

MARCH 2017

Society & Environment

A monthly publication issued by Zayed International Foundation for the Environment



إكسبو 2020
دبي، الإمارات العربية المتحدة
DUBAI, UNITED ARAB EMIRATES

Issue 169

creating green communities for a better tomorrow



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inaugurates Museum of the
Future in Dubai

Princess Haya issues appeal to world governments to end world hunger



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Prof. Mohammed bin Fahad
Executive Editor

With its foot firmly on the innovation accelerator, the UAE leaves nothing to chance. Determined to be among the top 20 countries in the world in the Global Innovation Index by 2021, the country's goal, in the words of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, is "to celebrate the last oil barrel we export because we will be prepared for that day when it comes."

As it prepares for the future, Dubai has emerged as a powerhouse hub of technological innovation - generating ideas and solutions to prepare itself for the challenges and opportunities of the future. Marking a turning point in this forward thinking vision of our leadership is the Museum of the Future that was inaugurated last month by the Ruler of Dubai. Combining 3D printing, advanced robotics, drones, and so much more, the Museum is a complex of innovation labs that develop ideas and systems for future cities and aims to find and implement real solutions for the challenges of the future.

Following on the strategic guidelines of the National Innovation Strategy, the UAE has today diversified into a knowledge-based economy under the pillars of research, science and technology that has also seen the forging of efficient and effective partnerships between the public and private sectors.

Innovation also got a big push in the 2017 budget with the current annual investment in innovation in the country now worth Dh14 billion, of which Dh7 billion goes to research and development. With such immense financing solutions for innovators and incubation support to turn their ideas into reality, there is no doubt that projects such as these will not only help achieve the goals of Vision 2021 but also take the nation to the next era of development.

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From the Managing Editor



Dr. Meshgan Al Awar
Secretary General
Zayed International Prize for
the Environment

Let me begin by wishing you all Happy Women's Day, today and every day!

Education is a valuable tool to forge gender parity; and the 'Education for Sustainable Development Initiative' launched by the Zayed International Foundation for the Environment in collaboration with the United Nations Environment Programme (UNEP) which recognizes the transformative power of education in serving as a catalyst for achieving the goals of sustainable development is currently attaining fruition as a host of global environmental experts are now in the process of putting the finishing touches of the Global Green Economy Textbook.

It was in 2014 that this innovative initiative to produce, develop and adapt a Green Economy Textbook was launched by the Zayed Foundation in partnership with UNEP at the inaugural session of the United Nations Environment Assembly (UNEA 1). The underlying aim was to constructively and creatively address present and future global environmental challenges by providing relevant knowledge for university graduate and postgraduate students, researchers and curricula designers looking into the potential for developing evidence-based Green Economy programmes.

In Shanghai last month, authors of the book and experts representing a multitude of organizations from across all continents met to discuss and make arrangements for the improvement and revision of contents for this Textbook. I am privileged to be co-authoring a chapter in this book to focus on global and national challenges and highlight the increasingly eminent role of the UAE in meeting these challenges.

Post graduate scholars and researchers from Chinese universities cutting across a broad spectrum of nationalities also attended the event as we believe in empowering the youth to serve as a catalyst for positive change.

It is also worth noting that the final preparations for the Green Economy Curriculum Sourcebook are being carried on in the UAE's Month of Reading that seeks to provide a sound basis for lifelong learning for all members of the community.

Reading the Green Economy Curriculum Sourcebook will also serve to equip people with knowledge of and skills in sustainable development while preparing our future generations to achieve developmental leaps and fulfil the objectives of the 2030 Agenda for Sustainable Development.

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Zayed Prize

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creating green communities

Zayed Foundation supports promising education innovations



In March, the UAE's Month of Reading, the Zayed International Foundation for the Environment in collaboration with the United Nations Environment Programme (UNEP), undertakes the final preparations for the Green Economy Textbook, launched under the 'Education for Sustainable Development' initiative.

On February 22, 2017, the Zayed International Foundation for the Environment met with a host of renowned authors and global experts representing a multitude of organizations from across all continents at the UN Environment-Tongji Institute of Environment for Sustainable Development in Shanghai, China to discuss the chapters and make arrangements for the improvement and revision of contents for the Green Economy Textbook that seeks to provide decision makers, students and researchers around the world with

a first-of-its-kind comprehensive analytical framework for studying green economy.

It was in 2014 that the Zayed Foundation, in partnership with UNEP, launched the 'Education for Sustainable Development' initiative to produce, develop and adapt a Green Economy Textbook for an international audience.

An agreement to this effect was signed at the historic inaugural session of the United Nations Environment Assembly (UNEA 1). The overall objective of this textbook is to catalyze

international sustainable development through providing a comprehensive and systematic analytical framework of green economy to post-graduate and higher level students to assist their learning and research in this field.

According to Dr. Meshgan Al Awar, Secretary General of the Zayed Foundation, who attended the event and will also be co-authoring a chapter, "The underlying aim of the textbook is to constructively and creatively address present and future global environmental challenges by providing relevant



THE GREEN Economy Textbook will provide decision makers, students and researchers with a first-of-its-kind comprehensive analytical framework for studying green economy.

knowledge for graduate and postgraduate students of universities, researchers and curricula designers looking into the potential for developing evidence-based Green Economy programmes.”

Apart from the Zayed Foundation, authors who participated in compiling of this textbook are from UN Environment, Tongji University, Shanghai, China; International Institute for Environment and Development, London, UK; University of Gothenburg, Sweden; The German Development Institute, Bonn,

Germany; University of Vancouver, Canada; The Footprint Network, Switzerland; several more.

Dr. Meshgan Al Awar, representing the Zayed Foundation and Fareed Bushehri, Fulai Sheng and Simon Zadek, representing UNEP led the discussions of the contents of this book at the event in Shanghai.

“Green Economy was recognized as an important tool for achieving sustainable development at the outcome documents of the United Nations Conference on Sustainable Development in 2012 (Rio+20),” elaborates

Dr. Meshgan Al Awar. “This textbook will allow the Zayed Foundation’s partnership with UNEP to consolidate and build on the knowledge surrounding green economy practices, by disseminating theory, frameworks and best practices to those who can in turn expand on current understanding.”

The book which is enriched with global perspectives which will also serve as a tool for policymakers, allowing them to design enabling policies for the transition to green economy, she added. “In particular, the textbook will also shed light



on the best practices and policies of the UAE through which the nation aims to transform into a model of green economy.”

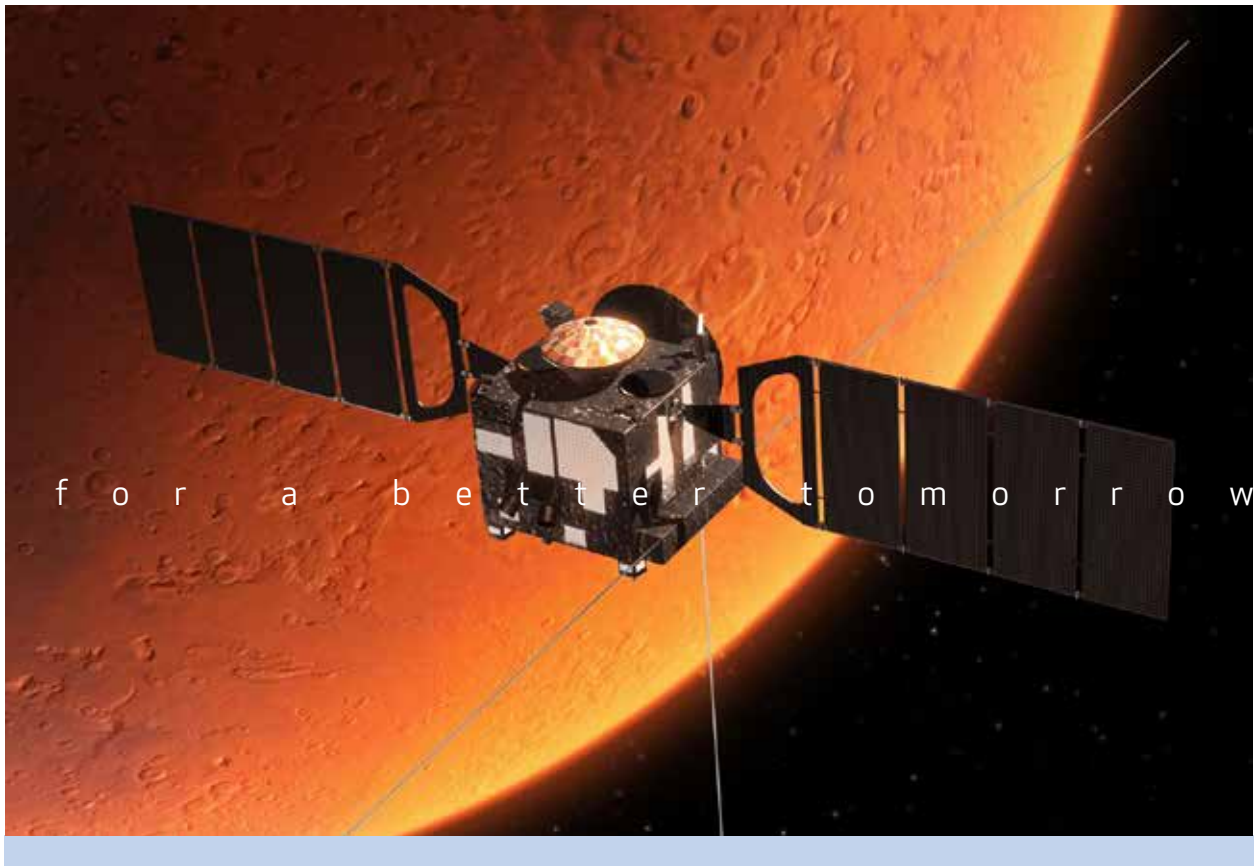
“It is a privilege to be collaborating with landmark universities, institutions and organizations in the preparation and publication of this book that will help to further facilitate the process in achieving the sustainable development goals of nations committed to the green growth pathway,” she said.

The Zayed Foundation’s support for and recognition that youth involvement is essential in the transition to achieving the Sustainable Development Goals (SDGs) saw the presence of post graduate scholars and

researchers from Chinese universities from diverse nationalities and backgrounds at the meeting. “The youth are the target audience of this Textbook and enabling them to participate in and witness the preparation process will, we hope, have been a meaningful learning opportunity. The youth

are the torchbearers of the next development framework and by engaging them as global citizens in learning about and supporting the United Nations 2030 Agenda for Sustainable Development, we hope to imbue them with the skills and knowledge required to achieve these critical goals,” concluded Dr. Meshgan Al Awar.





Mohammed bin Rashid tasks MBRSC to lead Mars 2117 project

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister and Ruler of Dubai has issued directive to The Mohammed Bin Rashid Space Centre (MBRSC) to lead the Mars 2117 project and prepare a 100-year plan for its implementation.

As per Sheikh Mohammed's directives, the center's plan will focus on preparing specialized national cadres and developing their capabilities in the field of space science, research, artificial intelligence, robotics and advanced space technologies.

The center will also put in place a detailed plan for the next five years that will deal with all technological, logistical and

technical aspects of the project. This five-year plan will be carried out alongside a media plan that keeps pace with the project's implementation program.

Sheikh Mohammed also instructed MBRSC to introduce a scientific, research and behavioral program to instill a passion for knowledge in the new generation of students in Emirati schools and universities, in addition to focusing on research programs that will positively affect high-priority technology sectors, which in turn can benefit the UAE's march of development.

Sheikh Mohammed emphasized the importance of inspiring new generations in order to take out ambitions into new

heights, expand their knowledge and motivating their scientific curiosity, which will serve the UAE's future plans and will leave an imprint on human knowledge.

The Mars 2117 Project includes putting in place a programme to prepare specialized Emiratis in the field of Mars and space exploration. The project aims to build the first city on Mars in 100 years, which will be achieved through various scientific alliances. The project will be associated with research themes involved in the exploration of faster transportation systems to Mars, as well as building houses and producing energy and food. It will also try to find faster transportation methods for travelling to and from Mars.

Cover Story

10 c r e a t i n g g r e e n c o m m u n i t i e s

HH Sheikh
Mohammed bin
Rashid inaugurates
Museum of the
Future in Dubai



Set up by the Dubai Future Foundation, the museum proposes three new solutions, unveiling how countries can adapt to climate change and lead the future.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, inaugurated the Museum of the Future at the Madinat Jumeirah in Dubai on 10th February, 2017.

Organised by the Dubai Foundation for the Museum of the Future as part of the World Government Summit 2016, the Museum focuses on shaping the future of robotics and artificial intelligence and their impact on human life. It also offers a unique interactive experience to visitors

by attempting to explore the future of this sector.

The Museum of the Future draws attention to three main challenges: water supply, food security and self-sufficient cities and was opened just ahead of the commencement of the three-day World Government Summit 2017.

This year the theme of the exhibition is Reimagining Climate Change. The Museum explores a future in which we have not only survived the challenges of climate change, but turned them into opportunities for the entire world.

The exhibit reimagines climate change as the biggest and most exciting opportunity of our generation, showcasing imaginative new ideas for better food, water, and urban environments.

The exhibit proposes three ideas for how countries can deal with the consequences of climate change. The UAE's Ministry of Economy predicts the cost of importing food to quadruple to 60% of GDP by 2025 unless local, sustainable food sources are provided. According to the OECD, the global supply of potable water



e s f o r a b e t t e r t o m o r r o w

THE ELECTRIC-VEHICLE age will reshape the energy grid, redefine driving patterns, and generally improve the quality of life in urban areas.

is projected to fall 40% short of global demand by 2030. Sea level rises could displace more than 250 million people by the end of the century, making most coastal cities uninhabitable.

The Museum of the Future exhibit is a unique 4D experience, proposing three bold concepts around food security, water supply and self-sufficient cities:

1. "AutoFarm" – a fully automated robotic urban farm that fills empty parking garages and neighborhood warehouses with food, once self-driving cars make

garages obsolete

2. "FreshWater living jellyfish" – a combination of jellyfish genes and mangrove roots to create giant, living fresh water factories off the coast of major cities

3. "City Kit" – a "self-building building" solution using biotechnology and robotics to construct 100% self-sufficient cities in a matter of weeks

His Highness Sheikh Mohammed bin Rashid Al Maktoum said: "We take the opportunity today to share our vision for the future, and

our proposed solutions to face climate change, while exploring all possible opportunities."

He continued. "The Museum of the Future is a global platform where leading experts can identify the most prominent scientific and technological trends of the future. It is a catalyst for future forecasting and study efforts, and plays a pivotal role in setting policies and strategies that allow the world's governments to benefit from the technologies of the future and their potential."

"The UAE's strategy for building



inspires people to innovate and come up with solutions for the future,” said HH Sheikh Mohammed.

“Leaders, decision makers and experts around the world are investing time, effort and resources to find sustainable solutions for climate change challenges.”

“These endeavours help us provide food and water, and build sustainable cities. Climate change and food security require us all to work together and propose solutions that effect positive change and benefit all economic and social sectors.”

Set up by Dubai Future Foundation, the museum

proposes three new solutions, unveiling how countries can adapt to climate change and lead the future.

Speaking on the eve of the summit, His Highness Sheikh Mohammed bin Rashid Al Maktoum said: “Through the World Government Summit, the UAE seeks to provide a platform that opens a window to the future and attracts experts, decision makers, entrepreneurs, and innovators to share insights and knowledge about what is good for all of humanity.”

He added: “We have directed to transform the summit from an annual event into an international organisation that works throughout the year and focuses

on shaping and foreseeing the future in all sectors. It will also focus on producing knowledge for future governments, launching reports and global development indicators, and building partnerships with international organisations. It will answer tomorrow’s questions and seek to build a better future to meet the demands of our societies and achieve happiness and sustainable development.”

“Shaping the future cannot be done by just waiting for it but rather by utilising latest technologies and knowledge tools and meetings its challenges starting from today. This summit sends a clear message to the world that governments should own the necessary tools to enter

“The Museum of the Future is a global platform where leading experts can identify the most prominent scientific and technological trends of the future.”

- HH Sheikh Mohammed bin Rashid Al Maktoum



the future, attain the aspirations of their people, and build balanced relations with other nations,” he concluded.

The opening was attended by H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai; H.H. Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum, Deputy Ruler of Dubai and H.E. Mohammed Abdullah Al Gargawi, Minister of Cabinet Affairs, Chairman of the World Government Summit.

The Role of Robots and their Impact on Human Life

The Museum of the Future explores the future of the robotics and artificial intelligence sector since it

directly affects the social and economic components of societies, in addition to influencing the healthcare, education and other sectors.

Future Technologies

The Museum has three underlying themes. Firstly, it addresses how robots and artificial intelligence improve human mental and physical capabilities. It also looks to answer tough questions such as: ‘Will you replace your cardiac muscle if it means you will be able to live longer?’ ‘Will you add robotic parts to your children to improve their school performance?’ The Museum offers a glimpse into NewKnees that give their users superhuman abilities to run and jump. It also features another

smart technology to climb walls without falling – the GeckoTips technology containing nano-structural machines that are installed on fingertips and allow the human body to adhere to anything and climb walls.

EyeShare: Communicate via Social Media Platforms without Your Mobile Device

Future social communication will offer innovative solutions that are beyond imagination. Social media platforms will not be the only means to share human experiences.

Thanks to the EyeShare technology, users of social media platforms will be able to see what their friends and followers are watching through these sites at the same moment.



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creating green communities

Secondly, the Museum focuses on the relation between humans and robots, looking for answers to questions like: 'How does it feel to have robots care for the elderly, and will the relation between robots and humans develop to become similar to inter-human relations?'

Design Your Dreams, Analyze Moods of Others, and Separate Your Brain from Your Surroundings

The Museum of the Future also features future technologies such as DreamStream, which allows individuals to design their dreams and share them with their friends and relatives.

In addition, the future promises a different kind of communication

between human beings thanks to technologies like MoodView. This technology gives its users real-time analysis of people's emotions and then provides instant feedback on what to say and how to act.

Another future technology achieves the dreams of millions by enabling them to be isolated from everything that bothers them and enjoy real moments of calmness. This can be done through temporarily switching off all incoming messages to the brain.

AutoLingua: Language is No Longer a Barrier

Learning languages is not a difficult task anymore thanks to the AutoLingua technology,

which is a smart earpiece that enables users to learn languages quickly. It also provides instant translation of a language chosen by the user.

The third theme showcases how the development of artificial intelligence technologies will affect the management and decision making processes. It seeks to answer questions on how confident we are when it comes to letting artificial intelligence systems manage our own money and select our own careers.

This year's Museum of the Future showcases futuristic designs that take visitors into a journey that is unanticipated in the near future. Its content development

The Museum of the Future exhibit is a unique 4D experience, proposing three bold concepts around food security, water supply and self-sufficient cities.



process relies on analyzing data collected from visitors' interactions to create futuristic reports that can propose policies and decisions so that world governments can maximise the benefits of this sector.

A Growing Global Future Market

The Museum of the Future has opened at a time when the growing value of the global robotics and artificial intelligence market reinforces the need for developing this sector and its tools so it becomes a key part of the agendas of governments and entrepreneurs. These future technologies are set to become a catalyst of major changes in the future. It is also expected that the intelligence of a desktop computer will be similar to

the human intelligence in the coming years.

Studies indicate that the next wave of deep disruptive technologies will create a global market valued at US\$8.7 trillion by 2025. This reflects the growing importance of such sectors and their increasing role in changing the lives of societies.

The Museum of the Future allows free entry to the public from 6pm to 8pm.

This is the first time that it welcomes the general public, allowing students, researchers, and everyone who is interested to experience an interactive journey that foresees the future of robots

and artificial intelligence and their impact on human life as well as on government and non-governmental sectors.

The launch of the Museum of the Future coincides with many global futuristic initiatives in vital sectors for the UAE and the world. Thanks to its completely revamped experience and increased targeted segments, the Museum of the Future offers a valuable addition to the fourth edition of the World Government Summit unlike its previous editions.



Cover Story

16 c r e a t i n g g r e e n c o m m u n i t i

Princess Haya issues appeal to world governments to end world hunger



[H.R.H. Princess Haya bint Al Hussein also calls for the launch of Humanitarian Logistics Data Bank to advance the field of humanitarian assistance.](#)

H.R.H. Princess Haya bint Al Hussein, wife of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, has called on governments and humanitarian organizations to create a logistics database that will provide specialized data to aid and assist affected individuals on the second day of the World Government Summit in Dubai.

In a summit session on the future of humanitarian aid, Princess Haya commented that ending world hunger is imperative for

humanitarian, political and economic reasons. "If we do not act now, we will lose our humanity and this is a disaster greater than any other physical disaster," Her Royal Highness said, urging leaders and policymakers to pursue ways to help those in need.

She pointed out that more than 65 million people have been displaced from their homes due to conflicts in several regions in the world, including Yemen, Syria and Nigeria.

"UN reports predict that around 250 million people will be

subjected to displacement as a result of climate change and war within the next decade," said Princess Haya.

Princess Haya highlighted the UAE's generous humanitarian aid, saying, "The UAE gave AED32 billion in aid. The UAE will continue in line with the Year of Giving to be one of the most humanitarian countries in the world."

She noted that work in humanitarian aid and development is still very traditional and that the sector is in need of innovative



UN REPORTS predict that around 250 million people will be subjected to displacement as a result of climate change and war within the next decade

tools and technology for a quick response to help those in need, adding that more than US\$22 billion is needed to tackle various humanitarian crises around the world, a figure that is 10 times more than that which was needed in 2000.

“There are still 800 million people suffering from the worst kind of hunger and poverty. The poor and the hungry do not think about anything but how to gain their daily bread,” said Princess Haya.

She highlighted that the UAE is establishing a state for the

future, which embodies innovative solutions for humanitarian aid.

She also pointed out the international humanitarian city has become the largest logistical city and fastest in delivering humanitarian services in the world, with more than 50 organisations working under its wing.

Princess Haya also commended the efforts and support of H.H. Sheikha Fatima bint Mubarak, Chairwoman of the General Women’s Union, Supreme Chairwoman of the Family

Development Foundation and President of the Supreme Council for Motherhood and Childhood, as a role model for all humanitarian efforts in the UAE.

Attending the address were H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council, H.H. Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum, Deputy Ruler of Dubai and Chairman of the Dubai Technology and Media Free Zone Authority, 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 Ahmed bin Saeed Al Maktoum, Chairman of Dubai Civil Aviation Authority and Chairman of Emirates Group, H.H. Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum, Chairman of the Mohammed bin Rashid Al Maktoum Foundation, H.H. Sheikh Mansour bin Mohammed bin Rashid Al Maktoum, and Mohammad bin Abdullah Al Gergawi, Minister of Cabinet Affairs and The Future.

World hunger

On the topic of world hunger, Princess Haya explained the latest UN reports, which show

that the amount of wasted food adds up to \$2.6 trillion a year. Princess Haya said that figure took “into account the required workforce, energy and water for producing it.

“This waste can feed three times the population of the Earth, including the 800 million hungry today.” “Our plan of action on a humanitarian level will first start by putting a total end to world

hunger so that it reaches zero per cent, then fighting poverty through development and transparency,” she added.

Princess Haya praised Sheikh Mohammed for establishing the Emirates Food Bank, which she said is another step contributing to the eradication of world hunger, and encouraged other governments around the world to follow in his footsteps.





Dulscos to plant 270 ghaf trees across UAE

Dulscos, a UAE-based company specializing in waste management services and human resource solutions, has said that it will plant 270 ghaf trees across the UAE, as part of the Year of Giving. Dulscos decided to plant one ghaf tree for every 'sustainable' message that was posted on their plastic bottle wall during the EcoWaste 2017 Exhibition.

Dulscos received 270 messages and the company will thus be planting 270 ghaf trees across the country in association with various government agencies and communities, including students.

The tree planting campaign began on 4th February, with

the aim of supporting the UAE National Environment Day.

Commenting on the announcement, David Stockton, Managing Director of Dulscos, said, "In fulfilling our social values as an organisation, Dulscos will be able to make a positive impact on our environment through this initiative. We can't live without trees. They are the source of the air we breathe and water we drink.

"Trees provide a home for wildlife and are vital for our planet's biodiversity. They also provide one of our primary defences against climate change. As a part of the Year of Giving, Dulscos decided to plant ghaf trees for every sustainable message

received during EcoWaste 2017."

Flowers, fruits, leaves, bark, branches and roots of ghaf, *Prosopis Cineraria*, all provide resources and habitats for a variety of native fauna and flora, making the tree a keystone species. Identified with Arab tradition, ghaf finds a place in the UAE landscape as the country's national tree.

"We are delighted to go green with our tree planting initiative. The aim of this initiative is not only to drive the message of conservation of resources but also to encourage the residents of UAE, especially youngsters, to contribute towards protecting the environment, thereby helping the future," added Stockton.

Exhibition

20 c r e a t i n g g r e e n c o m m u n i t i

Innovation in the spotlight at MEE 2017



The 42nd edition of Middle East Electricity opened with a key focus on the development and implementation of Smart Cities across the region.

His Highness Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai and the Minister of Finance of the UAE, officially inaugurated the 42nd edition of Middle East Electricity (MEE) on 14th February in the presence of other VIP dignitaries.

The theme of Middle East Electricity this year was 'Smart Cities'. Hosted by the Ministry of Energy and in partnership with Dubai Municipality the event showcased special features designed to help the industry learn and develop in line with its

goals to become smarter and more sustainable.

MEE has put innovation at the forefront of the 2017 edition, with a keen focus on smart innovations and the current market products and trends that come with it.

A new feature this year was the 'Smart Cities Innovation Zone'. Located in Zabeel Hall 3, this dedicated area featured major players showcasing their latest advancements in smart technology via an interactive seminar space on the show floor.

This included presentations on smart grids from Huawei, solar solutions from ABB and other innovations from industry leaders Philips, Osram, CAT and Siemens.

Speaking on the side lines of MEE, H.E. Suhail Mohammed Al Mazrouei, Minister of Energy for the UAE, said, "Middle East Electricity has made an invaluable contribution to our industry over the past forty-two years and continues to highlight the latest trends and innovations through its Smart Cities theme this year. As we put into practice 'The UAE Energy Strategy 2050',



MIDDLE EAST Electricity and Solar Middle East 2017 are held under the patronage of HH Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum, Deputy Ruler of Dubai.

announced at the beginning of 2017, to provide clean, secure, affordable and sustainable energy to all residents, the opportunities this exhibition provides are more important than ever."

Driving the discussion was the 'Energising the Smart City Conference' which was held on 15th February.

Opening remarks for the conference were delivered by H.E Hussain Nasser Lootah, Director General, Dubai Municipality who updated the industry on a number of key initiatives that are to be

implemented in the lead up to the strategic plan of 2021 which includes the roll out of Dubai Lamp, a bulb that has an energy usage of 1 watt and a life of 15 years. The Dubai Lamp is the world's first commercially viable 200 lumen per Watt LED lamp

He also discussed the roll out of Solar Lighting across a number of parks throughout Dubai, as well as the upcoming Desert Rose City - a fully sustainable mixed use development which will accommodate both Emirati and expat residents and will produce energy through wind, solar and

bio-thermal among others.

The fourth edition of the Future Generation Competition was also held, giving students from universities across the Middle East a platform to present their own projects and technologies around the theme of 'Smart Cities'.

A new show concept, the Consultants Arena, saw engineering consultants discuss key concepts and regulations such as projects management tools and the UAE's green guidelines and regulations throughout the duration of the three-day event.

WGS 2017

22 c r e a t i n g g r e e n c o m m u n i t i

Dubai Vision: A global driverless mobility leader by 2030



The Chairman of RTA outlines HH Sheikh Mohammed Bin Rashid's vision to transform Dubai to become a world leader in driverless transport.

Under the Dubai Smart Autonomous Mobility Strategy launched by HH Sheikh Mohammed bin Rashid Al Maktoum, 25% of all journeys in Dubai would be transformed into driverless journeys by 2030.

Delivering a speech on “Autonomous Mobility – Global Challenges and future Prospects” at the World Government Summit 2017 on 13th February, HE Mattar Al Tayer, Director General and Chairman of the Board of Directors of Roads and Transport Authority (RTA), stated that the “Government of Dubai is leading the transition to driverless mobility in Dubai and is planning to take a leading position worldwide in Autonomous Mobility by 2030.”

He added that in other cities and

countries, it is the private sector that leads this process.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, has launched the Dubai Smart Autonomous Mobility Strategy where 25% of all journeys in Dubai would be transformed into driverless journeys by 2030, he said.

“We anticipate that the percentage of journeys that would be made by the driverless Dubai Metro will reach 12.2% by 2030



According to the Dubai Smart Autonomous Mobility Strategy, 25% of all journeys in Dubai would be transformed into driverless journeys by 2030

compared with 8.8% in 2016. We anticipate that the percentage of journeys made by autonomous buses will reach 6.4% by 2030."

During his speech, Al Tayer played a film about the Autonomous Aerial Vehicle (AAV), which RTA is currently testing in cooperation with EHANG Company of China, the first ever-manned vehicle worldwide.

"The AAV on display at WGS 2017 is not just a model but it has really flown in Dubai skies. RTA will spare no effort to launch the AAV in July 2017," he added.

5 Levels

During his speech, Al Tayer reviewed the current Autonomous Mobility, saying: "Researches and studies related to Autonomous Mobility started some decades ago, highlighted by fitting some vehicles with limited driverless features. These researches and techniques had evolved and have now reached to advanced levels.

Software companies entered the Autonomous Mobility field over the last ten years including Apple Company, which invested \$ 10 billion in iCAR, in addition to many car manufacturers such as

Daimler, Volvo and Tesla, which conducted several successful test runs in this regard.

"According to the Classification of the American Society of Automotive Engineers, the Autonomous Mobility includes five levels for driverless mobility where Level 1 is limited to the vehicle's self-stopping feature when approaching a hindrance; Level 5 is about the vehicle's ability to travel anywhere under any circumstances without any human intervention.

"The commercially available



technologies now fall within Level 3 approximately where a driverless vehicle is available for limited periods in normal circumstances and requires the driver's intervention under certain conditions.

"The current researches and studies fall between Level 4 and Level 5, where some companies are currently testing driverless vehicles on pre-defined or non-defined routes."

Pioneering position

"Dubai was able to carve out a nifty niche for itself among the world's countries within a few years thanks to the vision of our wise leaders who set a clear-cut target of transforming 25% of all journeys in Dubai into driverless

journeys by 2030.

"Dubai's Metro is the world's longest driverless metro which lifts more than 600,000 riders a day, in addition to the Dubai Tram which is also fitted with some driverless features and Phase II will witness the operation of fully driverless trams," said Al Tayer.

"Dubai has also started the test run of driverless mini-buses, vehicles and boats, besides considering the options of deploying driverless express shuttle buses, and taxicabs from some leading companies," he added.

Al Tayer also referred to the Last Mile Trip initiatives in collaboration with the private

sector including the Hourly Rental System E-Kar and U-Drive by first providing the infrastructure for the electric and environment-friendly vehicles, which may be transformed into driverless vehicles in the future.

"Dubai aspires to take a leading position by 2030 basing on its Smart Autonomous Mobility Strategy, besides clear-cut targets, enacting and enforcing the required legislations and forging partnerships with specialized universities and research centers."

Global Challenges

Al Tayer then spotlighted the four key global and local challenges facing the

The strategy to make airborne passenger drones available to the public in July 2017 is part of a broader vision to transform Dubai into a global driverless mobility leader by 2030.



Autonomous Mobility, namely: infrastructure, which includes high resolution and regular update of maps; road markings, traffic lights and clear directional signs; and Right of Way-oriented design.

The second challenge is related to laws and legislations, which include the technical inspection specifications & licensing, insurance mechanisms, identifying responsible parties in case of accidents, terms and places where these vehicles are operated.

Al Tayer referred to Dubai's legislative system which is known for its flexibility and keeping up-to-date with the new developments and changes.

The third challenge is related to safety and public acceptance of driverless vehicles. Ordinary users may not be satisfied, particularly when the driverless vehicles share the same routes as ordinary ones.

The governments must play a key role here in providing effective awareness to the public on the new technologies to the public in a way that promotes confidence.

Al Tayer referred to the procedure taken by the RTA during the opening of the Dubai Driverless Metro, where a person was deployed to pose as a driver for a period of about six months just to reassure passengers and encourage them to use the metro.

"The fourth challenge is related to technological requirements and the efficiency of sensors and cameras in various circumstances, as well as electronic piracy protection procedures.

The manufacturers of driverless vehicles have to cope with numerous technological challenges including the difficulty to handle sudden changes during the journey including a sudden stop of another vehicle in front of the driverless vehicle; the difficulty to take the appropriate decisions when another vehicle approaches fast to the rear of the driverless vehicle; and the possibility of overlapping scanners of driverless vehicles, especially if



many of them are running on a congested road.

Local Challenges

Besides these global challenges, there are other challenges facing Dubai including harsh weather conditions (high temperatures, humidity and similar conditions) and their impact on driverless transportation technological systems, and the multi-nationalities and cultures in Dubai which hosts more than 190 nationalities.

This may increase people's reluctance to embrace modern technology. There is also a need to provide suitable means of transport to drop passengers to their final destinations under the prevailing weather conditions.

"To cope with these challenges, we have prepared Dubai Smart Autonomous Mobility Strategy which, compared to other global strategies, is characterized by the leading role of the Government of Dubai in the transition to driverless mobility, while in other cities and countries, it is the private sector that leads the process.

"Moreover, Dubai's vision incorporates all mass transit modes such as trains, buses, marine transit modes and taxis, as well as private vehicles, while many countries focus on a limited number of transit modes. Our strategy also includes a global competition to attract advanced companies in the field of smart mobility.

8 Enablers

Al Tayer stated that to beat those challenges, eight enablers have been identified and will be implemented in a parallel manner.

These enablers are: enacting legislations and rules, enhancing community attitude and aptitude for technology, setting out conditions & regulations of issuing vehicle licenses, revising insurance regulations, fulfilling the requirements of infrastructure, combating electronic piracy, establishing communication between vehicles, and the constructing of high-definition maps.

He noted that the implementation of the Autonomous mobility has multiple benefits, and that

Dubai has also started the test run of driverless mini-buses, vehicles and boats, besides considering the options of deploying driverless express shuttle buses, and taxicabs from some leading companies.



Dubai has been reaping some of these benefits through the driverless Dubai Metro including the improved punctuality to timetables by 6.4% compared with ordinary rail systems, and the reduced operational cost by 7%.

"We expect Dubai Autonomous Mobility Strategy to generate economic dividends to the worth of 22 billion dirham per annum, reduce the mobility expenditure by 44%, curb demand for parking by 50%, reduce carbon emissions by 12%, limit traffic accidents and associated losses by 12%, and enhance the happiness rating of residents by offering new mobility options."

Success Factors

The success of the Dubai

Autonomous Mobility Strategy is based on a number of factors including the comprehensiveness and accuracy of information as well as the effective exchange of this information.

"To achieve this, we are currently constructing a unified center for merging all information of various transit means," he said.

"The center will be opened shortly. We will also build effective partnerships with excellent businesses and universities.

"In this regard, the RTA has recently signed agreements with international firms such as Next Future Transport, Daimler and Hyperloop One. The RTA is

also undertaking field tests with Easy Mile Company, and forging consortiums with international universities, research centers to carry out researches in the field of autonomous transport technologies in a way that befits the needs of Dubai Emirate.

Concluding his speech, Al Tayer was upbeat about the promising future of autonomous vehicles, saying, "The journey on an autonomous vehicle will soon be like boarding a lift. All of us trust the closed box that lifts us to different levels as we know it is secure, ready and tested.

"This is what the RTA is seeking to achieve through autonomous mobility strategy and associated initiatives."

Award

28

creating green communities

Winners of Dubai Award for Sustainable Transport 2016 honoured



[DAST is an initiative rolled out by RTA to encourage public and private sectors to help reduce traffic congestion and uphold environment conservation efforts.](#)

H.H. Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum, President of the National Olympic Committee and Chairman of the Mohammed bin Rashid Al Maktoum Foundation, honored the winners of the ninth Dubai Award for Sustainable Transport 2016 in an event held at the Dubai World Trade Centre on 20th February, 2017.

The event was held under the patronage of H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of the Executive Council. The Dubai Award for

Sustainable Transport, DAST, is one of the initiatives rolled out by Dubai's Roads and Transport Authority, RTA, to encourage public and private sector entities to contribute towards easing traffic congestion and conserving the environment.

The Department of Municipal Affairs and Transport in Abu Dhabi emerged the winner in the Mobility Management category for the Darb app. Al Rostamani Car Hire Company came second for its digital management of leasing and delivery system through mobile devices. Emirates

Airlines was third for its initiative called Local Mobility.

In the Mobility Safety category, the Emirates Authority for Standardisation and Metrology won the top spot for streamlining trading in auto tyres, using electronic chips for tracking and controlling vehicle tyres posters. Emirates Transport was the runner-up with its Road Support initiative and Dubai Municipality finished third with its Safe and Secure Transport initiative.

In the Environmental Conservation category, Dubai



THE DUBAI Award for Sustainable Transport also aims to encourage innovative environmental sustainability strategies.

Electricity and Water Authority, DEWA, emerged the winner with its waste management green initiatives. Al Ahli Driving Centre finished second for the use of CNG in driving training vehicles and Emirates Authority for Standardisation and Metrology won the third spot for its Green Journeys initiative, empowering migration to CNG as a clean fuel for vehicles.

In the category marked Initiatives by the Disabled, Al Fujairah Police GHQ was the winner for its Mekanidevice, Dubai Corporation for Ambulance

Services came second for the disabled ambulance initiative and the award for the third place was suspended.

Mohammed Rabah from Al Khaleej daily won the Best Journalist Award. The UAE News Team at Dubai Media Inc. won the Best Media Team award. Dr. Arafat Al Duwaik from Khalifa University won in the Best Academic Research category. In the Best Student Project category, the winner was Bakheeta Mohammed Ali Al Ketbi for the Rules of My Bus project. Rameez Omar Abdul Sattar from Manipal University

came second with the design and operation of a dual-power air compressor for air conditioning. Shweta Krishna Murthy from Amity University came third for smart mobility management by using micro control systems.

Bertrand Piccard, the initiator, chairman and co-pilot of Solar Impulse Aircraft initiative, delivered a speech, highlighting the role of sustainable transport in driving economic, commercial and social advancement of cities. He also reflected on the role of the UAE in promoting the sustainable transport concept.

Clean Energy

30

creating green communities

DEWA showcases
clean energy
initiatives to top
Italian diplomats



Al Tayer reiterated the importance of cooperation between DEWA and Italian companies in the energy sector, particularly clean energy, and developing further relationships, making use of the expertise of both sides.

Saeed Mohammed Al Tayer, MD and CEO of Dubai Electricity and Water Authority, DEWA, has held a meeting with top Italian diplomats in the UAE and discussed ways to encourage Italian companies to take part in clean and renewable energy projects in Dubai.

The meeting with Liborio Stellino, the Italian Ambassador to the UAE, and Valentina Setta, Consul-General at the Italian Consulate in Dubai, was held on the sideline of the 5th World Government Summit, which began on 12th February 2017 under

the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

Ahmed Buti Al Muhairbi, Secretary-General of the Dubai Supreme Council of Energy (DSCE) was present, along with Abdullah Al Hajri, Executive Vice President of Customer Happiness, Dr. Yousef Al Akraf, Executive Vice President of Business Support and Human Resources, and Khawla Al Mehairi, VP of Marketing and Corporate Communications at DEWA.

Al Tayer reiterated the importance of cooperation between DEWA and Italian companies in the energy sector, particularly clean energy, and developing further relationships, making use of the expertise of both sides.

“Dubai has all the capabilities to achieve top global rankings and has already become a leading global hub for sustainability and the green economy,” he noted. The two sides also emphasized the need to build on the excellent relationships between the two countries, as Italy is the second



THE TWO sides also emphasized the need to build on the excellent relationships between the two countries, as Italy is the second largest European trade partner with the UAE.

largest European trade partner with the UAE.

During the meeting, Al Tayer highlighted DEWA's most important development projects and strategic initiatives to achieve the Dubai Clean Energy Strategy 2050 to make Dubai a global hub for clean energy and the green economy, to provide 7 percent of Dubai's total power output from clean energy by 2020, 25 percent by 2030, and 75 percent by 2050.

The Italian ambassador commended the World Green

Economy Organisation, WGEO, which was launched by His Highness Sheikh Mohammed bin Rashid at the 3rd World Green Economy Summit, WGES, in Dubai on 5th October 2016.

He also praised the launch of the Private Sector Platform of WGEO by H.H. Sheikh Ahmed bin Saeed Al Maktoum, Chairman of the Dubai Supreme Council of Energy. This new launch is the first of WGEO's seven platforms to develop innovative solutions for climate change and other challenges facing the environment and society.

The Italian side showed interest in participating in DEWA's leading clean energy projects. The ambassador commended DEWA's efforts to achieve the sustainable development of Dubai and reduce Dubai's carbon footprint to achieve a better future for generations to come.



Biodiversity

32 c r e a t i n

Sharjah Ruler
attends biodiversity
conservation forum



منتدى الشارقة الدولي
لحفظ التنوع الحيوي
Sharjah International Conservation
Forum For Arabian Biodiversity

Protection of vultures was a major topic of discussion at the 18th Sharjah International Conservation Forum for Arabia's Biodiversity (SICFAB).

His Highness Dr. Sheikh Sultan Bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, has highlighted Sharjah's efforts to preserve the environment and bio-diversity by the conservation of many endangered plants and animals. He added that 3 to 4 million trees can be planted every year from available seed stock.

During his visit to the 18th Sharjah International Conservation Forum for Arabian Biodiversity at the Breeding Centre for Endangered Arabian Wildlife, the Sharjah Ruler

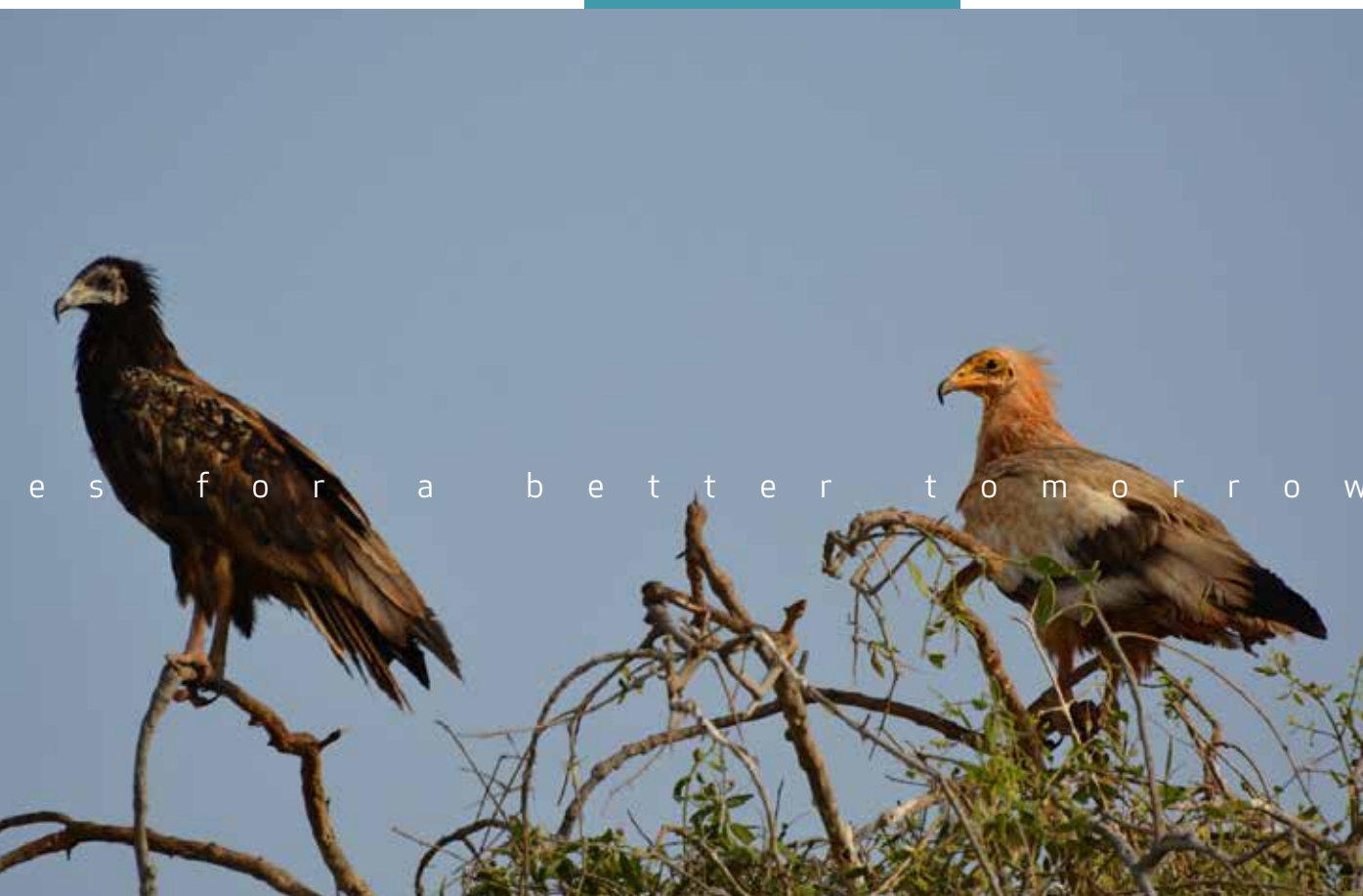
highlighted the forum's location as his original starting point for the efforts to preserve the local environment and to support its bio-diversity.

He also expressed his great interest in agriculture, a subject that he studied at the university. This led to his interest in environmental issues and his creation of initiatives, including the collection of seeds from different regions across the UAE, as part of a joint project with Kew Gardens in Great Britain to collect and preserve the world's seed stock.

He stated that the purpose of collecting plants and seeds is to eventually return indigenous plant species in their original locations and revive the natural environments of regions that experience the loss of native plant life.

According to the Sharjah Ruler, legislation has a major role in preserving biodiversity and environmental protection. Sharjah has issued several legislations to support and preserve the environment, he added.

He then invited individuals and all sectors of the community



OVER 160 experts, scientists and speakers from around the world discussed the status of endangered species in the Arabian Peninsula at the biodiversity conservation forum.

to contribute in efforts to preserve the environment and reduce human impact. He also encouraged children to love and preserve the environment and called for communities to raise awareness about the importance of the environment and its preservation.

Biodiversity Forum concludes

Over 160 experts, scientists and speakers from around the world discussed the status of endangered species in the Arabian Peninsula, at the 18th Sharjah International Conservation Forum for Arabia's Biodiversity, Sicfab,

which concluded on 9th February, 2017. The four-day forum, hosted by the Environment and Protected Areas Authority, EPAA, discussed cooperation between regional and international bodies, and provided information and analyses on the status, trends and threats to species in order to inform and catalyse action for biodiversity conservation.

The participants of the forum, hosted under the patronage of His Highness Dr. Sheikh Sultan Bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, also toured Al Hefaiyah

Conservation Centre and Kalba Bird of Prey Centre.

Hana Saif Al Suwaidi, Chairperson of the EPAA in Sharjah, said, "Both Al Hefaiyah Conservation Centre and Kalba Bird of Prey Centre come in line with Sheikh Sultan's vision to offer a suitable environment for endangered animals and to ensure their sustainability and existence for future generations. They reflect Sharjah's and the EPAA's commitment to protecting endangered species in the UAE that are on the IUCN Red List and encouraging them to breed."

MoCCAIE discusses challenges posed on food security by climate change



Ministry of Climate Change and Environment holds “A Conversation with Leaders” session at WGS 2017 to discuss tough questions on food security and climate change.

The Ministry of Climate Change and Environment (MoCCAIE) held “A Conversation with Leaders” session, which brought together ministers, CEOs and leading experts to further discuss some of the tough questions raised about the challenges posed on food security by climate change.

The event took place as part of the Climate Change Forum, launched by MoCCAIE on the sidelines of the fifth edition of the World Government Summit. During his opening remarks, Dr. Thani bin Ahmed Al Zeyoudi,

Minister of Climate Change and Environment, indicated that all aspects of food security, including food access, utilization and price stabilities, will be affected under climate change. The minister stressed that some forms of adaptation will therefore be required to cope with impacts of climate change.

“The world desperately needs to achieve quantum leaps in the food industry to reduce the impact of climate change on all walks of life. Agriculture is one of the most important economic sectors globally and the one

most affected by climate change. Population growth rates indicate that by 2050 the world will require about 60 percent more food than we consume today. As impacts of climate change become evident, we must look closely at some of the hard questions, and take the necessary actions to ensure food security for generations to come,” Dr. Thani Al Zeyoudi said.

Leaders participating in the session agreed that there is growing number of initiatives taken to address climate change and sustainable food production, with two global policy framework



WATER AND food security are the key challenges under climate change as both are highly vulnerable to continuously changing climatic patterns.

driving the way forward: the Paris Agreement on climate change and the 2030 Agenda for Sustainable Development.

During this high-level discussion, participants emphasized that technology and innovation play a particularly important role in adapting to and increasing resilience to impacts of climate change also in reducing emissions and maximizing resource efficiencies.

They indicated that there are various range of actions and initiatives undertaken world-wide,

from improving farming practices to minimising food waste.

Some of the examples include: Introduction of new forms of food production such as hydroponics and aquaponics, vertical farming and biosaline agriculture; utilization of renewable energy in various segments of the value chain, as well as reducing food loss and waste through improved packaging, efficient logistics, retail and consumer awareness raising.

Participants concluded that all segments of society need to play

a role to facilitate the transition to more sustainable forms of food production and consumption.

Governments need to ensure that effective and clear domestic policy frameworks are in place, the private sector has a role to promote and invest in sustainable production and retail practices, where partnerships with academia and research institutions will hold a central role to foster necessary innovation and technological advancements. Consumers also will have to make informed choices about what they consume and how much.

Sustainability

36 creating green communities

Silicon Park Project reinforces green credentials of Dubai



Set for completion in Q4 2018, the project reflects global trends for smart cities and is to be 'completely free of regular vehicles'.

His Highness Sheikh Ahmed bin Saeed Al Maktoum, Chairman of Dubai Silicon Oasis Authority (DSOA), the regulatory body for Dubai Silicon Oasis (DSO), the integrated free zone technology park, unveiled the commemorative plaque and laid the foundation stone of "Silicon Park", the first integrated smart city project taking shape at the hi-tech park on 27th February.

Once complete, the landmark development spanning 150,000 square meters and constructed at a cost of AED1.3 billion will reinforce the green credentials of

Dubai and the wider UAE.

Hosted under the patronage and presence of His Highness Sheikh Ahmed bin Saeed Al Maktoum, the unveiling ceremony was attended by Dr. Mohammed Alzarooni, Vice Chairman and Chief Executive Officer of DSOA, and senior management from DSOA.

Set for completion in Q4 2018, Silicon Park will comprise 71,000 square meters of office space, 25,000 square meters of commercial space, 46,000 square meters of residential area and the 115-key business hotel

Radisson RED Dubai Silicon Oasis. In addition, it will feature value-added contemporary lifestyle facilities, such as restaurants, cafés, prayer rooms, a shopping centre and an underground parking space that can accommodate more than 2,500 cars.

His Highness Sheikh Ahmed bin Saeed Al Maktoum said: "In line with the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to transform Dubai into the smartest city in the world, we have conceptualized Silicon



SILICON PARK will leverage green building materials and control mechanisms as well as solar panels and double-glazed windows to reduce heat absorption.

Park with smart technology at the core of its DNA.”

He added: “With the objectives of the UAE Vision 2021 in mind, the integrated smart city project reflects global trends for smart cities and incorporates most of the KPIs of the UAE National Agenda, including cohesive society, safe public and sustainable environment. We are confident Silicon Park will offer a modern holistic lifestyle for residents, workers and visitors.”

Speaking at the event, Dr. Mohammed Alzarooni said: “Since

its establishment, Dubai Silicon Oasis has remained committed to providing a superior quality of life for its residents and a highly enabling work environment for its business partners. In line with the Dubai Plan 2021, we have designed Silicon Park to reflect the strategic direction of our government on smart cities that focuses on six pillars: life, society, mobility, economy, governance and environment.”

As a smart community, Silicon Park will feature intelligent solutions from charging docks for smart devices on the streets

to smart pop-up furniture and digital play tables, as well as optimally designed bus shelters, piazza shading and other public amenities. Furthermore, its residential units will boast sophisticated remote-controlled systems that can regulate lighting, air conditioning and electrical appliances in addition to controlling the movement of windows and curtains.

Silicon Park’s sports amenities, such as health and fitness centres as well as running tracks and cycling trails, will allow residents to prioritize their health through



enjoying a variety of sporting activities, and therefore live more holistic lives. Once open, the project will offer a spectrum of office spaces and modern business facilities including meeting halls and a multi-purpose conference centre.

In compliance with Dubai Municipality's Green Building Regulations and Specifications and international LEED standards, DSOA seeks to ensure environmental sustainability in all its initiatives. Silicon Park will leverage green building materials and control mechanisms as well as solar panels and double-glazed windows to reduce heat absorption. The project will optimize the use of renewable energy resources and adopt

measures to achieve efficiency in energy consumption. In line with this objective, it will feature smart lighting systems with motion sensor controls that respond to traffic and pedestrians.

Silicon Park will also include a control centre that collects and analyses data gathered through sensor devices. The collated information will enable seamless management of smart devices to ensure the delivery of best-in-class smart services to employees, residents and visitors.

Completely free of regular vehicles, Silicon Park will use electricity-powered alternatives as the primary mode of

transportation. All residents and visitors owning electric vehicles will be able to access the charging stations set up across the premises. In addition, they will have the option to use smart rechargeable electric bikes as a means of conveyance.

A wholly owned entity of the Government of Dubai, DSO operates as a free zone technology park for large enterprises as well as medium and small companies looking to set up their offices in Dubai.





UAE, Singapore to promote cooperation in the areas of environmental conservation

The UAE Ministry of Climate Change and Environment (MoCCA) and the Ministry of Environment and Water Resources of Singapore have signed a Memorandum of Understanding (MoU) to promote cooperation in the areas of environmental conservation, climate change and sustainable development. Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment, and Masagos Zulkifli, Singaporean Minister of Environment and Water, signed the five-year MoU on the sidelines of the fifth World Government Summit in Dubai.

The MoU focuses on capacity building, monitoring and reducing environmental impact

of a diverse range of factors, developing innovative solutions to pressing challenges, engaging the youth and the private sector. Under its terms, the two parties will share experience and best practices, exchange information, and organize workshops.

Dr. Al Zeyoudi said: "The MoU is in line with the strategy of the federal government and the UAE Vision 2021. Our two countries are keen to strengthen our strategic partnership and unify our efforts in the areas that fall under the remit of our ministries."

Masagos Zulkifli praised the drive of the UAE to combat climate change, its move towards clean and sustainable energy, and its commitment to

achieving a bright future for the next generations. He also commended UAE's Ministry of Climate Change and Environment on its cooperation with the international community in reducing carbon emissions.

The ministries of the two countries will appoint a joint working committee to carry out the objectives of the MoU and report on the progress. The committee will develop a plan of action (PoA) outlining the initial cooperative projects to be pursued. In their efforts, the two parties will collaborate with other strategic partners including government and non-government agencies, research institutions and private companies.

Electric Vehicles

40

creating green communities

RTA signs deal with Tesla to buy 200 electric vehicles



The agreement was signed a day after electric car firm Tesla launched in the UAE and also follows a previous commitment of the Dubai government to make up to 10 per cent of its new fleet orders electric and hybrid vehicles.

The Roads and Transport Authority, RTA, of Dubai has signed an agreement with Tesla Inc., a world-leading manufacturer of autonomous electric vehicles, to buy 200 electric vehicles fitted with several components of autonomous driving technologies

According to Tesla, the RTA will purchase Model S sedans and Model X SUVs for the programme. The new vehicles will be added to the limousine fleet of Dubai Taxi Corporation, DTC.

Mattar Al Tayer, Director-General

and Chairman of the Board of Executive Directors of RTA, and Elon Musk, Chairman and CEO of Tesla, signed the agreement in the presence of several executives and officials from both parties, on the sidelines of the World Government Summit 2017.

“This agreement is in sync with the directives of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to transform Dubai into the world’s smartest city, and also in line with the Green Economy for Sustainable

Development initiative,” Al Tayer stated.

“It is also part of the Dubai Smart Autonomous Mobility Strategy, aimed to transform 25 per cent of the total commutes in Dubai into autonomous commutes by 2030. The agreement further reflects the RTA’s efforts towards providing driverless transportation solutions by undertaking technical tests of autonomous transit systems,” he added. Al Tayer also welcomed Tesla’s move to open an office in Dubai for distribution and maintenance of its vehicles.



THE VEHICLES would be equipped with autonomous driving hardware, Tesla's Autopilot system designed to take over from drivers on highways.

"Tesla has been selected for its pioneering endeavors in manufacturing electric vehicles. The company is focused on improvement and creativity in autonomous driving as well as power storage," said Al Tayer.

"Tesla is the sole producer of autonomous deluxe electric vehicles and as part of its efforts to utilise alternative energy sources, it took over Solar City Company.

"Last year, Tesla developed a hybrid system for generating and storing solar energy in its

vehicles and broadened its scope to manufacture buses and heavy vehicles," he added.

"It has also improved autonomous driving systems by migrating from semi-autonomous driving to a fully autonomous driving environment, thus obviating the need for a human driver. It is also engaged in improving shared mobility service by developing service systems for the next generation," said Al Tayer while speaking at the event.

Al Tayer said that the RTA would carry out a test run of Tesla's

autonomous electric vehicles as part of the Dubai Taxi limo fleet in a bid to support the Dubai government's efforts in transforming Dubai into the smartest city in mobility by 2020.



Workshop

42 c r e a t i n g g r e e n c o m m u n i t i e s

Sharks, rays, chimaeras assessed in Middle East for Red List priority



Results from scientific studies undertaken in the UAE and the broader region also suggest that several species of sharks and rays face high levels of exploitation with declines in population numbers over the last decade.

The Environment Agency-Abu Dhabi (EAD), in collaboration with the International Union for the Conservation of Nature (IUCN) Shark Specialist Group, organized a Red Listing Assessment workshop from February 5th to 9th in Abu Dhabi to evaluate the conservation status of sharks, rays, and chimaeras found in the Arabian Sea and the adjacent waters.

Twenty-two participants attended the workshop from a number of countries including the United Arab Emirates, Saudi Arabia, Sudan, Oman, India and Pakistan

as well as experts from the US, Canada, the UK and Australia, and observers from national competent authorities. The workshop outcome contributed to the UAE National Plan of Action for the Conservation and Management of Sharks, which will be published as a joint document between EAD and the Ministry of Climate Change and Environment imminently.

Sharks, rays, and chimaeras are one of the world's oldest and most ecologically-diverse groups of animals. Yet, according to the IUCN Red List of Threatened Species™, An assessment of the status of

a quarter of the world's species are threatened with an elevated risk of extinction; ray species are found to be at an even higher risk than sharks. Overexploitation, from targeted as well as incidental take (or bycatch), is the main threat causing declines in species worldwide. Results from scientific studies undertaken in the UAE and the broader region also suggest that several species of sharks and rays face high levels of exploitation with declines in population numbers over the last decade.

An assessment of the status of



THE OUTCOME from the workshop is a regional report that includes status assessments identifying species most at risk as well as recommendations for conservation actions.

sharks, rays, and chimaeras in the region has not been previously undertaken. Globally the IUCN Red Listing Assessments is the model commonly used for evaluating the conservation status of animal, plant and fungi species, over 870,000 species have been assessed so far.

This workshop was the first step in understanding the regional status of species. Participants will assess approximately 160 species occurring in the Arabian Gulf, Sea of Oman, Arabian Sea, Gulf of Aden, and Red Sea using the IUCN Red List approach.

Commenting on the Red Listing Assessment workshop, Dr. Nick Dulvy, IUCN SSG Co-Chair and Canada Research Chair at Simon Fraser University in British Columbia, said, "Sharks and rays are facing an elevated risk of extinction worldwide and we are concerned about the long-term survival of these species. Most species tend to grow slowly and produce few young, leaving them particularly vulnerable to overfishing."

"This workshop is an excellent opportunity for local experts to be involved in developing Red List

Assessments that will help inform the management and conservation of this important group of ocean predators within the region," stated Dr. Colin Simpfendorfer, IUCN SSG Co-Chair and Director of the Centre for Sustainable Tropical Fisheries and Aquaculture at James Cook University in Queensland, Australia.



UAE electric road trip unveils charging stations



The four-day Emirates Electric Vehicle Road Trip (Emirates EVRT) initiative saw a Tesla Model X, five Tesla Model S, four Renault Zoe and one retrofitted Volkswagen Golf undertake a tour of the UAE.

The first Emirates Electric Vehicle Road Trip (EEVRT) concluded at The Sustainable City in Dubai in February 2017, successfully opening nine new charging stations in the UAE and further driving electric vehicle adoption in the country. The new, free-to-use electric vehicle charging stations, supplied by ENGIE, were opened at three Accor Hotels, including Marjan Island Resort & Spa in Ras Al Khaimah (three), the Novotel Fujairah (four), and at the Sofitel Corniche in Abu Dhabi (two).

Accelerating the transition

towards a sustainable low-carbon future, the four-day event took place from 29th January to 1st February 2017 when 11 electric vehicles left Dubai and traversed more than 700km across the UAE. The charging stations installed have opened up a whole new stretch of electric vehicle driving for the UAE.

“The UAE has already come a long way in moving towards taking a more environmentally friendly stance when it comes to vehicles, and we hope that this event showed people how much of a difference it can make,” said Ben

Pullen, Founder and Managing Director of Global Electric Vehicle Road Trip who brought the event to the UAE.

Along the way, 40 participants and 150 total guests enjoyed a stop at Jebel Jais, the UAE’s highest point, site visits as well as various gala dinner events, electric vehicle experiences and activities, and stayovers in Ras Al Khaimah, Fujairah and Abu Dhabi. The road trip concluded with an electric vehicle conference at The Sustainable City on 1st February, including live panel debates, talks from electric vehicle and



e s f o r a b e t t e r t o m o r r o w

DUBAI IS the first city in the region to express its desire to achieve green mobility, having set targets to reduce carbon emissions by 16% by 2021.

energy experts, and a final UAE electric vehicle parade, which also included electric bikes.

During the road trip Emirates National Bank of Dubai, The Sustainable City and AXA Insurance made announcements on their commitment to support the evolution of the electric vehicle industry in the UAE. Emirates NBD has launched their green auto loan with preferential pricing, The Sustainable City provides an AED 40,000 grant for residents wishing to purchase an electric car, and AXA Insurance Gulf has launched a first-of-

its-kind insurance solution for electric vehicles in the GCC region under its Tesla Club Scheme.

The response from participants and event partners who experienced the event for the first time was overwhelmingly positive. Intrigued by how the electric cars would perform during the longer drives to Jebel Jais and Fujairah, the participants were pleasantly surprised by the acceleration and range of the new Renault Zoe and Tesla vehicles. One of the most interesting experiences was to witness the regenerative braking which is a technology that allows

the batteries to re-charge when driving down hills. Through driving down Jebel Jais the Renault Zoe Log Range model was able to achieve around 50km of extra range.

The Global EVRT makes its way to Europe in April this year for the two-week long ESCP Europe EVRT and will be back in the Middle East in 2018 to travel across the GCC.



Dubai to host tenth annual Innovation Arabia Congress



Dr.Mansoor Al Awar, HBMSU Chancellor

Innovation Arabia 10 looks into the future under the theme 'Innovation & Entrepreneurship: The Engines of Sustainability'

The Hamdan Bin Mohammed Smart University (HBMSU) has begun the preparations to host the 10th Innovation Arabia congress under the patronage of H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and President of HBMSU.

To be held from March 6 to 8, 2017 at The Address Dubai Marina, the congress will attract a number of influential international figures to take part in the prestigious gathering organized to promote innovation in the Arab World by creating an environment

conducive to innovative revolution and creativity as the region transitions to an integrated knowledge-based economy.

To be stage under the theme 'Innovation and Entrepreneurship: The Engines of Sustainability,' Innovation Arabia 10 is of strategic importance given that innovation plays a crucial role in the development of vital sectors affecting the future of the Middle East.

These sectors include education, health, public services, economy, manufacturing, small and medium

enterprises (SMEs), and family-run businesses.

Focusing on innovation is in line with HBMSU's commitment to support government efforts aimed at fostering a culture of innovation in education and entrepreneurship.

Aside from being the driving force behind the Arab region's and the rest of the world's economic and social development, innovation will also help turn into a reality the vision of the wise leaders to make the UAE one of the world's most innovative countries by 2021 in



e s f o r a b e t t e r t o m o r r o w

INNOVATION ARABIA 10 is of strategic importance given that innovation plays a crucial role in the development of vital sectors affecting the future of the Middle East.

line with the objectives of the UAE National Innovation Strategy.

Innovation Arabia 10 includes three main international conferences on 'Quality & Business Management' under the theme 'Unleashing Innovation, Empowering Entrepreneurship;' 'Smart Learning' which will tackle 'Build Knowledge Based Communities;' and 'Health and Environment;' which will discuss pivotal issues under the theme 'Changing Minds, Protecting the Environment.'

Senior government officials,

decision and policy makers, thought leaders, academics, researchers, journalists, business leaders, and representatives from various international organizations will attend the event to analyze the crucial role of innovation and entrepreneurship in achieving sustainable development. The participants will particularly focus on the role of education, health and the environment in re-shaping the future of sustainability based primarily on innovation.

Dr.Mansoor Al Awar, HBMSU Chancellor, said: "We have chosen

'this year's theme in line with our tireless efforts to make a positive impact on the growing need for excellent models of innovation, entrepreneurship and sustainability.

"This also demonstrates our support for the Dubai Government's initiatives to help achieve the UN's Sustainable Development Goals (SDGs), particularly in the education sector, in accordance with 'Dubai Plan 2021,' which aims to build innovative and creative individuals as part of the emirate's development plan."

Conservation

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c r e a t i n g g r e e n c o m m u n i t i e s

Herd of scimitar-horned oryx reintroduced to Chad



[Unregulated hunting wiped out wild populations of the scimitar-horned creatures, but breeding programmes are helping them make a comeback.](#)

A herd of 25 Scimitar-horned Oryx (SHO) has arrived safely to their new home in the Ouadi Rimé-Ouadi Achim Reserve. This latest translocation is part of the reintroduction programme of the Environment Agency – Abu Dhabi (EAD), the Government of Chad - Ministry of Environment and Fisheries and the Sahara Conservation Fund.

The third shipment of 25 carefully selected Scimitar-horned Oryx were successfully loaded onto a charter plane from Abu Dhabi to Chad. During the flight, the animals were fed, kept hydrated

and checked on by EAD's veterinary team accompanying the herd.

After a long journey, the Oryx were released and settled into their expansive pre-release pen. The animals were alert, healthy, and calm whilst acclimatising to their new surroundings. This batch of oryx will be released into the wild later this year in the summer season (July/August). This was the third shipment of oryx to Chad from a "world herd" of Scimitar-horned oryx being bred and curated in EAD's Deleika Wildlife Conservation Centre.

As these oryx arrived at the pre-release facility, 19 animals that had been shipped in December and already acclimated were released into the wild. A number of pregnant female will remain in the pens for release later this year.

Each individual oryx released has been fitted with a GPS-enabled satellite collar so that conservationists can monitor their movements around the 78,000km² reserve.

In the first few days since recent release, the herd has been observed grazing peacefully



EACH INDIVIDUAL oryx released has been fitted with a GPS-enabled satellite collar so that conservationists can monitor their movements around the 78,000km² reserve.

close to the release site. They are expected to follow their predecessors into the further reaches of the reserve over the coming weeks.

In January this year, a delegation from EAD led by Dr. Shaikha Salem Al Dhaheri, Executive Director, Terrestrial and Marine Biodiversity Sector visited Chad to attend a steering committee meeting where the projects progress and outlook were reviewed.

Dr. Al Dhaheri stressed on the importance of this

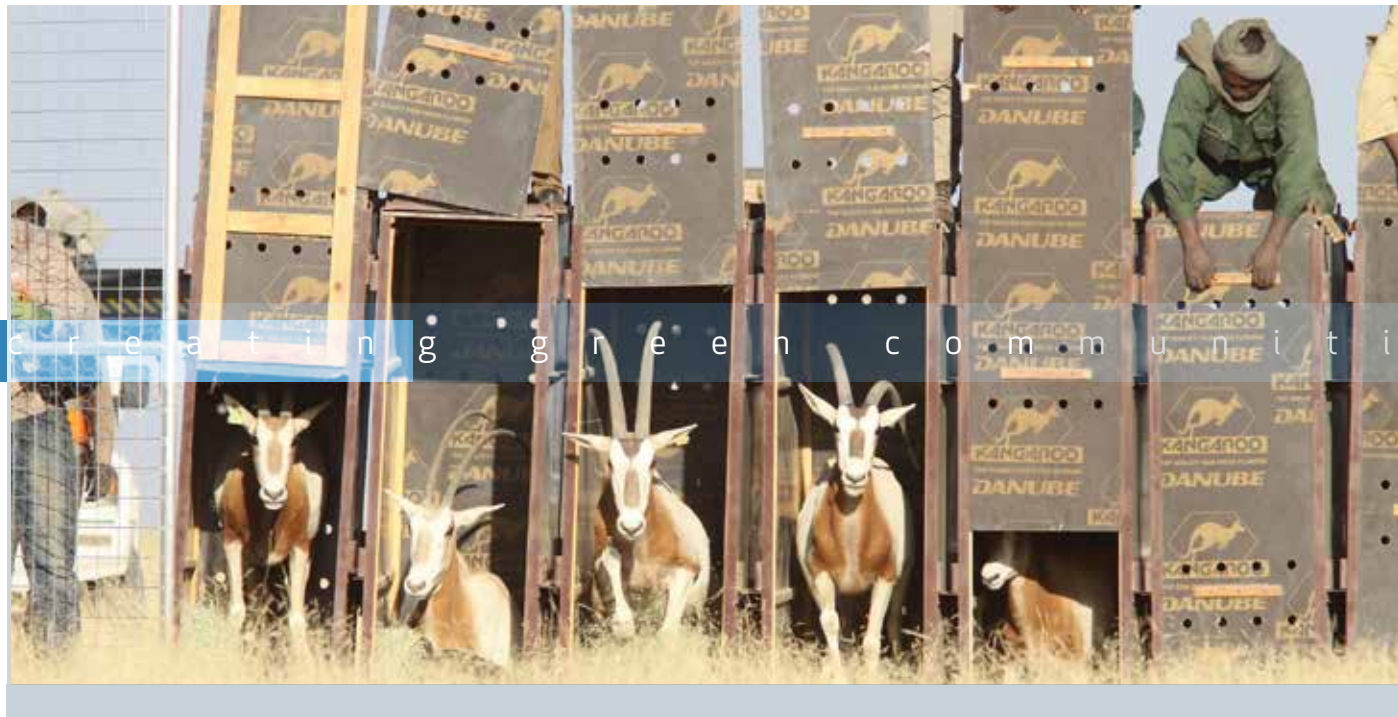
project emphasising the UAE government's commitment, through EAD, to contribute significantly to conservation and restoration of desert and Sahelian wildlife through the heritage collections of rare species established by the late Ruler of the UAE, HH Sheikh Zayed bin Sultan Al Nahyan.

She added that "Under the vision and impetus of our leaders, EAD's input has been invaluable both at home in Abu Dhabi, with the creation and management of a "world herd" of Scimitar-horned oryx; and overseas in

Chad, through the provision of animals accompanied by technical expertise for the reintroduction project.

The success of this project is not only to secure the future of this species and other endangered species gathering from the halo-effect of their protection, but to also provide a modern conservation biology model for others to be inspired by and follow.

Dr. Shaikha noted that EAD's ex-situ conservation team focused on increasing the genetic diversity



of the world herd in Abu Dhabi, and sources the population from different countries for the Chad reintroduction. EAD has recently translocated 69 Scimitar-horned Oryx from Sir Bani Yas Island, home to thousands of local and exotic species which was formerly the private collection of the late Sheikh Zayed. These animals will to be added to the established world herd at the Deleika Wildlife Conservation Centre. This will contribute to the source population for the Chad reintroduction project.

More About the Scimitar-horned Oryx (ShO) Reintroduction Programme:

- The Scimitar-horned Oryx (ShO) Reintroduction Programme is a close collaboration between

the UAE government, the government of Chad, the local implementing partner - the Sahara Conservation Fund (SCF), together with other global conservation organisations.

- The Scimitar Horned Oryx was classified as “Extinct in the Wild” by the International Union for the Conservation of Nature (IUCN) Red List in 2000
- There have been no sightings for more than 25 years due to unregulated hunting, loss of habitat, and lack of resources.
- The UAE is home to more than 3000 individuals- the world’s largest single population. They are adapted

to high temperatures, harsh environments and can live for a long periods without drinking water.

- The Scimitar Horned Oryx was native to the Sahelian areas of Central Africa, including Chad. Following extensive research the Ouadi Rime-Ouadi Achim Game Reserve in Chad, was deemed to be the optimal habitat for the Oryx reintroduction.
- This initiative aims to create a self-sustaining population of 500 animals within the next 5 years. It is possibly the world’s most ambitious large mammal reintroduction programme and a huge step in the field of conservation.



Artificial reef building regulated

The Ministry of Climate Change and Environment, has issued a Ministerial Decision No. (103) of 2017, regulating the development of artificial reefs. The resolution promotes putting eco-friendly reef balls in the sea as the safest and most effective way to create sustainable marine reef habitats.

“The decision follows the directives of our wise leadership to seek innovative solutions to pressing environmental challenges in line with the UAE’s economic growth. It aims to safeguard the sustainability of living aquatic resources, one of the most prominent strategic objectives of the Ministry and a key element of the UAE Vision 2021, besides enhancing fish

stocks in the UAE waters and protect the country’s natural and cultural heritage,” said Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment.

The new decision enables government agencies, scientific research entities, universities and fishermen’s co-operative societies, as well as individual fishermen registered with the Ministry, to build artificial reefs.

Whether for the purpose of scientific research or for promoting environment-friendly fishing or for protecting marine life, those interested in developing artificial reefs need to apply for a licence by submitting a set of documents,

including a map of the proposed site, among others. Materials used to produce reef balls must comply with standard specifications.

Mimicking natural reefs, the reef balls quickly attract a wide variety of marine organisms such as algae, corals, molluscs, crustaceans and fish, and become permanent additions to the aquatic environment. While it takes about five years for the balls to develop into full-fledged reefs, growth is already visible after a few weeks.

The ministerial decision prohibits building artificial reefs in areas within three nautical miles of the shore and in marine reserves and near state-owned islands.

Research

52 c r e a t i n

UAE researchers reach milestone in breeding new local bee strains

Research is underway in the UAE to find a strain of bee that can adapt to the local environment and produce high quality honey, as an alternative to the annual import of honey from abroad.

Research is underway in the UAE to find a strain of bee that can adapt to the local environment and produce high quality honey, as an alternative to the annual import of honey from abroad.

Researchers at the Abu Dhabi Food Control Authority (ADFCA) have reached a major milestone in the breeding of large populations of queen bees, as part of the UAE Honey Bee Species Production Project.

According to Rashid Mohamed Al Shariqi, Director-General

of ADFCA, the project is being undertaken as part of a directive by Sheikh Mansour Bin Zayed Al Nahyan, Deputy Prime Minister, Minister of Presidential Affairs, and ADFCA Chairman, to find a strain of bee that can adapt to the local environment and produce high quality honey, as an alternative to the annual import of honey from abroad.

“The bee strain development research is a national strategic project based on scientific processes for cross-breeding strains of bees that are adaptable to the local environment. The

prime objective is to reduce imports to the minimum, and to sustain the bee breeding and bee keeping sector,” he said.

“The relative success in the expansion of agricultural production and the sincere desire to engage in such experiments opened up new areas of interest to produce high quality local honey at acceptable quantities,” Al Shariqi stated.

“It is essential to encourage farmers to keep and breed bees to increase the national production of honey, whether for purposes





e s f o r a b e t t e r t o m o r r o w

THE BEE strain development research is a national strategic project based on scientific processes for cross-breeding strains of bees.

of personal consumption or commercial marketing,” he added.

RAK Ruler urges scientists to find solutions to environmental challenges

The UAE is encouraging scientists and researchers to find solutions to meet environmental challenges facing the world today, said H.H. Sheikh Saud bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras al-Khaimah, in his opening address at the International Workshop on Advanced Materials (IWAM-2017), held in Ras Al Khaimah from 19th to 21st February.

The UAE is supporting scientific efforts aimed at adopting best international practices to create a sustainable development that contributes to improving living standards, he stated. Sheikh Saud bin Saqr urged scientists to harness their knowledge, experiences and experiments to present research projects that serve mankind and nature.

More than 100 researchers, scientists and students attended the three-day event, which hosted discussions on fundamental science and applications of advanced materials, including

nanostructured materials and nanotechnology. These included 24 talks by world leaders on advanced materials, along with discussions on research topics in the development of clean and renewable energy, nanomedicine and a clean environment.

Held under the theme “Innovation in Energy Materials,” the workshop sought to encourage international research collaboration with RAK CAM in diverse areas, ranging from chemical, electronic and magnetic materials to environmental, renewable energy and biomedical applications.

Ministry of Finance adopts electric- powered vehicles



MoF embraces environment friendly, electric-powered vehicles as part of its commitment to future generations to provide a clean, healthy and safe environment.

The Ministry of Finance, MoF, signed a Memorandum of Understanding with Emirates Transport to provide the Ministry with electric-powered vehicles.

The MoU comes as part of MoF's commitment to support sustainable energy resources in line with UAE Vision 2021, which stresses the importance of the government working to ensure the continuity of sustainable development, to preserve the environment and to achieve the balance between economic and social development. Under the MoU, signed by Younis Haji

Al Khoori, Undersecretary at MoF, and Mohammed Abdullah Al Jarman, General Manager of Emirates Transport, in Dubai, Emirates Transport will provide MoF with electric-powered vehicles following the higher authorities' approval of the project's terms and conditions.

Younis Al Khoori said, "As part of our wise leadership's commitment to diversify energy resources and encourage adopting renewable resources to reduce harmful emissions, the Ministry is working to enhance the environmental indicator results by embracing

environment friendly, electric-powered vehicles. This stems from our belief in the importance of sustainable development and our commitment to future generations to provide a clean, healthy and safe environment."

Mohammed Al Jarman extended his gratitude for the Ministry's trust in the transportation, rental and technical services, which contribute in promoting the use of eco-friendly transportation and implementing practices to preserve natural resources.

"The signing of the MoU stems



THE ELECTRIC-VEHICLE age will reshape the energy grid, redefine driving patterns, and generally improve the quality of life in urban areas.

from the Ministry's commitment to achieving sustainable development and helps strengthen cooperation between Emirates Transport and the Ministry of Finance," he said.

Dubai Municipality enhances efforts to shift 75% of waste from landfills

Dubai Municipality has announced that it has doubled efforts to shift 75 percent of the waste produced in the Emirate of Dubai from landfills in line with the environmental objectives of the 2021 National Agenda and the National Index.

"We are multiplying our efforts to educate all segments of the public in order to activate the role of the community in achieving the goals and aspirations of the leadership to have maximum benefit by increasing segregation and recycling of waste at source," said Abdul Majeed Sifai, Director of Waste Management Department and Head of the Sustainable Waste Management Awareness Team at Dubai Municipality.

He was speaking during the opening of an awareness exhibition on sustainable environmental practices at Mirdif

City Centre. He said that the exhibition is intended to create public awareness to spread the concept and culture of waste reduction and to promote the most important projects and initiatives in the field of waste management activities.

The awareness exhibition included many initiatives and projects, such as promoting outstanding cleaning workers, and drawing and handicraft workshops to encourage children to be aware of the importance of reducing waste and maintaining a clean environment.



ADSG launches 3rd annual Abu Dhabi Sustainable Business Leadership Forum

The Abu Dhabi Sustainable Business Leadership Forum 2017, hosted by the Abu Dhabi Sustainability Group, ADSG, and supported by the Environment Agency - Abu Dhabi, EAD, kicked off in the capital on 1st March, 2017.

The two-day forum hosts a line-up of keynote speakers, panel discussions and breakout sessions, and will also introduce the Natural Capital Protocol, a product of the Natural Capital Coalition, which helps to correct the fundamental misconception that there is a trade-off between social and environmental responsibility, and profitability.

To illuminate the value that businesses receive from the

natural world, the Natural Capital Coalition has collaborated with the forum to help raise awareness and introduce the 'Natural Capital Protocol Primer' in Arabic.

The primer is a key introduction to the Natural Capital Protocol and emphasises the importance of applying the protocol to include natural capital in business considerations enhancing corporate decision-making.

By following this globally standardised framework, businesses of all sizes and from all sectors can make better informed operational decisions with both business impact and dependence on natural capital at the core.

Welcoming the engagement and collaboration with the coalition, Huda Al Houqani, Director of ADSG, said, "Whether you are an expert in sustainability or on the path to learning more, sustainable practices are essential as it also makes enormous business sense.

"It can be cost effective, improve an organization's reputation and employee retention, provide risk mitigation, because of rising costs and uncertainty of supply, as well as generating fresh revenue opportunities by inspiring new business models, products and services. Therefore, there is no need for reluctance, just enthusiasm and determination to drive these changes forward."

Ramada Hotel & Suites Ajman

WINNER

f o r a b e t t e r t o m o r r o w



Ramada Ajman wins Waste Management Award

Ramada Hotel & Suites Ajman has bagged the Waste Management Award at the Gulf Sustainability and CSR Awards 2016. The awards are designed to provide recognition for companies and individuals implementing outstanding sustainability and CSR initiatives across the region.

The property competed against the region's most prominent companies from diverse industries like Emaar Community Management, Farnek Services LLC and Dubai Duty Free. The finals and awards ceremony was held at Jumeirah Creekside Hotel in Dubai on February 15, 2017.

Iftikhar Hamdani, General Manager of Ramada Hotel &

Suites Ajman said: "I would like to thank Gulf Sustainability and CSR Awards 2016 for this accolade, and commend the entire Ramada Ajman team for their exceptional contributions towards the waste management system of the hotel."

Mark Hamill, Managing Director of Awards International, said: "This awards programme backs the success of the Sustainability and CSR categories at the International Business Excellence Awards, and provides a platform for leading companies to tell their stories."

Sumair Tariq, Managing Director of R Hotels, commented: "This is a well-deserved recognition for Ramada Ajman as the property

set a benchmark in the region's waste management programme."

Ramada Hotel & Suites Ajman leads the green initiative in the Middle East' hospitality sector. Its effective waste management system diverts 90% of waste from the landfill. Additionally, the property boost its current food waste management scheme through the newly-installed WasteStation dewaterer and macerator machine where it reduces the process of converting the waste into fertilizers from 24 hours to just 12 hours. The property also inspires the community to have sustainable and healthy food options by pioneering the Urban Farm Project, converted from its vast parking space.

Roundtable

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creating green communities

FAO urges more support to help small farmers adapt to a changing climate



Failure to act now will compromise future food production, sabotage 2030 development agenda, says FAO Director-General.

Failure to act now to make our food systems more resilient to climate change will “seriously compromise” food production in many regions and could doom to failure international efforts to end hunger and extreme poverty by 2030, FAO Director-General José Graziano da Silva has warned.

“Agriculture holds the key to solving two of the greatest problems now facing humanity: eradicating poverty and hunger, and contributing to maintaining the stable climatic conditions in which civilization can thrive,”

he told participants on 13th February at a roundtable on climate change during the World Government Summit in Dubai.

The FAO Director-General stressed in particular the need to support smallholder farmers in the developing world adapt to climate change.

“The vast majority of the extremely poor and hungry depend on agriculture for their livelihoods,” he said, adding: “They are the most vulnerable to the impacts of global warming and an unstable climate.”

Innovative approaches exist that can help them improve yields and build their resilience, he said, such as green manuring, greater use of nitrogen-fixing cover crops, improving sustainable soil management, agroforestry techniques, and integrating animal production into cropping systems.

“But farmers face major barriers, such as the lack of access to credit and markets, lack of knowledge and information, insecurity about land tenure, and high transaction costs of moving away from existing practices,” the Director-General noted.



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THE FAO Director-General stressed in particular the need to support smallholder farmers in the developing world adapt to climate change.

He pointed to the fact that 70 countries do not have established meteorological services as an example. FAO is working with the World Meteorological Organization to develop low-cost, farmer friendly services to address this need.

To withstand the vagaries of a harsher, less predictable climate, small farmers will also need better access to other sorts of technologies and to markets, information and finance - as well as better land tenure and improved agriculture infrastructure, added Graziano

da Silva. "Adaptation to climate change makes economic sense: the benefits of adaptation are much bigger than the costs," the FAO Director-General said, while underlining the importance of national efforts like the UAE's strategy on food diversification, security and climate change.

Coping with the water crunch

One critical front for action is water management, according to da Silva. Millions of the world's small-scale farmers are already wrestling with water scarcity, which will likely intensify as a result of climate change. This is

why at the last UN climate change conference FAO and partners launched a global framework on water scarcity in agriculture that aims to support developing countries in bringing stronger policies and programmes for the sustainable use of water in agriculture online.

Also participating in the panel discussion "Climate in Action: Feeding the Future" were Tshering Tobgay, PM of Bhutan, Thani Al Zeyoudi, UAE Minister of Climate Change and Environment and Patricia Espinosa, Executive Secretary of the UNFCCC.

Campaign

60

c r e a t i n g g r e e n c o m m u n i t i

UN declares war on ocean plastic

The #CleanSeas campaign is a global movement targeting governments, industry and consumers to urgently reduce the production and excessive use of plastic that is polluting the earth's oceans, damaging marine life and threatening human health.

"The Ocean is the lifeblood of our planet, yet we are poisoning it with millions of tonnes of plastic every year. I urge all nations to join the Clean Seas campaign and make an ambitious pledge to reduce single-use plastic and maintain the integrity of life in the Ocean."

Peter Thomson,
President of the UN General Assembly

The UN Environment launched on 23rd February, 2017 an unprecedented global campaign to eliminate major sources of marine litter: microplastics in cosmetics and the excessive, wasteful usage of single-use plastic by the year 2022.

Launched at the Economist World Ocean Summit in Bali, the #CleanSeas campaign is urging governments to pass plastic reduction policies; targeting industry to minimize plastic packaging and redesign products; and calling on consumers to

change their throwaway habits – before irreversible damage is done to our seas.

Erik Solheim, Head of UN Environment, said, "It is past time that we tackle the plastic problem that blights our oceans. Plastic pollution is surfing onto Indonesian beaches, settling onto the ocean floor at the North Pole, and rising through the food chain onto our dinner tables. We've stood by too long as the problem has gotten worse. It must stop."

Throughout the year, the #CleanSeas campaign will be





e s f o r a b e t t e r t o m o r r o w

THE ELECTRIC-VEHICLE age will reshape the energy grid, redefine driving patterns, and generally improve the quality of life in urban areas.

announcing ambitious measures by countries and businesses to eliminate microplastics from personal care products, ban or tax single-use bags, and dramatically reduce other disposable plastic items.

Ten countries have already joined the campaign with far-reaching pledges to turn the plastic tide. Indonesia has committed to slash its marine litter by a massive 70 per cent by 2025; Uruguay will tax single-use plastic bags later this year and Costa Rica will take measures to dramatically reduce single-use plastic through

better waste management and education.

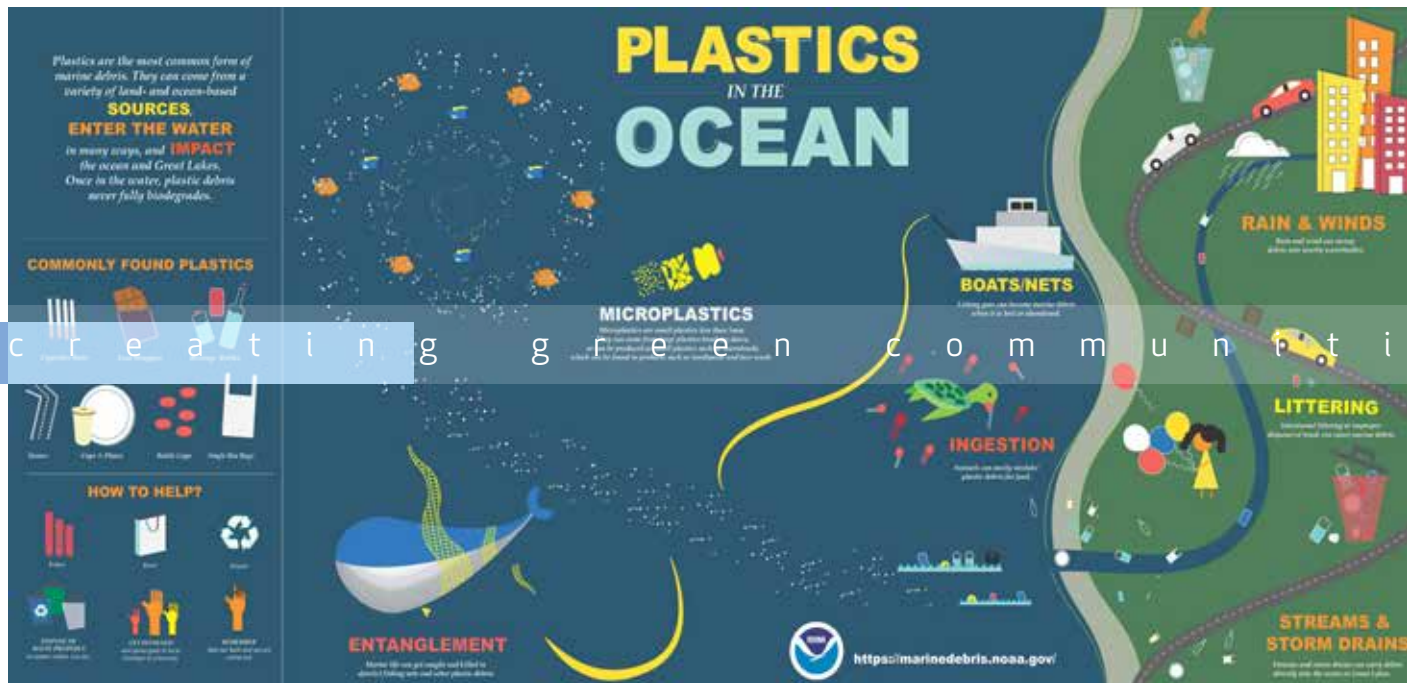
Each year, more than 8 million tonnes of plastic ends up in the oceans, wreaking havoc on marine wildlife, fisheries and tourism, and costing at least \$8 billion in damage to marine ecosystems. Up to 80 per cent of all litter in our oceans is made of plastic.

According to some estimates, at the rate we are dumping items such as plastic bottles, bags and cups after a single use, by 2050 oceans will carry more plastic than fish and an estimated 99

per cent of seabirds will have ingested plastic.

Media personality Nadya Hutagalung supports #CleanSeas by calling on the cosmetics industry to stop adding microplastics to their products. As many as 51 trillion microplastic particles – 500 times more than stars in our galaxy – litter our seas, seriously threatening marine wildlife.

Singer-songwriter and UN Environment Goodwill Ambassador Jack Johnson pledged to engage with fans



and encourage venues for his 2017 Summer Tour to reduce single-use plastics. Johnson is also promoting a new documentary *The Smog of the Sea*, which highlights the issue of microplastics permeating the world's oceans.

"I support the Clean Seas campaign because I believe there are better alternatives to single-use disposable plastics, and that we as consumers can encourage innovation and ask businesses to take responsibility for the environmental impact of the products they produce," said Jack Johnson.

"We can all start today by making personal commitments to reduce plastic waste by carrying

reusable shopping bags and water bottles, saying no to straws and choosing products without microbeads and plastic packaging. We can also support the efforts of the emerging youth leaders around the world working for healthy and plastic free oceans."

Globally recognized brands are also joining the fight. DELL Computers unveiled on 23rd February a commercial-scale supply chain using plastic which has been fished out of the sea near Haiti. The computer giant will use the recovered ocean plastic in its product packaging.

"DELL is committed to putting technology and expertise to work for a plastic-free ocean,"

said Dell's Vice President for Global Operations Piyush Bhargava. "Our new supply chain brings us one step closer to UN Environment's vision of Clean Seas by proving that recycled ocean plastic can be commercially re used."

All these actions will be crucial to stemming the tide of marine litter. Today, we are producing twenty times more plastic than in the 1960s. Around one third of all plastic is used for packaging. By 2050 our plastic production will have to grow three to four times to satisfy our demand. A large portion will end up in oceans where it will remain for centuries.

Actor Adrian Grenier, known for

More than 8 million tonnes of plastic leaks into the ocean each year – equal to dumping a garbage truck of plastic every minute.



What are microplastics?

Microplastics are small plastic pieces less than five millimeters long which can be harmful to our ocean and aquatic life.

Microplastics come from a variety of sources, including from larger plastic debris that degrades into smaller and smaller pieces. In addition, microbeads, a type of microplastic, are very tiny pieces of manufactured polyethylene plastic that are added as exfoliants to health and beauty products, such as some cleansers and toothpastes. These tiny particles easily pass through water filtration systems and

end up in the ocean and Great Lakes, posing a potential threat to aquatic life.

Microbeads are not a recent problem. According to UNEP, plastic microbeads first appeared in personal care products about fifty years ago, with plastics increasingly replacing natural ingredients. As recently as 2012, this issue was still relatively unknown, with an abundance of products containing plastic microbeads on the market and not a lot of awareness on the part of consumers.

Some areas of the world have higher concentrations of microplastics than others.

East Asia is one of the worst affected places, with 27 times more plastic found in the seas around Japan than elsewhere in the world.

Most of the world's ocean plastics by weight are large pieces of debris (eg fishing equipment, bottles and plastic bags). However, the dominant type of debris by quantity is microplastics. It is estimated that 15-51tn microplastic particles have accumulated in the ocean, with microplastics reported at the sea surface and on shorelines worldwide. They are also present in remote locations including deep sea sediments and arctic sea ice.



his role in hit TV show and film *Entourage*, and founder of Lonely Whale Foundation has joined the #CleanSeas campaign, asking people to re-think their daily choices.

"Whether we choose to use plastic bags at the grocery store or sip through a plastic straw, our seemingly small daily decisions to use plastics are having a dramatic effect on our oceans," said Adrian Grenier. "We have the power to effect change.

"Today I take this public pledge to do my part to refuse single use plastics, starting with the plastic straw, and also reaffirm my commitment to work with leaders such as Dell to reduce plastic packaging. If we start

with one small change and hold each another accountable, I believe that together we can inspire global action for the health of our oceans."

Major announcements are expected during The Ocean Conference in New York at the UN Headquarters 5 – 9 June, and the December UN Environment Assembly in Nairobi, Kenya.

The #CleanSeas campaign is a global movement targeting governments, industry and consumers to urgently reduce the production and excessive use of plastic that is polluting the earth's oceans, damaging marine life and threatening human health. UN Environment aims to transform all spheres of change

- habits, practices, standards and policies around the globe to dramatically reduce marine litter and the harm it causes.

Ten countries have already joined the campaign. They are: Belgium, Costa Rica, France, Grenada, Indonesia, Norway, Panama, Saint Lucia, Sierra Leone and Uruguay.





Knowledge without Borders promotes eco-friendly art

More than 150 children between 6 to 15 years of age explored their creativity and used their natural, imaginative flair for art at three workshops organised recently by the Sharjah-based cultural initiative, Knowledge without Borders (KwB), on the sidelines of the fifth Sharjah Children Biennial (SCB), which was held at Sharjah Art Museum and concluded on 15th February.

A step furthering its ongoing efforts to promote knowledge-based, cultural learning among the young generations in Sharjah and the UAE, KwB used the prolific (SCB) platform to teach young artists how to play with organic materials to create works of art, and, in the process,

tried to underline for them the importance of a sustainable and environmentally-friendly future in playful, relatable ways.

Kuwaiti trainer Bedoor Almuaili conducted the three workshops, namely, 'The Meaning Hidden in Colour Stains', 'Create your Character' and 'My Tree', where children and young adults were seen enjoying the art of colouring, and learnt basic steps to harness natural materials for art. They also created some fascinating cartoon characters using natural fabrics.

In 'The Meaning Hidden in Colour Stains' workshop, Almuaili engaged 60 boys and girls from Sharjah's educational institutions in discovering primary colours

found in nature, and then taught them how to mix them to produce secondary colours. The young participants soon came up with stain art resembling butterflies, trees, houses and other environmental concepts.

'Create Your Character' was the second workshop in which children conjured up original cartoon characters by mixing raw natural materials, vibrant colour and their creative genius in equal parts – in the end completing their identities with names.





Green Flash

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creating green communities for a better tomorrow



Towards a Green Life for All

The UAE is leading the Green Economy & Sustainable Living movement in the developing world. This is guided by the UAE Vision 2021 and the “UAE Green Development Strategy” which aims to build an economy that preserves the environment and an environment that supports economic growth; targets an economy that will provide opportunities for UAE citizens; preserve resources; and enhance UAE’s global competitiveness. It has six tracks including:

1) Green Energy: promoting renewable energy, clean fuels, and efficient use; 2) Green Investment: encouraging green economy and green technologies that create green job opportunities for UAE citizens; 3) Green City: including urban planning, sustainable transport, and clean air; 4) Climate Change Action: reducing carbon emissions, encouraging organic agriculture, and preserving biodiversity; 5)

rational use of water and energy resources, encouraging recycling, and raising environmental awareness; 6) Green Technology: focusing on carbon capturing and storage plus generating energy from waste.

The strategy mainly aims to reduce environmental footprint, provide green jobs, support green innovation and knowledge, establish a market for green products & services, establish training centers for national capacity building, achieve high standard of living and raise awareness.

The proper implementation of the strategy requires public awareness, as it mainly depends on individual and community daily life practices. This is why we have chosen to write this month about one of the most important tracks of the UAE Green Development Strategy, Green Life, which relies mainly on the relationship between lay people and ecosystems and the culture of production and consumption. These factors determine the conservation of the natural capital and ecological balance which are vital for sustainability of life on Earth, which in turn is the strategic target of the Sustainable Development Goals agreed upon by the international community in September 2015.

Most environmental problems are tied to the culture of unsustainable production and consumption leading to both pollution and depletion of natural resources, spread of disease and poverty, mass movements of environmental refugees and armed conflicts that threaten the global security and peace. Hence, all human communities urgently need to adopt a strategy to build up a culture of sustainable production and consumption which aims to apply environmental management standards; rational use of natural resources; reduce per capita food and resources waste at all stages of production, harvest, transport and consumption; proper management of chemicals and waste; encourage companies to adopt sustainable practices and to include sustainability in annual reports; and continue to raise awareness on sustainability.

In conclusion, to live a Green Life we have to do our best to preserve natural resources, ecological balance, biodiversity and cultural diversity. We would like to invite you all to adopt a green lifestyle by reducing environmental footprint via sustainable use of resources & chemicals; buying green products; taking green transport whenever it is available; adopting green building standards; minimizing pollution; using green washing & cleaning; reducing, reusing & recycling waste; and finally, inculcating these habits in children and raising community awareness using all media.

Dr. Eisa M. Abdellatif

Chief Technical Advisor

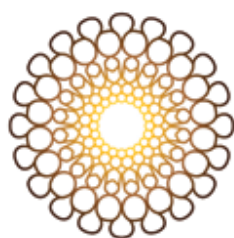
Zayed International Foundation for the Environment



Zayed International Prize for the Environment



Together for a green century



إكسبو 2020 EXPO

دبي، الإمارات العربية المتحدة

DUBAI, UNITED ARAB EMIRATES

