, and large-scale carbon capture and storage capacities, which ADNOC already possesses and continues to advance.

ADNOC is already a producer of over 300,000 tonnes per year of hydrogen in its downstream



facilities, which is predominantly used for industrial purposes. The company has plans to increase its hydrogen production to 500,000 tonnes per annum and is progressing new growth opportunities, particularly in blue ammonia. This includes a new world-scale blue ammonia plant at TAZIZ, in Ruwais, and the sale of first blue ammonia trial cargos to customers in Japan.

The UAE's green hydrogen production efforts stand to benefit from the nation's excellent solar generation conditions and its low levels of cost of solar electricity. The Abu Dhabi Future Energy Company (Masdar) has launched numerous green hydrogen initiatives including the development of a green hydrogen demonstrator plant in Masdar City in partnership with Siemens Energy, Marubeni, Etihad Airways, Lufthansa Group, Khalifa University of Science and Technology and the Abu Dhabi Department of Energy.

The production of both types of clean, low-carbon hydrogen are also further facilitated by the UAE's strong existing infrastructure and export facilities, central geographic location between key markets, and stable, business-friendly environment, noted Dr. Friedmann and Mills in their report.

Hydrogen is an emerging business, it still must address significant challenges in technology, economics, and policy. For the hydrogen economy to take shape sustainably, a nascent market must be developed to give assurance to producers and consumers.

Costs must be reduced as project sizes, and their associated financing requirements, increase. This requires partnerships amongst governments, between companies and research institutions, and with companies and end-users.

The UAE's green hydrogen production efforts stand to benefit from the nation's excellent solar generation conditions and its low levels of cost of solar electricity



Fortunately, the UAE has a strong track record of public-private partnerships with both domestic and international entities across the energy, infrastructure, and heavy industry sectors.

The formation of the Abu Dhabi Hydrogen Alliance between ADNOC, Mubadala Investment Company (Mubadala), ADQ and the UAE Ministry of Energy and Infrastructure (MoEI) was an important step in what has become a coordinated effort to build the nation's hydrogen economy.

Earlier this year, in a High-Level Ministerial Session at a virtual Hydrogen Roundtable, Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology and ADNOC Managing Director and Group CEO, expressed optimism that alongside ADNOC's existing infrastructure and commercial-scale carbon capture, utilisation, and storage (CCUS) capabilities, it can become a

major player in developing the blue hydrogen market.

Speaking about Mubadala's efforts in driving the UAE's energy transition, Khaldoon Khalifa Al Mubarak, Managing Director and Group CEO of Mubadala Investment Company, said, "As a responsible investor, we are actively engaged in a number of new energy investments that will contribute to more efficient and lower emission energy solutions."

In concluding their report, Dr. Friedmann and Mills highlighted that hydrogen has rapidly become an essential part of every major energy producing and consuming company and asserted that the UAE has made a strong start in establishing itself as an early-mover and leader in the emerging global hydrogen market.

UAE's Environmental Vision For Next 50 Years Showcased

As the key sponsor of the region's largest event focused on the preservation of cultural heritage - the Abu Dhabi International Hunting and Equestrian Exhibition, the Environment Agency - Abu Dhabi (EAD) is participating at the 18th edition of the event to shed light on the vision for the environment for the next 50 years. This comes in line with the celebration of the UAE Golden Jubilee in



In line with the celebration
of the UAE Golden Jubilee
in December, 18th edition
of ADIHEX showcases
initiatives for the coming
decades

December and the country's 50th Anniversary.

Ahmed Baharoon, Executive Director of EAD's Environmental Information, Science and Outreach Management sector, said, "ADIHEX is such an integral part of the EAD calendar due to its significance. Every year we look forward to sponsoring the event and through our presence at our dedicated EAD stand, we can showcase our newest environmental efforts."

Baharoon added, "This is all part of our goals of ensuring that we manage our resources wisely, securing sustainable supplies of clean energy, water and food for future generations, minimise consumption and maximise efficiencies wherever possible, and protect and improve our environment by reducing our carbon emissions, minimising the waste we produce, and promoting a circular and green economy. We also want to

Initiatives include air quality innovative sampling technologies, projects integrated with Artificial Intelligence, and opportunities for Youth Citizen Science



ensure that no more species become extinct here in Abu Dhabi and to promote biodiversity so that 50 years from now, our cities will be beautiful environments for everyone to enjoy."

EAD highlighted a series of initiatives including air quality innovative sampling technologies, projects integrated with Artificial Intelligence, and opportunities for Youth Citizen Science. This is in addition to the Green House Gas Inventory and co-benefits for air quality towards 2050 initiative, as well as the monitoring and studying of fine dust characteristics to protect air quality, human health, and the ecosystem in Abu Dhabi.

EAD also showcased a new first-of-its-kind, world-leading soil monitoring project that uses data from drones in space, aimed at improving and increasing the efficiency of the soil monitoring program and marking a shift from

traditional techniques to innovative state-of-the-art methods.

Also, on display was information about EAD's latest Research Vessel which is currently being built and developed and will be used for environmentally friendly, multipurpose fisheries oceanography. Designed for physical, chemical, biological, and geological oceanographic research and fishery surveys, the vessel will be fitted with support systems necessary to conduct multidisciplinary research at sea.

Furthermore, EAD also showcased its Gene Bank, which aims to document the genetic resources of local bio-diverse plant species, as well as studying and protecting them via an integrated approach that includes internal and external conservational methods to help sustain biodiversity.

AUS Presents Sustainable Cement Alternative At Venice Biennale

A team of faculty and alumni from American University of Sharjah (AUS) have contributed to significant research into an innovative sustainable cement alternative, presented in the National Pavilion UAE's (NPUAE) featured exhibition, 'Wetland' at the Venice Architecture Biennale.

The NPUAE was awarded highest honours with a

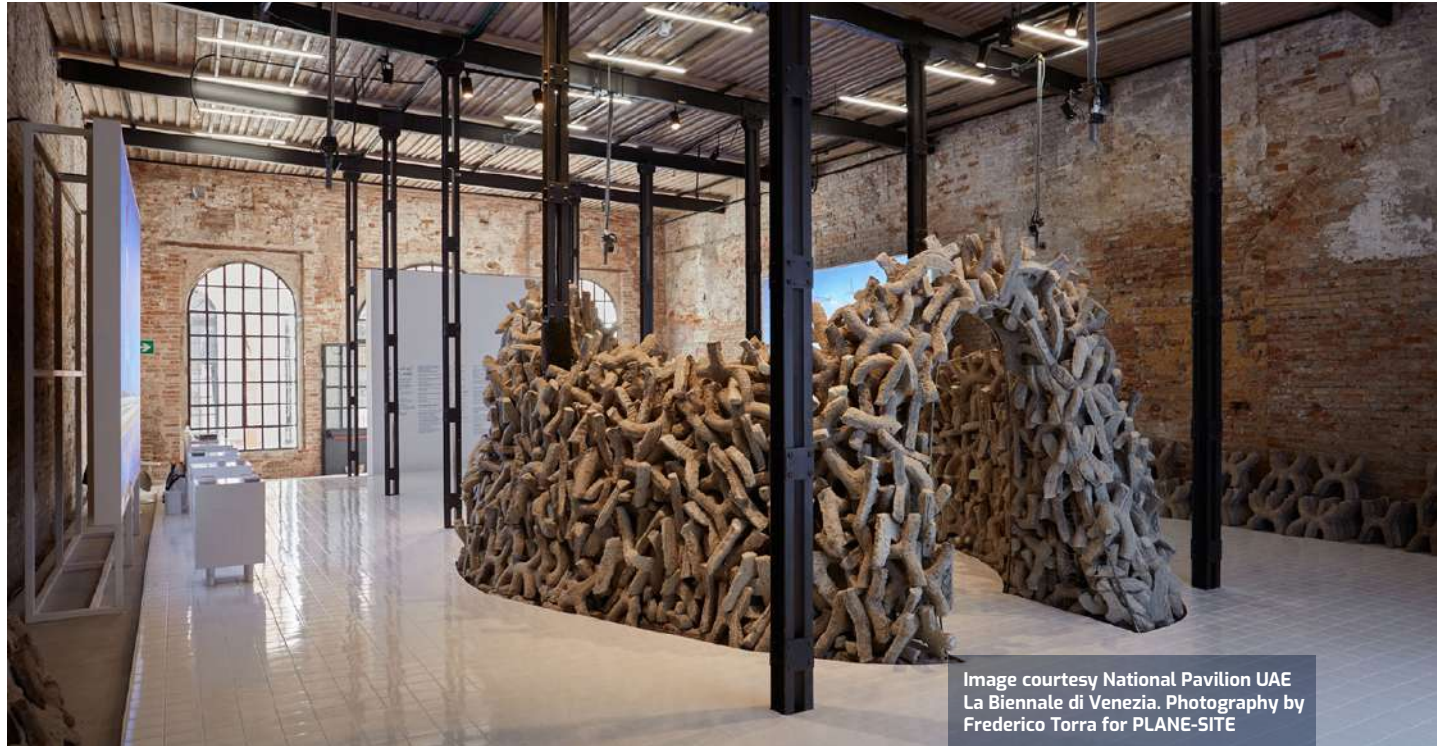


Image courtesy National Pavilion UAE
La Biennale di Venezia. Photography by
Frederico Torra for PLANE-SITE

Research propose that salt
and minerals found in the
UAE's sabkha heritage sites
could provide a more
sustainable and
environmentally friendly
alternative to cement

Golden Lion Award for Best National Participation in the 17th International Architecture Exhibition, hailed as "a bold experiment that encourages us to think about the relationship between waste and production on a local and global scale, and opens us to new construction possibilities between craft and high-technology."

The pavilion curators, Wael Al Awar and Kenichi Teramoto, were chosen in 2019 by an expert selection committee. The pavilion centers around a prototype handmade from recycled industrial waste brine and inspired by the UAE's traditional coral-built houses.

The research was conducted by faculty and alumni of AUS's College of Architecture, Art and Design (CAAD) and College of Arts and Sciences (CAS), who collaborated with specialist teams

The UAE's National Pavilion centres around a prototype handmade from recycled industrial waste brine and inspired by the UAE's traditional coral-built houses



from the New York University Abu Dhabi's Amber Lab, and the University of Tokyo's Obuchi Lab and Sato Lab. The researchers propose salt and minerals found in the UAE's sabkha heritage sites could provide a more sustainable and environmentally friendly alternative to cement for construction in the region.

Under the supervision of Associate Professor of Chemistry Dr. Lucia Pappalardo, AUS alumna Aysha Shabnam contributed to the development of the chemical formula for this new material known as magnesium oxide cement (MgO).

"This project enabled us to contribute to a sustainable alternative for Portland cement. We worked on the design and development of a material that is stable, sustainable, withstands significant pressure and easy to produce with available local products," Shabnam said.

Designers then used advanced digital engineering technology to create a 7 x 5-meter prototype constructed out of hand-cast shapes. The design research team included CAAD alumni Lujaine Rizk, Aisha Al Sahlawi, Dina Al Khatib, Ibrahim Khamis, Adomas Zeineldin and Ibrahim Ibrahim.

"The success of the Wetland project highlights the importance of bringing together global multidisciplinary expertise to advance the field of architecture. Our team of architects, engineers, chemists and scientists experimented with a revolutionary construction material called MgO, which can transform the construction industry by dramatically reducing its carbon footprint and waste production," said Rizk.

The National Pavilion will be open to the public in Venice until November 21, 2021.

The Škoda Enyaq Coupé iV: Electromobility At Its Most Elegant

Following the successful launch of the Škoda Enyaq iV, Škoda Auto is adding an even more emotive body variant to its first all-electric SUV range: the four-door Škoda Enyaq Coupé iV is characterised by an elegant, sloping rear. Its drag coefficient of 0.247 is even lower than the one for its predecessor, making the Enyaq Coupé iV more efficient and enabling it to cover more than 535 km in the WLTP cycle when fitted with



New, even more emotive body variant for the all-electric flagship Škoda Enyaq iV

the larger battery. The fast-charging feature, which comes as standard, ensures the car is 'refuelled' quickly.

The Škoda Enyaq Coupé iV is an excellent addition to the Enyaq iV line-up and offers a truly dynamic car for customers who enjoy an active lifestyle. With generous amounts of space for up to five people and a 570-litre boot, it is a great vehicle for families. There is a choice of two battery sizes and three power variants with rear- or all-wheel drive.

The Enyaq iV: a global success story

The award-winning Enyaq iV was an immediate success in the international markets. From the outset, Škoda's first production model based on Volkswagen Group's MEB modular electric car platform appealed to experts, the media and

Three power variants, rear- or all-wheel drive and even better aerodynamics



Large alloys measuring 19 to 21 inches emphasise the car's powerful appearance. Full-LED Matrix headlights are optional. Within these, each high-beam module features 24 LEDs, which can be controlled individually and enable the driver to have the high beam on at all times without dazzling other road users. Full-LED rear lights are also optional. These feature a crystalline design and characterise the brand's signature C-shaped light cluster and dynamic indicators.

Sustainable materials for interior

Škoda offers innovative Design Selections and a clear menu of options available for the Enyaq Coupé iV's interior. The Design Selections are inspired by modern living environments and replace the classic trim levels.

The style, colours and materials used are tastefully coordinated. In its basic configuration, the Design Selection 'Loft' presents itself as

customers alike. In the tests conducted by the independent European New Car Assessment Programme (Euro NCAP), the all-electric SUV was awarded the maximum rating of five stars.

Emotive lines and panoramic glass roof as standard

The new Škoda Enyaq Coupé iV features an even more emotive design than the SUV variant. The panoramic glass roof, which is part of the standard equipment, slopes gently towards the rear from the B-pillar. At a length of 4,653 mm and measuring 1,617 mm in height, the coupé is four millimetres longer than the ENYAQ iV and one millimetre higher.

At 1,879 mm and 2,765 mm respectively, the width and wheelbase of both models are identical, while the coupé's 570-litre boot capacity is almost on a par with the SUV's 585 l.





modern, homely and family-friendly. The combination of grey and black shades is timeless.

Sustainable materials are available in other Design Selections. The seat covers in the Lodge Selection, for example, are made of 40% natural new wool with the Woolmark Company quality seal, and 60% polyester (each one is made from 318 recycled PET bottles). The cognac-coloured leather upholstery of the seats in the ecoSuite Selection is tanned through an eco-friendly and sustainable process using olive leaf extracts without the use of any chemicals.

Comprehensive range of standard equipment

The centrally positioned 13-inch touchscreen is a key feature in the interior. It can be personalised and provides access to the infotainment system as well as all vehicle functions. On a 5.3-inch

screen, the Digital Cockpit informs the driver of the most important information, such as speed, driving data, navigation and active assistance systems. The optional head-up display projects additional information – in part using augmented reality – in clear view of the driver.

The Enyaq Coupé iV's extensive range of standard interior features includes dual-zone Climatronic, a keyless Kessy Go system and LED ambient lighting. This illuminates the decorative trim on the doors and the door handles as well as the front and rear footwells. The clear structure of the choices available includes ten optional themed packages, most of which come in both a basic and a more comprehensive Plus version.

Two batteries, three power variants

Škoda offers two battery sizes and three different power variants for the Enyaq Coupé iV.

Provides Vehicle-to-Load (V2L) function, which can turn the vehicle into a charger on wheels



The batteries are stored in the floor of the Volkswagen Group MEB car platform. The Enyaq Coupé iV 60 is fitted with a lithium-ion battery with a capacity of 62 kWh, of which 58 kWh net can be used. The electric motor produces 132 kW* and drives the rear wheels via a single-speed gearbox.

The Enyaq Coupé iV 80 is also a rear-wheel drive, powered by an electric motor with an output of 150 kW*. When fitted with the larger 82-kWh battery pack (77 kWh net) and thanks to the car's excellent aerodynamics boasting a drag coefficient (cd) of 0.247, this variant can cover more than 535 km – therefore offering the greatest mileage within the model range.

The Enyaq Coupé iV 80x is equipped with the larger battery, which also powers a second, 80-kW electric motor on the front axle, providing this

variant with all-wheel drive. Together, the two electric motors deliver a total of 195 kW**. Using an AC wall box of up to 11 kW – e.g. a ŠKODA iV charger – the brand-new coupé can be fully charged in six to eight hours. The Enyaq Coupé iV can also be charged at public DC fast-charging stations with an output of up to 125 kW. The iV universal charger – a mobile solution with interchangeable connector plugs – is available as an optional extra.



Local Food Production In UAE Bolstered By Vertical Farms

Mainland business park, National Industries Park (NIP), contributes to the UAE's agenda of enhancing local food production by providing UAE-based companies with the ideal environment to thrive.

The Park, which is an emerging hub for manufacturing in the Middle East and is home to over 278 companies including major retail



UAE-based Geap Farms
leverages the
competencies at
industrial park to grow
pesticide-free, herbicide-
free and non-GMO
produce

giants, aims to improve the need for self-sufficiency by promoting the use of new technologies for food production.

One of the recent success stories in NIP is that of Geap Farms, under the brand Oasis Greens, a vertical farm owned by a female entrepreneur based in Dubai. Oasis Greens grows varieties of fresh leafy greens and herbs and is the first licensed hydroponics vertical farm by NIP.

With constant developments in the field of farming, the sector in the UAE is burgeoning with the introduction of new agricultural technologies. Exploring new ways of farming to grow top-notch produce, while keeping the environmental impact to a minimum is the need of the hour.

Geap Farms is one such highly successful farms in the UAE that is committed to using hydroponics

Vertical indoor farms are ideal for the UAE's high temperatures and arid land, providing farm-to-fork freshness, year-round



technology to grow fresh leafy greens and herbs. The brand harvests fresh produce every morning and delivers it right to your doorstep within hours.

Nikita Patel, Founder, Geap Farms said: "It truly is an honour to be operating out of NIP, where one would seldom imagine facilities required to set up a hyperlocal farm, right in the middle of an industrial park in the city. This is the beauty and the benefit of hydroponics and vertical farming."

"This high-tech method of growing plants in vertical farms requires no soil and relies on 90 per cent less water compared to traditional farming. One of most the beneficial aspects of this method is the ability to reuse and recycle used water. Thus, hydroponic systems reduce water consumption and production costs, making it economical and environmentally friendly," added the founder of Geap Farms.

Patel adds: "Oasis Greens was born out of the desire to increase access to fresh, locally grown produce on par with market prices, as well as to invest in sustainable food systems in the UAE to make our earth cleaner and greener. Since food security is a UAE government priority, our facility was essentially built to contribute to this mission. Today, we can proudly say that we have the capacity to harvest 60,000 heads of lettuce (or any other plant) in a day."

Vertical indoor farms are ideal for the UAE's high temperatures and arid land, providing farm-to-fork freshness, year-round. The benefits are umpteen. Produce from Oasis Farms not only uses less water, but also requires 90 per cent less land. Additionally, the year-round produce requires zero pesticides, making it safe for the Earth and to consume.

First Ever 'Abu Dhabi Red List Of Wildlife Species' Launched

The Environment Agency - Abu Dhabi (EAD) has launched the first ever Abu Dhabi Red List of Wildlife Species (AD-RLS) on September 21, 2021. It is an assessment of the threat status of the emirate's terrestrial and marine species.

A total of 244 species were assessed, including 101 plants, 49 birds, 9 marine species, 32



The Red List is an assessment of the threat status of the emirate's terrestrial and marine species

terrestrial mammals, 25 invertebrates, 26 reptiles and 2 amphibians. Out of the 244 species assessed, 74 are under different threat categories, such as critically endangered, endangered, and vulnerable.

Dr. Shaikha Salem Al Dhaheeri, EAD's Secretary-General, said, "The Abu Dhabi Red List is a welcome addition to our knowledge on the threat status of species found in Abu Dhabi. The List is based on the internationally recognised Red List Criteria, developed by the International Union for Conservation of Nature (IUCN) and the assessments of threat status have gone through extensive external review from a team of experts from the IUCN, the Red List Authority, and independent experts."

"Abu Dhabi has a rich diversity of species and has some of the most important species. Their

*A total of 244 species were assessed, including
101 plants, 49 birds, 9 marine species,
32 terrestrial mammals, 25 invertebrates,
26 reptiles and 2 amphibians*



populations are effectively protected by the Agency through managing the largest network in the region of protected areas to conserve endangered species and their natural habitats. However, understanding the risk and evaluating the threats faced by them as well as other species, will help us better protect them," said Ahmed Al Hashmi, Acting Executive Director, Terrestrial and Marine Biodiversity Sector.

"The Abu Dhabi Red List also complements the National Red List development undertaken by the Ministry of Climate Change and Environment," he added,

Dr. Salim Javed, Acting Director, Terrestrial Biodiversity and Manager of the Red List Project at EAD, commented, "With 30 percent of the total assessed species classified as threatened, the Abu Dhabi Red List will help the Agency to

prioritise conservation actions for some of the most threatened species in the emirate and develop more systematic monitoring and species-specific conservation action plans."

EAD has undertaken some of the most ambitious and successful projects to reintroduce species that were on the brink of extinction such as the Arabian Oryx and Scimitar-horned Oryx, and Abu Dhabi now houses the largest herd of Arabian Oryx in the world.

EAD has a plant nursery with a production capacity of nearly 500,000 plants annually and has more than 70 different native plant species propagated to date. These plant species include many rare and threatened species. The Agency has successfully rehabilitated important plant species such as the Al Sarh, Ghaf and Samar trees.

World Green Economy Summit To Tackle Global Food Security

The seventh World Green Economy Summit (WGES), being held from October 6-7, 2021, at Expo 2020 Dubai, is set to tackle some of the critical sustainable development pillars, one of which is global food security and its role in green growth.

The Dubai Electricity and Water Authority (DEWA) and the World Green Economy



The seventh WGES is set to tackle some of the critical sustainable development pillars, one of which is global food security and its role in green growth

Organisation (WGEO) are jointly organising this international event. The 2021 WGES will be held simultaneously with the 23rd Water, Energy, Technology, and Environment Exhibition (WETEX) and Dubai Solar Show, which DEWA organises from 5th to 7th October 2021.

During the summit, attendees will discuss solutions, resources and research required to address the pressing global food security challenges and threats. They will examine and propose proactive measures to enhance stakeholder resilience and preparedness for any future changes.

These discussion areas have become more relevant than ever today due to the ongoing COVID-19 pandemic, highlighting the importance of food security in achieving people's prosperity, ensuring the continued operation of the vital

Food security will remain one of the top priorities of governments after the pandemic



sectors, and meeting development requirements across fields.

Food security will remain one of the top priorities of governments after the pandemic. WGES will look into ways to advance the food and agricultural technology sectors to fulfil the circular or green economy requirements and promote the sustainable use of natural resources, particularly water, during production processes.

Several pioneering and leading food security initiatives have been launched worldwide to combat different challenges. One of these is the Dubai Food Tech Valley, a significant programme launched by HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, to leverage genetic engineering in agriculture along with hydroponics and vertical farming, to ensure food security for residents.

"The upcoming WGES will discuss how to promote food technology, strengthen the food value chains and capitalise on advanced technologies of the Fourth Industrial Revolution. High-profile local and international guests, including heads of state and leading experts and specialists, will be part of the event.

It strengthens the UAE's role in coming up with global sustainable solutions to improve people's lives worldwide. This will cement the UAE's prestigious position as a leading global food security hub based on innovation and knowledge. WGES supports the UAE's efforts to achieve the Sustainable Development Goals (SDGs) 2030, including the 'Zero Hunger' goal, as well as the UAE's National Food Security Strategy 2051 launched in 2018 to develop an integrated and empowering national sustainable food production system," said Saeed Mohammed Al Tayer, Vice



Chairman of the Dubai Supreme Council of Energy in Dubai, and Chairman of WGES.

"Food security is a key strategic pillar to drive sustainable development and accomplish the ambitious green economy objectives that the UAE has set. The UAE has long prioritised the food sector, building an advanced infrastructure and embracing the latest technologies to boost local production and ensure its sustainability. Using advanced technologies and innovative solutions to ensure food security is indispensable for the green economy to thrive, which, in turn, is necessary for the entire food value chain in the UAE to flourish," said Mariam Almheiri, Minister of State for Food and Water Security.

"WGES 2021 is a pragmatic step that supports our efforts to enhance national food security. We look forward to the summit's discussions, as well

as the recommendations and pragmatic solutions, which we can build on to achieve the objectives of the UAE National Food Security Strategy," Almheiri added.

"MOCCAIE and its partners are committed to enhancing food security and sustainability through an integrated host of enablers, such as adopting state-of-the-art technologies, scaling up R&D and streamlining cross-border food supply chains and related logistics services," said Dr. Abdullah Belhaif Al Nuaimi, Minister of Climate Change and Environment.

"Today, the country is shifting to a green economy through developing sustainable solutions for each sector, particularly the food sector that has been under immense pressure globally due to the COVID-19 pandemic," he added.

DP World Partners With Jane Goodall Institute

DP World, the global trade enabler, signed a three-year partnership with the Jane Goodall Institute on September 22, 2021, to support the growth of its international humanitarian and environmental youth programme, Roots & Shoots.

The Jane Goodall Institute is a collection of 24 global community conservation organisations



that advance the vision and work of Dr. Jane Goodall, DBE, Founder of the Jane Goodall Institute and UN Messenger of Peace.

One of the Jane Goodall Institute's key programmes, Roots & Shoots is a worldwide movement of thousands of passionate young people who are empowered to make a significant impact across more than 60 countries. Whether it's natural disasters, homelessness, pollution or climate change, Roots & Shoots groups are embracing challenges and creating real positive change across the globe.

Through free resources for teachers and team leaders, Roots & Shoots groups are undertaking project work to address the challenges facing planet earth for animals (including domestic animals), the human community and the environment – focusing on both local change and

international projects resulting in global impact.

The partnership with DP World will support the expansion of existing Roots & Shoots groups and the development of new groups, both in the UAE and around the world, including the provision of a new school's outreach officer. It will also support the creation of new Roots & Shoots resources focusing on the Marine Ecosystem and embedding activities that build on the Science, technology, engineering, and mathematics (STEM) and logistical skills.

Sultan Ahmed Bin Sulayem, Group Chairman and CEO of DP World, said, "Through the Roots & Shoots programme, we want to encourage collaborative learning to support young people to identify opportunities to contribute to the future of their communities sustainably."

Carrefour Rolls Out Multiple Circular Economy Initiatives

Carrefour – owned and operated by Majid Al Futtaim in the UAE – has rolled out several sustainable initiatives through partnerships with CHEP, the Middle East’s market benchmark in supply chain solutions, and GLS International, an expert in returnable packaging solutions.

This will help reinforce Carrefour’s circular



Initiatives include deploying a pallet pooling system, use of reusable plastic crates and adoption of more eco-friendly trucks, amongst others

economy approach, which will drastically reduce waste and increase efficiency across Carrefour’s logistics and supply chain operations.

Carrefour has deployed CHEP’s pooling system in all of its warehouses, which replaces single-use pallets with reusable blue wooden ones to make it easier and more sustainable to move items between its suppliers and stores.

CHEP’s innovative solution ensures that supply chain packaging can be shared and reused whilst distributing Carrefour’s large range of products to more than 107 stores across the UAE, including four DC warehouses. By replacing single-use pallets with wooden ones, CHEP will help Carrefour to eliminate 62 tonnes of carbon emissions and 4.4 tonnes of waste.

Carrefour has also partnered with GLS to replace

*Transitioning into a circular economy is
a major step towards Carrefour's
sustainability goals, including becoming
net positive by 2040*



its current one-way cardboard packaging delivery with returnable plastic crates across its entire supply chain, reducing waste en route between Carrefour warehouses and stores. Carrefour advanced tracking systems have been designed for returnable packaging management. Not only will this allow for more sustainable connections with local suppliers, but it will keep items from being damaged during transit, therefore also reducing food waste.

Bernardo Perloiro, Chief Operations Officer of Carrefour UAE at Majid Al Futtaim Retail, said: "Our circular economy model represents the future of our operations. Collaborating with leading solution companies such as CHEP and GLS is only a starting point in our sustainability journey. We are committed to contributing to Majid Al Futtaim's goal of becoming Net Positive by 2040,"

To offer significant supply chain benefits and enhance the flow of items from beginning to end, suppliers to consumers, Carrefour's delivery vehicles are going green too. Its older, heavier trucks have been replaced with a modern fleet that can meet higher emission standards. The upgrade will ensure that the new trucks comply by the Euro Norms 4 & 5 standards to reduce emissions by 25% and particles by 50%.

These will operate with a custom-made, extended body chassis to ensure as many items as possible can fit inside and reach their destinations. Carrefour has made nearly 66% of its existing fleet sustainable with plans to replace the remaining vehicles by the end of the year. With this move, Carrefour has increased its efficiency in transporting more pallets per day and is reducing the number of trucks on the road by 20%.

Keeping It Green In Portland!

Portland city in Oregon is often referred to as America's number one environmentally friendly or 'greenest' city.

Portland has everything: lively and attractive pedestrian-oriented neighbourhoods, 510 kilometres of cycle paths, efficient public transportation networks, the highest number of urban parks per capita in the US, and the



One of the greenest cities in the United States of America, Portland in Oregon is a pioneer in sustainable living

country's greatest concentration of vegetarian and vegetarian-friendly restaurants.

Portland was one of the first cities in the world to develop a master plan for bicyclists and pedestrians. Transit options in Portland include bus service and options unique to this city such as the MAX light rail, WES commuter rail, and the Portland streetcar.

Portland is a beautiful environmentally progressive city that has taken the concept of green open space planning to heart. The adoption of an urban growth boundary in Portland in 1979 has helped protect lands outside of the city to the present day, while encouraging density and vibrancy within the city limits.

Master urban planning efforts have given equal attention to livability and open space within the

Portland has systematically pursued sustainability in its internal operations since the early 1990s



standards. 15 per cent of the city's energy for buildings is to be from on-site renewable energy generation such as geothermal heat pumps, solar panels/ solar thermal water heating, and biogas.

Portland's goal is to supply all electricity needs in the city with renewables by the year 2035, and ultimately to use 100 per cent renewable energy sources throughout the city in all segments of urban life by 2050. Portland has also developed a CityEnergyChallenge Program, and has mandated energy efficiency and waste management programs.

The City of Portland's City Energy Challenge has led to energy efficiency improvements at office buildings, sewage treatment plants, and in urban infrastructure such as street lights. Portland has required that all new construction and remodeling of municipal buildings conform to guidelines set by the U.S. Green Building Council (such as LEED and Energy Star).

city so that Portland today boasts around 250 parks and recreational sites. Portland is notable for having over 5,000 acres of green space in their Forest Park.

Efficiency through renewables

Portland has committed to meeting the community's electricity needs with renewables by the year 2035 and to move all remaining energy sources to renewable ones by 2050. The Portland General Electric (PGE) has a net zero goal by 2040. PGE is one of the two main utilities in Portland, and over 40 per cent of Oregon's energy is provided by PGE.

The City of Portland's 2009 Climate Action Plan has mandated that buildings within the city get their energy from renewable sources. In addition, Portland buildings are on a 'Path to Net Zero', starting with rigorous energy efficiency





Powered by biofuel

Portland first doubled the size of its bus network to be all powered by biofuel, before being the first American city to adopt a new streetcar system in 2001. Local companies and car parks mainly financed the cost of the project, which amounted to 70 million euros.

The city offers a Free Rail Zone encompassing most of downtown Portland within which bus and streetcar travel is free and automobile access limited. Public investments in mobility and infrastructure are also supplemented by non-governmental organisations like the Community Citing Center, which provides free bicycles for low-income citizens as well as training in cycle repair and road safety. Thanks to these actions, citizens of Portland already drive 20 percent less by car than their peers in comparably sized cities.

All about nature

Supporting the idea of inviting nature back in town, citizens have voted and agreed to increase their property taxes to allow the metropolitan regional government to purchase nearly 4,500 hectares of land to protect sensitive habitats and ensure water quality. In downtown Portland, half of these areas have been turned into pedestrian spaces and gardens. The other lands have either remained wild in order to be able to keep accommodating the birds living there, or converted into bike paths and sport facilities.

At the same time, more than 40 community gardens have been created and 415,000 street trees have been planted. Along with these municipal initiatives, many local and agriculture groups and organisations support permaculture and urban farms while promoting social and environmental justice.

Portland is a vibrant smart city with plentiful public parks and well-maintained urban forests



management programme, operational since the early 1990s, to avoid sewer flooding, reduce pollutants in rainwater, and protect and enhance groundwater quality.

The Sustainable Stormwater Management Plan intends to minimise impervious surfaces by implementing sustainable design into new and remodelled infrastructures and landscapes, including communication, education, community greening and making the city more attractive. Strategies range from a simple barrel at the bottom of a downspout in private plots to innovative rainwater harvesting systems such as green roofs, rooftop gardens, buffers, permeable paving, and separate storm water systems with multiple tanks, pumps and controls.

Portland, Oregon has successfully integrated sustainability into all aspects of living. More than 32,000 jobs have been created in green businesses within Portland, making the city one of the most eco-conscious in the United States.

Local and organic food

The FLOSS lifestyle (Fresh, Local, Organic, Seasonal and Sustainable) has been powered in the Portland area by a new generation of farmers who were once former city dwellers.

Eating well, locally and healthy is definitely easy to do in Portland. Farmers markets are a key ingredient in Portland's renowned food culture. As people are attached to consuming only local products, even the country's largest corporation, Walmart, had to give up establishing itself in Portland making it a rather unique case in the United States.

Sustainable water management

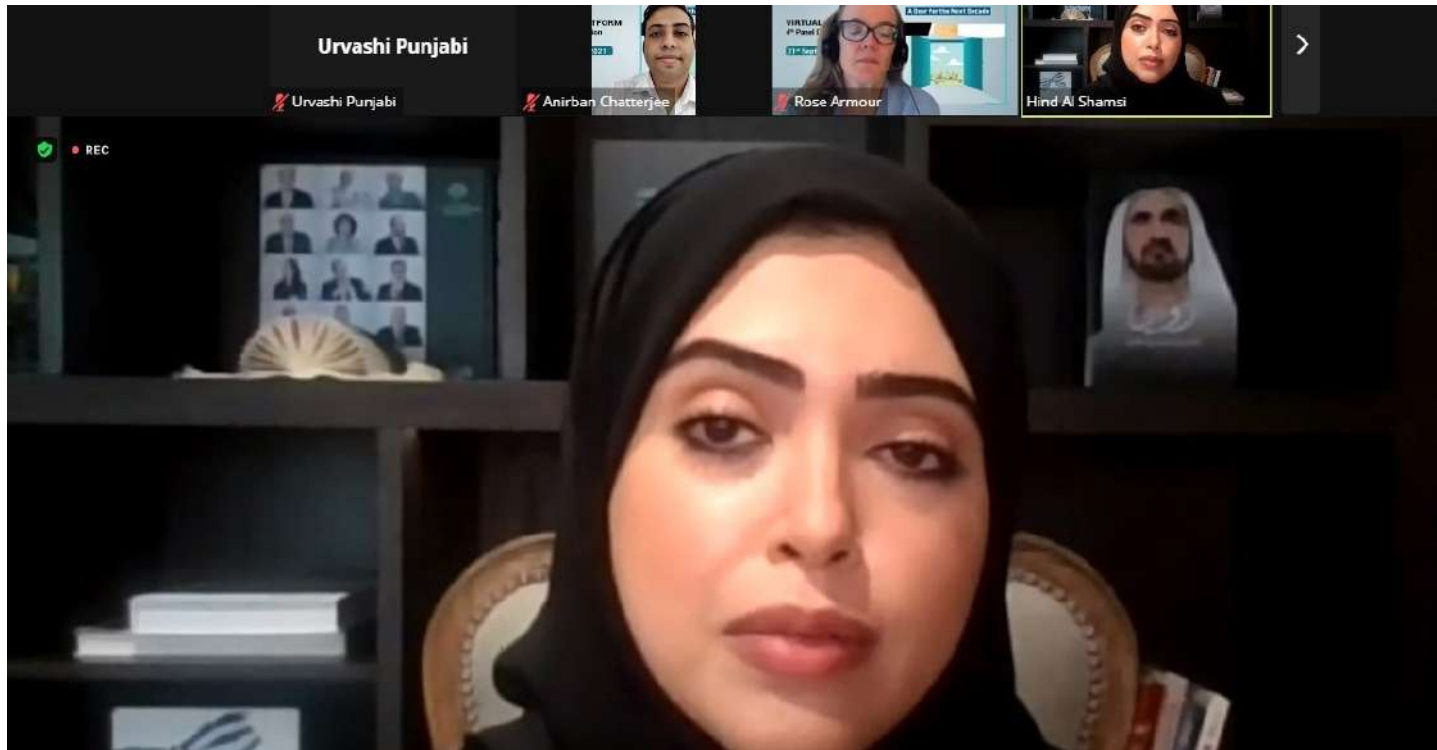
Portland has made leaps in innovation in terms of sustainable urban drainage systems, and has developed a world-renowned storm water



Effective Partnerships Are Key To Achieving Sustainable Development: EEG

UAE-based Emirates Environmental Organisation (EEG) hosted its fourth panel discussion of the year under the title of “Effective & Sustainable Partnerships: A Door for the Next Decade” on September 21, 2021.

EEG chairperson, Habiba Al Mar’ashi emphasised that the COVID-19 pandemic, or the calamities that are seen around the world because of



Virtual panel discussion
highlights need to
revitalise partnerships
for 2030 Agenda

climate change, are both very relevant examples of our increasingly globalised world. As a result, effective partnerships become an inevitable step in our collective stride towards achieving sustainable development.

Strengthening multidimensional and global partnerships are more important than ever before if we are to solve the world’s problems, she said, adding, “With nine years left to achieve all the targets set for Agenda 2030, it is the need of the hour to discuss the role that impact partnerships, and probe into the implications of leading a sustainable recovery from the pandemic, and in stimulating a decade of action.”

The conversation revolved around the questions of obstacles faced in achieving Agenda 2030. How does local and Global partnerships facilitate sustainability in the UAE, can economic,

The 2030 Agenda, with its 17 goals, is universal and calls for actions by all countries to ensure that we all move forward together sustainably



environmental and social sustainability objectives be attained through stable partnerships? How can international partnerships strategize our road to recovery from the Pandemic and stimulate a decade of action?

Hind Majid Al Shamsi, the Acting Director of the Statistics Department - Federal Competitiveness and Statistics Centre for the Ministry of Cabinet Affairs spoke of the need for UAE to recognise the importance of robust private and public partnerships in order to successfully implement SDGs. The Cabinet formed a National Committee on SDGs in 2017 which collaborates with 16 federal entities to implement the SDGs.

The Regional Development Coordinator at UNEP, Sabine Sakr, highlighted the need for creating partnerships with major stakeholders to achieve SDGs. She highlighted that partnership for UNEP

means an extended hand to serve nations globally and accomplish the goals through Public, semi-private, academic, technical and NGOs.

Rose Armour, the Head of Sustainability at the American University of Sharjah, emphasised on the role of higher education in promoting sustainable development. She focused on AUS's student and community engagements, student communication and involvement at local level for developing a thriving and sustainable society.

Another panellist, Anirban Chatterjee, Head of Business Development, Sales & Marketing -India & Middle East at DNV discussed how to achieve Net Zero by 2030. He added that in order to be on that trajectory, the three pillars of connection, capability and innovation needs to be established at all levels.

UAE And UK To Strengthen Cooperation On Climate Action And Environment

The UAE and the United Kingdom have agreed to strengthen bilateral cooperation to accelerate climate action and environmental protection in a Memorandum of Understanding (MoU) signed by Dr. Sultan Al Jaber, UAE Minister of Industry and Advanced Technology and Special Envoy for Climate, and the Rt Hon James Cleverly MP, UK Minister of State for Middle East and North Africa.



The Memorandum of Understanding (MoU) signed by Dr. Sultan Al Jaber and Rt. Hon. James Cleverly, MP, comes ahead of the UN COP26 climate summit in November

The MoU comes ahead of the UN COP26 climate summit in November, due to be hosted by the UK in the city of Glasgow and which offers a framework for wide-ranging cooperation by government entities, companies, and research agencies in support of realizing COP26 goals.

The agreement recognizes that strong, decisive climate action can be an engine for economic growth, job creation and sustainable development and aligns with the UAE's recently launched "Principles of the 50" roadmap to mark the country's Golden Jubilee. The Principles will help forge a new era of economic and social growth for the UAE over the next 50 years.

Dr. Sultan Al Jaber said: "Fifteen years ago, the UAE made a strategic decision to invest heavily in innovation and low-carbon energy, especially renewables and in partnership with other

This agreement facilitates exchange of information on policies, programmes, regulations, and business models that support joint efforts on climate action



countries. In the UK, we were an anchor investor in some of the country's largest wind projects - including Dudgeon and the London Array - that have helped make Great Britain the world's leading market for offshore wind energy."

He added: "Under the MoU, the UAE and the UK will work together in seeking to deliver on the Paris Agreement, including by reducing emissions to keep 1.5 degrees in reach, facilitating greater action on adaptation, mobilising finance for climate action and collaborating on pathways to low emission and climate-resilient growth."

The UAE was the first country in the region to ratify and sign the Paris Accords and the first in MENA to set an economy-wide reduction in emissions by 2030.

This agreement with the UK focuses on facilitating the exchange of information on policies,

programmes, regulations, and business models that support joint efforts on climate action. It will also better enable research and development, promote investments and the adoption of technology, and support private sector collaboration as well as assist with coordination and cooperation on development and humanitarian activities.

November's UN climate summit will see the official launch of the Agriculture Innovation Mission for Climate, co-founded by the UAE and the United States with endorsement from the UK's COP Presidency. Agricultural innovation for climate action will be an area of strong cooperation with the UK. Others include adaptation and resilience, low-carbon energy and decarbonization, green finance and investment and climate science and research collaboration.

Abu Dhabi Begins Numbering Historical, Endangered Trees

The Environment Agency - Abu Dhabi (EAD) has launched an ambitious project aimed at numbering and coding old, threatened trees which have historical importance in their natural environments and habitats spread across the emirate of Abu Dhabi – a first for the Agency.

The Agency will implement the numbering programme through dual initiatives, which



Innovative project for coding and census of local Ghaf and Samar trees in Abu Dhabi
EAD begins census and numbering historical and threatened local trees to protect and preserve Abu Dhabi's natural heritage

includes giving each tree an identification tag bearing serial numbers classified according to the tree type, in addition to electronically numbering trees and identifying them via serial codes linked to geographical databases.

This process is being implemented in this integrated form for the first time at the local and regional levels.

Her Excellency, Dr Shaikha Salem Al Dhaheri, Secretary General of EAD, said: "This project aims to tag old Ghaf and Samar trees of important environmental and heritage values. EAD has begun to implement the programme by identifying the targeted tree species using satellite and aerial images, taking coordinates for each tree and storing them within the geographical databases of the Agency, followed by the actual numbering of the historical trees."

To protect and preserve Abu Dhabi's natural heritage, 1,500 Samar and Ghaf trees each will be tagged across Abu Dhabi in the first phase of the project



The Agency plans to tag 1,500 Samar trees in the protected area in the first phase of the project, in addition to 1,500 Ghaf trees across the Emirate by the end of the year. The trees will be tagged with specially designed metal panels bearing the species details and tag identification numbers.

The project will also contribute to enhancing the quality of available data on local trees in natural habitats, a detailed assessment of the condition of each tree as well as other morphological information which will further help in assessing their resilience in combating desertification and mitigating impacts of climate change.

Ahmed Al Hashmi, Acting Executive Director, Terrestrial & Marine Biodiversity Sector of EAD, stated that EAD has prepared detailed maps of the spread of both Ghaf and Samar trees in the emirate of Abu Dhabi – a first in the UAE – and has

documented the distribution of all Ghaf and Samar trees using satellite image analysis.

The numbering of the trees will be carried out using specially prepared metal panels, etched with a distinctive number mounted on the trees. This number is linked to an electronic number within the geographical databases of EAD, where the health status of the trees will be recorded, as well as their condition and the threats the trees are exposed to. The health of the tree will also be monitored with a strong emphasis on surveillance, inspections to control illegal activities.

The maps of the trees highlighting their distribution will be shared with the Agency's various partners, to be taken into consideration when constructing various development projects to ensure their maximum protection.

New Billion-Dollar Initiative To Transform Cities For People And Planet

The UN Environment Programme (UNEP), Global Environment Facility (GEF) and partners have launched UrbanShift – a new global initiative to improve lives and transform cities into green and liveable spaces that address climate change, biodiversity loss and pollution.

Cities are home to 4.2 billion people, more than half of the world's population. But they face



New initiative, UrbanShift, to support 23 cities adopt integrated approaches to urban development, helping them become efficient, resilient, and inclusive

growing challenges – from floods, storms and heatwaves triggered by the climate crisis to dangerous air quality, lack of affordable housing and deep social divides.

Cities already account for about 70 per cent of all greenhouse gas emissions. By 2050, they must become carbon neutral to hold global temperature rise to under 1.5 °C – all while growing to hold nearly 70 per cent of the world's population.

UrbanShift will support 23 cities in Argentina, Brazil, China, Costa Rica, India, Indonesia, Morocco, Rwanda and Sierra Leone to adopt integrated approaches to urban development, helping shape cities that are efficient, resilient and inclusive.

UrbanShift is working with cities to promote integrated development approaches such as

Initiative aims to improve lives and transform cities into green and liveable spaces that address climate change, biodiversity loss and pollution



nature-based solutions, low-carbon public transport systems, low-emission zones, and integrated waste management.

Its aims include avoiding more than 130 million tonnes of carbon dioxide (CO₂) equivalent of greenhouse gas emissions, the equivalent of one year's emissions from 32 coal-fired power stations. UrbanShift will also improve the management and restoration of approximately one million hectares of land. With USD 146 million in GEF funding and USD 1.7 billion in co-financing, UrbanShift will improve integrated planning in the target cities, impacting the lives of more than 58 million people.

“Cities are at the frontline of the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste,” said UNEP Executive Director Inger Andersen. “However,

our cities also have the power to address these challenges while increasing the resilience of their citizens and their infrastructure.”

“As we focus on the pressing issues of climate change this week, we must turn the ingenuity and industriousness we showed in building our cities in the first place to rethinking how they work. UrbanShift will be a key tool to help urban leaders do just that.”

The programme will engage mayors, the private sector, city networks, UN agencies, multilateral development banks and many other partners to support national and city governments. It is also building a knowledge and learning platform to connect cities with global expertise and cutting-edge research, as well as offering a space to share experiences and forge partnerships.

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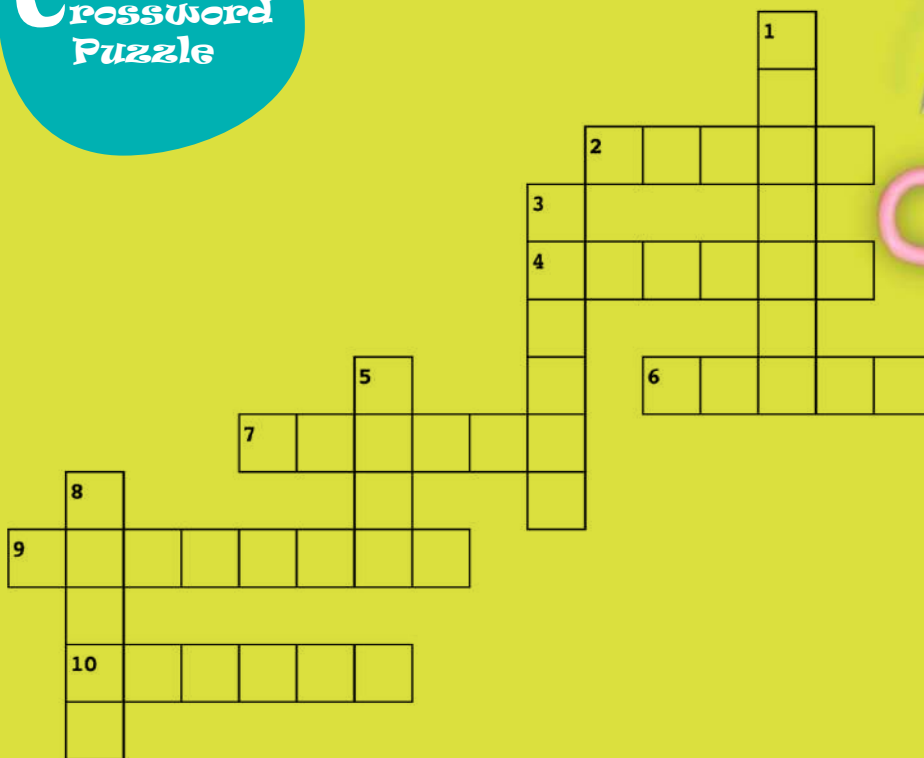
OECISYT

Answers: 1. ENVIRONMENT 2. NATURE 3. SOCIETY 4. RESERVOIR 5. DROUGHT 6. WILDLIFE
7. SUSTAINABLE 8. FLOODS

E	R	E	U	S	E	W	Y	R	E	V	G	R	N
R	E	S	P	O	N	S	I	B	I	L	I	T	Y
W	O	R	L	D	L	A	S	T	N	A	L	P	E
R	S	R	E	R	E	S	E	R	V	E	S	S	T
T	E	L	R	Y	C	O	N	S	E	R	V	E	N
C	M	G	T	O	O	S	L	L	B	T	S	R	E
I	U	E	N	T	S	S	R	I	V	V	S	E	M
R	S	M	G	L	O	M	T	E	F	E	A	M	N
S	N	E	C	S	I	M	L	U	G	E	E	R	R
V	O	T	W	N	L	L	I	M	R	I	S	E	E
U	C	S	G	I	A	V	R	E	O	T	T	O	V
R	A	Y	L	S	L	E	L	O	N	V	L	L	O
P	R	S	E	R	O	D	B	S	R	R	E	E	G
S	S	E	P	O	P	U	L	A	T	I	O	N	S

- WORLD
- RESERVES
- TURTLES
- SOIL
- WILD
- LIFE
- TIGERS
- RESPONSIBILITY
- CONSUME
- REUSE
- GOVERNMENT
- SEA
- PLANTS
- CONSERVE
- SYSTEM
- POPULATION

Crossword Puzzle



Across

2. Toxin secreted by some animals
4. The life giving gas
6. A common, colourless liquid.
7. The overflowing or excess of water causes
9. An area of land where large amounts of waste material is buried underneath the earth
10. Hard shelled reptile

Down

1. To keep safe from injury, harm or destruction
3. A large collection of trees
5. A type of fossil fuel
8. The planet on which we live

Answers: 1) Protect 2) Venom 3) Forest 4) Oxygen 5) Coal 6) Water 7) Floods 8) Earth 9) Landfill 10) Turtle

WORD OF THE DAY:

GREENHOUSE EFFECT

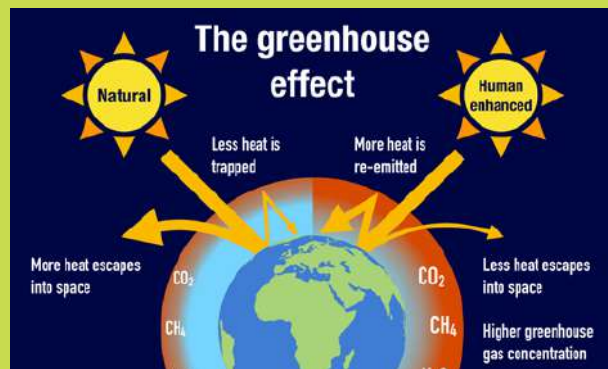
The greenhouse effect is a warming of Earth's surface and the air above it. It is caused by gases in the air that trap energy from the Sun. These heat-trapping gases are called greenhouse gases. The most common greenhouse gases are water vapor, carbon dioxide, and methane. Without the greenhouse effect, Earth would be too cold for life to exist.

Land, oceans, and plants absorb, or soak up, energy from sunlight. They release some of this energy as heat. Greenhouse gases absorb the heat and then send it back toward Earth. Without greenhouse gases, this heat would escape back into space.

Scientists believe that human activities are increasing the greenhouse effect. When people drive a car or operate a factory they burn coal, oil, and other fossil fuels. This adds extra greenhouse gases to the air, and the extra gases trap more heat. Many scientists think that this has led to global warming, or a steady rise in the average temperature of Earth's surface.

WHAT CAN REDUCE THE GREENHOUSE EFFECT?

Just like a glass greenhouse, Earth's greenhouse is also full of plants! Plants can help to balance the greenhouse effect on Earth. All plants — from giant trees to tiny phytoplankton in the ocean — take in carbon dioxide and give off oxygen. The ocean also absorbs a lot of excess carbon dioxide in the air.



WORLD HABITAT DAY

The United Nations designated the first Monday of October of every year as World Habitat Day to reflect on the state of our habitats, and on the basic right of all to adequate shelter. The Day is also intended to remind the world that we all have the power and the responsibility to shape the future of our cities and towns. World Habitat Day was first celebrated in 1986 with the theme "Shelter is My Right". Nairobi was the host city for the observance that year.

In 1985 the United Nations designated the first Monday of October every year as World Habitat Day. The idea is to reflect on the state of our towns and cities and the basic right of all to adequate shelter. It is also intended to remind the world of its collective responsibility for the future of the human habitat. This year it will fall on October 4.

The theme for this year's World Habitat Day is Accelerating urban action for a carbon-free world. The theme recognizes that cities are responsible for some 70 percent of global carbon dioxide emissions with transport, buildings, energy, and waste management accounting for the bulk of urban greenhouse gas emissions. Events and activities during World Habitat Day will explore how national, regional and local governments and organizations, communities, academic institutions, the private sector and all relevant stakeholders can work together to create sustainable, carbon-neutral, inclusive cities and towns.



FACTS ABOUT WORLD ANIMAL DAY

- The first World Animal Day took place on March 24, 1925, in the Sport Palace in Berlin, Germany. More than 5,000 people attended the first event. It was founded by writer and animal activist Heinrich Zimmermann, author of *Mensch und Hund* (Man and Dog).
- October 4th is the Feast Day of Francis of Assisi, the patron saint of ecology and animals.
- Initially, the day was celebrated by people in Germany, Austria, Switzerland and Czechoslovakia, but in May 1931, at a meeting of the International Animal Protection Congress in Florence, Italy, Zimmerman's proposal to make October 4th World Animal Day a universal celebration was unanimously accepted and adopted as a resolution.

WORLD ANIMAL DAY

Observed on October 4, World Animal Day is a social movement charged with the mission of raising the status of animals in order to improve welfare standards around the globe. To achieve this, animal welfare organisations, community groups, youth and children's clubs, businesses and individuals are encouraged to organise events in celebration of World Animal Day to draw attention to animal issues and make them front page news – a vital catalyst for change.

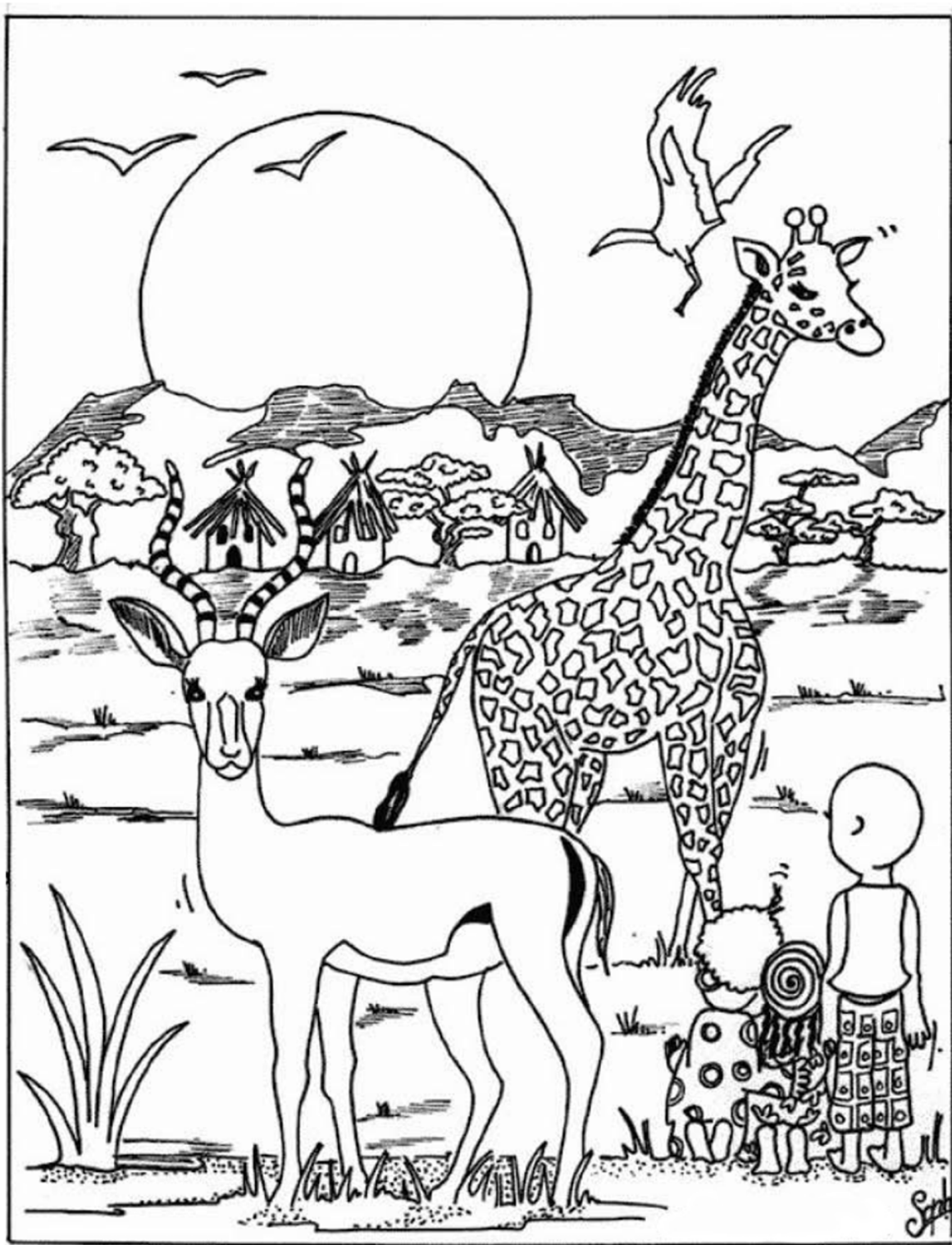
Throughout history, social movements like World Animal Day have always been a major vehicle for ordinary people's participation in politics, and key in fighting for social justice and reform. The lives of animals are profoundly affected by the actions of individuals, businesses and nations. It's therefore essential that, as sentient beings, their rightful status as recipients of social justice is established and translated into effective animal protection. There is no doubt that increased awareness of animal issues via the availability of accurate information, combined with better education for both adults and children, is helping to develop a compassionate culture which is slowly feeding into legal reform and social progress.

What can you do to help?

Things to Do...

- ☒ Walk to places! _ _ _ _ _
- ☒ Use public transport. _ _ _ _ _
- ☒ Clean up after yourself! _ _ _ _ _
- ☒ Volunteer for a clean-up drive! _ _ _ _ _
- ☒ Turn off taps when not in use! _ _ _ _ _

COLOUR ME!



Al Ain Zoo Boosts Rhino Conservation Efforts

Al Ain Zoo is taking all possible steps to conserve the rhinoceroses, which are an endangered species on the International Union for Conservation of Nature (IUCN) Red List, according to a statement issued by the Zoo.

The Zoo accomplishes this through diligently following the best international global breeding practices, as well as raising awareness of the



importance of wildlife conservation.

According to the statement, "Al Ain Zoo is home to a group of 11 rhinos, 5 males and 6 females and has dedicated several animal exhibits zones specifically for them, providing an integrated care regimen in an environment that matches their natural habitat as far as possible, as well as fulfilling nutritional and behavioural needs. The Zoo provides all of its animals with a comprehensive health care system through its specialized vets and animal caregivers, which for the rhinos has helped stimulate natural breeding patterns and doubled their numbers in the Zoo over the past years."

The Zoo provides many rhino-based recreational, educational and engagement experiences at two different zones within the Zoo - the African Habitat and Al Ain Safari, which is the largest

man-made safari. These two experiences allow rhinos to be witnessed interacting with a variety of other African animal species.

It was in 2008 that Al Ain Zoo first welcomed 5 Southern White Rhinos, which, due to the Zoo's continued efforts to provide all necessary requirements for the management, veterinary and nutritional care, and equipping of exhibit facilities, has now grown to a family of 11 males and females.

In addition to caring for its family of rhinos, Al Ain Zoo is supporting the protection and conservation of wild black and white rhinos through its partnership with Lewa Wildlife Conservancy, Kenya. Al Ain Zoo's support helps Lewa to track each individual rhino to protect them from illegal poachers and monitor their health.

Stop The Waste: A Call For Action To Reduce Global Hunger

On the second International Day of Awareness on Food Loss and Waste on September 29, the United Nations called for stronger action to end the culture of throwing out food uneaten and in so doing, help to address the triple planetary crisis of climate change, nature loss and pollution.

The UN Environment Programme's (UNEP) Food



While millions still go hungry, one-third of food produced for human consumption is lost or wasted

Waste Index earlier this year showed the huge scale of food waste across the globe. In 2019, 931 million tonnes of food sold to households, retailers, restaurants, and other food services was wasted.

An estimated 17 per cent of food available to consumers in markets, households, restaurants, goes directly into the bin and 60 per cent of that waste is in the home.

Moreover, the data shows that consumer food waste is truly a global problem, significant in almost every country that has measured it.

Research by the Food and Agriculture Organization, meanwhile, has found that approximately 14 per cent of the food produced for consumption globally each year is lost between harvest and the wholesale market.

An estimated 17 per cent of food available to consumers in markets, households, restaurants, goes directly into the bin and 60 per cent of that waste is in the home



“Food loss and waste account for up to 10% of greenhouse gas emissions. They use up precious land and water resources for, essentially, nothing,” said Inger Andersen, Executive Director of UNEP. “Putting a serious dent in food loss and waste will slow climate change, protect nature and increase food security – at a time when we desperately need these things to happen.”

“We all have a role to reduce food waste in our own lives and workplaces,” she added. “The burden of food waste and loss is heavy but if we get our shoulders beneath this burden, we can shift it.”

“We need to accelerate progress in achieving SDG target 12.3 by 2030 to halve global food waste and reduce food losses along production and supply chains, including post-harvest losses,” the FAO Director-General said, warning that we only have “nine (harvest) seasons remaining to do so.”

With up to 811 million people affected by hunger in 2020, a number that rose with COVID-19, and three billion people unable to afford a healthy diet, collaborative global action to cut food loss and waste is essential.

With this in mind, UNEP helped to launch the ‘Food is Never Waste’ Coalition at the UN Food Systems Summit in September. With commitments from 12 Member States, the C40 Cities Group and a diverse group of stakeholders, the Coalition is connecting the dots between food waste, hunger and the triple planetary crisis and aims to scale up global efforts.

UNEP is also facilitating Food Waste Working Groups in Africa, Asia Pacific, Latin America and the Caribbean, and West Asia, supporting 25 countries in measuring baselines and developing national food waste prevention strategies.

COVID-19 Caused Only A Temporary Reduction In Carbon Emissions: Report

COVID-19 did not slow the relentless advance of climate change. There is no sign that we are growing back greener, as carbon dioxide emissions are rapidly recovering after a temporary blip due to the economic slowdown and are nowhere close to reduction targets.

Greenhouse gas concentrations in the atmosphere continue at record levels,



Rising global temperatures
are fuelling devastating
extreme weather
throughout the world, with
spiralling impacts on
economies and societies

committing the planet to dangerous future warming, according to a new multi-agency United in Science 2021 report.

Rising global temperatures are fuelling devastating extreme weather throughout the world, with spiralling impacts on economies and societies. Billions of work hours have been lost through heat alone. The average global temperature for the past five years was among the highest on record. There is an increasing likelihood that temperatures will temporarily breach the threshold of 1.5° Celsius above the pre-industrial era, in the next five years, the report said.

The scale of recent changes across the climate system as a whole are unprecedented over many centuries to many thousands of years. Even with ambitious action to slow greenhouse gas

In 2021, fossil fuel emissions have bounced back, and greenhouse gas concentrations and severe weather events are on the rise



emissions, sea levels will continue to rise and threaten low-lying islands and coastal populations throughout the world, according to the report.

“This is a critical year for climate action. This report by the United Nations and global scientific partner organizations provides a holistic assessment of the most recent climate science. The result is an alarming appraisal of just how far off course we are,” said UN Secretary-General Antonio Guterres.

“We are still significantly off-schedule to meet the goals of the Paris Agreement. This year has seen fossil fuel emissions bounce back, greenhouse gas concentrations continuing to rise and severe human-enhanced weather events that have affected health, lives and livelihoods on every continent. Unless there are immediate, rapid and large-scale reductions in greenhouse

gas emissions, limiting warming to 1.5°C will be impossible, with catastrophic consequences for people and the planet on which we depend,” he said in the foreword.

The United in Science 2021 report, the third in a series, is coordinated by the World Meteorological Organization, with input from the UN Environment Programme, the World Health Organization, the Intergovernmental Panel on Climate Change, the Global Carbon Project, the World Climate Research Programme and the Met Office (UK). “Throughout the pandemic we have heard that we must build back better to set humanity on a more sustainable path and to avoid the worst impacts of climate change on society and economies. This report shows that so far in 2021 we are not going in the right direction,” said WMO Secretary-General Prof. Petteri Taalas.

Can Faith & Heritage Help In Sustainability?

Despite all the ongoing discussions and pledged commitments, the path to achieving the Paris Agreement goals still appears farfetched. On one hand, the impression created is that climate change challenges are being taken very seriously. But when you look at what countries are doing, you notice that something is amiss in the priorities of the rich industrial countries.

The lack of political will is a key problem. The capitalist economic system that promotes consumption is another obstacle. Countries fear that lower rates of



Dr. Eisa M. Abdellatif

Chief Technical Advisor
Zayed International
Foundation for the
Environment

consumption could slow down the economy. We therefore need to convince multinational corporations and politicians to change course.

The UN is undertaking different approaches to encourage green living and reduce mankind's ecological footprint and is exerting pressure on governments to shift to policies that favour the planet. One such approach is to dig into faith, heritage, and wisdom that favour environment-friendly practices.

The Zayed International Foundation for the Environment held a webinar last month on this topic and invited Dr. Iyad Abumoghli, Founder and Director of UNEP's Faith for Earth Initiative, and Charles Savage, Professor of Sustainability at Technical University of Munich, to offer insights into 'Faith, heritage & wisdom for a truly sustainable future'.

The webinar revealed that faith organizations control vast economic and human resources. There are around 37 million churches, 20 million synagogues and 3.6 million mosques worldwide that could direct their religious teachings and values towards saving valuable resources such as energy, water and food. Together, these institutions occupy 8% of arable land and control 50% of schools worldwide including 64% of schools in Sub-Saharan Africa and 10% of all financial institutions.

The media need to be more serious about promoting religious and environmental ethics and nature-based solutions to help stop deterioration and encourage rehabilitation.

To be continued next month.

**THE FUTURE OF OUR WORLD
IS IN OUR HANDS.**

ACT NOW!



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X: 243 cm
Y: 328.69 cm

