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# Society & Environment

creating green communities for a better tomorrow

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Mohammed bin Rashid inaugurates the  
Museum of the Future

Subaru's Solterra:  
Sustainability With No Compromises



# Setting the benchmark for the future of energy

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## Chairman's Message

The UAE's quest to encourage communication, collaboration and creativity has been cemented with the opening of the Museum of the Future which envisions what the world could look like 50 years from today. This is a vision that crystallizes the nation's spectacular 50-year transformation from a pearl-diving economy to a global interconnected hub.

Dubai has always looked to the future, right from its early days as a trading hub. Today, as a vibrant global city, it has wholeheartedly embraced new technologies and the promise of what the future holds.

As His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, rightly pointed out: "When it comes to the future, Dubai is imagining it, designing it, and executing it". Museum of the Future is where scientists, experts and global talents will exchange ideas and perspectives for a better tomorrow and a sustainable future.



**Prof. Mohammed  
bin Fahad**  
Executive Editor

This architectural and engineering marvel confidently straddles the past and the future and applies advanced technology to traditional art forms. It is the home of innovative and futuristic ideologies and sustainable manufacturing solutions.

The museum itself is a showcase for how we can build a better world through the latest ideas, styles, materials and futuristic sustainable technologies. The environmentally conscious structure has pushed the envelope in terms of sustainability and building technology. The LEED-certified building draws power from a solar plant and provides electric car charging facilities.

There is no doubt that the Museum of the Future is setting the precedent for upcoming projects. In the words of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, "The future isn't something you wait for but create."

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PUBLISHED BY



## Executive Director

Prof. Mohammed Bin Fahad

## Advisors

Dr. Hamdan K. Al Shaer  
Dr. Eisa M. Abdellatif

## Marketing

marketing@zayedprize.org.ae

## Editor

Sangeetha K  
editor@zayedprize.org.ae  
mail@zayedprize.org.ae

## Design Director

Nash - Intoto Marketing  
Communications  
editor@zayedprize.org.ae



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## Upcoming events

### Forum on Plastic-Free Rivers in Asia

**Date:** March 8-10

**Virtual event**

Under the theme of “Reducing river plastic litter through science, policy and citizen action”, the forum will highlight new insights gained from field research and country experiences in ensuring plastic-free rivers to help address marine plastic pollution.

Key points under discussion include evidence-based policy on plastics; mapping plastic pollution along rivers; plastics as a threat for migratory species; and plastic pollution data management for insightful and informed decision making.

### START Summit X Hack 2022

**Date:** March 23-25

**Location:** San Gallen, Switzerland

START Summit brings over 5,000 startups, investors, corporations, and young talents together to promote innovation through workshops, keynotes and hosting a hackathon to explore ways to harness the potential of modern technologies to address natural disasters in a real-world case. Technology, especially Modern Technologies like Artificial Intelligence (AI), Robotics, the Internet of Things (IoT), and Drones, have the power to transform every aspect of disaster management.

The summit aims to empower states, cities, and initiatives in disaster management and change the way we look at disaster management and to incorporate knowledge of modern technologies to benefit all.

### Middle East and North Africa Climate Week

**Date:** 28 - 31 March

**Location:** Dubai, UAE

The first-ever Middle East and North Africa Regional Climate Week will accelerate collaboration and integrate climate action into global pandemic recovery. Building forward opens an opportunity to address social inequalities and invest in economic development that is good for humanity and nature.

MENA Climate Week 2022 provides a platform for governments, cities, private sector leaders, financial institutions and civil society to discuss opportunities to build forward from the pandemic by identifying opportunities to enhance climate action.

## Mohammed Bin Rashid Inaugurates The Museum Of The Future

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, inaugurated Dubai's new iconic landmark - the Museum of the Future - on 22.2.22, officially opening its doors to the world with a new message of hope for all humankind.

The 77-metre-tall architectural marvel will



The Museum of the Future  
presents a clear roadmap  
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opportunities

provide a platform in the region to study, envision and design the future. It is a novel scientific and intellectual centre where the brightest talents in the fields of science, technology, research and innovation will converge to discover solutions to tomorrow's world.

During the opening ceremony, His Highness Sheikh Mohammed said: "The Museum of the Future is a message of hope ... a global scientific platform ... and an integrated institutional framework to shape a better future for all of us." His Highness continued: "It embodies the active human imagination, and the Emirati will that continues to excel the world. The Museum will be a forum for great minds, scientists, thinkers and experts from around the world."

H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman

*Rising 77 metres high, the striking structure is built by using robotic technology and with an emphasis on sustainability*



of the Board of Trustees at Dubai Future Foundation, said: "The Museum of the Future will be an intellectual laboratory for cities of the future and governments of the future ... it will play a key role in strengthening Dubai's future position. The Museum will provide a clear roadmap for Dubai's vital sectors."

H.H. Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum, Deputy Ruler of Dubai, Deputy Prime Minister and Minister of Finance, said: "Through the Museum of the Future, His Highness Sheikh Mohammed bin Rashid Al Maktoum aims to institutionalize future foresight and explore its opportunities to enhance the nation's competitiveness."

Sheikh Maktoum added: "We seek to accelerate the transition towards a knowledge-based economy in the region and explore practical

scientific solutions to the greatest challenges of our times, both today and tomorrow."

The opening ceremony featured several videos highlighting the concept of the Museum of the Future and the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum to transform Dubai into the most developed city in the world.

Attending the opening ceremony of the iconic landmark in Dubai were H.H. Sheikh Ahmed bin Saeed Al Maktoum, President of the Dubai Civil Aviation Authority, Chairman and Chief Executive of Emirates Airline and Group; H.H. Sheikh Mansoor bin Mohammed bin Rashid Al Maktoum, Chairman of the Dubai Sports Council; H.H. Sheikha Latifa bint Mohammed bin Rashid Al Maktoum, Chairperson of the Dubai Culture and Arts Authority; and a number of ministers and officials of government departments in Dubai.



Unfolding futuristic exhibitions, the Museum of the Future is a remarkable addition to the world's most important landmarks and icons. It is considered an unparalleled architectural masterpiece thanks to its pioneering engineering design that stands ahead of its time.

It will also be an incubator for global talents, scientists, thinkers and researchers, to bring their bold ideas and visions of the future to life. The Museum will launch new initiatives in the fields of science and technology to strengthen the UAE's knowledge base to further accelerate scientific development.

### **A new international architectural benchmark**

From an architectural perspective, the museum is an engineering marvel. It is the most streamlined building in the world with no sharp corners on its

external structure. It rises to a height of 77 metres and redefines modern architecture through the use of novel tools and technologies.

The museum is considered one of the most complex architectural projects in the world. It was constructed using the "parametric design" model, a three-dimensional technology based on advanced technical design that works by entering data and parameters for the building to be designed.

### **1,024 stainless steel panels**

The stainless-steel facade of the museum consists of 1,024 panels over an area of 17,600 square meters. The facade panels were produced using automated robotic arms in a first in the region, with each panel consisting of 4 layers, and requiring a 16-step process to produce. Each panel was installed individually, with the

*The Museum of the Future will also be an incubator for global talents, scientists, thinkers and researchers, to bring their bold ideas and visions of the future to life*



installation period for the external facade lasting more than 18 months.

The museum is accessed via two bridges, the first of which extends to the buildings of Jumeirah Emirates Towers with a length of 69 metres, and the second connects it to the Emirates Towers metro station with a length of 212 metres. The museum is fed with 4,000 megawatts of electricity that is produced through solar energy using solar panels connected to the museum.

### **Illuminated by 14,000 metres of lights**

The facade of the Museum of the Future is illuminated by 14,000 metres of light lines and is decorated with inspirational quotes from His Highness Sheikh Mohammed's poetry in Arabic calligraphy, making it the only building in the world whose entire façade is adorned using the art of calligraphy. The engraved writing on the

steel facade is designed using advanced glass manufactured with new technologies specifically to improve the quality of interior lighting and exterior thermal insulation.

The Emirati artist Mattar bin Lahej designed the sayings of His Highness Sheikh Mohammed in the "Thuluth" script which reflects nobility, originality and permanence. The script is one of the most used Arabic scripts in artistic expression due to its timeless aesthetic.

### **A roadmap for Dubai's future**

The Museum of the Future will present a clear roadmap for Dubai and the UAE's future, through which all vital sectors stand to benefit from future economic, developmental, scientific and humanitarian opportunities.

In addition, the Museum of the Future will be a



major laboratory for governmental and non-governmental entities and institutions in Dubai, as well as a factory for ideas and perspectives to understand, design and build the future.

Further, the museum aims to build a network of partnerships with major scientific and research institutions and centres in the world in order to host and promote in-depth dialogues about future trends shaping various developmental, economic, scientific, technological and humanitarian sectors.

Spanning an area of 30,000 sqm, the seven-storey pillarless structure also represents a novel global intellectual centre. It is a "living" laboratory designed to foster innovation to inspire new out-of-the-box solutions to tomorrow's greatest challenges and spur a new era of scientific discovery in the region and beyond.

### Knowledge movement

The Museum of the Future seeks to lead the knowledge movement as a centre for the latest advanced scientific and technological innovations.

In addition, it will connect futurists, scientists, technologists and industry leaders by holding regular forums, dialogues, seminars and research sessions throughout the year. The museum will also disseminate knowledge and research that sheds light on the most important scientific discoveries, developments and trends.

### Three main elements

The Museum of the Future consists of three main elements: the hill or plateau from which the building rises, the external design of the building, and the exhibitions of the Museum.

*Five different exhibitions explore the future of space travel and living, climate change and ecology, health, wellness, and spirituality*



The Museum employs the latest technologies in virtual and augmented reality, big data analysis, artificial intelligence and human machine interaction to answer many questions related to the future of humanity, cities, societies and life on Earth, all the way to outer space.

The Museum of the Future features a multi-use hall that accommodates more than 1,000 people, and has a special hall for interactive lectures that can accommodate more than 345 people. It also includes innovation laboratories for health, education, smart cities, energy and transportation, a permanent museum of future innovations, and laboratories to generate and test new ideas, especially in developmental areas related to critical social challenges.

### **An experiential journey**

The Museum of the Future takes its visitors on an

experiential journey that transports them to the year 2071, which coincides with the centenary of the founding of the UAE. The journey takes visitors from a universal to a personal realm, based on an approach that emphasises the importance of one's connection to the universe within the framework of a relationship of mutual influence, and promotes the principle of each individual's role in shaping the future.



## Zayed International Foundation for the Environment hosts Ambassador of the Republic of Rwanda in UAE at Dubai Police Academy

The Zayed International Foundation for the Environment has explored areas of mutual collaboration and partnership opportunities in the field of environment and sustainable development with a high-level delegation from the Republic of Rwanda.

Prof. Dr. Mohamed Ahmed Bin Fahad, Chairman of the Higher Committee of the Zayed International Foundation for the Environment welcomed H.E. Emmanuel Hategeka,



Ambassador of the Republic of Rwanda in UAE, and Edouard Bizumuremyi, Minister Counsellor, at the Dubai Police Academy on February 28, 2022.

Members of the Higher Committee of the Zayed Foundation, Ali Ahmed Al Najjar and Dr. Hamdan Khalifa Al Shaer, were also present during the official visit.

Prof. Dr. Mohamed Ahmed Bin Fahad briefed the visiting delegation on the activities of the Zayed Foundation at the local,

regional and international levels, and reinforced his commitment to upholding the vision and mission of the organisation through partnerships and collaborations. The Chairman said that the Zayed Foundation, founded under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, occupies a prominent place in the international environmental arena for its achievements in promoting environmental protection worldwide.

The visiting dignitaries were taken on a visit to the site of the ambitious One Million Trees initiative, which aims to increase green areas in Dubai through afforestation.

Elaborating on Rwanda's proactive approach in nation building where green growth and climate resilience strategies are integrated, Ambassador H.E Emmanuel Hategeka also highlighted the country's achievements in reforestation, agro-forestry, and tree-planting drives, and drew attention to the ongoing efforts in developing an innovative circular economy.

The Rwandan Ambassador expressed his appreciation to the Zayed Foundation for hosting the delegation and reaffirmed commitment to cementing ties in areas of mutual interest.





# Pace Passion Professionalism



Office 912 & 515,  
Liberty House,  
DIFC, Dubai, UAE.  
+971 4 3544435

[support@manojre.com](mailto:support@manojre.com)  
[www.manojre.com](http://www.manojre.com)

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## Hamdan Bin Mohammed Launches 'Dubai Can' Initiative

H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council, has launched 'Dubai Can', a city-wide sustainability movement designed to inspire people to make a difference through a series of sustainability-focused initiatives.

This initiative, which will be implemented by



Sustainability initiative  
aims to reduce single-  
use plastic bottle waste  
in the city

Dubai's Department of Economy and Tourism, will encourage UAE residents to turn the tide on plastic and inspire mass action to actively reduce the use of single-use plastic bottles. 'Dubai Can' seeks to motivate communities to undertake simple changes such as using refillable water bottles and public water stations and installing water filters in their homes, offices and schools.

Helal Saeed Al Marri, Director-General of Dubai's Department of Economy and Tourism, said, "The 'Dubai Can' initiative is one of the innovative ideas that we are implementing to create a vibrant new green economy that will offer the world a unique model for sustainable development. The initiative is aligned with the vision of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and the directives of H.H. Sheikh Hamdan bin Mohammed bin Rashid

*The average UAE resident uses  
around 450 plastic water  
bottles every year*



Al Maktoum to transform the emirate into a leading sustainable destination and the best city in the world to live, work and visit. Our objective is to inspire current and future generations to play their part in protecting the environment and conserving our natural resources."

The Government of Dubai Media Office organised a virtual media briefing to promote the initiative. The briefing was attended by Mona Ghanem Al Marri, Director-General of the Government of Dubai Media Office; Yousuf Lootah, Executive Director - Development & Investments of Dubai's Department of Economy and Tourism; and Issam Kazim, CEO of Dubai Corporation for Tourism and Commerce Marketing.

Yousuf Lootah highlighted the media's instrumental role in the success of Dubai Government's initiatives to promote positive

change for a sustainable future. Emphasising the importance of reducing plastic waste, he said: "A typical resident in the country uses 450 plastic water bottles on an average in a year, which translates into a total of 4 billion plastic bottles being used annually in the UAE. A single plastic bottle requires 400 years to decompose naturally, posing risks to environmental sustainability. Furthermore, plastic waste is responsible of the deaths of 1.1 million marine creatures globally."

With the ambitious goal of significantly reducing single-use plastic bottles, 'Dubai Can' will empower communities to take action to further bolster Dubai's drive to become one of the world's most sustainable cities, in line with the Dubai 2040 Urban Masterplan. The initiative also supports Dubai's commitment to meeting the UAE's UN Sustainable Development Goals and achieving UAE NetZero 2050 initiative.



The 'Dubai Can' initiative also complements the policy recently approved by The Executive Council of Dubai to limit single-use bags. As per the policy, a tariff of 25 fils will be imposed on single-use bags used for carrying goods, starting from July 1, 2022. The policy will be evaluated over several stages until single-use carrier bags are completely banned within a span of two years.

According to Emirates Nature WWF, the average person in the UAE consumes 94 kg of plastic per year, of which a significant amount comprises single use bottles. Plastic waste has a devastating effect on marine mammals and impacts local populations of dolphins, sea turtles and birdlife. With Dubai 2040 Urban Masterplan set to increase the length of public beaches by as much as 400 percent and Dubai's nature reserves and natural areas to be boosted to 60 percent, the 'Dubai Can' initiative will help lay the groundwork

for positive change and support sustainable communities for generations to come.

Residents and visitors to Dubai will have access to more than 30 water stations across the city as part of this initiative, with prime public locations including beaches, parks, malls and major attractions. The drinking water from the stations will be kept cool at a temperature of 10°C offering people a refreshing, clean and safe alternative, whilst also driving a 'refill culture'.

All water stations across the city will provide the highest standards of hygiene and maintain strict adherence to municipal, healthcare and federal regulations. This includes providing clean and safe drinking water, which will be tested in accordance with Dubai Electricity and Water Authority (DEWA), GCC and World Health Organisation (WHO) standards.

# Native Tree Species Planted To Mark 25th National Environment Day

To celebrate the 25th National Environment Day, the Ministry of Climate Change and Environment (MOCCA) in collaboration with Expo 2020 Dubai hosted a tree-planting event under the theme 'The UAE's Message to the World - Climate Action Now' with the participation of representatives of Expo's country pavilions. Planting seedlings of native tree species - ghaf, sidr, and acacia, the activity

EXPO 2020 DUBAI



aimed to highlight the importance of expanding the green cover to reduce carbon emissions as part of climate action. MOCCA distributed the seedlings among the participants, who planted them at the Expo 2020 Dubai Plant Nursery.

Mariam bint Mohammed Almheiri, Minister of Climate Change and Environment, said: "Over the course of five decades, protecting the environment, preserving natural resources, and conserving biodiversity have been - and always will be - among the UAE's strategic priorities. Celebrating our 25th National Environment Day under the theme 'Climate Action Now,' we send out a powerful message that collective action is the optimal means of addressing all challenges that come our way in a bid to protect our environment and build a better future."

Reem bint Ebrahim Al Hashemy, Minister of State

for International Cooperation, Director General of Expo 2020 Dubai, and Chairwoman of the National Committee on Sustainable Development Goals, said: "Today, we are not just planting little seedlings. These seedlings are a shoutout to the world that faces pressing climatic challenges, and an opportunity to collaborate with Expo participants and visitors to contribute to developing innovative solutions to these challenges."

She added: "These seedlings are, in fact, the seeds of a new era where the young generation actively participates in addressing major global challenges that require all hands on-deck."

Under the patronage of the UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan, the UAE marked the 25th National Environment Day on February 4.

## Global Food Systems Under Microscope At Food For Future Summit

Dubai was at the centre of the global food security and climate change drive when the first-of-its kind Food for Future Summit and Global Agtech Expo opened at Dubai Exhibition Centre (DEC) at Expo 2020 Dubai on February 23.

Featuring world leaders and food and agriculture innovators from international organisations,



UAE fortifies world's food security and climate change drive with the opening of Food for Future Summit and Global Agtech Expo

including the World Bank and several other key global partners, the event comprised of several key tracks, including the Global Leaders' Symposium, which brought together international ministerial delegations and leading executives from non-profit organisations worldwide to explore new solutions to enhancing food security.

In her opening address, Mariam bint Mohammed Almhiri, Minister of Climate Change and the Environment, underlined how the UAE is setting a leading global example through its ambitious policy agendas, aimed at building public-private partnerships and enabling AgTech innovations that will shape the future of food. She said, "For the first time in the MENA region, we are coming together to initiate dialogue at all levels to accelerate the global transition towards sustainable food systems. As we explore new

## *World leaders join food futurists and innovators in the UAE for the first-ever two-day summit*



solutions and approaches to the most pressing food security challenges the world faces, we can come together as one global community to achieve the 2030 Agenda for Sustainable Development."

Ban Ki-moon, the 8th UN Secretary-General, stressed how the world faces an urgent need to drive climate action, agricultural adaptation, and sustainable livelihoods if it is to cope with a projected 50 percent rise in global food demand by 2050. In a virtual address, Ban Ki-moon, now Co-chair of the Ban Ki-moon Centre for Global Citizens in Vienna, said that central food production is now "the nexus of hunger, poverty, biodiversity, and climate change" and warned that "if we do not take action in time, agricultural yields will likely decrease by 30 percent."

"Supporting smallholder farmers is needed more

than ever to address the growing population, the increase in demand for food, and to make food systems sustainable and resilient. Currently, smallholders only receive 1.7 percent of total climate finance," he explained, adding that while global smallholder farmers need an estimated US\$240 billion a year in finance support, they received US\$10 billion in 2018, signalling the need for a 'people first' approach to food ecosystems and climate change.

A riveting panel discussion titled 'Good food for all – food as a connector for health and climate' featured some of the most influential global leaders and policymakers, including Martien Van Nieuwkoop, Global Director, Agriculture and Food at the World Bank Group; and Ismael Roig, President EMEA at ADM, the world's premier agricultural origination and processing company. The session highlighted the critical connection



between climate change and health, and its impact on food security.

Addressing the conference, Van Nieuwkoop said, "Governments need to fundamentally rethink their policies and put in place bold action. The world will need food for two billion more people by 2050, and yet the global food system is facing the headwinds of climate emergency, food insecurity, and growing hunger – the numbers are moving in the wrong direction.

"With one-third of all agricultural production lost to waste every year, equating to more than US\$1 trillion annually, we need to work seriously to address food production and waste."

Roig added, "The local agriculture boom in Dubai and the wider UAE is a very good example of the competitive advantages which can be achieved

by producing more food locally while actively exploring other product areas that might depend on global origination due to competitive costing."

Furthermore, a delegation of eight African ministers underscored the vision of Africa in the 21st century as well as the significance of global agri-trade business facilitation, adoption of advanced tech-enabled food production, food risks, and crisis management.

The event marks a first-in-the region partnership for the Food and Agriculture Organisation of the United Nations (FAO) with the UAE Ministry of Climate Change and Environment (MoCCA) and the Committee on World Food Security (CFS). The partnership has yielded the launch of the MENA Agri-Food Innovation Days to enhance engagement of the public and private sectors, academia, and civil society in driving the required

*The global food industry aimed to address an impending agricultural shortfall that could fail to produce enough to feed the world's anticipated 10 billion population by 2050*



transformation of the region's food and agricultural systems.

The carefully developed programme sheds light on impending global challenges, such as water scarcity, fertile land degradation, and climate change, placing additional pressures on the fragile agricultural ecosystems in the region. The sessions provide a forum for exchange of knowledge and best practices and promote innovation and technology adoption to improve capabilities to adapt the region's food systems to be more productive, resilient, inclusive, and sustainable.

"The future of the agrifood systems will define humanity's future and the region's food and agriculture future," said AbdulHakim Elwaer, FAO Assistant Director-General and Regional Representative for the Near East and North

Africa. "We need to promote policy coherence within and among countries, promote innovation and digital technologies, and strengthen international governance mechanisms."



## Sultan Al Qasimi Opens Dh1 Billion Sharjah Safari

**H**H Sheikh Dr Sultan bin Muhammad Al Qasimi, Supreme Council Member and Ruler of Sharjah, has emphasised that development projects in Sharjah are carefully planned and implemented in a way that maintains the environmental nature of the Central Region, including its deserts, trees, plants and animals that the emirate is keen to preserve. This is being achieved alongside development in various



Largest wildlife safari  
outside Africa is located in  
the Bardi reserve in Al  
Dhaid

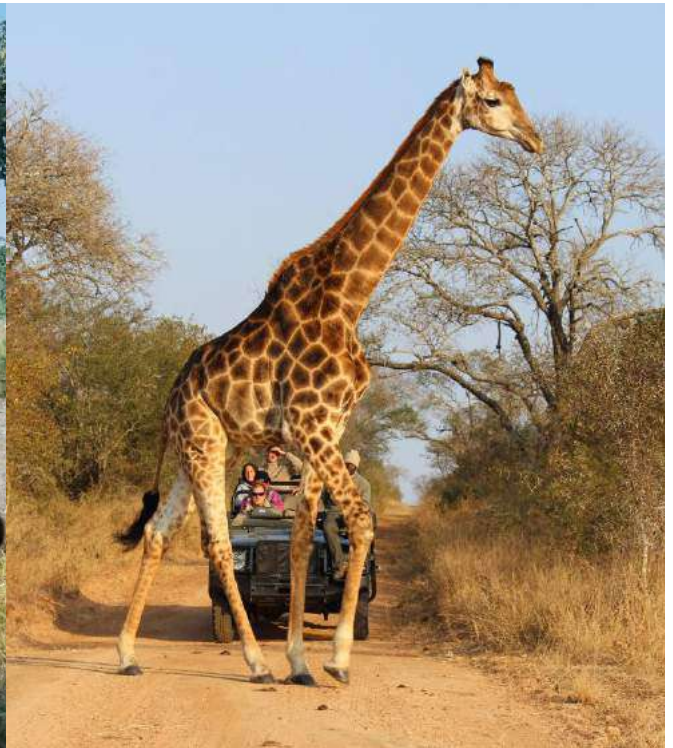
sectors - infrastructure, culture, tourism, heritage, economy, and sports, etc.

The Sharjah Ruler made these remarks after inaugurating the Sharjah Safari on February 17. The largest safari in the world outside Africa, it is located within the Bardi Reserve in Al Dhaid, extending over an area of 8 square kilometers.

### **Dh1 billion project**

The Ruler of Sharjah, accompanied by officials and dignitaries, later toured the Sharjah Safari and was briefed about its various facilities and attractions. The Sharjah Safari is set to become an unparalleled natural reserve and tourist attraction in the UAE and the region. The Sharjah Safari boasts 12 natural environments, each representing a specific region in Africa and replicating the life and terrain of the brown continent and its unique animals and birds.

*Sharjah Safari boasts more than 50,000 animals from more than 120 species of animals that live in Africa*



HH Sheikh Dr Sultan Al Qasimi pointed out that the Sharjah Safari project, which began five years ago, cost approximately Dh1 billion, is environment-friendly and is aimed at protecting the environment of the region. It offers a carefully created natural habitat to help the various species of animals and plants live and reproduce. "The Safari will also provide around 300 jobs for young people in the region," he said.

### **Real African experience**

Sharjah Safari contains several areas that mimic the natural regions of Africa, and the first area, "Into Africa", takes visitors on a unique walking experience to explore the wildlife endemic to the islands and archipelagos scattered along the eastern coast of Africa in the Indian Ocean.

The second region, the Sahel, is represented by deserts, grasslands and diverse wildlife. It

stretches in Africa from the Atlantic coast of Mauritania in the west to Eritrea and the Red Sea in the east. It is a transitional zone rich in wildlife between the Sahara Desert in the north and the Savannah to the south.

The third region, the Savanna, extends from the coast in the north to the Kalahari in the southwest. This African tropical grassland covers half the area of the African continent and is home to the largest concentration of biodiversity on Earth.

While the fourth region, the Serengeti, celebrates the largest migration of animals in the world, as large groups of herbivores migrate across the Serengeti plains to attract predators and animals that feed on carrion, crossing the Mara River, where Nile crocodiles lie in the murky waters. These crocodiles are dangerous to migratory herbivores.



The fifth region, Ngorongoro, formed from an extinct crater, is a unique ecosystem and home to some of Africa's most famous species. While the sixth region, "Moremi", was inspired by the canyons and valleys of southwest Africa formed over centuries by the heavy monsoon rains; These dry and sandy riverbeds contain aquifers that support life throughout the dry season, including the tallest animal on Earth.

### More than 50,000 Animals

Currently, Sharjah Safari boasts more than 50,000 animals from more than 120 species of animals that live in Africa, and the black rhino is one of the most critical and rare animals in the safari. In addition, more than 100,000 African Acacia trees were planted at Sharjah Safari, and the plants vary between local and African species.

Sharjah Safari offers its visitors an integrated

experience to discover the flavor of Africa and its islands. You will find the flamingo and other birds, the Madagascar island and the Aldabra giant tortoise. You will enter an African village, in addition to the traditional farm with Watusi cattle, Zanzibar village, and other facilities and sections where you see hundreds of species of African animals and plants.



## Dubai Municipality Increases Green Cover To 43.83 Million Sqm

Dubai Municipality has added 2.83 million sqm of green areas to the city by planting more than 170,000 trees in various locations, as well as along roads and squares in Dubai in 2021. An average of 466 trees were planted per day, 130% higher than the initial target, increasing the total area of green spaces under the Municipality's supervision to around 43.83 million square metres.

UAE NEWS



Describing the growth in green areas as an important environmental achievement, Dawoud Al Hajri, Director General of Dubai Municipality, said: "Dubai Municipality has been working to significantly increase green areas in the emirate and intensifying horticultural work along all main and secondary roads as well as residential areas. The landscaping work also supports the objectives of the Dubai 2040 Urban Master Plan to expand green areas in the city."

As part of its strategy, the Municipality has expanded both natural and acquired green areas to enhance environmental sustainability amidst population growth and urban development, in accordance with international best practices, Al Hajri added.

Dubai Municipality has an integrated system in place to maintain cultivated areas and ensure

highly efficient irrigation systems. The Municipality also regularly monitors green areas and conducts awareness campaigns to encourage greenery projects in the city. Additionally, it supports the agricultural sector in the emirate by granting licensing approvals to companies and establishments as part of its efforts to meet the environmental objectives of the emirate.

Al Hajri explained that the Municipality is now focused on planting local trees such as Ghaf and Sidr as well as trees that are able to tolerate the salinity of the UAE soil. "Over the past year, we significantly re-engineered our processes for horticultural work on Dubai's main and secondary roads, squares and residential areas. We also introduced new trees that can withstand the UAE's environment, such as Al Busida and Green Cassia trees."

## Sheikh Khaled, Prince William Discuss Sustainability Agenda

**H**.H. Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, member of the Abu Dhabi Executive Council and Chairman of Abu Dhabi Executive Office, met Britain's Prince William, Duke of Cambridge, at Jubail Mangrove Park in Abu Dhabi during his first official visit to the UAE.

A series of high-level engagements marked the



The British Royal planted mangroves with children at Jubail Mangrove Park, Abu Dhabi, on his first official trip to the UAE

Duke's visit, who also met HH Sheikh Hamdan bin Mohammed, Crown Prince of Dubai, at Expo 2020 Dubai and visited Dubai's Jebel Ali Port to see how it tackles the illegal wildlife trade.

During a tour of the Abu Dhabi mangroves, Sheikh Khaled and Prince William discussed their work on globally impactful sustainability initiatives. Their Highnesses were briefed on Environment Agency - Abu Dhabi's (EAD's) ongoing work to protect the environment and enhance biodiversity and the Abu Dhabi Mangrove Initiative. The initiative aims to establish the emirate as a leading global centre for research and innovation on mangrove conservation and resilience.

The initiative, which has formed its first partnership with conservation charity the Zoological Society of London (ZSL) will provide

*The Abu Dhabi Mangrove Initiative aims to establish the emirate as a leading global centre for research and innovation on mangrove conservation*



a platform for innovation in mangrove research, climate change mitigation, and community engagement. It will also see a state-of-the-art mangrove nursery established in Abu Dhabi as a research, learning, and outreach centre.

The initiative will enable the mass scaling of mangrove recovery as a key nature-based solution to biodiversity and climate crises through research and innovation. These areas will provide sources of connection to nature, carbon stores, havens for biodiversity and sustainable incomes for local communities.

The partners will also build a joint programme of research support on the assessment of blue carbon storage in different regional ecosystems and support the translation of science into policy practice. The Abu Dhabi Mangrove Initiative's efforts to enhance mangrove resilience include

developing cutting edge genetic and planting methods to breed resilient strains. ZSL will support these endeavours by field testing different approaches. Using the Abu Dhabi Mangrove Initiative as the centre, ZSL will work with nurseries developed within regions and foster the direct exchange of expertise between centres to build knowledge and expertise.

While at the park, Their Highnesses spent time with several school students, with whom they planted mangrove saplings, and discussed the importance of young people's commitment to sustainability efforts, now and in the future.

Mangroves are coastal, intertidal forests that play a vital role in protecting coasts from storms and floods. They also provide a habitat for wildlife and regulate climate change, capturing more than four times the carbon of tropical forests.

## Two Mega Sustainability Campaigns Launched At Expo 2020 Dubai

The Food for Future Summit at Expo 2020 Dubai has served as the launchpad for two major sustainability campaigns, designed to foster a global movement.

Hosted by the UAE Ministry of Climate Change and Environment with the United Nations Food and Agriculture Organisation (FAO) as strategic partners, the summit which ran from 23-24



'Food for Life' Campaign  
launched to drive  
nationwide transformation  
towards healthier diets  
from sustainable food  
systems

February, united world leaders, industry innovators, influential minds, start-up, and food revolutionaries, galvanising all sectors of the agriculture and food supply chains for profound discussions and innovative outcomes for a sustainable food ecosystem.

Two UAE-based changemakers set their sustainability wheels in motion at the summit that has captured global attention.

'Food for Life', a first-of-its-kind public awareness and engagement campaign was launched by partners Emirates Nature-WWF, the UAE Ministry of Climate Change and Environment, UAE Ministry of Health and Prevention and the FAO. The campaign seeks to promote a healthy and mindful relationship with food and build awareness of how interconnected a healthy diet is with the sustainability of our

*The goal of 'The FoodWise Challenge' is to achieve a behavioural shift that leads to more sustainable and healthier food choices*



food systems through an exciting calendar of events and outreach programmes.

The Food for Life campaign fosters conversation on what, why, and how we eat. There is an exciting line up of learning and engagement events and activities that the UAE community can sign up to from the launch of the campaign, till April.

"We are looking to mobilize UAE society to take control of our collective health and food security. This summit provides us with a real opportunity to work through the challenges of food security and nutrition, analyse them from all different perspectives, and come up with solutions together. We want to change the way we think about food and raise awareness of how important a healthy, balanced diet is to the sustainability of our food systems," said Laila Mostafa Abdullatif, Director General at Emirates Nature-WWF.

"We envision the UAE as a global leader in the shift to a healthy diet based on sustainable food systems," added Abdullatif. "In keeping with the United Nations Sustainable Development Goals, we want to be 'Nature Positive' by 2030. To accomplish this, we must first comprehend the present hurdles and forces that influence people's attitudes and behaviours when it comes to eating a nutritious diet."

Abdullatif added the campaign will raise awareness about what makes a good diet and a sustainable food system, how diet affects nutrition and wellbeing, and how critical it is for human and planetary health.

Meanwhile, Goumbook, the UAE's leading social enterprise promoting sustainable living and green practices, launched The FoodWise Challenge, a campaign aimed at schools and



universities to instill behavioural mindset changes among the country's youth surrounding sustainable, healthier food choices and the undeniable connection with food security.

As part of the campaign, school students were invited to propose campaigns, and university students will work on solutions to food security challenges, share their ideas, and work on addressing current and future problems facing the planet.

"The FoodWise Challenge gives our younger generation, who are increasingly conscious of global food waste challenges, a chance to make a difference. They are important to reforming our current food systems and addressing a wide range of issues posed by modern life," says Tatiana Antonelli Abella, Founder & Managing Director at Goumbook.

"In 2019, Goumbook launched the Eat or Save It campaign. However, food waste is only one aspect of the food chain that must be addressed. Climate change, biodiversity loss, land degradation, and water depletion are all exacerbated by food production, distribution, transportation and consumption," added Abella.

"The goal of The FoodWise Challenge is to achieve a behavioural shift that leads to more sustainable and healthier food choices, as well as to understand issues linked to food security and the relationship between food and sustainability, aligned with the UAE's National Food Security Strategy 2051," added Abella.

Abella stresses that young people are critical to transforming our current food systems because of their creative, imaginative minds and ability to think outside the box.

## UAE, Bavaria Cooperate On Climate Action, Environmental Protection

The UAE and the German federal state of Bavaria have agreed to cooperate in tackling climate change and protecting the environment.

During the visit of the Bavarian delegation to the UAE, Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, and Roland Weigert, Bavaria's Vice Minister of

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Economic Affairs, Regional Development and Energy, signed a joint declaration of intent.

In the document, the UAE and Bavaria express the intention to explore synergies in the areas of climate neutrality, waste management and circular economy, air pollution control, food waste management, wastewater treatment and groundwater technologies, and green hydrogen. Taking place in close coordination with the Emirati-German Energy Partnership, launched in 2017, the cooperation aims to engage the public and private sectors as well as academia.

A joint working group has been established to identify concrete projects and actions to implement the declaration. The group comprises representatives of the UAE Ministry of Climate Change and Environment (MOCCA), the Bavarian Ministry of Economic Affairs, Regional

Development and Energy, and the Bavarian Ministry of the Environment and Consumer Protection.

Almheiri said, "The UAE and Bavaria share a history of rising to developed economies, as well as a firm commitment to sustainable development that enables us to preserve our precious natural resources for future generations. In addition, Germany is one of the UAE's strategic partners in the field of energy. Therefore, we can both benefit from one another's experience and expertise."

She added, "We look forward to working together with Bavaria to translate our respective climate neutrality ambitions into reality, pursue a pathway to a low-carbon economy, advance the energy transition, and embrace innovative technologies."

## US Advances Agricultural Innovation At Inaugural AIM For Climate Ministerial

At the first Agriculture Innovation Mission for Climate (AIM for Climate) ministerial meeting in Dubai held on February 21, Agriculture Secretary Tom Vilsack underscored the importance of joint international action and investment in climate-smart agriculture and food systems innovation.

He called on AIM for Climate partners to continue

### Climate-Smart Agriculture



Helps farmers  
build resilience  
to adapt to  
climate change



Sustainably  
increases  
agricultural  
production  
and incomes



Reduces  
greenhouse  
gases, where  
possible

AIM for Climate empowers  
agriculture to be part of  
the solution to address the  
climate crisis and create  
co-benefits of climate  
action

on their ambitious path towards addressing  
global climate change and hunger challenges.

The Agriculture Innovation Mission for Climate is a joint initiative by the US and UAE and seeks to address climate change and global hunger by uniting participants to significantly increase investment in, and other support for, climate-smart agriculture and food systems innovation over five years (2021 - 2025).

Secretary Vilsack and Her Excellency Mariam Almheiri, the UAE Minister of Climate Change and Environment, led the meeting of more than 30 government officials who gathered formally for the first time since AIM for Climate officially launched in November 2021 at COP 26 in Glasgow, Scotland.

AIM for Climate partners had announced \$4

# AIM for Climate works to enable solutions at the intersection of agriculture and climate

## CLIMATE SMART VILLAGE / FARM

### Weather smart

- Seasonal Weather forecasts
- ICT based agro-advisories
- Index based insurance
- Climate analogues

### Water Smart

- Aquifer recharge
- Rainwater harvesting
- Community management of water
- Laser leveling
- On-farm water management

### Carbon smart

- Agroforestry
- Conservation tillage
- Land use systems
- Livestock management

### Nitrogen smart

- Site specific nutrient management
- Precision fertilizers
- Catch cropping / legumes

### Energy Smart

- Biofuels
- Fuel efficient engines
- Residue management
- Minimum tillage
- Solar solutions for agriculture

### Knowledge Smart

- Farmer-farmer learning
- Farmer networks on adaptation technologies
- Seed & fodder banks
- Market info
- Off-farm risk management-Kitchen garden



billion in increased investment from public- and private-sector partners for climate-smart agriculture and food systems innovation. Today, partners set a goal of doubling that investment to \$8 billion by November 2022 at COP 27 in Sharm El-Sheikh, Egypt.

AIM for Climate welcomed seven new government partners – Chile, Costa Rica, Egypt, the European Commission, Guyana, Mozambique, Turkey – bringing the total to 40. Non-government partners, including businesses and philanthropies, are building on the foundation through “Innovation Sprints,” which are investments in specific, expedited activities that address AIM for Climate objectives.

“AIM for Climate government partners have demonstrated their strong commitment to work together to close the investment gap in climate-

smart agriculture and food systems innovation, needed to address the twin challenges of global hunger and the climate crisis,” said Secretary Vilsack. “AIM for Climate partners are working to deliver impactful solutions for all people and seeks to expand its network even farther with new participants from across the globe.”

In Dubai, AIM for Climate announced four focal areas for 2022 Innovation Sprints to be launched at COP27: smallholder farmers in low- and middle-income countries, methane reduction, emerging technologies and agroecological research. In addition, it announced another path for partner involvement: “AIM for Climate Ideations.” The Ideations will center around insight sharing, collaboration, institutional capacity building, demonstration and deployment of agricultural innovations.

## UAE-Germany Explore Potential Synergies In Driving Sustainable Development

In line with the UAE's efforts to build synergies with other countries in driving sustainable development and enhancing food security. Focus areas included climate action, clean energy, especially clean hydrogen, smart AgTech, and food trade, Mariam bint Mohammed Almheiri, UAE Minister of Climate Change and Environment, wrapped up a four-day visit to Germany, where she discussed opportunities for



Minister of Climate Change and Environment explores potential synergies in climate action, clean energy, food security during Germany visit

cooperation between the two countries with high-level government and parliamentary officials and key players from the private sector.

Almheiri leveraged the trip to highlight the UAE's global climate leadership, economic diversification agenda, and to create an enabling environment for foreign direct investment (FDI).

The Minister said: "The UAE and Germany share a firm commitment to continuous progress, a passion for innovation, and an eagerness to embrace future trends. The visit was an ideal platform to exchange experience and expertise and explore potential synergies in areas of mutual interest. As a global technology leader, Germany is at the forefront of driving innovative solutions to the most pressing challenges the world faces today and is a valued partner in the UAE's efforts to shape a better future."

*UAE's global climate leadership,  
economic diversification agenda, and  
enabling environment for foreign direct  
investment (FDI) spotlighted in  
Germany*



She added: "I look forward to translating the outcomes of our productive conversations into tangible projects that will help us build sustainable food systems, accelerate the transition to clean energy, fight climate change, and preserve our environment and natural resources for the next generations."

During the visit, the UAE Embassy in Berlin organized a discussion titled 'International cooperation to progress on climate action'.

At the event, Almheiri addressed representatives of German government entities and research institutions as well as the private sector, spanning the full spectrum of energy and climate policy. She provided an overview of the UAE Net Zero by 2050 Strategic Initiative that aligns with Germany's ambition to reach net-zero greenhouse gas (GHG) emissions by 2045, and emphasized

the UAE's keenness for the two countries to exchange lessons learnt in pursuing parallel pathways to climate neutrality.

During her visit to Bundestag, the Minister led discussions on the UAE and Germany's shared commitment to environmental protection while in Munich, the Minister met with several officials of the Bavarian State Government. She also delivered introductory remarks at the North Africa Middle East Initiative of German Business Executive Roundtable and outlined the main opportunities for cooperation between the UAE and Germany as well as the advantages the UAE offers foreign companies and investors.

The visit culminated in Almheiri's participation in the two-day Munich Security Conference (MSC) in the presence of Olaf Scholz, German Federal Chancellor, Helga Maria Schmid, Secretary



General of the Organization for Security and Co-operation in Europe, Alok Sharma, President of COP26, and John Kerry, US Special Presidential Envoy for Climate. The world's largest gathering dedicated to international security policy convened officials of global organizations as well as ministers and representatives of leading companies from around the world.

The Minister joined Cem Özdemir, German Federal Minister of Food and Agriculture, and Werner Baumann, Chairman of Bayer AG, at the 'Seed Change Needed: Ensuring Food Security' townhall to examine ways of eradicating world hunger. She also shared the UAE's vision for an inclusive COP28 at the 'Good COPs: Aligning International Climate Diplomacy' townhall.

On the sidelines of the conference, Almheiri attended the High-level Investors Roundtable at

the Angermayer Policy & Innovation Forum to discuss geopolitical developments and investment opportunities in an off-record setting. The Minister shed light on the UAE's growing appeal as an investment destination, and invited the audience to benefit from the wealth of FDI opportunities in the country.

The UAE and Germany enjoy long-standing strong ties that were reinforced with the signing of a joint strategic partnership statement in 2019. In May 2022, the two countries will celebrate the golden jubilee of their diplomatic relations.

The UAE is Germany's biggest trading partner in the Arab region and the third most important re-exporter of German products in the world. In 2020, total non-oil trade volume between the two countries amounted to US\$8.589 billion.

# World's First Hydrogen-Powered Flying Boat To Launch In Dubai

Swiss based start-up, THE JET ZeroEmission, has announced that it has inked an agreement with Zenith Marine Services LLC, a UAE based company, and DWYN LLC to manufacture and operate 'THE JET' – the first clean-energy, hydrogen-powered flying boat.

The announcement reflects Dubai's leading position as a global hub for future industries.

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Dubai's robust infrastructure and supportive investment environment has made it an ideal launchpad for innovative companies to reach their global ambitions.

'THE JET' features cutting-edge characteristics and technologies, making it capable of flying in silence over the waters at a cruising speed of 40 knots. The luxurious boat has a capacity of 8 -12 passengers, and is equipped with two fuel cells and an air conditioner as well as other clean-tech, environmentally friendly technologies that help reduce carbon emissions.

Commenting on the occasion, Alain Thébault, Founder of THE JET ZeroEmission and a previously world sailing speed record holder in 2009 and electric Seabubbles prototypes inventor in 2016, said: "THE JET' is going to be the world's first boat to sail without noise, waves,

or emissions and will have the capability of flying 80cm above the waters. Dubai is an ideal destination for innovators and companies from around the world to develop their innovative projects and reach their desired success."

The announcement is a step forward for the clean-tech industry and for the start-up itself. The start-up has also been able to secure part of the required funding of 10 million Euros.

The cooperation agreement between THE JET and UAE business partners is good news for the environment and the future of clean-energy maritime transport. 'THE JET's' cutting-edge fuel cell technology will be delivered in Dubai for a historic inaugural flight, during the next COP28 UAE preparatory meetings, which will be held in November 2023.

## Etihad Mangrove Forest Launched By Etihad Airways

Following two years of intensive research and development through its Greenliner programme to tackle global aviation decarbonisation, Etihad Airways in collaboration with Environment Agency Abu Dhabi has launched the Etihad Mangrove Forest to provide guests, corporate accounts and partners the ability to adopt mangroves in Abu Dhabi to reduce their carbon footprint.



Part of the Abu Dhabi  
Mangrove Programme,  
Etihad Mangrove Forest  
to be first planting  
programme to establish  
carbon absorbing  
forests in every country  
Etihad operates

In line with the Abu Dhabi Mangrove initiative by the Environment Agency Abu Dhabi, the Etihad Mangrove Forest is the culmination of multiple joint programmes between Etihad, Environment Agency Abu Dhabi, Jubail Island, The Storey Group and other partners.

The goal is to support mangrove conservation projects in the nation and develop new carbon sinks and natural resources to remove carbon from the atmosphere following Etihad's key principle "Abu Dhabi for the World".

Following the launch of the Abu Dhabi Mangrove initiative, the organisations are aligned under an ongoing MoU to tackle local and national environmental goals, including decarbonisation, waste management and single use plastics reduction. Biodiversity is the next step for Etihad to explore the promotion of conservation

*The mangrove forest, established on Jubail Island, supports aims to conserve the trees to address the climate crisis and safeguard precious biodiversity*



efforts for the native mangroves of the UAE.

Using a unique digital platform, the Etihad Mangrove Forest will allow guests and partners to invest in carbon removal for AED 18.5 (USD5) per mangrove, where the individual trees can be tracked online or through an app. The guest receives a unique tree code, geolocation, and virtual access to their tree for the next 10 years. The guest can gift the tree to their loved ones and name the tree to create a unique experience.

Tony Douglas, Group Chief Executive Officer, Etihad Aviation Group, said: "Over the last two years Etihad has developed an extensive programme to tackle the challenge of aviation sustainability. We have focused on innovation and technology to develop carbon reducing processes and operational efficiencies that will benefit the industry, as well as building

partnerships and collaborations to lead a united industry response to decarbonisation through the most comprehensive, cross organisational sustainability aviation initiative ever undertaken.

"The Etihad Mangrove Forest is the next step in our sustainability journey to ensure our responsibility to remove carbon from the atmosphere is progressing. The intent is to create forests on all continents we fly to, and to provide our guests with an engaging opportunity to take part in the solution.

"We know offsetting unavoidable emissions alone isn't going to solve the climate crisis, we need to actually remove carbon from the atmosphere. Even with the best-case scenario global decarbonisation drive, we will still need to remove 6-10 Gt of CO<sub>2</sub> per year by 2050 to stay below 1.5 °C global warming. The Etihad Mangrove



Forest will contribute to this task.”

Dr. Shaikha Salem Al Dhaheri – Secretary General – Environment Agency Abu Dhabi, added: “Abu Dhabi Mangrove Programme aims to establish the emirate as a global hub for research and innovation in support of the conservation of mangroves. Through the programme we aim to streamline all mangrove efforts launched from Abu Dhabi under one umbrella, to assist in achieving the government goals to reach net-zero by 2050.”

Globally, mangroves store approximately 6.4 billion tonnes of carbon, almost four times more than other terrestrial forests. At a rate of just more than 12kg a year, the average mangrove captures over 300kgs of CO<sub>2</sub> in its 25-year lifetime, helping to fight the effects of climate change such as coral bleaching and coastline

degradation, and support biodiversity and wildlife.

The Etihad Mangroves Forest site has been chosen specifically due to its protected status under the Environment Agency – Abu Dhabi, which guarantees its ability to remove carbon from the atmosphere for at least 100-years.

Through the platform’s app, investors can “chat” with their chatbot enabled tree, while also being able to track every tree with satellite maps and access data, including CO<sub>2</sub> consumption metrics which can be tracked and offset against emissions.

Etihad Guest Members will be able to invest in the Etihad Mangrove Forest using Etihad Guest Miles in the Reward Shop from March.

## “Barren To Arable”- Revolutionary Potential Of Magic ‘Breathable Sand’ Revealed

Dake Rechsand, the Dubai-based company specializing in sustainable solutions for water conservation and desert farming, unveiled its Breathable Sand — also known as “magic sand” - at the inaugural Food for Future Summit, held at Expo 2020 Dubai.

The Gulf Sustainability Gold Award Winner 2021 for Innovation in Sustainable Technologies, Dake

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Rechsand has rooted its solutions in technology, holistic sustainability, and environmentally responsible processes. Its Breathable Sand is a low-cost, water-retentive and air-permeable medium made from typical desert sand. In agricultural application, the water-retentive medium reduces irrigation requirement by 80% compared to conventional techniques while enabling high yield due to its air permeability. As a result, Breathable Sand has found application in desert farming — a practice that could potentially drive the region’s food security.

Rationalizing why low-input desert farming can work wonders for food security, Chandra Dake, Founder of Dake Rechsand, said, “The UAE is 80% desert, with expansive barren lands, where productivity is low and conventional agriculture is not feasible. With Breathable Sand’s ability to retain water, preserve fertilizers, and produce a

high yield in desert conditions, we can make barren lands arable. This also has implications for ecological improvement and emission reduction, as the region has a high dependence on carbon-intensive desalination plants.”

“The historic summit has seen world leaders, people from rural-agrarian communities, and innovators in attendance. Such a turnout speaks volumes about the UAE’s outreach efforts and inclusive attitude — both paramount to achieve food security,” added Chandra Dake.

With a presence in the USA, UAE, India, China and South Africa, the company is making a positive impact on food and water security in water-stressed regions. In 2022, it will launch a Carbon Sequestration program of 50 million trees in the GCC region.

Subaru of America, Inc. has revealed its first-ever all-electric SUV, the 2023 Subaru Solterra.

## Subaru's Solterra - Sustainability With No Compromises

The highly anticipated Solterra is packed with new electrification and in-vehicle technology while staying true to its Subaru heritage with industry-leading safety and go-anywhere capability. The name Solterra was created using



With a suite of driver assist technologies, the 2023 Subaru Solterra is the first AWD electric vehicle to feature the legendary standard capability of Symmetrical All-Wheel Drive

the Latin for “Sun” and “Earth” to represent Subaru’s commitment to deliver traditional SUV capabilities in an environmentally responsible package.

### **Adventurous and Versatile**

Solterra comes standard with a new Symmetrical All-Wheel Drive system that now channels smooth linear output from Subaru StarDrive® Technology, providing outstanding traction and capability in all kinds of weather and terrain. Subaru StarDrive delivers substantial on-demand torque at all speeds with power and driver-selectable regenerative modes.

Like other Subaru SUVs, Solterra is equipped with X-MODE® offering increased performance in low-friction and off-road conditions. The all-new model features Grip Control that incorporates Hill Ascent and Descent Assist.

*The name Solterra combines the Latin words for “sun” and “earth”*



### **Safety Technology**

The new Solterra offers a comprehensive suite of active safety technology including EyeSight® Driver Assist Technology and Blind Spot Monitor with Lane Change Assist and Rear Cross-Traffic Alert. Also standard is Parking Support Brake which can apply the vehicle's brakes if an obstacle is detected while reversing.

For the first time in a Subaru, a 360-Degree Surround-View Camera system allows for better all-around situational awareness. Also new is the Safe Exit Assist which notifies occupants, before exiting the vehicle, of approaching vehicles with an audible and visual warning.

Unique to Solterra is the new e-SUBARU Global Platform that has been engineered to bring together Subaru's all-wheel drive capability, superior driving dynamics, and world-leading passive safety.

With 8.3 inches of ground clearance and 218 horsepower from front and rear electric motors, Solterra provides versatility in both off-road and city driving.

With up to 126 cubic feet of passenger and cargo space, generous leg room, and a nearly flat floor, the 5-passenger SUV gives occupants the airy, open feel of a much larger vehicle.

The Solterra offers up to 30 cubic feet of useable cargo space behind the rear seats and also features a 60/40 folding seatback and two-position load floor for maximum cargo and passenger flexibility.

The wide 41.3-inch rear gate opening with low liftover height allows easy loading and unloading. Available raised roof rails add more cargo-carrying options for owners' adventures.

Standard multi-element LED Headlights include High Beam Assist, encouraging drivers to maximize the use of high beams without worry of impairing oncoming traffic. The new SUV comes standard with driver and front passenger frontal and side curtain airbags; side pelvis/torso, and driver and front passenger knee airbags.





### Eco-Friendly Made Easy

Solterra's high-capacity lithium-ion battery pack provides plenty of daily range. The electric SUV can quickly charge just about anywhere with its Level 2 AC and DC fast charging capability. With DC fast charging, Solterra can charge up to 80% of total battery capacity in under an hour.

To simplify the charging experience while traveling, mobile apps work with the vehicle's multimedia system to help locate thousands of charging options nationwide, including more than 3,000 DC fast-charging stations, and 38,000 Level 2 charging stations. Charging at home is also made easy and affordable with Level 1 or Level 2 compatibilities. With an estimated range of more than 220 miles for the SUV with standard all-wheel drive, owners can explore the city streets and the open road with confidence.

### Bold Design

Solterra is an evolution of the Subaru Dynamic X Solid design concept, rendered with the design flexibility of the e-Subaru Global Platform. At the front, Subaru's signature hexagonal grille has been tightly integrated with the front fascia. Thin and wide LED headlights complement this design motif. A low hood line also contributes to the SUV's sleek styling, aerodynamic performance, and excellent forward visibility while retaining pedestrian impact safety.

On the side, short front and rear overhangs and bold wheel arch moldings visually communicate the vehicle's off-road capability. The aerodynamically sloped rear glass has a dual-spoiler at the top and ducktail spoiler at the bottom. At the back of the vehicle, the rear combination lamps are positioned high, with a trapezoidal theme that strengthens the design.

*The new EV has been engineered to bring together Subaru's all-wheel drive capability, superior driving dynamics, and world-leading passive safety*



The interior for the new SUV is a clean, minimalist design centered around an intuitive, high resolution touchscreen with multifunction display, multimedia, and climate control. Combined with an available panoramic glass roof and generous storage options, Solterra delivers an interior that is not just spacious, but also inviting.

### **Advanced Comfort and Convenience**

Solterra is equipped with an all-new multimedia system with an available 12.3-in touchscreen. The new system comes standard with wireless Apple CarPlay® and Android Auto™ and an available wireless charging phone dock in the center console.

Smartphone app connectivity includes remote climate control and remote lock/unlocking, both contributing to a more convenient and connected

drive. The remote climate control system can automatically warm up or cool down the vehicle before departure, even when garaged.

Solterra joins the award-winning line-up of Subaru SUVs, including Outback, Forester, Crosstrek and Crosstrek Plug-in Hybrid. The all-new Solterra will go on sale mid-2022.



## UAE Signs MoU With Turkey, Ireland, To Develop Agricultural Sector

The UAE, represented by the Ministry of Climate Change and Environment, signed a memorandum of understanding (MoU) with Turkey, represented by the Ministry of Agriculture and Forestry, to step up cooperation in agriculture, rural development, and adoption of modern farming systems.

The agreement aligns with the strategic direction



UAE-Turkey to step up cooperation in agriculture, rural development, and adoption of modern farming systems

of the UAE leadership to enhance international cooperation and exchange of successful experiences with the aim of strengthening the country's capabilities to face all challenges and building a better, more sustainable future.

The MoU was signed by Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, and Bekir Pakdemirli, Minister of Agriculture and Forestry of Republic of Turkey.

Speaking on the new partnership, Minister Almheiri said, "MOCCA is keen to build bridges of cooperation with the concerned authorities in other countries as part of its efforts to achieve the country's goals in food security, environmental protection, and climate action. The agreement with the Ministry of Agriculture and Forestry of Turkey focuses on the development of the agricultural sector and

## *UAE-Ireland to promote FDI in sustainable agriculture, facilitate trade in food and agricultural products, and address the critical water, food, and energy nexus*



identifying innovative solutions that strengthen our food security by employing technology, adopting modern climate-smart agricultural systems, increasing food production, and ensuring the continuity of supply chains."

"Sharing knowledge and best practices between our two countries, who rely on innovation to deal with challenges, will help us build sustainable food systems and meet our food security targets," she added. Areas of cooperation include agricultural pest control and plant protection, organic agriculture, technology-based agricultural production, food safety, food production, food and livestock trade, as well as animal production and health.

### **MoU with Department of Agriculture, Food and the Marine of Ireland**

The Ministry of Climate Change and Environment

(MOCCAE) has signed a memorandum of understanding (MoU) with the Department of Agriculture, Food and the Marine of Ireland to enhance cooperation in the field of food security.

The two parties will collaborate in leveraging the latest technologies to optimize food and water management, promoting foreign direct investments in sustainable agriculture, facilitating trade in food and agricultural products, and sharing knowledge of national governance frameworks that seek to address the critical water, food, and energy nexus.

The agreement was signed by Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, and Charlie McConalogue T.D., Minister for Agriculture, Food and the Marine of Ireland.

## UAE Hosts First Meeting Of Global Council For Sustainable Development Goals

Suhail bin Mohammed Al Mazrouei, Minister of Energy and Infrastructure, chaired, via video communication technology, the first meeting of the Global Council for Sustainable Development Goals on SDG 11, which is a major supporter of the goals and objectives of the 2030 Sustainable Development Plan, as cities are the cradle of civilisations and the future of the generations to come.



Younis Al Nasser, Assistant Director-General of Smart Dubai, Executive Director of the Dubai Data Corporation, Vice Chairman of the Council, and members of concerned authorities in various countries were present.

Al Mazrouei said, "During the current session of the council, we will work hard on fruitful cooperation, capacity-building and accelerating efforts to achieve sustainable development goals, through an action plan based on three pillars: attracting investment for sustainable solutions, building competencies and expertise, and pioneering sustainable development thought."

He added, "We meet today to predict the sustainability of cities in the future and human settlements and develop a clear strategy to keep pace with the requirements of future generations

by employing all tools that assist us to anticipate opportunities, challenges and future repercussions, analyse their impacts, develop innovative solutions and provide alternatives to them, in addition to stimulating resources, technologies and information, culture, expertise and innovations to achieve SDG No. 11 and in line with the goals of the 2030 Sustainable Development Plan and the Paris Agreement on Climate Change 2030."

He noted that the council represents a platform for exchanging expertise and knowledge and transferring successful Emirati and international experiences to various countries. Its importance is in the significant increase in the population of cities, as cities constitute 80 percent of global economies and 70 percent of the causes for greenhouse gases.

# Power Of Art Drives Greater Awareness Towards Climate Change At French Pavilion

Global low-carbon energy company ENGIE recently launched an art exhibition at the Dubai Expo 2022 France Pavilion from February 4 - 17 to drive awareness for climate change and highlight ENGIE's efforts.

Determined to achieve net-zero carbon by 2045, ENGIE collaborated with Syrian artist Marie Mohanna on this initiative. The exhibit

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emphasizes ENGIE's efforts in highlighting the UAE mangrove rehabilitation project - 'Blue Carbon,' while another unique artwork focused on 'Women Fighting for Climate Change' showcased female faces within ENGIE's organization determined to positively impact the planet.

ENGIE's 'Blue Carbon' project recently concluded its second phase which uses highly innovative drone planting technology to plant more than 35,000 mangrove seeds in the Mirfa lagoon in Abu Dhabi further support ENGIE's decarbonization goals.

The art exhibition highlights Marie's expertise as a graphic novel illustrator and showcases 12 pieces located outside the France Pavilion.

"We are delighted to partner with the art community to help drive awareness and showcase our collective efforts towards climate change.

The exhibits exemplify how small actions, compounded over time, make a considerable difference in the fight for climate change and how this movement requires patience, resilience, and passion, especially in educating people," said Florence Fontani, Chief Communications and Sustainability Officer, ENGIE Africa, Middle East and Asia (AMEA).

The 'Blue Carbon' project intends to preserve the natural biodiversity that dots the coastline of Abu Dhabi. The project highlights the actions required to limit the impact climate change has on the planet. The artwork depicting the project used the UAE's national colors and ENGIE brand colors and demonstrated how innovation through drone technology could support positive climate change to safeguard the essential role that mangroves play in the local ecosystem.

## Embracing Sustainability: Madrid, Spain

In recent years, an increasing number of Spanish cities have recognized the need for bold steps to confront an emerging urban crisis.

A crisis with multiple dimensions including damage to quality of life caused by greenhouse gas (GHG) emissions, threats of climate change, and an urgency to develop policies that support green city innovation.



The city of Madrid commits to a sustainable, greener economy

Growth in Spanish cities has led to increased air pollution and traffic congestion. The transport sector generates an estimated 35 percent of total CO<sub>2</sub> emissions in Spain, and cars account for 11 percent of the total. Climate change also poses a significant threat in the city. According to the Observatory of Sustainability, the average maximum temperature is predicted to increase by 3 to 5°C by the end of this century.

Since the concept of a green economy was forged in the 1990s, the ideas and strategies for green cities have evolved into a variety of urban development policies, smart city solutions and sustainability measures to protect the environment, enable economic development and ensure high quality of life. The 2018 Sustainable Cities Index placed Madrid among the 30 most sustainable cities in the world, ranking it 21st in the global calculation.

## *Madrid has the third largest metro system in Europe*



### **Green Spaces**

Not only does Madrid have green space at every turn, but the municipal government also has a strategic plan to use plant power to tackle climate change. As part of the "Strategic Plan of Green Areas, Trees and Biodiversity of the City of Madrid," the city's parks will be expanded, 22 new urban gardens will be created, vacant land will be transformed into community gardens, and trees will be planted along the banks of the Manzanares River and along the streets in the centre of Madrid.

This plan is based on the city's awareness that green infrastructure investments deliver important benefits by expanding and restoring urban gardens and parks, improving biodiversity, and minimizing air pollution through improved traffic management. Green roofs will be planted

on buildings, and plant beds will be put in on paved squares to absorb precious rainwater. There will even be a city funded 'urban gardening' school that eco-conscious residents will be able to attend.

To combat climate change and pollution, Madrid is also building a green wall around the city. A 75-kilometre urban forest with nearly half a million new trees. The project will also make use of derelict sites lying between roads and buildings to help absorb 175,000 tons of CO<sub>2</sub> per year.

The project will include half a million trees spread out across the perimeter around the city that stretches 46 miles. This new forest will include beech, black pine, and oak trees that were all carefully chosen as species indigenous to the region. Plant selection was an important consideration to ensure that the new green space would act more like a forest than a park.





When finished, Madrid's 'green wall' will be a forest of indigenous trees that can absorb CO<sub>2</sub> but also the heat generated by human activity. Temperatures under the shade of these trees are 2 degrees lower than the rest of the city.

### **Green Travel**

Madrid's well-publicized move to ban polluting vehicles in its urban center is considered one of the most significant actions taken by a European city to improve air quality.

Madrid Central also made 472 hectares of the city center off-limits to traffic, except for local residents and public transportation. Non-residents with appropriate energy labels may enter to leave their vehicle in a public parking lot, and exceptions are made for people with reduced mobility, ambulances, taxis, private-hire cars and delivery vans.

Electric vehicles will also be allowed into Madrid Centro. There are plans to take 58,000 square feet of space from car lanes and turn them into pedestrian walkways, as well as introducing more lanes for cyclists.

It is hoped that the introduction of more green transport options will encourage people to leave their cars at home. The authorities are doubling the number of bikeshare bikes that people can use to get around as well as installing more docking stations around the city. If residents don't fancy cycling, they can hop on one of Madrid's 78 electric-powered buses. Madrid also has the third largest metro system in Europe.

### **Renewable Energy**

Madrid has been an energy pit for decades because it consumes much more than it generates and imports 96.6% of its consumption from

*To combat climate change and pollution,  
Madrid is building a 75-kilometre urban  
forest around the city*



surrounding regions. In 2018, it represented 10.6% of the national demand for electricity (only coming behind Andalusia and Catalonia) and its production hardly even covered 4.4% of its demand.

Capital Energy, the renewable energy projects developer, has commenced the administrative process to construct what will be the two first large photovoltaic farms in Madrid which, with a combined power of 303.8 megawatts (MW), will multiply the autonomous community's installed solar energy power by six.

The two projects are in the preliminary consultation phase at the Ministry for Green Transition, which is in charge of the environmental assessment as both have an installed power of more than 50 MW.

Cities around the world consume two-thirds of

the global energy supply and generate three-quarters of the world's greenhouse emissions. Madrid sets a shining example as a city that has taken active measures to be a part of the solution. From restricting traffic to promoting cycling and public transport and to planting more trees or looking for sustainable sources of energy, Madrid has already started their transformation.



## Expedition To Map Impact Of Marine Litter In The Western Indian Ocean

The creators of the world's first sailing dhow made entirely from discarded plastic, the Flipflopi, are partnering with members of the international scientific community to undertake an expedition to map the impact of marine litter in the Lamu archipelago of the Western Indian Ocean.

By assessing the full extent of marine plastics



Flipflopi and partners will map the extent of marine litter in the ocean and around the UNESCO heritage site of the Lamu archipelago

on this environment, they hope to support local communities to find solutions to manage this waste through the creation of closed-loop waste management systems where items can be recycled after use and later made into new products. This includes development of a plastic boat building industry.

According to a 2021 UN report, 'From Pollution to Solution', of the 400 million tonnes of plastic produced annually, approximately 11 million tonnes flow into aquatic ecosystems every year. Without action, this is projected to nearly triple by 2040, equating to some 50 kg of plastic per meter of coastline worldwide.

In several low and middle-income countries, there is still limited data on plastic accumulation. The Western Indian Ocean is one such region, despite being home to some of the lowest plastic

*The Flipflopi is the world's first sailing boat made entirely from waste plastic and flip-flops collected from beaches and towns on the Kenyan coast*



emitting countries in the world, with plastics consumption per capita estimated at only 16 kilograms per year in the region, more than 97,000 tonnes per year is expected to wash ashore in affected countries.

During the two-week expedition, the Flipflopi team and partners will conduct scientific research to map the extent of macroplastics, microplastics and microfibrils in the ocean and on the shorelines (beaches and mangrove forests) of around 300 kms of Kenyan coastline. They will also run a series of events to increase local communities' understanding of the impact of plastic pollution and showcase solutions.

The research will be used to understand the common types of plastic waste accumulating on the coastline, and map areas of plastic accumulation. It aims to provide a holistic

overview of the most common types of plastic waste, their sources and its impact on the Lamu archipelago's marine ecosystems.

"Less than 5 per cent of plastic polluting the Western Indian Ocean is currently recycled; while it is less than 10 per cent globally. We lack data in the region on quantities, types, and sources of marine litter. We are trying to fill this gap to better understand the situation, and to engage communities and policy makers to change the life cycle of plastic products to make use of what is there, and prevent more getting into the ocean," said David Obura a leading marine scientist.

The baseline study will be used to inform potential interventions and innovative solutions to promote job creation while also cleaning up the environment.

## 'New Environmental Report Offers Solutions For 'Triple Planetary Crisis'

Wildfires are burning more severely and more often, urban noise pollution is growing into a global public health menace, and phenological mismatches – disruptions in the timing of life-cycle stages in natural systems – are causing ecological consequences. These critical environmental issues, requiring greater attention, are highlighted in the new Frontiers Report



Deadly wildfires, noise pollution, and disruptive timing of life cycles: New UN report identifies looming environmental threats

published recently by the UN Environment Programme (UNEP).

This is the fourth edition of the Frontiers Report, which was first published in 2016 with an alert to the growing risk of zoonotic diseases, four years before the outbreak of COVID-19.

"The report, Noise, Blazes and Mismatches: Emerging Issues of Environmental Concern, identifies and offers solutions to three environmental issues" said Inger Andersen, Executive Director of UNEP. "Urban noise pollution, wildfires and phenological shifts are issues that highlight the urgent need to address the triple planetary crisis of climate change, pollution and biodiversity loss."

### Noise pollution and public health

Unwanted, prolonged and high-level sounds

*The new report spotlights growing public health threats that are disrupting natural life cycles and having profound ecological consequences worldwide*



from road traffic, railways, or leisure activities impair human health and well-being. This includes chronic annoyance and sleep disturbance, resulting in severe heart diseases and metabolic disorders such as diabetes, hearing impairment, and poorer mental health.

Noise pollution already leads to 12,000 premature deaths each year in the EU and affects one in five EU citizens. Acceptable noise levels are surpassed in many cities worldwide, including Algiers, Bangkok, Damascus, Dhaka, Ho Chi Minh City Ibadan, Islamabad and New York.

Particularly affected are the very young, the elderly and marginalized communities near high traffic roads, and industrial areas. It is also a threat to animals, altering communications and the behaviour of various species, including birds, insects, and amphibians.

At the same time, natural sounds can offer diverse health benefits. Urban planners should prioritize the reduction of noise at the source; investments in alternative mobility; and urban infrastructure that creates positive soundscapes such as tree belts, green walls, green roofs, and more green spaces in cities.

Positive examples include London's Ultra-Low Emission Zone, Berlin's new cycle lanes on wide roads, and Egypt's national plan to combat noise.

### **Wildfires: Projected to get worse**

Each year, between 2002 and 2016, an average of about 4.23 million sqm of the Earth's land surface – an area about the size of the entire European Union – burned, becoming more common in mixed forest and savannah ecosystems. An estimated 67% of the annual global area burned by all types of fires, including wildfires, was in Africa.



Dangerous wildfire weather conditions are projected to become more frequent and intense and to last longer, including in areas previously unaffected by fires. Extremely intense wildfires can trigger thunderstorms in smoke flumes that aggravate fires through erratic wind speeds and generate lightning that ignites other fires far beyond the fire front, a hazardous feedback loop.

This is due to climate change, including hotter temperatures and drier conditions with more frequent droughts. Land-use change is another risk factor, including commercial logging and deforestation for farms, grazing land, and expanding cities.

Long-term effects on human health extend beyond those fighting wildfires, evacuated, or suffering losses. Smoke and particulate matter from wildfires deliver significant consequences

for health in downwind settlements, sometimes thousands of kilometres from the source, with impacts often exacerbated among those with pre-existing illness, women, children, the elderly and the poor. Changes in fire regimes are also expected to lead to massive biodiversity loss, endangering over 4,400 terrestrial and freshwater species.

Wildfires generate black carbon and other pollutants that can pollute water sources, enhance the melting of glaciers, cause landslides and large-scale algal blooms in oceans, and turn carbon sinks such as rainforests into carbon sources. The report calls for greater investment in reducing the risks of wildfires; development of prevention and response management approaches that include vulnerable, rural, traditional and indigenous communities; and further refinements in remote sensing

*The report draws attention to emerging environmental concerns with the potential to wreak regional or global havoc, if not addressed early*



capabilities, such as satellites, radar and lightning detection.

### **Disrupting natural rhythms in plants and animals**

Phenology is the timing of recurring life cycle stages, driven by environmental forces, and how, within an ecosystem, interacting species respond to the changing conditions. Plants and animals in terrestrial, aquatic and marine ecosystems use temperature, day-length or rainfall as cues for when to unfold leaf, flower, bear fruit, breed, nestle, pollinate or migrate.

Phenological shifts occur when species shift the timing of life cycle stages in response to changing environmental conditions altered by climate change. The concern is that interacting species in an ecosystem do not always shift the timing in the same direction or at the same rate.

These phenological shifts are increasingly disturbed by climate change, pushing plants and animals out of synch with their natural rhythms and leading to mismatches, such as when plants shift life cycle stages faster than herbivores.

Long-distance migrants are particularly vulnerable to phenological change. Local climatic cues that normally trigger migration may no longer accurately predict conditions at their destination and resting sites along the route.

Phenological shifts in crops in response to seasonal variations will be challenging for food production in the face of climate change. Shifts in the phenology of commercially important marine species and their prey have significant consequences for stock and fisheries productivity.

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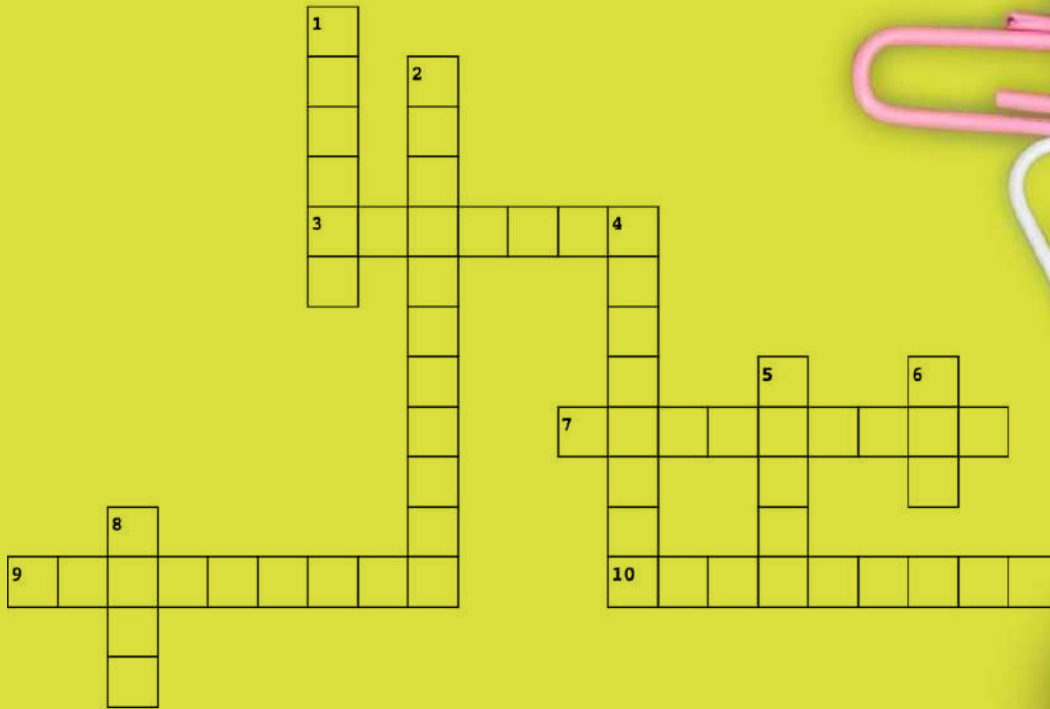
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Answers: 1) VEGANISM 2) MOUNTAINS 3) OCEANS 4) ENDANGERED 5) ETHICAL 6) SUSTAINABLE 7) WILDLIFE 8) CONSERVE

C	O	N	S	E	R	V	E	S	L	E	T	R	A
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GLOBAL  
CONSERVE  
CARBON  
SAVE  
DESTRUCTION  
TERRESTRIAL  
TURTLES  
PLASTIC  
TREES  
EXTINCT  
GREEN  
PLANET

# Crossword Puzzle



## Across

- 3. No longer existing
- 7. Change of abode
- 9. Meat eater
- 10. Any animal used or kept for profit

## Down

- 1. Tender of crops
- 2. Capable of being sustained
- 4. Humid climate
- 5. Discarded materials
- 6. Plant seeds
- 8. Lacking sufficient water or rainfall

Answers: 1) Farmer 2) Sustainable 3) Extinct 4) Tropical 5) Waste 6) Sow 7) Migration 9) Arid 10) Carnivore 11) Livestock

## WORD OF THE DAY:

# ENDANGERED

An endangered species is any type of plant or animal that is in danger of disappearing forever. If a species, or type, of plant or animal dies out completely, it becomes extinct. Animals and plants depend on each other and their environment to survive. When their environment, or habitat, changes or disappears, plants and animals may become endangered. Natural disasters or changes in the climate can harm or destroy habitats.

Humans can cause species to become endangered as well. Humans pollute habitats with garbage, car fumes, and factory wastes. They destroy habitats by clearing land for roads, buildings, and farms. They also may hunt and kill too many of certain types of animals.

The arrival of a new species in a habitat is another threat. Often the new species spreads freely because it has no natural enemies. The species already in the habitat may not be able to compete against the newcomer.

Some examples of endangered species include:

- African and Asian Elephants
- Whales
- Rhinoceros
- Bermuda Cedar Tree
- Bald Eagle
- African Penguin
- Cheetah
- Snow Leopard





## WORLD WILDLIFE DAY - MARCH 3RD

World Wildlife Day (WWD) will be celebrated in 2022 under the theme “Recovering key species for ecosystem restoration”. The celebrations will seek to draw attention to the conservation status of some of the most critically endangered species of wild fauna and flora, and to drive discussions towards imagining and implementing solutions to conserve them. All conversations will be inspired by and seek to inform efforts towards the achievement of UN Sustainable Development Goals.

According to data from the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, over 8,400 species of wild fauna and flora are critically endangered, while close to 30,000 more are understood to be endangered or vulnerable. Based on these estimates, it is suggested that over a million species are threatened with extinction.

Continued loss of species, habitats and ecosystems also threatens all life on Earth, including us. People everywhere rely on wildlife and biodiversity-based resources to meet all our needs, from food, to fuel, medicines, housing, and clothing. Millions of people also rely on nature as the source of their livelihoods and economic opportunities.

In 2022, World Wildlife Day will therefore drive the debate towards the imperative need to reverse the fate of the most critically endangered species, to support the restoration of their habitats and ecosystems and to promote their sustainable use by humanity.

## GLOBAL RECYCLING DAY - MARCH 18TH

Every year, the people of Planet Earth produce 2.1B metric tons of solid waste. 16% of that is recycled,

saving 700M metric tons of CO2 emissions from entering the atmosphere.

Unfortunately, 46% of that trash, enough to completely fill 368,000 Olympic-sized swimming pools, is disposed of unsustainably; meaning landfilled, incinerated, and littered or illegally dumped in the environment.

It's clear a 16% recycling rate is not enough. We need education, legislation, and action to combat this growing environmental and humanitarian crisis. And Global Recycling Day, celebrated annually on March 18th, is a launchpad for businesses and individuals looking to make an impact.

Global Recycling Day is a day dedicated to recognizing and celebrating the importance that recycling plays in preserving our natural resources and securing the future of our planet.



## What can you do to help?

### Things to Do...

- ☒ Volunteer for a cleanup drive \_ \_ \_ \_ \_
- ☒ Don't waste water \_ \_ \_ \_ \_
- ☒ Eat smart \_ \_ \_ \_ \_
- ☒ Reuse paper \_ \_ \_ \_ \_
- ☒ Recycle waste \_ \_ \_ \_ \_

COLOUR ME!



# Launch Of Electrical Thermal Energy Storage System Technology

Masdar, Khalifa University of Science and Technology, and Sweden's Azelio, specialised in a long-duration energy storage company, have launched an innovative Research and Development (R&D) project that will demonstrate 24/7 affordable clean energy utilisation at Masdar City in Abu Dhabi. The project is part of a three-party research and development agreement.

UAE NEWS



The Azelio storage system is now officially in operation with solar photovoltaic (PV) panels and enables renewable and cost-efficient electricity 24 hours a day, seven days a week. The system will undergo extensive testing and demonstration at the Masdar Institute Solar Platform (MISP), in a desert environment that provides ideal solar conditions to generate full daily cycles of clean energy in combination with solar PV.

Over the next 12 months, Khalifa University researchers will continuously operate Azelio's electrical, thermal energy storage system, collecting and analysing the data while independently validating the system. At the end of the year, Khalifa University will report the system's performance in the desert environment.

The system's storage units will be demonstrated and evaluated on several criteria, including

supplying renewable electricity round-the-clock to a system for atmospheric water generation that captures humidity and condensates it to usable water.

The capabilities of Azelio's technology represent an important part of the renewable transition by making sustainable energy from, for example, cost-effective solar PV available at all hours of the day.

Azelio's energy storage TES.POD stores energy as heat in a metal alloy made from recycled aluminium and silicon. The heat from the storage is transferred to a Stirling engine that enables a supply of electricity and usable heat on demand at all hours of the day, without emissions and at an affordable price. The system is scalable and competitive from 0.1 to 100 MWe.

## Global Plastic Treaty

Leading experts including scientists and activists have repeatedly warned us about the environmental harm caused by plastic but very little has been done to mitigate this worldwide problem.

The plastic industry continues to produce no less than 400 million tons of new plastic every year, which is set to double by 2040. Recycling makes up less than 10% of this while the remaining is either burned or dumped. Around 10 million tons end up in oceans and seas where they are eaten by marine creatures or broken down into microplastics and enter our bodies through the food chain.



**Dr. Eisa M. Abdellatif**  
Chief Technical Advisor  
Zayed International  
Foundation for the  
Environment

Plastic waste is now the most serious threat to marine life worldwide. On land, it is a major threat to human health, fertile soil, animal resources and biodiversity. Microplastics have a greater impact on human and animal health as it enters the air we breathe, is present in drinking water, and seafood.

Although many seem to have lost hope of finding solutions to the problem of plastic pollution, there is now an opportunity to control plastic waste and leave a cleaner Earth for future generations.

Members at the UN Environment Assembly in Nairobi recently endorsed a historic resolution and forged a legally binding agreement to end plastic pollution. The resolution addresses the full lifecycle of plastic with commitments to phasing-out single-use plastic and placing curbs on the manufacture of new plastic.

What really gives us hope is that major plastic producing countries and industries have expressed support for the treaty, which is expected to come into effect in 2024. Meanwhile, pressure must be exerted on manufacturers resisting caps on production, and steering negotiations towards reusing and recycling plastic waste.

Let us all stand behind this vital treaty for the future of life on Earth.

نرفع أسمى آيات التهاني والتبريكات

رمضان كريم



إلى مقام صاحب السمو الشيخ  
**محمد بن راشد آل مكتوم**  
نائب رئيس الدولة - رئيس مجلس الوزراء  
حاكم دبي (رعاه الله)

إلى مقام صاحب السمو الشيخ  
**خليفة بن زايد آل نهيان**  
رئيس الدولة (حفظه الله)

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

**بمناسبة حلول شهر رمضان المبارك**

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