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06

UAE embarks on a new era
of growth and prosperity



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The Future is Now: Toyota's All-New bZ4X
SUV Battery-Electric Vehicle



نرفع أسمى آيات التهاني والتبريكات
إلى مقام صاحب السمو
الشيخ محمد بن زايد آل نهيان
رئيس الدولة "حفظه الله"

بمناسبة الثقة العالية التي أولتها لها أصحاب
السمو أعضاء المجلس الأعلى للاتحاد حكام
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Chairman's Message

Today, the nation enters a new path of development and prosperity, under the leadership of His Highness Sheikh Mohamed bin Zayed Al Nahyan, the new President of the United Arab Emirates.

A statesman who has deep-rooted personal relationships with almost all regional and world leaders, His Highness's vision of inclusiveness has created a conducive environment for investments, and trade and economic relations are poised to grow further. The country's progressive journey towards greatness also gains a boost as it reaffirms its credentials as an industrial powerhouse and accelerates towards becoming one of the fastest growing economies of the world.

Sheikh Mohamed's strategic vision of economic development is bolstering the growth of a sustainable diversified economy and reiterating the UAE's position as an economic, social, humanitarian, and cultural model to be emulated. New international trade agreements are also facilitating investments into the UAE and helping sovereign funds and local businesses expand into other countries.



**Prof. Mohammed
bin Fahad**
Executive Editor

A keen environmentalist and a champion of environmental issues, Sheikh Mohamed's pioneering alternative energy initiatives are setting new global standards and making sustainability and carbon neutrality a way of life in the UAE.

Under the Mohamed bin Zayed Species Conservation Fund, conservationists around the world are being empowered to save the world's most threatened species and fight the extinction crisis. The fund is a platform to support projects focused on all kinds of plant, animal and fungus species, and also recognises leaders in the field of species conservation and scientific research.

We also look forward to seeing the UAE continue its leading role in promoting, deploying and taking innovative climate solutions across the entire energy spectrum as it pushes the global sustainability agenda forward.

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RESEARCH: UAE explores potential of re-using food waste to enrich manufactured soils



GREEN CITY

A revolutionary modern-day city:
Curitiba, Brazil



BIODIVERSITY: Build a shared future for all life, urges UN chief



Upcoming events

Bridges to Lisbon: The 2022 United Nations Ocean Conference

Date: June 8

Location: Online and in Nairobi, Kenya

The impacts of plastic production and pollution on the triple planetary crisis of climate change, nature loss and pollution are a catastrophe. Plastic production soared from 2 million tonnes in 1950 to 348 million tonnes in 2017, becoming a global industry valued at US\$522.6 billion, and it is expected to double in capacity by 2040.

The hybrid Summit, on World Ocean, seeks to raise the international community's level of ambition months after Heads of State, environment ministers and other representatives from over 175 nations endorsed a historic resolution at the UN Environment Assembly to end plastic pollution and forge an international legally binding agreement, by the end of 2024.

Behavioural science for sustainable change, youth acting for climate

Date: June 10

Virtual event

This session will present UNEP's innovative work on inspiring sustainable behaviour change among young people globally to encourage greener universities and societies. Behavioural science experts will share progress made through the implementation and measuring the impact of nudges on university campuses as part of the Little Book of Green Nudges initiative. Additionally, UNEP will also share their work with gaming companies to integrate green activations into games through the Playing for the Planet Alliance.

Life Cycle Initiative 2002-2022

Date: June 23

Virtual event

Under the theme, Speeding up the transition to Sustainable consumption and production with Life Cycle Approaches, the webinar promotes life cycle knowledge, revealing the unintended trade-offs between circular approaches' social, environmental, and economic impacts. This makes life cycle thinking essential for public and private decision-makers to foster progress towards sustainable production and consumption patterns. The webinar focuses on decision-makers at businesses and governments, and everyone interested in how life cycle knowledge can speed up the sustainable transition.

'UAE Embarks On A New Era Of Growth And Prosperity'

The unanimous election of His Highness Sheikh Mohamed bin Zayed Al Nahyan as the President of the UAE reaffirms that the nation is determined to continue an ambitious, future-oriented approach with specific, well-thought-out objectives, wherein the torch is passed across generations to usher in transformative phases, including a knowledge-based economy.



President His Highness Sheikh Mohamed bin Zayed Al Nahyan has played a leading role in the UAE's economic transition and has been spearheading efforts to develop non-oil industries

Over the past five decades, the UAE has established its position as an economic, investment oasis offering promising opportunities to the business community, and topping competitiveness indexes, driven by a proactive foreign policy that has helped position the nation as a leading financial and logistic hub in the region.

With His Highness Sheikh Mohamed becoming President, the UAE leadership is set for the launch of a new phase described by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, as a new birth for the country: "Today, his assumption of the responsibility of the presidency represents a new historical era and a new birth. We look forward to the acceleration of development aimed at consolidating the global sovereignty and

The UAE President's vision is focused on knowledge, innovation and investment in people



pioneering of the Emirates."

This phase will build on past achievements, while continuing to diversify the nation's economy, boost its sustainability, reduce reliance on oil and build active and balanced foreign relations that help achieve the UAE's strategic objectives, launching it into the prosperity phase, which is built around viewing citizens as the true treasure and measure of the country's progress.

Under the leadership of President His Highness Sheikh Mohamed bin Zayed Al Nahyan, the UAE will unswervingly continue to implement its comprehensive strategy and vision to build a sustainable knowledge-based economy that ensures a prosperous future for generations to come.

His Highness's vision is focused on relying on

knowledge, innovation and investment in people, enhancing the role of the private sector as an active partner in the economic landscape, promoting investment incentives, and ensuring more economic diversification, while continuing to maximise utilisation of oil and gas resources and enhancing the nation's ability to produce more renewable and clean energy in the coming decades.

His Highness Sheikh Mohamed's vision stems from the efforts and determination of the late Sheikh Zayed bin Sultan, and the late Sheikh Khalifa bin Zayed Al Nahyan, to tap into new resources and utilise its potential. Within this context, His Highness said during the opening of the 2015 World Governments Summit, "We think and plan for the next fifty years, and for the benefit of next generations, by building a diversified, solid and sustainable economy that



does not depend only on traditional resources and opens promising prospects that contribute to strengthening the foundations and capabilities of the nation."

The UAE Retreat on Post-Oil Phase in 2016, in which His Highness Sheikh Mohammed bin Zayed Al Nahyan and His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, took part, was a key pillar in the UAE's plans for the next decades.

The retreat tackled the then-current state of the UAE economy, and opportunities to develop the vital non-oil sectors in the country and enhance their efficiency to help advance the UAE's global position. It also explored future forecasts of the UAE economy, based on which best government strategies were adopted to transform and create positive change across vital sectors.

In September 2021, His Highness Sheikh Mohamed said in a tweet, "The UAE has succeeded in establishing its status as an economic capital in the region and an ideal business landscape with world-class digital infrastructure, services, security and competitive investment benefits. The launch of our new economic campaign aims to secure the UAE's position as one of the strongest global economies over the next 50 years."

His Highness' vision bolsters continuity in growth to ensure a safe and stable future for the UAE's next generations by enabling them to keep pace with technological advancements and to utilise their capabilities and creativity in the new branches of industry, advanced manufacturing, Artificial Intelligence, space, energy, pharmaceuticals, food industries, and other vital sectors.

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'UAE Leads in Environmental Commitment, Climate Action'

HE Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, has emphasised that for the past five decades, the UAE has placed environmental protection and the conservation of natural resources at the heart of its development strategy and made distinctive contributions to international efforts to tackle climate change.



In her statement on the occasion of World Environment Day, Almheiri said, "In building a better future for us, our children, and the next generations, we must fully recognise that we only have one Earth, one planet. If we fail to protect it today, we will not have a sustainable future tomorrow. Due to the future-oriented vision of its wise leadership, the UAE presents a leading example of environmental commitment and climate action. On World Environment Day 2022, observed on June 5 under the theme 'Only One Earth,' we celebrate our long track record of local and global wins against challenges that threaten our planet's health."

She added that through an integrated framework of laws, strategies, and initiatives that culminated in the launch of the UAE Net Zero by 2050 Strategic Initiative, the UAE leads the region's response to climate change and effectively

participates in stepping up collective climate action.

"At the Ministry of Climate Change and Environment, we are organizing meaningful public engagement initiatives, such as mangrove planting for schools and the public in Umm Al Quwain, and coral planting with the help of amateur divers in Fujairah," Almheiri noted.

Almheiri reaffirmed, "Responsible use of food, water, and energy, planting trees, and implementing the three R's – reduce, reuse, and recycle – to diminish the amount of waste that goes to landfills might all seem simple, trivial steps. But when taken collectively, they can bring about the powerful change we need to achieve our goal of building a better future for the current and next generations."

يوم الدين



نتقدم بأسمى آيات التهاني والتبريكات إلى
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بمناسبة عيد الأضحى المبارك

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UAE Launches Region's First Waste- To-Feed Project

The Middle East's first ever project that recycles food waste and turns it into animal feed, organic fertiliser and oil was inaugurated in Abu Dhabi on May 27 by Mariam bint Mohammed Almhiri, Minister of Climate Change and the Environment.

This is the region's first project that will upcycle organic waste into high-quality products.



Black soldier fly larvae
are fed leftover food and
harvested for animal
feed and organic
fertilizer

The venture by innovative homegrown startup, Circa Biotech, farms black soldier fly (BSF) larvae, fed by food leftovers before being turned into animal proteins, organic fertilisers, and oils.

During a tour of the company's headquarters in Masdar City in Abu Dhabi, the Ministry of Climate Change and Environment (MOCCA) signed a memorandum of understanding (MoU) with Circa Biotech to support the pioneering project.

Speaking at the inauguration, Almhiri said, "This agreement is part of the UAE's ongoing drive to enhance food security and sustainability based on innovation, green development, and climate change mitigation. The project leverages nature-based solutions to address challenges resulting from the accumulation of organic waste. This way, it creates sustainable economic opportunities that strengthen the resilience of

The project leverages nature-based solutions to address challenges resulting from the accumulation of organic waste



our food supply chain while transforming waste from an environmental burden into an economic resource."

She added, "The world is witnessing a rise in capital funding for insect farming companies. In the UAE, we consider support for innovation and R&D a foundation for raising the efficiency of the circular economy model. Circa Biotech's project follows the principles of circular economy by using organic waste and the nutrients it contains as inputs into the feed production process, thus enhancing food security.

"To support industries that need insect proteins, we must draw a roadmap to facilitate the imports of agricultural inputs and enhance related government services. This project will contribute to reducing the carbon footprint of the agricultural sector by producing organic feed and

fertilisers in a sustainable way. In addition, it will divert organic waste away from the landfill and reduce methane emissions resulting from its decomposition."

Mohamed Al Ramahi, CEO of Masdar, said, "As the only planned and approved R&D cluster in Abu Dhabi, Masdar City is strengthening its position as the primary location for some of the world's most cutting-edge sustainability projects.

"With our partner The Catalyst, which is the region's first accelerator for sustainability-focused start-ups, we are delighted to be home to this groundbreaking food waste management project by Circa Biotech, supported by MOCCA. This is an invaluable addition to global solutions that will enhance the agritech sector, and Masdar City looks forward to continuing its role in shaping the sustainable industries of tomorrow."



Haythem Riahi, co-founder and CEO of Circa Biotech, said, "At Circa Biotech, we have developed an innovative process to upcycle food waste into protein-rich animal feed using industrial insect farming.

"It is a commercially viable solution to locally produce animal feed with a highly sustainable process. At a full industrial scale, we plan to produce 22,000 tonnes of animal feed per year."

Circa Biotech's project will initially produce 1.5 tonnes of organic fertiliser per month. At a later stage, the company plans to expand the production, treating 200 tonnes of food waste per day and upcycling it into the food value chain. This will help meet the increasing local demand for livestock feed. It will also curb the dependence on fishmeal in aquaculture, which is witnessing price increases and instability due to limited

supply, with its costs reaching up to 80 percent of expenditure within the industry.

The produced feed is rich in proteins, fats, minerals, and vitamins, and has high nutritional value. The larvae can be harvested every 14 days due to the BSF's short 45-day lifecycle and high fertility. The BSF is considered ideal for feed production, as it does not transmit diseases, does not cause any damage or infestations, and is a non-invasive species.

The BSF are reared in an industrial control system (ICS) environment with sensors that record real-time temperature, humidity, and carbon dioxide levels under well-researched lighting. This model ensures optimal resource use and efficient water consumption and has limited climate change impact and low emissions.



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Barakah Nuclear Energy Plant: Powering UAE's Net Zero By 2050 Strategic Initiative

The Emirates Nuclear Energy Corporation (ENEC) has celebrated the first anniversary of the start of commercial operations at Unit 1 of the Barakah Nuclear Energy Plant, located in the Al Dhafra region of the Abu Dhabi Emirate.

Since April 2021, Unit 1 of the Barakah Plant has generated more than 10.5 Terawatt hours of



Unit 1 of the Barakah Nuclear
Energy Plant delivers significant
wins for energy security and
sustainability in the UAE

clean electricity, powering homes and businesses across the UAE, and enabling businesses to become more sustainable and access ESG funding through clean energy certification. Unit 1 has also prevented the release of more than five million tons of carbon emissions, equivalent to the emissions of more than 1 million cars driven for a year.

The Barakah Plant is leading the largest decarbonization effort in the Arab World and sustainably and securely powering the UAE on its path to Net Zero.

Barakah Unit 2 achieved commercial operations on 24 March 2022, less than a year after Unit 1, doubling the benefits nuclear energy brings to the nation. The knowledge gained and lessons learned from operating Unit 1 have been reflected in operating Unit 2, resulting in

12 months of commercial operation has delivered 10.5 TWh of zero emissions electricity, preventing 5 million tons of carbon emissions



significant efficiency gains, while maintaining the highest safety standards.

Units 1 and 2 enable 50% delivery of the target of the Barakah plant, to provide 25% of the UAE's electricity for the next six decades.

Across the remainder of the Barakah project, Unit 3 construction was completed in 2021 and is now undergoing operational readiness preparations, and Unit 4 in the final stages of commissioning prior to construction completion.

The development of the Barakah Plant as a whole is now more than 96 percent complete.

H.E. Mohamed Ibrahim Al Hammadi, Managing Director and Chief Executive Officer of ENEC, said: "We are proud to be celebrating the 1st anniversary since the start of commercial operations of Unit 1 of the Barakah Plant in April

2021. The Plant is a sustainable powerhouse for the nation, generating abundant emissions-free electricity 24/7.

"Barakah is a leading contributor to the UAE's Net Zero target and we are rapidly decarbonizing the power sector. The tangible power generation coupled with significant emissions reduction demonstrates the benefits nuclear energy brings in accelerating the decarbonization of the power sector."

He added: "The Barakah plant is just the beginning, as we now move forward in investing in R&D and innovation in areas including clean hydrogen, regional grids and SMR technology to further expand on the strong foundation we have created.

"We have offered hundreds of jobs to Emiratis and international experts and will continue to inspire a generation of clean electricity



champions and climate change leaders to join our program in the years to come.”

Nawah Energy Company (Nawah), the operating and maintenance subsidiary of ENEC, has now started the scheduled maintenance and refueling outage on Unit 1 which involves shutting down the reactor, implementing thousands of planned maintenance activities, and replacing around a third of the fuel assemblies in the reactor core.

The remaining fuel assemblies at Unit 1 are being re-configured to ensure the optimal and efficient operation of the Unit. During this time, over 1,000 additional nuclear specialists have joined the existing team at Barakah to undertake this process in line with the highest national regulations and international standards. On completion, the unit will be restarted and powered back up to full power to run for another 12

months. This planned refuel process will take place on each unit every 12 months.

Once operational, the four Units of the Barakah Plant will produce up to 5,600 MW of clean electricity and will prevent 22.4 million tons of carbon emissions every year. By 2025, the Barakah Plant will be producing 85% of Abu Dhabi’s clean electricity and will be the biggest contributor to reducing the UAE power sector’s carbon emissions.

کرکاک علی مزاجک

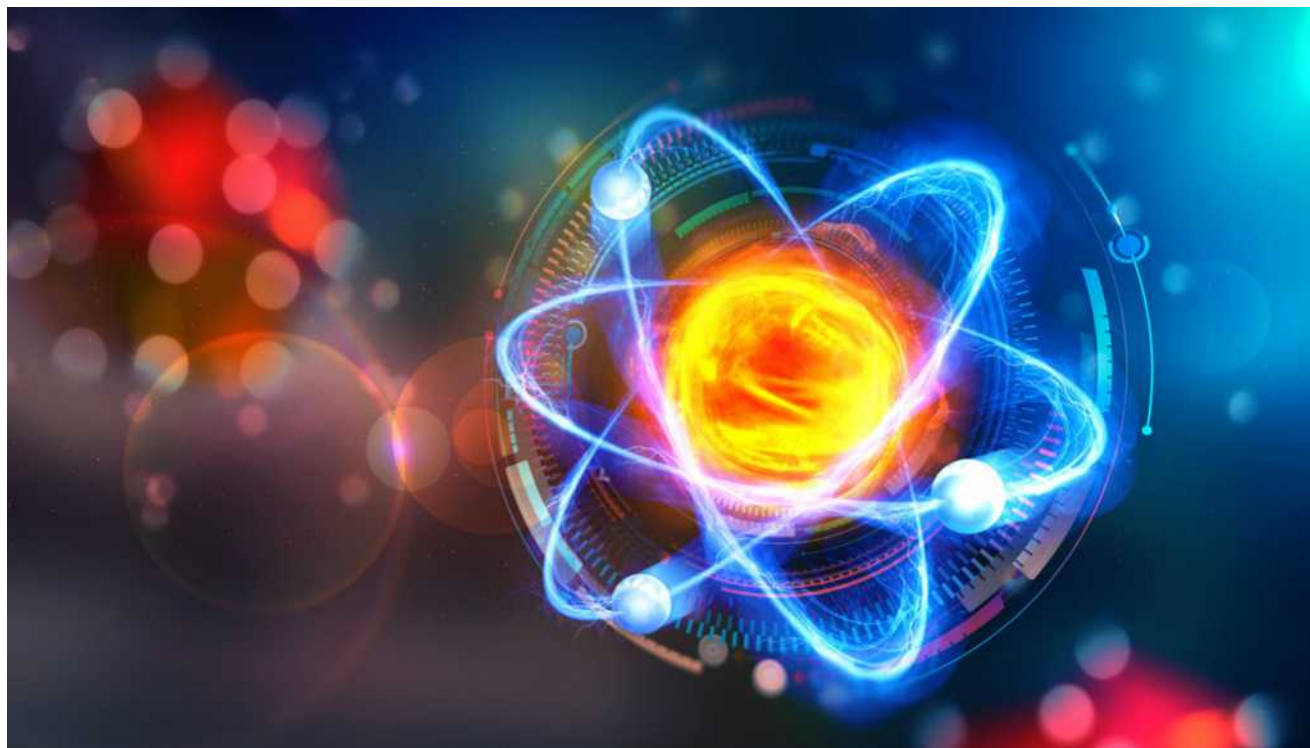


نچھہ عربیہ اصیلہ

Potential Of Nuclear Energy In Accelerating Clean Energy Transition Highlighted

The World Government Summit 2022 (WGS2022) has noted that governments pursuing a civil nuclear energy programme must ensure long-term political stability to keep developing in the energy sector.

In the 'Governing Peaceful Energy for Global Prosperity' plenary session at WGS2022, experts explored the potential of nuclear energy



in accelerating the clean energy transition. The panel included William Magwood, Director-General, Nuclear Energy Agency; Mohamed Al Hammadi, CEO of Emirates Nuclear Energy Corporation (ENEC); and Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment.

Magwood affirmed that the UAE is a remarkable example as an ambitious country, which inspires other governments in policymaking and working models. Discussing the launch of the UAE's nuclear programme, the ENEC CEO said, "UAE leadership's vision created a sustainable and secure energy mix and carried out the vision and execution to the highest standards."

The UAE's Barakah Nuclear Energy Plant commenced commercial operations in 2021 as the first nuclear power plant in the Arab region,

reflecting the country's efforts to diversify its energy mix. The ENEC CEO added that the entity has a young and talented workforce, of which 70 percent of employees are under the age of 35.

On the shifting dynamics of the energy transition, Almheiri said, "At COP26, the conversation was all about clean and renewable energy. For us to pursue this energy transition, we must depend on a source of energy as we are all still dependent on hydrocarbons, take a balanced and effective approach and concerted efforts to be responsible and accelerate the positive results of decarbonisation."

She cited the example of state-owned Abu Dhabi National Oil Company (ADNOC) which has announced the goal to become 100 percent of its grid power from nuclear and solar power as the world's first major oil and gas company.

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'UAE's Leadership In Energy Transformation Is Inspirational'

Mathias Cormann, Secretary-General of the Organisation for Economic Co-operation and Development (OECD), has praised the UAE for its energy transformation policies during a keynote speech at the World Government Summit (WGS 2022).

Highlighting the impact of climate change, Cormann underlined the need for countries



around the world, particularly those in the GCC, to build climate and economic resilience by transitioning to net-zero or low-carbon economies.

He said that "the strategic vision of the UAE in this transformation is absolutely inspirational" and that the OECD "stands ready to deepen our engagement with you to help achieve this vision".

Cormann added that growing energy insecurity and high energy prices gives governments around the world even more incentives to succeed in the green energy transition. He said, "Nearly half of the world's population are highly vulnerable to climate change and, by 2150, 75 percent of the global population could be exposed to periods of life-threatening climate conditions."

"The countries of the Middle East and North Africa are already being impacted by worsening

water stress and reduced agricultural productivity. The pandemic has increased the share of people acutely affected by food insecurity from 6 percent of the region's population in 2019 to 20 percent in 2021, and climate change is expected to worsen this trend."

He also noted the economic challenges that will face the region's governments as low carbon policies are enacted around the world.

Cormann remarked on the progress of net-zero policies, with countries producing 83 percent of global carbon emissions having now made zero-carbon pledges. He issued a call to action for governments to accelerate the necessary socio-economic and technological transformations to ensure these pledges lead to real, tangible outcomes.



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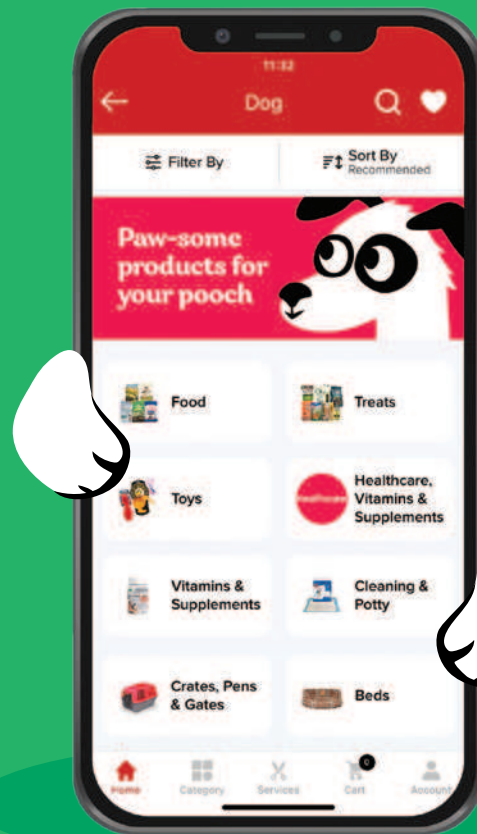
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UAE Shares Its Sustainability Journey At Floriade Expo 2022

Under the theme, 'Growing Green Cities', national and international participants are presenting innovations and green solutions at the International Horticultural Exhibition Floriade Expo 2022 (Floriade) in the Netherlands, to showcase what makes our cities more fun, sustainable and liveable.

The UAE Pavilion, 'Salt Water Cities: Where land



Floriade is Holland's once-a-decade World Horticulture Expo that runs until October 2022, with exhibitions from more than 30 countries

meets sea' showcases how the UAE has overcome the challenging environment of desert and sea to grow thriving, sustainable cities.

Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, heralded the UAE's participation in this international forum and commented, "We are honoured to join Floriade Expo 2022 and share the UAE's sustainability journey. 'Salt Water Cities: Where land meets sea', demonstrates how the UAE has adapted to our desert environment and arid climate and how our commitment to conserving biodiversity and championing food and water security is driving socio-economic development through a sustainable lens."

She added, "Our ancestors and founding fathers addressed the limitations posed by our desert environment through a responsible use of

'Salt Water Cities' tells the UAE's unique journey of optimism and resilience, of overcoming the challenges of living in an ecotone of desert and sea to grow thriving, sustainable cities



natural resources - this resilience continues today as we work to strengthen our food security for the current and next generations."

Jamal Al Musharreh, UAE Ambassador to the Kingdom of the Netherlands, serves as the Commissioner-General of the UAE Pavilion at Floriade. Exhibiting for the first time at Floriade, the UAE Pavilion, which will receive visitors until 9th October, explores how the country is tackling the challenges of a landscape where water scarcity, scorching heat and saline soil make typical horticulture almost impossible to achieve sustainably.

Al Musharreh added that Salt Water Cities showcases the UAE's response to the Floriade theme of "Growing green cities," telling the story of a unique journey of optimism and resilience and how the people of the UAE have overcome

the challenges of living in an ecotone of desert and sea to grow thriving, sustainable cities.

Commenting on the pavilion, the UAE Ambassador said, "The story of the UAE is one of ambition and collective progress, and we are honoured to host our inaugural pavilion at Floriade Expo 2022. Our extreme climate means that sustainability is intrinsic to our national identity and DNA."

"Salt Water Cities showcases how we live side-by-side with our environment by creating circular biosaline agriculture systems, as depicted in the UAE Pavilion garden, to encourage new innovations to address food and water security and make our cities more efficient, sustainable and resilient. By sharing the stories and knowledge of the UAE's innovators and plants, we hope to contribute solutions to build a better tomorrow.



"We are proud to present our response on how to grow greener cities and look forward to creating deeper connections with, and seeking inspiration from, our fellow participants at Floriade," he concluded.

The UAE Pavilion at Floriade Expo 2022 guest experience begins with a saltwater garden inspired by the circular bio saline agriculture systems created in the UAE. The exhibition features halophyte plants that can thrive in the UAE's saltwater environment - salicornia, quinoa, mangroves, microalgae and seagrass.

The Commissioner-General was joined by the Mayor of Almere, representatives from the Netherlands and the creatives who contributed to the UAE Pavilion at Floriade, including Tellart, a Dutch-based company that co-designed the Pavilion exhibition in partnership with the UAE-

based Pragma, the architects of the saltwater garden.

Among the attendees were also representatives from Aectual, a Dutch-based company that creates tailor-made, circular interior objects and architectural systems through innovative 3D printing techniques, re-using materials.

Maia Garau, Strategy Director from Tellart, said, "We are inspired by the innovators and academics in the UAE who are searching in nature for answers to global challenges, and Tellart is grateful to co-create with our friends in the UAE to contribute to the design of the pavilion. We hope the pavilion transports visitors to the ecotone of the UAE as they are immersed in the unique magic of an environment where the desert meets the sea."

DP World Wins Global Award For Ecuador Mangroves Project

DP World has been recognised for its work in planting new mangrove forests around the Guayaquil port in Ecuador by the International Association of Ports and Harbors.

DP World Posorja, which operates the port, earned first place in the Climate and Energy category for its 'Sembrando Vida' mangrove project, competing alongside 237 schemes



across 26 countries. The project, which means 'Sowing Life' in Spanish, involved planting 65 hectares of mangrove forests around Puna Island as part of a long-term plan to capture and store carbon. It will also create new ecosystems and protect existing habitats, which are vital for fishing and crabbing.

Starting in late 2020, more than 150,000 red mangrove seedlings were planted in Puna Island by DP World staff and volunteers from the local communities around the port. The project is being extended and aims to reach 100 hectares of forest by 2024.

Carlos Merino, CEO of DP World in Ecuador, said, "We are proud of this important recognition for Ecuador, which strengthens our commitment to working sustainably with the community and environment. This award is dedicated to the

habitants of Posorja, El Morro, Puna Island, and others around Guayaquil, where DP World operates, and to those who volunteered with us, sowing life in these new mangrove ecosystems."

DP World Posorja has a 50-year concession in Ecuador and has invested \$1.2 billion, one of the most significant private sector investments in the country's history.

Guayaquil is the first world-class, sustainable port in Ecuador and one of the most productive in the Latin American region. The port is strategically located on South Pacific, with a deep maritime access channel of 21 nautical miles.

The annual IAPH Sustainability Awards aim to promote the contribution of the port industry to the UN's Sustainable Development Goals.

MBRGI, WEF To Establish Global Platform For Food Innovation Hubs

On the sidelines of the World Economic Forum Annual Meeting 2022 at Davos, the Mohammed bin Rashid Al Maktoum Global Initiatives (MBRGI) signed an agreement with the World Economic Forum (WEF) to cooperate in the creation of the Global Platform for Food Innovation Hubs.

WEF established the Food Innovation Hubs



The Mohammed bin Rashid Al Maktoum Global Initiatives (MBRGI) signs agreement with the World Economic Forum to create a global platform for Food Innovation Hubs

initiatives to strengthen local innovation ecosystems to facilitate food system transformation, and this new platform will accelerate the scope of innovation to improve sustainable global food production mechanisms.

The new Global Platform for Food Innovation Hubs aims to enhance joint international scientific and research cooperation in the field of food, exchange knowledge, experiences and data to develop local food production systems, and support national and global strategies to achieve and enhance food security. In doing so, it will help achieve the United Nations' 2030 Sustainable Development Goals, especially the second Goal of ending hunger.

The agreement confirms Dubai as the international headquarters for the annual meeting of the Food Innovation Hubs. It also

*The new platform will seek to
improve sustainable food
production mechanisms
worldwide*



stipulates that MBRGI will also join the Supervisory Board of the Food Systems Initiative and the Steering Committee of WEF's Food Innovation Hubs.

Mohammad Abdullah Al Gergawi, Secretary-General of MBRGI, highlighted that addressing global food challenges requires innovative thinking and international innovation accelerators through which we can develop modern solutions. The agreement with Davos provides a global platform for collaboration with all stakeholders.

Al Gergawi said, "In line with the directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, MBRGI is one of the largest institutions, regionally and globally, to battle the hunger and malnutrition, and provide less fortunate communities with food support."

Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, said, "In 2018, the UAE announced the National Food Security Strategy 2051 to develop a comprehensive national ecosystem that enables sustainable food production using smart technology across the value chain and enhancing initiatives that utilize research and development capabilities. The MBRGI-WEF collaboration to establish the Global Platform for Food Innovation Hubs supports that objective and will impact food security locally, regionally, and globally."

The agreement, which paves the way for three-year cooperation, was signed by Saeed Al Eter, Assistant Secretary-General of MBRGI, and Sean De Cleene, member of the Executive Committee of the World Economic Forum, in Davos, Switzerland, in the presence of a number of officials from both sides.



Saeed Al Eter emphasised that MBRGI supports all efforts aimed at developing mechanisms and techniques for food production globally and bringing about qualitative future transformations to deliver integrated systems for food innovation.

Al Eter said, "Approximately 800 million people across the globe suffer from hunger or malnutrition. The crises that the world has witnessed during the past few years have directly affected supply chains, especially in the food sector, which underlines the urgent need to develop systems, options and alternatives to enhance food production at national levels, and provide interconnected and effective food safety nets locally and globally."

He added, "The world's population is expected to reach 9.7 billion people by 2050. In this context, MBRGI's support in establishing the Global

Platform for Food innovation Hubs, which will be present in 17 global cities on five continents by 2030, is designed to achieve a sustainable future for food production, and contribute to meeting the demand in present and future."

The World Economic Forum established the Food Innovation Hubs to include a wide range of partners from the governmental and private sectors, regional and international organisations and civil organisations, build partnerships, enhance cooperation in developing innovation in food systems, fund targeted initiatives and promising opportunities locally and regionally, and exchange ideas, experiences and data related to food on a global level.

The global platform of the Food Innovation Hubs accelerates the launch of new solutions to current food system challenges, supports their future

Approximately 800 million people across the globe suffer from hunger or malnutrition



development, improvement and transformation, enables learning, knowledge transfer and innovation among regions of the world, and strengthens partnerships with many stakeholders to support innovation in food systems.

The platform also supports increasing investments and promoting innovative financing mechanisms that support the goals of the Food Innovation Hubs, enhances flexibility in food systems locally and globally, identifies key initiatives currently available in the network and expands their scope in countries that focus on developing innovation ecosystems to build healthy food systems that are more comprehensive, efficient and sustainable.

The global platform also expands the scope of entrepreneurship that supports the goals of the Food Innovation Hubs, which will positively

reflect on the provision of a food safety net in the communities it includes. The platform supports the UAE's leading position in advancing innovation and accelerating the positive innovation-based transformation in food systems.

The MBRGI launched a series of food-related initiatives over the past several years, including the 1 Million Saved Meals campaign, in collaboration with the UAE Food Bank, and the 10 Million Meals campaign to provide direct food support for those facing repercussions due to the COVID-19 pandemic, followed by the 100 Million Meals campaign, which succeeded in distributing 220 million meals in 47 countries, and the extended 1 Billion Meals initiative, which achieved its goal in less than a month and continues to distribute food support to those in need across 50 countries.

The Sustainable City Celebrates Biodiversity To Mark World Environment Day

On the occasion of World Environment Day, The Sustainable City has announced the findings of a unique survey of biodiversity in the community.

Working in collaboration with Emirates Nature – WWF, The Sustainable City decided to assess its urban ecology by conducting a detailed biodiversity assessment of the natural flora and



The Sustainable City in collaboration with Emirates Nature – WWF conducted a survey to chart biodiversity and assess urban ecology in the community and its wider impact

fauna as well as the plants and wildlife that have been introduced to the community as part of its bid to diversify the ecology.

The field surveys extended over six months and used monitoring equipment to capture the movement of animals such as birds, reptiles, and bats. Also recorded were different types of plants, insects, mammals, fish, and fungi. Importantly, the residents of The Sustainable City were engaging in the field work through an app called iNaturalist, which is a social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe.

The survey results showed 102 different plant varieties, 27 bird species, 23 insect species, 3 types of mammals and small numbers of fish, reptiles, and mushrooms.

The survey results showed 102 different plant varieties, 27 bird species, 23 insect species, 3 types of mammals and small numbers of fish, reptiles, and mushrooms



Salah Habib, CEO, Diamond Developers, said: "There is significant potential for emissions reduction, ecosystems thriving, and securing substantial economic benefits as cities become more resilient, livable, and competitive. The survey results from The Sustainable City demonstrate a vibrant ecology and our commitment to help restore natural ecosystems."

As part of its commitment to enhancing biodiversity, The Sustainable City has avoided or limited the use of toxic chemicals in pest management and weed control. Weeding is done manually and fogging, using a fine pesticide spray, is strictly limited, with preference given to nature-based solutions including bats which are effective at controlling mosquito populations.

To prevent the spread of the Red Palm Weevil in date palms, The Sustainable City uses acoustic

sensors to detect possible infections and manage the necessary response. The overall effect of reduced dependence on chemicals supports natural bee populations, as well as butterflies and other pollinating insects. Additionally, Dubai's beekeepers' association maintains an apiary inside The Sustainable City to promote natural pollination.

The 2022 World Environment Day campaign #OnlyOneEarth calls for collective, transformative action on a global scale to celebrate, protect and restore our planet. According to UNEP Executive Director, Inger Andersen, biodiversity loss is already costing the global economy 10 percent of its output each year so addressing this issue is urgent and essential to be able to achieve sustainable development.

The Future is Now: Toyota's All-New bZ4X SUV Battery-Electric Vehicle

The all-electric Toyota bZ4X SUV not only looks to further Toyota's commitment to a carbon neutral future, but it does so in style. Ready to make a fresh mark on the Battery Electric Vehicle (BEV) segment, bZ4X blends bold, modern styling with tech-laden features in an extremely capable platform. bZ4X is more than a battery-electric SUV – it's a new take on multi-purpose vehicles.



This all-new battery electric structure provides a solid foundation for enhanced driving performance, ride comfort and stability for the road ahead

Going Beyond

bZ4X is the first Toyota vehicle to be launched under the global bZ series. “bZ,” which stands for “Beyond Zero,” was developed with human-centricity at the heart, meaning it hopes to provide more than a mobility solution but also an innovative space for customers.

bZ4X joins an extensive lineup of Toyota electrified vehicles that include hydrogen fuel cell electrics, hybrids, plug-in hybrids and now battery electric vehicles. Toyota envisions a future in which carbon neutrality is achieved through a portfolio of products with advanced, alternative-fuel and zero-emission powertrain technologies.

Toyota plans to expand to around 70 electrified models globally by 2025. This will feature 15 dedicated BEVs, including seven carrying the bZ

Toyota plans to expand to around 70 electrified models globally by 2025



(Beyond Zero) brand moniker. This diverse portfolio of electrified products will help propel Toyota toward its goal of carbon neutrality by 2050. Globally, Toyota has put more than 20 million electrified models on the road – with a CO2 emissions reduction effect equivalent to the CO2 emissions reduction of over 5.5 million BEVs.

Unique Design with a Familiar SUV-Feel

The futuristic design of the all-new, all-electric SUV is fit for a multifaceted lifestyle – offering originality that stands out in an urban cityscape coupled with SUV-like power to take on the adventurous outdoors.

Offered in two grades, XLE and Limited, the bZ4X offers impressive capability and versatility. The profile of the bZ4X is balanced and sleek, with dynamic character lines that flow from front to rear. Viewing the bZ4X head-on, the design places

emphasis on the corners to achieve a futuristic aesthetic. The result is an aero-dynamic appearance, with the curved shape of the front bumper expressing a unique look and feel. Aesthetics aside, bZ4X's design is functional.

Functional Design for Intuitive Tech

The interior styling of bZ4X exudes a certain familiarity, with premium finishes, designed to make everything easily accessible, from the USB ports to the all-new multimedia system.

The bZ4X comes standard with a 12.3-inch widescreen Toyota Audio Multimedia system, designed and engineered by Toyota's Texas-based Connected Technologies team. bZ4X offers a wide range of enhanced connectivity and convenience features, including being Over-the-Air (OTA) updatable. Users can interact with the system through intuitive touch and voice activation controls.

The latest Connected Service, Drive Connect, gives access to Intelligent Assistant, Cloud Navigation and Destination Assist. With Intelligent Assistant, voice activated commands facilitates the search for directions, find Points of Interest (POI), adjust audio controls, change the cabin temperatures and more, while Cloud





Navigation utilizes the cloud to download the latest available map, traffic and routing information.

Electrified Powertrain with Truly Electric Performance

Thanks to the e-TNGA dedicated platform, driving the bZ4X is fun and engaging. Impressive driving performance is due in part to the bZ4X being built on the BEV-dedicated e-TNGA platform, a first for Toyota.

Through this architecture, bZ4X achieves a low center of gravity and greater rigidity thanks to the high-capacity Lithium-Ion battery pack placed flat under the floor. Impressive handling is also due in part to the battery cross-framing structure, which adds to overall vehicle rigidity. An intelligent throttle feature provides a smoother feel when accelerating and decelerating

and slip suppression provides impressive control on slippery roads.

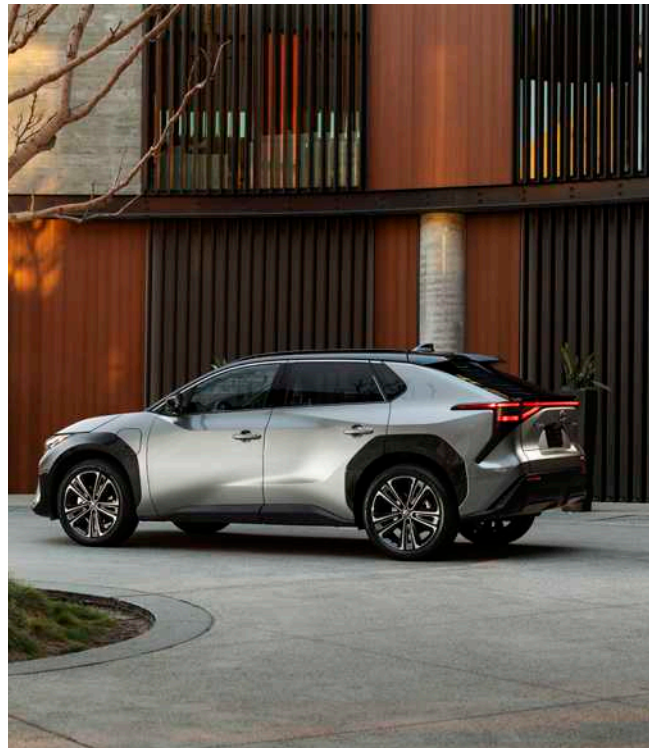
The engineering team also focused on features that help optimize energy-saving and cruising range for year-round driving.

Charged Up

When it comes to powering up bZ4X there are plenty of options, including 120V and 240V chargers as well as DC fast-chargers. All bZ4X models are equipped with a J1772/CCS1 (Combined Charging System (CCS)) socket, which allows for both home and public charging. The 6.6 kW onboard charger allows the bZ4X to charge from low to full in about 9 hours with a Level 2 charger either at home or at a public charger (at optimal outside temperatures).

New bZ4X owners can also include a ChargePoint

Featuring a bold, SUV design with premium finishes, the “Beyond Zero” model accelerates Toyota’s global commitment toward carbon neutrality



home charging system into the cost of their new vehicle purchase. ChargePoint Home Flex is ENERGY STAR® certified and Wi-Fi enabled, can be installed indoors or out, comes with a 23-foot charging cable to support different parking configurations and can charge electric vehicles up to nine times faster than a standard outlet.

Driver Assist and Safety

bZ4X is the first to feature the latest Toyota Safety Sense™ safety package (TSS 3.0). This system has been enhanced by expanding the detection range of the millimeter wave radar and monocular camera. For example, the Pre-collision system has been enhanced to offer Low-Light Cyclist Detection, Daytime Motorcyclist Detection and Guardrail Detection. Also, lane recognition is enhanced to add improved functionality while in Lane Tracing Assist mode.

In terms of battery safety, Toyota added many measures to help protect cell integrity, thanks to the design and a multiple monitoring system intended to protect the vehicle’s battery system.

This includes:

- A meticulous production process that helps reduce contamination of battery components to help bolster battery durability
- Redundant monitoring of battery voltage, current and temperature designed to detect signs of abnormal heating to maintain optimal battery temperature and help prevent cell damage
- Integration of the high-capacity battery pack within the floor of the body frame structure is designed with protection in mind in the event of a collision

UAE Kicks Off National Dialogue For Climate Ambition

The Ministry of Climate Change and Environment (MoCCA) has launched the National Dialogue for Climate Ambition (NDCA) as a platform to define and raise sectoral climate ambition and advance all-inclusive participation in the UAE Net Zero by 2050 Strategic Initiative to meet the country's international climate commitments, particularly the Paris Agreement.



Launched by the Ministry of Climate Change and Environment, NDCA aims to raise sectoral climate ambition and advance all-inclusive participation in the UAE Net Zero by 2050 Strategic Initiative

Running from May to September 2022, NDCA engages stakeholders in UAE priority sectors, including manufacturing, cement, waste, transport, and energy, through hosting a monthly stakeholder assembly dedicated to a different sector every month to explore sectoral requirements, priorities, and future direction to scale up their contributions to reducing carbon emissions.

The inaugural session, dedicated to the cement sector under the theme 'Cementing a Decarbonised Future', convened 83 representatives of federal and local government entities and stakeholders from the cement, waste, and energy sectors.

The participants discussed international best practices, reviewed the status of the local sectoral landscape, and explored emerging

The inaugural session was dedicated to the cement sector and held under the theme 'Cementing a Decarbonised Future'



solutions that can decarbonize the sector and bring it closer to net zero.

Addressing the gathering of cement industry stakeholders, Mariam bint Mohammed Almheiri, Minister of Climate Change and the Environment, said, "Through the launch of the UAE Net Zero by 2050 Strategic Initiative in October 2021, we aspire to build on our long-standing track record of ambitious climate mitigation and adaptation action, and continue to make significant contributions to global climate endeavors.

"Moreover, the transition towards net zero presents a new model of sustainable economic growth that leverages research, development, and technology innovation, and acts as a catalyst for investment and job creation. We are pleased to introduce NDCA that will serve as a national platform to foster sectoral climate efforts."

She added, "The cement industry contributes between five and 10 percent of the carbon footprint of many nations. In the UAE, it accounts for six to seven percent of the national CO₂ inventory. However, we believe in the ability of the cement industry to plan for a better and environmentally sustainable future. Going green does not mean losing efficiency or becoming non-competitive. On the contrary, we can use commercially viable technologies, the latest innovations, and agile regulations to our advantage to achieve a dual positive impact."

In addition, at every NDCA, a sectoral climate action champion will be appointed. The champions will lead their respective sectors' efforts to reach ambitious climate goals, advocate for climate-smart solutions, and serve as liaisons between their industries and the government.

dnata To Replace All Vehicles With Electric Units To Become Carbon Neutral

In a major sustainability push, dnata, a global provider of aircraft ground handling, cargo, travel and flight catering services across five continents, is targeting to replace all its vehicles, diesel units, and GSE equipment with electric ones to become carbon neutral, reduce general cost and maintenance cost.

dnata set up e-Apron, a sustainability zone, at



Across Dubai and Jebel Ali, dnata has about 30,000 types of equipment such as motorised and non-motorised trolleys, hybrid cars, and thousands of tractors

the 21st edition of Airport Show at the Dubai World Trade Centre (DWTC), providing opportunity for electric/hybrid Ground Support Equipment (GSE) and Ground Handling Equipment (GHE) manufacturers to showcase their latest innovations.

"Reducing the carbon footprint is a key target for dnata as a world-leading air and travel services provider at 129 airports," said Raed Younes, Vice President for UAE and Regional Business Development at dnata.

Across Dubai and Jebel Ali there are about 30,000 equipment, like motorised and non-motorised trolleys, 124 hybrid cars and thousands of tractors. dnata has started replacing them with electric ones as well as exploring to convert the heavy duty tractors with electric units.

dnata is pushing sustainability to the core to become carbon neutral, reduce general and maintenance cost



"Cargo handling from an equipment perspective, we are looking into electric options as we are pushing all airports we manage to a sustainability environment," he said.

Exhibitors at the e-Apron included Cobus Industries, which is showcasing its electric bus for service at airports, Kalmar Motors, a Sweden-based leading technology company for towbarless handling of aircraft and Electric and Hybrid power technology and the UK-based Midstream Lighting.

Other exhibitors included Colibri Energy, a German company that helps airports and ground handlers maximise efficiency through lithium technology, ADB SAFEGATE, one of the world's leading providers of integrated solutions for safer, more efficient and environmentally friendly aircraft movements, and TLD.

Jurek Grzeszek, Director Sales & Service, TLD Middle-East, Africa and India, said "fully electrified ground support equipment is undoubtedly where the industry is heading."

"TLD recognised the importance of electric GSE some years ago and has been developing its iBS battery technology to electrify a range of high-powered ramp equipment. The technological advances offer a huge portfolio of the latest electric equipment for our customers, whilst also allowing the electrification option for older GSE through our retrofit programme," he said.

The 21st edition of the Airport Show had a sharp focus on sustainability to help the aviation industry in achieving a more sustainable airport industry that is aiming to reduce carbon footprint year on year.

UAE Explores Potential Of Re-Using Food Waste To Enrich Manufactured Soils

Emirates Global Aluminium (EGA), the world's third largest producer of aluminum, has announced a collaboration with the American University of Sharjah's (AUS) College of Engineering to research the economic and environmental benefits of re-using food waste to enrich manufactured soils made from bauxite residue, and further applications in waste-to-energy. The AED1.6 million three-year research



Collaboration between
Emirates Global Aluminium
(EGA) and American
University of Sharjah to
research food waste re-use
for soils

project is the second phase of the EGA's cooperation with the American University of Sharjah to re-use bauxite residue, a by-product stream from alumina refining.

The new research follows three years of work between the two organisations to establish technically how food waste as biochar – a type of charcoal based on indigenous agricultural knowledge from the Amazon basin – can be combined with treated bauxite residue to create a manufactured soil for greening.

Other by-products from food waste in the potential treatment process, bio-oil and biogas, were also identified in the first phase of research, with potential waste-to-energy uses. The new research aims to show that an integrated process would be environmentally and economically beneficial and enable the UAE's significant food waste generation to contribute not only to

The AED 1.6 million three-year research project to contribute not only to bauxite residue re-use but also waste-to-energy projects



bauxite residue re-use but also to waste-to-energy projects.

The recovery of food waste as biochar and as bio-energy products constitutes a significant innovation. The work could contribute to the UAE's aim of reducing waste-to-landfill by 75 per cent by 2030, lowering greenhouse gas emissions and optimising local resources.

Earlier this year, the EGA also announced plans to build a pilot plant in Al Taweelah to convert bauxite residue into manufactured soil products.

Abdalla Al Zarooni, Vice President – Technology Development and Transfer at EGA, said, "We are always looking at solutions to reduce the waste streams of our industrial activities. Following the technical breakthrough of EGA's Turba process, which converts bauxite residue into manufactured

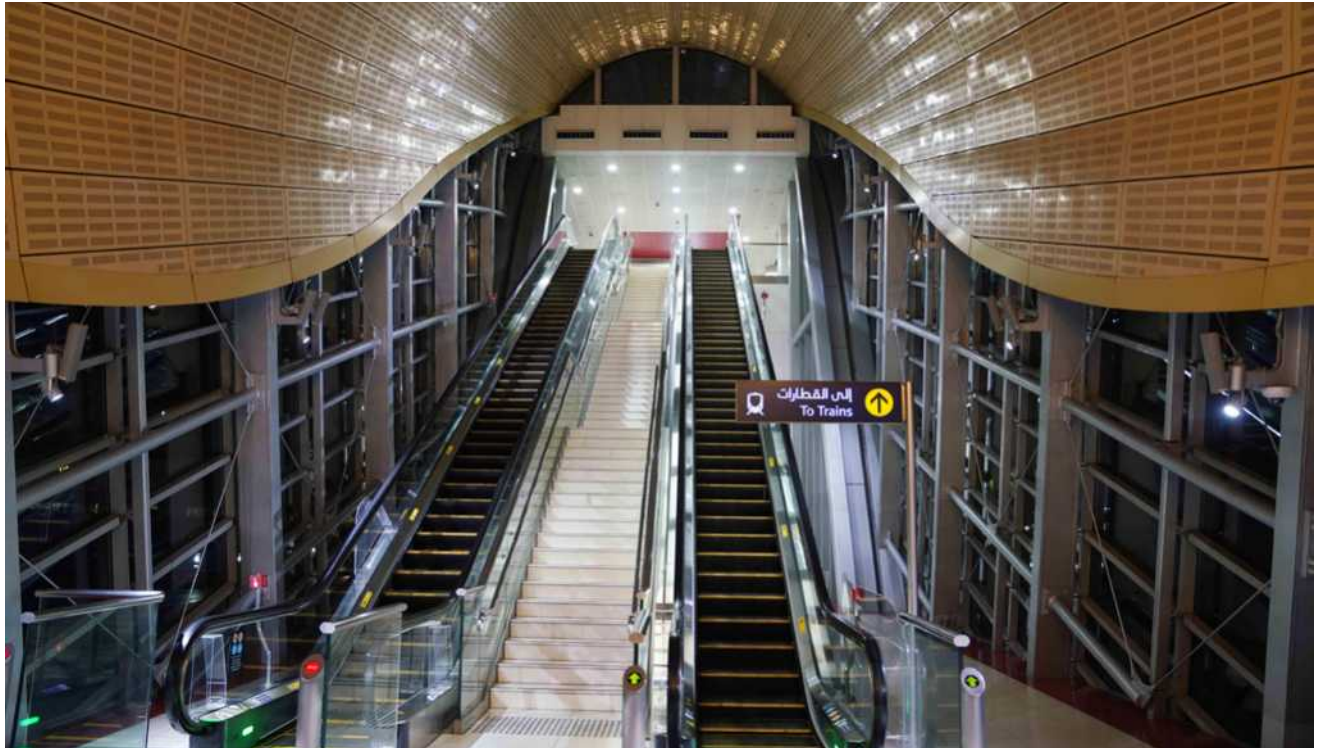
soil, we look forward to our researchers examining the further economic and environmental benefits of using food waste to generate the required biochar for this manufactured soil."

Dr. Yassir Makkawi, Project lead investigator and Professor of Chemical Engineering at AUS, said, "Sustainable management of both industrial and food waste is key to meeting targets for waste minimisation and reducing CO2 emissions. With environmental outcomes, an increasing concern of the public and strict regulations in place governing waste disposal and landfill, finding novel solutions is becoming more and more important. This project will now contribute to the UAE's ability to successfully manage industrial and food waste in a way that has less of a detrimental impact on the environment than has traditionally been the case."

RTA Ramps Up Power-Saving, Recycling, Waste Management Initiatives

Dubai's Roads and Transport Authority (RTA) is enhancing the sustainability of all services and operations to provide vital support to the Dubai Government's efforts to make Dubai the most sustainable and happiest city in the world.

The CEO of RTA's Rail Agency Abdul Mohsin Kalbat, said, "We are endeavouring to achieve



record levels of sustainability across all metro and tram operations and related facilities in line with the top global standards of the industry to ensure the highest rates of quality, health, safety and environment and enhance the sustainability of operations. Such a drive is also compatible with RTA's vision to become 'The World Leader in Seamless & Sustainable Mobility.'

"The Rail Agency is currently engaged in delivering a host of sustainability projects and initiatives in collaboration with Keolis-MHI, the operator of the Dubai Metro and Tram. These initiatives include paper recycling to match the digital transformation of Dubai Metro and Tram operations. In a record period, the agency managed to recycle about 8,622 tonnes of paper, equivalent to 146 trees," he commented.

To make headway in the treatment and recycling

of waste, a pilot phase is being launched to treat and recycle 50 to 80 percent of the waste of Dubai Metro and Tram stations.

The project aims to enhance Dubai's environmental strategy, boost the recycling rates, implement the highest international standards of sustainability, and support Dubai's efforts to achieve zero waste by 2030.

This pilot phase to treat and recycle stations waste is undertaken in Centrepoin, Burjuman, Gold Souq and Al Jaddaf Metro stations as well as the Marina and Al Sufouh Tram stations.

As for power-saving, initiatives LED lighting is used to rationalise the power consumption hence saving 1,161,596 watts/hour, equivalent to savings of AED553,173.

UoS Honoured For Low-Cost, Sustainable And Solar-Powered Home

H.H. Sheikh Sultan bin Ahmed bin Sultan Al Qasimi, Deputy Ruler of Sharjah and President of the University of Sharjah (UoS), inspected the Solar House model at the University of Sharjah, on May 24.

On his arrival at the site, Sheikh Sultan examined the facilities of the model of the solar house, which earned second place in the Solar Decathlon

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Middle East (SDME-2021) competition, hosted by the Dubai Electricity and Water Authority in conjunction with Expo 2020 Dubai.

The University of Sharjah's 'Sharjah Team', comprising 100 students and professors from three faculties - the Faculty of Engineering, the Faculty of Science, and the Faculty of Health Sciences, came up with the unusual project: a solar-powered house.

In addition to hearing about the project's goals and many advantages of modern living, the university president also learned about the house's innovative design and unique use of recycled water and solar energy for heating and cooling, as well as the flexibility to move the house's external structure to take advantage of the sun's rays while also considering the surrounding environment.

At the end of the tour, Sheikh Sultan honoured the project's sponsoring institutions and the Sharjah Team, as well as professors and students working on the project and several academic staff, for their outstanding efforts in developing and supporting the team's work.



A Revolutionary Modern-Day City: Curitiba, Brazil

With a population of 1.9 million people, Curitiba isn't Brazil's largest city but the metropolis has become world-renowned for its creative and environmentally-conscious solutions to urban planning. Not only has Curitiba's creative urban planning helped it become one of the world's leading green cities, but it has also resulted in poverty alleviation and population growth.



Not only has Curitiba's creative urban planning helped it become one of the world's leading green cities, but it has also resulted in drastic poverty alleviation and population growth

Curitiba has had a long and rich history. From a "sleepy" city surrounded by farmland to a hub for European immigrants in the 19th century, Curitiba, the capital of Brazil's state Parana, was long a cultural and economic center in the region. The mechanization of soybean agriculture in the 1940s was a turning point for Curitiba.

Within a span of 20 years, the population of the city doubled, leaving Curitiba a hectic and polluted municipality. This changed in 1972 when Jaime Lerner became mayor of Curitiba and instituted his plan for a sustainable city.

Curitiba has implemented several innovative systems to create jobs, improve public transportation accessibility, promote housing development, and improve waste management. The city has integrated a "radial linear-branching pattern" to protect density by diverting traffic

Curitiba has almost 600 square feet of green space per resident, in the form of municipal parks



about roughly 85 percent of Curitiba uses the Bus Rapid Transit (BRT). During peak hours buses arrive every 60 seconds and are always full. Curitiba has one of the lowest rates of pollution as a result. An initial 25,000 passengers that eventually grew to over 2 million passengers, it is totally funded by the people who use it.

Curitiba is also heavily invested in alternative low-carbon fuel technologies, predominantly biofuels; and operates what stand as the pioneering biodiesel-only buses in Latin America.

Biofuel buses, and hybrid electric + biofuel buses, produce over 25% less greenhouse gas emissions than regular buses; and are cost-efficient, along with being fuel-efficient. Cities worldwide using just some of Curitiba's bus practices could greatly reduce greenhouse gas emissions from mass transit.

from the city center and protect green areas by encouraging industrial development along radial axes. Curitiba has initiated a Bus Rapid Transit System and established the Curitiba Industrial City (CIC) on the city's west side which has strict environmental regulations and does not allow "polluting" industries.

Bus Rapid Transit System

One of the biggest innovations that Curitiba put in place was a bus rapid transit system. Roads with express lanes for buses, specially designed buses for quick boarding and cheap and uniform ticket prices have helped Curitiba maintain a quick, cheap and low-emission transit system. This bus network of Curitiba operates like an above-ground subway. Streets that the city allocated for pedestrians only and designated bike lanes have also contributed to this. Today,





Green Spaces

Curitiba has almost 600 square feet of green space per resident, mostly in the form of municipal parks. Curitiba has its residents' well-being as the priority of its layout, with over 90 miles of bike paths and many shopping areas built around pedestrian-only zones.

Since the 1970s, Curitiba has planted 1.5 million trees and built 28 public parks. The parks also stop squatters from creating shanty towns in the flood prone zones. The owners of skyscrapers alongside the parks were allowed to add extra stories to their buildings, if they added green space around the base of the building or paid extra tax that went to fund lower income housing.

To combat flooding from the Iguazu River which had previously assaulted the city in the 1970s. Instead of putting a concrete channel around a

river in Barigui Park to stop it flooding, Curitiba surrounded the urban area with fields of grass, saving itself the cost and environmental expense of dams. This park absorbs the flood water naturally instead. This saved money from expensive hard engineering projects and the money could be used in other social projects instead. The park covers 1.4 million m². To maintain the fields, the city uses sheep rather than mechanical means, saving its money and oil while providing manure for farmers and wool.

Environmental Education

Curitiba is big on environmental education, as well, and its Free University of Environment is designed to teach every citizen about the value of sustainability, ecology, and the environment. The school is free for everyone, and its location, right in the middle of Zaninelli's woods, is in line with Curitiba's overall aesthetic. Signs and information

Curitiba's Free University of Environment is designed to teach every citizen about the value of sustainability, ecology, and the environment



panels provide citizens with information about the city's green design. Encouraging a culture of pride around sustainability and promoting knowledge helps to maintain the city's greenness. Located in what was once an old granite quarry, the area that houses the university has been totally reforested with native vegetation.

Recycling

The city has recycled waste since the late 1980s, well ahead of its time globally in terms of waste disposal. It has an organised waste disposal system the rival of any first world city. The garbage is separated into 2 categories – organic and non-organic, which are collected by 2 separate trucks.

Lerner, the mayor of the city, also introduced an "Equation of co-responsibility" involving the "green exchange" – this was Lerner's idea to help



the urban poor. People in slums collected rubbish, and the council paid for the weight collected using fruit and vegetables.

Curitiba recycles around 2/3rds of its waste. The exchange of bus tokens, notebooks and food in return for recycling has helped accelerate sustainable waste disposal in the city. Not only does this protect the environment, but it also boosts education, increases food access and facilitates transport for the city's poor.

Workshop Outlines Roadmap For Effective Implementation Of Single-Use Plastic Ban

Following the launch of the integrated Single-Use Plastic Policy in Abu Dhabi, inspectors from the Environment Agency - Abu Dhabi (EAD), Abu Dhabi Department of Economic Development Abu Dhabi (DED), and Abu Dhabi Agriculture and Food Safety Authority (ADAFSA), have received training at a workshop to familiarize themselves with the new regulations regarding single-use plastic



products and their alternatives in the emirate of Abu Dhabi.

The virtual workshop, organised by EAD, covered tools to help effectively plan for the policy's implementation, which will ensure the gradual reduction in consumption of single-use plastic products across Abu Dhabi, while encouraging the use of reusable products.

The ban decision excludes bags designated for medicines in pharmacies, bag rolls for vegetables, meat, fish, chicken, grains and bread (knot bags). This is in addition to exempting large shopping bags and those designated for transporting plants, flowers and laundry bags.

The ban came into effect on June 1, 2022, and prevents the sale of single-use plastic bags across all retailers. The workshop also highlighted ways to implement the regulation provisions

aimed at regulating the transition from the consumption of single-use plastic materials to the consumption of multi-use materials which are less harmful during their life cycle.

The inspectors will monitor the implementation of the single-use bag ban as per technical standards approved by the Abu Dhabi Quality and Conformity Council (ADQCC).

Some major retailers have recently signed a voluntary declaration to support the implementation of the new policy in Abu Dhabi and to secure alternatives, resources, and financing to support environmental protection.

These retailers and outlets will charge customers a fee for each of the alternative multi-use plastic shopping bags.

Hydroponic And Aquaponic Farms Worth AED 310 Million To Enhance UAE's Food Security

The Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) has signed two Musataha contracts with two local private sector companies to build and operate two farms, one in Al Ain and the other in Abu Dhabi, with a total value of around AED 310 million.

The first Musataha contract was signed with Emirates Hydroponics Farms to build and

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operate a hydroponic farm for the production of vegetables, fruits, and mushrooms for canning in a controlled environment. The farm will be in the Abu Dhabi region on an area of 325,000 square metres with a total value of AED 260 million.

This farm supports the aspirations of ADAFSA to implement modern farming systems and diversify agricultural production in controlled environments, as well as the food security system in terms of agricultural production and manufacturing.

The second contract signed with the Emirates International Agricultural Advanced Company will establish and operate a farm to produce vegetables and fruits in the system of net houses, in addition to the growing of azola and jojoba plants and fish farming (Aquaponic). The farm will be in Al Ain on an area of 750,000 square metres

at cost of about AED 50 million. The production of this farm supports the food security system in the UAE and strengthens the ADAFSA's efforts to develop and modernise the agriculture sector in Abu Dhabi and achieve its sustainability.

The two projects are part of ADAFSA's efforts to expand cooperation with private sector companies to ensure sustainable agricultural and food development in the emirate.

A part of ADAFSA's strategy and the recently launched agricultural and food investment map, these projects aim to support agricultural and animal research focusing on plant agriculture and livestock, as well as projects that target innovation and scientific research based on addressing the challenges of soil, water, and climate change.

'Build A Shared Future For All Life', Urges UN Chief

Three-quarters of the land-based environment and about 66 percent of the marine environment have been significantly altered by human actions. On the International Day for Biological Diversity, the UN Secretary-General urged to end the 'senseless and destructive war against nature'.

Observed on 22 May every year, the International



Observed on 22 May every year, the International Day for Biological Diversity is a United Nations-sanctioned international day for the promotion of biodiversity issues

Day for Biological Diversity is a United Nations-sanctioned international day for the promotion of biodiversity issues.

"Biodiversity is essential for achieving the Sustainable Development Goals, ending the existential threat of climate change, halting land degradation, building food security and supporting advances in human health," said António Guterres in a statement. The UN chief highlighted that biodiversity offers solutions for green and inclusive growth and, this year, governments will meet to agree on a global biodiversity framework with clear and measurable targets to put the planet on the path of recovery by 2030.

"The framework must tackle the drivers of biodiversity loss and enable the ambitious and transformative change needed for living in

*"Biological diversity resources
are the pillars upon which we
build civilizations"*



harmony with nature by effectively protecting more of the world's land, freshwater and oceans, encouraging sustainable consumption and production and employing nature-based solutions," he highlighted.

"As we accomplish these goals and implement the 2050 Vision for "living in harmony with nature", we must act with respect for equity and human rights, particularly regarding the many indigenous populations whose territories harbour so much biological diversity," he emphasised.

The UN chief said that to save our planet's indispensable and fragile natural wealth, everyone needs to be engaged, including youth and vulnerable populations who rely the most on nature for their livelihoods.

"Today, I call on all to act to build a shared future for all life," he concluded.

Building a shared future for all life was this year's focus for the International Day, in line with the United Nations Decade on Restoration.

Biological diversity resources are the pillars upon which we build civilizations. Fish provide 20 percent of animal protein to about 3 billion people; plants provide over 80 percent of the human diet; and as many as 80 percent of people in rural areas rely on traditional plant-based medicines for primary healthcare.

Yet, about 1 million animal and plant species are now threatened with extinction.

Loss of biodiversity threatens all, including our health. If current negative trends in biodiversity and ecosystems are not addressed soon, they will undermine progress toward 80 percent of the assessed targets of 8 SDGs.

Word Scramble

ABLRAEDGEDBIO
AONRBC UNRTEAL
TAICEHL
RECTAND
SCOMTOP
HSGUEOEENRE
BELLEYALRI
MEYRE FENIECIET

Answers: 1) Organic 2) Recyclable 3) Carbon Neutral 4) Greenhouse 5) Biodegradable 6) Energy Efficient 7) Ethical 8) Compost

Word Search

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

GROWTH

SUSTAIN

FLORA

NATURE

WAVES

WILDLIFE

SURFACE

ENDANGER

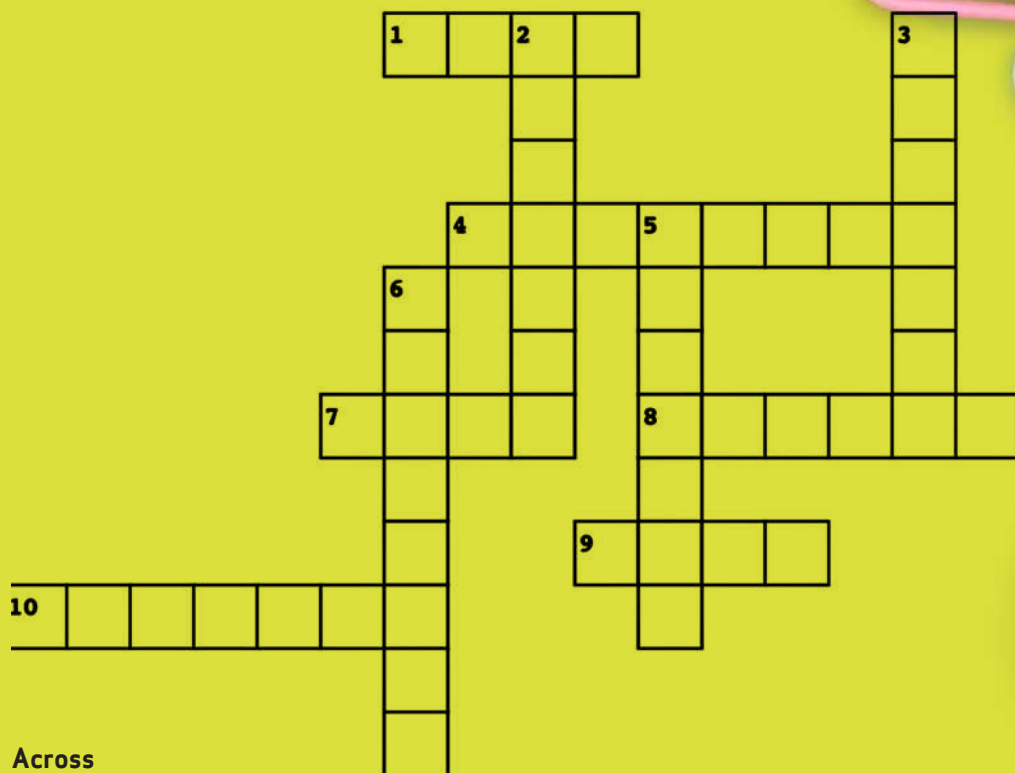
HEAT

ATMOSPHERE

EARTH

CHANGE

Crossword Puzzle



Across

1. Food regimen
4. Throwing away
7. High temperature
8. Complex whole
9. Strong breeze
10. Weather conditions

Down

2. Having no living representative
3. Make impure
5. Synthetic material
6. Green foliage

Answers: 1) Diet 2) Extinct 3) Pollute 4) Disposal 5) Plastic 6) Greenery 7) Heat 8) System 9) Wind 10) Climate

WORD OF THE DAY:

EXTINCTION

Extinction of a particular animal or plant species occurs when there are no more individuals of that species alive anywhere in the world - the species has died out. This is a natural part of evolution. But sometimes extinctions happen at a much faster rate than usual.

Today human intervention is also causing rapid extinction. Hunting, habitat destruction and the over exploitation of wildlife means that many different types of plants and animals are being pushed to the edge of extinction.

EXAMPLES OF EXTINCT ANIMALS



Dodo

All that remains today of the dodo are a few bones and partial skeletons, but these chubby, flightless birds were once alive and well in the forests of Mauritius. Their tragic tale began in the 16th century, when Dutch sailors arrived on the island and hunted this brilliant bird. The main cause of the dodo's extinction, however, was the animals the sailors brought with them, such as cats, pigs and rats – they guzzled on dodo eggs and out-competed the birds for food, wiping them out by the 1680s.



Great Auk

The black-and-white great auk was once found around the North Atlantic, waddling around on craggy coasts – including in the UK – or swimming in the waves using its short wings. But during the early 19th century, the great auk was killed in huge numbers for its feathers, meat and oils.



Baiji River Dolphin

Up until the 1950s, thousands of these small, pale grey aquatic animals splashed about in the murky waters of China's Yangtze River. But, due to overfishing, collisions with ships and pollution, it's believed these mammals are now extinct. While they are still listed as Critically Endangered on the IUCN Red List, there have been no confirmed sightings of this spectacular swimmer since 2004.

WORLD ENVIRONMENT DAY - JUNE 5

Led by the United Nations Environment Programme (UNEP) and held annually on 5 June since 1973, World Environment Day is the largest global platform for environmental public outreach and is celebrated by millions of people across the world. This year it is hosted by Sweden.

#OnlyOneEarth is the campaign for World Environment Day 2022. It calls for collective, transformative action on a global scale to celebrate, protect and restore our planet. "Only One Earth" was the slogan for the first United Nations Conference on the Human Environment, held in Stockholm in 1972. This put sustainable development on the global agenda and led to the establishment of World Environment Day.

Did you know?

- We are using the equivalent of 1.6 Earths to maintain our current way of life, and ecosystems cannot keep up with our demands.
- Our lifestyles are associated with two thirds of all greenhouse gas emissions - studies show that sustainable lifestyles and behaviours could reduce our emissions by 40% to 70% by 2050.

WORLD OCEANS DAY - JUNE 8

The oceans cover over 70% of the planet. It is our life source, supporting humanity's sustenance and that of every other organism on earth. The oceans produce at least 50% of the planet's oxygen, it is home to most of earth's biodiversity, and is the main source of protein for more than a billion people around the world. Not to mention, the oceans are key to our economy with an estimated 40 million people being employed by ocean-based industries by 2030.

"Revitalization: Collective action for the ocean" is the theme for World Oceans Day 2022, a year framed by the UN Decade of Ocean Science and the celebration of the United Nations Ocean Conference, two years after being cancelled because of the pandemic.

The purpose of World Oceans Day is to inform the public of the impact of human actions on the ocean, develop a worldwide movement of citizens for the ocean, and mobilize and unite the world's population on a project for the sustainable management of the world's oceans.

Facts about Oceans

- The oceans produce at least 50% of the planet's oxygen.
- The oceans are key to our economy with an estimated 40 million people being employed by ocean-based industries by 2030.
- Oceans absorb about 30% of carbon dioxide produced by humans, buffering the impacts of global warming.



What can you do to help?

Things to Do...

- ☒ Use paper on both sides! _____
- ☒ Take shorter showers! _____
- ☒ Don't waste your food! _____
- ☒ Pick up trash from your surroundings! _____
- ☒ Switch off all lights when not in use! _____

COLOUR ME!



Rural Senegal Celebrates Graduation Of First Batch Of Female Solar Professionals

The first batch of women from rural areas of northern Senegal have qualified as solar energy and maintenance technicians after an intensive six-month training course run by DP World and Barefoot College International (BCI).

Now fully qualified as solar energy and maintenance technicians, the 10 participating women, known as the 'Solar Mamas', can



positively impact their local communities. Their training was made possible through a partnership between DP World and BCI, a non-governmental organisation, which hosted the course at their regional centre in Toubab Dialao, a village around 60 km from the capital, Dakar.

The Solar Mamas were all selected from non-electrified, rural areas of northern Senegal, around 415km from Toubab Dialao. For many of the women it was the first time they had left their region. They are now equipped with the knowledge, skills and tools to make a positive difference in their communities.

DP World Dakar has the concession to manage, develop and operate the container terminal at the Port of Dakar, and donated nearly USD400,000 to BCI to equip a training centre in Toubab Dialao. The donation also covered the

cost of training the women to become solar technicians, educators and entrepreneurs. The Solar Mamas, who had little or no previous traditional education, can now install, maintain and repair solar-powered infrastructure in their local communities. Each new trainee also received the tools and resources needed to become business owners in the solar energy sector. This will have a double impact - sustainably powering the development of local economies while encouraging other women to join the sector.

One of the graduates, 59-year-old Mairame Ba, said, "I never imagined that I could become a professional in solar energy at my age and without ever having been to school. I can't wait to return to my village to bring electricity to my community. Having solar energy in our community will change our lives."

'Countries Must Take Greater Responsibility For Climate Change To Save Island Nations'

Countries should cut down on their greenhouse gas emission and take greater responsibility for problems created by climate change to save island nations like Tuvalu from extinction, said the country's senior official.

In an interview during his recent visit to the UAE, Simon Robert Kofe, Tuvalu's Minister of Justice, Communication and Foreign Affairs, who is also



Tuvalu's Minister of Justice, Communication and Foreign Affairs urges countries to cut down on greenhouse gas emissions

a Nobel Peace Prize nominee for 2022 for his efforts in confronting climate change, said that Tuvalu is probably one of the first countries to go underwater if sea level continues to rise.

"The solution to our problem is that countries need to cut down on their greenhouse gas emissions. They need to take greater responsibility for the problem and the challenges that we are facing right now," stressed Kofe.

Located in the Central Pacific Ocean, about 600 kilometres north of Fiji, Tuvalu is the 4th smallest country in the world, with a population of around 11,000 people. It comprises six coral atolls and three islands, covering an area of about 27 square kilometres.

"Tuvalu is facing the full brunt of climate change although we are the least contributor to the

Tuvalu may face extinction in the next 50 to 100 years from now if climate change continues to affect its existence



problem. Yet we are the ones that are facing extinction as a nation and as a people," said Kofe, adding that countries should take action now to save not only island nations, but other countries too.

"If it doesn't affect the big countries today, it will certainly affect them tomorrow. As a nation, we want to draw the line here and say if you save Tuvalu, you are saving the world."

Among the effects of climate change in Tuvalu are coastal erosion, coral bleaching that affects the ecosystem of fisheries and saltwater intrusion into agricultural lands.

"Sometimes it's difficult for people living in big cities and big countries to understand climate change, thinking that climate change is something that is far off. We want to bring the message that climate change is going to affect everyone," Kofe

said, adding that the world is already experiencing its effects with strong cyclones, earthquakes, and bushfires that are hitting different parts of the world.

Tuvalu, which may face extinction in the next 50 to 100 years from now if climate change continues to affect its existence, is looking for alternative solutions to preserve its identity.

The Future Now Project, which combines a series of activities developed and overseen through the Ministry of Justice, Communication and Foreign Affairs, will future proof Tuvalu against the most severe impacts of sea-level rise and climate change.

"We're looking at saving our islands, reclaiming our land, building sea walls... But we are also preparing for a worst-case scenario, which is that maybe 50-100 years on the track, it will be very



difficult to live in Tuvalu. Its population might have to relocate.

"So, the question is what do we do in that situation? Can we continue as a state without a physical land territory? Can we have voting rights? Can we have rights to our sovereign assets like DotTV and our oceans?" asked Kofe, who emphasised that one of the objectives of the Future Now Project is to have countries that establish relations with Tuvalu recognise that their state is permanent regardless of its physical territory.

For a small country like Tuvalu, whose main revenues come from selling fishing licenses and their country's top-level domain name, DotTV, to international buyers, this is a legitimate concern.

"One of the approaches is looking at the legal

avenues to be under international law to be able to safeguard that, to be able to say that once you are a state, you are a state forever regardless of the impacts of climate change."

Tuvalu is pioneering in this appeal, according to Kofe, who said that when international laws and treaties were developed in the 70s and 80s, climate change was not an issue.

"Many of the international treaties are currently silent on climate change. That's why there's nothing in place to protect or accommodate the situation that Tuvalu is in right now. We're hoping to do one step at a time by establishing bilateral relations and hopefully more countries come on board to recognise these principles."

Indeed, Tuvalu is expanding its diplomatic presence to support its cause. Most recently, it

Rising sea levels are threatening Tuvalu, a Pacific paradise, located between Australia and Hawai



opened its latest embassy in Abu Dhabi, as a result of its participation in Expo 2020 Dubai.

"It is a big thing to have a mission here in the UAE," said Kofe, whose country only has five embassies around the world.

"Our vision was to establish the relations here in the UAE, in this part of the world, given that the UAE is leading in innovation and technology," said Kofe, stressing that his country is interested in the UAE's expertise in building artificial islands and safeguarding them.

The Minister also hailed the UAE's hosting of COP28, which he described as a perfect time to come up with solutions to the climate change problem.

During his visit to the UAE, Tuvalu's Minister also signed a licensing agreement with GoDaddy, an

American publicly traded Internet domain registrar and web hosting company, by which the latter will be able to manage the DotTV domain name for commercial purposes

WHO Raises Alarm On Tobacco Industry Environmental Impact

The World Health Organisation has unveiled new information on the extent to which tobacco damages both the environment and human health, calling for steps to make the industry more accountable for the destruction it is causing.

Every year the tobacco industry costs the world more than 8 million human lives, 600 million



Tobacco industry's carbon footprint from production, processing, and transporting tobacco is equivalent to one-fifth of the CO₂ produced by the commercial airline industry each year

trees, 200 000 hectares of land, 22 billion tonnes of water and 84 million tonnes of CO₂.

The majority of tobacco is grown in low-and-middle-income countries, where water and farmland are often desperately needed to produce food for the region. Instead, they are being used to grow deadly tobacco plants, while more and more land is being cleared of forests.

The WHO report "Tobacco: Poisoning our planet" highlights that the industry's carbon footprint from production, processing and transporting tobacco is equivalent to one-fifth of the CO₂ produced by the commercial airline industry each year, further contributing to global warming.

"Tobacco products are the most littered item on the planet, containing over 7000 toxic chemicals, which leech into our environment when

Every year the tobacco industry costs the world more than 8 million human lives, 600 million trees, 200, 000 hectares of land, 22 billion tonnes of water and 84 million tonnes of CO2



discarded. Roughly 4.5 trillion cigarette filters pollute our oceans, rivers, city sidewalks, parks, soil and beaches every year,” said Dr. Ruediger Krech, Director of Health Promotion at WHO.

Products like cigarettes, smokeless tobacco and e-cigarettes also add to the build-up of plastic pollution. Cigarette filters contain microplastics and make up the second-highest form of plastic pollution worldwide.

Despite tobacco industry marketing, there is no evidence that filters have any proven health benefits. WHO calls on policy-makers to treat cigarette filters, as what they are, single use plastics, and consider banning cigarette filters to protect public health and the environment.

The costs of cleaning up littered tobacco products fall on taxpayers, rather than the industry

creating the problem. Each year, this costs China roughly USD 2.6 billion and India roughly USD 766 million. The cost for Brazil and Germany comes in at over USD 200 million.

Countries like France and Spain and cities like San Francisco, California in the USA have taken a stand. Following the Polluter Pays Principle, they have successfully implemented “extended producer responsibility legislation” which makes the tobacco industry responsible for clearing up the pollution it creates.

WHO urges countries and cities to follow this example, as well as give support to tobacco farmers to switch to sustainable crops, implement strong tobacco taxes (that could also include an environmental tax) and offer support services to help people quit tobacco.

Space Debris

People worldwide are concerned about different levels of air, water and land pollution. Air pollution poses the most serious threat to human health, especially in industrial countries. In underdeveloped countries, water pollution is causing over 80% of child health problems.

However, with the growing number of satellites being launched, space pollution is now becoming an ever-increasing concern as it has a negative impact on both astronomy and the cultural significance associated with the sky for indigenous populations who navigate their way at night by locating the stars. Of late, scientists have detected over 30,000 items of space debris in the Earth's orbit



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

that can potentially damage satellites and space stations, and create more debris.

Where is the space debris coming from?

Ageing satellites naturally die out and may become impossible to track. In addition, collisions can release more debris while the enormous increase in commercial satellites launched each year are another cause for worry.

Appropriate regulations are necessary and surveillance networks must be expanded and supported with more advanced equipment to detect the nature and rising amount of space debris, especially those created by small satellites closer to Earth and which provide global communication services.

These satellites provide great benefits to humanity, but the congestion and increasing traffic in low-Earth orbit is causing a significant number of close encounters between active satellites and existing debris.

Some progress has been made in recent times towards burn up of rockets upon re-entry, and the use of naturally degradable material. Cleaning up the existing debris and safe disposal of spacecraft at the end of their mission are important measures to control debris. Space is an important part of our environment. International treaties are required to protect this precious environment by regulating space activity at the national, regional and international levels.

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