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creating green communities for a better tomorrow

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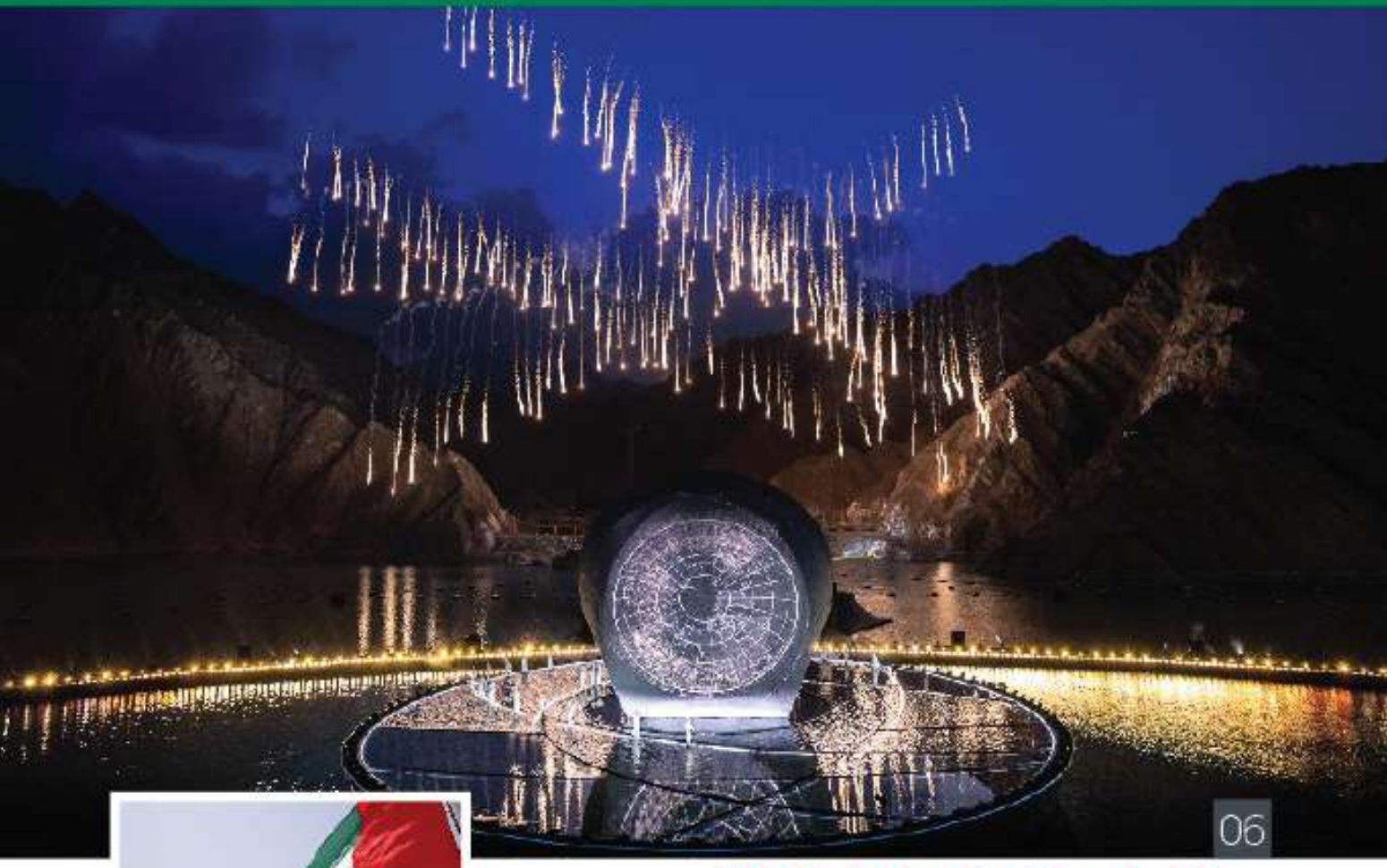

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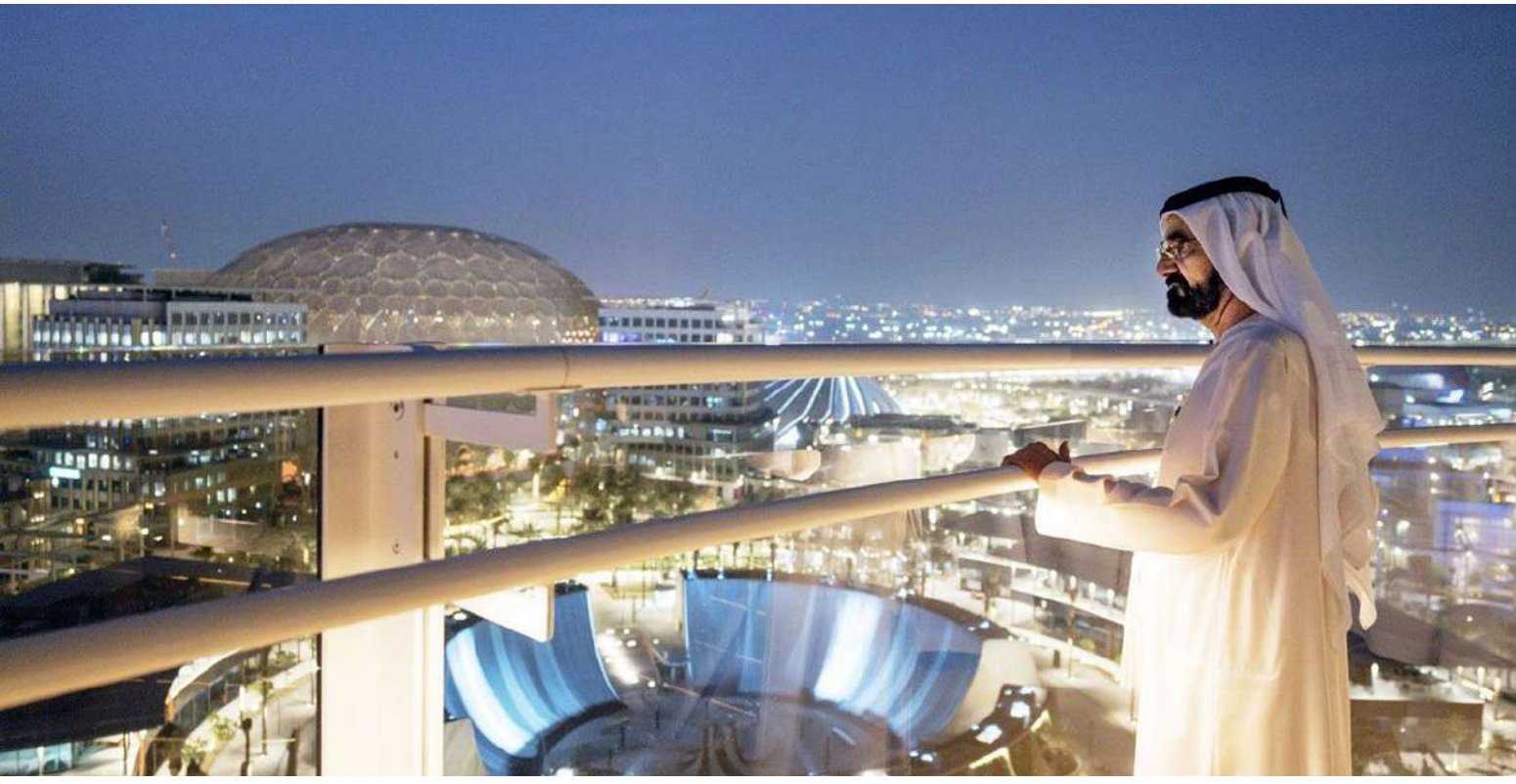
Chairman's Message

Fifty years ago, when this young nation was founded as a single national entity, our Founding Fathers were guided by a shared vision to create a nation bounded by the principles of holistic, sustainable development and which guaranteed the prosperity of its citizens, even as it looked forward to welcoming the future.

From relative obscurity, the nation has now transformed into a modern state and is well known the world over for its ambitious vision, path-breaking developments, architectural marvels, and record-breaking feats.

With great foresight, the UAE leadership planned and anticipated economic, industrial and social change and adapted to global changes and innovations to harness potential in all areas of life. At a time when five decades in the future would seem a long way off for most nations, the UAE is well on its way to setting in motion a roadmap for accelerating national economic development and to become the best in the world by 2071.



Prof. Mohammed bin Fahad
Executive Editor

The announcement by UNESCO to observe the UAE's National Day as World Future's Day every December 2, is an endorsement of the UAE's development model and cements its status as a progressive nation that looks ahead and embraces the future without fear.

The late Sheikh Zayed bin Sultan Al Nahyan's profound respect for the environment and understanding of how the natural world shapes the culture, history, and people, sowed the seeds of sustainable development across our country – decades before it became a globally accepted goal. Winning the bid to host COP28 is a further testament to the UAE's long history and commitment to fighting climate change and positioning itself at the heart of the clean energy revolution.

Under the guidance of our leaders, we are now ready to take the UAE to new frontiers in the next 50 years.

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GLOBAL WARMING: UN issues new guidance to address warming in cities

Upcoming events

International Conference on Sustainable Water Management

Date: December 13

Location: Multan, Pakistan

The conference provides a platform for professionals involved in water resources management to exchange knowledge and gain an insight into the state-of-the-art technology, techniques and solutions in sustainable water management as they have been developed and applied in different countries. Participants include a wide variety of stakeholders from research and academia to industrial sectors as well as government organizations.

Environmental Intelligence Conference 2021

Date: December 16 -17

Virtual conference

The theme of this year's Environmental Intelligence conference is 'Beyond COP26: The Road to Net Zero'.
An exciting line-up of speakers will showcase their work using transformative technologies to support the UK's Net Zero ambitions, as well as a session exploring opportunities to engage with, and support, the next generation of environmental and data scientists. The conference will provide meaningful insight needed to inform decision-making and improve risk management, to lead the world towards a sustainable interaction with the natural environment and delivery of Net Zero.

International Conference on Environment and Natural Science (ICENS)

Date: December 21

Location: Malacca, Malaysia

The idea of the conference is for scientists, scholars, engineers and students from universities all around the world and the industry to present ongoing research activities, and hence to foster research relations between universities and the industry. This conference provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

UAE Marks Golden Jubilee With Spectacular Show At Hatta

The official celebration of the UAE's Golden Jubilee took place on December 2nd, under the patronage of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, in the city of Hatta.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, His Highness Sheikh Mohamed

UAE rulers, crown princes and official guests attend celebrations in the city of Hatta

bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, the Supreme Council Members, Their Highnesses Rulers of the Emirates, Crown Princes, Deputy Rulers and Sheikhs, attended the celebration on the UAE's 50th National Day and Golden Jubilee.

Among those who attended the official ceremony were H.H. Sheikh Hamad bin Mohammed Al Sharqi, Supreme Council Member and Ruler of Fujairah; H.H. Sheikh Saud bin Rashid Al Mu'alla, Supreme Council Member and Ruler of Umm Al Qaiwain, and H.H. Sheikh Saud bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras Al Khaimah.

H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai; H.H. Sheikh Sultan bin Mohammed bin Sultan Al Qasimi, Crown Prince and Deputy Ruler of Sharjah; H.H.

The 50th National Day celebrations at Hatta featured stories of distinguished UAE figures, including women, who shaped the history of the country

Sheikh Sultan bin Ahmed bin Sultan Al Qasimi, Deputy Ruler of Sharjah, H.H. Sheikh Ammar bin Humaid Al Nuaimi, Crown Prince of Ajman; H.H. Sheikh Mohammed bin Hamad bin Mohammed Al Sharqi, Crown Prince of Fujairah; H.H. Sheikh Rashid bin Saud bin Rashid Al Mu'alla, Crown Prince of Umm Al Qaiwain, and H.H. Sheikh Mohammed bin Saud bin Saqr Al Qasimi, Crown Prince of Ras Al Khaimah, were also present.

The celebration was also attended by a number of ministers and high-ranking officials.

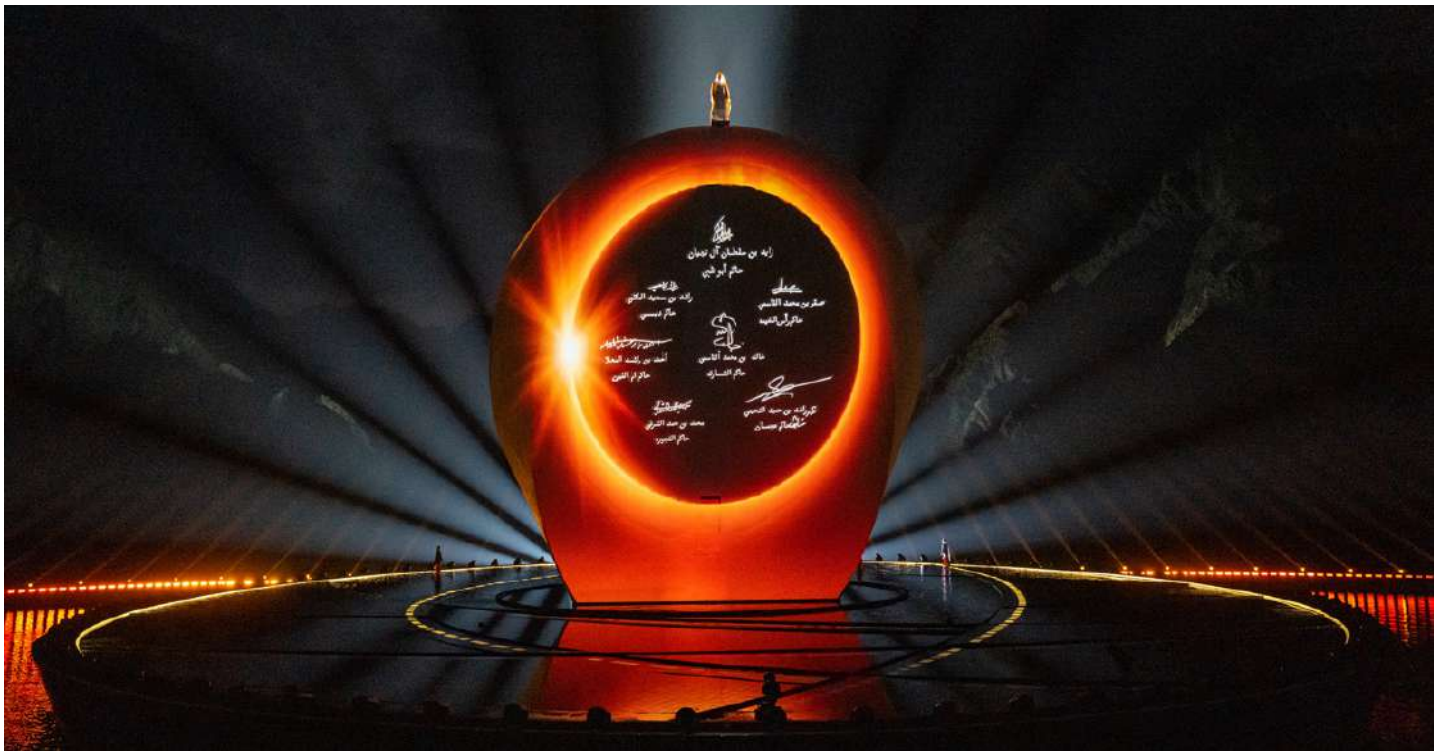
Staged in Hatta Dam and surrounded by the Hajar Mountains, the live show saw the attendance of residents from across the UAE and was live streamed by all official television channels and the 'Official 50th UAE National Day' website.

The show's centerpiece was a huge sculpture, supported by modern technology and set on a floating stage on the Hatta Dam, to highlight the close relationship between humans and nature and UAE's history since the 19th century.

The show comprised of nine chapters chronicling highlights from the UAE's 50-year development journey and projections of the UAE's future in the next 50 years.

The first chapter of the show, **The Land and the Line**, included a drum performance, featuring traditional Emirati rhythms which resonated around the mountains, while the second part, **People on the Move**, showcased the earliest form of the Emirati compass, known as Deira, after which 200 drones lit up the sky as the sculpture began projecting Deirat Al Duroor, the ancient astronomical system used by the UAE people in old times.

The third chapter, **Mothers and Roots**, narrated



the stories of the UAE's first female pioneers, including Sheikha Maitha bint Salmeen Al Mansoori, wife of Sheikh Zayed bin Khalifa, the grandfather of the Founding Father, the late Sheikh Zayed bin Sultan Al Nahyan; Sheikha Hessa bint Al Murr Al Falasi, the grandmother of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai; Sheikha Shamsa bint Sultan Al Marar, who was an exceptional pearl diver and fisherwoman; and Sheikha Hamama bint Obaid Al Teneji, who was a famous healer and botanist.

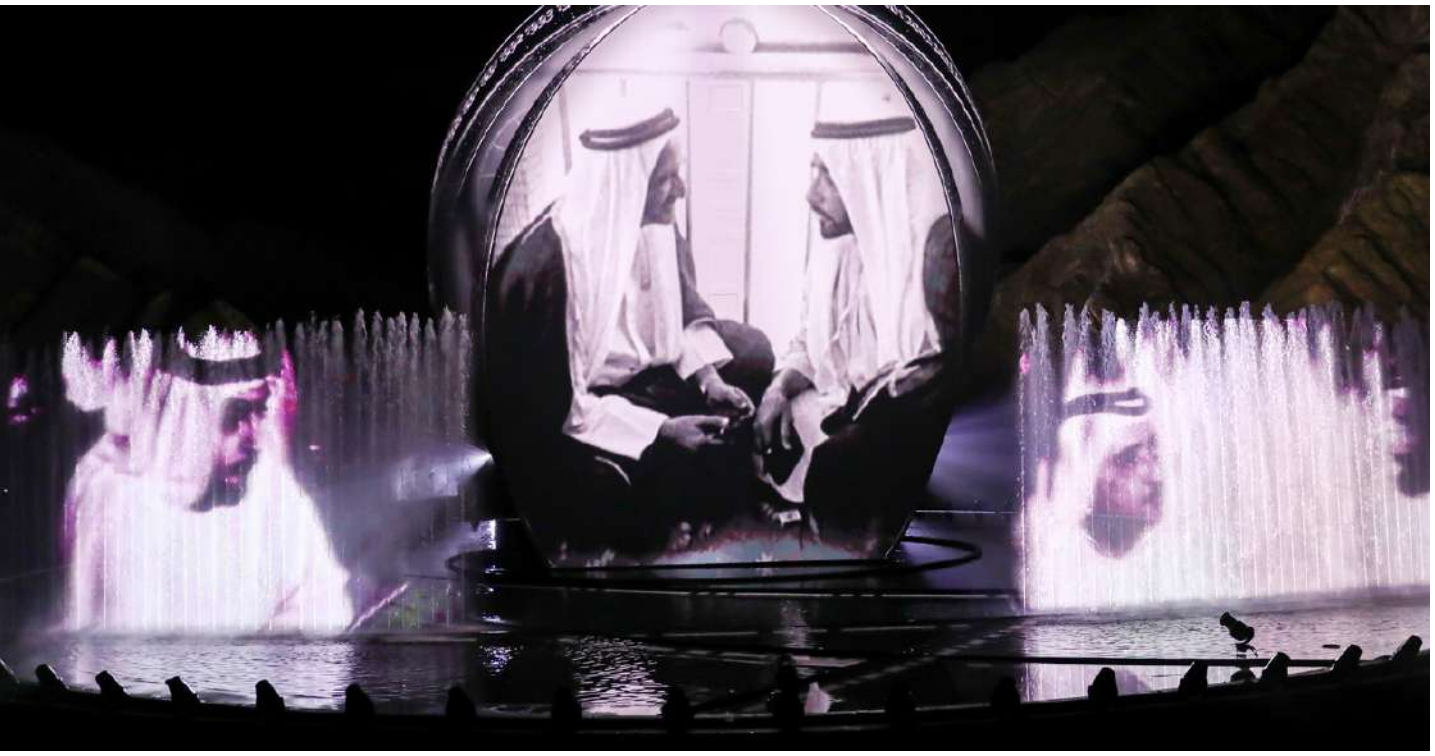
It concluded with a homage to the achievements of the 'Mother of the Nation', H.H. Sheikha Fatima bint Mubarak, Chairwoman of the General Women's Union (GWU), President of the Supreme Council for Motherhood and Childhood, and Supreme Chairwoman of the Family Development Foundation (FDF).

As for the fourth chapter, **The Idea of the Union**, it told the story of the agreement that led to the UAE's Union, where a silhouette of the UAE's late Founding Father appeared on the giant sculpture in a creative reenactment of the early morning in February 1968, when the idea of the Union first began.

It was then that the accord of the Union appeared, with the ink of the Founders' signatures followed by a projection of the iconic photograph of the seven rulers, taken on the 2nd of December 1971.

The fifth part of the show, **Zayed Beautified It**, shed light on the UAE's transformation from a desert to a luxuriant green land.The sculpture then revealed the UAE's most ambitious architectural formations: from the humble Shaabi houses, through wind towers and forts, to more than 97 iconic UAE buildings.

The celebrations focused on the relationship between the people and their homeland by emphasizing aspects related to the UAE's agricultural, desert, mountain, and marine environments



The sixth part featured the **UAE's National Anthem**, and was followed by **This is the UAE**, a chapter on key moments in the UAE's history leading to the hosting of Expo 2020 Dubai, through archival footage projections and the sounds of traditional music.

Titled 'Letters to the Future', the final part of the show featured three girls writing letters to their future selves, epitomising the UAE's ambitious vision and aspirations for the future.

The celebration concluded with a dazzling firework spectacle, launched by drones, to mark the end of the first 50 years of the UAE's journey and the beginning of its march towards the future.

The UAE 50th National Day Show in Numbers

For the first time in the UAE, 400 Pyro Drones released flares and Pyrotechnics during the show, which also featured 97 Iconic UAE buildings, 101 animals, 98 plants, 200 Nano LED Drones, 138 members of the cast, and 18 Wusooms (Tribe marks) that represented the different tribes and families in the UAE.

The creation of the UAE 50th National Day show took more than 147 days, with a team of more than 1,400 individuals from over 100 nationalities working for more than one million and 500,000 man-hours on site.

UNESCO Declares December 2 As World Futures Day

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has adopted December 2 as World Futures Day to coincide with the National Day of the UAE.

World Future's Day, which will take place on this date every year, is an invitation to the countries of the world to embrace the future and develop their capabilities in the fields of foresight,

readiness and proactive policy-making to ensure sustainable development for future generations.

The choice of December 2 is a sign of appreciation for the UAE's global role over the past 50 years to imagine and create the future, as well as its exceptional experience in anticipating economic, industrial and social change and its high readiness in future sectors. The UAE continues to deliver proactive policies and projects that enable it to embrace future trends and opportunities in all fields that affect daily life.

HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, welcomed the announcement on his Twitter account, saying: "The international recognition of the UAE as a country for the future, as a model for its vision, and as a major center for its industry, places even greater responsibility on us to develop our capabilities in envisioning the future, keeping pace with its changes and benefiting from its opportunities. I wish our country good health and prosperity, and a better, bigger and greater future."

The adoption of World Futures Day was a unanimous decision taken at the 41st session of UNESCO's General Conference, held in November in Paris.

World Futures Day aims to raise awareness about the importance of developing a "future mindset", which can contribute to augmenting the preparedness of governments to address various challenges, invent new solutions that nurture comprehensive development, and promote international dialogue and cooperation aimed at stimulating creativity and innovation.

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United Arab Emirates To Host COP28 In 2023

The UN Framework Convention on Climate Change (UNFCCC) has officially announced that the UAE will host the 28th Conference of the Parties (COP28) in 2023.

The UNFCCC confirmation followed unanimous endorsement by the Asia Pacific Group of nations during COP26, where nearly 200 countries have gathered to take concerted action to cap global greenhouse gas emissions and unite against climate change.

The UN Climate Change Conference is the largest global conference of heads of states and governments on climate and environmental issues

In response, H.H. Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, said: "We are pleased and honored by the UNFCCC decision to select the United Arab Emirates to host the UN Climate Change Conference in 2023 and commit ourselves as a nation to supporting the entire international community in accelerating our combined efforts to overcome the very real threat of climate change.

"The founding father of the UAE had the highest regard for the environment, and it is his legacy which has inspired the progress we have made over the past 50 years to diversify our economy – and will continue to inspire us as we strive to safeguard the well-being of present and future generations.

For more than three decades, the UAE has acted with foresight in tackling climate change with unwavering commitment towards investment projects aimed at mitigating and adapting to climate challenges

"COP28 in 2023 will and must be a 'solutions COP' – and I am confident that the rich experience of this young, inclusive nation in advancing practical, viable and shareable solutions to the world's most pressing challenges will again come to the fore as we host the world for the UN Climate Change Conference in two years' time.

"We look forward to welcoming the world at COP28. The voice of every nation and stakeholder will be heard, ensuring that, together, we not only help mitigate the effects of global warming, but also unlock new opportunities to realize greater prosperity and a better life for future generations."

A holistic approach for economic progress

Dr. Sultan Ahmed Al Jaber, UAE Minister of Industry and Advanced Technology and Special Envoy for Climate Change, said the decision to host COP28 in the UAE is a direct reflection of the nation's decades long commitment to progressive climate action.

He said: " We very much look forward to the opportunity of uniting the world in an effort to raise ambitions for climate action and to advance progress for humanity. COP 28 will be a crucial global stock-take, measuring how far we have come, and how far we still need to go, to fulfill the Paris Agreement. Our guiding principle for COP 28 will be inclusivity. We want to reflect the views and invite the contribution of both developed and developing countries, the public and private sectors, academics and civil society. The UAE adopts this approach, because we truly believe that partnership promotes progress."

Highlighting the UAE focus on promoting an inclusive approach, Dr Al Jaber added: "In this spirit, everyone will have a seat at the table. Developed countries alongside developing

nation, the public alongside the private sector, scientists alongside civil society and also. importantly the voices of youth. It is together that we will succeed."

Turning challenges into opportunities

Mariam bint Mohammed Almheiri, UAE Minister of Climate Change and Environment, said: "At a time of rapidly rising climate risks that threaten all countries, we welcome the responsibility of hosting COP28, and are determined to support the international community in pursuing a practical agenda that focuses on implementation, ambition, opportunities and transformation."

She added: "At COP28, we will address the planetary and economic aftermath of climate change as two sides of the same coin, exploring solutions that put us on a path towards limiting global warming to 1.5°C and are economically viable at the same time. We are keen to share our successful approach of turning challenges into opportunities to leave a healthier planet to our children."

"We firmly believe in young people's right to have a say in shaping their future and are dedicated to supporting the highest levels of youth participation in delegations and formal proceedings at COP28," she added.

The UAE's long history of commitment to climate change started in 1989 when it first ratified the Vienna Convention for the Protection of the Ozone layer. Since then, it has joined the UNFCCC (1995) and ratified the Kyoto Protocol (2005). Two years ago, the UAE hosted the Abu Dhabi Climate Meeting, attended by the United Nations Secretary-General António Guterres.

Our Sincere Congratulations To The UAE Leadership and People On Occasion of The UAE 50th Anniversary

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بإدارة / شعيب الدوري

Zayed International Foundation For The Environment And Hemaya Schools - A Dubai Police Initiative, Launch 'Environmental Initiative Of The Year Of The 50th To Plant 50 Trees'

To mark the celebrations of the 'Year of the 50th' and commemorate 50 years of the UAE's formation, the Hemaya Schools - a Dubai Police initiative, in cooperation with Zayed International Foundation for the Environment has launched the 'Environmental Initiative of the Year of 50th to Plant 50 Trees'.

HE Major General Prof. Dr. Mohamed Ahmed Bin Fahad, Assistant Commander for Academic Affairs & Training at Dubai Police Academy, General Supervisor of Hemaya Schools, and Chairman of the Higher Committee of the Zayed International Foundation for the Environment, witnessed the launch of the initiative on December 7, 2021, in the presence of Dr. Hamdan Khalifa Al Shaer, member of the Higher Committee of the Zayed International Foundation for the Environment, and Colonel Wedad Saif bin Mowaiza, Director of Hemaya Office, and directors and officials of both institutions.

In a speech delivered at the event, HE Major General Prof. Dr. Mohammed Ahmed bin Fahd praised the initiative and said: "Tree-planting initiatives consolidate the values instilled by the Founding Father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan, may Allah rest his soul."

He also stated that since its inception and in accordance with the directives of its founder and patron HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, the Zayed Foundation has sought to consolidate and build on these principles through its initiatives, events and environmental activities undertaken at the national, regional and international levels.

He added, "Our celebrations of the Year of the

"Tree-planting initiatives consolidate the values instilled by the Founding Father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan, may Allah rest his soul."

50th reflect the story of its founder who, with his wisdom and intelligence, managed to gather seven emirates to announce their union on December 2nd, 1971."

In his speech, he also indicated that the "UAE is a country that has crossed out the word impossible, a country whose dreams have surpassed all barriers, and its name has emerged at the forefront of all fields."

He added: "The UAE is today - as its leaders planned - racing to the future, where its landmark constructions soar high, its projects and plans break new frontiers, and an ambitious space mission has reached Mars."

He concluded his speech by saying: "Our celebration of the Golden Jubilee - as we witness the influx of millions of visitors to Expo 2020 Dubai, make us proud of belonging to this country, which has brought together on its land various nationalities and cultures and has become the focus of the whole world, due to the values of love and tolerance it cherishes."

He added: "Through this environmental initiative, we seek to follow in the footsteps set by the wise leadership to achieve the aspirations and hopes of our honourable people to reach Sustainable Development Goals by the year 2071."

For his part, Dr. Hamdan Khalifa Al Shaer, member of the Higher Committee of the Zayed Foundation, praised the generous efforts made to make the initiative a success, saying, "This initiative is not the first collaboration between the Zayed Foundation for the Environment and Dubai Police, which has been the foremost partner and supporter of Zayed Foundation throughout the years."

He added, "Since its inception in 1999, the Zayed International Foundation for the Environment has sought to spread environmental awareness and environmental culture and provide scientific information related to environmental, agricultural and sustainable development issues to all interested parties, researchers, media professionals and decision makers."

Concluding his speech, Dr. Hamdan Al Shaer thanked HE Prof. Dr. Mohammed bin Fahd, the management of Hemaya Schools and the Zayed Foundation staff for their efforts in making the initiative a success.

The Environmental Initiative of the Year of the 50th to Plant 50 Trees will be implemented across various emirates in the UAE.

Zayed International Foundation for the Environment

شرطة دبي
DUBAI POLICE

UAE Unveils Hydrogen Leadership Roadmap

The UAE, represented by the Ministry of Energy and Infrastructure (MOEI) has announced the Hydrogen Leadership Roadmap, a comprehensive national blueprint to support domestic, low-carbon industries, contribute to the country's net-zero ambition and establish the country as a competitive exporter of hydrogen.The Roadmap's ambitions underscore the UAE leadership's enduring legacy

UAE announces strategy to speed up deployment of clean fuel at COP26 Summit reinforcing nation's commitment to driving economic opportunity through decisive climate action

of progressive solutions to global climate challenges, as recently demonstrated by the announcement of "UAE's Net Zero by 2050 Strategic Initiative".

The UAE became the first country in the Middle East and North Africa region to announce a net zero strategic initiative by 2050 in line with the 2015 Paris Agreement. The unveiling of the Hydrogen Leadership Roadmap came during the crucial COP26 climate conference in Glasgow.

Suhail bin Mohammed Al Mazrouei, Minister of Energy and Infrastructure, said, "The UAE is well positioned to be a leader in low carbon hydrogen with natural competitive advantages for both blue and green hydrogen, however, green hydrogen production remains in its infancy, requiring an international collaboration to accelerate its development. Green hydrogen is

UAE's Hydrogen Leadership Roadmap targets 25% of the global hydrogen market by 2030

envisaged to play a significant role in UAE's domestic strategy to meet the UAE 2050 Net-Zero goals and which will also assist globally by exporting hydrogen."

Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology and UAE Special Envoy for Climate Change said, "The potential of the clean hydrogen market in the UAE and globally is immense and, through the Hydrogen Leadership Roadmap, our nation will be well placed to continue delivering on ambitious growth projects across the clean hydrogen value chain, leveraging the UAE's existing position as an early mover in low and no-carbon industries and technologies.

"The Roadmap will accelerate efforts to create a vibrant ecosystem for the UAE's sustainable economic growth trajectory and enable direct positive impact on the country's GDP."

Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, said, "Perceived by many as the sustainable fuel of the future, clean hydrogen is an important tool in decarbonizing economies. The UAE Hydrogen Leadership Roadmap seeks to leverage the country's investments and experience in affordable renewable energy to develop the clean hydrogen sector. The Roadmap will play a key role in advancing the UAE's transition to a sustainable, low-carbon economy."

The Hydrogen Leadership Roadmap comprises of three core objectives: unlocking new sources of value creation through exports of low carbon hydrogen, derivatives and products to key importing regions, fostering new hydrogen derivative opportunities through low-carbon steel, sustainable kerosene as well as other priority UAE industries and contributing to the UAE's 2050 net zero commitments.

The UAE now enjoys the world's lowest-cost solar power and is home to three of the largest solar facilities in the world

As outlined in the Roadmap, the UAE aims to support the low-carbon hydrogen business through five critical enablers: a clear regulatory framework backed by policies, incentives, standards, and certifications; best-in-class technology through value-add partnerships and the vibrant and robust UAE domestic research and development structure; access to existing and new Government-to-Government relationships to accelerate growth of a domestic ecosystem; readily available land and infrastructure resources to support domestic production; and green financing within the UAE and in international capital markets.

The UAE is well on its way to meet its ambition to be a global leader in low carbon hydrogen with more than seven projects already underway which will target 25 percent market share in the key export markets, including Japan, South Korea, Germany, and India initially along with additional high-potential markets in Europe and East Asia.

The UAE Hydrogen Leadership Roadmap is underpinned by world-leading low carbon hydrogen projects, pilots, and test cargoes.

The UAE plans currently include 7+ projects which are either completed or underway via the main stakeholders, such as the Abu Dhabi Hydrogen Alliance and DEWA, including; first solar PV and green hydrogen producing facility in the MENA region, blue ammonia production plant, green hydrogen demonstration plant, establishing a UAE hydrogen hub in coloboration with BP, green ammonia project powered by solar based electrolyzer facility, and a large-scale green hydrogen project enabling the first green steel produced in the MENA region.

UAE Announces Enhanced Target To Plant 100 Million Mangroves By 2030

The UAE has stepped up its ambition to expand its mangrove cover by raising the mangrove-planting target in its second Nationally Determined Contribution (NDC) under the Paris Agreement from 30 million to 100 million by 2030. The move consolidates the nation's position as a global leader in nature-based climate change solutions.

Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, presented the new target at the High-Level Ministerial Dialogue on Adaptation Action that took place on the Adaptation, Loss and Damage Day at the 26th UN Climate Change Conference (COP26) in Glasgow.

She said, "The UAE is keen to leverage nature-based solutions to mitigate and adapt to the impacts of climate change. I am proud to announce an important new step in strengthening our blue carbon ecosystems – an increase in our mangrove-planting target to 100 million by 2030. We aim to work closely with non-governmental organisations (NGOs) and the private sector to fulfil our commitment to safeguarding the sustainability of our mangrove forests."

Mangrove forests protect the UAE's coasts from rising sea levels and storm surges, and provide critical habitats for biodiversity. They also serve as powerful carbon sinks. The country is home to 60 million mangroves that form forests spanning 183 square kilometers and capture 43,000 tonnes of CO2 annually. With the additional 100 million mangroves planted, the UAE's mangrove forests will cover 483 square kilometers and sequester nearly 115,000 tons of CO2 per year.

Co-hosted by the UK COP26 Presidency and the Global Centre on Adaptation (GCA), the High-Level Ministerial Dialogue on Adaptation Action convened global leaders with the aim of accelerating climate change adaptation action worldwide. The event provided an ideal platform for countries to review their commitments to boosting climate change resilience and raise their ambitions.

UAE's First Driverless Autonomous Vehicle Launched

Khalifa University autonomous vehicle (AV), the UAE's first driverless, autonomous 12-seater shuttle that will transport students and staff around the Sas Al Nakhl Campus, has been launched.

Khalifa University has thus become the first university in the UAE to deploy an AV on campus that can also run in 'real environment' off campus,

12-seater shuttle will transport students, staff around the Sas Al Nakhl Campus

bringing smart sustainable mobility to the community and contributing to the UAE's sustainable development initiatives.

The 100% electric shuttle is one of the first-ever autonomous vehicles to be deployed in the UAE in a 'mixed traffic mode', as it can drive on the road with other cars.

The environment-friendly shared transportation solution will also provide a research and development platform to faculty and researchers at the Khalifa University Centre for Autonomous Robotic Systems (KU-CARS), to investigate autonomous driving in challenging scenarios.

With around 50 researchers and state-of-the-art laboratory facilities, KU-CARS provides a vibrant multidisciplinary environment for conducting robotics and autonomous vehicle-related research and innovation. Sheikh Hamed

Khalifa University autonomous vehicle (AV) is the UAE's the first-ever autonomous vehicle to be deployed in a 'mixed traffic mode'

bin Zayed Al Nahyan, Member of the Executive Council of the Emirate of Abu Dhabi and Chairman of the Board of Trustees of Khalifa University of Science and Technology, witnessed the launch of the Khalifa University AV.

He also attended the signing of an AED170-million operating agreement for the Emirates ICT Innovation Centre (Ebtic) by the three founders Khalifa University, Etisalat, and BT (UK), in addition to UAE's Telecommunications and Digital Government Regulatory Authority (TDRA).

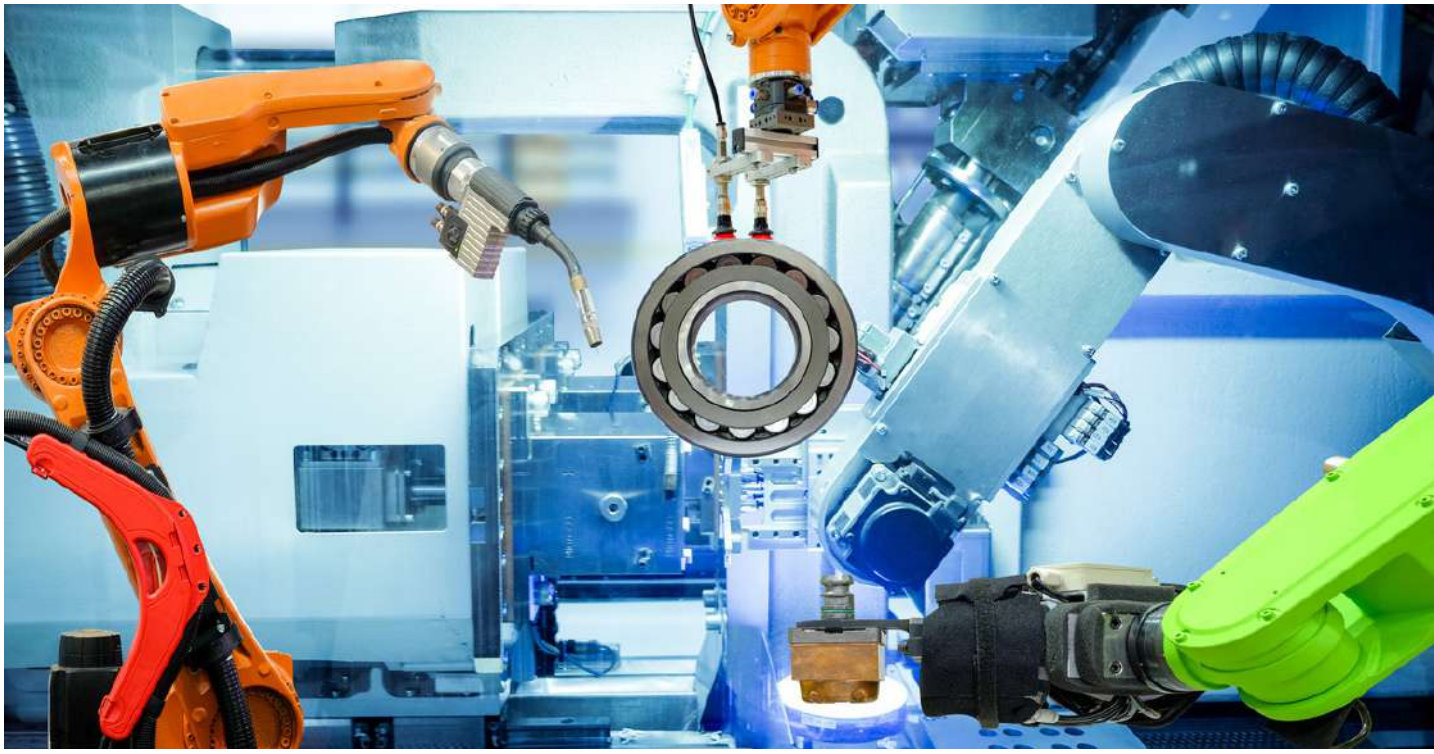
Sheikh Hamed also visited the Khalifa University Centre for Autonomous Robotics Systems (KU-CARS) at SAN campus, which includes the shuttle's operations room.

He showed keen interest to learn more about the safety and security features of the AV, vehicle tracking techniques, the surveillance camera network system and other features of the Khalifa University AV. Dr. Lakmal Seneviratne, Director, KUCARS, and Dr. Jorge Manuel Miranda Dias, Professor, Electrical Engineering and Computer Science, offered Sheikh Hamed an overview of the entire project.

The Khalifa University AV can detect and avoid potential obstacles thanks to the onboard sensors, Light Detection and Ranging (LiDAR) cameras, GPS, odometry and inertial measurement units. The shuttles are also equipped with onboard Wi-Fi communications to capture data generated during operation.

The shuttles run safely and effectively in a wide range of environments such as segregated roads, mixed traffic with bicycles and pedestrians, mixed traffic with low-speed cars, as well as changing weather conditions.

Climate Action Takes Centrestage At Industrial Conference



Capping global temperatures hinges on transforming carbon-intensive sectors, hears UK-UAE industrial conference

Ministers, trade officials, and business leaders from the UAE and UK have stressed the importance of bilateral agreements and investments between the two countries to ensure the most carbon-intensive sectors can contribute to national 2050 net-zero targets.

The Global Manufacturing and Industrialisation Summit (GMIS) Week held in November heard how the two nations have a thought leadership role to play in helping the global manufacturing, aerospace, and construction sectors decarbonise by leveraging Fourth Industrial Revolution (4IR) technologies and developing innovation ecosystems.

Following the 26th UN Climate Change Conference (COP26) in Glasgow earlier last month, around 90% of the world economy is now covered by a 2050 net-zero commitment, Simon Penney, UK Trade Commissioner for the Middle East and UK Consul General in Dubai, told the audience at the UAE-UK Conference. But net-zero goals "will not be met unless government and industry work together," he said.

Ahmed Ali Al Sayegh, UAE Minister of State and UAE Co-Chair of the UAE-UK Business Council,

Conference highlighted importance of developing zero-carbon advanced technologies to achieve global climate targets

said: "Manufacturing, engineering, and construction will need to change if we are to achieve 2050 net-zero goals. With the construction sector contributing nearly 40% of global energy-related emissions, retrofitting existing buildings and developing greener and more efficient buildings will be an important factor in keeping global warming below 1.5 C."

At the conference's first session, dedicated to advanced manufacturing, Hussain Al Mahmoudi, CEO of Sharjah Research, Technology & Innovation (SRTI) Park, said: "Governments have a big role in incentivising the private sector to adopt technologies related to additive manufacturing.

"The private sector doesn't want to disrupt its operations and spend money on things they don't necessarily understand. The role of the government is to raise awareness of these technologies and raise skill." But new technologies and techniques need to be supported by a skilled workforce. The manufacturing sector is currently facing a significant skills shortage.

In a panel discussion on 'Decarbonisation of Aerospace', Mariam Al Qubaisi, Head of Sustainability & Business Excellence at Etihad Aviation Group, said: "The lowest-hanging fruit is carbon credits." Ana Haurie, Co-Founder and CEO or Respira, echoed her comments: "We need to support nature because it's available to use right now. Technology will take time."

Mansoor Janahi, Deputy Group CEO of Sanad, added: "There must be an incentive for decarbonisation. Becoming carbon-neutral will come at a cost, so there has to be a concerted effort. There has to be an offset."

In the 'Decarbonisation of Construction and Infrastructure' panel, the group of experts discussed the need for collaboration between governments, academia, and the private sector to reduce the carbon footprint of the built environment, which contributes some 39% of total global emissions.

One of the key areas to address is retrofitting existing building stock, according to Jonathan Holyoak, Policy and Net Zero Programme Director at Atkins, who demanded "meaningful regulation, not just targets" from policymakers.

Rob Jackson, Chief Growth Officer at Asite, said: "Of the 39%, almost 75% comes from existing buildings and 25% is from the construction itself. How do we drive efficiency into that existing building stock? Technologies such as digital twins can support that."

The GMIS Week included the two-day #GMIS2021 Summit on 22-23 November and on the following day, the Green Chain Conference and The Global Prosperity Conference were held. The event also saw several country-focused conferences in partnership with the UK, Australia, and Italy.

UAE Pledges Support For Global Green Growth Institute Projects

Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, has announced that the UAE will contribute US$3 million to the projects carried out by the Global Green Growth Institute (GGGI) in 2022 and 2023.

The Minister made the announcement at the 10th Session of the Assembly and 14th Session

of the Council of GGGI in the presence of Ban-Ki Moon, former UN Secretary-General and GGGI's Assembly President and Council Chair.

At the meeting, officials from the Ministry of Climate Change and the Environment (MoCCAE) highlighted the UAE's efforts to develop a green economy and drive sustainable growth, including the launch of the UAE Net Zero by 2050 Strategic Initiative that puts the country on a path towards a low-carbon future.

Almheiri applauded the ongoing efforts of GGGI in advancing green growth to achieve a sustainable post-COVID-19 recovery.

She said, "Believing in the great value GGGI adds to the transition to green economy, the UAE has allocated US$3 million for the period 2022 to 2023 to support the institute in its mission. Previously, the country provided US$4.5 million to GGGI for 2019-2021."

The UAE has partnered with the institute in 2011 and signed a Host Country Agreement in 2017 to solidify the legal status of the GGGI Regional Office in the country.

Together, they worked on multiple projects and policies that accelerate the transition to a green economy.

These include the UAE Green Agenda 2015-2030, the National Climate Change Plan of the UAE 2017-2050, the UAE Air Quality Strategy 2021-2031, the UAE Circular Economy Policy 2021-2031, the UAE National Air Emissions Inventory Project, the UAE Sustainable Finance Framework 2021-2031, and the Green Entrepreneurship Accelerator Program.

UAE, Jordan And Israel Collaborate On Sustainability Project

The governments of Jordan, Israel and the UAE have signed a landmark declaration of intent to build renewable electricity and water desalination capacity and address the threat posed by climate change on energy and water security in the region.

The signing, that took place at the UAE Leadership Pavilion at Dubai Expo, was witnessed by Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology and Special Envoy for Climate Change and John Kerry, US Special Presidential Envoy for Climate.

UAE, Jordan and Israel sign deal to address the threat posed by climate change on energy and water security in the region

The declaration was signed by Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, Mohammad Al-Najjar, Jordan's Minister of Water and Irrigation, and Karine Elharrar, Israel's Energy Minister.

The declaration of intent consists of two interdependent and contingent components. One, Prosperity Green, plans for solar photovoltaic plants generating capacity of 600 MW to be built in Jordan, with all clean power produced to be exported to Israel. The second, Prosperity Blue, is a sustainable water desalination program to be built in Israel to supply Jordan with up to 200 million cubic meters of desalinated water.

Jordan is the second most water-scarce country in the world, with annual renewable water resources of just 80 cubic meters per person

Feasibility studies for the project are due to start in 2022.

H.H. Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, said, "Climate change is already having a major impact on countries and communities in the Middle East. As we prepare to host COP28 in 2023, we demonstrate with this declaration that all nations can work together to further the energy transition, and build a more sustainable future for all.

Mohammad Al-Najjar said, "Water desalination is an important component of our overall strategy for the water sector's sustainability, and we are continuously looking at different ways to help increase water supply, such as receiving up to 200 million cubic meters of desalinated water as part of this declaration."

Karine Elharrar said, "Two countries with different needs, different capabilities, with each helping the other meet their challenges in a cleaner, greener, and more efficient manner. Jordan has an abundance of territory and sunshine which is perfect for solar panel fields, good for energy solutions and storage, and Israel has desalinization plants that can help Jordan with its water scarcity."

Dr. Sultan Al Jaber said, "This achievement is a powerful demonstration of how progressive climate action can not only enhance resource security, but also build bridges between peoples and reinforce regional stability. The UAE's contributions will help Israel achieve its clean energy targets, while improving Jordan's access to clean drinking water. Such inclusive climate actions combines good policy, creative thinking and the spirit of true partnership."

UAE Endorses COP26 Commitment To Reverse Forest Loss And Land Degradation

The UAE has endorsed the Glasgow Leaders' Declaration on Forests and Land Use that commits countries to working collectively to halt and reverse forest loss and land degradation by 2030 while advancing sustainable development and promoting an inclusive rural transformation.

Over 90 countries have supported the

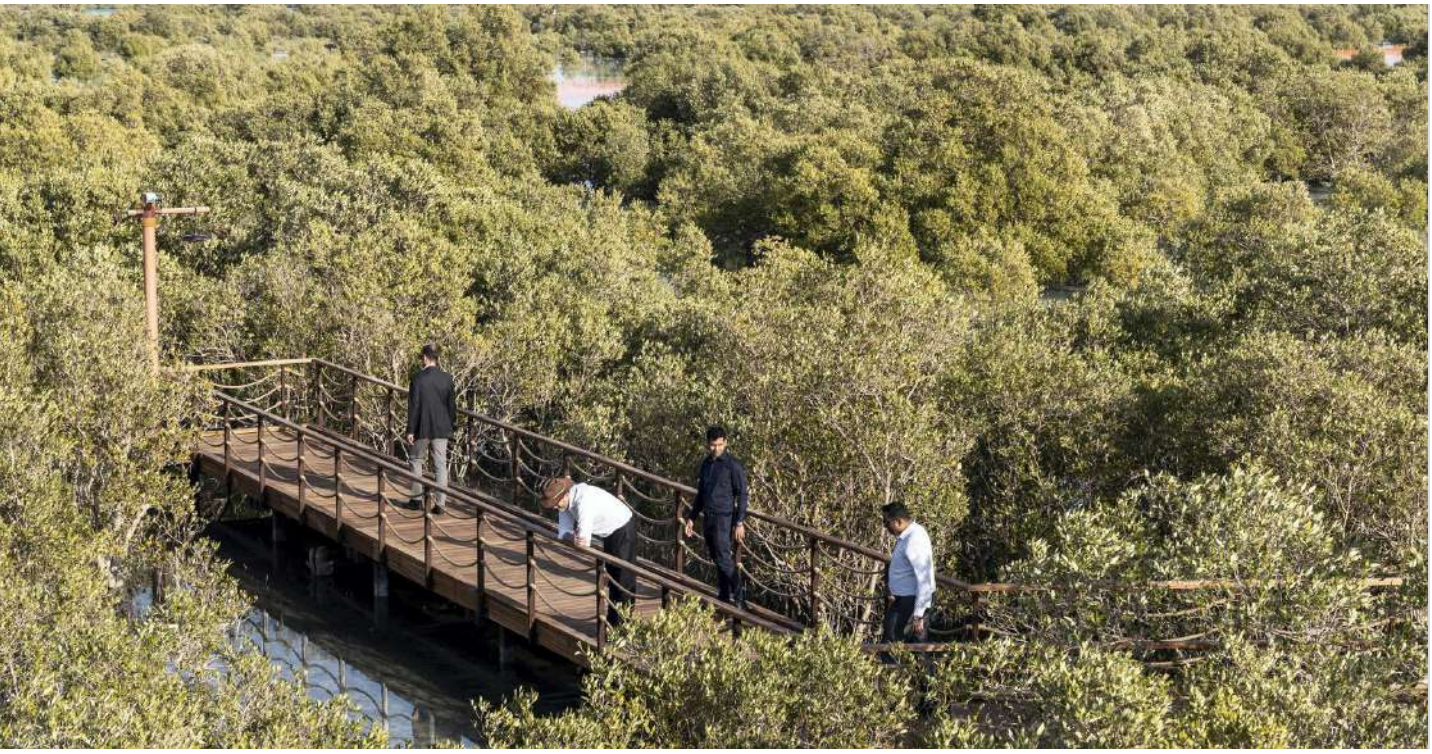
Minister of Climate Change and Environment says endorsement 'is a natural step' for the UAE thanks to its vast mangrove forests

declaration at the COP26 Leaders' Action on Forests and Land Use Event during the World Leaders' Summit. The forum convened governments, companies, financial actors, and non-state leaders to raise ambition on forests and land use in a way that delivers for the climate, people, economic development, and biodiversity.

Mariam bint Mohammed Almheiri, Minister of Climate Change and Environment, said: "When forests are lost and land is degraded, we are at a risk of losing the countless services these vital ecosystems offer, such as providing critical habitats for biodiversity and acting as natural carbon sinks to regulate climate at the forefront."

In the fight against land degradation, the UAE reinforces its blue carbon ecosystems – coastal vegetation such as mangrove forests, saltmarshes, and seagrass meadows. Mangrove

The commitment to halt and reverse forest loss and land degradation by 2030 aims to promote an inclusive rural transformation



forests serve as powerful carbon sinks that sequester CO2 and enhance environmental resilience, thus offering considerable climate change mitigation and adaption benefits as well as providing critical habitats for biodiversity.

To expand its blue carbon ecosystems, the country has committed to planting 30 million mangroves by 2030 in its second Nationally Determined Contribution (NDC).

The UAE has rolled out the National Blue Carbon Project that aims to enhance understanding about carbon storage and other services provided by the coastal ecosystems in the country. The project provides options for integrating these learnings into policy and management, leading to the sustainable use of these ecosystems and their services, and their preservation for future generations.

The UAE is employing modern technologies and innovative solutions in its efforts to combat land degradation, including leveraging drones to map agricultural areas and sow tree seeds to reduce sand encroachment. Drones have helped disperse 6 million acacia seeds and 250,000 ghaf seeds across 25 sites nationwide.

In addition, the UAE is leveraging highly innovative drone planting technology to sow mangrove seeds. This goal is supported by the ambitious Plantation Rehabilitation Program that involves the rehabilitation of all types of plants, especially rare species and those on the brink of extinction.

The country is currently establishing the Abu Dhabi Plant Genetic Resources Centre (Gene Bank) that will be the largest in the region with a capacity to store 20,000 samples once completed in 2022.

Expo 2020 Dubai Now Home To 121 LEED-certified Buildings

More than 120 permanent buildings across Expo 2020 Dubai have been certified by the US Green Building Council in a major sustainability milestone, not only for the mega-event itself, but for its legacy project District 2020, the human-centric sustainable smart city that will repurpose 80 percent of the Expo site.

Seven buildings across the 4.38 sqkm location,

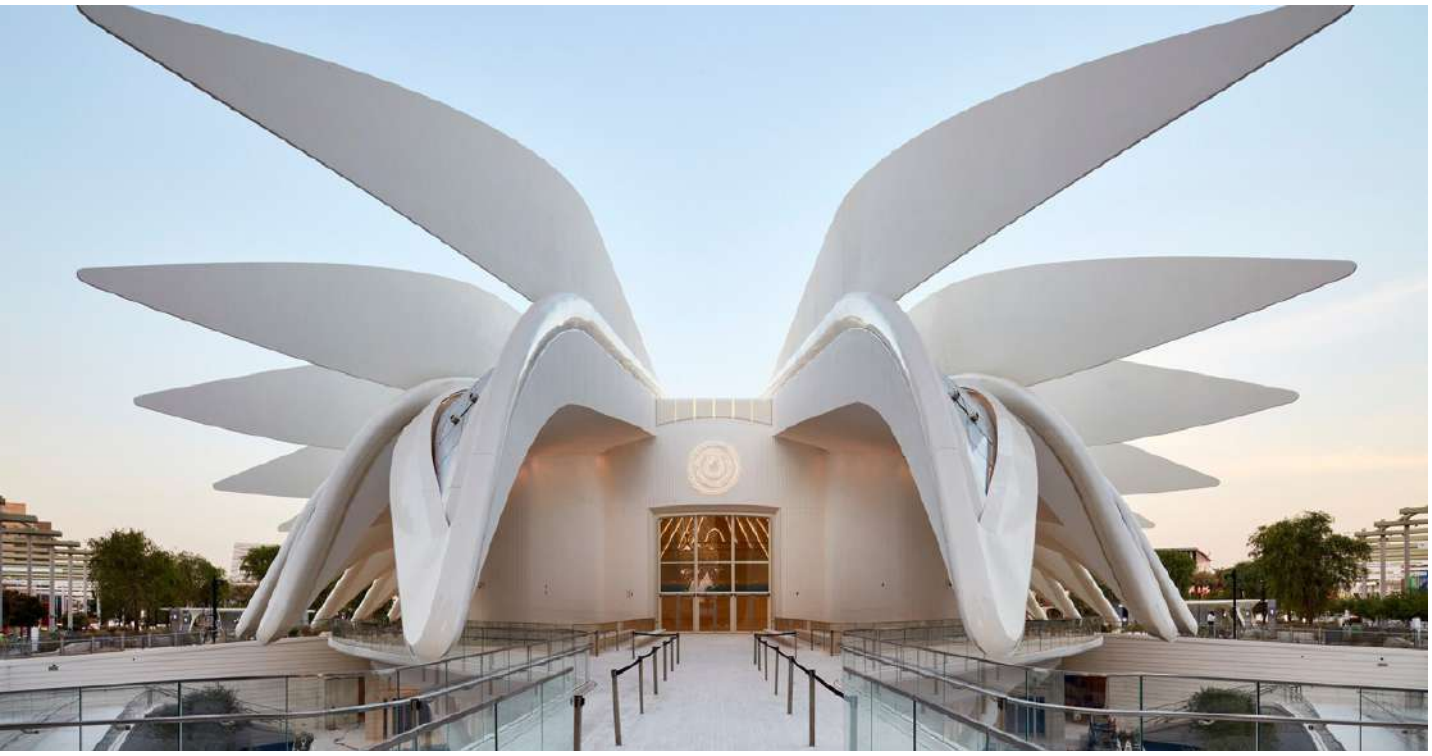
Seven green Expo buildings earn platinum global rating including the UAE Pavilion, Terra – The Sustainability Pavilion, and ENOC's 'Service Station of the Future'

including the UAE Pavilion, Terra – The Sustainability Pavilion and ENOC's 'Service Station of the Future', have been certified 'Platinum', the highest possible rating under Leadership in Energy and Environmental Design (LEED) – the most widely used green building rating system globally, and a mark of excellence for highly-efficient, cost-saving sustainable architecture.

Of the 121 LEED-certified buildings, 103 are also LEED Gold, nine are LEED Silver and two are 'Certified'.

The LEED certification system certifies buildings that typically reduce energy and water consumption over their lifetimes; have lower operational costs and carbon footprints; are constructed from environmentally sensitive materials; have fewer impacts during construction; have better indoor air quality; and

The Leadership in Energy and Environmental Design (LEED) is a global green building rating system and a mark of excellence for highly efficient, cost-saving sustainable architecture



are better connected to the community, contributing to a more sustainable urban environment.

Ahmed Al Khatib, Chief Development and Delivery Officer, Expo 2020 Dubai, commented, "Moulding the environmental, economic and social dimensions of the places we live, sustainability at Expo is our commitment to making a tangible, positive impact at a local, regional and global level and to position the UAE as a sustainable development pioneer and a green economy hub."

After Expo ends on 31st March 2022, its LEED-certified buildings will live on within District 2020, the sustainable human-centric smart city that will repurpose 80 percent of the mega-event's permanent built environment.

Gopalakrishnan Padmanabhan, Managing Director, Southeast Asia and the Middle East, Green Business Certification Inc. (GBCI), said, "Given the extraordinary importance of climate protection in the Middle East and the central role buildings play in that effort, Expo 2020 Dubai is setting the intention for the entire region, and carving a path toward the sustainable future its citizens deserve."

The LEED certifications build on the eight CEEQUAL 'Excellent' certificates, awarded to Expo earlier this year for numerous infrastructure projects, including Al Wasl Plaza and the steel and trellis work of the dome that encircles it. CEEQUAL – the internationally recognised sustainability assessment, rating and certification scheme for best practice in infrastructure projects – assesses a range of sustainability criteria, including land use, ecology, transport, resilience and pollution.

Net-zero Energy Futuristic Home Designs Showcased In Dubai

The second Solar Decathlon Middle East (SDME) for universities to design, build and operate sustainable solar-powered houses saw the submission of smart and sustainable designs to turn a traditional home in the Middle East and North Africa (MENA) region into a technological oasis with power efficient and water-saving features. The second SDME was organised by the Dubai Electricity and Water

Solar Decathlon Middle East 2021 transforms traditional house design into smart and sustainable oasis

Authority (DEWA) under the patronage of H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council.

"Hosting both editions of SDME, for the first time in the MENA region in Dubai is a clear indication of Dubai's position as a city of the future adopting the latest sustainable solutions and offers the world's youth a safe space to innovate," said Saeed Mohammed Al Tayer, MD & CEO of DEWA.

He noted that SDME is an essential addition to the sustainable development process thanks to its smart and sustainable homes that leverage solar energy, the latest disruptive technologies and 4IR solutions. These designs are also highly efficient in terms of cost, energy, and water consumption, which contributes to preserving

SDME features innovative designs for smart and sustainable houses that harness digital technologies to enhance energy efficiency

natural resources for current and future generations and enhancing the UAE's position as a key platform for innovators and creative minds.

Team SCUTxCCSIC from the South China University of Technology submitted a sustainable design inspired by traditional houses in the region. The team developed the traditional MENA patio into a smart patio that adapts to weather changes, maximising the ability to harness sun, wind, and water to provide residents with power and water, with reduced consumption and maximum energy efficiency. Solar photovoltaic bifacial panels are used to shade the house from direct sunlight, capture and store solar power from the roof to generate electricity. The team also added technologies to treat rain and dirty water to reuse it for irrigation of the patio.

Team ESTEEM, of Heriot-Watt University in the UK and Heriot-Watt University in Dubai, presented a net-zero energy home that adopts smart technologies, AI integration and intelligent cooling solutions. This allows complete control of their digital home and encourages environmentally-friendly behaviour.

The team used 3D printing technology, construction bricks made entirely from recycled waste products, and natural, recyclable materials enhanced by smart technology to reduce energy use. The design is highly energy-efficient and includes a wind tower and bifacial photovoltaic solar panels to generate electricity. Moreover, the design utilises a grid system that allows the modification of the home according to the needs of its residents.

The second edition of the competition attracted eight teams from 12 universities.

Oman's Sustainable Projects Showcased At Expo 2020 Dubai

The Sustainability Forest at Oman Pavilion in Expo 2020 Dubai hosts Omani projects of sustainable nature.

Among the projects showcased at the Oman Pavilion is the Million Date Palm Plantation Project, which has 11 farms so far that are spread in different regions of the Sultanate of Oman. Each of these farms are home to between

10 to 100,000 palm trees. The project aims to achieve food security and economic growth.

The Sustainability Forest at Oman Pavilion also hosted a cooperation project between the Sultanate of Oman and the UAE. The two countries joined forces to harvest the power of wind to produce sustainable electricity.

Set in Harweel, Oman, the Dhofar Wind Power Project is the first large-scale wind project in the Arabian Gulf region. This project is a collaboration between Abu Dhabi Future Energy Company (Masdar) and the Rural Areas Electricity Company of Oman (Tanweer).

According to ONA, Madinat Al Irfan, a sustainable urban development by Oman Tourism Development Company (Omran) is coming to life in the city of Muscat. Situated in close proximity to the new international airport and enjoying excellent transport connections to the capital area and beyond, Madinat Al Irfan will become the gateway to Oman; creating a new downtown for residents, for business and for visitors.

The Oman Pavilion at Expo 2020 Dubai showcases the Arabian Leopard, a rare breed of tigers, and the first Botanic Garden in Oman and the largest in the Arabian Peninsula. The garden exclusively hosts the country's native plants. The garden houses unique plants, landscapes and cultural traditions of Oman.

The garden is currently under construction and when it opens, it will showcase all the native plant species of Oman in a series of carefully created naturalistic habitats from the dry deserts to the rich monsoon cloud forests.

Masdar City-developed 'Smart Garden' Woos Visitors At Expo 2020 Dubai

An innovative solution that enables people to grow healthy produce at home, took centrestage at an event hosted under the Programme for People and Planet at Expo Dubai 2020.

The app-controlled HydroArtPod smart garden has been developed by Masdar City-based AlinePate, a tech start-up being incubated at the

region's first sustainability-focused startup accelerator, The Catalyst. The automated device requires minimal user effort, while reducing the reliance on chemicals, packaging, and transportation in the supply chain, ensuring a steady supply of fresh produce with minimal food waste.

Visitors to the event were able to learn just how easy it can be to grow healthy fruits and vegetables at home.

Start-up founder and CEO Richard Pate also took part in an onstage panel discussion on growing better food and how this can positively impact the environment.

Cinar Kurra, CEO, The Catalyst, said, "As the region's first sustainability-focused start-up accelerator, the role of The Catalyst is to encourage and stimulate entrepreneurship in Masdar City. The Catalyst is a joint venture with BP and via the funding, training and mentorship of innovative startups, we actively accelerate the development of viable technology businesses and catalyze innovation and entrepreneurship while providing fundamental support to early lifecycle startups."

HydroArtPod inventor, Aline Pate said, "My inspiration for designing the HydroArtPod was to help every home be able to make a little difference toward their health and minimise our impact on the environment. As a mother myself I also think it's so important to raise awareness among younger generations about healthy food production and the environment."

HydroArtPod users can also grow edible and decorative flowers easily at home.

Abu Dhabi Plans First Waste-to-Sustainable Aviation Fuel Plant In Middle East

Abu Dhabi Waste Management Centre (Tadweer) has signed a Joint Project Development Agreement (JPDA) with Etihad Airways to facilitate the development of the first Waste-to-Sustainable Aviation Fuel (WtF) plant in the Middle East Region.

Upon completion, the plant will have the potential to transform up to 4 million tonnes of Municipal Solid Waste (MSW) every year into Sustainable Aviation Fuel (SAF).

Abu Dhabi's state-owned airline Etihad and local waste management firm Tadweer have agreed to develop the region's first waste-to-biojet plant

The SAF produced from the WtF plant in Abu Dhabi would be compliant to International Civil Aviation Organisation's (ICAO) standards for decarbonisation of the aviation sector. The plant will help Abu Dhabi to divert 75 percent of municipal waste away from landfills. The Waste-to-SAF plant is expected to reduce CO2 emissions by about 1 million tonnes annually – equivalent to the removal of more than 200,000 cars from the road.

Dr. Salem Al Kaabi, Director General of Tadweer, said, "This agreement aligns with Tadweer's efforts to divert waste from landfills and harness technological innovations that are commercially viable to address the challenges posed by the treatment of large volume of waste."

The plant will transform up to 4mn t/yr of municipal solid waste into 140mn gallons of sustainable aviation fuel

"This collaboration between Tadweer and Etihad Airways reinforces Abu Dhabi's, and the broader UAE's, commitment to net-zero targets that puts UAE on a credible path to zero out emissions by mid-century," Dr. Salem added.

Mohammad Al Bulooki, Chief Operating Officer, Etihad Aviation Group, said, "To truly make sustainability a reality in aviation we need to look at the biggest contributing factor, fuel, where sustainable aviation fuel is required to meet the net zero target.

"Through this agreement, four million tonnes of waste will be converted into 140 million gallons of SAF, representing a significant portion of our annual fuel requirement. This collaboration is just the first step towards a much broader engagement within Abu Dhabi to create a hub for producing SAF and synfuels."

Abu Dhabi's waste to SAF facility will make the emirate of Abu Dhabi the leader in the Middle East region to process municipal solid waste and commercial and industrial waste, to produce Sustainable Aviation Fuel and be on the world map of SAF producers meeting the highest specifications and standards adopted globally.

The proposed WtF plant would be developed through joint procurement by Tadweer and Etihad Airways. Etihad Airways would be entering into a long-term SAF offtake agreement and Tadweer as the provider of feedstock waste under a long-term waste supply agreement. Private sector participants would be invited to submit proposals to design, build, finance, operate and maintain the facilities, which will use advanced commercially proven technology to convert municipal solid waste into Sustainable Aviation Fuel.

'Zayed's Lights' At Expo 2020 Dubai Highlights Changes In Polar Regions

In celebration of Antarctica Day on 1 December 2021, the Environment Agency - Abu Dhabi (EAD) brought together people from the UAE who have visited the world's polar regions, Antarctica and the Arctic, at Expo 2020 Dubai for the first time, during the UAE's 50th Golden Jubilee week.

The purpose of the gathering was to share

Stories of historic UAE Antarctic and Arctic expeditions from the previous 50 years shared to mark Antarctica Day

stories on historic UAE Antarctic and Arctic expeditions from the previous 50 years, discuss the importance of the polar regions to the UAE in respect to climate change, and plan future environmental collaborations, in celebration of the UAE's 50th Anniversary.

Hosted by EAD, the scientific research organisaton and environmental regulator for Abu Dhabi, in collaboration with Hamour House at Expo 2020 Dubai, around 35 individuals from the UAE who have been to Antarctica, or the Arctic attended the event. Of these 35 individuals, 28 had been on expeditions with Sir Robert Swan, the first person to walk to both the North South Poles, as part of his 'Climate Change Leadership on the Edge Programme'.

On February 23, 2018, three EAD employees boarded a ship, the Ocean Endeavour, to voyage

The Arctic is warming at a rate of almost twice the global average and there has been a decrease in summer Arctic Sea ice area of around 40 per cent since 1979

to Antarctica as part of the Climate Force International Antarctic Expedition 2018. The team, coined as Team Zayed, joined teams from over 20 countries for two weeks to experience the impact of global warming on the continent.

They put on the Zayed Solar Lights Show and lit up the night skies using 100 solar lights, sending a message of unity, hope and action on Climate Change. The team also wrote the names of UAE leadership and inspirational environmental personalities.

To symbolically raise awareness on the importance of climate change action, in replicating the initiative of EAD's Team Zayed in Antarctica the attendees at the Expo event wrote the following words: "Antarctica, Climate Change, Dubai Expo, UAE 50 Years and COP 28" using 50 individual solar lights, reflecting 50 years of the UAE, which lit up the Terra Auditorium within the Sustainability Pavilion at Dubai Expo.

The attendees reiterated key messages from the most recent Intergovernmental Panel on Climate Change Report, such as: "It is unequivocal that human influence has warmed the atmosphere, ocean and land, and that widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.

"The Arctic is warming at a rate of almost twice the global average and there has been a decrease in summer Arctic Sea ice area of around 40 per cent since 1979; Temperatures on the west coast of the Antarctic Peninsula have risen by nearly 3 degrees in the past 50 years, five times faster than the global average. In 2020 a record-high temperature of 18.3 degrees Celsius was registered in Antarctica."

The Right Step Forward: Bristol, UK

Located in the Southwest of England with a population of approximately 694,000, Bristol is one of England's greenest cities. Bristol was the first British city to be named the European Green Capital in 2015 - an award that celebrates and promotes innovative responses to urban environmental challenges.

Bristol impressed with its commitment to clean transport and energy, and its role as a low-carbon hub of industry. The city influenced international policy at the UN climate change summit in Paris in 2015, sharing best practice and presenting ambitious sustainable action.

Bristol focuses on energy, food, nature, and transport amongst others to make it a healthier and happier city.

Not only is it the UK's first Cycling City, Bristol is also a Fairtrade City which sees it trading fairly with nearly five million workers in 58 developing countries. To further boost its green credentials, Bristol is home to the Soil Association and Sustrans, the sustainable transport charity behind the development of the National Cycle Network.

Food

Bristol was awarded the Gold Sustainable Food City status in May 2021 by the UK's independent, Sustainable Food Places Board, recognising the positive work undertaken across the city's food

Bristol is UK's first Cycling City and also a Fairtrade City which sees it trading fairly with nearly five million workers in 58 developing countries

system, seeking to solve social, environmental, and economic issues.

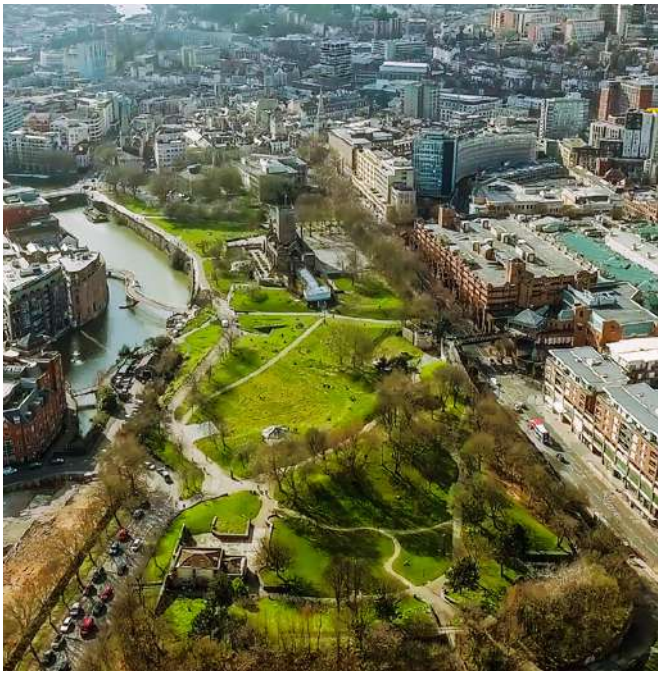
This followed Bristol's city-wide Going for Gold campaign, which launched in spring 2019.

Bristol was awarded Gold for of its innovative approach and continuing commitment to:

- reduce food waste
- grow the city's good food movement
- address food inequality
- increase urban food growing
- improve catering and procurement
- tackle the impacts of our food system on public health, nature, and climate change

Some of the initiatives introduced by the city include:

- Grow Wilder, an education centre and growing site empowering people to bring about positive change through sustainable food growing and wildlife-friendly practices.
- The efforts taken up by the University of West of England and the University of Bristol to take action to transform institutional food culture, including sustainable sourcing, redistributing surplus food, plant-based menus, and gardening projects.
- Bristol Bites Back Better, a prominent campaign established in the wake of the first COVID-19 lockdown, sought to empower Bristolians together to create a food system that would nourish the city into the future and aimed to draw out and amplify voices from the diverse communities within Bristol. The outcomes of that campaign so far include more than 160 blogs and eight short films from diverse voices across the city!
- The Children's Kitchen, a programme established across the city to explore eating and growing fresh produce with children.



Energy

Bristol's energy scene has a real sense of community, supporting local people with clean renewable energy. The Green Capital has created a lot of momentum in the region and now the city has become a hub for energy companies and groups such as Bristol Energy Cooperative, Bristol Community Energy Fund and Centre of Sustainable Energy.

Founded in 2007, Bristol Green Capital Partnership is a unique partnership of over 1,000+ member organisations who have committed to working towards Bristol becoming a sustainable city with a high-quality of life for all. It was instrumental in helping Bristol win the European Green Capital Award, pulling together the work, impact, and expertise of the city's hundreds of grassroots projects, businesses, community organisations and two universities. Bristol also aims to reduce carbon dioxide emissions by 80 per cent by 2050.

It's also the only city which has an energy company owned by the local council – Bristol Energy, the first energy company in the country to offer 100 per cent green electricity and reinvest its profits back into local communities.

Transport

Bristol is a well-connected city that enables people to move around efficiently with increased transport options that are accessible and inclusive to all.

In 2008 Bristol was named Briton's first 'cycling city'. There was a 94 per cent increase in cycle commuters between 2001 and 2011, and the Council's adopted a "cycling manifesto" in 2015,

Bristol was awarded the Gold Sustainable Food City status in May 2021 by the UK's independent, Sustainable Food Places Board

pledging to spend £35 million by 2020 with the aim of boosting the percentage of journeys made on two wheels from 8 percent to 20 percent.

A 2010 Cycling Plus survey ranked Bristol as the "number one cycling city", and the city also came out on top in terms of cycle parking per head of population. Bristol was lauded as a cycle friendly city and Bristol's 'cycle friendly' streets were a contributing factor to it being awarded European Green Capital for 2015.

Sustrans, a leading UK charity championing sustainable transport has made a huge difference in the city of Bristol. Sustrans work with the community, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in. Their vision is that four out of five local journeys are to be made by bike, foot or public transport.

The city has a Good Transport Plan supported by Bristol Green Capital which has set out a clear vision for the future of sustainable travel.

Nature

Parks and green spaces are integral to the cultural life of the city of Bristol – they provide breathing space and are crucial to the successful functioning of urban communities. The Parks and Green Space Strategy in Bristol aims to contribute to the wider planning of the urban fabric of the city by providing a range of good quality parks and green spaces, which play a significant role in meeting the needs of balanced and sustainable communities and enhancing the urban landscape, to help make Bristol a green and sustainable city.

Dubai Achieves World Record For First 3D-Printed Laboratory

Dubai Electricity and Water Authority (DEWA) has achieved the Guinness World Records title for the first 3D-printed laboratory in the world.

The record was awarded for DEWA's Robotics & Drone laboratory, housed within the Research & Development (R&D) Centre at the Mohammed bin Rashid Al Maktoum Solar Park.

Saeed Mohammed Al Tayer, MD and CEO of DEWA, received the certificate from representatives of Guinness World Records.

"At DEWA, we aim to promote innovation and adopt the latest Fourth Industrial Revolution technologies, including 3D printing. Our efforts in this regard support the Dubai 3D Printing Strategy which aims to exploit this promising technology for the service of humanity and promote the status of the UAE and Dubai as a leading hub for this technology by 2030. DEWA's Robotics and Drone laboratory is the first building in the UAE to be fully printed onsite, and the first such 3D-printed lab in the world," Al Tayer said.

"As a member of the 3D Printing Strategic Alliance, DEWA invests in 3D printing as an innovative solution for building prototypes and spare parts for the production, transportation, and distribution divisions," he added.

Al Tayer emphasised that Dubai encourages construction in 3D printing as it reduces time and cost, thus advancing the economy and protecting the environment by reducing conventional construction waste.

Waleed Bin Salman, Executive Vice President of Business Development and Excellence Sector at DEWA, pointed out that DEWA's R&D Centre at the Solar Park supports 3D printing to produce equipment capable of withstanding high temperatures and harsh climates. DEWA is the first organisation in the GCC to deploy Markforged Metalx 3D printing based on wire/filament. This technology is highly accurate; reduces time and cost, improves efficiency, productivity and enhances innovation.

‘Clean Up The World’ Volunteers Collect More Than 3000kg Of Waste

As part of the "Clean Up The World" campaign, under the slogan “Supporting Local Environmental Action to Make a World of Difference,” field cleaning activity volunteers collected more than 3,000 kilograms of general waste. The event witnessed the participation of more than 1,000 volunteers belonging to many government and private agencies, in addition to many volunteers from

the community.

The community volunteering campaign aimed to enhance social responsibility among the volunteers on the importance of cleaning the public places and maintaining the general aesthetic and civilized appearance of the emirate of Dubai.

The tasks and activities of the participating volunteers, under the supervision of the Dubai Municipality officials, varied from collecting general waste from the specified sites, as well as providing all the requirements for field work and tools for storing recyclable materials for future use.

During the event, the Municipality also organized a series of workshops and awareness lectures in cooperation with the private sector highlighting the importance of segregating waste from the source and the damages of plastic waste and how to benefit from it.

The Municipality emphasized the importance of raising the level of sustainable environmental thought and creating awareness among various individuals and segments of society, as well as enhancing their role in protecting and developing the environment, which is everyone’s responsibility. It also stressed on the importance of environmental volunteer work in maintaining the cleanliness of the city and its environment.

Dubai Municipality is keen on creating continuous awareness to promote the sustainable development goals as well as raising the indicators of community participation in environmental work, with the aim of contributing to achieving the desired environmental goals.

AUS Collaborates In Building Of A Solar-Powered Home

A team of engineering students and faculty at American University of Sharjah (AUS) provided water management and net-zero energy solutions to a low-cost, sustainable and solar-powered home built for the Second Solar Decathlon Middle East (SDME) competition.

Designed and built, in collaboration with a team of UAE and US universities, the eco-friendly

The American University of Sharjah Engineering team provided water management and net-zero energy solutions to a low-cost, sustainable and solar-powered home built for the Second Solar Decathlon Middle East (SDME) competition

home is over 1000 sq ft and was assembled at the SDME competition site at Mohammed bin Rashid Al Maktoum Solar Park in Dubai.

Coming together as team Desert Phoenix, students and faculty from AUS, the Higher Colleges of Technology (HCT), American University in Dubai (AUD), and University of Louisville in the United States, competed with seven other teams from around the world.

The competition, organized by DEWA, is one of the largest solar decathlon competitions in the world designed to involve the youth in sustainable development processes.

"Desert Pheonix has considered the UAE's hot weather conditions in its design while also focusing on protecting the environment. The key focus is on building a sustainable environment and infrastructure," said Dr. Mostafa Shabaan,

The AUS team designed and implemented the plumbing, greywater collection and treatment systems, and the solar energy usage and advanced energy storage system

Associate Professor in Electrical Engineering and AUS project team leader.

The two-storey house consists of two bedrooms and two bathrooms supplied with multifunctional furniture, and a spacious kitchen equipped with energy-efficient smart appliances. Its mashrabiya facade provides optimum daylighting in accordance with the requirements of each space inside the house. The solar panels installed on the roof ensure that the house is powered with a net-zero energy from the DEWA grid. The house was built using sustainable and recycled materials, considering ease of assembly, disassembly, and transportation.

The AUS members of the team designed and implemented the plumbing, greywater collection and treatment systems, and the solar energy usage and advanced energy storage system. The participation of civil and electrical engineering students was particularly vital for the design of the electrical systems, photovoltaic modules, battery storage, and plumbing and greywater systems, as well as the installation and testing of operations.

Members of the multidisciplinary AUS team were Dr. Shabaan; Dr. Mohammed Mortula, Professor in Civil Engineering; Dr. Kazi Fattah, Associate Professor in Civil Engineering; two master's students and 10 undergraduate students from the College of Engineering (CEN).

Dr. Shabaan noted the importance of engaging students in such projects. "This is a great opportunity for students to apply their theoretical knowledge in the practical field and to hone many of the soft skills needed in the job market," he said.

Word Scramble

LNADEATWS

OGRUHDT

TOUDIRBEVISI

IAGRNFM

SETSOFR

DOOFLS

FANUA

TIUNRPEROSAE

Answers: 1. Forests 2. Biodiversity 3. Floods 4. Drought 5. Farming 6. Preservation 7. Wasteland 8. Faunaaa

Word Search

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

OCEANS

INDUSTRIES

CHARITY

RECYCLE

VEGANISM

PRODUCE

REDUCE

REUSE

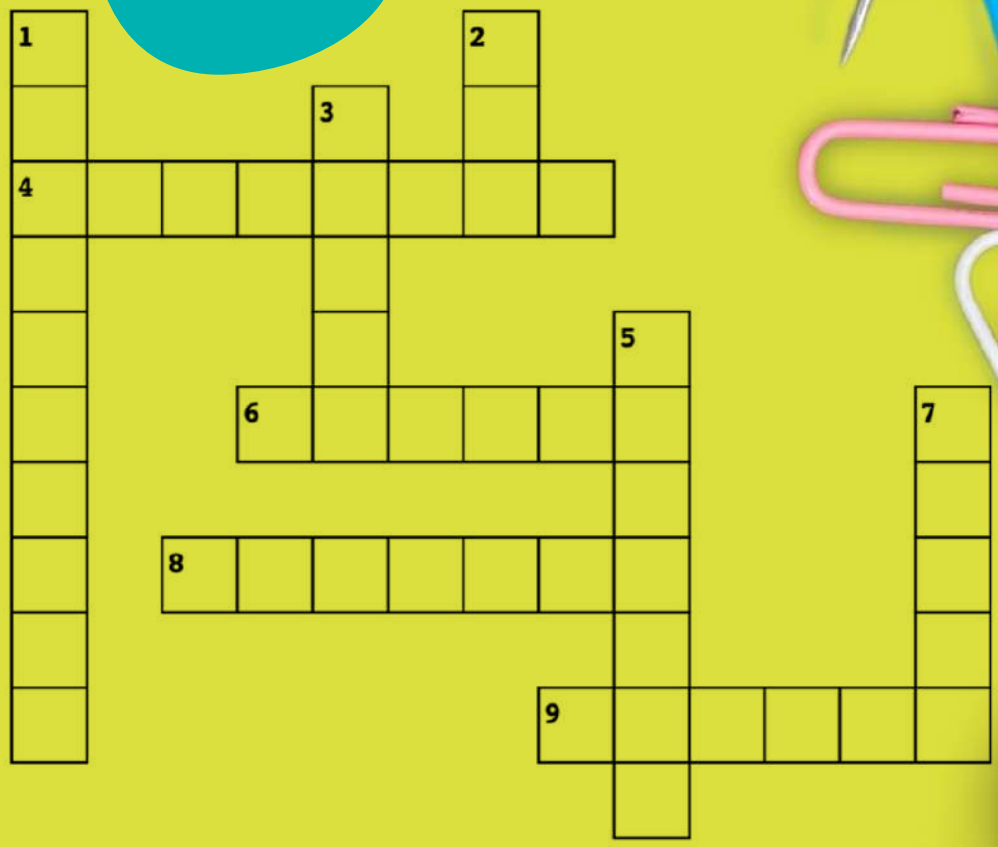
DIVERSE

SUSTAINABLE

POLICY

ARCTIC

Crossword Puzzle



Across

4. The branch of medical science that studies viruses and viral diseases
6. A severe shortage of food resulting in violent hunger and starvation
8. A shortage of rainfall
9. Recovery or preservation from loss or danger

Down

1. The system or form by which a community or other political unit is governed
2. An atmosphere in which visibility is reduced because of a cloud of some substance
3. The plants of a particular region or geological era
5. Atmospheric conditions
7. Any materials unused and rejected as worthless or unwanted

Answers: 1. Government 2. Fog 3. Flora 4. Virology 5. Weather 6. Famine 7. Waste 8. Drought 9. Rescue

WORD OF THE DAY:

FOOD INSECURITY

Food insecurity is, simply put, a lack of access to affordable and nutritious food. Food insecurity may be long term or temporary. It may be influenced by a number of factors including income, employment, race/ethnicity, and disability. The risk for food insecurity increases when money to buy food is limited or not available.

Food insecurity is deceptive – and it's a much bigger problem than we often think. It can affect people who live above, as well as below, the poverty line.

You may have equal access to the same grocery stores as someone in a different financial situation, but most often you cannot or do not always make the same choices. For instance, people facing poverty are often less likely to purchase the healthiest, most nutritious options for a number of reasons like lack of prep time, or simply that cheaper, more processed options are more affordable.

But the negative impact is bigger than simply being hungry: eating nutritious food gives children the mental strength they need to improve their day to day activities. Children from food insecure households are more likely to be in poor health. This affects their ability to learn and to grow. For many, there are life long implications where a child may never reach their full potential as a result of poor nutrition during their formative years – and that affects us all.

COVID-19 impacts led to severe and widespread increases in global food insecurity, affecting vulnerable households in almost every country, with impacts expected to continue into 2022 and possibly beyond.

INTERNATIONAL VOLUNTEER DAY - DECEMBER 5TH

The United Nations Volunteers Programme (UNV) coordinates International Volunteer Day on 5 December every year to recognize and promote the tireless work, not just of UN Volunteers, but of volunteers across the globe. Every day, volunteers dedicate time and effort to ensure the inclusion of those often left behind, drive climate action and advance the Sustainable Development Goals (SDGs).

When people are encouraged to get involved in solving problems, the solutions are more likely to be feasible and lasting. Volunteers engage communities and build a people-centric movement to help build a better and safer future for us all. Volunteering is giving, sharing, standing by others, supporting causes you care about and creating a better future for everyone.

For the generations of TOMORROW, we must take responsibility for the changes needed to build a better future NOW. Encouraging, recognising and promoting volunteerism is an important part of creating a more equal and inclusive future for communities and worldwide.

The theme for International Volunteer Day 2021 is: Volunteer now for our common future

WORLD SOIL DAY - DECEMBER 5TH

The World Soil Day (WSD) is held annually on 5 December as a means to focus attention on the importance of healthy soil and to advocate for the sustainable management of soil resources.

Salts are present naturally in soils and water, and they move freely through the soil. Naturally saline soils may support rich ecosystems, but natural processes such as droughts and human activities, especially improper irrigation, can increase how many salts are in soils, a process that is called salinization. Soil salinization breaks down our soils and reduces their ability to help our food grow.

Soil salinization and sodification are major soil degradation processes threatening ecosystem and are recognized as being among the most important problems at a global level for agricultural production, food security and sustainability in arid and semi-arid regions.

Salt-affected soils have serious impacts on soil functions, such as in the decrease in agricultural productivity, water quality, soil biodiversity, and soil erosion. Salt-affected soils have a decreased ability to act as a buffer and filter against pollutants. Salt-affected soils reduce both the ability of crops to take up water and the availability of micronutrients. They also concentrate ions that are toxic to plants and may degrade the soil structure.

World Soil Day 2021 (#WorldSoilDay) and its campaign "Halt soil salinization, boost soil productivity" aims to raise awareness of the importance of maintaining healthy ecosystems and human well-being by addressing the growing challenges in soil management, fighting soil salinization, increasing soil awareness and encouraging societies to improve soil health.

Facts about World Soil Day:

- Soil salinization takes up to 1.5 million ha of farmland per year from production.
- The annual loss in agricultural productivity caused by salinization is estimated to be of US$ 31 million.
- It is estimated that there are more than 833 million hectares of salt-affected soils around the globe (8.7% of the planet).

What can you do to help?

Things to Do...

- [ ] Use both sides of a sheet of paper!
- [ ] Use less tissues!
- [ ] Take public transport
- [ ] Carry a water bottle around!
- [ ] Switch off all plugs when not in use

COLOUR ME!

Sweden To Host World Environment Day 2022

The Government of Sweden will host World Environment Day 2022 in partnership with the UN Environment Programme (UNEP).

The year 2022 marks 50 years since the first United Nations Conference on the Human Environment – the 1972 Stockholm Conference that led to the creation of UNEP and designating June 5 every year as World Environment Day.

World Environment Day 2022 will be held under the theme 'Only One Earth', highlighting the need to live sustainably in harmony with nature by bringing transformative changes – through policies and our choices – towards cleaner, greener lifestyles. Only One Earth was the motto for the 1972 Stockholm Conference; 50 years on, the motto holds true - this planet is our only home, whose finite resources humanity must safeguard.

Minister for Environment and Climate and Deputy Prime Minister of Sweden Per Bolund said: "As a proud host of 2022 World Environment Day, Sweden will highlight the most pressing environmental concerns, showcase our country's initiatives and the global efforts of addressing the climate and nature crises. We invite the global community across the world to join in the important discussions and celebrations."

"In 2022, we hope to see a world turning the corner on the worst of the COVID-19 pandemic. But we do so with the knowledge that we continue to face the triple planetary crises of climate change, nature loss, and pollution," said Inger Andersen, Executive Director of UNEP.

World Environment Day takes place every year on 5 June. Over the years, it has grown to be the largest global platform for environmental public outreach and is celebrated by millions of people across the world.

In addition, in 2022, the Government of Sweden will host Stockholm+50, an international meeting to commemorate the 50th anniversary of the 1972 Stockholm Conference and to accelerate implementation to deliver on the 2030 Agenda and achieve sustainable recovery from COVID-19.

FAO-IRENA Report On Renewable Energy For Agri-Food Systems Launched

The production, distribution and consumption of food uses about a third of the world's energy and is responsible for about a third of global greenhouse gas emissions, making its decoupling from fossil fuels a priority in the fight against climate change.

A new report launched on the sidelines of the UN's Climate Change Conference (COP26) in Glasgow explores the relationship between the world's agri-food systems and renewable energy and argues that solutions are within our grasp.

Report tables recommendations for decision makers in pursuit of Sustainable Development Goals and the Paris Agreement

Solar irrigation, for example, is being widely adopted to improve access to water, enabling multiple cropping cycles and increasing resilience to changing rainfall patterns. In India, the use of solar irrigation pumps has raised farmers' incomes by at least 50 per cent compared to rain-fed irrigation; in Rwanda, smallholder farmers' yields have grown by about a third.

The report, Renewable energy for agri-food systems – Towards the Sustainable Development Goals and the Paris agreement, is the result of a joint effort between the Food and Agriculture Organization (FAO) and the International Renewable Energy Agency (IRENA).

Feeding the world population is also responsible for about a third of global greenhouse gas emissions, making it a priority in the fight against climate change

"Making sure the agri-food systems continue to meet the world's food demand in a sustainable manner is one of our big challenges today. Achieving food security without fossil fuels while stimulating socio-economic benefits is possible, if we choose action to accelerate the adoption of renewable energy solutions to power the agri-food systems," said Francesco La Camera, Director-General of IRENA.

FAO Director-General QU Dongyu stressed in a video message the importance of making innovative technologies accessible to small farmers. QU was joined for the launch by Francesco La Camera, Director-General of IRENA.

The 89-page report breaks down unhelpful silos between energy and agri-food policies by providing recommendations for decision makers. These include better data collection to guide renewable energy investments, improved access to finance for end users and businesses, and a greater focus on raising awareness and building capacity.

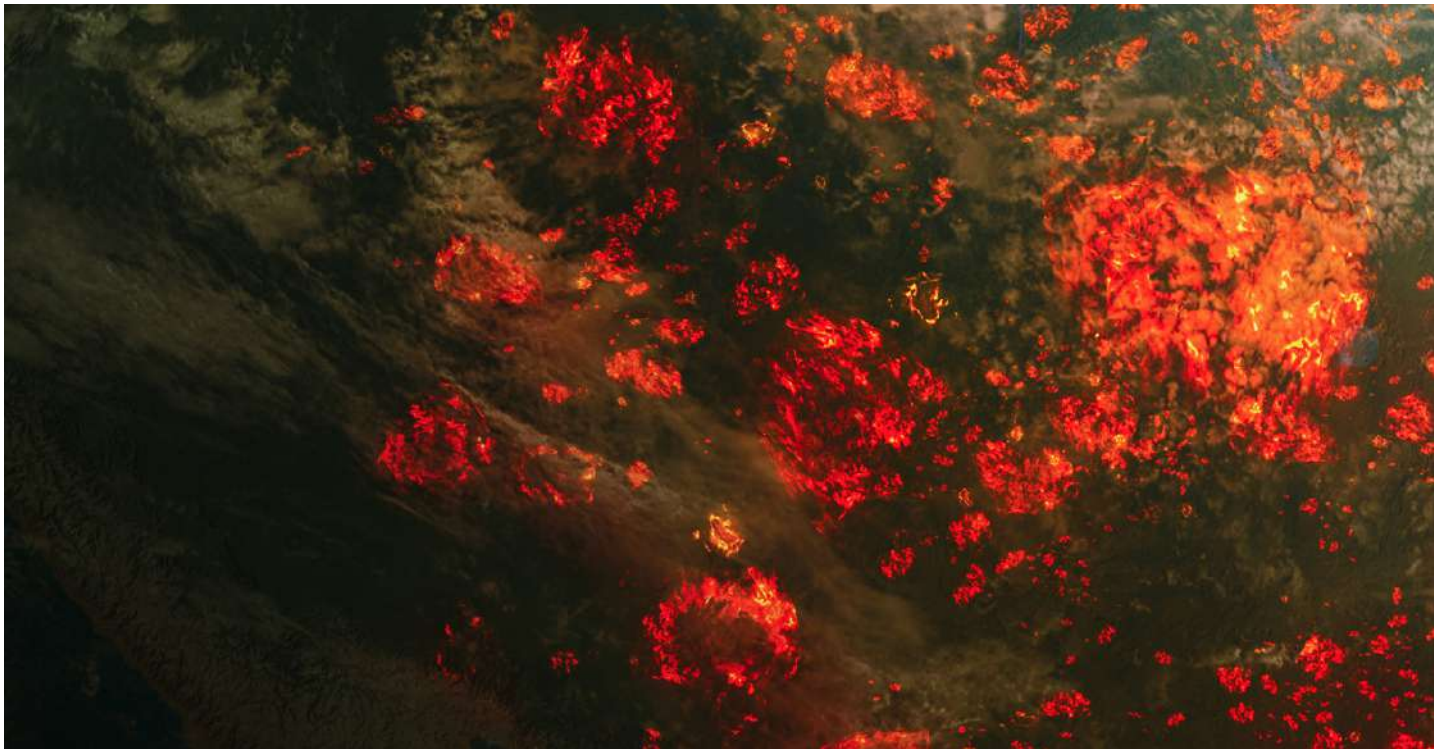
A third of agri-food emissions stem from energy use, and the report comes against the backdrop of a more than 20 percent rise in energy consumption for the production, distribution and consumption of food between 2000 and 2018. That growth has been mainly driven by mechanisation in Asia in the form of irrigation pumps, farm machinery, processing equipment and inputs such as fertilisers.

Energy use in Africa, which hosts around 15 percent of the global population and faces growing food demand, has remained largely constant, accounting for only about 4 percent of global energy consumption in agri-food systems.

UN Issues New Guidance To Address Warming In Cities

The UN Environment Programme (UNEP) has published detailed guidance to help the world's cities address warming, which is occurring at twice the global average rate in urban areas.

Beating the Heat: A Sustainable Cooling Handbook for Cities, prepared with RMI, states that by the end of this century, many cities could



The UN Environment Programme (UNEP) has published detailed guidance to help the world's cities address warming, which is occurring at twice the global average rate in urban areas

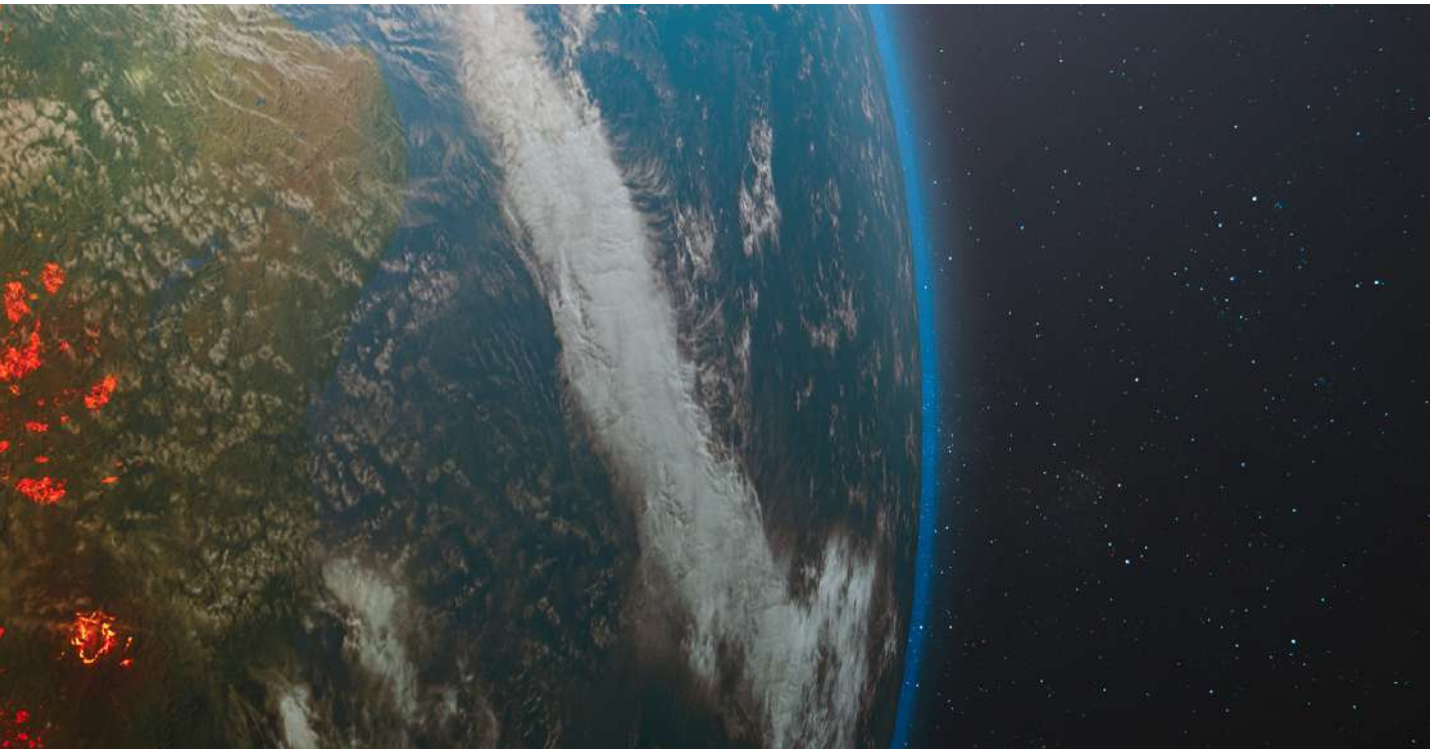
warm as much as 4 °C if GHG emissions continue at high levels. Even at 1.5°C of warming, 2.3 billion people could be vulnerable to severe heat waves.

Launched at the UN Climate Conference (COP26) by the Cool Coalition, UNEP, RMI, the Global Covenant of Mayors for Climate & Energy, Mission Innovation and the Clean Cooling Collaborative, the new guide offers planners an encyclopedia of proven options to cool cities.

"To keep global temperatures from rising by more than 1.5°C, we need to achieve net-zero emissions by mid-century. Sustainable and equitable urban cooling must be a part of cities' efforts to reach net-zero energy targets," said Inger Andersen, UNEP Executive Director.

In outlining the problem, the Sustainable Cooling Handbook for Cities describes how cities are

Overheated cities face disproportionate climate costs due to 'heat island effect'; average city could warm as much as 4°C by 2100



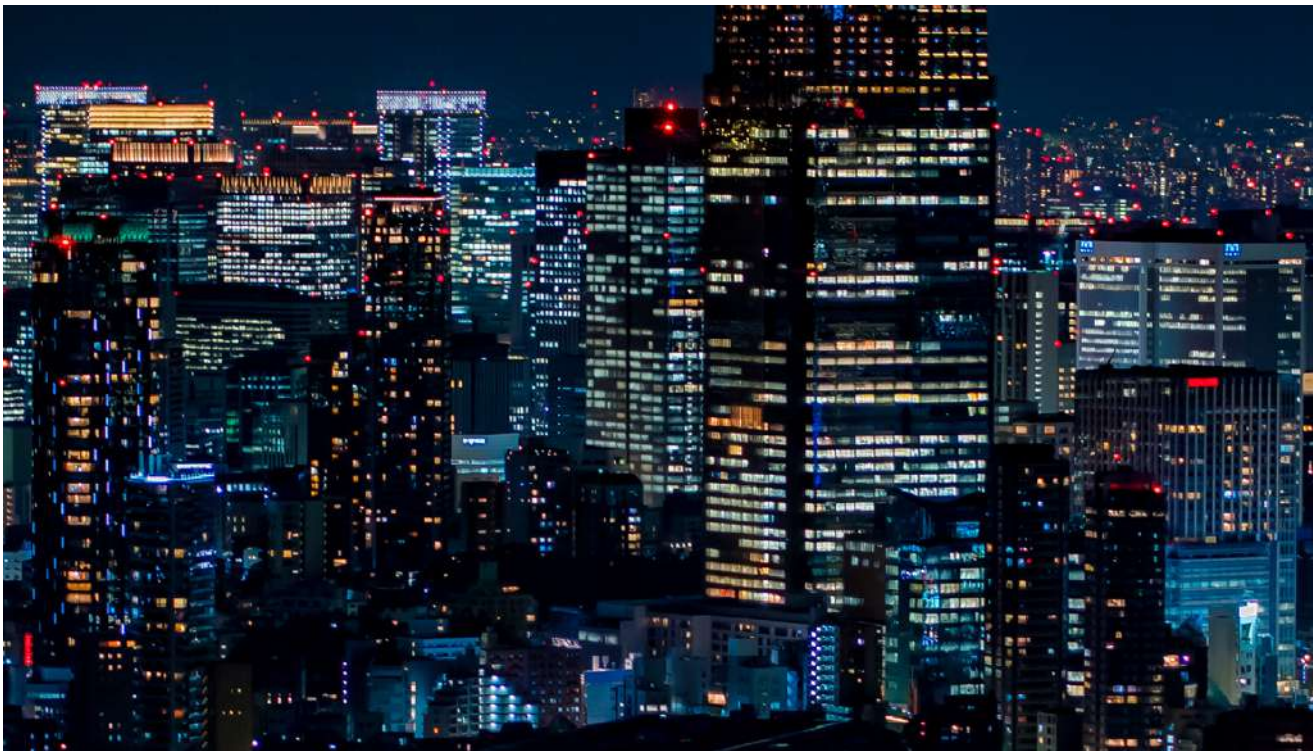
warming quickly due to the "heat island effect", caused by a combination of diminished green cover, the thermal properties of the materials commonly used in urban surfaces, and waste heat from human activities.

The Handbook notes that:

- **Demand for space cooling is predicted to triple** from 2016 to 2050 as millions of households in developing countries acquire air conditioners in the coming decades.
- **Impacts of urban heat are not evenly distributed.** Lower-income communities are usually the most vulnerable to heat, placing the negative impacts of excess warming disproportionately on those least likely to be able to afford or access thermal comfort.
- **The benefits of sustainable urban cooling are far reaching,** including improved health and productivity, reduced power energy requirements, lower emissions, and economic benefits.
- **Cooling strategies can be optimized to work together efficiently.** The report calls for a whole-system approach – that is, reduce heat at urban scale, reduce cooling needs in buildings and serve cooling needs in buildings efficiently – to benefit from integrative effects.

The guide's 80 supporting case studies and examples demonstrate the effectiveness of the strategies outlined and can help cities find an approach best suited to their unique contexts.

Case studies from various cities reveal,
United States: Heat reduction services from urban tree cover in the US are estimated to be worth USD 5.3 billion to USD 12.1 billion annually. Globally, investing USD 100 million annually in



street trees would give 77 million people a 1°C reduction in maximum temperatures on hot days.

Seoul, South Korea: An effort to restore the Cheonggyecheon stream that runs through the city replaced 5.8 kilometres of elevated expressway covering the stream with a mixed-use waterfront corridor. The waterfront corridor decreased temperature 3.3°C to 5.9°C compared to a parallel road a few blocks away.

Medellín, Colombia: Green corridors were created to restore the geography of the area prior to recent development. From 2016 to 2019, the city created 36 corridors, 18 along major roads and 18 along waterways, covering over 36 hectares. The areas with green corridors have already seen temperature reductions of up to 4°C.

Paris, France: Paris is home of the first and largest district cooling system in Europe. When the water temperature in the Seine River that cuts through city is below 8°C, this water is used to provide "free cooling."

Toronto, Canada: The municipal government implemented the largest lake-source cooling system in the world. Commissioned in 2004, Enwave's 264 MW of refrigeration Deep Lake Water Cooling (DLWC) system uses Lake Ontario's cold water as a renewable energy source.

Guangzhou, China: The municipal government adopted regional centralized cooling as part of a green and environmentally friendly modern urban centre in the core area of the Pearl River New City development. The local environmental temperature in the core area of Zhujiang New Town was reduced by 2-3°C compared to using distributed cooling systems.

Paving The Way For Sustainable Desert Farming In The UAE

Silal, Abu Dhabi's new Agritech and fresh produce company, has reached an agreement with Red Sea Farms to apply advanced agritech solutions that help farmers grow crops in greenhouses, reducing water use by up to 95 per cent and maximising sunlight.

His Excellency, Eng. Jamal Salem Al Dhaheri, CEO of Silal, and Ryan Lefers, Co-Founder and

Chief Science Officer of Red Sea Farms signed the agreement at a ceremony on the sidelines of the first edition of the Abu Dhabi Agriculture and Food Security Week.

As part of the agreement, Red Sea Farms will install their cooling systems in Silal's contracted farms, to compare them with the current practice of cooling greenhouses and assess the benefits of Red Sea Farms' technologies based on water and energy efficiency, yield improvement, climate control performance, and commercial viability. Global Ventures, a UAE-based venture capital firm and an investor in Red Sea Farms, is funding the project.

His Excellency, Eng. Jamal Salem Al Dhaheri, CEO of Silal said: "At Silal, we are keen to work with our partners and evaluate the latest agritech solutions to boost technology-enabled production of local fresh produce and reduce impact on natural resources such as water.

"Minimising dependence on fresh water to cool greenhouses remains one of the challenges facing farmers and crop growers in Abu Dhabi, and this agreement reiterates our commitment to empowering our contracted farmers and introducing them to the new technologies that increase their sustainability and profitability. We look forward to building a long-term partnership with Red Sea Farms to improve local farmers' energy and water efficiency."

Under this agreement, Silal will use the full range of Red Sea Farms' technologies, which have been specifically designed and developed in the region to enhance desert crop production in challenging environments like the UAE.

Enhancing Children's Rights To A Safe Climate, Clean Air

The UN Environment Programme (UNEP), UN Children's Fund (UNICEF), and UN Human Rights (OHCHR) have jointly launched the Principles and Policy Guidance on Children's Rights to a Safe, Clean, Healthy and Sustainable Environment in the Association of Southeast Asian Nations (ASEAN) Region.

The new policy guidance sets out fundamental

New policy guidance on children's rights aims to enhance children's rights to a safe climate, clean air and a healthy environment free from all types of pollution

principles for realizing children's rights to a safe, clean, healthy and sustainable environment and for putting the best interests of children at the forefront. It provides essential policy guidance for governments, civil society, businesses, the media, and children to implement these principles.

The Principles and Policy Guidance is the result of an 18-month collaboration among the three UN agencies and child, youth, and adult experts from around the ASEAN region.

Dechen Tsering, UNEP Regional Director and Representative for Asia and the Pacific, noted: "The right to a healthy environment is already recognized at the regional level within Article 28(f) of the ASEAN Human Rights Declaration. Nevertheless, the Human Rights Council resolution elevates it to the international level.

Children and youth are key agents of change in tackling the triple planetary crisis, which risks undoing decades of progress fighting for children's basic rights

It formally places the right to a clean, healthy and sustainable environment alongside other universal human rights recognized under international law."

The Principles and Policy Guidance will support the realization of children's rights to a healthy environment across the region. This is vital as children, especially from vulnerable and marginalized backgrounds, are more exposed to and disproportionately impacted by environmental harm, despite being the least responsible for it.

"The climate crisis is a child rights crisis - for far too long children's rights have been ignored in climate and environmental policies," said Debora Comini, Regional Director, UNICEF East Asia and Pacific. "The Principles and Policy Guidance will enable children to speak and participate meaningfully in climate and environmental actions in a safe space - while improving the accountability of states, businesses and other actors who are responsible for a healthy environment."

Almost every child on earth is exposed to at least one form of climate and environmental hazard, shock or stress, affecting their ability to realise the rights guaranteed to them. The climate crisis, pollution and biodiversity loss are threats that will transform childhood and jeopardize a sustainable future for children and future generations globally.

Children and youth are key agents of change in tackling the triple planetary crisis, which risks undoing decades of progress fighting for children's basic rights.

Space Debris

The Zayed International Foundation for the Environment recently held a webinar titled: "Impact of Space Technology on the Earth's Environment".

Prof. Hamid Al-Naimiy, Chancellor, University of Sharjah, and Eng. Salem Al Qubaisi, DG of the UAE Space Agency, explained the benefits of space technology for the environment alongside its many commercial and scientific uses. At the forefront of countries in space exploration and following its interplanetary mission to Mars, the UAE is now aiming to explore Venus.

However, globally, there are serious concerns about increased space activity. A recent McKinsey report states that with 11,000 satellites launched globally till date,

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

and new satellites and space stations continuing to be built, space debris is growing. Currently, there are about 27,000 pieces of debris in orbit and nobody knows all their trajectories or what they might hit and when. This is of great concern now and in the future.

The report states that most of the debris are tiny particles which are more than 10cm in diameter. But the orbital speed makes them dangerous. The International Space Station (ISS) is designed to take hits of debris up to 1cm in diameter, but in May 2021, a 5mm object punched a hole in the thermal covering of its robotic arm. The ISS, also had to manoeuvre repeatedly to avoid larger debris.

Scientists have raised the issue of space debris since the 1960s. The Chinese anti-satellite weapon testing in 2007 and the collision between the Russian satellite Kosmos and the communications satellite Iridium were disastrous releasing more than 5,000 objects in space, said the report. We can expect more such collisions with increased space activity - some can be lethal depending on the orbit and the movement of particles.

Addressing the problem of space debris requires international cooperation to deal with both active and dead satellites, and minor debris that have been tracked or cannot be tracked. The UN recently issued guidelines for long-term sustainability of space activities and the G-7 forum recently called for greater international cooperation to address the problem. We hope to see more serious effort.

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عام الخمسين
YEAR OF THE FIFTIETH
١٩٧١ UAE

عيد وطني خمسين سعيد

نتقدم باسمى آيات التهاني والتبريكات الى
صاحب السمو الشيخ خليفة بن زايد آل نهيان
رئيس الدولة "حفظه الله"

والى صاحب السمو الشيخ محمد بن راشد آل مكتوم
نائب رئيس الدولة رئيس مجلس الوزراء حاكم دبي "رعاه الله"

والى صاحب السمو الشيخ محمد بن زايد آل نهيان
ولي عهد ابوظبي نائب القائد العام للقوات المسلحة

والى سمو الشيخ حمدان بن محمد بن راشد آل مكتوم
ولي عهد دبي رئيس المكتب التنفيذي

واخوانهم اصحاب السمو اعضاء المجلس الاعلى للاتحاد حكام الامارات والى سمو الشيوخ اولياء العهود ونواب الحكام
والى شعب الامارات الكريم

بمناسبة اليوبيل الذهبي والعيد الوطني الخمسين لدولة الامارات العربية المتحدة كل عام وامارتنا الحبيبة بخير

رئيس واعضاء اللجنة العليا لمؤسسة زايد الدولية للبيئة وكافة العاملين بالمؤسسة

مؤسسة زايد الدولية للبيئة
Zayed International Foundation for the Environment

عام الخمسين
YEAR OF THE FIFTIETH
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الإمارات
THE EMIRATES

اليوم الوطني

الإمارات العربية المتحدة

NATIONAL DAY

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