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A monthly publication issued by Zayed International Foundation for the Environment



UAE President Renews Commitment To Preserve Environmental Resources

The BMW i3s marks the dawn of a new era of mobility

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Since its establishment, the UAE has focused on maintaining a balance between development and preservation of environmental resources, and has advanced sustainable development through implementing a wide range pf policies and measures in various fields.

Protection of ecosystems, natural resources and biodiversity have always been given top priority under the directives of the wise leadership of the country. Through diversification of energy resources, responsible resource consumption, sustainable urban planning, and a comprehensive environmental and legislative framework, the nation has upheld its commitment to protecting the environment and enhancing the quality of life, thereby ensuring the 'Green Recovery' of the UAE.

Chairman's Message

As a strong advocate of environmental protection, the UAE has also renewed its resolve to follow the path to a climate safe future. Accordingly, under the second nationally determined contribution (NDC) in January this year to the Secretariat of the UN Framework Convention on Climate Change, the UAE has pledged to reduce its greenhouse gas emissions by 23.5 per cent for the year 2030. This translates into absolute emission reduction of about 70 million tonnes.





Prof. Mohammed bin Fahad Executive Editor

The country's progress towards a more sustainable economic framework as well as its emphasis on local green investment across all sectors – having invested over USD 40 billion in clean energy projects locally till date - attests to the demand for sustainable solutions at a global scale, reinforcing the certainty that the future is green.

As nations begin to look ahead to a post-COVID world, it has become increasingly clear why decision makers must place the environment at the heart of all revitalisation efforts. Nature has demonstrated time and again how humans have adversely impacted the environment, and how we have disturbed critical balances in delicate ecosystems.

The UAE's path to a 'green recovery' is about investing in its future – by prioritising clean energy, digitisation, and improving the resilience of its societies and the health of our environment, as it drives efforts to bring the world closer to meeting the Paris Climate Agreement goals.

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UAE marks 24th National Environment Dav on February 04, 2021, under the theme 'Green Recovery'



UAE PLAN UAE leaders approve new

National Agenda, strategic projects for next 50 years



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sustainable living in

the UAE, says new

BCG report

Upcoming EXPO 2020 is increasing

DECARBONIZATION The solutions to rapid global carbon dioxide emissions were discussed at a virtual media roundtable organized by GE Gas Power



RESEARCH: An AUS research team confirms locally grown Salicornia bigelovii, has great potential as a feedstock for biofuel



ELECTRIC MOBILITY The BMW i3s marks the dawn of a new era of mobility

GREEN CITY

Amsterdam aims to cut down CO2 emissions completely by 2050 becoming an entirely circular city



PUBLISHED BY



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UNEA-5: The fifth UN Environment Assembly issues urgent call for action to tackle planetary crises



WED 2021

Pakistan to host World Environment Day 2021 under the theme 'ecosystem restoration'



BLUEPRINT: New UN report lays out the gravity of Earth's triple environmental emergencies – climate, biodiversity loss and pollution



Upcoming events

Energy from Waste Conference

Date: March 10-12 Virtual Event

This premier conference will enable senior level decision makers across waste, energy, technology and project development to explore the latest developments in this globally important industry. The conference will focus on commercial opportunities that continue to exist and emerge in the energy from waste sector.

Recyclers' Talks: Circular Economy – Are we delivering?

Date: March 22 Virtual event

A webinar series connecting the dots between EU decision-makers and recyclers to discuss the building blocks required to speed up the transition towards a more circular economy and achieve Europe's climate neutral agenda.

World Water Day

Date: March 22

World Water Day 2021 will focus on the theme, 'Valuing Water'. This focus will extend beyond issues of pricing to include the environmental, social, and cultural value people place on water.

Earth Hour

Date: March 27

The DNA of the Earth Hour movement is to switch off your lights for an hour on Saturday, March 27, 2021 at 8:30 pm your local time. In light of the COVID-19 pandemic, the Earth Hour global organizing team is recommending all individuals to take part online / digitally when possible.

UAE President Renews Commitment To Preserve Environmental Resources

President His Highness Sheikh Khalifa bin Zayed Al Nahyan has said that the "National Environment Day" marked for the 24th year in a row is an important occasion in which the country renews commitment to preserve the environmental resources and natural wealth.

In a speech marking the 24th National Environment Day on February 04, 2021, Sheikh



Speaking on the occasion of the 24th National Environmental Day, the UAE President noted the value in preserving natural wealth

Khalifa said: "We celebrate the 24th National Environment Day as an important occasion to renew our national and ethical commitment to preserving our national resources."

The UAE President said: "On this day, we reiterate our determination to double efforts to achieve our sustainable development objectives in line with the UAE Vision 2021 National Agenda with regards to ensuring a clean and safe environment that is conducive to providing continued prosperity and happiness for us and for generations to come."

He added, "The preservation of the environment is a shared responsibility by all. During the event each year, efforts are made to highlight an environmental goal of national importance."

President Khalifa noted that values and practices



related to the sustainability of the environment are an integral part of the UAE heritage.

He added that the UAE's Founding Father, the late Sheikh Zayed bin Sultan Al Nahyan, expressed this sentiment when he said, "We take from our environment as much as we need, and ensure the rights of future generations."

His Highness indicated that our government has taken this saying as an approach, and translated it into policies, strategies, legislation, plans and programmes to ensure a positive balance between requirements of economic, social growth, and environmental conservation.

His Highness also commended the choice of "Green Recovery" as the slogan for the 24th National Environment Day.

He noted that as the country was able to deal

with great success with the challenge of the COVID-19 pandemic and its health, social and economic repercussions, it is also able to achieve the desired balance between growth, protecting the environment, by sustaining its resources and preserving its biological diversity.

His Highness said that the UAE would be doubling efforts to reach sustainability goals as part of a major drive to provide "a clean and safe environment that contributes to providing prosperity and happiness for us and for future generations."

"We have developed the water sector to protect the country's underground water reserves and the agricultural sector by encouraging farmers to develop and adopt modern approaches that are relevant to and match the country's climatic conditions. **COVER STORY**



"We call upon our government institutions to continue their efforts to achieve the desired national goals and to raise the awareness of community members of their national, environmental and humanitarian responsibilities and roles," President Khalifa added.

His Highness continued, "We also call on the private sector to play its role in carrying out its social and environmental responsibilities and call on all society members to follow proper behaviour towards the environment and to adopt rational consumption patterns of their resources to ensure their continuity."

"We appreciate the role played by all government agencies for their interest in the environment, and for their coordination with private sector institutions and individuals, as well as their keenness to participate actively in our efforts to protect and sustain the environment," he concluded.

Post-COVID-19 economic recovery at the heart of UAE's policies

H.H. Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in Al Dhafra Region, Chairman of the Environment Agency – Abu Dhabi, said economic diversification lies at the heart of UAE's policies aimed at ensuring availability of new and clean energy resources, providing sustainable urban planning and achieving food security while addressing the unique challenges associated with climate change.

Sheikh Hamdan attributed the impressive ecological profile of the UAE to the directives of President His Highness Sheikh Khalifa bin Zayed Al Nahyan, coupled with the support of His Highness Sheikh Mohammed bin Rashid Al Enhancing capacity of the UAE's aquaculture and fisheries sector is an important aspect of the National Food Security Strategy



Maktoum, Vice President, Prime Minister and Ruler of Dubai, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces.

"The UAE has always been endeavoring to strike a balance between economic development and ecological improvement based on a set of efficient policies to ensure economic diversification and smooth transition from an oilreliant economy to a knowledge-based, innovation-driven circular one," he added.

Sheikh Hamdan underlined the UAE's determination to preserve the nation's ecological heritage by continuing to protect its natural resources and passing it on to generations to come. "Economic recovery from the fallout of the COVID-19 pandemic now lies in the heart of the

policies being adopted by all countries of the world. Now all decision makers across the globe are seriously taking sustainability factors into consideration while charting any recovery policies in order to ensure their plans to weather the crisis will be permanent solutions rather than temporary ones," he continued.



UAE leaders approve development agenda for This was decided at the two-day (February 24next 50 years

he UAE development agenda for the next 50 years will focus on key future economic segments such as digitisation, green growth and sustainable development, as well as food security and productivity.

25) government brainstorming retreat held to draft a comprehensive, 50-year development



The 50-Year Preparedness Plan will focus on six areas: government; society; economy; education: infrastructure and environmental sustainability; and security and justice.

strategy for the nation.

The government retreat to plan the next 50 years was chaired by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, with the participation of government ministers and officials from federal and local authorities.

Comprehensive strategy for the next 50 years

The retreat aims to draft a comprehensive strategy for the next 50 years covering all vital development sectors, which will strengthen the UAE's leading regional position and enhance its competitiveness.

The 2021 ministerial retreat coincided with the UAE's Golden Jubilee that presents a defining point towards a new and accelerated development journey



At the opening session of the 2021 ministerial retreat that started on February 24, Mohammad bin Abdullah Al Gergawi, Minister of Cabinet Affairs, announced that a new dynamic governance will lead federal ministries, departments and institutions as part of the national priorities for the country's next phase.

He also announced that a comprehensive media strategy will be developed to share the UAE's story with the world under a unified media identity.

The new strategic trends aim to draft an advanced work plan to boost the UAE's position in the global sphere.

The 2021 ministerial retreat coincides with the UAE's Golden Jubilee that presents a defining point towards a new and accelerated development journey. The retreat aimed at establishing new

work models and plans for government and private sectors for the next 50 years to make the UAE best country in the world.

50-Year Preparedness Plan

At the retreat, Mohammad bin Abdullah Al Gergawi presented an idea for a collaborative and energetic governance model, saying that the next half century called for full collaboration among public, semi-private and private sectors, under an integrated system, to develop innovative work models.

The 50-Year Preparedness Plan will focus on six areas: government; society; economy; education; infrastructure and environmental sustainability; and security and justice.

The retreat's first day included 10 discussion sessions involving the specialised government

JAE NEWS



taskforces, on ways to boost the UAE's global competitiveness in vital sectors and the mechanisms for implementing the country's priorities in the areas of trade, development, media, infrastructure and advanced sciences.

On December 2, 2021, the country will be 50 years old. Throughout this year, decision-makers will put the spotlight on its rapid journey to present day, and the challenges and opportunities the next half-century will bring.

Boosting the country's competitiveness

The 2021 ministerial retreat concluded on February 25 with a new edition of the National Agenda and strategic projects to boost the country's competitiveness and speed up development in the next 50 years.

Sheikh Mohammed bin Rashid Al Maktoum said

since its formation, the UAE has presented a unique success story in all sectors, thanks to the futuristic vision and noble principles established by the founding leaders.

He noted, "Over the past 50 years, we started from the desert of our land to the desert of Mars. Our dreams will be even bigger for the next 50 years."

His Highness Sheikh Mohammed said the UAE presented an exceptional development model to the world that placed the human capital at the centre of all its development and economic plans. He stressed that the UAE is committed to providing all the necessary elements to sustain the excellence and development that have long distinguished the country. "We have reached this far because the impossible does not exist in the UAE. We have the scientific, educational and economic resources to take the UAE to new The retreat aimed to draft a comprehensive strategy for the next 50 years covering all vital development sectors to enhance the UAE's competitiveness



frontiers in the next 50 years, and we have Mohamed bin Zayed to lead this journey."

At the forefront of development

Sheikh Mohamed bin Zayed said the UAE looks to the future, while proudly holding on to the memory of the founding leaders and working hard to sustain and advance the solid foundation they laid for the country.

He said, "The UAE has reached where it is today, thanks to the values of tolerance and coexistence that the founding leaders Sheikh Zayed and Sheikh Rashid established from the beginning of our journey. The last 50 years were filled with prosperity, development and success, and we will need to move at a greater speed to meet our growing ambitions for the next 50 years."

Sheikh Mohamed noted that the UAE has been at

the forefront of development. "Thanks to the relentless efforts of government teams, the UAE has established itself as a leading model in innovative leadership thinking," he said and added that the UAE today adopts a futuristic vision to meet the aspirations of the people.

The ministerial retreat was attended by H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai; H.H. Lt. General Sheikh Saif bin Zayed Al Nahyan, Deputy Prime Minister and Minister of the Interior; H.H. Sheikh Mansour bin Zayed Al Nahyan, Deputy Prime Minister and Minister of Presidential Affairs; H.H. Sheikh Abdullah bin Zayed Al Nahyan, Minister of Foreign Affairs and International Cooperation, alongside dignitaries and government officials.

Dubai Emphasises Preservation Of Wetlands

bubai celebrated World Wetlands Day which falls on February 2 each year coinciding with the adoption of the Ramsar Convention on Wetlands, signed on 2nd February 1971.

This year, Dubai Municipality observed the World Wetlands Day under the theme 'Water, Wetlands and Life' as it sought to introduce community members to the importance of living organisms



World Wetlands Day 2021 emphasises importance of preserving living organisms and plants to maintain the ecological balance.

in wetlands and their role in the ecological balance.

At a virtual symposium held to mark the occasion, attendees were introduced to the natural reserves in Dubai that were chosen and approved by the Secretariat of the Ramsar Convention on Wetlands, including the Jebel Ali Wildlife Sanctuary, the Ras Al Khor Wildlife Sanctuary, and the Hatta Mountain Reserve.

The Ministry of Climate Change and Environment highlighted best practices followed in preserving wetlands through a presentation.

The Environment and Natural Reserves Authority delivered a lecture on the Wasit Wetland Center; Al Ain Zoo's awareness lecture focused on the abundant water birds that visit the zoo; and "My Farm Dubai," located in the Al Khawaneej area,

Wetlands are home to 40% of the species on the planet that live and breed in them



Dubai Municipality has been conferred the DuPont Safety & Sustainability Award in the sustainability criterion in the Global Winner category. The Municipality received the award, organized by DuPont Sustainable Solutions, for its initiative - the Integrated and Sustainable Program for Recycling of Treated Water in Dubai in the Jebel Ali Sewage Treatment Plant.

The winning initiative aims to enhance sustainability standards in the field of treated water reuse, as the production capacity for wastewater treatment was raised from 300,000 cubic meters per day to 675,000 cubic meters per day, in addition to rationalizing energy consumption by 25% of the operational cost. The possibility of removing phosphorous from wastewater, which prevents the algal blooms, necessary for the wastewater treatment process in the plant's lakes, has also been realised. highlighted the use of organic pesticides in preserving living organisms and plants to maintain the ecological balance.

Wetlands with fresh and salt water are considered essential to the existence of man and nature, and they support social and economic development through the multiple services they provide, as they contribute to storing and purifying water, food supply, and supporting the global economy.

Wetlands are home to 40% of the species on the planet that live and breed in them, and nearly 200 new fish species are discovered annually in freshwater wetlands, and coral reefs are home to 25% of all species. In addition, wetlands provide protection from floods and storms, as each acre of wetlands absorbs up to 1.5 million gallons of flood water.

UAE, Korea Sign MoU To Boost Joint Smart Farming Research

The Ministry of Climate Change and Environment (MOCCAE) inked a Memorandum of Understanding (MoU) with the Rural Development Administration (RDA) of the Republic of Korea on February 04, 2021, to enhance joint efforts in smart farming research.

Sultan Alwan, Acting Undersecretary of MoCCAE, and Lee Yong-Beom, Vice



The agreement covers joint research of rice cultivation in the desert and smart greenhouse cooling systems.

Administrator of RDA, signed the agreement on the heels of a meeting between Dr. Abdullah Belhaif Al Nuaimi, Minister of Climate Change and Environment, and Kwon Yongwoo, Ambassador of the Republic of Korea to the UAE, at the Ministry's headquarters in Dubai.

The agreement covers joint research of rice cultivation in the desert and smart greenhouse cooling systems.

RDA's role in the rice cultivation project includes devising the project plan, providing the budget, managing the project, sharing information on the preliminary research done in Korea, conducting research onsite in the UAE, and building the capacities of MoCCAE researchers.

On the other hand, the Ministry is responsible for allocating a research site, providing facilities

The MoU is a continuation of the cooperation agreements signed in 2018 during the visit of Moon Jae-in, President of the Republic of Korea, to the UAE



and infrastructure, including electricity, water, and telecommunications, designating personnel to perform the research as well as field cultivation and maintenance, and sharing data on the environment, crop growth, and yields.

As per the agreement, RDA will develop the project plan, commission and provide the budget for the design, manufacturing, and installation of a greenhouse equipped with a smart cooling system, manage the project, offer technical support, and build the capacities of MoCCAE researchers. Meanwhile, the Ministry will allocate an area for the installation of the smart greenhouse, provide facilities and infrastructure, and designate personnel to perform greenhouse maintenance. Both parties will participate in experimental crop cultivation.

The MoU is a continuation of the cooperation

agreements signed in 2018 and builds on the success of the pilot phase of the rice cultivation in the desert project that was the outcome of the MoU between MoCCAE and the Ministry of Agriculture, Food and Rural Affairs of the Republic of Korea in 2019.

Commenced in November 2019, the pilot phase was carried out at the Ministry's research centre in Al Dhaid in the Emirate of Sharjah, where seeds were sowed in November 2019 and harvested in three stages in May 2020. To reduce costs and the amount of water used, the project team installed an underground drip irrigation system.

After extensive testing, the experts selected Asemi (Japonica) and FL478 (Indica) rice varieties to grow because of their ability to tolerate heat, salinity, and poor soil conditions.

UAE, US Special Envoys Discuss Shared Agenda For Global Climate Progress

he UAE and the US aligned on ways to make progress on the global climate agenda in a meeting held on February 01, 2021, between US Special Presidential Envoy for Climate, John Kerry and UAE Special Envoy for Climate Change and Minister of Industry and Advanced Technology, Dr. Sultan Ahmed Al Jaber.

In his first dialogue with the region in his capacity



In conversation with John Kerry, Dr. Al Jaber noted that the UAE has a 15-year-track record in embracing the potential of clean energy and technology as US Special Presidential Envoy for Climate, John Kerry discussed new opportunities with Dr. Sultan Al Jaber to build on many years of strong bilateral ties between the US and UAE to tackle the global climate challenge. Both officials looked forward to working closely together in the run up to COP 26 and stressed that in the urgent need to combat climate change there are significant opportunities for growth, diversification, and job creation.

Dr. Al Jaber was appointed the UAE's Special Envoy for Climate by Cabinet resolution on November 29th 2020. As part of his mandate, he will act as the UAE's spokesperson regarding climate change-related matters at regional and international levels; determine the UAE's direction and positions on climate change in a way that protects national priorities and interests at both regional and international The UAE is a regional champion in renewables, with investments in major projects in 30 countries worldwide



levels; propose the agreements of partnership with regional and international organisations and promote the UAE's policies, initiatives, efforts, and achievements on climate change.

In his conversation with Special Envoy Kerry, Dr. Al Jaber noted that the UAE has a 15-year-track record in embracing the potential of clean energy and technology.

Dr. Al Jaber said: "Having proactively adopted and promoted clean energy and carbon mitigation technologies for many years, the UAE welcomes the new US administration's sharpened focus on climate change, and we look forward to exploring the many potential areas of synergy with the United States, one of the UAE's most longstanding and trusted allies."

He added: "Over the past 15 years, the UAE has emerged as a regional champion in renewables,

with investments in major projects in 30 countries around the world, including three of the largest and lowest cost solar plants here in the UAE. We have also established regional leadership in many other clean technologies, including carbon capture utilisation and storage, and we are more than willing to share our experience and expertise with the global community.

"These investments will not only accelerate efforts to reach climate goals, but will also enhance economic opportunity and diversification, while creating knowledge, skills and jobs."

The two special envoys agreed to set up bilateral working groups between the UAE and US to advance their shared agenda, accelerate progress toward global climate goals and contribute to regional and global sustainable development.

FAO Commends UAE's Ambitious Desert Fish Farming Projects

A report issued by the Food and Agriculture Organisation of the United Nations (FAO) on February 10, 2021, highlighted the ambitious projects launched by the UAE in the field of fish farming, noting that such projects reflect the progress in the deployment of advanced technologies to maintain sustainable fishing production and consolidate national food security.



The report stressed that the fisheries sector is being prioritised by the UAE and is a key pillar of its national food security strategy, which includes initiatives aimed at promoting sustainable agricultural practices.

The UAE has achieved significant progress in adopting innovative and sustainable fish farming technologies, which reduce the pressure on the environment while meeting the growing needs of the population, the report also highlighted.

Several private entities produce 500 to 1,000 tonnes of Atlantic salmon, grouper, bass, yellow-tailed kingfish and organic caviar in several facilities across the country, according to the report.

The report noted the cooperation between the FAO and the UAE in fish farming and mentioned a fish farm in Wathba located 40 kilometres from

the capital, Abu Dhabi, which employs the latest technologies to monitor water temperature, quality, and oxygen levels 24 hours a day, and uses sensors that detect changes that threaten fish.

The FAO's report also explained that the availability of fresh water in the Middle East and North Africa has decreased by two-thirds in the last 40 years and is expected to further decline by 50 percent by 2050. However, scientists have discovered methods of using salty desert water in fish farming.

The UAE can meet the needs of its community by developing a blue food agricultural system and sharing its knowledge and expertise with new generations in many countries, the report stressed.



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Pathways To Faster Decarbonisation With Gas And Renewables In MENA Region

The power sector accounts for up to 41 percent of global carbon dioxide emissions today. Additionally, there are up to 1 billion people globally who still lack access to reliable energy and the demand for electricity is expected to continue to grow, including here in the Middle East and North Africa (MENA), where population growth, industrialization and urbanization continue to fuel the need for more power.



The solutions to rapid global carbon dioxide emissions were discussed at a virtual media roundtable organized by GE Gas Power

To address sustainability concerns, the world is transitioning towards a lower carbon energy mix at a pace unseen before. This is reflected in the total global value of energy transition investment - including spend on new renewable energy capacity, electric vehicles and associated infrastructure, energy charging storage technologies, and more - reaching over US\$500 billion for the first time in 2020. This was an increase of 9 percent over the previous year. However, while renewables are growing rapidly, increases are not occurring fast enough, and they are still projected to provide less than half of global electricity supply by 2040.

"As this transition plays out, the accelerated and strategic deployment of renewable and gas power together can deliver a no-regrets path to make substantive reductions in emissions quickly, while delivering dependable, affordable

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Countries across MENA are now committing to increasing the share of renewable energy in their mix and to decarbonize their economies



power," says Joseph Anis, President & CEO of GE Gas Power Europe, Middle East, and Africa. A recent white paper by GE titled 'Accelerated Growth of Renewables and Gas Power Can Rapidly Change the Trajectory on Climate Change' outlines how gas power can complement renewables to offer decarbonization at scale in the near-term, with pathways to near-zero in the long term.

These solutions were discussed at a virtual media roundtable organized by GE Gas Power under the theme 'Pathways to Faster Decarbonization with Gas and Renewables'. Attending the session were: Brian Gutknecht, Marketing Leader, GE Gas Power; Jeffrey Goldmeer, Emergent Technologies Director - Decarbonization, External Programs & Partnerships, GE Gas Power; Deepesh Nanda, CEO, GE Gas Power South Asia; Abdurrahman Khalidi, Chief Technology Officer, GE Gas Power, MENA & South Asia; Michael Konadu, Commercial Growth Director, GE Gas Power Sub-Saharan Africa.

Complementary Attributes of Renewables and Gas Power

Today, we're seeing countries across MENA commit to increasing the share of renewable energy in their mix and to decarbonize their economies. Saudi Arabia plans to add 60 gigawatts (GW) of renewable energy to its grid by 2030, Egypt aims to produce 20 percent of its electricity using renewable sources by 2022, while the UAE aims to increase the contribution of clean energy in the total energy mix to 50 percent by 2050. Gas power offers distinct advantages in supporting this growth of renewable energy throughout the region.

Gas is increasingly abundant, available, and

TREND REPORT

affordable, and expected to become even more so in the years ahead, offering countries relatively low-cost power on demand. It offers the cleanest means of power production among all traditional fossil fuels, with as little as less than half the carbon dioxide emissions of coal. Additionally, gas offers pathways to future conversion to low or near-zero carbon with hydrogen and carbon capture, utilization, and sequestration (CCUS) technologies.

Gas also provides dependable, dispatchable capacity that is available regardless of the time of day, season, or weather; this is critical for grid stability as very high renewables penetration can lead to system instability. Gas plants can compensate for long gaps in renewable production in ways that today's battery storage technology cannot. The latter can usually be used for short-term (typically <8 hours) storage of renewable energy, while gas is economical for longer duration peaking needs. Furthermore, gas power plants are flexible, with the ability to start quickly, ramp power up or down, and turndown to very low output levels, so they can provide affordable, dispatchable power that can fill the supply/demand gap as and when needed.

Gas power plants have a significantly smaller physical footprint than wind and solar power plants, enabling them to be deployed in countries with limited land and closer to demand centers such as large urban areas, thereby potentially reducing the investments needed in transmission infrastructure.

Unlocking the Potential of Gas Power Technologies

There are gas power solutions available today that can help countries across MENA reduce the

Gas power plants have a significantly smaller physical footprint than wind and solar power plants, enabling them to be deployed in countries with limited land



environmental impact of their power generation activities. In the more immediate to short term, upgrade solutions can be deployed to increase the output, efficiency, flexibility, lifespan, and availability of gas turbines, while reducing fuel consumption and environmental impact.

Many power plants in MENA still use gas turbines that were installed in the 1980s and continue to operate in simple cycle mode at efficiency levels below 30 percent. Converting them to combined cycle – something that can be accomplished in as little as 16 months - can enable them to produce up to 50 percent more electricity using the same amount of fuel.

In the more medium to long term, advanced technologies that offer higher efficiency and flexibility should be deployed to equip new power generation facilities. Gas power plants can often operate for thirty years or more and hence,



adopting higher efficiency technologies, such as GE's H-class turbines, which have already set two world records for combined cycle efficiency, can help power plant owners lower the emissions per megawatt of power generated for decades to come.

In the UAE, Sharjah Electricity and Water Authority (SEWA) is installing the technology at its upcoming 1.8 GW power plant in Hamriyah. Using three GE 9HA units in combined cycle operations, SEWA can reduce carbon dioxide emissions by up to 4 million tons per year, compared to current levels – the equivalent of taking 1 million cars off the UAE's roads.

Apart from combustion technologies, there are pre and post combustion solutions that can also help sustainability efforts. On the pre-combustion side, there are multiple approaches for lowcarbon or carbon-free fuels, including the use of

Many power plants in MENA still use gas turbines that were installed in the 1980s and continue to operate in simple cycle mode at efficiency levels below 30 percent



hydrogen for power generation.

Several countries across MENA, which have tremendous potential to generate low-cost renewable power, are already exploring initiatives to produce green and blue hydrogen. As this fuel becomes more easily available and more economical, it can play a more significant role in the region's energy mix.

In Saudi Arabia, plans have been announced for a \$5 billion production facility in NEOM that will be powered by renewable energy for the production and export of green hydrogen to global markets. It will supply 650 tons per day of carbon-free hydrogen and is scheduled to be onstream in 2025.

On the post combustion end, natural gas based combined cycle power plants can also be paired with CCUS technology to capture carbon dioxide emissions and provide cleaner power. Carbon capture and storage projects have operated globally in various industries since the 1990s with projects operating in MENA as well, such as ADNOC's CCUS project at the Al Reyadah facility in Abu Dhabi, which has the capacity to capture 800,000 tons of carbon dioxide annually.

"There are many pathways that can be adopted to power a cleaner energy future with gas and we need to adopt these solutions to take decisive actions to address the global climate crisis today – not years from now," states Anis. "There is no one solution that fits all and the mix of fuels and technologies needed to achieve net zero carbon goals will vary from country to country. However, there can be no doubt that gas power can play a critical role in helping MENA achieve faster, deeper decarbonization at scale."



Smart cities: The digital solution to sustainability challenges

We are undergoing the largest wave of urban growth in history. At the turn of the 20th century, just 15 per cent of the world's population lived in cities. Now it's over 50 per cent – and by 2050, it's expected that 68 per cent of the world's 9 billion people will be city-dwellers.¹

his ongoing rapid urbanization presents a unique set of challenges and opportunities for towns and cities, and their inhabitants. with more than 80 per cent of global GDP generated in cities, increasing urban populations provide the potential for significant economic growth, innovation and developement.²

However, these benefits are not guaranteed. To harness the positive effects of a city's growing population, there are many challenges, including resource depletion, rising pollution and overpopulation, that must be addressed. Here, authorities should look to standards to help cities meet their future potential.

The rapid flow of populations into urban areas puts pressure on local infrastructure, with governments being unable to provide services for everyone. Demand for housing increases, leading to overcrowding which puts a strain on already-stretched resources, such as energy and water.

Sanitation issues, including a lack of proper waste disposal methods, create multiple health hazards for citizens – as does air pollution caused by traffic congestion. The risk of environmental hazards, like flash flooding, also increases due to exposure to climate change, to which cities are inextricably linked: cities consume close to twothirds of the world's energy and emit more than 70 per cent of global greenhouse gas emissions.³

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If urban planning is not implemented strategically, this threatens the progressive and sustainable growth that is vital to a city's prosperity. Managing the distribution of limited natural resources, as well as managing healthcare, education, city infrastructure and urban mobility, is a major challenge that must be acknowledged and understood by cities.

This requires a clear vision and long-term planning, which is why the concept of the smart city is of increasing importance to city leaders and town planners. The smart city provides an effective solution to the challenges of current and future urban contexts, using digital technology and data to optimize city functions, drive economic growth, improve sustainability and enhance quality of life for citizens. Standards that help authorities to implement smart city concepts, such as PD 8100 and PAS 182, allow governing bodies and organizations to address issues at different levels and better serve the needs of their citizens.

In a smart city, individual city systems are highly integrated, not just within themselves but also with each other. This means they can seamlessly deliver the best for the local area, fully responsive to the needs of their citizens and businesses. What's more, the smart city agenda isn't only for major cities; it's just as important for smaller cities and towns. Standards that help authorities to implement smart city concepts, such as PD 8100 and PAS 182, allow governing bodies and organizations to address issues at different levels and better serve the needs of their citizens.

In Barcelona, the city's parks use technology to remotely sense and control park irrigation and the water in public fountains. This program alone increased the city's water conservation by 25 per cent, saving around \notin 472,000 a year.⁴ Meanwhile, Copenhagen plans to become the world's first carbon-neutral capital city by 2025, using smart city initiatives such as smart district heating and cooling grids.⁵

Building cities that are smart and sustainable requires effective planning and strategic delivery. Different cities will have different visions, reflecting the needs and circumstances of their different populations. A standards-based approach helps citizens and leaders to adapt and innovate successfully.

Smart city standards provide city leadership with the tools needed to develop and deliver their own smart city strategies. For example, ISO 37106, based on BSI's PAS 181, gives guidance on establishing a city's unique strategy, putting the citizen at the centre and helping the city manage its digital assets in order to create effective services and deliver change. Meanwhile, ISO 37101 allows for the creation of specific sustainability strategies, through the provision of a management system that helps cities to prioritize their goals and actions.



As a result, standards can help eliminate risks, cut costs and make it easier for leaders to grow and manage towns and cities effectively, whilst also preparing for the challenges that lie ahead. Urbanization should be viewed as an opportunity to be taken advantage of, improving the lives of residents and helping urban centres to meet sustainable development goals. Utilizing standards will allow individuals and groups to lead the way, as their smart towns and cities become the benchmark of the future.

Smart and sustainable city standards are being written through BSI to reflect the identified needs of our stakeholders, addressing urban challenges and creating common markets. Through standards, cities can provide the right conditions for open innovation and reduce barriers to systems integration. They enable collaboration and an open ecosystem for city partnerships resulting in productivity increase and service transformation in our future cities.

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Seeds From Locally Grown Plant Yield High-Quality Biofuel

Researchers at American University of Sharjah (AUS) have discovered that seeds from a locally grown plant can produce high-quality biofuel, potentially enhancing the UAE's efforts to secure clean energies from local natural resources.

Over two years of research, the AUS team investigated the Salicornia bigelovii, a type of



An AUS team investigated over two years, the Salicornia bigelovii, a type of halophyte that has great potential as a feedstock for biofuel

halophyte that has great potential as a feedstock for biofuel. Halophytes are salt-tolerant plants that grow in marshes, mangroves and soils with high salinity. Salicornia bigelovii is known by the common names dwarf saltwort and dwarf glasswort. The genotype of the Salicornia used can achieve high biomass yields of approximately 3.5 kg per square meter (fresh biomass) under a high level of salinity, with the seed yield of approximately 80 g per square meter.

"We wanted to develop a novel biomass (plant material) conversion process to yield biofuels using locally grown plants in the UAE. This is the world's first study on converting Salicornia bigelovii to biofuels through thermal conversion and it constitutes a breakthrough in the production of renewable energies from nonconventional biomass resources," said Dr. Yasser Makkawi, Professor in Chemical Engineering at

Salicornia bigelovii is known by the common names, dwarf saltwort and dwarf glasswort



AUS, and research team leader of the AUS Bioenergy and Solar Conversion Research Group (BSCRG).

The researchers note that because the bio-oil produced from the Salicornia bigelovii seeds has high energy content, and is chemically stable and has less corrosion compared to bio-oils from other resources, it is highly attractive as a clean and sustainable alternative to fossil fuels. The process used also produces biochar and water, which can be used to support the growth and development of plant and animal life in arid and semi-arid environments.

According to Dr. Makkawi, "The results of this project will greatly impact the future development of modern biotechnology. It also contributes to the UAE's 2050 vision of renewable energy and sustainability. On a global level, the outcomes of

this research will contribute to international efforts in fighting climate change and global warming by offering a technically and economically feasible concept of a modern bioenergy system. We also hope that conclusions reached in this research will set the scene for the wider application of halophytic plants for biofuel production, especially in coastal deserts and marginal environments."

While there is great potential for biofuels in general, Dr. Makkawi said that the biofuel obtained in this study can be used in the production of electricity by steam turbines and fuel for vehicles. In the next phase, the AUS research team, in collaboration with researchers at ICBA, is planning to investigate other genotypes of the Salicornia that may have even higher biomass and bio-oil yields.

65 Per cent of UAE Consumers Are Willing to Live More Sustainably: Report

White EXPO 2020 just a few months away, public awareness concerning the mounting challenges stemming from global warming is reassuringly high in the UAE as the government, public and private organizations, and civil society continue to play their part in embracing environmental sustainability initiatives. Despite significant efforts by all those involved, consumers still face obstacles



Upcoming EXPO 2020 is increasing public awareness on sustainable living in the UAE, says new BCG report preventing them from translating their concerns into action via eco-friendly practices, according to a new report by Boston Consulting Group (BCG).

The report, titled 'Are Consumers in the Gulf States Ready to Go Green?', stresses that while 65 percent of UAE consumers have reaffirmed their preparedness to incorporate more sustainable actions into their daily lives, green infrastructure, financial incentives, and a greater selection of affordable eco-friendly goods and services would assist in accelerating change.

The report's findings highlight that 81% of UAE consumers are largely aware of climate change and how the issue negatively affects the environment – a figure that shows the UAE to outperform the rest of the GCC in terms of awareness. 65% percent of consumers with

Visionary leadership is a catalyst in public's appetite for sustainability



knowledge of the implications also perceive it to have a negative impact on the global environment, with 36% percent already believing that climate change is having a significant influence on personal lives, and around three-quarters anticipating it will impact future generations.

"Climate change concerns in the UAE have increased due to greater access to information and successful government and corporatebacked initiatives, most notably the UAE Vision 2021 and the inclusion of sustainability in EXPO 2020," said Simon Birkebaek, Partner at BCG Middle East. "If public and private sectors were to do even more to facilitate awareness initiatives, encourage green infrastructure investments, and offer a wider choice of affordable eco-friendly goods and services then more people will choose to pursue even more sustainable lifestyles." "Public concerns around climate and sustainability do bode well for the future," said Cristiano Rizzi, Managing Director and Partner, BCG Middle East."

"Many people believe that environmentally sustainable lifestyles will play a bigger role in the future. The UAE is ideally placed to develop as an eco-tourist destination and we expect the hospitality sector to benefit from those efforts over the next decade."

He added: "Several challenges remain, and now there are growing calls for more recycling and renewable energy information, as well as guidance on how to live more sustainably and reduce energy consumption. At the same time, people also want to see more investment geared towards sustainable infrastructure – particularly in recycling, renewable energy, public transportation, and eco-tourism.

UAE leads GCC in wanting to live a more sustainable lifestyle



Rizzi said: "Since demand for sustainable goods and services have increased, companies in UAE would experience potential growth opportunities if they adapted their go-to-market strategies to more effectively cater to customers changing demands, specifically better options, more accessible price points, and better promotion of the benefits of sustainability."

When it comes to a more sustainable lifestyle consumers do not always perceive higher prices as being adequately reflected in greater quality or better experiences. Other barriers to sustainable lifestyles include, insufficient information, limited access to opportunities, limited range, social pressure to maintain current lifestyles, and the concerns that eco-friendly products lack quality and downgrade lifestyles.

Although Governments have done much to

encourage recycling 40% of consumers still believeit is a cumbersome practice. Consequently, further investment in infrastructure, regulations, and information on how to recycle correctly will be needed if the pace of change is to increase. The public's reluctance to embrace electric vehicles is based around high purchase prices, operating costs, and a lack of charging infrastructure - 60% cite electric vehicles as being too expensive and 46% expressed the opinion that operating costs are too high.

In terms of eco-friendly touristic destinations, something that the UAE is keen to explore the perceived higher costs, long travel distances, and lack of access to luxurious amenities, entertainment, and shopping are of concern to travellers with 33% pointing to the lack of amenities as an issue.

Minister Of Climate Change Applauds Formation Of UAE Circular Economy Council

Dr. Abdullah Belhaif Al Nuaimi, Minister of Climate Change and Environment, has said that the newly established UAE Circular Economy Council provides an ideal platform to build synergies to expedite the implementation of the circular economy principles through devising relevant legislation and rolling out programmes and initiatives.



The minister spoke on the heels of the UAE Cabinet's approval of the formation of the UAE Circular Economy Council, chaired by Dr. Al Nuaimi on February 09, 2021. Members of the new body comprise Abdulla bin Touq Al Marri, Minister of Economy; Omar bin Sultan Al Olama, Minister of State for Artificial Intelligence, Digital Economy and Teleworking Applications; and Dr. Thani bin Ahmed Al Zeyoudi, Minister of State for Foreign Trade. The Ministry of Energy and Infrastructure, the Ministry of Industry and Advanced Technology, and the Ministry of Cabinet Affairs are also represented on the council.

The council is responsible for overseeing the development of the implementation strategy for the UAE Circular Economy Policy 2021-2031 that targets the adoption of the circular economy concept in four priority areas – green

infrastructure, sustainable transportation, sustainable manufacturing, and sustainable food production and consumption.

Moreover, the council is mandated to follow up on the execution of sectoral initiatives, approve key performance indicators for the progress made, and align federal and local strategies with the policy requirements.

It will also propose the foundations for general and sectoral plans and projects that apply the principles of a circular economy, boost the participation of the private sector in circular economy ventures, encourage relevant publicprivate partnerships, enhance scientific research in the field, and scale up international cooperation aimed at driving global implementation of the circular economy.

Hope springs anew at RAK Fine Arts Festival

The 2021 edition of Ras Al Khaimah Fine Arts Festival, currently on at the historic Al Jazirah Al Hamra Heritage Village in Ras Al Khaimah, the old seafaring village of the Zaabi tribe, focuses on nature, growth, and the human connection, communicating the theme of 'hope'.

This year, alongside the main venue, two new mini satellite exhibitions have been added at the viewing platform of the UAE's highest peak, Jebel Jais, and Marjan Island's serene Open Park.

The festival will conclude on April 3.



Evgeny Ivanov, *Sprout*

A first prize winner in the landscape category at Nikon Russia 2019, this Russian photographer believes that without hope, the soul will wither like a sprout in the desert. He says, "Hope is the light of life from which a person can persevere and grow."





Aanya Verma, *'Freedom, Where Are You?*

An Indian artist based in Ras Al Khaimah and strongly inspired by mother nature, Ananya captured these red flamingoes in Dallaz Zoo, Texas, where they have been raised in captivity, far from the lakes and lagoons of their native land.



A self-taught Indian artist based in the UAE, Afshan's image captures a flock of birds flying across borders - free from the constraints of land and manmade boundaries. Afshan elicits the spirit of the birds' liberty, encouraging us to overcome our fears and nurture our dreams.



Maitha Al Ali, *Pulse*

This Emirati artist from Ras al Khaimah who takes inspiration from nature, discovers the joy of finding a flower, brimming with life amid the harsh conditions of the desert. "This flower has found life, growing strong and colourful in a tough landscape, as does hope," she says.

BMW i3s: The future of urban mobility

The BMW i3s marks the dawn of a new era of mobility. It is recognised around the world as a symbol of driving pleasure, sustainability, and intelligent connectivity in the urban traffic environment. With a higher output, model-specific chassis technology, noticeably more dynamic driving qualities and unique design features, it generates a particularly intense blend of the unrivalled sporty driving

Discover innovative design, electrified driving dynamics, optimised range and intelligent technologies with the BMW i3s

pleasure associated with BMW Group's electric vehicles.

By offering a premium-quality all-electric driving experience, zero local emissions, and a whole new level of connectivity technology, the model represents the future of urban mobility.

The driving experience in the BMW i3s plays no small part in the growing appeal and popularity of electric mobility. The BMW eDrive technology aboard the BMW i3s enables drivers to enjoy locally emission-free mobility. With wonderfully instantaneous power delivery, efficient use of energy and an optimised range for a level of everyday practicality, this vehicle extends beyond the demands of purely urban travel.

The unmistakable, avant-garde exterior styling clearly conveys its sporty and stirring driving

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The BMW i3s offers a premium quality all-electric driving experience, zero local emissions, and a whole new level of connectivity technology

experience. The restyling of the front and rear aprons places particular emphasis on the car's width, which has the effect of signalling just how sporty the model is to drive and how sure its handling is. A chrome-design trim strip running across the full width of the rear, and the positioning of the model and eDrive badges on the outer edges of the boot lid, serves to reinforce this impression.

The thoughtful evolution of the exterior design not only helps bring the sporting credentials of the new BMW i3s more to the forefront but highlights its sophisticated elegance too. The front bumper is completely painted in the body colour and has a black U-shaped surround that reinforces the car's presence when viewed from the front.

Like the exterior design, the interior styling of

the BMW i3s is rooted in the novel LifeDrive vehicle architecture. The carbon fibre-reinforced plastic (CFRP) passenger cell has a wonderfully spacious feel about it and is dominated by a sense of lightness. The design principle of the two fourseater models means there is no need for either fixed B-pillars or a transmission tunnel. Doors that open in opposite directions allow the occupants to get in and out with the greatest of ease.

The BMW i3s sustainable edge is highlighted by the rest of the materials selected for it too, including recycled plastics, renewable raw materials, natural fibres and open-pored, unbleached eucalyptus wood. Over 80 percent of the surfaces visible to the passengers are made from recycled materials or renewable resources.

In terms of power, the electric motor powering the new BMW i3s generates a maximum output of

135 kW/184 hp. Its peak torque is 270 Nm, all of which is available instantly from a standstill, as is usual with electric motors. This means that stepping on the accelerator pedal immediately unleashes a thrilling burst of speed as the vehicle reaches 0-100 km/h (62 mph) in 6.9 seconds, with a top speed is limited to 160 km/h (93 mph).

BMW i3s is blazing a trail when it comes to shaping the future of sustainable personal mobility. Its integrated concept focuses on responsible use of resources and incorporates material selection and innovative mobility services alongside locally emission-free driving.

This car's architecture was designed from the ground up with electric mobility in mind, and its BMW eDrive technology boasts power delivery and efficiency unrivalled by any other manufacturer.

Combining the latest technological innovations with an evolutionary development of the car's design and the expansion of the model range has provided additional impetus for BMW Group's now familiar take on premium electric mobility.

AGMC: Carving a new path in the region's approach to sustainably-led transport

For over 44 years, AGMC has delivered premium automotive products and services to its customers as the exclusive importer for BMW Group cars and Motorrad in Dubai, Sharjah and the Northern Emirates. Established in 1976, AGMC has now become one of the most important markets for BMW Group Middle East.

Currently, AGMC has 26 sales and service facilities across Dubai, Sharjah and the Northern Emirates. These include four BMW showrooms, four MINI Showrooms, two Rolls-Royce Motor The BMW i brand adopts an all-embracing approach that takes into account the complete lifecycle – from raw material production, through the manufacture and operation of the vehicles to their later recycling

Cars showrooms for new and Provenance cars, as well as the world's first Rolls-Royce Boutique. In addition they have three Certified Pre-Owned car showrooms under the BMW Premium Selection Programme and one BMW Motorrad showroom. Service facilities include two body shops, six workshops and two car storage facilities and the only Rolls-Royce dedicated state-of-the-art aftersales facility. In 2016, AGMC was recognised as the highest selling dealership globally for Rolls-Royce.

In 2017, AGMC welcomed its iPerformance models – a fleet of plug-in hybrid electric vehicles. With lower fuel consumption and Co2 emissions thanks to its high-performance electric motors, the new fleet of green, low-emission hybrid cars from AGMC is helping to carve a new path in the region's approach to sustainably-led transport. Last year also saw AGMC become the proud provider of Emirates Airlines' vehicle fleet, providing BMW 520i Tourings to all of the airline's Business Class passengers.

Amsterdam: Ambitious Vision For A Fossil-Free Energy Future

Methoda is a global leader in sustainable energy management, transportation, urban design and business innovation. A new study by British Business Energy has ranked the city as the fifth most eco-friendly in the world for workers.

To achieve its sustainability plans, Amsterdam is

Amsterdam aims to cut down CO2 emissions completely by 2050 becoming an entirely circular city, amongst other ambitious sustainability goals

collaborating and seeking agreements with industries, supply chain managers, real estate developers, and its bus and taxi companies. It has also established a revolving Sustainability Fund of almost €50 million in addition to an existing €40 million in the city's Climate and Energy Fund. Organisations needing low-interest loans for sustainable energy projects or for waste reuse-and-recovery efforts, can apply to the new fund.

Electric Transport

To stimulate electric vehicle (EV) demand to reduce air pollution, Amsterdam increased the number of its public EV charging stations from 1,000 in 2013 to 4,000 in 2018. Vehicle owners in Amsterdam who buy an electric car get a public charging outlet in front of their house, and the city plans to give these drivers more privileges. The city has successfully enlisted the Amsterdam has the second-highest percentage of people walking and cycling to work

cooperation of its taxi and bus companies and reached an agreement with its municipal bus company in 2015 to have all-electric bus transport by 2025.

Additionally, all taxis within the city will have to be electric by 2025 and, during the transition, electric taxis are getting preferential treatment at certain city taxi stands, so they have to wait less for their fares, making the switch to electricity more profitable.

Furthermore, the hundreds of mostly diesel boats now used for tours through the city's historic canals have to be electric by 2025.

Bicycle City

Amsterdam has the second-highest percentage of people walking and cycling to work, with 58% of residents in the Dutch capital heading to their offices by bike or on foot. Residents and visitors have a total of 400 kms of dedicated bicycle tracks to their disposal. On a daily basis, Amsterdam's population cycles a distance of 2 million kilometres combined.

Zero CO2 Emissions

Amsterdam aims to reduce CO2 emissions by 55 per cent in 2030, and 95 per cent in 2050. The city also aspires to stop using natural gas before 2040 and within the next 10 years have only emission-free transport by road and water. It is also aiming to power 80 per cent of local homes with sustainable energy by 2030. By 2050, Amsterdam will be a circular city – everything the city produces and consumes will be reusable.

Waste to Energy

Today Amsterdam's solid waste is burned in an incinerator with tight pollution controls to

produce heat and power for the city. The electricity goes into the grid, and the heat is distributed to residential and industrial customers. Although the heating plant burns municipal waste, the city is nonetheless seeking to increase the separated percentage of its solid waste. Planners recognize that, in general, modern, energy-efficient buildings are more pleasant for occupants and command higher prices than older, inefficient units.

Sustainable Recovery Plan post COVID-19

Amsterdam and the metropolitan area have been hit hard by the coronavirus crisis, having a major impact on the city and its inhabitants. Thanks to the measures in the sustainable recovery plan, Amsterdam aims to generate more clean energy and reduce CO2 emissions.

The plan consists of six 'employment generation

engines' in the areas of renovation, heating, solar power, municipal property, climate adaptation and SMEs. This year, the first housing corporation homes will be insulated, and by summer, the municipality will start a collective purchasing process for insulation for residents.

What's especially interesting about Amsterdam's sustainability vision is the way it integrates economic and social aims with environmental and climate goals. Thus, as Amsterdam plans to phase out fossil fuels to usher in a clean-energy future, the city anticipates that the transition will bring a broad range of co-benefits, rather than unrequited costs.

The same steps that Amsterdam must take to reduce and ultimately eliminate fossil fuels will improve Amsterdam's air quality, reduce its traffic congestion, make its buildings more

Amsterdam aims to reduce CO2 emissions by 55 per cent in 2030, and 95 per cent in 2050

comfortable, render its workforce more productive, and save its citizens money.

The city's sustainability vision is panoramic in scope, seeking to improve the management of public space as well as making energy, water, and material resource use more efficient.

Peter Paul Ekker is a spokesman for Amsterdam Alderman Abdeluheb Choho, who is also the city's vice mayor for sustainability. Ekker declared that in Amsterdam, there is unanimous support for greening the city and making it more sustainable, "especially since we now also see that it brings new jobs, new wealth, and new business opportunities."

Rather than arguing about the severity of climate impacts, Amsterdam leaders choose to spotlight the opportunities that ambitious solutions offer and successfully built a public consensus favoring

clean energy, making the city a leading example in sustainability worldwide.

UNEA Issues Urgent Call For Action To Tackle Planetary Crises

The Fifth United Nations Environment Assembly (UNEA-5) concluded on February 23, 2021, in the presence of global leaders from more than 150 nations with an urgent call for action to redress the planetary balance and secure a future where people and planet can co-exist. The two-day virtual Assembly also warned that the world risks new pandemics if we don't change how we safeguard nature.

Attended by thousands of online participants, Member States addressed how to build a resilient and inclusive postpandemic world The UN Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law; decisions and resolutions then taken by Member States at the Assembly also define the work of the UN Environment Programme (UNEP).

Attended by thousands of online participants, including more than 1,500 delegates from 153 UN Member States and over 60 Ministers of the Environment, the Assembly also agreed on key aspects of UNEP's work, kicked off the commemoration of UNEP's 50th anniversary and held leadership dialogues where Member States addressed how to build a resilient and inclusive post-pandemic world.

"It is increasingly evident that environmental crises are part of the journey ahead. Wildfires, hurricanes, high temperature records, unprecedented winter chills, plagues of locusts, Now, more than ever, human health and wellbeing are dependent upon nature and the solutions it provides

floods and droughts, have become so common place that they do not always make the headlines," Kenyan President Uhuru Kenyatta said in remarks to the Assembly.

He added: "These increasing adverse weather and climatic occurrences sound a warning bell that calls on us to attend to the three planetary crises that threaten our collective future: the climate crisis, the biodiversity and nature crisis, and the pollution and waste crisis."

In a statement titled "Looking ahead to the resumed UN Environment Assembly in 2022 – Message from online UNEA-5, Nairobi 22 – 23 February 2021" endorsed at the close of the Assembly, Member States called for greater and more inclusive multilateralism to tackle the environmental challenges.

The statement said the Assembly wished "to

strengthen our support for the United Nations and for multilateral cooperation and remain convinced that collective action is essential to successfully address global challenges." It went on to warn that "more than ever that human health and wellbeing are dependent upon nature and the solutions it provides, and we are aware that we shall face recurring risks of future pandemics if we maintain our current unsustainable patterns in our interactions with nature."

Sveinung Rotevatn, President of UNEA-5 and Norway's Minister for Climate and Environment, echoed the warning. "Everyone gathered at the Environment Assembly today are deeply concerned about how the pandemic causes new and serious health, socio-economic and environmental challenges, and exacerbates existing ones, all over the world," he told a press conference on the closing day of UNEA-5.

The UN Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law

The Assembly agreed to a new Medium-Term Strategy, Programme of Work and budget for UNEP. The new Strategy – which will take UNEP from 2022-2025 – sets out a vision for UNEP's role in delivering the promises of the 2030 Agenda.

"The strategy is about transforming how UNEP operates and engages with Member States, UN agencies, the private sector, civil society and youth groups, so we can go harder, faster, stronger," said Inger Andersen, UNEP 's Executive Director. "This strategy is about providing science and know-how to governments. The strategy is also about collective, whole-of-society action – moving us outside ministries of environment to drive action."

In the run-up to the Assembly, UNEP launched a major report, together with UN Secretary-

General António Guterres – Making Peace with Nature – which provides a comprehensive blueprint for solving the triple planetary emergencies of climate change, biodiversity and pollution. A number of events were also held in support of UNEA-5, including a Global Youth Assembly, a Science Policy Business Forum and the launch of a Global Alliance on Circular Economy and Resource Efficiency.

"The last few days have been encouraging. We saw a new global effort on resource-efficient, circular economies. A push on financing emission reductions from forests. Governments, scientists and businesses coming together to look at big data as a tool for change. Youth raising their voices and telling us 'nothing about us, without us' and calling for targeted funds to enable their deeper engagement," Andersen added.

Launch Of New UAE Initiative To Educate Kids On Mangrove Conservation

he Abu Dhabi National Oil Company (ADNOC) has announced an initiative to educate children on the importance of mangrove forests in promoting biodiversity and protecting the environment as it reinforces its long-standing commitment to environmental stewardship and sustainability.

The initiative, called 'Mighty Mangroves', is

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sponsored by ADNOC Offshore, a subsidiary of ADNOC, in partnership with the UAE-based ocean conservation organisation, Azraq.

Hundreds of children from grades 8-12 in 20 schools in Al Dhafra region of the Emirate of Abu Dhabi will participate in the initiative which includes classroom learning in Arabic and English as well as mangrove sapling planting.

The Mighty Mangroves builds on ADNOC's Corporate Social Responsibility (CSR) programmes aimed at creating a positive social impact on its communities. ADNOC is committed to supporting programmes that will nurture the next generation of environmental champions and help the UAE's youth learn about sustainability, environmental protection and biodiversity.

The UAE's 4,000 hectares of mangrove forest are

the largest in the Arabian Gulf region and are an essential part of a healthy coastal ecosystem. Mangroves are nurseries for thousands of marine species and act as filters. They are proven to absorb carbon dioxide (CO2) at up to four times the volume of trees in tropical rainforests such as the Amazon.

Pakistan To Host World Environment Day 2021

Pakistan has announced that it will host World Environment Day 2021 in partnership with the UN Environment Programme (UNEP). This year's observance of World Environment Day will be on the theme of 'ecosystem restoration' and focus on resetting our relationship with nature. It will also mark the formal launch of the UN Decade on Ecosystem Restoration 2021 – 2030.

This year's observance of World Environment Day will be on the theme of 'ecosystem restoration' and focus on resetting our relationship with nature

World Environment Day takes place every year on June 5.. Making the announcement on the margins of the virtual Fifth UN Environment Assembly (UNEA-5), Pakistan's Adviser to Prime Minister and Minister of Climate Change, Malik Amin Aslam, joined UNEP Executive Director Inger Andersen to acknowledge the urgency of preventing, halting and reversing the degradation of ecosystems worldwide.

Led by Prime Minister Imran Khan, the Government of Pakistan – in one of the world's most ambitious afforestation efforts – plans to expand and restore the country's forests through a 10 Billion Tree Tsunami spread over five years. The campaign includes restoring mangroves and forests, as well as planting trees in urban settings, including schools, colleges, public parks and green belts. Pakistan has launched an Ecosystem Restoration Fund to support nature-

Pakistan has launched an Ecosystem Restoration Fund to support nature-based solutions to climate change

based solutions to climate change and facilitate the transition towards environmentally resilient, ecologically targeted initiatives covering afforestation and biodiversity conservation.

"Pakistan is fully committed to playing a leadership role in addressing the issue of climate change, including through the 10 Billion Tree Tsunami initiative, which will restore and enhance over 1 million hectares of forest across the country," said Minister Aslam. "We are honoured to host this year's World Environment Day and lend our support to global restoration efforts."

As host of World Environment Day, Pakistan will highlight environmental issues and showcase the country's own initiatives and its role in global efforts. "2020 was a year of reckoning, facing multiple crises, including a global pandemic and the continued crises of climate, nature and pollution," said Inger Andersen, Executive Director of UNEP. "In 2021, we must take deliberate steps to move from crisis to healing: and in so doing, we must recognize that the restoration of nature is imperative to the survival of our planet and the human race."

The UN Decade on Ecosystem Restoration runs from 2021 through 2030, which is also the deadline for the Sustainable Development Goals and the timeline scientists have identified critical for avoiding the worst impacts of climate change.

To achieve restoration at the required scale, incentives and financial investments must be made in changing the way lands and oceans are exploited, in research and education, and in inspiring a movement of people, businesses and governments through celebrating success stories.

Global Fisheries And Aquaculture Hard Hit By COVID-19 Pandemic

G lobal fisheries and aquaculture have been hard hit by the COVID-19 pandemic and could face further disruption in 2021 as lockdowns affect supply and demand across the sector, according to a report released on February 02, 2021, by the Food and Agriculture Organization of the United Nations (FAO).

The report, 'The impact of COVID-19 on fisheries

FAO warns of more disruption as supply and consumption affected by partial and full lockdowns

and aquaculture food systems, was featured during the 34th session of the Committee on Fisheries (COFI) hosted by FAO.

Fish supply, consumption and trade revenues for 2020 are all expected to have declined due to containment restrictions, the report noted, while global aquaculture production is expected to fall by some 1.3 per cent, the first fall recorded by the sector in several years.

While food itself is not responsible for the transmission of COVID-19 to people, the report stressed every stage of the fisheries and aquaculture supply chain is susceptible to being disrupted or stopped by containment restrictions.

Aggregate prices for 2020, as measured by the Fish Price Index are down year-on-year for most

There has been a reduced fishing effort due to COVID 19-related restrictions on fishing vessel crews and poor market conditions

traded species. Restaurant and hotel closures in many countries have also led to a fall in demand for fresh fish products.

"The impact has been significant in developing countries, especially those with large informal sectors, where small-scale and artisanal workers and communities depend on fisheries for their food security, livelihoods. They have borne the brunt of restrictions," Semedo said.

Global catches from wild fisheries are also expected to have declined slightly in 2020, as, overall, there has been a reduced fishing effort due to COVID 19-related restrictions on fishing vessel crews and poor market conditions.

As a result of Covid-19, consumer preferences have shifted. While demand for fresh fish has waned, consumer demand for packaged and frozen products has grown as households look to stock up on non-perishable food. The report called for sectoral and regional organizations to work together in order to manage fisheries and aquaculture during the pandemic, with measures that support job protection and ensure a fast recovery of the sector without compromising sustainability.

This year COFI 34 is celebrating the 25th Anniversary of the Code of Conduct for Responsible Fisheries, a landmark instrument endorsed by FAO member states, that has been guiding efforts towards sustainable fisheries and aquaculture around the world.

With the uncertainty in the sector posed by the pandemic and other issues, the code's principles have never been more vital to ensure the fisheries sector remains viable and sustainable.

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Word Scramble

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Crossword Puzzle

Across

- 3. continuous movement of water between earth and its atmosphere
- 6. when organisms change their features or behaviour to camouflage into their habitat
- 7. large material or artificial lake
- 8. the saltiness of a body of water
- 10. reestablishing a forest by planting or seeding an area from which forest vegetation has been removed

Down

10

1. trees that lose their leaves seasonally

11

131

1

- 2. water found underneath the earth's surface
- 4. a large mass of ice moving over land
- 5. animals that hunt prey
- 9. areas of land that are flooded with water for part of the year

Answers: Across: (1) Carbon Footprint (2) Ecology (3) Electricity **Down:** (1) Landfill (2) Protect (3) Emissions (4) Dump (5) Ecosystem (6) Biodegradable (7) Global Warming

WORD OF THE DAY: **RECYCLING**

Recycling is the process of taking materials ready to be thrown away and converting them into reusable materials. This is important to reducing trash in the world's landfills, which pollute Earth's soil, water, and air. Recycling also helps preserve natural resources, or materials that occur naturally and are used to make products - like when we use trees to make paper. When we don't recycle and reuse, we risk depleting our natural resources.

RECYCLABLE MATERIALS:

- Plastics
- Glass
- Metals
- Electronics
- Computers and accessories
- Textiles
- Newspapers and magazines
 Cardboard

Soda cans, plastic water bottles, plastic milk cartons, newspapers, cereal boxes and old computers are just some of the common items that are recycled every day. If all of us were to recycle just a few items per day that we throw away, we can go a long way to improving the environment for our futures and future generations.

INTERNATIONAL DAY OF FORESTS:

The United Nations General Assembly proclaimed 21 March the International Day of Forests in 2012.

Forests, their sustainable management and use of resources, including in fragile ecosystems, are key to combating climate change, and to contributing to the prosperity and well-being of current and future generations.

Forests also play a crucial role in poverty alleviation and in the achievement of the Sustainable Development Goals (SDGs). Forests are the most biologically-diverse ecosystems on land, home to more than 80% of the terrestrial species of animals, plants and insects. Yet despite all of these priceless ecological, economic, social and health benefits, global deforestation continues at an alarming rate.

Every year on MArch 12, countries are encouraged to undertake local, national and international efforts to organize activities involving forests and trees, such as tree planting campaigns. The theme for each International Day of Forests is chosen by the Collaborative Partnership on Forests.

FACTS ABOUT FORESTS!

- Forests and woodlands are made up of over 60,000 tree species.
- More than a billion people depend on directly on forests for food, shelter, energy and income.
- Forests cover one third of the earth's land mass.
- Forests are home to over 80% of the world's terrestrial biodiversity.
- Deforestation continues at an alarming rate – 13 million hectares of forest are destroyed annually and this accounts for 12 to 20 percent of the global greenhouse gas emissions that contribute to climate change.

WORLD WATER DAY

World Water Day, held on 22 March every year since 1993, focuses on the importance of freshwater.

World Water Day celebrates water and raises awareness of the 2.2 billion people living without access to safe water. It is about taking action to tackle the global water crisis. A core focus of World Water Day is to support the achievement of Sustainable Development Goal 6: water and sanitation for all by 2030.

The theme of World Water Day 2021 is valuing water. The value of water is about much more than its price – water has enormous and complex value for our households, food, culture, health, education, economics and the integrity of our natural environment. If we overlook any of these values, we risk mismanaging this finite, irreplaceable resource. SDG 6 is to ensure water and sanitation for all. Without a comprehensive understanding of water's true, multidimensional value, we will be unable to safeguard this critical resource for the benefit of everyone.

FACTS ABOUT WATER!

- Today, 1 in 3 people live without safe drinking water.
- By 2050, up to 5.7 billion people could be living in areas where water is scarce for at least one month a year.
- Climate resilient water supply and sanitation could save the lives of more than 360,000 infants every year.
- By 2040, global energy demand is projected to increase by over 25% and water demand is expected to increase by 50%.

What can you do to help?

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Things to Do...

EmiratesGBC Launches MENA Women's Network

mirates Green Building Council (EmiratesGBC), an independent forum aimed at conserving the environment by strengthening and promoting green building practices, has announced the launch of the EmiratesGBC Women's Network (EWN) to strengthen the participation and leadership of women in the field of sustainability in the Middle East and North Africa (MENA) region.

Launched virtually, EWN will serve as a platform for networking, mentoring and knowledgesharing for women across the MENA region, who are working in the field of green buildings and sustainable development, and are keen to participate in the sector. It aims to increase engagement and support female sustainability professionals, thereby promoting inclusivity, diversity and women leadership. It will organise networking events and meetings in the first year with planned growth to include a mentorship programme and competitions to upskill women.

EWN will leverage the current strengths of EmiratesGBC including its diverse network to support and encourage women in the field of green buildings. The platform will celebrate the achievements of women in the built environment across all levels including senior positions in public and private sector and non-governmental organisations in the UAE. It will also share successes and learnings with wider region for further knowledge expansion. EWN will be chaired by Farah Yassine, Vice Chair & Board member of EmiratesGBC and led by a steering committee.

Farah Yassine said: "EWN is being launched to accelerate our progress in achieving the United Nations Sustainable Development Goal Five achieving gender equality and empowering women – especially in the sustainability sector, which plays a central role in supporting other SDGs such as affordable and clean energy for all. With a number of women already driving sustainable development programmes in the region, the network will support them to excel further through EmiratesGBC's capacity building initiatives."

UN Offers New Blueprint For Making Peace With Nature

he world can transform its relationship with nature and tackle the climate, biodiversity and pollution crises together to secure a sustainable future and prevent future pandemics, according to a new report by the UN Environment Programme (UNEP) that offers a comprehensive blueprint for addressing our triple planetary emergency.

The report lays out the gravity of Earth's triple environmental emergencies – climate, biodiversity loss and pollution

The report, 'Making Peace with Nature', released on February 18, 2021, lays out the gravity of these three environmental crises by drawing on global assessments, including those from the Intergovernmental Panel on Climate Change and the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services, as well as UNEP's Global Environment Outlook report, the UNEP International Resource Panel, and new findings on the emergence of zoonotic diseases such as COVID-19.

The authors assess the links between multiple environmental and development challenges, and explain how advances in science and bold policymaking can open a pathway towards the achievement of the Sustainable Development Goals by 2030 and a carbon neutral world by 2050 while bending the curve on biodiversity loss and curbing pollution and waste. Taking that

path means innovation and investment only in activities that protect both people and nature.

"By bringing together the latest scientific evidence showing the impacts and threats of the climate emergency, the biodiversity crisis and the pollution that kills millions of people every year, [this report] makes clear that our war on nature has left the planet broken," UN Secretary-General António Guterres said in the report's Foreword. "But it also guides us to a safer place by providing a peace plan and a post-war rebuilding programme.

"By transforming how we view nature, we can recognize its true value. By reflecting this value in policies, plans and economic systems, we can channel investments into activities that restore nature and are rewarded for it," he added.

Amid a wave of investment to re-energize

economies hit by the COVID-19 pandemic, the blueprint communicates the opportunity and urgency for ambitious and immediate action. It also lays out the roles that everyone – from governments and businesses to communities and individuals – can and must play.

Tackling three planetary threats together

Economic growth has brought uneven gains in prosperity to a fast-growing global population, leaving 1.3 billion people poor, while tripling the extraction of natural resources to damaging levels and creating a planetary emergency. Despite a temporary decline in emissions due to the pandemic, Earth is heading for at least 3°C of global warming this century; more than 1 million of the estimated 8 million plant and animal species are at substantially increased risk of extinction; and diseases caused by pollution are currently killing some 9 million people

REPORT

prematurely every year.

Environmental degradation is impeding progress towards ending poverty and hunger, reducing inequalities and promoting sustainable economic growth, work for all and peaceful and inclusive societies.

The report shows how this trio of environmental emergencies interact and have common causes, and thus can only be effectively addressed together. Subsidies on fossil fuels, for instance, and prices that leave out environmental costs, are driving the wasteful production and consumption of energy and natural resources that are behind all three problems.

Inger Andersen, Executive Director of UNEP, said the report highlighted the importance of changing mindsets and values, and finding political and technical solutions that measure up to the Earth's environmental crises.

Released ahead of the fifth UN Environment Assembly, the report presents a strong case for why and how urgent action should be taken to protect and restore the planet and its climate in a holistic way.

It presents examples of what transformative change can look like, and how it can create prosperity, employment and greater equality. The authors point out that ending environmental decline in all its forms is essential to advancing many of the Sustainable Development Goals, in particular poverty alleviation, food and water security and good health for all.

Reinforcing the call for action, the report identifies dozens of key actions that governments, businesses, communities and individuals can take

Shifting world views and putting nature at the heart of decision-making is key to achieving transformative change

to bring about a sustainable world.

For instance:

- Governments can include natural capital in measures of economic performance, put a price on carbon and shift trillions of dollars in subsidies from fossil fuels, non-sustainable agriculture and transportation towards lowcarbon and nature-friendly solutions
- International organisations can promote One Health approaches and ambitious international targets for biodiversity, such as expanded and improved protected area networks
- Financial organizations can stop lending for fossil fuels and develop innovative finance for biodiversity conservation and sustainable agriculture.
- Businesses can adopt the principles of the

circular economy to minimize resource use and waste and commit to maintaining transparent and deforestation-free supply chains

- Non-government organisations can build networks of stakeholders to ensure their full participation in decisions about sustainable use of land and marine resources
- Scientific organisations can pioneer technologies and policies to reduce carbon emissions, increase resource efficiency and lift the resilience of cities, industries, communities and ecosystems
- Individuals can reconsider their relationship with nature, learn about sustainability and change their habits to reduce their use of resources, cut waste of food, water and energy, and adopt healthier diets

Red Alert for National Climate Goals

The sea level rise, melting of ice caps and retreat of Arctic sea ice in summer, are clear indicators of global warming. In 5 decades, atmospheric CO2 levels increased dramatically from 320 in 1960 to over 400ppm today.

Reducing emissions will not guarantee acceptable CO2 levels soon, but we still have to review economic models for energy use. Infact, we need new technologies to capture and store CO2.

The 75 countries that have submitted their "nationally determined contributions" are responsible for only 30% of the world's global greenhouse gas emissions. Only two of the worst emitters (UK and EU) have stepped up their goals considerably.

Temperature difference 2020 and 1981-2010

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

We are still far from meeting our Paris Agreement goals. All contributions add up to just 1% cut while we need to cut down emissions by 45% in 2030 according to the IPCC.

In 2015, 195 countries and the European Union had agreed to reduce greenhouse gas emissions and limit global heating way below an increase of 2 degrees Celsius. But So far only 21 countries have committed to doubling their investments in green energy and that is not enough. There are 122 signatory countries that have not yet determined their updated contributions, including the biggest emitters of greenhouse gases: China and the U.S.

That is why the UNFCCC released its latest report with a RED ALERT for our planet. It is a pity that the Paris agreement is a voluntary process and it is up to national governments to decide how they want to achieve their self-imposed targets. There should be a kind of provision for sanctions or punitive mechanisms against countries that fail to meet their climate targets.

Major emitters should "step up with much more ambitious targets of emissions reductions for 2030" well before the next UN Climate Conference in November. Poor countries depend on the funds pledged under the Paris agreement to protect forests and other ecosystems in order to carry out climate measures.

Let us all work for a green and safe planet for our generation and future generations.

THE FUTURE OF OUR WORLD IS IN OUR HANDS.

ACT NOW!

Zayed International Foundation for the Environment

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