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creating green communities for a better tomorrow



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Emirates Appreciation Award For The Environment



Together for a
green home





Chairman's Message



Prof. Mohammed bin Fahad
Executive Editor

The UAE is driven by the bold vision of its leaders who have consistently sought to transform challenges into opportunities, pushing the boundaries of what is possible to achieve extraordinary growth and progress. These leaders are advancing innovation and future technologies to serve society and leverage global collaboration and partnerships to build a sustainable, future-proof economy.

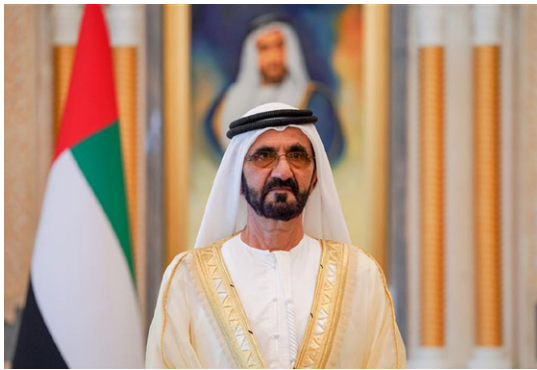
Innovation lies at the heart of the UAE's growth strategy, creating an ecosystem that nurtures creativity and entrepreneurship. By fostering an environment where new ideas can thrive, the UAE is not just keeping pace with global developments but is often leading the charge. With the launch of the UAE Strategy for the Fourth Industrial Revolution and the UAE Strategy for Artificial Intelligence, the UAE set a new benchmark in the region and globally for how nations can strategically harness emerging technologies to drive economic growth and societal advancement. Today, the country has a rapidly expanding data center landscape, and its focus on AI and blockchain is facilitating breakthroughs that will shape the future of entire industries.

The UAE Net Zero by 2050 strategic initiative is a significant milestone in the country's sustainability journey. As the COP28 host last year, the UAE led global discussions on climate action, demonstrating its commitment to achieving meaningful progress toward a sustainable future for all. Apart from its massive investments in renewable energy projects like the Mohammed bin Rashid Al Maktoum Solar Park, the country's pioneering efforts in sustainable urban development, water conservation, and waste management further underscore its commitment to creating a resilient and eco-friendly future.

By building strong alliances with countries, international organizations, and the private sector in critical areas such as climate action, and food and energy security, the UAE is tackling the world's most urgent challenges and contributing to solutions that address the broader needs of humanity.



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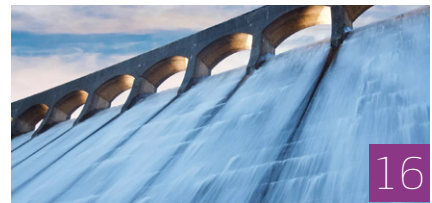
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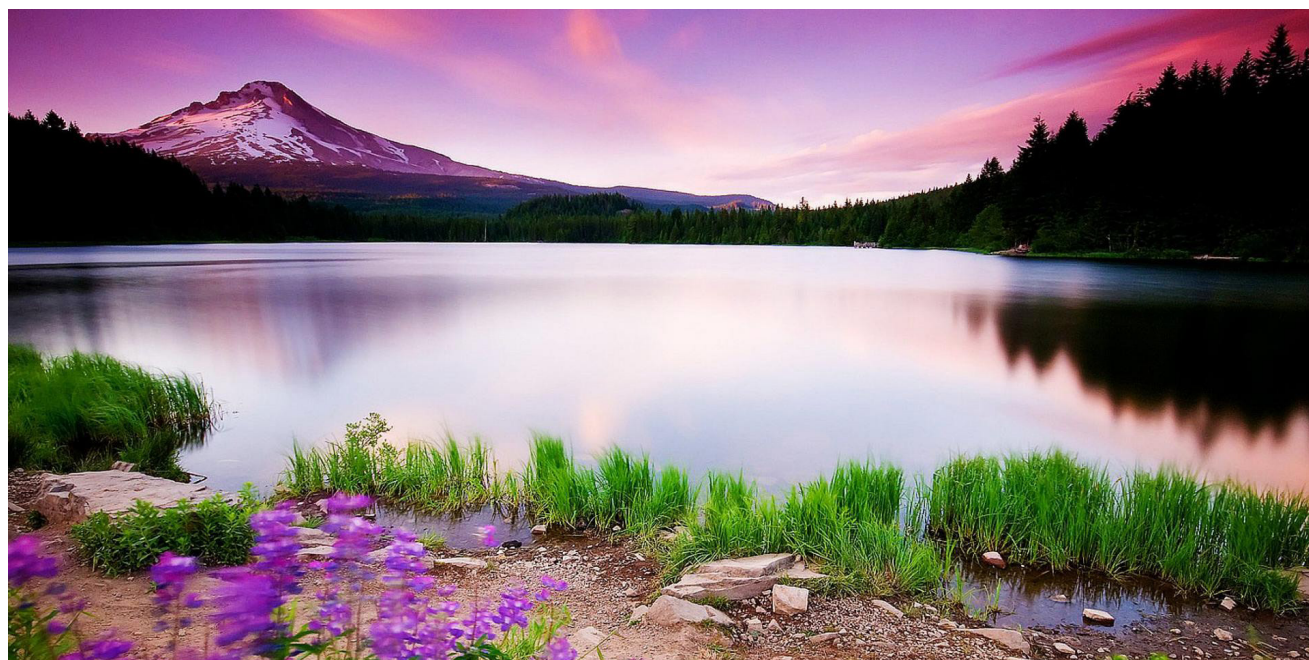


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UAE strengthens vital economic sectors: Mohammed bin Rashid

Ruler of Dubai lauds the leadership and guidance of the UAE President for strengthening the nation's performance in vital economic sectors

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister of the UAE, and Ruler of Dubai, said that under the leadership of President His Highness Sheikh Mohamed bin Zayed Al Nahyan, the UAE is committed to excelling in various sectors and enhancing its role as a key partner in creating a better future for humanity.

The UAE is also dedicated to strengthening its global partnerships to tackle challenges and drive progress in the fields of sustainability, innovation, and advanced infrastructure, he added. His Highness Sheikh Mohammed bin Rashid made this statement during a meeting with several local dignitaries, business leaders, investors, ministers and senior officials at his weekly Majlis.

Guided by the leadership's clear vision, the nation's development journey has seen significant achievements across key sectors, His Highness Sheikh Mohammed said. He highlighted the private sector's role as a key partner in



driving economic development, in line with the UAE's strategy to diversify income sources, enhance investment opportunities, and create new business opportunities, particularly in future-focused sectors.

He said that Dubai continues to strengthen its status as a pivotal global trading hub, a centre for the creative and digital economy, and a major base for multinational companies. Dubai seeks to establish itself as a leading destination for

highlights the strength of its partnerships, the strong synergy between its public and private sectors, and the robust relationships it has developed with strategic partners worldwide. Innovation and advanced technology are key drivers of a prosperous and bright future for Dubai. We are committed to providing an ideal environment for startups in the fields of innovation and advanced technologies, supported by modern laws and regulations aimed at facilitating business, simplifying procedures, and



tourism, business, and investment, Sheikh Mohammed said.

By consistently providing vital resources, Dubai seeks to maintain its leading position both globally and regionally in key sectors, His Highness noted. This effort supports the goals of the Dubai Economic Agenda, D33, to establish Dubai as one of the world's top three urban economies and enhance its economic and trade competitiveness.

"Dubai's exceptional performance in all fields

strengthening Dubai's position as a global hub for innovation," said Sheikh Mohammed.

The meeting was attended by H.H. Sheikh Ahmed bin Saeed Al Maktoum, Chairman of Dubai Civil Aviation Authority, Chairman of Dubai Airports and Chairman and Chief Executive of Emirates Airlines and Group; H.H. Sheikh Hasher bin Maktoum bin Juma Al Maktoum, Chairman of Dubai Media Incorporated, and several sheikhs, ministers, and senior officials.



08

C O P 2 8

IRENA calls for bold action to achieve UAE Consensus energy targets by 2030

Global investment in renewables reaches record high, but further momentum is needed to bring about 11.2 Terawatts by 2030 pledged by countries at COP28 in Dubai

The International Renewable Energy Agency (IRENA) has established that the course to achieve the UAE Consensus energy target remains off track due to persistent structural barriers including a notable shortfall in investment. Although global investment in energy transition technologies reached a new record of USD 1.3 trillion in 2022, it is insufficient to bring about 11.2 Terawatts by 2030 pledged by countries at COP28 in Dubai last year. By contrast, fossil fuel capital investments were almost twice those of renewables investments in the same year.

With the commitment to triple renewable power generation capacity and double the energy efficiency improvement rate by 2030, governments must redouble their efforts to ensure investments are on the right track. Government support and investment trends must change rapidly to transition away from fossil fuels.

Any new investment decisions should be



carefully assessed to simultaneously accelerate the energy transition and reduce the risk of stranded assets. This includes redirecting around USD 1 trillion of planned annual fossil fuel investment towards transition technologies and infrastructure by 2030. IRENA's analysis to track the progress towards the global target set at COP28 shows that global investment in renewable generation capacity must amount to over USD

To achieve targets set at COP28, global investment in renewable generation capacity must amount to over USD 1.5 trillion annually till 2030



1.5 trillion annually till 2030.

Apart from increased amounts, investment in renewables also needs more equitable distribution. Although global investment in renewable energy reached a record high of USD 0.5 trillion in 2022, developing countries received disproportionately low levels of investment. Sub-Saharan Africa, for example, received less than USD 3.6 billion in 2022 despite being home to the highest share of energy-deprived populations.

Public sector intervention is required to channel investments towards countries that need them most. While private investments are important,

public finance (domestic or through international collaboration) remains essential in providing energy services solutions to advance universal energy access, which includes electricity and clean cooking. Public finance plays a pivotal role in mobilising private capital to this end – especially in countries and regions that are in the blind spot of private fund – and in bridging end users' affordability gaps.

Understanding the urgency to scale up renewables projects that contribute to the United Nations Sustainable Development Goals and Nationally Determined Contributions in developing countries, IRENA with the support of the United



Arab Emirates (UAE) established the Energy Transition Accelerator Financing (ETAF) Platform in 2021. As an inclusive, multi-stakeholder climate finance platform, ETAF facilitates capital mobilisation for renewable energy projects, with a keen focus on those in developing economies. To date, the ETAF Platform has grown to include 14 partners, pledging a total of USD 4.15 billion, aiming to provide financing of 5 GW of projects by 2030.

With Sub-Saharan Africa representing the majority of the need and the highest number of requests for financial support under ETAF, the Platform puts its primary focus on the region this year, in the framework of the Accelerated Partnership for Renewables in Africa (APRA). Launched in September 2023 at the Africa Climate Summit in Nairobi, APRA is an Africa-led international partnership with IRENA acting as secretariat.

Emphasising the need for increased public finance from the international finance community, leaders of APRA countries – currently include Kenya, Ethiopia, Ghana, Namibia, Rwanda, Sierra Leone, and Zimbabwe – and of partners countries (Denmark, Germany, UAE, USA), agreed to collaborate through finance mobilisation, private sector engagement and provision of technical assistance and capacity building. Partners such

as the Global Energy Alliance for People and Planet as well as Rockefeller Brothers Fund also support this effort to enhance climate resilience, green industrialisation, economic development, job creation, and energy access in African countries.

In line with the objective to facilitate investment opportunities in renewables and wider supply chain projects in developing markets, IRENA will co-organise the APRA Investment Forum with the Kenyan government and international partners later this year, to connect projects supported by IRENA's ETAF and Climate Investment Platform, as well as other international partners' initiatives in the APRA region, with potential financiers, through a curated matchmaking programme.

In addition to collective efforts at the regional and international levels to channel more funds to developing countries, IRENA suggests governments to scale up and expand the distribution of finance through these urgent actions:

- Increase the strategic use of public funds.
- Implement policies that support the financial viability of projects, leveraging public and private capital.
- Implement risk mitigation strategies and explore innovative solutions such as blended finance.



UAE joins UN Secretary-General's Critical Energy Transition Minerals Panel in Kenya

UAE NEWS

Abdulla Balalaa, Assistant Minister of Foreign Affairs for Energy and Sustainability, participated at the UN's Critical Energy Transition Minerals (CETM) Panel held in Nairobi, Kenya, alongside government representatives, experts, and organisations.

The UN CETM Panel exchanged views on important files related to the mining sector since its launch in April 2024, ensuring engagement in productive discussions on the development of global voluntary guiding principles on critical minerals. At the meeting, panel members stressed the importance of forming stronger foundations, and focusing on international cooperation to achieve mutual and collective benefits for the mining industry.

Balalaa commended the outcomes of the UN Panel, which coincided with the urgent need to keep 1.5°C within reach, and global preparations to achieve the goal of net zero. He underlined the importance of enhancing an environmental

response based on sustainable policies and practices, which ushers in a new era of climate action and protects local communities from any climate or environmental damage associated with the mining process.

Furthermore, he stressed the significance of building confidence at a wider level to achieve the desired transformational outcomes, allowing mineral-rich countries to create a conducive environment that reinforces economic growth. Balalaa noted the importance of attracting responsible investment in the mining sector, to support these countries, enhance their adaptability, and ensure a smooth transition to renewable and clean energy.

The UAE also announced that it will co-host the 2026 UN Water Conference with Senegal to provide effective climate change solutions which include preserving natural resources and urging for their efficient management.





RECOGNITION

Abu Dhabi, Dubai ranked top liveable cities in Middle East, Africa

The cities also ranked first and fifth, respectively, among the world's safest places

Abu Dhabi and Dubai have remained the top liveable cities in the Middle East and Africa, and improved their scores in health care and education, according to the Global Liveability Index of the Economist Intelligence Unit (EIU) for 2024.

The index ranked Dubai closely behind in the second spot, highlighting its achieved progress in the same areas.

According to the "Crime and Safety Indexes" provided by the Numbeo website, Abu Dhabi is considered one of the safest cities globally. The city ranked first globally on the Safety Index with a score of 88.2 points and had the lowest score on the Crime Index with 11.8 points. Meanwhile, Dubai ranked fifth on the list of the world's safest cities.

In the field of health, recent data from a report by the Dubai Health Authority showed that the



total number of licensed and operational healthcare facilities in the emirate reached 5,020 during the first quarter of 2024, with the number of licensed doctors totaling 13,370.

Meanwhile, the number of healthcare facilities in Abu Dhabi, during the same period reached 3,323, including 67 hospitals, 1,136 health centres, 765 clinics, 1,068 pharmacies, and 287 other facilities classified as healthcare establishments.

At the same time, the number of licensed doctors in Abu Dhabi reached 12,922 by the end of 2022.

In the field of education, the number of schools in Abu Dhabi reached 459, including private, public, and mixed schools, during the 2023-2024 academic year, while the number of private schools in Dubai reached 220.

Eight of the top 10 cities in the region were in Gulf countries, which are stable and have an increasing influence on the world stage. Among them were Kuwait City, Doha, and Bahrain in the 3rd, 4th, and 5th spots, respectively.

The six-member Gulf Cooperation Council (GCC) is one of the world's economic powerhouses, drawing talent from around the world and deploying vast pools of capital to it.

The global index includes 173 cities judged on five categories: stability, health care, culture and environment, education, and infrastructure.

6.5 million flowers planted in Abu Dhabi

Abu Dhabi City Municipality has planted 6,500,000 flowers, achieving a completion rate of 100 percent of the plan set for the current summer season.

This aligns with the Abu Dhabi City Municipality's plan to achieve the targets of the Natural Beautification Project to plant 13 million summer

Other top-ranking GCC cities are Kuwait City, Doha and Bahrain in the 3rd, 4th, and 5th places, respectively



and winter flowers in 2024, to enhance the aesthetic appearance of Abu Dhabi City and its suburbs, to enhance the efficiency of managing assets, infrastructure, and public facilities, and to improve lifestyle and quality of life for residents and visitors.

Abu Dhabi Municipality implements natural beautification landscaping projects with flowers and plants, following sustainability standards and selecting species suitable for the UAE environment. This aligns with the municipality's commitment to conserving and sustaining resources.



New initiative to boost agricultural production, strengthen food security in the UAE

The programme, launched by the Ministry of Climate Change and Environment (MOCCA), will offer specialised training in various areas such as soil and irrigation, crop production, pest prevention, beekeeping, and honey production

As part of its efforts to enhance agricultural production and increase its contribution to strengthening national food security in the UAE, the Ministry of Climate Change and Environment (MOCCA) has announced the launch of a programme to improve the efficiency of agricultural advisory services (agricultural extension).

The programme aims to improve the skills of agricultural extension agents or guiding staff and develop their professional capacities. It also works towards improving their communication skills to enable them to transfer technology, and share modern farming techniques, ensuring an increase of production.

The programme encompasses specialised training courses about soil and irrigation, crop and vegetable production, fruit production, pest prevention and control, beekeeping and honey production



It also features lectures and workshops to enhance the technical skills and competencies of agricultural extension agents.

Additionally, the programme includes field courses to provide opportunities for applying theoretical knowledge in a practical context and developing communication skills and enhancing confidence.

Dr. Mohammed Salman Al Hammadi, Assistant Under-Secretary of the Food Diversity Sector at MOCCA, said: "The agricultural extension efficiency improvement programme comes as part of our ongoing commitment to support the sustainability of national farms in the UAE and grow the sector in the future. The programme aims to develop a specialised path for all agricultural extension agents covering the main fields in the sector. Through this, we seek to build capacity and competency of agricultural extension, which in turn, would contribute to enhancing local agricultural production and support the transformation of national food systems into more sustainable systems."

He pointed out that the agricultural extension efficiency improvement programme will be implemented in collaboration with partners, research centres, and global experts.

The efforts by the Ministry of Climate Change and Environment include developing an annual plan for agricultural guidance, aimed at monitoring and supporting farmers in enhancing crop production and protecting the crops from pests. This initiative is based on establishing a timetable for the service operations of trees and cultivation seasons for each crop.

The plan focuses on date palm crops, fruits, vegetables, fodder, bees, and honey production. It also includes operations related to irrigation, fertilization, and land reclamation.

The plan also involves the preparation and

Agricultural extension agents will benefit from upskilling opportunities to enable them to transfer technology and share modern farming techniques, ensuring an increase in production



development of technical reports and reports on the advisory visits to farms, including data analysis, providing recommendations, and documenting results to ensure performance improvement and meet the farmers' needs.

Al Hammadi said that the Ministry, through the annual plan for agricultural guidance, aims to enhance communication between extension agents and farmers and to prepare a schedule for periodic visits to farms. He added that a plan for regular meetings with farmers will be launched to discuss the challenges they face. This will ensure better crop yields and also set precise standards and objectives to improve the quality and efficiency of agricultural guidance programmes, thereby contributing to enhancing farmers' satisfaction.



World Utilities Congress 2024 to run from 16-18 September in Abu Dhabi

Global energy leaders, policymakers, innovators, and industry professionals from across the power & water utilities value chain will discuss the major trends and challenges in delivering secure, sustainable, and affordable energy

Under the patronage of H.H. Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Chairman of the Abu Dhabi Executive Council, the 3rd World Utilities Congress, hosted by Abu Dhabi National Energy Company (TAQA), will take place in Abu Dhabi from 16th-18th September 2024 at ADNEC Centre Abu Dhabi.

More than 280 global speakers, 18 energy ministers, and 1,400 conference delegates will participate in this year's congress held under the theme "Enabling a Secure and Sustainable Utilities Future".

The congress will serve as a platform for decision-makers and industry leaders across the utilities value chain to advance collaboration, engage in meaningful dialogue, and bolster action towards sustainable and resilient utilities of tomorrow.

Ahmed Al Kaabi, Assistant Under-Secretary for Electricity, Water, and Future Energy Sector at



the Ministry of Energy and Infrastructure, said, "The World Utilities Congress 2024 will be a valuable opportunity to exchange expertise and knowledge with a host of experts from across the globe. It will highlight the latest technologies and innovative solutions for challenges related to sustainability of the water and electricity sectors, which will support our national and international efforts to achieve the UN SDGs.

"Through the congress, we seek to showcase our achievements and share our ideas with industry

More than 280 global speakers, 18 energy ministers, and 1,400 conference delegates will participate in the congress held under the theme "Enabling a Secure and Sustainable Utilities Future"



pioneers to sustain resources for future generations. Addressing energy and water challenges requires integrated cross-border cooperation.

"The event will help us leverage advanced technological solutions and best practices to enhance the efficiency of resources and develop policies and strategies to sustain them."

The World Utilities Congress 2024 is co-located with the 6th Arab Water Forum, convened by the

Arab Water Council and supported by the League of Arab States, to address the shared issues around water scarcity and security that impact many sectors, including utilities.

Bringing together more than 12,000 global professionals from across the power and water utilities value chain, the congress will highlight the latest technologies, research advancements, technical services, and product solutions that are driving the future of the industry.



TECHNOLOGY

New AI-based research programme to monitor Abu Dhabi's natural terrestrial habitats

AI adoption significantly reduces research costs and time, saving up to 90 percent compared to traditional methods

The Environment Agency – Abu Dhabi (EAD) has partnered with Dendra Co. to execute a comprehensive programme to assess the state of natural terrestrial habitats across the emirate of Abu Dhabi.

The Agency led the development process of a detailed study design that includes carefully chosen areas suitable for assessing the state of native vegetation cover in natural habitats within and beyond Protected Areas. This systematic approach enabled EAD to measure the extent and dynamics of changes in the diversity and the distribution of local plants linked to human uses and anthropogenic influences.

The research programme was implemented and facilitated by a team of young national talents from the Agency and Dendra Co, which specialises in conducting environmental consultancy studies using artificial intelligence methodologies and data collection programmes



via smart sensors provided to drones.

Dr. Shaikha Salem Al Dhaheri, EAD Secretary-General, said, "This programme is considered the largest field research project ever implemented in the region. More than six months of continuous work enabled us to comprehensively cover 11,000 hectares as a representative survey of the critical vegetation cover most vulnerable to environmental threats resulting from human uses and climate change.

"The detailed data resulting from the programme will contribute to giving clearer guidance, which will enhance the decision-making process to deal with the increasing pressures proactively."

Ahmed Al Hashemi, Executive Director of the Terrestrial and Marine Biodiversity Sector at EAD, said, "The environmental and financial impact of these techniques is considered small compared to the negative effects on the environment resulting from traditional fieldwork methods that uses vehicles to reach research areas. This is in addition to the clear rationing of operational administrative costs. A standard comparison showed that this approach contributed to saving time and costs by up to 90 per cent, compared to traditional methods."

Al Hashemi added that a vast research area of natural habitats was covered. The vital indicators of multiple types of local plants were accurately measured, allowing the health of the vegetation to be assessed and the effects and pressures on it to be determined systematically, including overgrazing, and the impact of human activities, especially the use of four-wheel drive vehicles.

The programme also included photographic documentation of wildlife distribution areas and an assessment of the extent of their relationship with wild plant species. This helped increase understanding of vegetation data and its response to human influences.

In addition to field monitoring and research, EAD and Dendra Systems have developed a smart geographic database platform to document all project information



In addition to field monitoring and research, a smart geographic database platform was developed to document all project information. This platform provides the ability to produce instant reports and accurate statistical analysis.

According to the initial study design, EAD has also implemented an operation to disperse seeds of local plant species using drones capable of carrying a total weight of 70 kg and dispersing them in three areas within Abu Dhabi.

Each 380-hectare area was monitored as a baseline to assess how these seeds respond to natural regeneration linked to rainfall rates and soil type. The team will also conduct an annual study of the same sowing areas to measure data on the success of natural germination.



ADNOC, Petronas and Storegga to collaborate on offshore carbon capture and storage in Malaysia

Malaysian state-owned energy giant Petronas, Abu Dhabi National Oil Company (ADNOC), and UK's carbon capture and storage (CCS) company Storegga partner to evaluate the CO₂ emissions storage capabilities of saline aquifers and construction of CCS facilities in the Penyu basin in Malaysia

ADNOC, Petronas, and Storegga have signed a Joint Study and Development Agreement (JSDA) to evaluate the carbon dioxide (CO₂) emissions storage capabilities of saline aquifers and the construction of carbon capture and storage (CCS) facilities in the Penyu basin, offshore Peninsular Malaysia.

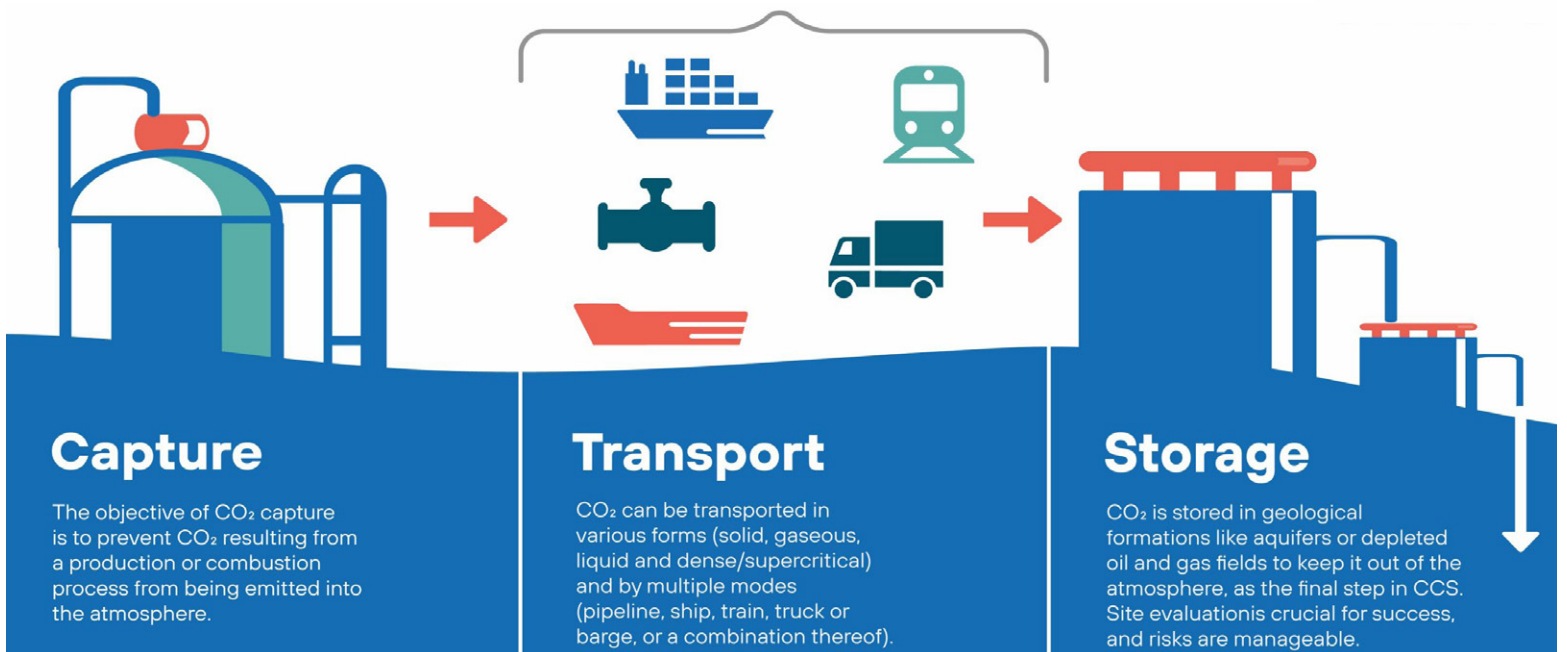
The agreement targets at least 5 million tonnes per annum (mtpa) of CO₂ capture and storage capacity by 2030. Its scope also includes a CO₂ shipping and logistics study, geophysical and geomechanical modelling, reservoir simulation and containment research. The partners will also explore the application of advanced technologies, including artificial intelligence (AI), to enhance storage capacity.

Nora'in Md Salleh, CEO of Petronas subsidiary, Petronas CCS Solutions Sdn. Bhd. (PCCSS), said, "This agreement with ADNOC and Storegga will potentially allow us to build our capability to develop and de-risk saline aquifers as carbon dioxide storage sites by leveraging on our

partners' expertise and experience in other regions. This strategic partnership aligns with Petronas' overarching goal of establishing Malaysia as a regional CCS hub to serve Asia Pacific, where it may build up the storage capacity through saline aquifers."

Petronas is a member of Malaysia's National Energy Transition Roadmap (NETR) Committee, which has identified CCS as one of six energy transition levers to enable the country to be sustainable, low-carbon and resilient. The

The agreement targets at least 5 million tonnes per annum (mtpa) of CO2 capture and storage capacity by 2030



Malaysian Government is set to table a standalone CCUS bill by the end of 2024.

Having Storegga as a partner to collaborate in Malaysia is imperative, as Storegga is one of the few companies that boldly took the first steps to progress CCS globally when it was in its infancy stage. Today, Storegga is widely recognised as one of the leading players in this space.

Hanan Balalaa, ADNOC Senior Vice President for New Energies, said, "Carbon capture is an

important tool to responsibly reduce carbon emissions and we are committed to working with trusted global partners to develop and utilise global carbon management hubs, enabling our customers to reduce their emissions and supporting their decarbonisation goals."

Malaysia's geological abundance of deep saline aquifer reservoirs should allow for the development of large-scale, permanent CO₂ storage solutions, and the agreement will significantly accelerate regional CCS deployment



while strengthening collaboration between the strategic partners. The success of this initiative will lay the foundations for a regional CCS hub serving both domestic and international emitters.

ADNOC is targeting a carbon capture capacity of 10 mtpa by 2030, equivalent to those released by 2 million internal combustion vehicles.

Tim Stedman, CEO of Storegga, said: "This pioneering partnership is an opportunity to develop a world-class CCS hub and bring about large-scale industrial decarbonisation. Storegga's experience from other leading CCS regions, plus the expertise of our partners, represent a combined intent to act now to tackle climate change."

The JSDA's activities are provisionally scheduled to begin later this year.

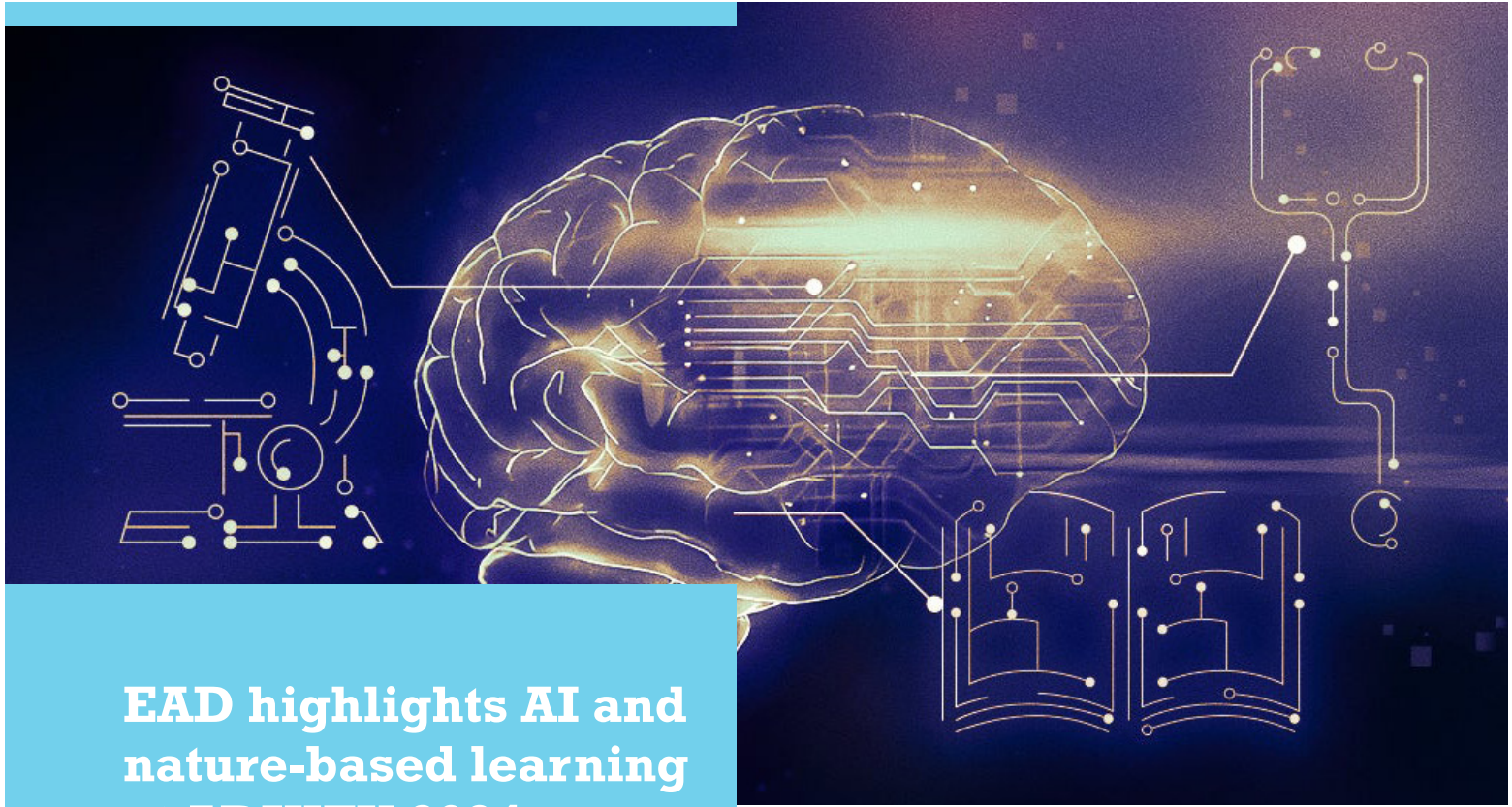
5,000 hotels worldwide adopt WTTC's Sustainability programme

Over 5,000 properties across more than 80 countries have embraced World Travel & Tourism Council's (WTTC) Hotel Sustainability Basics (Basics) programme.

Designed to guide hoteliers in their initial steps towards enhanced sustainability, Basics is an independent verification program that empowers hotels of all sizes with a comprehensive 12-step criteria to reduce carbon emissions, energy, water and waste management, and ensure local communities benefit from hotel operations.

To meet international demand, Basics is now also available in multiple languages, offering comprehensive resources in English, French, Spanish, and Japanese.





EAD highlights AI and nature-based learning at ADIHEX 2024

UAE NEWS

The Environment Agency - Abu Dhabi (EAD) has showcased nature-based learning and artificial intelligence (AI) as the main theme during its participation at the Abu Dhabi International Hunting and Equestrian Exhibition (ADIHEX) that concluded on September 8 at the Abu Dhabi National Exhibition Centre (ADNEC).

EAD enhanced its theme with interactive features such as an AI tool that generates personalised nature film trailers, providing visitors with a unique way to engage with Abu Dhabi's biodiversity, and an AI chatbot for answering attendees' environmental questions.

The AI tool is part of naha - a personalised digital platform that promotes sustainability, elevates environmental awareness, and encourages green practices across Abu Dhabi and beyond. Called naha - from the words 'natural habitat' - the platform centralises EAD's key science and data-driven outreach initiatives and turns environmental intentions into meaningful action

by encouraging participation and engagement in naha's range of programmes.

Ahmed Baharoon, Executive Director of the Environmental Science, Information and Outreach Sector (EISOM) at EAD, said, "At EAD, we are moving progressively towards using AI across a range of our projects and initiatives, in line with international best practices as well as the vision of the UAE leadership. During the exhibition, visitors enjoyed learning about the environment via an innovative and interactive experience."

The Agency's stand hosted an immersive experience revealing unseen aspects of biodiversity. Called the 'Hidden Wonders in the Dark Room', the specially built area raised awareness about biodiversity conservation by presenting visitors with live specimens of insects and reptiles. The immersive experience provided a hands-on learning experience, connecting visitors with the natural world.





FOOD WASTE

ADQ partners with ne'ma to combat food loss, waste

Approximately 13 percent of food is lost between harvest and retail, while an additional 19 percent is wasted at the consumption level

ADQ, an Abu Dhabi-based investment and holding company, has announced the signing of a multi-year partnership agreement with ne'ma, the UAE's National Food Loss and Waste Initiative.

Launched in 2022 in the presence of UAE President His Highness Sheikh Mohamed bin Zayed Al Nahyan, ne'ma is a collaboration between the Ministry of Climate Change and Environment and the Emirates Foundation that aims to support the United Nations Sustainable Development Goal (UNSDG) 12.3 to reduce food loss and waste by 50 percent by 2030.

According to the United Nations, approximately 13 percent of food is lost between harvest and retail, while an additional 19 percent is wasted at the consumption level (retail, food services, and household). Together, food loss and waste account for 8 to 10 percent of the world's greenhouse gas emissions.



ne'ma drives policy change and initiates projects to address the root causes of food waste. This collaboration allows ADQ to play a role in enhancing the resilience of the local food system and strengthening its comprehensive investments in the food and agriculture sector in the UAE and abroad. ADQ's partnership with ne'ma also aligns with its broader commitment to accelerating the socio-economic development of Abu Dhabi and the wider UAE.

Mansour AlMulla, Deputy Group Chief Executive Officer at ADQ, said, "As a major investor in the local food and agriculture sector, we believe it is critical to ensure that enabling and upscaling the production of adequate, affordable and nutritious food goes alongside the preservation of food as a precious natural resource. Our partnership reflects our dedication to ensuring that ne'ma receives the support they need to initiate a lasting, fundamental change in the food system here in the UAE."

Khuloud Al Nuwais, Chief Sustainability Officer Emirates Foundation, and Secretary-General ne'ma Committee, added, "This partnership with ADQ underscores the critical role of public-private sector collaboration in meeting the UAE's ambitious goal to halve food loss and waste by 2030, aligning with UN Sustainable Development Goal 12.3. Through these partnerships, we are harnessing the most innovative solutions to transform our food systems, ensuring that safeguarding our food resources is at the core of our national food security strategy."

As part of the agreement, ADQ and ne'ma will explore the development of joint initiatives, alongside collaboration opportunities with third parties, to reduce food loss across the entire value chain, from production to consumption, and promote responsible consumption habits. ne'ma will also provide ADQ with data identifying food loss hotspots and systemic gaps to address challenges and find solutions.

Food loss and waste account for 8 to 10 percent of the world's greenhouse gas emissions



ADQ's Food & Agriculture cluster works towards closing supply chain gaps and scaling production sustainably by driving investments in agricultural technology solutions and expanding domestic farming capabilities.



AIR QUALITY

Abu Dhabi launches e-linking system to monitor stack emissions across industrial, energy, oil, gas sectors

The e-linking project collects real-time data related to emissions across Abu Dhabi

Abu Dhabi has launched a first-of-its-kind project in the region to electronically link (e-link) the entire Stacks Automated Monitoring System (AMS) in the industrial, energy, and oil and gas sectors across the emirate directly to an emissions monitoring system. The new e-linking system, launched by The Environment Agency - Abu Dhabi (EAD), is designed to connect up to 500 stacks, enabling real-time data collection.

Dr. Shaikha Salem Al Dhaheri, Secretary General of EAD, said, "As part of our continuous efforts to ensure we are enhancing air quality in Abu Dhabi for better public health, we are e-linking all air emissions monitoring systems in the Industrial, Energy, and Oil and Gas Sectors directly to us at EAD, allowing accurate data to be used in making appropriate decisions.

"We are always looking to use the latest and most effective technologies to monitor



emissions and their limits, where we developed a system that adopts artificial intelligence to predict air quality through an early alert system, to take proactive measures when facilities exceed the emission limits of permissible standards, and to cooperate with them in developing appropriate plans and solutions, ensuring their compliance with the national air pollution protection standards.

“The collected information will also help us to validate the effectiveness of the procedures implemented in improving the operational practices in the different sectors. Currently, 53 stacks from the sectors have been successfully linked to the EAD system.”

Ahmed Mohamed Al Rumaithi, Under-Secretary of the Abu Dhabi Department of Energy (DoE), said, “The e-linking project collects real-time data related to emissions across Abu Dhabi, enabling us to take targeted actions and develop effective solutions to reduce them.”

Salman Dawood Abdulla, Executive Vice President of ESG and Sustainability at Emirates Global Aluminium, said, “The innovative e-linking system will create a symbiotic relationship with EAD and also will empower stakeholders towards our shared objective of preserving and improving our environment.

“This advanced system not only streamlines emission data collection and reporting but also supports the formation of future policies and regulations, ultimately driving our pursuit of a comprehensive understanding of the Emirate's air quality.”

The system will enable key stakeholders and EAD to prepare and download customised reports for a quick overview or periodic reports such as monthly, quarterly, and annual for permit compliance. This will decrease the cost and time required to prepare and publish reports and learn

The database features an alert system that emails facilities and EAD air quality specialists when emissions limits are exceeded



about the overall air quality in the emirate.

As for stacks in facilities that do not require the installation of AMS devices, the operators of these licensed facilities can submit data through a specialised electronic portal to integrate their emissions information into a central database that covers all stacks in Abu Dhabi.

The central database also integrates with other



initiatives such as atmospheric modelling and national inventory reporting, which will subsequently support achieving the environmental goals set for the project.

The database also features an alert system that emails facilities and EAD air quality specialists when emissions limits are exceeded. This will help to promote the direct collaboration between EAD and the facility to mitigate air emissions directly from the source.

Based on global best practices for emissions monitoring, the agency developed the project after reviewing the international best practices to ensure that the system aligns with other similar pioneering initiatives to improve the process of collecting emissions monitoring data and ensure its quality.

India plans to transition to zero-emission trucks

To reduce threats to the environment from rising road-based freight transportation, India aims to transition entirely to zero-emission trucks. The “Indian Zero Emission Trucking Policy Advisory” predicts that India will have an estimated 17 million trucks on its roads by 2050.

“This growth in freight transport, however, poses a serious threat to the environment. To achieve India's Net Zero target by 2070, it is essential to complete the transition to zero-emission trucks (ZETs) by 2050,” the detailed advisory stated.

30 policy interventions have been designed to accelerate the electrification of trucks across the country.





Rare red-footed booby sighted on Abu Dhabi's Qarnain Island

UAE NEWS

A red-footed booby, a rare member of the booby family, was spotted by The Environment Agency - Abu Dhabi (EAD) during periodic monitoring operations on Qarnain Island in the Arabian Gulf region.

Considered one of the rarest and smallest booby species, it is widespread on the coasts and islands of tropical regions, yet remains very rare in the region, due to the lack of resident groups in the country. The red-footed booby's diet consists of mainly fish and squid and confirms its important role in the balance of the marine ecosystem.

Although rare, the species is not considered threatened according to the IUCN Red List. Monitoring this bird is a unique opportunity for a deeper understanding of wildlife and the importance of preserving natural habitats.

Ahmed Al Hashemi, Executive Director of the Terrestrial and Marine Biodiversity Sector at EAD, said, "This bird, which gets its name due to

the red colour of its feet, has been added to the list of 426 bird species recorded in Abu Dhabi."

Al Hashemi added that these natural reserves, such as Al Wathba Wetland Reserve and Bul Syayeeef Marine Protected Area, are of great importance to many types of migratory and resident birds. More than 260 species have been recorded so far in Al Wathba Wetland Reserve, the only location in the Arabian Gulf where the great flamingo breeds continuously.

This breeding activity represents an important sign of the tireless efforts made by the Agency to conserve these species.

Qarnain Island, a small islet located 180 kms northwest of Abu Dhabi, is considered a marine oasis and a haven for many birds, turtles, and other creatures. In 2003, the International Union for Conservation of Nature announced the inclusion of the island and its surrounding waters into 81 groups of global reserves.





ICBA demonstrates transformative agricultural project in Karakalpakstan funded by ADFD

The major multi-year project is focused on increasing the productivity of degraded and saline areas of Karakalpakstan

The International Centre for Biosaline Agriculture (ICBA) participated in a ceremony attended by Shavkat Mirziyoyev, President of the Republic of Uzbekistan, to demonstrate its major multi-year project focused on increasing the productivity of degraded and saline areas of Karakalpakstan.

The project “Development of Sustainable Agricultural Production Systems in Degraded Areas of Karakalpakstan”, funded by the Abu Dhabi Fund for Development (ADFD) and implemented in collaboration with the International Innovation Centre for the Aral Sea Basin (IICAS), the Ministry of Ecology, Environmental Protection, and Climate Change of Uzbekistan, and other key local ministries and partners, represents a landmark in global cooperation.

Aziz Abdukhakimov, Minister of Ecology, Environmental Protection, and Climate Change of Uzbekistan, said: “The implementation of this project enables the introduction of advanced

technologies and innovative methods aimed at improving water management, increasing soil fertility, and developing agro-aquaculture. This initiative enhances agricultural productivity and food security in the region. It also promotes long-term sustainability, addresses critical environmental issues such as soil salinization, and strengthens economic development by creating new jobs and supporting local communities.”

Mohamed Saif Al Suwaidi, Director General of

Utilising advanced technologies and innovative methods, the project is improving water management, increasing soil fertility, and developing agro-aquaculture in Karakalpakstan

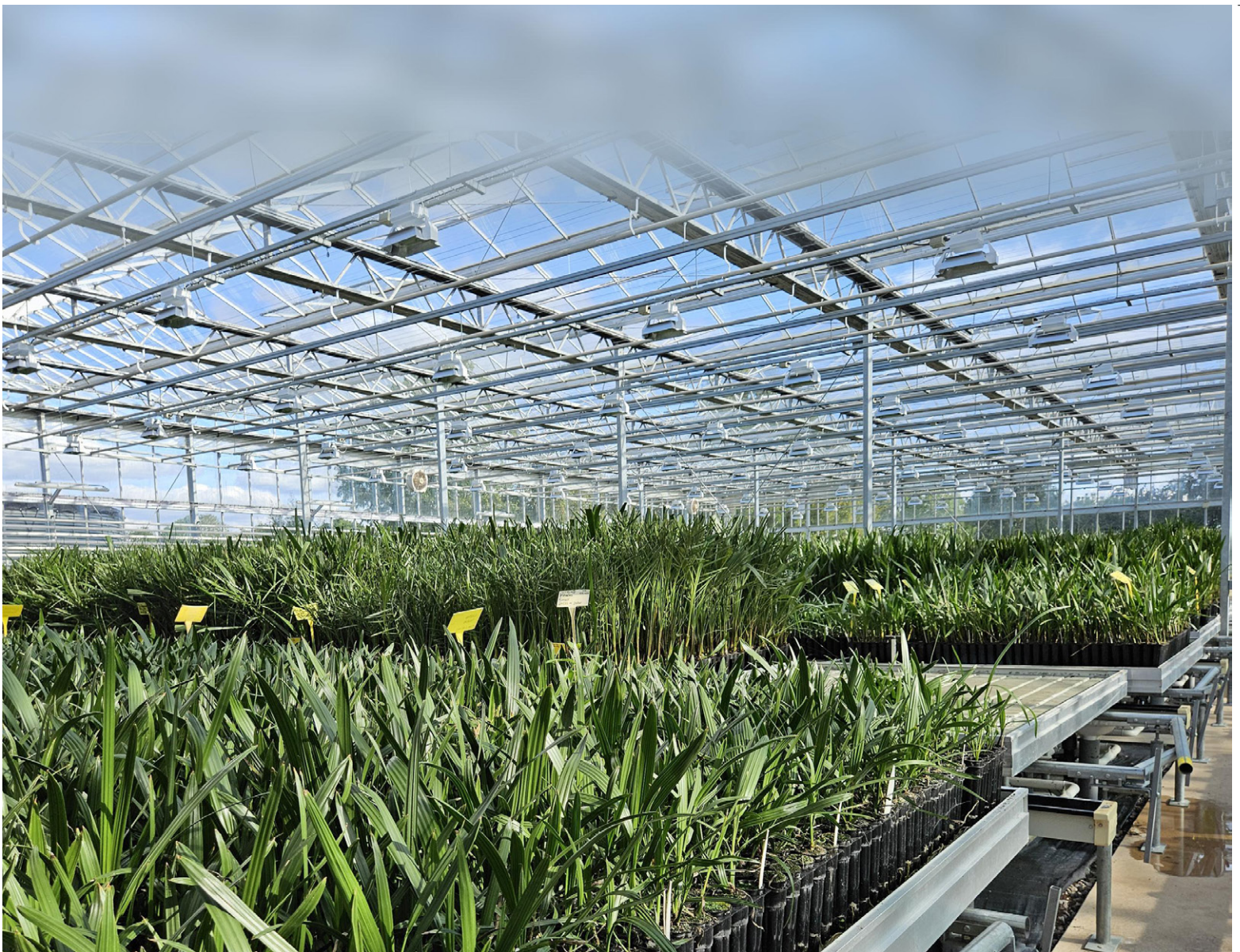


Abu Dhabi Fund for Development (ADFD), said: “By leveraging our expertise in development finance, ICBA’s technical knowledge, Uzbekistan’s agricultural expertise, and IICAS’s research and innovation, we aim to provide customised solutions for the local agricultural community.

This collaborative effort will strengthen Karakalpakstan’s agricultural capacity, promote job creation, and support agribusiness, consequently contributing to the region’s immediate and long-term growth.”

Since its launch in 2022, with USD5 million in funding from ADFD, the project has made substantial progress in addressing the severe environmental challenges in Karakalpakstan, primarily caused by the shrinking of the Aral Sea.

A notable achievement includes the successful introduction of 25 genotypes of different food and fodder crops at demonstration sites in Nukus, Chimbay, and Muynak, where field trials have shown promising results. The project has also focused on improving irrigation infrastructure



across these sites with the installation of advanced systems such as drip irrigation and water storage solutions, greatly enhancing water management.

Additionally, various soil amendments have been introduced to increase soil fertility, contributing to the overall sustainability of agricultural systems in the region. Modern agri-aquaculture systems and locally adopted greenhouses are being developed, further showcasing the innovative approaches the project has embraced.

More than 200 scientists, extension workers, and farmers received training in soil, water, and crop management, ensuring the transfer of knowledge and best practices to local communities.

As the project progresses, it will open doors to scaling up many innovations and technologies. A

cornerstone of this project is its focus on empowering women in agriculture. Through targeted training programs and farmer field schools, women have been equipped with the necessary skills and resources to lead sustainable agricultural practices. This empowerment enhances their livelihoods and strengthens the overall resilience of their communities, ensuring that the benefits of the project are widely felt.

This project represents a successful model of Global South-South and Triangular Collaboration, involving ICBA, ADFD, and local partners in Uzbekistan. This tripartite cooperation has facilitated the exchange of knowledge and the transfer of innovative agricultural technologies, benefiting Karakalpakstan and offering potential solutions for other regions facing similar livelihood challenges.



Abdullah bin Zayed chairs first Council meeting of Mohamed bin Zayed Water Initiative

UAE NEWS

H.H. Sheikh Abdullah bin Zayed Al Nahyan, Deputy Prime Minister, Minister of Foreign Affairs, and Chairman of the Mohamed bin Zayed Water Initiative, chaired the first Council meeting of the Mohamed bin Zayed Water Initiative held on 9th August.

During the meeting, the Council members reviewed the Mohamed bin Zayed Water Initiative strategic framework comprising three key pillars, including accelerating innovation, raising awareness through global outreach, and empowering action.

The Council members discussed priority projects aligned with the Initiative's strategic pillars and addressed its mission to promote sustainable global access to water by supporting the development and application of breakthrough technologies, raising awareness of water scarcity, and prioritising it on the global agenda.

The Council members also reviewed several approaches that aim to actively engage youth and

partners in the UAE and globally on the topic of global water scarcity.

Addressing the meeting, Sheikh Abdullah bin Zayed underscored the importance of the Mohamed bin Zayed Water Initiative, launched in February 2024, and reviewed the progress of the XPRIZE Water Scarcity competition, while emphasising the importance of actively engaging in national and international efforts consistent with the UAE's commitment towards addressing the urgent challenge of water scarcity.

The meeting was attended by the Council members of the Mohamed bin Zayed Water Initiative, including Khaldoon Khalifa Al Mubarak, Chairman of the Executive Affairs Authority and Vice Chairman of the Mohamed bin Zayed Water Initiative; Suhail bin Mohamed Al Mazrouei, Minister of Energy and Infrastructure; Mohamed Hassan Al Suwaidi, Minister of Investment; and Amna bint Abdullah Al Dahak Al Shamsi, Minister of Climate Change and the Environment.



Etihad Rail launches Sustainable Finance Framework for green investments in transportation, infrastructure

The framework encompasses mechanisms for environmental risk assessment and promotion of transparency in implementing ESG initiatives

Etihad Rail, the developer and operator of the UAE National Rail Network, has launched its Sustainable Finance Framework, a comprehensive guide designed to link the company's future financing to its ESG strategy concerning Clean Transportation, Green Buildings, and Pollution Prevention and Control.

The framework was developed in collaboration with various industry experts including First Abu Dhabi Bank and Standard Chartered Bank, who served as co-ESG advisors and provided expertise and insights to ensure the framework's robustness and alignment with the Green Loan and Bond Principles. The framework was validated through a Second Party Opinion (SPO) from Det Norske Veritas (DNV).

The framework establishes a structured approach for Etihad Rail to evaluate parameters in the financing of sustainable projects, detailing four main components: Green Loan and Bond





Principles that ensure alignment with international sustainability standards; Use of Proceeds to define clear criteria for the allocation of funds towards sustainable projects; Project Evaluation and Selection that implements a rigorous process to identify impactful projects; and Management of Proceeds and Reporting to ensure transparency and accountability in fund utilisation.

Commenting on the launch, Ali Tabbal, Chief Financial Officer at Etihad Rail, said: "The Sustainable Finance Framework is a pivotal element of our broader ESG strategy, and provides a clear roadmap for integrating ESG considerations into investment decisions, empowering companies to generate long-term sustainable value. By doing so, we are fostering the transition to a low-carbon, resilient economy and supporting the UAE's Net Zero 2050 Strategy."

As part of Etihad Rail's ESG strategy, the framework encompasses mechanisms for environmental risk assessment and promotion of transparency in implementing ESG initiatives.

By integrating environmental considerations into investment decisions, companies can mitigate environmental risks, capitalise on emerging sustainable markets, and solidify their commitment to environmental stewardship and social responsibility. The framework not only guides investment decisions but also fosters collaboration and knowledge-sharing among industry peers, regulators, and investors, thereby accelerating the transition to a more sustainable financial system.

21.4% increase in eco-friendly taxi, limousine fleet in Ajman

The number of eco-friendly vehicles in Ajman's taxi and limousine fleet—affiliated with Ajman Transport Authority—increased by 21.4% in the first half of 2024, rising to 2,231 compared to 1,837 during the same period in 2023.

Sami Ali Al Jallaf, Executive Director of the Public Transport and Licensing Corporation at Ajman Transport Authority, stated that the Authority aims to convert the entire fleet of taxis to eco-friendly vehicles by 2030. He added that the authority's plan focuses on applying sustainability indicators to leverage clean energy sources, which help preserve the environment while ensuring better transportation system performance.

The fleet now includes vehicles powered by natural gas and electricity and hydrogen and hybrid vehicles that contribute to reducing carbon emissions.



EPAA rolls out artificial nests project for ospreys in Sharjah

This global initiative aims to collect data on a broad scale to support environmental decision-making and conservation

The Environment and Protected Areas Authority in Sharjah (EPAA) has launched a project to build artificial nests for ospreys in Sir Bu Nair Island Reserve.

Hana Saif Al Suwaidi, EPAA Chairperson, said: “The project aims to provide fixed, well-prepared artificial nests for the osprey in its distribution areas and feeding habitats in Sharjah, especially on the islands and the coastal areas that are considered natural havens for it.”

She clarified that the osprey is one of the endangered birds of prey residing in the UAE. It is distinguished by its exceptional skills in fishing, which is its main food source, and focuses on areas near the shores to build its nest.

“However, most of these shorelines are currently frequented by visitors and the public. Therefore, the EPAA launched this unique project to build artificial nests to ensure suitable sites for the nesting and breeding of this bird, away from



potential threats and surrounding noise,” Al Suwaidi explained.

The artificial nest project has been registered on the platform of the Osprey Watch initiative (www.osprey-watch.org), making it the first nest in the UAE to be registered on the platform.

This global initiative, formed by specialists and environmentalists, aims to collect data on a broad scale to support environmental decision-making and conservation.

throughout the nesting season, protects the nests from predators and debris, and rescues any injured or sick turtles.

Some 116 nests have been laid on the beach next to EGA’s operations since the monitoring programme began. This year, four turtles were found in need of care and were transferred to the Dubai Turtle Rehabilitation Centre at Burj Al Arab, where they now receive expert treatment before being released back into the sea.



300 turtles hatch at EGA’s Al Taweelah beach

Emirates Global Aluminium has announced that some 300 Hawksbill turtles have hatched at EGA’s Al Taweelah beach this season, adding to approximately 7,500 successful hatchings near the company’s operations since 2011.

The critically endangered turtles are the only sea turtles that lay their eggs in the UAE. EGA’s sustainability team monitors the beach

Before the nesting season, EGA brings together volunteers from across the company for a beach clean-up at Al Taweelah.

In January, EGA employees volunteered in the clean-up and removed some 1,300 kilogrammes of waste washed up from the sea.

The average hawksbill lifespan ranges from 30 to 50 years, with females capable of laying 100 to 150 eggs in one annual nesting season.



New book on whales and dolphins offers a deep dive into marine diversity in Fujairah and the Arab world

Whales and Dolphins of Fujairah and the Arabian Region is the culmination of nearly five years of scientific research

The Fujairah Environment Authority has launched the third in the series of books on the natural history of Fujairah, *Whales and Dolphins of Fujairah and the Arabian Region*. Authored by Robert Baldwin, CEO, 5 Oceans, and Balazs Buzas, a wildlife consultant, the book is the culmination of nearly five years of scientific research, including active field study at sea under the Fujairah Whale and Dolphin Research Project.

The book combines an understanding of whales and dolphins gained from ever-progressing research worldwide with peculiar attributes of the marine mammal fauna in Fujairah. It also examines whales and dolphins in the context of human lives, not just to fishermen and seafarers who encounter them, but also in terms of the broader issues of fisheries, whaling, shipping and tourism in one of the world's most rapidly developing regions.

This book, rich with photographs, illustrations by Uko Gorter and Samuel Baldwin and distribution maps by Edith Shum, features the surprising diversity of whales and dolphins living primarily in the offshore waters of this little-studied corner of the UAE. In a joint statement, Baldwin and Buzas said that the



concept for the detailed study of whales and dolphins of Fujairah originated after a sperm whale stranded on the Emirate's shores in 2012.

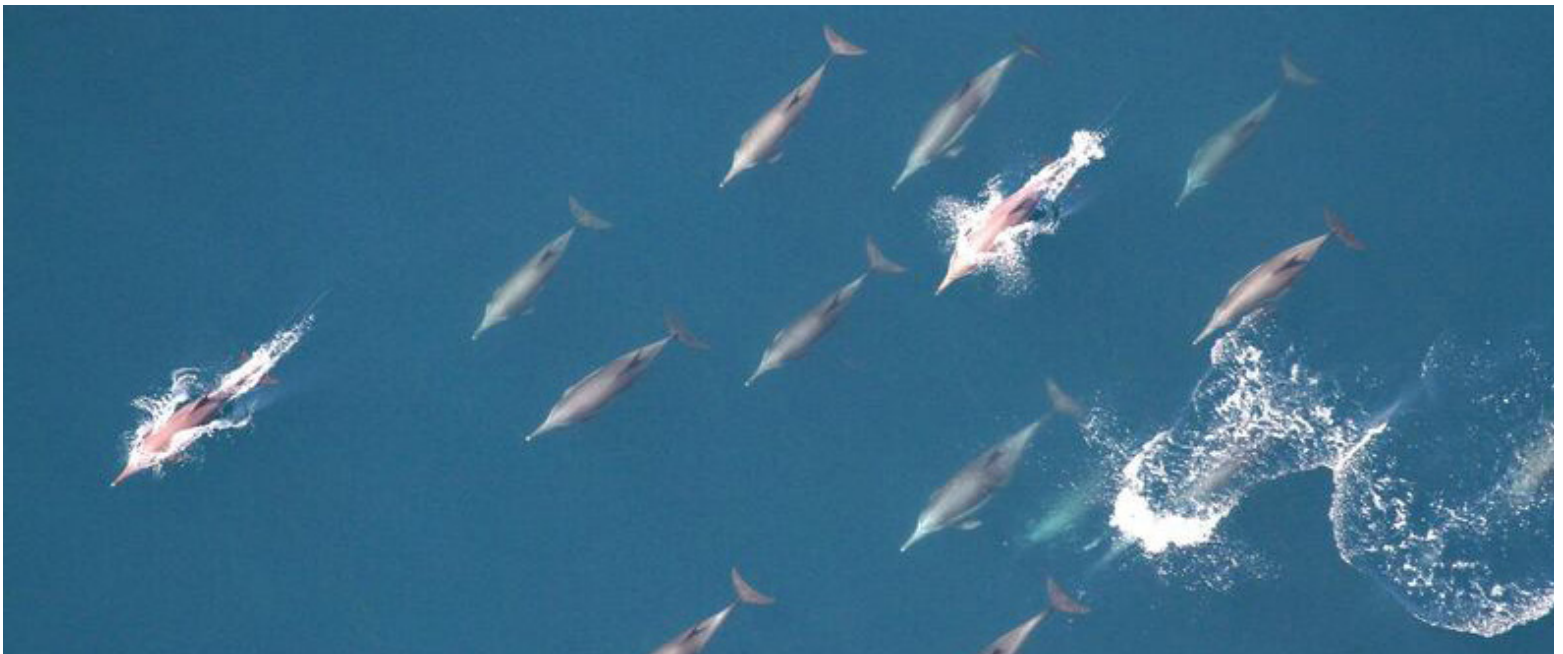
They said, "This was among several records of cetaceans reported during the first IUCN Red List assessment for marine mammals in the UAE in 2016.

This incident highlighted that Fujairah has among the highest diversity of marine mammals in the UAE, not least due to the presence of a variety of continental slope and open ocean habitats, which are absent from most other emirates."

is home to diverse marine habitats, the book highlights the significance of understanding and protecting the marine environment and raising public awareness about its conservation.

Dr. Fouad Lamghari, Director of Fujairah Research Centre, said, "This collaboration is fundamental for achieving sustainable progress in preserving marine biodiversity.

"By uniting efforts and expertise, we have been able to gain a deeper understanding of the challenges and opportunities facing cetaceans in our region,



Furthermore, they said that it is easy to think that, in the absence of research, Fujairah may not be rich in marine wildlife and with its waters so busy with heavy vessel traffic and human activity. However, they said, the recent years of dedicated study have revealed the opposite: Fujairah hosts an abundant and diverse variety of dolphins, sea turtles, sea snakes, and seabirds, as well as a wide variety of fish and other marine species. Additionally, large whales occasionally pass through Fujairah's waters.

Aseela Abdullah Al Mualla, Acting Director of the Fujairah Environment Authority, said that as Fujairah

enhancing the emirate's ability to protect this unique natural heritage."

Whales and Dolphins of Fujairah and the Arabian Region introduce readers to the oceanography, biogeography and cetacean habitats of Fujairah, explore the diversity of cetaceans in the emirate, and explain how the disciplines of taxonomy and systematics can help reveal the relationship between whales and dolphins while providing insight into their origins vis-a-vis other mammals.

One chapter in the book also highlights the Arabian Sea as a central region in the story of the evolution of



Fujairah hosts an abundant and diverse variety of dolphins, sea turtles, sea snakes, and seabirds, as well as a wide variety of fish and other marine species



whales and dolphins and spotlights the 22 species of these mammals that have been formally recorded in the region, including the 12 known from Fujairah.

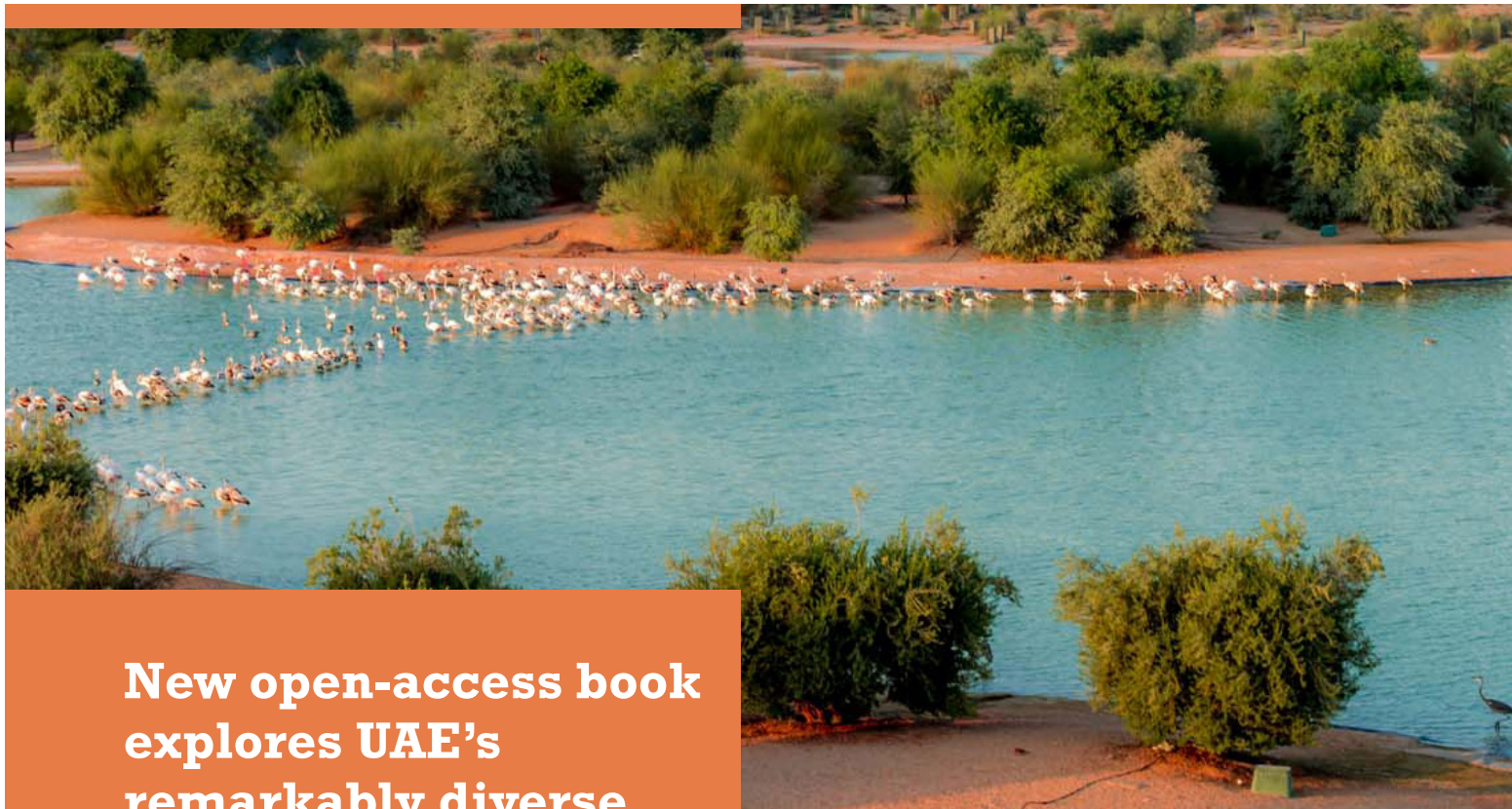
The authors explore the cetacean body, form, and behaviour and provide an overview of the research conducted on cetaceans in Fujairah. In the final chapters, they delve into various aspects of cetacean conservation, including the threats these marine creatures face, and the challenges humans must address to protect them for future generations.

Speaking on the research initiatives behind the book, Baldwin and Buzas said this included specific study on whales and dolphins in deep offshore waters, a realm that had previously not been subject to dedicated research anywhere in the Arabian region. They said, "The excitement of discovery motivated study team members to explore Fujairah's depths, and they were rewarded with records of 12 different species of whales and dolphins, representing almost 15 percent of cetacean species globally and over half of those

known to occur in the Arabian region. This is a remarkable record for an emirate with a relatively short stretch of coastline and is noteworthy for marine mammal conservation."

The partners involved in the Fujairah Whale and Dolphin Research Project included Fujairah Research Centre, 5 Oceans, the Port of Fujairah, and Aero Gulf Services, as well as networks and organisations involved in the study and conservation of whales and dolphins, such as the Arabian Sea Whale Network (ASWN), the UAE Dolphin Project Initiative, and the Fujairah Environment Authority.





New open-access book explores UAE's remarkably diverse ecosystems

UAE NEWS

NYU Abu Dhabi Associate Professor of Biology John Burt has edited and published a first-of-its-kind, open-access book titled, *A Natural History of the Emirates*. With over 20 contributing authors from leading universities and major institutions including Emirates Nature-WWF and the Environment Agency - Abu Dhabi, the book provides a comprehensive overview of the unusual environmental setting of the UAE.

The first section of the book focuses on the physical environment of the Emirates, including an overview of the UAE's geography, geology, and climate. The major terrestrial and marine ecosystems of the UAE, including the distinctive mountain region, mangrove forests, seagrasses, coastal lagoons, oyster beds, and coral reefs, are included in the second section's chapters.

In the third section, researchers delve into the diverse flora and fauna found in the UAE, highlighting that despite the generally extreme conditions, a surprisingly wide array of species

call the Emirates their home. Chapters provide an overview of the diversity of species within their groups, their biogeographic affinities, and explore unique features of these organisms that allow them to survive and often thrive in the UAE's environment. Vascular flora, birds, terrestrial mammals, reptiles, amphibians and insects, are all discussed, as are marine mammals of the Emirates, reptiles, and fishes.

"Decades of research into the nation's complex biodiversity have enriched our understanding, but also highlighted the need for enhanced conservation and sustainable development. We hope this book will be a useful resource in advancing those efforts, and that readers will walk away with a deepened appreciation for the importance of nature in the UAE," said John Burt.

Digital copies of the open-source book are available free-of-charge to all who wish to download it from the publisher's website.





Belfast, Northern Ireland: Setting new standards in sustainability

Belfast's ambitious climate action plan, investment in green infrastructure, and commitment to community engagement have made the city a shining example in its sustainability efforts

Belfast, the capital of Northern Ireland, has undergone a significant transformation in recent years in terms of its urban landscape and its approach to sustainability. Standing on the banks of the River Lagan, it is the second-largest city on the island of Ireland after Dublin. Historically known for its industrial roots, the city is now emerging as a leader in environmental stewardship, with a range of initiatives aimed at making it a greener, sustainable place to live.

Climate Action Plan

To fulfil its resilient net zero goals, Belfast is working with partners to reduce net carbon emissions by 80 per cent compared to 2005 levels and in 2022 adopted these city targets:

- 66 per cent reduction on the 2000 level of emissions by 2025
- 80 per cent by 2030
- 100 per cent by 2050



Belfast has invested in the creation and maintenance of parks, community gardens, and green corridors, providing residents with access to nature within an urban setting



inhabitants and play a crucial role in supporting urban biodiversity.

The One Million Trees Initiative, a significant environmental project launched in Belfast, aims to enhance the city's green infrastructure and contribute to global efforts to combat climate change. The initiative, launched in 2020, is a collaborative effort and the goal is to plant one million trees across the city by 2035.

In collaboration with public, private, and voluntary sector partners, the city has planted 110,254 trees in Belfast and other city regions, to date. Looking ahead, the One Million Trees Initiative aims to meet and potentially exceed its target by 2035. The long-term vision is to create a legacy of green spaces that future generations can enjoy, contributing to a healthier, more sustainable Belfast.

Another notable project is the Connswater Community Greenway, a 9 km linear park that

The Council has identified key areas such as energy, transport, waste management, and green spaces as priorities for action, including reducing emissions from buildings. The Council works closely with businesses and homeowners to retrofit older buildings with modern, energy-saving technologies. Additionally, there is a strong push towards the adoption of renewable energy sources.

Green Spaces

The Council has invested in the creation and maintenance of parks, community gardens, and green corridors, providing residents with access to nature within an urban setting. These green spaces are vital for the well-being of the city's





connects various neighborhoods in East Belfast. This greenway, which follows the course of the Connswater River, provides a natural habitat for wildlife and serves as a recreational space for local communities. Projects like this are helping to rewild parts of the city, bringing nature closer to where people live and work.

Waste Management and Circular Economy

Effective waste management is a cornerstone of Belfast's sustainability strategy. The city has implemented a comprehensive recycling program, aiming to reduce the amount of waste sent to landfills. Belfast City Council has set ambitious recycling targets and is working to educate residents on the importance of waste reduction, reuse, and recycling. In addition to traditional recycling efforts, Belfast is exploring the

potential of a circular economy—a system where resources are reused, repaired, and recycled to minimize waste.

The Council is partnering with local businesses and organizations to promote circular practices, such as sustainable product design and the development of secondary markets for recycled materials.

Sustainable Transport Initiatives

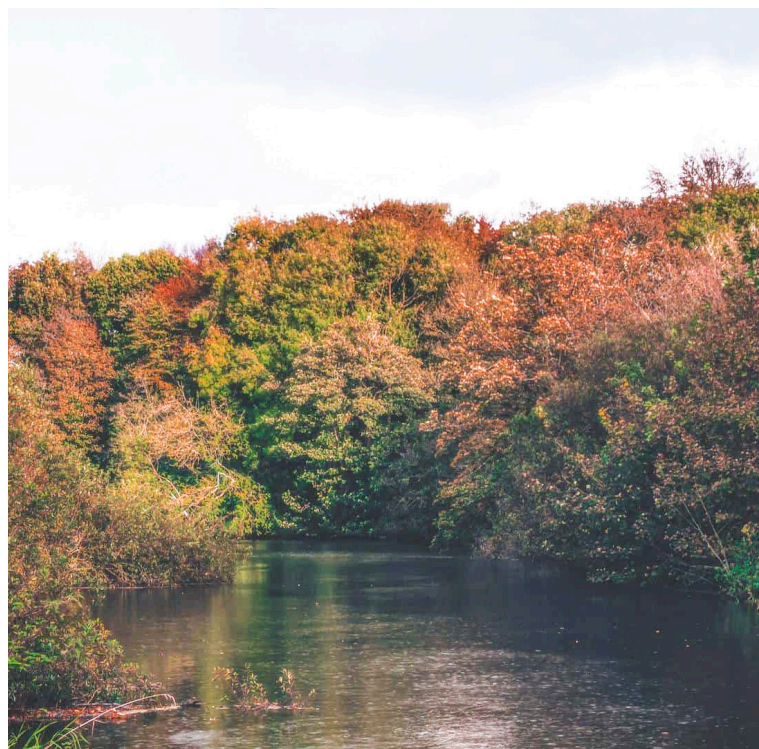
Transportation contributes significantly to Belfast's carbon emissions, and the city is taking bold steps to address this issue. The Belfast Rapid Transit (BRT) system, also known as Glider, is a prime example of the city's commitment to sustainable transport.

Launched in 2018, the Glider system provides a fast, efficient, and environmentally friendly





The One Million Trees Initiative is a significant environmental project launched in Belfast aimed at enhancing the city's green infrastructure and contributing to global efforts to combat climate change



alternative to traditional bus services, connecting key areas of the city with high-capacity, low-emission vehicles. The system uses hybrid-electric buses that produce lower emissions compared to traditional buses, making it an environmentally friendly option.

The Glider service's success has significantly improved public transport accessibility and reliability. It has also helped reduce congestion in the city center by encouraging people to switch from private cars to public transport.

The introduction of dedicated bus lanes has further enhanced the efficiency of the service, reduced travel times, and made it a competitive alternative to driving.

Belfast has also been actively promoting cycling and walking as sustainable modes of transport. The city's extensive network of cycle lanes and pedestrian pathways is continuously being expanded, making it easier and safer for residents to choose active travel options. The introduction of the Belfast Bikes public bike-sharing scheme has also seen success, encouraging more people to cycle short distances instead of using cars.

Belfast is making significant strides in becoming a green city and these efforts demonstrate that with the right vision and determination, cities can play a crucial role in addressing global environmental challenges and improving the quality of life for everyone across the world.





Indigenous Day celebrates 'guardians of the environment'

Indigenous Peoples make up less than 6% of the global population, but they represent at least 15% of the extremely poor

Countries worldwide celebrated the International Day of the World's Indigenous Peoples on August 9, under the theme, "Protecting the Rights of Indigenous Peoples in Voluntary Isolation and Initial Contact".

Indigenous Peoples represent around six per cent of the world's population, and their knowledge and traditions are believed to help solve many of today's challenges in the areas of climate action and biodiversity.

The focus of the International Day this year was on the approximately 200 groups of Indigenous Peoples currently living in voluntary isolation in remote forests, and initial contact with them. These communities live detached from the rest of the world, surviving by hunting and gathering, fully depending on their ecological environment.

"Their stewardship signifies an outsized contribution to our global community," said UN Secretary-General António Guterres in his message for the Day.



As keepers of knowledge that help safeguard some of the most biodiverse areas of our planet, and as guardians of the environment, “their survival is our survival,” he said.

Spread across 90 nations, an estimated 476 million Indigenous individuals inhabit our world. These diverse communities encompass an incredible array of 5,000 cultures and are the primary speakers of the majority of the world's 7,000 languages, according to the Food and

Indigenous Peoples are guardians of most of the world's remaining biodiversity



Agriculture Organisation (FAO).

But these “communities also face serious challenges that threaten their very existence, being often victims of threats and violence,” Guterres highlighted.

“Ancestral homelands and natural resources that they depend on for survival are coming under siege,” he continued, with extractive and productive sectors like mining, agriculture and transport having accelerated deforestation and

land degradation.”

This year's theme for the International Day was also a reminder of the Indigenous Peoples' right to protect themselves from unwanted contact, which can expose them to infectious diseases, forced assimilation, and the disruption of culture, language, and livelihoods.

Guterres called for their protection. “Together, let us safeguard their rights to live in peace and dignity,” he concluded.



African Water Facility launches new financing window for sanitation and climate

In the next 10 years, the newly launched Africa Urban Sanitation Investment Initiative (AUSII) aims to provide 15 million people with safely managed sanitation services

The African Water Facility (AWF) – an initiative of the African Ministers Council on Water (AMCOW), hosted and managed by the African Development Bank – has officially launched its groundbreaking Africa Urban Sanitation Investment Initiative (AUSII) at the 2024 World Water Week in Stockholm.

Hon. Carl-Hermann Gustav Schlettwein, Minister for Agriculture, Water, and Land Reform, Namibia, Chair of the African Water Facility Governing Council, graced the launch event in the presence of key stakeholders from across the water and sanitation sectors.

In his address, Dr. Rashid Mbaziira, Executive Secretary of the African Ministers' Council on Water (AMCOW), highlighted the critical need for innovative solutions to tackle the severe sanitation challenges faced by the urban populations across Africa. "Over 50% of our rapidly growing urban population lacks adequate sanitation services," he noted. "This translates into an estimated annual economic cost of



USD40 to USD50 billion due to sanitation failures.”

The AUSII aims to reverse this trend by promoting a paradigm shift from conventional infrastructure investments to an inclusive, climate-resilient approach tailored to the diverse needs of Africa’s cities. Over the next decade, the initiative is set to directly improve sanitation access for 15 million urban inhabitants through 50 carefully prepared projects. Furthermore, it aims to

urban sanitation solutions.

Reflecting on the broader impact of the initiative, Dr. Mbaziira expressed confidence in AUSII’s ability to transform Africa’s urban sanitation landscape. “The commitment of AMCOW member states to this initiative is firm,” he said. “We are injecting new approaches to increase domestic allocations to the sector, ensuring inclusive and climate-resilient water security across the continent.”



mobilize USD7 billion in commercial and concessional finance to bolster public and private sector sanitation projects.

Dr. Mbaziira emphasised that the initiative is crucial to achieving the Africa Water Vision 2025 targets and the UN SDGs. “Sanitation is a fundamental human right critical to public health, environmental sustainability, and overall well-being,” he said. Calling for greater private sector involvement, he said that AUSII will encourage investments from SMEs to drive sustainable

As the first of its kind, the AUSII launch sets the stage for continued progress in Africa’s water and sanitation sectors. Stakeholders and funding partners, including the African Development Bank and the Bill & Melinda Gates Foundation, were lauded for supporting this initiative.

The AUSII will have a second launch at the upcoming Africa Water Week in Cairo, scheduled for October 2024, where further discussions will be held to ensure its successful implementation across the continent.





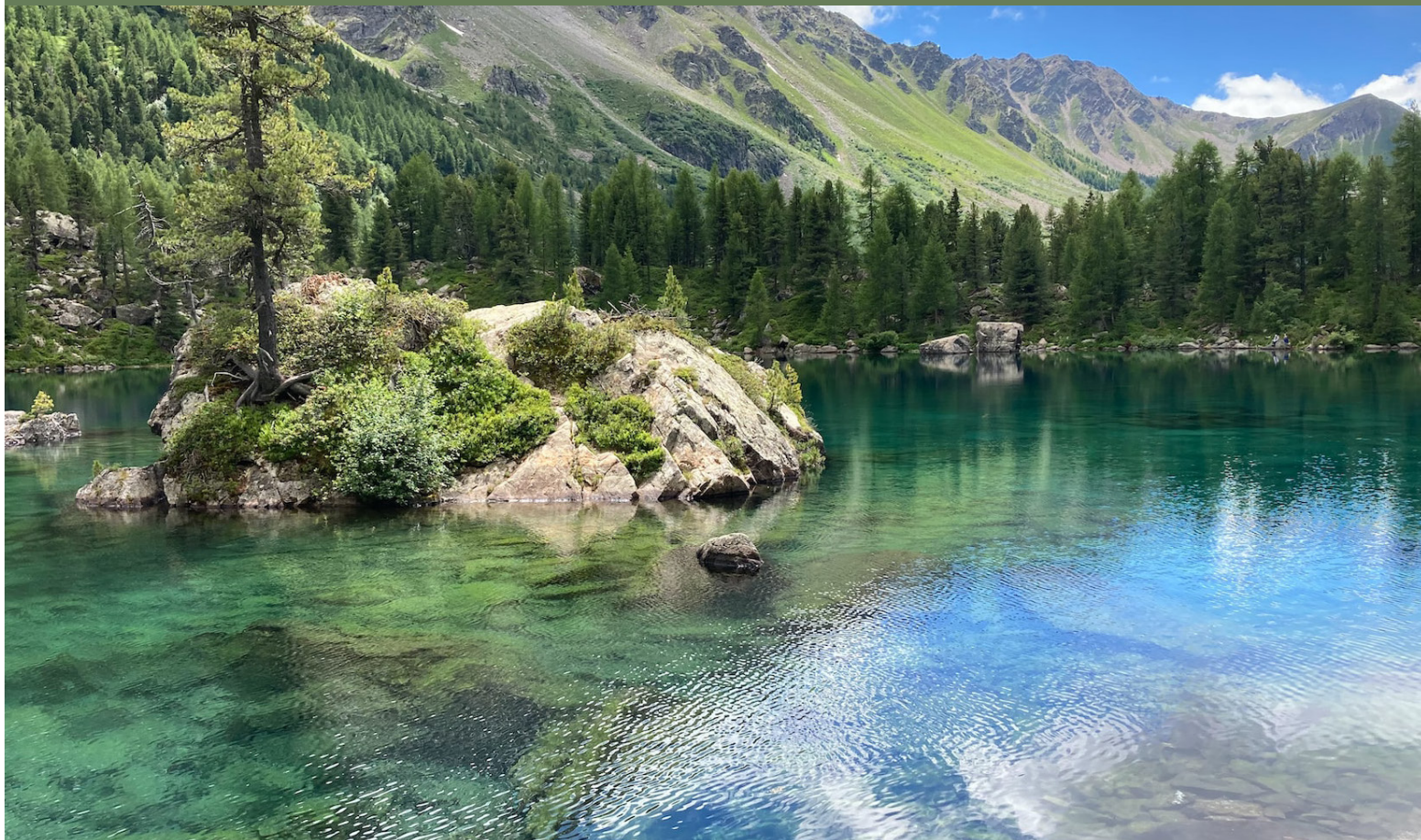
REPORT

Half the world's countries have degraded freshwater systems: UN

The UN has warned that lakes, rivers, and aquifers are deteriorating in nearly half of the world's nations, threatening the health and livelihoods of billions

In half the world's countries, one or more types of freshwater ecosystems are degraded including rivers, lakes, and aquifers. River flow has significantly decreased, surface water bodies are shrinking or being lost, ambient water is growing more polluted, and water management is off-track. These are some of the findings of three reports tracking progress on freshwater, published by UN-Water and the UN Environment Programme (UNEP).

The triennial series of reports is focused on progress towards achieving the goal of "clean water and sanitation for all" (SDG 6) through protecting and restoring freshwater sources. Based on greater data sets than ever before, the reports reiterate the call to scale up support for Member States in tackling challenges through the UN System-wide strategy for water and sanitation and the accompanying upcoming Collaborative Implementation Plan.



“Our blue planet is being rapidly deprived of healthy freshwater bodies and resources, with dire prospects for food security, climate change and biodiversity,” said Dianna Kopansky, Head of the Freshwater and Wetlands Unit, Ecosystems Division at UNEP.

“At this critical point, global political commitments for sustainable water management have never been higher, including through the passing of a water resolution at the last UN Environment Assembly in February, but they are not being matched by required finance or action. Protection and restoration policies, tailored for different regions, are halting further loss and show that reversing degradation is within reach. We absolutely need more of them.”

Widespread degradation

A reported 90 countries, mostly in Africa, Central- and Southeast Asia, are experiencing the degradation of one or more freshwater ecosystems. Other regions, such as Oceania, mark improvements. Pollution, dams, land conversion, over-abstraction, and climate change contribute to degradation of freshwater ecosystems.

Influenced by climate change and land use, river flow has decreased in 402 basins worldwide – a five-fold increase since 2000. A much smaller number is gaining in river flow.

Loss of mangroves due to human activities (e.g., aquaculture and agriculture) poses a risk to coastal communities, freshwater resources, biodiversity, and climate due to their water filtration and carbon sequestering properties. Significant decreases of mangroves were reported in Southeast Asia, though the overall net rate of deforestation has leveled off in the last decade.

Lakes and other surface water bodies are shrinking or being lost entirely in 364 basins

The report stresses the critical role of healthy freshwater ecosystems in ensuring water and food security, mitigating climate impacts, and preserving biodiversity



worldwide. A continued high level of particles and nutrients in many large lakes can lead to algal blooms and low-oxygen waters, primarily caused by land clearance and urbanization, and certain weather events.

Nevertheless, the construction of reservoirs contributes to a global net gain in permanent water, mainly in regions like North America, Europe, and Asia.



Freshwater species populations have plummeted by 83% since 1970



Low levels of water quality monitoring

The poorest half of the world contributes under 3 per cent of global water quality data points, including only 4,500 lake quality measurements out of almost 250,000. This reveals an urgent need to improve monitoring capacity.

Lack of data on this scale means that by 2030 over half of humanity will live in countries that have inadequate water quality data to inform management decisions related to addressing drought, floods, impacts from wastewater effluents, and agricultural runoff.

Report authors recommend incorporating citizen science into government-funded programmes, and exploring the potential of satellite-based Earth observation and modelled data products to help fill the data gap.

Inadequate progress in over 100 countries

Balancing competing needs for sustainable water use requires the implementation of integrated water resources management (IWRM).

47 countries have fully reached IWRM, 63 countries need to accelerate implementation, while 73 countries have only limited capacity for IWRM. At this rate of progress, the world will only achieve sustainable water management by 2049. This means that by 2030 at least 3.3 billion people in over 100 countries will be impacted.

Solutions include unlocking finance through revenue raising and cost recovery arrangements, investments in infrastructure and management, as well as coordinated action, greater institutional capacity and better monitoring networks.





Global cooperation can end world hunger: World Food Programme Director

HUNGER

Daniel Balaban, Director of the World Food Programme's (WFP) Centre of Excellence against Hunger at the United Nations (UN), believes that similar to the swift development of a COVID-19 vaccine, collaborative work can yield solutions for combating hunger and poverty.

A 2023 report by the UN Food and Agriculture Organisation (FAO) reveals that over 750 million people worldwide suffer from hunger. Addressing this issue and tackling global hunger and poverty are top priorities for Brazil's G20 presidency.

Daniel Balaban, who champions a unified global approach to ending world hunger, said: "I firmly believe that when the world unites around a common goal, it can achieve remarkable outcomes. Vaccine development within a year was once considered unfeasible, yet we created an effective COVID-19 vaccine through extraordinary global collaboration. It is now time for the world to unite in the fight against hunger by advancing sustainability."

"While producing food is a necessary step, it is not sufficient. Access must also be expanded. With over 750 million people worldwide suffering from undernourishment, the need for the Global Alliance is urgent. By aligning our efforts with established goals, we can strive to enter 2030 with virtually no one facing hunger," he added.

On cooperation with the Global Alliance against Hunger and Poverty, the WFP official said: "The World Food Programme is the United Nations' largest humanitarian agency, providing daily food assistance to over 200 million people worldwide.

"This Global Alliance aligns perfectly with our overarching objective: to ensure greater access to food and reduce global hunger. We have dedicated many years to delivering food to people across the globe. Achieving our goal requires a Global Alliance that brings together the world's wealthiest countries, the UN, and other aligned organisations."





Word Scramble

Word Scramble puzzle with the following words:

- GNREE
- EBAWLREEN
- DRUOGHT
- BAASISTLENU
- SOSFRET
- PORANRTST
- CLLIYGN
- CRNESEY

Blank lines for writing answers:

ANSWERS: 1) DROUGHT 2) CYCLING 3) TRANSPORT 4) SCENERY 5) GREEN 6) SUSTAINABLE 7) RENEWABLE 8) FORESTS

Word Search

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

- DESERT
- ENERGY
- TURTLES
- NATURAL
- RECYCLED
- VEGANISM
- PRODUCE
- OVERUSE
- PLASTICS
- REUSE
- PANDEMIC
- WATER





Crossword Puzzle



Across

2. A land mass that projects well above its surroundings
4. Class of people engaged in growing food crops
7. Fauna
8. Carry, convey

Down

1. An act that has disastrous consequences
3. Unwanted material
5. Weather conditions
6. Synthetic material

ANSWERS: 1) DISASTER 2) MOUNTAIN 3) WASTE 4) AGRICULTURE 5) CLIMATE 6) PLASTIC 7) WILDLIFE 8) TRANSPORT



★ WORD OF THE DAY:

BIOPLASTICS

Bioplastics are plastic materials that are derived from biological materials. Some bioplastics are obtained by processing directly from natural biopolymers including polysaccharides (e.g., starch, cellulose, chitosan, and alginate) and proteins (e.g., soy protein, gluten, and gelatin), while others are chemically synthesized from sugar derivatives (e.g., lactic acid) and lipids (oils and fats) from either plants or animals, or biologically generated by fermentation of sugars or lipids.

Currently, petrochemical-based plastics make up 99% of the plastics market. However, production of bioplastics is increasing as the world looks for more sustainable options.

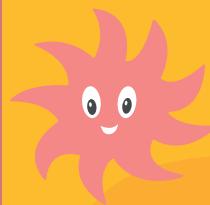
The term 'plastic' refers to material that is capable of being moulded. Although historically, this meant materials made from natural sources, such as animal horn, amber and shellac, with the rapid expansion of petrochemical-based plastics, today the term 'plastic' now generally refers to synthetic plastics.

Increasing use of conventional plastics is becoming unsustainable due to their reliance on petrochemicals – a finite and depleting resource. The durability of plastic products is also creating serious environmental issues because of the amount that we use and discard every day and the fact that they take hundreds of years to break down. For example, in New Zealand, approximately 252,000 tonnes of plastic waste is disposed of in landfills annually – enough to fill approximately 200 Olympic-sized swimming pools! This takes up approximately 20% of all landfill space. These concerns are leading to a greater interest in bioplastics.

One advantage of bioplastics is their independence from fossil fuel as a raw material, which is a finite and globally unevenly distributed resource linked to petroleum politics and environmental impacts. Life cycle analysis studies



show that some bioplastics can be made with a lower carbon footprint than their fossil counterparts, for example when biomass is used as raw material and also for energy production. However, other bioplastics' processes are less efficient and result in a higher carbon footprint than fossil plastics.



INTERNATIONAL DAY FOR THE PRESERVATION OF THE OZONE LAYER - SEPT 16

The scientific confirmation of the depletion of the ozone layer prompted the international community to establish a mechanism for cooperation to take action to protect the ozone layer. This was formalized in the Vienna Convention for the Protection of the Ozone Layer, which was adopted and signed by 28 countries, on 22 March 1985. In September 1987, this led to the drafting of The Montreal Protocol on Substances that Deplete the Ozone Layer.

The principal aim of the Montreal Protocol is to protect the ozone layer by taking measures to control total global production and consumption of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge and technological information.

In 1994, the United Nations General Assembly proclaimed 16 September the International Day for the Preservation of the Ozone Layer, commemorating the date of the signing, in 1987, of the Montreal Protocol on Substances that Deplete the Ozone Layer (resolution 49/114).

SEPT 22 WORLD RHINO DAY

World Rhino Day celebrated on September 22nd, 2024 and is a crucial opportunity to raise awareness about the plight of rhinos and advocate for their conservation.

World Rhino Day was first celebrated on September 22, 2011, but was first announced by World Wildlife South Africa, in 2010. With the increasing rates of poaching of rhinoceros species, it was imperative to call together cause-related organizations, wildlife conservation centers, N.G.O.s, zoos, and concerned individuals to seek effective ways to stop rhino poaching and possibly preserve endangered species.

Rhinos are large mammals belonging to the rhinocerotidae family. They have no natural predators except humans. Rhino species worldwide are threatened and are on the brink of extinction, with more than 7,000 rhinos lost to poaching between 2008 to 2017 in South Africa, which is home to over 70% of the world's rhino population. In 2011, the African black rhino species were declared extinct.



Every day, approximately three rhinos are killed and poached for their horns. Poachers use tranquilizers to disable the rhinos and inhumanely cut off their horns, leaving the rhinos to bleed to death. World Rhino Day is the perfect opportunity for everyone to stand against the trade of rhino horns and preserve these incredibly magnificent creatures.

WHAT CAN YOU DO TO HELP?

Things to Do...

- Switch off taps when not in use
- Carry a water bottle
- Cycle around
- Use public transport
- Reuse plastic bags



COLOUR ME!





Austria sees 6.4% reduction in greenhouse gas emissions in 2023

EMISSIONS

Leonore Gewessler, Austria's Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation, and Technology, has confirmed that the country is on track to achieve climate neutrality by 2040.

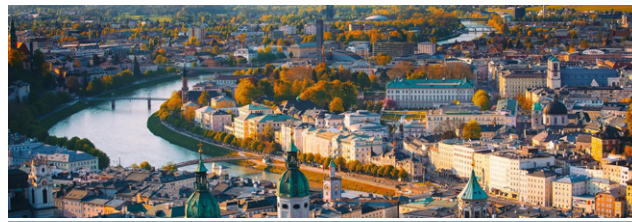
She said that greenhouse gas emissions in Austria decreased by 6.4 percent last year compared to the previous year, attributing this reduction to climate protection measures and policies implemented by the government.

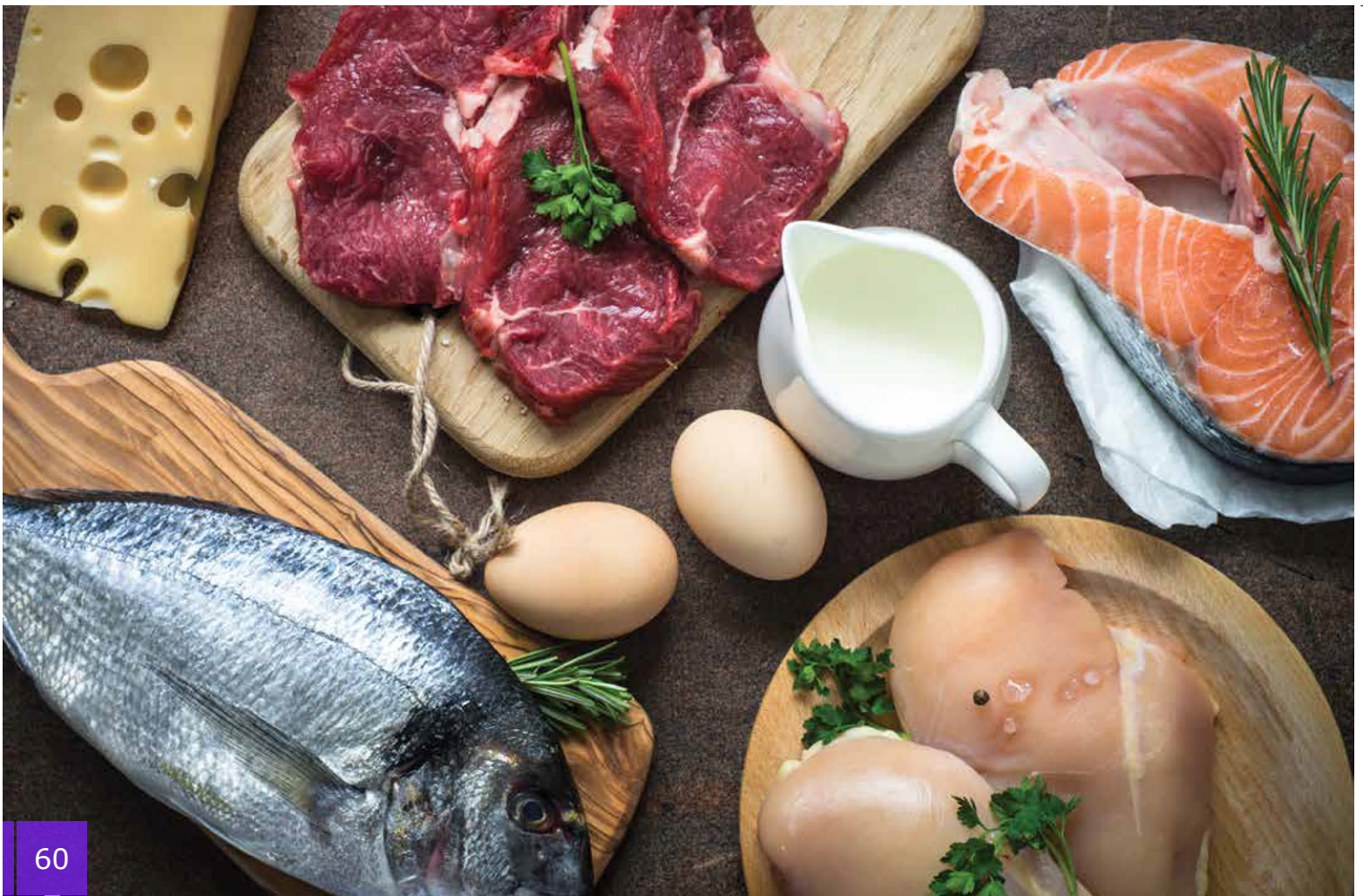
In a statement, Gewessler emphasised Austria's continued efforts to expand the use of renewable energy, highlighting the effectiveness of the government's initiatives in transitioning to green electricity and supporting the shift to green heating systems, such as heat pumps.

The government is also focusing on improving thermal insulation in buildings and promoting public transportation through the reduced climate ticket, she said.

The Austrian Federal Environment Office said that the 6.4 percent decrease in GHG emissions corresponds to a reduction of 4.7 million tonnes of carbon dioxide equivalent. Last year's emissions were initially estimated at about 68.2 million tonnes. The total reduction in emissions for both 2021 and 2022 was 11.9 percent.

Data from last year also showed a 3.8 percent year-on-year decline in greenhouse gas emissions from the traffic, vehicles, and transportation sector, which accounts for 29 percent of total greenhouse emissions, amounting to 19.8 million tonnes. Additionally, there was a reduction of about 1.5 million tonnes of emissions in the buildings sector.





Novel meat and dairy alternatives could help curb climate-harming emissions

The animal agriculture industry is a major driver of climate change, accounting for 14-20 per cent of global GHG emissions

Emerging novel alternatives to animal products such as meat and dairy may contribute to significantly reducing the environmental footprint of the current global food system, particularly in high- and middle-income countries, provided they use low-carbon energy. This was a key finding of a new UN Environment Programme (UNEP) assessment of such novel alternatives to animal agriculture.

The sector accounts for up to a fifth of planet-warming emissions, with meat consumption slated to grow by 50 per cent by 2050.

What's cooking? An assessment of the potential impact of select novel alternatives to conventional animal products focuses on three types of alternatives: 1) Novel plant-based meats, 2) Cultivated meat from animal cells, and 3) Protein-rich products derived through rapid fermentation by microorganisms. It is part of UNEP's Frontiers series, which identifies and draws attention to emerging issues of environmental concern.

The report, produced with the support of the Government of Belgium, finds that these alternatives not only show significant potential for reducing greenhouse gas (GHG) emissions, but they can also contribute to reductions in land degradation and deforestation, water and soil pollution and loss of biodiversity, as well as to reducing the risks of zoonotic diseases and antimicrobial resistance. These novel alternatives could also help to significantly reduce animal welfare concerns, compared to their conventional counterparts.

Novel meat and dairy alternatives can likely play a role in supporting a more sustainable, healthier and more humane food system



The authors conclude that novel alternatives can likely play a role in supporting a more sustainable, healthier and more humane food system, with regional differences. It reviews policies decision makers may consider to safeguard food security, jobs, livelihoods, social and gender equity, and culture to help maximize the beneficial outcomes of novel meat and dairy alternatives, while avoiding negative health and social impacts.

“New food alternatives will offer a broader spectrum of consumer choices,” said Inger Andersen, Executive Director of UNEP. “Further,

such alternatives can also lessen the pressures on agricultural lands and reduce emissions, thereby helping us address the triple planetary crisis - the crisis of climate change, the crisis of biodiversity and nature loss, the crisis of pollution and waste - as well as address the health and environmental consequences of the animal agriculture industry. More government support, as well as open and transparent research, can help unlock the potential of these new technologies for some countries.”

While conventional animal products are an



important source of protein for many communities, particularly in developing countries, in many high- and middle-income countries, their production and consumption happen at a scale that negatively impacts people and the planet.

The tens of billions of animals slaughtered annually are far from the only victims of a fast-growing animal agriculture industry. Producing and consuming animal-source foods, while offering important nutrients, has also been associated with significant challenges for public health: excess levels of red and processed meats consumption is associated with cardiovascular diseases, certain cancers, obesity, and diabetes.

Animal agriculture is also associated with increased risks of anti-microbial resistance - 73 per cent of all antimicrobials sold are used in animal agriculture - and with the spread of

zoonotic diseases such as COVID-19 or Avian Influenza.

The animal agriculture industry is a major driver of climate change: animal GHG emissions, feed production, changes in land use and energy-intensive global supply chains account for almost 60 per cent of food-related GHG emissions and 14-20 per cent of global GHG emissions.

While novel alternative foods can reduce harm to farm animals and could contribute to improving public health, other health benefits aren't as evident: some novel plant-based products tend to be highly processed and have high amounts of salt and saturated fats.

Evidence on the health impacts of using cultured meat from animal cells or fermentation remains limited. By closely mimicking or replicating the sensory experiences of meat and other animal

Animal agriculture is associated with increased risks of antimicrobial resistance and the spread of zoonotic diseases



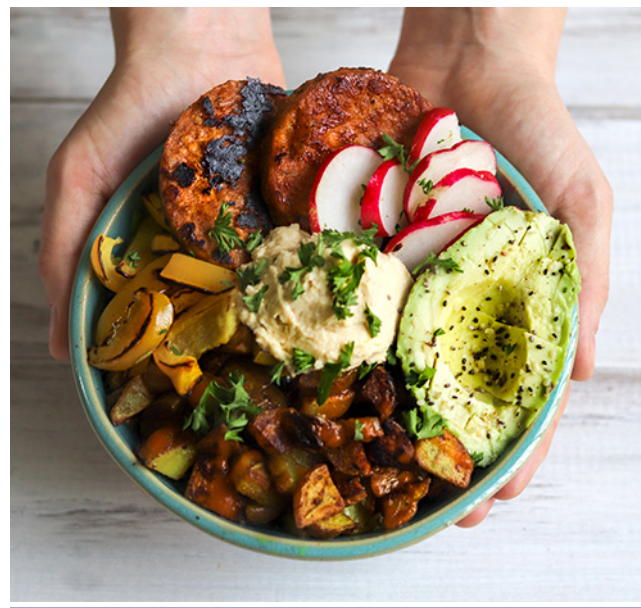
internationally agreed mechanisms on supportive trade policies and food safety standards.

The authors underscore the need for open and transparent research to understand the nutritional implications of regular consumption of alternatives, and to understand the socio-economic implications of their uptake in different regions, including for equity, food security, and livelihoods of smallholder farmers.

The report is not an assessment of other alternatives to the current food system: regenerative livestock farms, feed additives to reduce emissions from animal agriculture, farming insects, reduced meat consumption in favor of whole plant protein sources like beans, vegan products like tofu, or taxing meat. Such alternatives are already being pursued alongside the three alternatives examined in the report but have struggled so far to win government support and achieve impacts at the desired scale or speed.

products, novel alternatives may help consumers, particularly in high- and middle-income countries, shift away from unsustainably high levels of animal protein consumption. However, cost, taste, and social and cultural acceptability will strongly affect the trajectory of nascent alternatives to conventional animal products.

The report underlines the need to ensure a just transition through equitable and regionally appropriate approaches to food systems change. It reviews policy options to shift the food industry towards a healthier and more sustainable future: greater support for open access research and commercialization, shifting subsidies, tax rebates, direct financial investments, and loan guarantees to favor novel alternatives, as well as





FOOD AID

WFP provided over 121 million meals to vulnerable communities with support from MBRGI

More than 333 million people suffer from acute hunger worldwide

Cindy H. McCain, Executive Director of the World Food Programme (WFP), has expressed gratitude for the UAE's unwavering support of the WFP.

She highlighted the UAE's significant role in providing aid to millions of people worldwide and emphasised the country's continuous support through financial contributions, in-kind donations, and strategic partnerships.

Speaking on the sidelines of the World Governments Summit (WGS) 2024, she also noted that the UAE has played a crucial role in ensuring that food aid reaches the most vulnerable populations, particularly those in conflict-affected areas.

She added that the WFP recently received a contribution of USD11.7 million from the Mohammed bin Rashid Al Maktoum Global Initiatives (MBRGI) in the form of direct food



aid, which will benefit more than one million people in Gaza.

She pointed out that in the period 2022-2023, with the support of the MBRGI, the WFP provided more than 121 million meals to vulnerable communities in countries such as Burkina Faso, Palestine, Jordan, Syria, Bangladesh.

Cindy McCain said that the turmoil the world is witnessing is having a serious impact on global food security, as it disrupts food supply chains, fuels conflicts, and hampers the delivery of humanitarian assistance to vulnerable populations.

She added, "With more than 333 million people suffering from acute hunger worldwide, it is essential for world leaders to prioritise cooperation and increase humanitarian funding. We must work together - before it's too late."

Cindy McCain said that ongoing global crises have led to increased demand for urgent humanitarian and development aid. "Acute hunger remains at persistently high levels. We are also seeing rising rates of malnutrition, increasing prevalence of undernutrition, and limited access to nutritious foods. All of these are tangible indicators of the worrying state of global food insecurity."

She added, "World leaders must work together to invest in sustainable and long-term programmes and initiatives to strengthen global food security. This should include supporting sustainable agriculture, improving infrastructure, promoting safe and regular access to resources, strengthening social safety nets, and enhancing international cooperation to address the root causes of hunger and poverty."

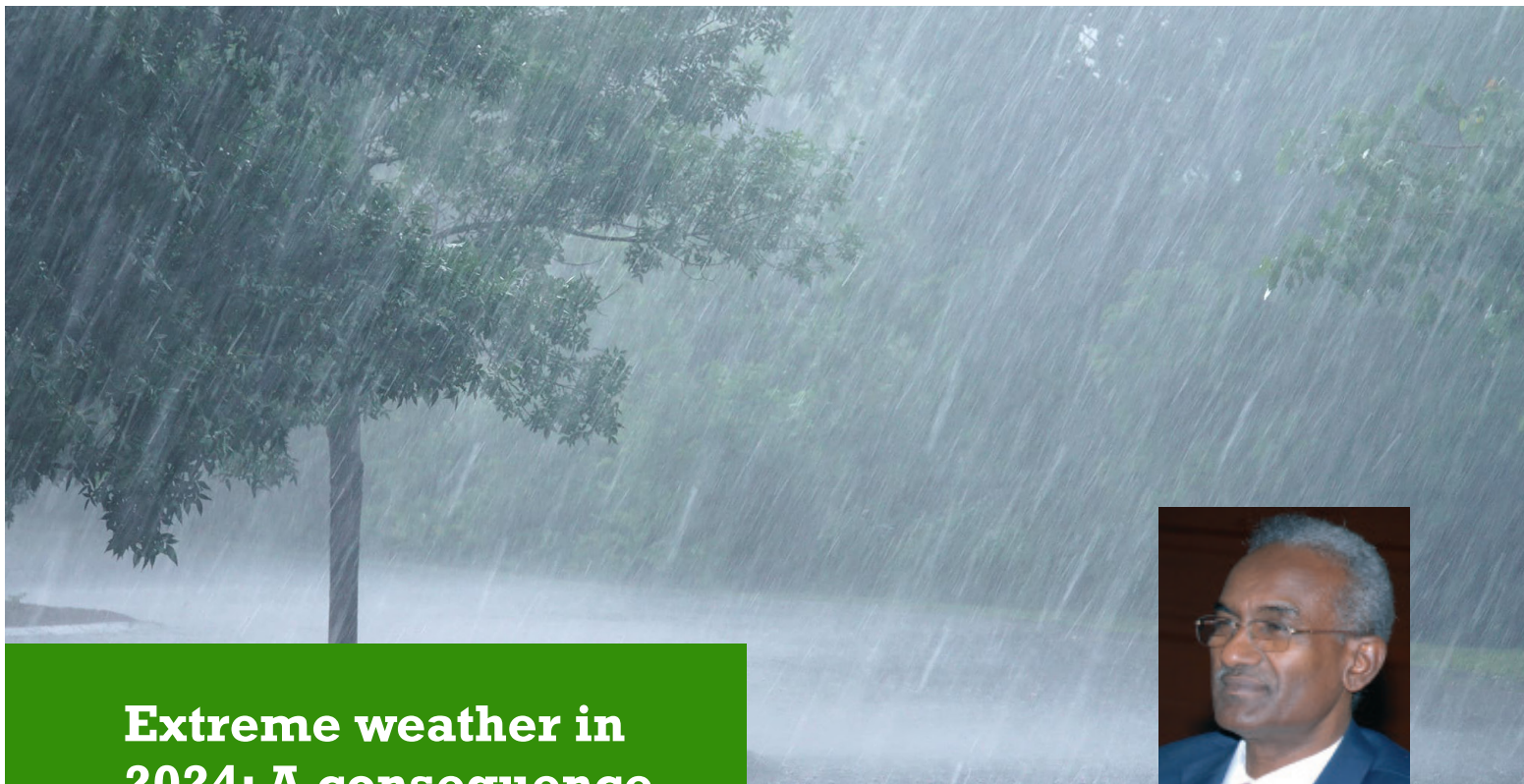
She added that with the rise of global hunger in many parts of the world, it is essential to find

and implement long-term and sustainable solutions to support food security, sustainability, and peace.



On the role of advanced technology in supporting the initiatives of the WFP, Cindy McCain said that in a rapidly changing world and amid the growing need for humanitarian support, harnessing advanced technologies such as blockchain, satellite imagery, and data analytics can improve the ways in which we provide food assistance. It can also enhance agricultural productivity and ensure better monitoring of food security indicators.

She also pointed out that the WFP recently signed a partnership with the UAE Ministry of Climate Change and the Environment and Food Tech Valley to make lasting changes to global food systems through the transformative power of innovation and technology.



Extreme weather in 2024: A consequence of climate change?



Dr. Eisa M. Abdellatif
Chief Technical Advisor
Zayed Intl. Foundation
for the Environment
Founding Chairperson
of Bi'ati Organization

66

GREEN FLASH

I watched videos from Jeddah, Saudi Arabia, showing heavy rainfall and devastating winds. The downpour also affected the Holy cities of Makkah and Medina. The damage was extensive, and the flash floods swept away many vehicles.

A similar situation is unfolding in the Horn of Africa. In Sudan, during the first week of September, the Sahara Desert transformed into an expansive lake, with waves threatening the fragile infrastructure of highways and power lines. Flash floods wiped out hundreds of villages in the Northern and River Nile States, displacing thousands from their homes, farms, and shops. They are now living in camps and awaiting humanitarian aid. Meanwhile, Southern Africa is experiencing an extreme drought that has impacted water resources, agriculture, and animal husbandry.

The most devastating part of the 2024 humanitarian crisis in Sudan is the contamination of water sources and agricultural lands caused by flash floods washing away toxic compounds from gold mining, like mercury and cyanide.

Many reports attribute the scale of this disaster to climate change. Some argue it is part of a natural 100-year cycle, suggesting that this pattern could continue for the next century, gradually transforming the Sahara Desert into green forest land. Others say the existing

weather cycle is now exacerbated by climate change.

In a September 2012 article in *Oceanus*, Elizabeth Halliday discusses a newly identified natural cycle, like El Niño and La Niña, that shifts Pacific Ocean winds and currents, rearranging rainfall and weather patterns globally every 100 years, unlike the El Niño-Southern Oscillation that occurs every 2 to 7 years. This new cycle, called the Pacific Centennial Oscillation provides a better understanding of how natural cycles may interact with global warming to produce far-reaching climate impacts emanating from the Pacific region.

Some reports have blamed the Grand Ethiopian Renaissance Dam and the smaller Merowe dam in Northern Sudan for contributing to regional and local climate change, potentially causing these disasters. However, these two dams are too recent to have had any significant impact on the climate. Interestingly, the High Dam of Egypt was not mentioned even though it has been in existence for more than half a century.

What is crucial now is for vulnerable communities to take precautionary measures rather than waiting for disasters to strike. People of North Africa may need to adapt and transform their traditional agricultural practices and develop new varieties of crops and date palms that are more climate resilient and can be harvested earlier.





Zayed International Prize for the Environment

Together for a green century



THE FUTURE OF OUR WORLD
IS IN OUR HANDS.
ACT NOW!

