

JUNE 2017

# Society & Environment

A monthly publication issued by Zayed International Foundation for the Environment



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

Issue 172

creating green communities for a better tomorrow



HH Sheikh Mohammed bin Rashid  
inaugurates RTA's futuristic  
new command hub

Zayed Foundation launches 'The Zayed Prize Green Challenge' to mark WED 2017



## **Emirates Appreciation Award for the Environment**

**Together for a green home**

# Chairman's Message

creating green communities for a better tomorrow

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**Prof. Mohammed bin Fahad**  
Executive Editor

The observance of World Environment Day reminds ourselves of our individual power to become agents of positive change. This year's theme of 'Connecting people to nature' encourages us to think about how we are part of nature and how intimately we depend on it. In recent decades, scientific advances, as well as growing environmental problems such as global warming and climate change are helping us to understand the countless ways in which natural systems support our own prosperity and well-being.

Unfortunately, nature's gifts, like clean air, are often taken for granted until they become scarce. However, with every passing day it is becoming clear that we need harmony between humanity and nature so that both are able to thrive. Let us therefore pledge to realise our responsibilities to the environment, to protect and preserve our natural resources and adopt a responsible way of life to support sustainable development through every action of ours.

We can draw inspiration from HH Sheikh Mohammed bin Rashid Al Maktoum whose vision for a smart and sustainable city addresses the importance of sustainability in managing against Dubai's future growth while at the same time using information and technology to engage citizens, deliver city services, and enhance urban systems. There is no doubt that smart cities are the new paradigm when it comes to urban sustainability and Dubai has set its eyes on becoming one of the world's most connected and sustainable cities.

The launch of the Enterprise Command and Control Centre, the new transport nerve centre of Dubai, is a step in this direction. By using digital technologies to enhance quality and performance of urban services, we are not only reducing costs and resource consumption; but also making government services seamless and impactful and engaging more effectively and actively with the citizens.

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## From the **Managing Editor**



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

Welcome to the month that celebrates the environment, sustainability and positive action for the planet! Happy World Environment Day wishes to each one of you!

In keeping with the celebratory theme 'Connecting People to Nature', it is my privilege to introduce you to 'The Zayed Prize Green Challenge' smart app, a new innovative knowledge education smart platform with entertainment tools which I led to fruition and was launched on the occasion of the World Environment Day.

As you know, education initiatives from the Zayed International Foundation for the Environment have always taken the form of a knowledge and smart platform consisting of innovative smart applications, interactive and entertainment tools, mass media and web services that serve as a smart and innovative educational tool to disseminate knowledge and awareness through the mode of entertainment. This innovation strategy also carries forward the achievements and collaborations of the Zayed Foundation to a global audience.

Apart from taking part in exciting quiz contests and games that educates both youth and other sectors of the society on SDGs towards a pollution-free planet, the Zayed Foundation's Game Center smart app will now select 5 winners monthly on a global, regional or national basis. Winners will be rewarded with cash prize or gifts.

By testing your knowledge and raising your appreciation of a healthy environment which is the cornerstone of a sustainable future, the Zayed Foundation is taking forward the call to celebrate the precious resources of our Earth while also pledging to keep it pollution-free for the coming generations.

Let us all therefore move together towards achieving a pollution free environment both in the UAE and across the planet.

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Cover Story

6 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  
inaugurates  
RTA's futuristic  
new command  
hub



The Enterprise Command and Control Centre, the new transport nerve centre of Dubai will control and integrate all existing and future modes of transport whilst meeting the different transportation challenges of the Emirate.

**H**is Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President of the UAE and Prime Minister and Ruler of Dubai, has inaugurated the Enterprise Command and Control Centre, EC3, which will act as a unified platform linking various control centres of the Roads and Transport Authority's, operational agencies with an integrated central control unit.

According to the authority, EC3 will prop up the RTA's efforts towards transforming Dubai into the smartest city worldwide in the field of transport. The centre

will also ease traffic congestions and improve customers' transit experience, contributing to their happiness by offering direct feed of information about the mobility of various transit modes.

The opening ceremony, held on 22nd May, 2017, was attended by RTA Director-General and Chairman of the Board of Directors, Matar Mohammed Al Tayer, Director-General of Dubai Protocol and Hospitality Department, Khalifa Saeed Sulaiman, and the Commander-in-Chief of Dubai Police, Major General Abdullah Khalifa Al Marri.

The EC3 is the biggest and most sophisticated control of its kind worldwide in terms of utilising the smart technologies and the ability to control and integrate various transit means of the Roads & Transport Authority (RTA). It also enables the development of proper mobility plans to cope with various transport challenges in the Emirate. The EC3 enables the control of all mass transit systems namely the Dubai Metro, Dubai Tram, public buses, taxis and marine transit modes in addition to the traffic control systems. The cost of the new centre, which meets the requisites



With at least 3.5 billion journeys expected across Dubai by 2020, the EC3 is now live to handle present and future transport challenges.

of hosting Expo 2020, amounted to AED 335 million.

Upon arrival at the EC3, HH Sheikh Mohammed was received by HE Mattar Al Tayer, Director-General and Chairman of the Board of Executive Directors of RTA. Al Tayer made a presentation about the centre, which has a built up area of 6996 square meters. The building, which has a total area of 10,900 square meters, comprises of a ground floor and five levels. It is fitted with a helipad and has a main control room rising 13 meters in height and spanning an area of

430 square meters. It has five subsidiary control rooms for various uses, two multi-purpose halls (Gold & Silver) overlooking the main control room. They have accessibility to the mass transit system and the traffic system to enable the leadership team to take appropriate decisions during emergencies and crises. It also has ample office space for RTA's agencies and strategic partners, press, and training halls. The building design is compatible with the green buildings specifications and will be qualified for awarding the environment-friendly green buildings - Gold Class of LEED

Classification.

The EC3 links the controls of RTA operational agencies with a central, integrated and control system unit connected with all RTA agencies during the initial stage, and with other entities of relevance to RTA business in subsequent stages. The Centre has multiple roles to play highlighted by supporting the controls of RTA's agencies & sectors, managing crises, planning & managing events, managing & integrating transit means, managing & analysing information, compiling data & generating



strategic reports, and managing the information security.

HH Sheikh Mohammed bin Rashid Al Maktoum then inspected the main control room which has a capacity to accommodate 36 operational staff. HH attended a briefing about the Control Room which is linked with 34 technological systems within the RTA and is capable of forging real-time integration with these systems.

It can also link with external systems outside the RTA, besides receiving and managing the feed of about 11,231 surveillance cameras. It uses artificial intelligence (AI) in the management of accidents and crises and data of mobile phones

in planning and managing the movement of crowds through automated identification of population density and directing transit modes to serve them. Thus it ensures maximum benefit from the transport systems by matching people movement with the transport means movement, and simulating the virtual presence on the ground using 3D technology, and monitors the mobility movement using drones.

#### **Crowds Management**

HH Sheikh Mohammed attended to real-life experiments for utilising the massive flow of information in managing crowds through the population density feature. This feature reads the movement & assembly of mobile phones using GSM technology

and analyses it in conjunction with the telecommunication providers and reflects it on the main display screen of the operation platform. The human density points appear as heat maps through which it will be possible to quantify the density and spread of people in a specific point.

Sheikh Mohammed also reviewed the relative population density program; which specifies the population density for the use of transit means by specifying the starting and terminal points of the journey. So it will be possible to figure out the people's movement during a specific time. HH also visited the Mobility Planning Room (The Cave); a room that displays a 3D map on



“EC3 is responding to today’s needs and to the requirements of Dubai Expo 2020 and beyond.”

- Abdullah Al Madani, CEO of RTA’s Corporate Technology Support Services



the main screen enabling the analyser or planner to emulate the reality to use modern technologies in events planning. A model 3D map of Dubai Downtown (BurjKhalifa/Dubai Mall) was displayed, and some transit means were displayed in the simulation of the reality for a specific time.

HH Sheikh Mohammed was also briefed on the application of artificial intelligence features in responding to crises & emergencies. The Centre is a sophisticated platform for communication between emergency teams support with AI technology enabling the reception of voice commands and instantly entering them in the system instead of the

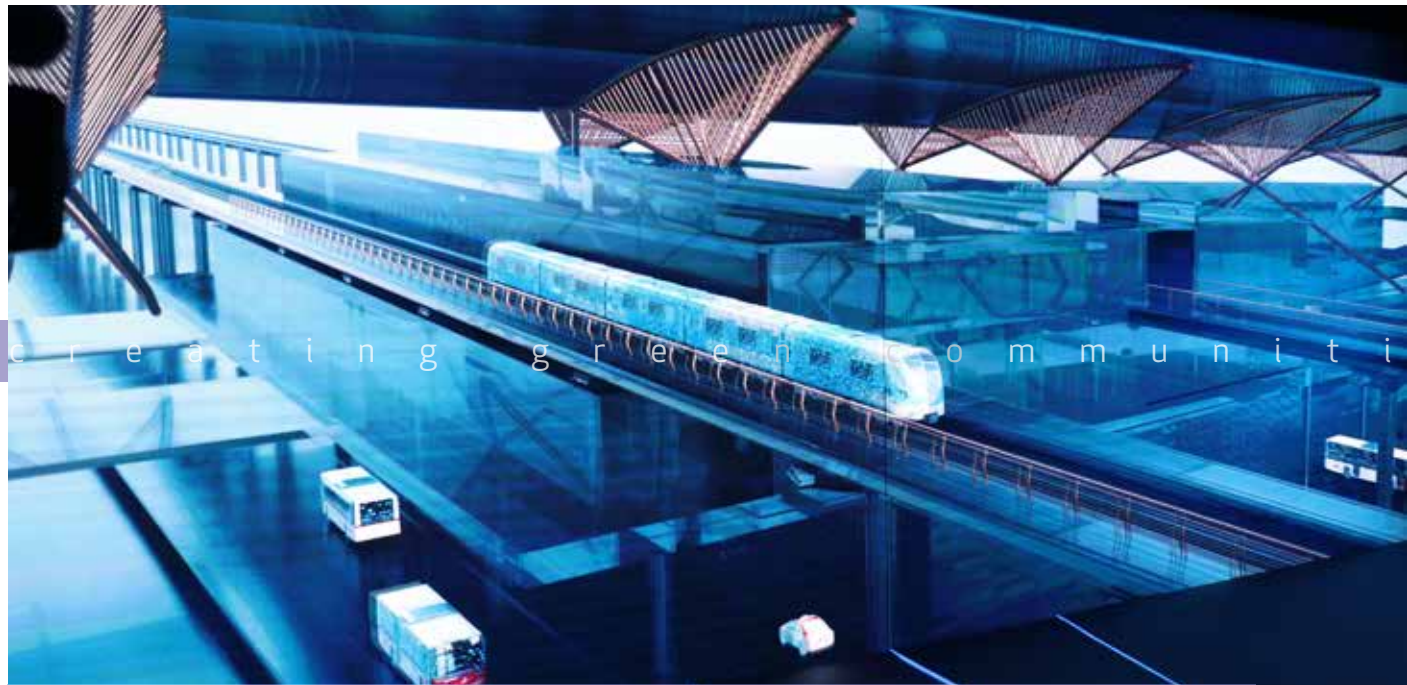
traditional printing of commands. The system is fitted with a machine learning feature and can build the system potentials by engaging in various scenarios for tackling emergencies in a way that ensures quick response and reduced human error.

### **Objectives of EC3**

The EC3 aims to be a world leader and model of excellence in the control of roads & transport systems as it is unique and smart in simulating real-life scenarios. It has the potential of propelling the ability of Dubai in hosting & organising global events, supporting central decision-making in respect of all transit means, assisting the strategic transport planning tasks and integrating with RTA’s main

systems & traffic controls.

The Centre also supports RTA’s efforts in transforming Dubai into the world’s smartest city in the field of mobility. It will contribute to easing snarls, reducing mobility time & cost, curbing traffic accidents, and limiting the environmental pollution by smart planning for coping with the transport challenges in the Emirate. The Centre will also enhance the experience & happiness of customers by providing instant information about transport systems in the Emirate, integrating with social media channels and raising the people’s happiness indicator by easing the use of mass transit means. It will also step up the coordination



with various controls through the use of simulators and the smart forecasting of smart transit services. It can improve the coordination in managing crises, planning & managing events, and organise mobility during mega events in Dubai. Accordingly, the Centre will play a key role in serving mobility for Expo 2020.

### Benefits of EC3

The centre has a wide array of benefits topped by achieving leadership and excellence worldwide in the control of roads & transport systems rendering Dubai as the smartest city in the world. It will play a pivotal role in streamlining mobility during main events and exhibitions in the Emirate, such as Expo 2020, supporting the

strategic transport planning, and integrating it with RTA's main systems and controls.

It will also enhance customers' experience & happiness by providing real-time information about the traffic condition and transport network condition. It will also enable the management & planning of events on a wider & connected scope, assist emergency & crises management, and facilitate the investigation of transport accidents. It will establish an integrated communication hub enabling the holding of press conferences and media coverages in the event of crises to keep the public and the media informed of the latest developments.

It will also assist in the analysis of bulk data and information management for supporting decision-making, and monitor the information security for protecting RTA's operational, technological systems from threats & security risks.





**Zayed International Foundation for the Environment**

# **Zayed International Foundation for the Environment**

**commemorates**

**World Environment Day 2017**

**under the theme**

**“Connecting people to Nature”**

Cover Story

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

## Zayed Foundation launches new smart app to mark World Environment Day 2017



'The Zayed Prize Green Challenge' smart app, launched by the Zayed International Foundation for the Environment is an innovative knowledge education smart platform with entertainment tools.

**O**n the occasion of World Environment Day 2017, the Chairman of the Zayed International Foundation for the Environment Dr. Mohammed Ahmad bin Fahad, announced the launch of an innovative knowledge education smart platform with entertainment tools called 'The Zayed Prize Green Challenge' smart app.

'The Zayed Prize Green Challenge' smart app was launched at the Dubai Police Academy on 5th June in the presence of Dr. Ghaith Ghanem Al Suwaidi, Director of the Dubai Police Academy and

member of the Higher Committee of the Zayed Foundation and Dr. Meshgan Al Awar, Secretary General of the Zayed International Prize for Environment.

Speaking on the occasion, Prof. Dr. Mohammed Ahmad bin Fahad congratulated the UAE society as well as the regional and international community on the occasion of the World Environment Day. "The launch of the 'The Zayed Prize Green Challenge' smart app which is a knowledge platform is in keeping with the objectives of the Sustainable Development

Goals of the UN 2030 Agenda for Sustainable Development where the fourth goal focuses on promoting lifelong learning opportunities for all," he said.

"The UAE also views education as a fundamental element for the sustainable development of the nation and has emphasized the use of smart systems and devices as key enabling factors to realise the ambitious goals of the UAE's Vision 2021."

"Through the launch of the 'The Zayed Prize Green Challenge' smart app, the Zayed Foundation is contributing to the learning process



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

'THE ZAYED PRIZE GREEN CHALLENGE' smart app is available on both iOS & Android platforms.

as we believe that education is one of the most powerful and proven vehicles for sustainable development," he added.

Dr. Meshgan Al Awar elaborated that the education initiatives from the Zayed Foundation have always taken the form of a knowledge platform consisting of innovative smart applications, interactive games, mass media and web services that serve as an educational tool to disseminate knowledge through the mode of entertainment.

"This innovation strategy was

initiated towards pursuing and promoting the achievements and collaborations of the Zayed Foundation to a global audience," she added.

Apart from taking part in exciting quiz contests and games that educate both youth and other sectors of the society on SDGs towards a pollution free planet, the Zayed Foundation's Game Center smart app will now select 5 winners monthly on a global, regional or national basis, she explained.

Winners will be rewarded with

cash prize or gifts. 'The Zayed Prize Green Challenge'smart app is available on both iOS & Android platforms. 'The Zayed Prize Green Challenge' app can be downloaded from the following link: <http://zayedprize.org.ae/Zayed Prize Green Challenge>





**PROF. DR. MOHAMED AHMED BIN FAHAD**  
Chairman of the Higher Committee

On June 5 each year, the UAE joins the global community and governments across the world in celebrating World Environment Day as we reaffirm our concern for the preservation and enhancement of the global environment and thank all those who work for the transition to a more sustainable life style.

This year's theme, Connecting People to Nature, encourages us to get outdoors and explore nature, appreciating its beauty and taking forward the message

to protect the Earth that we all share. As such, World Environment Day this year will be an occasion to celebrate our connections to our environment and to each other.

The UAE is known to the world for its full-throttle development and iconic skylines of high-rises, but it is also a destination to rekindle our relationship with Mother Nature. From close encounters with wild and aquatic creatures, rugged hikes for the more adventurous, stary desert

nights and majestic landscapes, the UAE offers plenty of ways to be in harmony with the beauty of nature.

As a platform for action, the World Environment Day has become the UN's principal vehicle for encouraging worldwide awareness and action for the environment. On this momentous occasion, I therefore urge each one of you to do something positive for the environment and thereby become an agent of positive change.



**MR. AHMED MOHAMED RAFIE**  
Deputy Chairman of the Higher Committee

The theme of the World Environment Day set by the United Nations for the year 2017 is "Connecting People to Nature", and is aimed at highlighting the well-documented physical and mental health benefits of being in nature. This is an invitation to protect the

globe on which we all live.

Environmentalists have advocated protecting the environment from pollution and conserving natural resources from over-exploitation and waste since the 1950s. However, today, nearly two-thirds of Earth's life-

supporting ecosystems, including clean water, pure air, and stable climate, are being degraded by unsustainable use. Humans have caused much of this damage during the past half century.

Consumer behaviour is key to the impact that society has on

the environment. We therefore need to review our actions and the choices we make as all these have direct and indirect impacts on the environment.

Hence, sustainable consumption is today a central focus for national and international policy.

The UAE emphasises on achieving sustainable development while preserving the environment, and to achieve a perfect balance

between economic and social development. To do that, the UAE Vision 2021 National Agenda focuses on improving the quality of air, preserving water resources, increasing the contribution of clean energy and implementing green growth plans.

The UAE Green Development Strategy was also launched to transition the nation towards the green economy approach and transform the national economy into a low-carbon economy.

Efforts are now under way in both the public and private sectors to develop ways to achieve the objectives of this strategy under the auspices of the Emirates Green Development Council, which has created a national umbrella for accelerating efforts towards 'greening' the domestic economic sectors through the development of mechanisms of cooperation and coordination between the various stakeholders in the public and private sectors.



Connecting with nature is the best way to start restoring the health of our planet and ourselves.

However, to effectively safeguard our environmental heritage and engage in projects of sustainability, it is important for us to perceive and understand how important science and innovation are for developing environmental knowledge and skills for achieving social and economic development.

It was the understanding that knowledge and innovation can play a crucial role in shaping our sustainable future that inspired me to take a leading role in the launch of the Zayed Foundation's Green Challenge

mobile application which is a smart, green, knowledge platform consisting of innovative smart applications, interactive and entertainment tools, mass media and web services which together serve as a smart and innovative educational platform to disseminate green knowledge and awareness about SDGs as the pathway to achieving a pollution-free planet.

It is when we truly recognize the interdependence of man and nature and our reliance on the Earth for food, water and energy that we can attempt to shift behaviour to value nature.

Innovative strategies will thus give us an opportunity to change course, take the

decisive steps needed, and chart our way toward a sustainable future where the need to preserve Nature is rooted in the consciousness of our young people.

With the adoption of Sustainable Development Goals worldwide, the UAE is leading the initiative in building the momentum towards achieving these goals with the launch of the UAE Centennial 2071 project and the 10x initiative to spur innovation as it prepares the nation for future generations.

Today, as we celebrate the precious resources of this Earth, let us also pledge to maintain a pollution free environment in the UAE.



World Environment Day is an annual event celebrated worldwide from east to west. The celebration has a different theme every year reflecting a certain message. The theme of 2017 is to reconnect with nature in an open invitation to go to natural places, to live in its arms and to breathe its beauty in order to remember the importance of preserving the health of the planet, which in turn is to preserve the health of ourselves and the health of our future generations.

Natural ecosystems are providing priceless services to human beings including pure air, running water, agricultural

crops and biodiversity, despite the constant threat of climate change, pollution and over-exploitation.

The Zayed International Foundation for the Environment has consistently prioritized conservation issues through the Zayed International Prize for Environment and the Emirates Appreciation Award for the Environment, which sets outstanding initiatives and achievements in nature conservation as eligible elements of the Award.

Furthermore, the Zayed Foundation through its various initiatives, such as the One

Million-tree initiative, provides realistic and vivid examples of inviting individuals to move towards nature and motivate them to preserve their local environment and promote its biodiversity.

We, at Zayed International Foundation for the Environment, reaffirm our solidarity with the global community in strengthening the link between communities and their natural environments, and we reaffirm our commitment to support all efforts to develop strategies to preserve nature and reduce the impacts of ecosystem degradation at the local and global levels.



The celebration of World Environment Day on 5th June, 2017, under the slogan of "Connecting People to Nature", reaffirms the interdependent

relationship we share with Nature and takes forward the call to protect the natural resources that we are dependent on. This year's theme is also linked to the

United Nations 2030 Agenda for Sustainable Development that resolves "to ensure the lasting protection of the planet and its natural resources".



The key to the success of any effort aimed at spreading environmental awareness and culture, establishing nature reserves and controlling human activities that are destructive to the environment will be identifying - and then generating - the level and type of financing required to sustain such projects. Developed and industrialised nations should therefore provide financial support to developing countries to integrate climate change into their development policies and budgets, and to cope with the impact of climate

change on the ground.

Following in the footsteps of the UAE, which is at the forefront of the global green march, the Emirates Group has selected three Non-Governmental organisations working in wildlife protection and environmental conservation in Africa as the recipients of award funding under its 'A Greener Tomorrow' initiative. Launched in 2013, 'A Greener Tomorrow' is an outcome of Emirates' commitment to sustainability and environmental conservation globally. The

programme provides a share of up to US\$ 150,000 in funding to NGOs across the world working innovatively to safeguard and improve their local environments.

I take this opportunity to congratulate all the people of the world on the occasion of World Environment Day 2017, and extend my sincere thanks to our leadership and the people of the UAE for honoring us in leading the march towards a safe and secure environment for the benefit of the present and future generations.



**DR. KHALED AHMED OMAR**

Member of the Higher Committee & Legal Advisor

The environment is our life, and defending it means defending the right of the present and future generations to enjoy a dignified life. The calls for defense of the environment gained momentum since the sixties of the last century, but the translation of these calls for action to protect the environment into global legislations commenced only with the 1992 Earth Summit in Brazil.

According to a recent study, the quantitative increase in environmental policies and regulations worldwide has magnified 20 times over the past 20 years, especially since the adoption of the Kyoto

Protocol 1997. The number of countries that had enacted environmental laws touched 164 in 2016, compared to just 99 countries in 2015, and the number of global environmental laws has exceeded 1200. Yet, the same study indicates that the environment featured in the introduction of some laws only without taking into account their general principles or basic framework of action! Only 42% of developing countries have included climate change in their development plans, raising the question of how mandatory and effective such legislations are!

On the other hand, there are developed countries that have embarked on environmental laws

and policies that are not only mandatory but also sustainable in practice. The most important of these are the 'carbon budgets', which set a cap on the amount of greenhouse gases emitted every five years. Even the United States, which withdrew from the Paris Agreement of 2015 recently, signed an agreement last month in Alaska to protect the Arctic from climate change.

As climate change is the most important challenge facing the world today, this has been reflected in the issuance of legislations at the executive level in some developed countries for the establishment of a ministerial portfolio dedicated to the issue of climate change.

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This has been in prevalence in some countries for many years such as New Zealand, Australia, Scotland, Belgium and Denmark.

Other nations such as Greece, the United Kingdom and Canada recently joined developing countries such as Pakistan with the setting up of a climate change ministry. The United Arab Emirates is one of the first developing countries to establish a Ministry of Climate Change and Environment.

This is an attempt to summarize the development of environmental policies

and regulations at the global level on the occasion of World Environment Day 2017, which falls on the 5th of June. The theme of this year's celebration is "Connecting People to Nature", which makes us call attention to the laws that have been implemented for "Protected Areas" and those regulating land ownership and use in environmentally sensitive areas. Such laws help ensure the environment and the economy are equally protected and promoted as the environmental risks associated with it has far reaching impacts and implications.

As in the past, the UAE stands at the forefront of the countries committed to the conservation of natural resources, ecosystems and wildlife habitats. The UAE embraces a stunning variety of natural habitats, supporting a vast array of species.

I take this opportunity to congratulate the UAE community and our visionary leadership on the occasion of World Environment Day 2017. It is my sincere wish that through our actions today, we take a collective stand to progress towards a safe and clean environment.



The international community celebrates World Environment Day on June 5th this year under the slogan "Connecting People to Nature."

The slogan is a symbol of the importance of the inextricable link between man and nature. It calls on all people to preserve our natural resources and enhance their usefulness through scientific planning and by combining local knowledge with modern science. It involves engaging local people in making decisions that affect their lives and building their capacities so that they can access, control and manage resources in a

sustainable manner.

Connecting people to nature requires the development of strategies, plans, programmes and projects involving all stakeholders, the allocation of adequate financial resources, development of flexible work structures and systems that make provisions for unexpected changes, implementing a viable system of monitoring, follow-up, evaluation and the review and enactment of legislations and laws dedicated to the protection and preservation of our natural resources. Adhering to and implementing the commitments of international

conventions paves the way for the achievement of the global sustainable development goals and environmental conservation.

The United Arab Emirates has set a precedent for rest of the world in this regard. Its journey on the green path was initiated and led by the late Sheikh Zayed bin Sultan Al Nahyan, founding father of the UAE. Today, thanks to the vision and determination of our wise leadership, the UAE has stepped up efforts to become a global hub and a successful model of the new green economy thus taking the lead once again in developing and implementing sustainable

development goals.

On the occasion of World Environment Day 2017, I would

like to extend my heartfelt congratulations to our visionary leadership, the people of the UAE and all the people around the

world. It is my hope that today we can reaffirm our concern for the preservation and enhancement of the global environment.



**ENG. MARIAM MOHAMMED SAEED HAREB**  
Member of the Higher Committee

The theme for World Environment Day 2017, “Connecting People to Nature”, highlights the importance of nature, which embodies the human capital and is the cornerstone of development.

It also aims to raise awareness on the importance of living in harmony with nature and investing its resources and services in a sustainable manner, especially under the population, economic and climate change challenges.

The UAE has always been keen on bolstering the relationship between man and nature, and maximizing the significance of nature in various policies and development plans. This was clearly reflected in the UAE Vision 2021, which was inspired by the National Action Program of the UAE President, HH Sheikh Khalifa bin Zayed Al Nahyan.

The vision emphasizes the importance of preserving the country’s rich natural environment from local and

global threats resulting from human activities.

The UAE has endeavored to provide appropriate protection to several land and marine areas of environmental or historical importance and to strengthen its ability to withstand the natural and development pressures and challenges. Hence, the country has expanded the establishment of nature reserves, which have reached 43 officially declared reserves and form more than 14% of the country’s territory.



**DR. SALEH AL HAMRANI**  
Member of the Higher Committee

### Let’s Join Hands to Protect Nature

Protection of the environment and the preservation of

natural resources have never strayed far from the priorities list of the UAE government, despite the rapid growth of the country, population growth and

efforts to diversify sources of investment in various vital areas.

The UAE’s founding father and pioneer of environmental

## Society & Environment

protection movement, the late Sheikh Zayed bin Sultan Al Nahyan, stressed that the protection of the environment is essential for sustainable, balanced and comprehensive growth, and prosperous life of future generations and this cannot be achieved unless current environmental dilemmas are addressed through different development instruments.

Zayed International Foundation for the Environment has sought to support various governmental and private institutions to fulfill their environmental commitments. It integrates

environmental considerations in all stages of development and initial plans to protect and mitigate damage to natural and cultural resources.

Thus, the Foundation today seeks to enhance individuals' communication with nature, and make the communication as one of the most important keys for environmental sustainability and understanding the value of nature.

The environment is all things that surround us. Hence, protecting and preserving it are amongst the most important duties

imposed on all of us. Delinquency in the performance of such duty will directly affect society, and lead to many threats. Therefore, connecting people with nature will enhance the quality of environment protection channels.

The Zayed International Foundation for the Environment proudly celebrates the World Environment Day this year under the theme 'Connecting People to Nature.' It is continuously working to improve the environmental performance and enhancing the role of society members in protecting nature.



**ENG. ALIA ABDULRAHIM AL HARMOODI**  
Member of the Higher Committee



**W**orld Environment Day was established by the United Nations in 1974 to promote worldwide awareness and action to protect the environment.

This year's theme, "Connecting People to Nature" emphasizes the indispensable ties that connect us to our natural environment and the importance of interaction between Nature and humans and how nature is affected by those who live on it and influence them through air, water, food and wildlife.

Therefore, we must work together to protect our environment from pollution and degradation. Our ancestors respected this land and lived in harmony with it, never taking more than what they needed, hence we have to conserve and safeguard our natural environment, so it will be preserved for our next generations.

To achieve this, we have to get acquainted with the variety of plants and animals that live here. And the best starting place may

be our National protected areas. Established to protect vulnerable and important species, the eight protected areas in Dubai and 43 in UAE represent coastal, marine, mountain and desert ecosystems. Here one can find impressive biodiversity, including Ghaf trees, Arabian Leopards, Hawksbill Turtles, and Houbara Bustards.

On the occasion of World Environment Day, I encourage you all to reconnect with the magnificent beauty that nature has showered on our country.



**ENG. ASEELA ABDULLA ALMUALLA**  
Member of the Higher Committee

**Nature is my mother; and I am with Nature**

Nature, and the environment surrounding us, faces great challenges from the impact of urban progress and the extraction of wealth and the resulting human activities that limit the sustainability of precious resources such as water, energy and food. Hence, the celebration of World Environment Day under the theme, 'Connecting People

to Nature' imbues us with a responsibility to ensure the lasting protection of the planet and its natural resources.

This theme is very strong and implores us at the same time to increase the efforts made worldwide to address all patterns of random consumption and unsustainable use of resources. We, as observers of the environmental situation, must intensify the awareness campaigns committed to raising

awareness of environmental responsibility. Nature is my mother and every one of us must hold himself/herself responsible for Nature.

I call upon the people around the world this year and all the years to come, to protect and cherish the vital treasures of natural reserves, biological diversity, forests and others, and to preserve them in the best possible manner and work diligently to sustain them.



## Zayed Foundation signs collaborative agreement with UN Environment



The Zayed International Foundation for the Environment and the UN Environment agree to intensify cooperation between the two organizations to facilitate the process in achieving the sustainable development goals of nations in accordance with the UN's 2030 Agenda for Sustainable Development.

**T**he longstanding and fruitful history of collaboration and partnership the Zayed International Foundation for the Environment enjoys with the UN Environment was further strengthened on May 12, 2017 when Dr. Mohammed Ahmed bin Fahad, Chairman, and Dr. Meshgan Al Awar, Secretary General of the Zayed Foundation, held intense discussions with His Excellency Erik Solheim, the Executive Director of UN Environment at the headquarters of the environment body in Nairobi, Kenya.

The sustainable vision of

the Zayed International Foundation for the Environment and its role in promoting a culture of environmental sustainability resonates with the UN Environment's mission of promoting the coherent implementation of the environmental dimension of sustainable development within the UN system and to serve as an authoritative advocate for the global environment.

In the meeting with Mr. Solheim, Dr. Bin Fahad apprised the UN Environment chief of the almost two-decade history of strategic

cooperation between the two entities in strengthening and further developing and sustaining global and regional partnerships to facilitate the process in achieving the sustainable development goals of nations in accordance with the UN's 2030 Agenda for Sustainable Development.

During the meeting, Dr. Bin Fahad and Dr. Meshgan Al Awar extended an invitation to Mr. Erik Solheim to serve as jury member of the 7th Cycle of the prestigious Zayed International Prize for the Environment, now recognized internationally as one of the



The Zayed Foundation and the UN Environment have enjoyed a long and fruitful history of collaboration and partnership that has strengthened with each passing year.

most important contributions of the United Arab Emirates towards global efforts to promote sustainable development.

Dr. Bin Fahad elaborated that the Zayed International Prize, founded under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, recognises and promotes major pioneering contributions in the field of environment and sustainable development. He added, "It also bears the name of the late Sheikh Zayed Bin

Sultan Al Nahyan and reflects the prestige enjoyed by the environment in this country and it therefore serves as an incentive to encourage global initiatives and environmental achievements that have substantial impact on policies and actions of development in line with the vision and development philosophy of the late Sheikh Zayed, who was an internationally recognised environmental stalwart."

Reinforcing the collaboration between the UN Environment and the Zayed Foundation on creating environmental

awareness, supporting the shift to a green economy and promoting sustainable development, an MoU was signed acknowledging support of the UN Environment in preparing for the next cycle of the Zayed International Prize for the Environment and the organization of international conferences based on the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) which seeks to achieve a shared global vision towards sustainable development for all.

Dr. Meshgan Al Awar briefed HE Solheim on the new category of



the Zayed International Prize titled 'The Young Scientists Award for Environmental Sustainability', which is aimed at recognizing, rewarding and promoting the pioneering contributions of talented young scientists worldwide for research in Environmental Sciences and Green Technology that has contributed significantly to environmental integrity and sustainable development.

She also brought to his attention the several innovative smart applications launched by the Zayed Foundation that serves as an educational tool in promoting awareness of SDGs through the mode of entertainment. "The Zayed Foundation's smart applications platform has

garnered the interests of students and adults through exciting quiz contests and games that showcase how each individual action leaves an impact on the environment and it also serves as a tool for educating them on SDGs while also promoting the activities, achievements and collaborations of the Zayed Foundation," she said.

The Zayed Foundation has always been a frontrunner in advancing the goals of sustainable development at the local, regional and international levels, she added. "To achieve these goals, the Foundation has, since its inception in 1999, sought the power of global partnerships with committed stakeholders to address our shared responsibility to counter the mounting global

environmental challenges through collective efforts."

Following their meeting with Mr. Solheim, Dr. Bin Fahad and Dr. Meshgan Al Awar also met with Mr. Ibrahim Thiaw, Deputy Executive Director of the UN Environment and held discussions with him on the importance of achieving the sustainable development goals and its sub-targets to create a viable and social system for the future.

They also briefed him on the UAE's adoption of innovative programmes such as the UAE Centennial 2071 project and the 10x initiative that were launched as the nation prepares itself for future generations and to successfully achieve the SDGs.





## MBRSC's Sustainable Autonomous House showcased at conference in Vienna

The Sustainable Energy Programme Section team at the Mohammed bin Rashid Space Centre, MBRSC, participated in the International Passive House Conference in Vienna. Among the team members present at the conference were Abdulla Ahli, Manager of the Sustainable Energy Programme Section at the MBRSC, and Khalifa Majid Al Falasi, senior engineer at the section. The team made a presentation on the MBRSC's Sustainable Autonomous House, which is certified by the Passive House Institute in Germany as the first passive house of its kind for hot and humid climates.

The presentation provided information on the engineering

practices and technologies deployed in the house, including insulation techniques, a cooling system based on chilled water, mechanical air filtration, as well as a smart management and control systems. They stressed that the aim of the project is to decrease energy consumption, reduce carbon emissions, and meet the physiological and psychological needs of people who live in hot and humid temperatures.

The team took part in various workshops and lectures on the prominent technologies in the field. Commenting on the MBRSC's participation in the conference, Engineer Abdulla Ahli said, "We aim to increase our scientific and technical

knowledge in the field of passive houses and learn more about advanced scientific discoveries to build a sustainable knowledge-based economy."

"The Sustainable Autonomous House reflects the UAE's comprehensive, forward-looking vision, which aims to preserve and protect the environment, and use smart technology to make people's lives easier and happier."

The MBRSC launched the Sustainable Autonomous House project as part of its research efforts in sustainability and green buildings. The house uses energy production and storing technology similar to that used when building satellites and space shuttles.

Conference

26 creating

Dr. Meshgan Al Awar highlights role of sustainability in higher education at the 2nd UN PRME Colloquium



Dr. Meshgan Al Awar delivered two keynote addresses at the 2nd UN Principles for Responsible Management (UN PRME) Colloquium co-organised with UNESCO Asia-Pacific Regional Bureau for Education and held in Hong Kong last month.

**D**r. Meshgan Al Awar, Secretary General of the Zayed International Foundation for the Environment, was extended an invitation to deliver two keynote addresses at two international conferences held in association with the 2nd UN PRME Colloquium in Hong Kong on 5th May, 2017.

The Conference was organized by The Centre for Corporate Sustainability and Innovations (CCSI), Hang Seng Management College and co-organised with UNESCO Asia-Pacific Regional Bureau for Education.

In her keynote speech on the theme: Sustainable Development, Good Practices in Dubai and UAE, Dr. Meshgan Al Awar showcased successful evidence-based initiatives created by Dubai and UAE to address development challenges. “The UAE counts on education as one of the key enablers to deliver its 2021 Vision. Our visionary and wise leadership has recognized the paramount importance of harnessing the potential of its human capital and building a knowledge-based society in order to compete effectively on the global stage,” she said.

In her address, Dr. Meshgan noted that “Higher education is one of the key sectors that will enable us to build a knowledge-based society and ensure that the sweeping ambitions of the 2030 Agenda for Sustainable Development are realized.

“Amongst the 17 Sustainable Development Goals adopted by the UN in 2015, Goal 4 - which calls for ensuring inclusive and quality education for all and promoting lifelong learning - is critical as it is the key to build the human capacity that will allow many other SDGs to be achieved”



The International Conference on Sustainable Development in Higher Education 2017 was held in association with The 2nd UNPRME Colloquium and co-organised with UNESCO Asia-Pacific Regional Bureau for Education

She elaborated that higher education influences the development of science and society as well as policy, and that it has a significant role to play in shaping and providing knowledge and learning for today and tomorrow.

Drawing upon her experiences in her professional and scientific capacity as Director of Research & Studies Center, Dubai Police Academy where she teaches Environmental Security at the College of Law and Police Sciences and Sustainable Development - Environmental

Management - EIA at the College of Post Graduate Studies, Dr. Meshgan said that these newly launched subjects are preparing the students and researchers to execute the theory that are being taught through actions, plans and programmes in their areas of work through achieving the Sustainable Development Goals (SDGs).

“The International Conference on Sustainable Development in Higher Education is a powerful platform that serves as a direct response to the expressed needs of stakeholders from different perspectives to further scale up

proven development solutions and best practices that contribute to sustainable development,” she said. “I am certain the Conference will pave the way for further dialogue, interaction and collaboration in scaling up and mainstreaming new and innovative practices in learning and knowledge development.”

In the afternoon session of the event, Dr. Meshgan Al Awar delivered a second keynote address on the theme: Sustainable Quality in Higher Education where she shared with the audience the emphasis on the new concept of



education of lifelong learning and the prominence given to quality higher education that has led the Zayed International Foundation for the Environment to launch its new category of Award, 'The Young Scientists Award for Environmental Sustainability'.

“Education and science are key determining factors in shaping a healthy and sustainable future, and the new category of the Zayed International Prize is aimed at recognizing, rewarding and promoting the pioneering contributions of talented young scientists worldwide for research in Environmental Sciences and Green Technology that has contributed significantly to environmental integrity and sustainable development,” she said.

In her address, Dr. Meshgan also drew attention to the several innovative smart applications launched by the Zayed Foundation that caters to serve the new concept of education through the mode of entertainment. The knowledge and smart platform launched by the Zayed International Foundation for the Environment consists of innovative smart applications, interactive and entertainment tools, mass media and web services that serve as a smart and innovative educational tool to disseminate knowledge and awareness.

Higher education not only boosts the human capital of the individual but is also an essential component in the challenge of

problem solving, she emphasised.

“It is crucial in identifying the specific challenges that countries face, whether in public health, or in facing the problems of climate change, or in adapting cities to be more resilient to natural hazards and also to develop policies and strategies vital to the specific needs of each country or region.”

“I hope through this platform, participants can develop new strategic partnerships and align it with the goals of the global development agenda by integrating the principles and practices of sustainable development into all aspects of education and learning,” said Dr. Meshgan.

“The knowledge and smart platform launched by the Zayed Foundation consists of innovative smart applications, interactive and entertainment tools, mass media and web services that serve as a smart and innovative educational tool to disseminate knowledge and awareness.”



Other prominent keynote speakers at the event included Hon. Mr. Cheung, Kwok-Kwan, JP, Legislative Councilor, HKSAR, and Prof. Eunice Mareth Q. Areola, Dean, Graduate School and College of Business Administration and Accountancy, Colegio de San Juan de Letran, Manila, Philippines.

Amongst the invited speakers at the event were Mr. Bernard Lee, Co-Founder and Chief Technology Officer, Perdoco Limited; Dr. Yaroslav Mozghoyi, Editor, Journal of Governance and Regulation/ Project Manager, Ukraine; Mr. Matej Michalko, Founder, CEO, DECENT and Co-Founder, Chairman of the Board, Blockchain R & D Hub, London; Ms. Susanna Chiu, Past

President, Hong Kong Institute of CPAs, Hong Kong; Dr. William Yu, CEO, World Green Organisation (WGO), Hong Kong; Mr. Alex Ku, VP, SME Global Alliance, Executives/ Chair, Cultural & Creative Industry Committee, Hong Kong; and Ms. Amy Liu, Managing Editor, Our Hong Kong Foundation, Hong Kong.

The speakers shared their expertise on responsible management in relation to the six principles of UNPRME, the trend and use of technology in curriculum design, for example, blockchain and cold chain for behavioural change, green learning environment with bamboo, the importance of a green office design and the growth of creative cultural

industries with wisdom development and spirituality under advanced technological world.

A student voices session was also arranged at the event and students of higher education and secondary education actively participated in these discussions. During the conference, their knowledge of sustainable development and United Nations Sustainable Development Goals (UNSDGs) was considerably increased with global exposure. Organisers pointed out that developing a sustainable development mindset needs to have global exposure with local community issues addressed and local organisational culture considered.

Biodiversity

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

## UAE celebrates World Biodiversity Day



World Biodiversity Day 2017 was celebrated under the theme ‘Biodiversity and Sustainable Tourism’ to coincide with the observance of 2017 as the International Year of Sustainable Tourism for Development.

**T**he UAE joined the world in celebrating World Biodiversity Day, marked annually on 22nd May, with this year’s celebration coming under the theme of “Biodiversity and Sustainable Tourism”.

Ahead of the event, Muna Omran Majed Al Shamsi, Acting Director, Biodiversity Department at Ministry of Climate Change and Environment, said that biodiversity is the foundation of life on the planet, a key element of ecosystems that provide many goods and services that support the well-being of the economic

community.

“UAE Vision 2021 underscores the importance of the conservation of the rich natural environment of the state from the dangers of human activities through preventive measures such as reducing carbon emissions and through regulatory measures that protect fragile ecosystems from urban expansion,” she said, adding that this is one of the core functions of the ministry in the national biodiversity strategy.

“The strategy aims at addressing the underlying causes of

biodiversity loss by integrating biodiversity values across all sectors of the country. It also aims to reduce direct pressures on biodiversity, promote sustainable use, and improve the state of biodiversity by conserving ecosystems, species and genetic diversity,” she added, going on to say that the ministry is keen, through the preparation of the strategy, to align national goals with the goals of international treaties on biodiversity.

The UAE has a relatively rich biological diversity that includes



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A well-managed tourist sector can contribute significantly to reducing threats to, and maintain or increase, key wildlife populations and biodiversity values through tourism revenue.

a range of ecosystems and terrestrial and aquatic habitats. Many species are characterised by their unique adaptation to the UAE environment and special climate conditions.

Accordingly, the UAE has taken several measures to conserve biodiversity while many studies have been carried out on species and habitats, most notably the study of large flamingos and raptors, surveys of vertebrates, the study of non-indigenous species and field surveys.

The UAE has also established

natural protected areas, the number which increased from 19 in 2010 to 43 in 2016, occupying 14.35 percent of UAE area, a total of 18,000 sq. kilometers.

Al Shamsi said that the Convention on Wetlands of International Importance, Ramsar, now includes six protected areas in the country, including Wadi Al Wurayah Nature Reserve in Fujairah, Al Wathba Reserve in Abu Dhabi, Ras Al Khor Wildlife Sanctuary in Dubai, Sir Bo Naair in Sharjah, and the recently added Bul Sayayeeef Marine Reserve in Abu Dhabi.

The assessment of effectiveness of protected area management is a key element in the development of these areas.

Since 2014, stakeholders in the UAE have been using METT, a tool developed by the World Wide Fund for Nature for tracking and monitoring progress in achieving the objectives of protected areas.

In 2016, the average effectiveness of the protected area management at the national level was about 67 percent, beating the global average of 53 percent, she concluded.

Waste management

32 creating green community

Bee'ah and Masdar to develop region's first waste-to-energy plant



Emirates Waste to Energy Company to treat 300,000 tonnes of municipal solid waste (MSW) with its first facility.

**B**ee'ah, the country's leading environmental management company, and Masdar, Abu Dhabi's renewable energy company, have formally established the joint venture Emirates Waste to Energy Company (EWEC) to develop waste-to-energy plants across the region. This was announced at a press conference to mark the event on 25th May, 2017.

In line with the vision of His Highness Sheikh Dr. Sultan bin Muhammad Al Qasimi, Member of the Supreme Council and Ruler of Sharjah, the first project will

be the Sharjah Multi-Fuel Waste-to-Energy Facility. The plant will be the first in the region and will treat, within its first phase, more than 300,000 tonnes of municipal solid waste (MSW) each year and have a power capacity of around 30 megawatts (MW).

Bee'ah set the ambitious target for Sharjah to achieve zero waste when the company was created back in 2007. At present, the emirate diverts 70% of its waste away from landfill. With the completion of this new facility, Sharjah will soon become the first city in the Middle East to achieve

the target of 100% diversion of waste from landfill.

His Excellency Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment for the United Arab Emirates, attended the launch of EWEC and witnessed the signing of the waste supply agreement (WSA) and power purchasing agreement (PPA) for the landmark waste-to-energy project by Bee'ah, Masdar and Sharjah Electricity and Water Authority (SEWA) officials.

Bee'ah and Masdar said EWEC's first project would leverage the





The signing of the waste supply and power purchase agreements for WTE facility was witnessed by HE Dr. Thani bin Ahmed Al Zeyoudi, UAE Minister of Climate Change and Environment.

strengths of both companies to pave the way for further waste-to-energy facilities in the UAE and the region, delivering commercial solutions to meet the challenge of solid waste disposal and the ever-growing demand for clean energy.

H.E. Dr. Thani bin Ahmed Al Zeyoudi, UAE Minister of Climate Change and Environment, said: "The Waste-to-Energy joint venture in Sharjah represents an important step in our endeavor towards sustainability and a bold and unconventional solution to address the increasing development challenges in a

sustainable way to achieve the objectives of the National Agenda for UAE Vision 2021. Hence, this pioneering national project is particularly important in the realization of two main objectives of our National Agenda; raising the percentage of treated waste to 75% and increasing the contribution of clean energy in the national energy mix to 27%."

Salim Al Owais, Chairman of Bee'ah, said: "As we announce this state-of-the-art facility, it is no exaggeration to say that this is a historic day, not only for Bee'ah and Masdar, but for the

whole of the UAE. Together with our strategic partner Masdar, we have set the ambitious goal of making the UAE a beacon for best environmental practices in the Middle East. We also intend to set an example to the world for how a country that has traditionally been heavily reliant on fossil fuels can embrace change and become a leader in green technology, through vision, determination and hard work."

Al Owais's comments were echoed by Mohamed Jameel Al Ramahi, Chief Executive Officer of Masdar: "Masdar firmly believes



in industry collaboration as the most effective way of advancing the deployment of commercially viable technologies, while supporting the UAE's goals for sustainable economic development. Our partnership with Bee'ah was first announced during Abu Dhabi Sustainability Week 2016, and it gives me great pleasure to see that bold statement of intent being translated into the formal launch of our joint venture Emirates Waste to Energy Company.

"Our first project together is set to make a vital contribution towards the UAE's ambitious targets to significantly reduce the amount of waste which goes to landfill, as well as delivering clean energy to households

across Sharjah," Al Ramahi added.

The signing of the power purchase agreement with Sharjah Electricity and Water Authority (SEWA) also took place with the Emirates Waste to Energy Company which was assented by Khaled Al-Huraimel, Bee'ah's Group CEO, Mohamed Jameel Al Ramahi, Chief Executive Officer of Masdar and HE Dr. Eng Rashid Al Leem, Chairman of SEWA. Under the terms of the agreement, the Emirates Waste to Energy Company will supply SEWA with the power generated from its waste-to-energy plant.

Commenting on the signing ceremony, HE Dr. Eng. Rashid Alleem, Chairman of SEWA, said: "We are delighted to sign this

Power Purchase Agreement with Bee'ah to receive electricity directly from what will be a state-of-the-art waste-to-energy plant. We are also very happy, even before the facility has been built, to demonstrate through this contract that electricity generated by waste has a very important place in the energy supply chain and to acknowledge the added value of such green energy in terms of reducing carbon emissions."

Also, present at the launch event were senior representatives from CNIM led by Nicolas Dmitrieff, Chairman of CNIM and Mohamed Ayachi Ajroud. CNIM, is a French company which is a world leader in treating and recovering energy from waste.

Sharjah will soon become the first city in the Middle East to achieve the target of 100% diversion of waste from landfill.



CNIM will not only design and build, but will operate the new joint venture plant which is to be located within the site of Bee'ah's existing Waste Management Center Centre.

When it comes online, the new joint venture facility in Sharjah will be able to process as much as 300,000 tonnes of solid waste every year that would otherwise have been buried in landfill sites, thus unlocking the potential of an untapped source of energy. In addition to recovering valuable materials for recycling, the new plant will incinerate up to 37.5 tonnes of solid waste per hour, generating 30MW of energy.

Possessing this huge capacity to turn waste into energy

represents a massive step forward step as Sharjah moves towards its stated target of "zero waste to landfill", while the UAE as a whole seeks to divert 75% of its solid waste away from landfill sites by 2021.

"With the announcement of this new exciting project, we are providing highly visible, tangible evidence of Bee'ah's and Masdar's support for sustainable developments in a cleaner, greener UAE," said Khaled Al Huraimel, Group CEO of Bee'ah.

"The launch of this facility also marks an important milestone for the country as it seeks to diversify its renewable energy portfolio, and strengthens our collective vision for the

future. It also affirms Bee'ah's commitment to exploring opportunities beyond the field of waste management."

The new waste-to-energy plant has been designed to meet the strictest environmental standards, complying with the European Union's Best Available Techniques which are widely recognised as setting the worldwide standard.

Its construction and the ratification of these agreements will serve to raise the UAE's profile as a world leader in sustainability and green technology, harnessing best practices and deploying them, for the benefit of its citizens and for that of the world.

Initiative

36 creating green community

UAE launches innovative initiatives to reduce food waste



The Ministry of Climate Change and Environment is currently working with the Food and Agriculture Organization of the United Nations to develop a comprehensive food diversification policy framework for the UAE, in consultation with relevant UAE stakeholders.

In the presence of Dr Thani Ahmed Al Zeyoudi, Minister of Climate Change and Environment, the Ministry of Climate Change and Environment held a pre-Ramadan food waste awareness raising event, in cooperation with Winnow Solutions at Majid Al Futtaim's Leadership Institute in Dubai.

The initiative is aimed to raise awareness on food waste in view of the upcoming Holy month of Ramadan, during which large quantities of food waste get generated each year. The event featured the work of leading chefs

in reducing food waste in their kitchens and other initiatives undertaken in the UAE for food waste prevention and reduction throughout the value chain including manufacturers and food processors.

In his speech, Dr Al Zeyoudi said: "We need to work together to find creative ways to address food waste, particularly during the Holy month of Ramadan, when we often see an increase in food waste. Much of this will have to come from changing our behaviours."

Al Zeyoudi indicated that the

Ministry of Climate Change and Environment is currently working with the Food and Agriculture Organization of the United Nations to develop a comprehensive food diversification policy framework for the UAE, in consultation with relevant UAE stakeholders.

"Through this partnership, we aim to address the whole food value chain to ensure long-term food security of the country, both imported and domestically produced food, as well as consumption and disposal of food, in which prevention and reduction



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

The initiative is aimed to raise awareness on food waste in view of the upcoming Holy month of Ramadan, during which large quantities of food waste get generated each year.

of food waste is a critical element," he said.

Dr. Al Zeyoudi highlighted that the Ministry's contributions to the Year of Giving include two food related projects: First, is the "Fish Box" Initiative which is aimed to collect and re-distribute donated fish from fishermen and fish stalls including confiscated fish to those in need, in collaboration with local authorities.

The second is the "Sphere Gardens" Initiative to target a total of 28 schools in all seven emirates, and to educate children

about growing food. "We hope the Sphere Gardens would foster our future generations' appreciation for sustainable food production and to become wise consumers," he said.

Panelists included representatives from the UAE Food Bank, Accor Hotels, ADNH Compass Group, and the Dubai Chamber. The panelists delivered a set of recommendations and urged the hospitality and foodservice industry to take these on board.

Panelists put forward several

recommendations from the event to reduce food waste, including the importance of measuring and monitoring waste; smart-planning in commercial and household kitchens; enhanced efforts and coordination of all key players throughout the food value chain; and utilization of all available channels to re-distribute otherwise wasted food.

They also urged creating awareness from an early age, as behavioral changes take time; appropriate data collection and target setting as part of waste management efforts.

Conservation

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

## UAE celebrates International Migratory Bird Day



World Migratory Bird Day is celebrated each year to highlight the need for international cooperation to conserve migratory birds and their habitats for the benefit of mankind.

**T**he UAE joined the rest of the world like it has been since 2006, in celebrating International Migratory Bird Day, which was adopted by Convention on the Conservation of Migratory Species of Wild Animals of the United Nations Environment Programme, and observed on 10th May every year.

Muna Omran Majed Al Shamsi, Acting Director of the Biodiversity Department at the Ministry of Climate Change and Environment, said that this year's theme is "Their Future is Our Future - A Healthy Planet

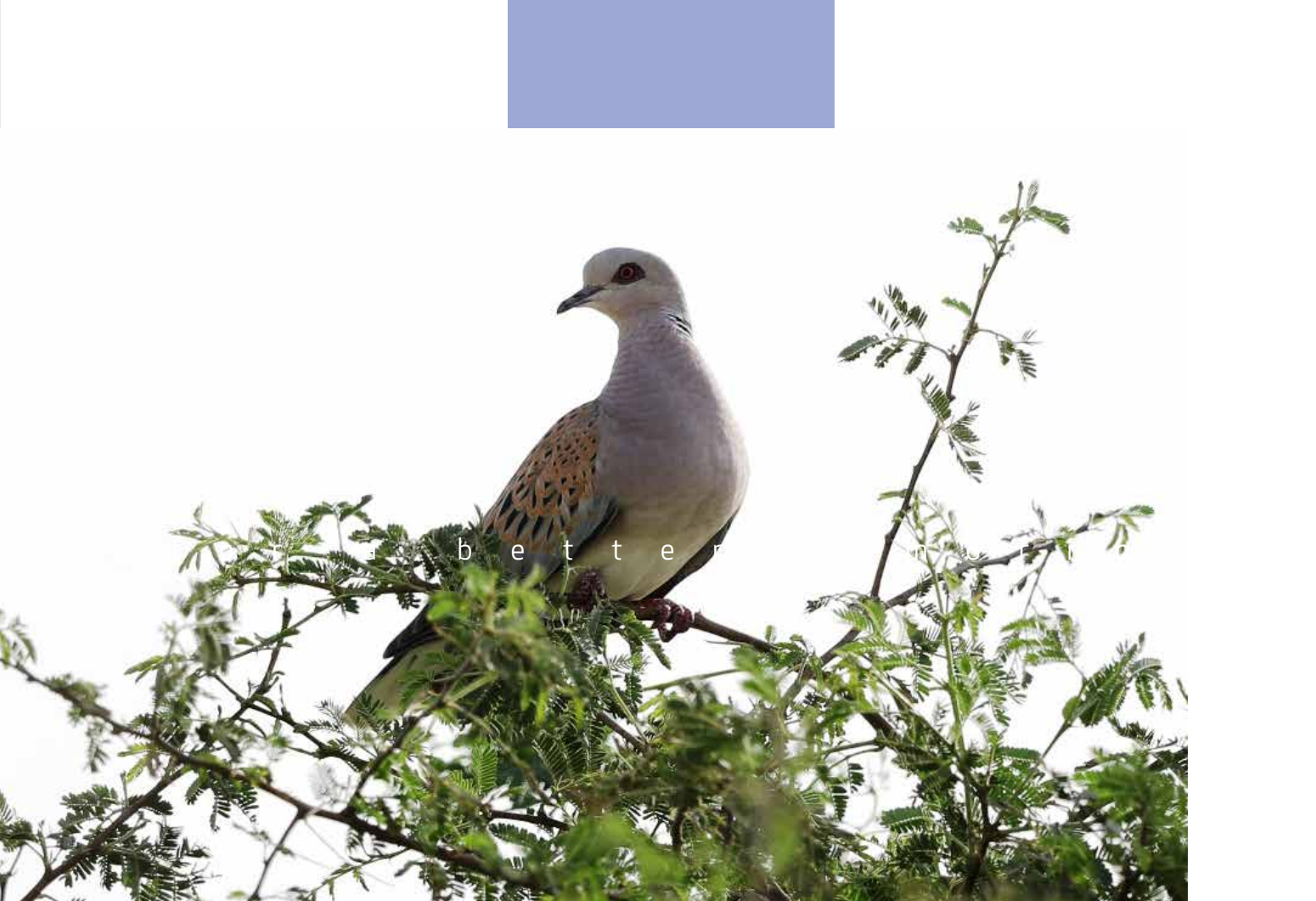
for Migratory Birds and People." It is connected to the goals of sustainable development of the UN, and sheds light on the interrelation between people and nature, and more specifically people and migratory birds, as they share the same planet and same limited resources.

She added that while humanity relies on birds in many ways, human activity has a negative effect on bird migration. Hence, the celebrations this year aim to raise the level of awareness on the need for sustainable management of natural resources.

With these celebrations, the UAE stresses the extent of its excellence and its prominent role in the field of protecting biodiversity and facilitating the means to protect migratory birds in specific.

The UAE is considered one of the important routes for bird migration and reproduction. Around 443 species of birds have been reported in the country, with 240 living here and 135 recorded to be present a few times.

She said the Ministry of Climate Change and Environment works on



World Migratory Bird Day was celebrated under the theme 'Their Future is Our Future - A Healthy Planet for Migratory Birds and People.'

formulating policies to maintain biodiversity by intensifying punishments on arbitrary hunting of birds, as well as land and sea animals. It also seeks to fight illegal trading and encourage specialised authorities in the country to announce more reserve areas that represent a safe haven for nesting and reproduction.

The UAE currently has 43 areas that have been officially announced as national reserves. The competent authorities, in co-operation with the ministry, also work on curbing sea pollution, rehabilitating damaged areas, and

initiating programmes to protect fragile environments from urban expansion.

They also work on executing national programmes to maintain endangered species, particularly hawks and bustards, and release them in their natural habitats.

With the slogan "Their Future is Our Future - A Healthy Planet for Migratory Birds and People," the World Migratory Bird Day 2017 on 10th May aims to highlight the interdependence of people and nature, and more specifically people and migratory birds, as

they share the same planet and the same limited resources.

As birds journey between breeding and non-breeding sites, International Migratory Bird Day 2017, will celebrate the importance of the places and habitats where they stop to rest and refuel. The art created to represent this event features 11 migratory bird species. Some, such as the Wood Thrush, fly over 2,500 miles (4,000 km) between Central and South America where they winter to the U.S. and Canada, where they will nest and raise young.

## Ministry of Climate Change signs MoU with Majid Al Futtaim to support local agricultural production



The MoU was signed by Sultan Alwan, Assistant Under-Secretary of the Regions Sector at the ministry, and Miguel Provedano, Executive Regional Director for Carrefour UAE at Majid Al Futtaim Retail.

**T**he Ministry of Climate Change and Environment, MoCCA, has signed a Memorandum of Understanding, MoU, with Majid Al Futtaim Retail to cooperate in the marketing of local agricultural products through Carrefour stores in the UAE.

The MoU was signed by Sultan Alwan, Assistant Under-Secretary of the Regions Sector at the ministry, and Miguel Provedano, Executive Regional Director for Carrefour UAE at Majid Al Futtaim Retail.

Under the terms of the

agreement, Majid Al Futtaim will provide sales training to local suppliers of agricultural products. Furthermore, the company will support the ministry's Mawroothna social initiative that assists companies and entrepreneurs active in the field of agriculture and fisheries.

Sultan Alwan said, "In line with the UAE's green development efforts and its commitment to adopting a green economy in the pursuit of sustainable development goals, food diversity is one of the top-priority strategic issues for the country's government.

In this context, the ministry aims to enhance the economic competitiveness of the UAE's agricultural sector, create jobs, attract investments, support innovation and knowledge, and enhance the efficient use of natural resources."

He added, "The ministry provides farmers with agricultural production essentials, such as fertilizers, pesticides, irrigation pipes, soil testing devices, seeds and organic agriculture supplies, at a 50 percent discount. Among other achievements, these measures have led to a 33.5





Under the terms of the agreement, Majid Al Futtaim will provide sales training to local suppliers of agricultural products.

percent growth of aquaculture over the past three years.”

### **UAE Ministerial Development Council Reviews National Plan for Climate Change**

The UAE Ministerial Development Council, presided over by H.H. Sheikh Mansour bin Zayed Al Nahyan, Deputy Prime Minister and Minister of Presidential Affairs, discussed on 24th May, 2017 a National Plan for Climate Change.

The Council discussed the proposal presented by the Ministry of Climate Change and

Environment to roll out a National Plan for Climate Change for the years 2017-2050, which aims to consolidate all efforts at the national level, and to outline future strategies and policies contributing to the achievement of UAE Vision 2021 pertaining to enhanced sustainable environment and strong global leadership in climate change issues, in line with the Paris Climate Accord.

The proposed plan will work as an umbrella for all existing environmental policies and measures, in line with the UAE’s

future sustainable development plans, and provide required guidance to address climate change within the framework of UAE’s priorities. The National Plan will also propose a range of preventive measures and policies to reduce and adapt to climate-related impacts.



Conservation

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

Dubai school pupils return 75 rehabilitated turtles into the Arabian Gulf



The Dubai Turtle Rehabilitation Project (DTRP) has rehabilitated and returned 1,175 turtles into the Arabian Gulf since the project began in 2004.

According to the International Union for Conservation of Nature (IUCN), the hawksbill turtle has seen an 87% decline in population over the last three decades with only an estimated 8,000 nesting females left in the world.

**O**n 11th May, 2017, a rare Olive Ridley sea turtle called Barnacle checked out of Jumeirah Al Naseem’s turtle rehabilitation lagoon with more than 70 critically endangered hawksbill turtles who headed back home into the waters of the Arabian Gulf.

Children from the Dubai British School purchased a special satellite tag for Barnacle which will enable them to track her progress online. The kids were invited to the release to learn more about the Dubai Turtle Rehabilitation Project (DTRP)

and wave the turtles off from the beach by Jumeirah Al Naseem.

Warren Baverstock, Burj Al Arab’s Aquarium Operations Manager, said: “There are very few Olive Ridelys nesting in Arabia and all of them nest on Masirah Island in Oman. This is the first time an Olive Ridley has been tagged in the UAE and we are all very excited to discover where she will travel to next. This initiative provides valuable data about how the turtles are progressing in the wild.

“We are especially grateful to



The DTRP is at the forefront of sea turtle rehabilitation protocols and veterinary procedures and is run in collaboration with Dubai's Wildlife Protection Office.

the local community and the organisations who found many of the injured turtles and brought them to us for rehabilitation.”

Barnacle was rescued several months ago and was suffering from positive buoyancy which meant the turtle was constantly floating high up in the water. After spending time in the turtle rehabilitation facilities at Burj Al Arab Jumeirah, the Dubai Turtle Rehabilitation Project (DTRP) team moved her into the turtle lagoon at Jumeirah Al Naseem and within three weeks she was able to swim down to the bottom.

This latest release brings the total number of turtles returned to the wild since the project began in 2004 to 1,175. All the turtles have been rescued from the shores of the UAE by members of the public and nursed back to health by the DTRP, one of the longest standing Corporate Social Responsibility initiatives in the region and the only project of its kind in the Middle East.

All the turtles started their rehabilitation at the facilities within Burj Al Arab Jumeirah and then moved to the new turtle lagoon at Jumeirah Al Naseem

prior to release.

The project accepts any distressed turtle, with the most common turtles found in the Arabian Gulf being the critically endangered hawksbill and the endangered green sea turtle. The majority are juvenile hawksbills, which are found washed up on the coast during the winter months of December, January and February suffering from the adverse effects of cold sea temperatures.

Other common ailments include ingesting plastic rubbish and injuries sustained from boats.



Situated near the shores of the Arabian Gulf within landscaped gardens, the new facility at Jumeirah Al Naseem is the region's first purpose-built lagoon for rehabilitating rescued turtles. The animals which have suffered a range of illnesses or traumas, can be carefully monitored in the lagoon before they are returned back to their native waters. The new lagoon facility and nature trail is the public interface of the DTRP. The project plays a vital role in helping to raise awareness of the plight the turtles face.

The opening of the lagoon was a dream come true for marine biologist Warren Baverstock and his small team of six who work tirelessly to rescue and

rehabilitate injured and sick turtles (mainly hawksbills, green and loggerheads) from around the region. It's the combination of over 12 years of continuous hard work and their innate passion for wildlife which has enabled the project to get to this stage.

The satellite tagging initiative will allow the DTRP to develop a picture of the turtles' journeys through the region.

The project's tagging initiative once tracked a turtle that travelled an amazing 8600km in nine months almost reaching the coast of Thailand. This shows the project not only affects these populations on a regional and national level but also on an international level. The tags

also allow the team to compare habitat, temperature choice and migration patterns for each species, information which is crucial for the formulation of conservation plans. According to the International Union for Conservation of Nature (IUCN), the hawksbill turtle has seen an 87% decline in population over the last three decades with only an estimated 8,000 nesting females left in the world.





## US\$3.2b solar power plant launched in Abu Dhabi

Under the patronage of President His Highness Sheikh Khalifa bin Zayed Al Nahyan, and in line with the directives of His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, a ceremony was held on 24th May, 2017 to launch the world's largest independent solar power plant, which will be built in Suweihan, Abu Dhabi.

The ceremony was attended H.H. Sheikh Hazza bin Zayed Al Nahyan, Deputy Chairman of Abu Dhabi Executive Council, H.H. Sheikh Mansour bin Zayed Al Nahyan, Deputy Prime Minister and Minister of Presidential Affairs, H.H. Sheikh Hamed bin

Zayed Al Nahyan, Chief of the Abu Dhabi Crown Prince's Court, Sheikh Nahyan bin Mubarak Al Nahyan, Minister of Culture and Knowledge Development, Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, members of the Abu Dhabi Executive Council, senior government officials and energy specialists.

Sheikh Hazza said the solar photovoltaic (PV) plant, to be built in Suweihan, Abu Dhabi, at a total cost of US\$ 3.2 billion, will position Abu Dhabi as the global capital for best economic, environmental and technological practices.

"This project translates the vision of President His Highness

Sheikh Khalifa bin Zayed Al Nahyan and the directives of His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, to provide efficient alternatives for energy and to diversify the UAE economy away from dependence on oil as the main source of income," he added.

The contract to build and operate the 1,177 megawatt plant was signed by Abu Dhabi Water and Electricity Authority (ADWEA) and the consortium of Japan's Marubeni Corp and China's JinkoSolar Holding. The two companies were selected from six bids received by ADWEA in September last year.

## Biodiversity

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

### Al Wathba photography contest winners announced



First Place Winner Amateur- Mohamed Rageh Gohar

The competition encouraged professional and amateur photographers to capture creative images that reflect Al Wathba Wetland Reserve’s natural beauty and rich biodiversity.

The Environment Agency – Abu Dhabi (EAD) has announced the winners of the “Al Wathba Photography Competition”, which ran on EAD’s Instagram account from November to April 30th, 2016.

The competition encouraged professional and amateur photographers to capture creative images that reflect Al Wathba Wetland Reserve’s natural beauty and rich biodiversity. Participation from the public was excellent with 180 unique and impactful photos taken by 95 photographers from UAE and abroad.

The winning photos were chosen by a jury comprising of a group of journalists and photographers. Winners were awarded with competition prizes worth a total of AED 24,000.

The 1st place winner in the Professional Category was

Nuwair Mahdi Al Hajeri, the 2nd place winner was Ignacio P. Reyes II and the 3rd place went to Mustafa Jindi. The winner of the 1st place in the Amateur Category was Mohamed Rageh Gohar, Saleh Awadh Al-Tamimi was awarded the 2nd place and the 3rd place was won by Edwin Mendoza.



Second Place Winner Amateur-Saleh Awadh Al-Tamimi



Second Place Professional Winner Ignacio P. Reyes



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The winning photos were chosen by a jury comprising a group of journalists and photographers

Winning photos and all entries submitted for the Al Wathba Photography Competition can be viewed on EAD's Instagram account, [http://instagram.com/EAD\\_community](http://instagram.com/EAD_community) using the hashtag "#capturealwathba".

EAD organised a ceremony to honor the winners of the competition, which was attended by Dr. Shaikha Al Dhaheri, Executive Director of Biodiversity and Marine Biodiversity Sector and Ahmed Baharoon, Executive Director, Environmental Information, Science and Outreach Management.

During the ceremony, EAD also honored a number of environmental volunteers who contributed to recent environmental activities to increase environmental awareness and highlight the environmental challenges facing the country.

The 5 km<sup>2</sup> Al Wathba wetland reserve is home to over 250 bird species that depend on this unique ecosystem for nesting, feeding and/or breeding. It provides a safe refuge for many other species of reptiles, small mammals and insects, and is an important area for biodiversity conservation.



Third Place Winner  
Amateur-Edwin Mendoza



Third Place Professional  
Winner Mustafa Jindi

## UAE fossil experts identify new species of hippo



[Abu Dhabi Tourism and Culture Authority fossil experts identify new species that lived in Al Dhafra; findings published in a paper in the journal 'Palaeo Vertebrata'](#)

Scientific studies of fossil bones of an extinct relative of the hippopotamus from the Al Dhafra Region of Abu Dhabi have identified a previously-unknown species, according to a paper recently published in the specialist journal, 'Palaeo Vertebrata'.

The species has been named *Archaeopotamus qeshta*, the first word meaning 'ancient river' and the second being taken from the Egyptian dialect word for hippopotamus, meaning 'cream'. Studies of new fossil specimens discovered since 2003 have

enabled scientists to re-evaluate earlier material and to determine that all of the material from the UAE belongs to this newly-described species.

Mohamed Khalifa Al Mubarak, Chairman of the Abu Dhabi Tourism and Culture Authority, said, "We have initiated five exploration projects for major archaeological and historical sites under TCA Abu Dhabi's mandate to preserve and safeguard Abu Dhabi's heritage and culture. Scientific research continues to reveal that the Al Dhafra region was once an area quite different

from today's arid environment. These significant finds indicate that a very extensive river system flowed throughout the area with many kinds of animals sustained by this environment."

Commenting on the new discovery, Dr. Mark Beech, one of the authors of the paper and Head of Coastal Archaeology and Palaeontology in the Historic Environment Department of Abu Dhabi Tourism and Culture Authority, TCA Abu Dhabi, said, "TCA Abu Dhabi plans to continue its investigations of Al Dhafra's internationally important fossil





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

The fossilised bones were found in the Al Dhafra region from the Baynunah Formation which dates back to six to eight million years, where there would have been large open plains, rivers and woodland.

sites. It is vital that such sites be protected for future scientific investigation,” he added.

In order to increase awareness of these sites, TCA Abu Dhabi recently co-published a book with the Peabody Museum of Natural History at Yale University entitled ‘One Thousand and One Fossils - Discoveries in the Desert at Al Gharbia, UAE by Faysal Bibi, Andrew Hill and Mark Beech.

The fossil bones come from the geological Baynunah Formation, which is exposed on the surface over much of the coastal areas

of Al Dhafra, and were found in a number of locations, including Shuwaihat, Jebel Barakah, Jebel Dhanna, Ruwais, Gerain Al Aysh and Jebel Mimiyyah, near Mirfa.

They were collected between 1988 and 1995 by the late Peter Whybrow, from London’s Natural History Museum, and the late Andrew Hill, from Yale University in the United States, and during surveys from 2003 onwards undertaken by Hill, Faysal Bibi, from the Museum fur Naturkunde in Berlin, Germany, and Mark Beech.

The Baynunah Formation has

been dated to between 6 and 8 million years ago, in the Late Miocene period. It has produced the only known fossils of animals from terrestrial and freshwater environments from this period anywhere in the Arabian peninsula. These include fossils of animals including early elephants, giraffes, horses, gazelles, fish and aquatic reptiles, like turtles and crocodiles, and plants.

The environment of Al Dhafra at that time has been compared to the savannahs of present-day East Africa, with open plains and large rivers, fringed by woodland.

Awards

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

## Winners of 2017 MENA Green Building Awards honored



Saeed Al Abbar, Chairman of EmiratesGBC

Organised by Emirates Green Building Council, the Green Building Awards were presented in key categories at carbon-neutral event attended by government officials and industry leaders.

**E**mirates Green Building Council (EmiratesGBC), an independent forum aimed at conserving the environment by strengthening and promoting green building practices, announced the winners of the 2017 MENA Green Building Awards that recognise innovation, creativity and excellence in promoting sustainability best practices.

With record submissions from six nations across the MENA region, the awards highlighted the growing focus of industry stakeholders to promote

innovation and best practices to drive sustainable built environments.

At a carbon-neutral awards ceremony held at Roda Al Murooj hotel in Dubai on 18th May 2017, the winners in various professional categories were honored in the presence of government officials, industry leaders, representatives of academia and media.

The Dr. Owainati Student Excellence Award for a student from a recognised university in the UAE, who has conducted

exceptional research on a subject related to green building in the Middle East, was also presented at the event.

Supported by the World Green Building Council (WorldGBC), the 2017 MENA Green Building Awards was organised by EmiratesGBC in partnership with the JordanGBC and LebanonGBC.

Saeed Al Abbar, Chairman of EmiratesGBC, said: "We congratulate the winners of the 2017 MENA Green Building Awards not only for their demonstrated excellence in



Winner of Green Commercial Building: Cleveland Clinic Abu Dhabi

The awards highlighted the growing focus of industry stakeholders to promote innovation and best practices to drive sustainable built environments.

driving the sustainable built environment of the region but also for their commitment and dedication to innovation and promoting green best practices.

This year, we had a record number of submissions, underlined by their quality, creativity and original thinking.

Across all the categories, what is clearly apparent is the focus on pushing boundaries, setting new benchmarks and contributing to the all-round vision of securing a greener future for our coming generations.

We hope to share the insights from our winners for the benefit of the larger community and to support the building industry in undertaking new and proven sustainable best practices that help achieve better living environments, higher energy and water use efficiency, and reduce the carbon footprint.”

**The winners of the MENA Green Building Awards 2017 are:**

- Green Building of the Year:
  1. Green Hotel: Hilton Garden Inn, Mall of the Emirates (Majid Al Futtaim)

2. Green Commercial Building: Cleveland Clinic Abu Dhabi; shortlisted - My City Centre Al Barsha (submitted by Majid Al Futtaim) and ADNOC New Corporate HQ (submitted by HOK)
3. Green School: University of Dubai, submitted by Kier Dubai LLC; shortlisted - The Arcadia Preparatory School, submitted by Godwin Austen Johnson
4. Green Residential Building: The Sustainable Autonomous House, submitted by Mohammed



- bin Rashid Space Centre; shortlisted - Al Zahia Residential - Phase 2, submitted by Majid Al Futtaim and NAGEEB (National Action for Green Energy Efficient Building) Programme, submitted by The Green Pact
- Sustainable Design of the Year: Neighbourhood One Residences Phase 1, submitted by Multiplex and Woods Bagot; shortlisted - New Ducab Headquarters, submitted by Ramboll and Royal Herbs El Bahariya Farm Headquarters, submitted by ECONSULT
- Facility Management Organisation of the Year: Emaar & CBFA JV Partnering Innovation, submitted by EMAAR/CBFA JV; shortlisted - Adeeb Group and Mayar Facilities Management LLC
- Contractor of the Year: Consolidated Contractors Company (CCC); shortlisted - ALEC and Multiplex Constructions LLC
- Developer of the Year: Majid Al Futtaim; shortlisted - Diamond Developers
- Green Building Material/Product:
  1. Energy Management: Daikin inverter R32 Split, submitted by Daikin Middle East and Africa; shortlisted - Daikin VRV IV, submitted by Daikin Middle East and Africa, and MasterSeal AWB Air and Water Barriers (formerly Enershield), BASF Construction Chemicals UAE LLC
  2. Indoor Air Quality: Edmonds Eco Power Hybrid Ventilator, Synergy United
  3. Conventional Construction Materials: Recycled Crushed Aggregates, submitted by Al Dhafra Recycling Industries in partnership with TADWEER - Center of Waste Management Abu Dhabi
- Green Building Research Award: Third Working Spaces as Means to Improve Comfort in Office Buildings in the UAE, submitted by



Winner of Retrofit Project of the Year: The Fairmont Palm Hotel & Resort

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

Consulting Engineering Office; shortlisted - Long Term Performance Testing of High Solar Reflective Index (SRI) Materials in Gulf Environmental Conditions, submitted by RAK Research & Innovation Center, American University of Ras Al Khaimah and The Real Value of Improving U-values, submitted by Kingspan Insulation LLC

- Retrofit Project of the Year: The Fairmont Palm Hotel & Resort - Guaranteed Savings Energy Performance Contract, submitted by Taka Solutions; shortlisted - Liberty Automobiles Retrofit Project, submitted by Liberty Investment Co. LLC; and Siemens Demand

FlowTM Solution for American Hospital Energy Optimisation, submitted by Siemens LLC

- Best Operations & Maintenance (Existing Buildings): Emaar & CBFA jv - Operational & Sustainability Practices at The Dubai Mall, submitted by Emaar & CBFA jv; shortlisted - Operation and Maintenance of entertainment attractions in the UAE, submitted by Emaar Entertainment; and City Centre Mirdif, submitted by Majid Al Futtaim

Additionally, the 2017 Dr. Owainati Student Excellence Award and cash prize was presented to Enas Alkhateeb, Faculty of Engineering and IT,

British University in Dubai, UAE for 'Potentials of Retrofitting the Federal Buildings in the UAE to Net Zero Electricity Cost Buildings.'

To ensure carbon neutrality of the 2017 MENA Green Building Awards, emissions from power consumption, heat energy, refrigeration and other sources were calculated.



Initiative

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

## Winners of Grow Your Food initiative honored



Schools excelled in sustainable cultivation with the use of recyclable materials, drip irrigation and techniques that use less water, utilizing food waste from canteens to convert into organic fertilizers, and setting up compost bins, amongst a host of other measures.

**W**inners of the second edition of the “Grow Your Food” initiative were honored by Dubai Municipality on 21st May, 2017. The Municipality had launched the green initiative in September last year encouraging Dubai residents to cultivate vegetables and fruits at balconies and terraces of their homes.

The participants in the competition were given a period of three months for cultivation and the gardens of the contestants were evaluated by a special jury comprising of

representatives from the Food and Agriculture Organization of the United Nations, US Department of Agriculture, US Consulate General in Dubai, and the Western Australian Trade Office in the Middle East.

There were four categories; educational institutions, government and private companies, centers for ‘people of determination,’ and the residents. The criteria of the judgment included creative utilization of space, healthy ways of growing, sustainability, water saving (utilization mechanism), varieties

farmed, team work and planning/cleanliness.

Iman Ali Al Bastaki, Director of Food Safety Department distributed the trophies and certificates to the winners in the presence of Noura Abdulla Al Shamsi, Head of Food Permits and Applied Nutrition Section.

Al Bastaki said the program was specifically designed to enhance the culture of sustainability, food security, and food wastage reduction and healthy eating among the residence in UAE. “This campaign showed the



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Students have learnt about food security and food wastage through the garden, while residents have enjoyed the pleasure of having fresh produce in their balconies.

shared interest of the society and encourages us to plan more sessions. We saw a huge increase in the number of participation from 250 last year to 1,600 this year," she said.

The winner in the educational institutions category was GEMS Our Own Indian High School and the second position went to GEMS Modern Academy. Habitat School, Ajman received the Special Legacy Award for successfully carrying the legacy forward, through continuously cultivating and encouraging the students by incorporating farming as a part of

their curriculum. Al Sadiq Islamic English High School received the award for the Best Innovative Approach and the American School of Creative Science received the award for Best Recycling Methods Approach, while the British International School, Ajman was honoured for the Best Sustainable Approach.

The winner in the Residents Category was Sam Abraham, while the second prize in this category went to Ashi Shabu. Awards were also given for Special Contribution to Abdul Shukoor, Mohammed Rasheed and Joseph

Poulose.

In the Corporate Category, the first prize went to Abela & Co while the second position was bagged by Dubai Police.

This year, the participation from educational institutions increased from 15 schools to 50 and they cultivated more than 300kgs of crops, which included more than 50 different varieties of fruits and vegetables. Many schools are using recyclable materials for cultivation while others have resorted to drip irrigation and other techniques to reduce water



consumption. Some schools also utilized fruit peels and left over food from canteens to convert into organic fertilizers. Others set up compost bins to have a completely natural produce. Students also made fruit oils and medicinal plants for making cough recipes and face masks and other beauty products.

**Al Manar Model School students 'Plant a Greener Future'**

McDonald's UAE, with the support of the Emirates Environmental Group (EEG), continues its efforts to implement its 'Planting a Greener Future' campaign in order to build a more environmentally conscious community. McDonald's UAE and EEG have partnered with Al

Manar Model School in Sharjah to participate in the initiative's 14th tree planting activity. Students between the ages of 11 and 12 planted an assortment of indigenous trees as an investment in the future and to learn more about caring for the environment.

'Planting a Greener Future' campaign aims to benefit local communities, educate children on the importance of caring for the environment, and promote the benefits of an environmentally friendly lifestyle.

The campaign has pledged to create 500sqm of green spaces within all participating schools campuses, enhancing the growth of freshly laid grass

and indigenous tree species by implementing a full-fledged irrigation system.

At the event, Walid Fakhri, General Manager of McDonald's UAE, said, "Today's students are becoming tomorrow's leaders, and McDonald's UAE aims to encourage them to step forward and take action to create positive environmental changes that will support the management and care of our environment."

Since the campaign started in April 2014, more than 420 students have participated in planting a total of 760 trees across 14 schools in the UAE. McDonald's UAE's 'Planting a Greener Future' initiative has reduced CO2 levels by 4.5 metric tons.





## IRENA 13th council meeting kicks off in Abu Dhabi

**M**ore than 300 high-level government representatives from 110 countries, the largest number ever represented at the International Renewable Energy Agency, IRENA, council meeting, gathered on 23rd May, 2017 in Abu Dhabi to attend the 13th Council of IRENA.

At the outset of the meeting, the council elected Li Fanrong, Deputy Administrator of the National Energy Administration of China, as Chair of the meeting, and Colombia as Vice-Chair.

“In our efforts to meet growing energy demand with cleaner, low-carbon and sustainable sources of energy sources, China has become one of the fast-growing

renewable energy markets in the world. It has now become evident in China that renewables can not only contribute to the on-going energy transition, but also drive sustainable economic growth. China is open to cooperating with all countries on renewable energy development and deployment, and honored to be part of the IRENA’s invaluable efforts for greater renewable energy deployment,” said Fanrong.

In the opening session, IRENA’s Director-General, Adnan Z. Amin, said, “We are in the midst of a major energy transition and renewables are at the centrestage of it, experiencing continuous growth and development in countries around the world. This transition has

multiple socio-economic benefits in terms of fueling economic growth, creating jobs and improving human welfare and the environment.”

Participants discussed the agency’s future work as part of IRENA’s Work Programme and Budget for 2018 - 2019, and its medium-term strategy for 2018 - 2022. Discussions covered the investment needs for a low-carbon energy system, renewable energy jobs, and adapting electricity market design to high shares of variable renewable energy. Events covering battery storage, renewable energy project development and facilitation, and the IRENA - Abu Dhabi Fund for Development, Project Facility, are also planned.

Conservation

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

## Bul Syayeef Marine Protected in Abu Dhabi declared as Ramsar Site



Bul Syayeef is only the second site in Abu Dhabi, after Al Wathba Wetland Reserve to be on the Ramsar List of Wetlands of International Importance

**B**ul Syayeef Marine Protected Areas has been recognised internationally and declared as a Ramsar site, becoming only the second site in the emirate of Abu Dhabi to enjoy this distinction. The site was officially announced as the latest addition to Ramsar sites around the world on May 1, 2017.

The United Arab Emirates (UAE) has ratified the Ramsar Convention ever since it came into force back in 2007. Bul Syayeef joins an elite list of over 2,000 other internationally recognised wetlands around the globe.

The Convention on Wetlands of International Importance (also known as the Ramsar Convention) is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Bul Syayeef was declared an official site based on the maintenance of its ecological character.

According to Ramsar, in order for a wetland to be selected for the List, it must account of

its international significance in terms of ecology and hydrology and undergoes a rigorous review process at the Ramsar Secretariat in Gland, Switzerland.

“The declaration of Bul Syayeef as a Ramsar site is a significant achievement, what’s more an official decree to declare the site as a marine protected area is in its final stages of issue,” said H.E Razan Khalifa Al Mubarak, the Secretary General of The Environment Agency – Abu Dhabi.

The Bul Syayeef proposed Marine Protected Area, which covers a



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Bul Syayeeef joins an elite list of over 2,000 other internationally recognised wetlands around the globe.

total area of 145 km<sup>2</sup>, is located west to Musaffah channel, about 20 km southwest of Abu Dhabi City and is east to Maqta area. The area supports rich marine life and haven for migratory shorebirds.

“Declaration of Bul Syayeeef as Ramsar site is an excellent example of how systematic monitoring of the site can result in valuable information for conservation of sites and species,” said Dr. Shaikha Al Dhaheri, Executive Director of the Terrestrial and Marine Biodiversity Sector at EAD.

“At EAD we are continuously making effort to identify important sites and include them within our protected area network to protected important and threatened species and critical and sensitive habitats,” said Dr. Dhaheri.

“This is in line with objectives of the Abu Dhabi Plan,” she further added.

Dr. Salim Javed, Acting Director of Terrestrial Biodiversity Division of EAD said: “Bul Syayeeef came into prominence in 2009 when the biggest breeding colony of the

Greater Flamingo was discovered by EAD using locations from a satellite tagged flamingo.”

The area also supports many other species of birds, notably the breeding of Western Reef Heron and Caspian Terns. The vast intertidal mud flats provide feeding areas for thousands of migratory shorebirds, making it a virtual bird paradise, particularly during winter months.

This is in addition to the presence of dugongs and turtles, which are an indicator of the richness of this area, he added.

Initiative

60 creating greener communities

## Philips Dubai Lamp hits the shelves this Ramadan



Industry experts and stakeholders gather to discuss consumers' role in reducing energy consumption as world's most energy efficient light bulb becomes commercially available across the UAE.

Philips Lighting, a global leader in lighting has announced that Dubai Lamp, the world's most energy efficient light bulb, will be widely available across the UAE starting May 27.

The announcement was made on 24th May at a roundtable discussion on sustainability hosted by Philips Lighting, and which was attended by Olav Scholte, Marketing Manager End-User Projects at Philips Lighting Middle East; Ivani Iannelli, CEO of Dubai Carbon; Helen Farmer, journalist and mummy blogger; and Amruta Kshemkalyani,

sustainability and lifestyle blogger. The panel was moderated by Emirati writer, presenter and advocate of youth development and education, Khalid Al Ameri.

The participants gathered to engage in an open discussion on sustainability and offered their experiences and views on the implications of energy consumption at current levels on the planet, and the significant role UAE consumers can play to ensure a greener future for younger generations, against the backdrop of the launch of Dubai Lamp. "Due to growing populations

and urbanization globally, energy consumption at current levels is simply unsustainable and the pressure on our planet continues to mount. With lighting accounting for 22% of all energy consumption in the Middle East, well above the global average, Dubai Lamp offers unprecedented energy savings and the reduction of carbon emissions.

"With consumers more environmentally conscious than ever before, we hope that with their support we can put a considerable dent in our carbon footprint to ensure the health of



In addition to raising light and energy efficiency to new levels, Dubai Lamp is extremely durable with an average lifespan of up to 25 times longer than conventional lamps.

our planet for future generations,” said Olav Scholte, Marketing Manager End-User Projects at Philips Lighting Middle East.

The result of a unique research partnership between Philips Lighting and Dubai Municipality, the Dubai Lamp, which was unveiled last October as part of Dubai’s sustainability agenda, aims to reduce energy levels for lighting by as much as 90%. By replacing conventional lamps at home with the Dubai Lamp, consumers could not only help to reduce their carbon footprint, but in the process save up to AED

2000 yearly on their DEWA bill. The Dubai Lamp is also free from mercury and other hazardous substances.

“In our bid to become the world’s most sustainable city, we are striving to reach a 30% reduction in energy consumption by 2030 and a 16% reduction in carbon emissions by 2021, per the Dubai Integrated Energy Strategy. We have worked closely with Philips Lighting on this innovation as part of our efforts to build a greener economy and a sustainable future for our children,” said Eng. Maitha Khalifa Mohd Almazroei, Head

of Sustainability Research & Studies Section at the Applied Sustainability & Renewable Energy Department, Dubai Municipality.

The 200 lumen per Watt LED lamp will be available in four models both in cool daylight and warm white colours: 1W candle lamp to replace 25W incandescent lamp, 2W bulb to replace 40W incandescent lamp, 3W bulb to replace 60W incandescent lamp, 3W MR16 spot to replace 50W halogen spots. The product range will start from AED 18 and will be available across selected leading supermarkets.



## Dubai launches meteorological radar project

**E**ng. Hussain Nasser Lootah, Director General of Dubai Municipality, has inaugurated the Meteorological Radar project, which was launched by the Municipality in the field of Geodetic Survey.

The project is implemented as part of the development of the early warning system for weather forecasting and monitoring of climate change and its impact on all regions of the emirate of Dubai. It is a system that uses electromagnetic waves to identify the distance, height, direction and velocity of stationary and mobile objects such as aircraft, ships, as well as weather conditions and shape of terrain. The transmitter sends radio waves reflected through

the target, which is recognized by the receiver. The back-to-back waves are weak, and the receiver amplifies those waves, making it easier for the radar to distinguish waves from its path from other waves such as sound waves and light waves. Radar is used in many areas such as meteorology to determine the timing of rainfall, and air monitoring.

### Local weather forecasts

The radar can detect rain drops in the clouds from a distance of 200 km as well as identify the types of thunderstorms and its time of occurrence and direction. The meteorologists can analyse radar observations, and predict the passage of a storm over a certain area. In many cases, they

can give advance warnings to the public and those in charge about the path of a cyclone, a whirlwind, a severe storm, cloud direction, the place and intensity of downpour for taking precautions.

Meteorological radar carries out a large number of operational functions including monitoring, analysis and prediction within a single device. It monitors the formation and movement of clouds and predicts the probability of downpour. It also monitors the cyclones and tornadoes, and locates them and follows their speed and direction.

The meteorological radar was installed in coordination with Sky Dive at the Fly Dubai building on the Dubai-Al Ain Road.



## Ministry of Climate Change and Environment holds Youth Circle

The Ministry of Climate Change and Environment, in collaboration with the Emirates Youth Council and the Canadian Embassy in the UAE, held a Youth Circle under the title “The Impact of Climate Change on Immigration.”

Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment, and Ahmed D. Hussen, Canadian Minister of Immigration, Refugees and Citizenship attended the event in Abu Dhabi.

Speaking on the occasion, Dr. Al Zeyoudi told the audience that migration due to climate change is a global challenge that is expected to aggravate in the future. He noted that there

have been 21 million climate migrants since 2008, and expected to reach almost 200 million by 2050. The minister stressed that humans and other living creatures are affected by climate change, indicating that the number of bird species registered in the UAE has reached 443, of which about 240 are resident while the rest are rare or accidental.

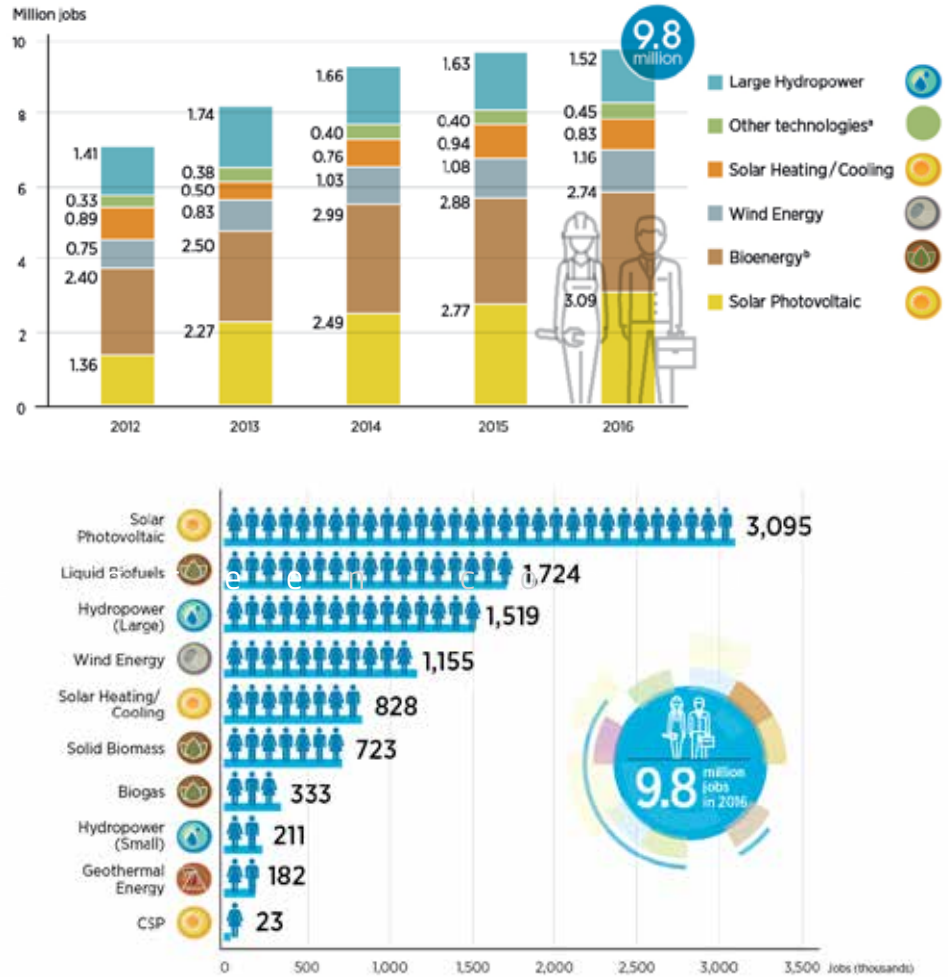
He explained that more than 150 bird species are threatened by climate change, where increasing temperatures affect bird migration and cause them to go further north to find cooler areas.

Dr. Al Zeyoudi highlighted that the UAE has been taking

significant actions, such as providing \$850 million in renewable energy aid to other developing countries, developing ambitious clean energy targets and hosting the headquarters of the International Renewable Energy Agency, IRENA.

Ahmed D. Hussen, Canadian Minister of Immigration, Refugees and Citizenship, said, “Climate change has already impacted migration patterns around the world, a reality which will continue for decades to come. This is why hearing from young people is so vital. Their commitment to addressing the issue and the solutions they envision are critical, given that they are the leaders of the future.”

## Renewable energy employs 9.8 million people worldwide



[According to a new IRENA Report, the global energy system is creating more jobs in renewables than in fossil-fuel technologies.](#)

More than 9.8 million people were employed in the renewable energy sector in 2016, according to a new report from the International Renewable Energy Agency (IRENA). Renewable Energy and Jobs – Annual Review 2017, released at IRENA’s 13th Council meeting, provides the latest employment figures of the renewable energy sector and insight into the factors affecting the renewable labour market.

“Falling costs and enabling policies have steadily driven up investment and employment in

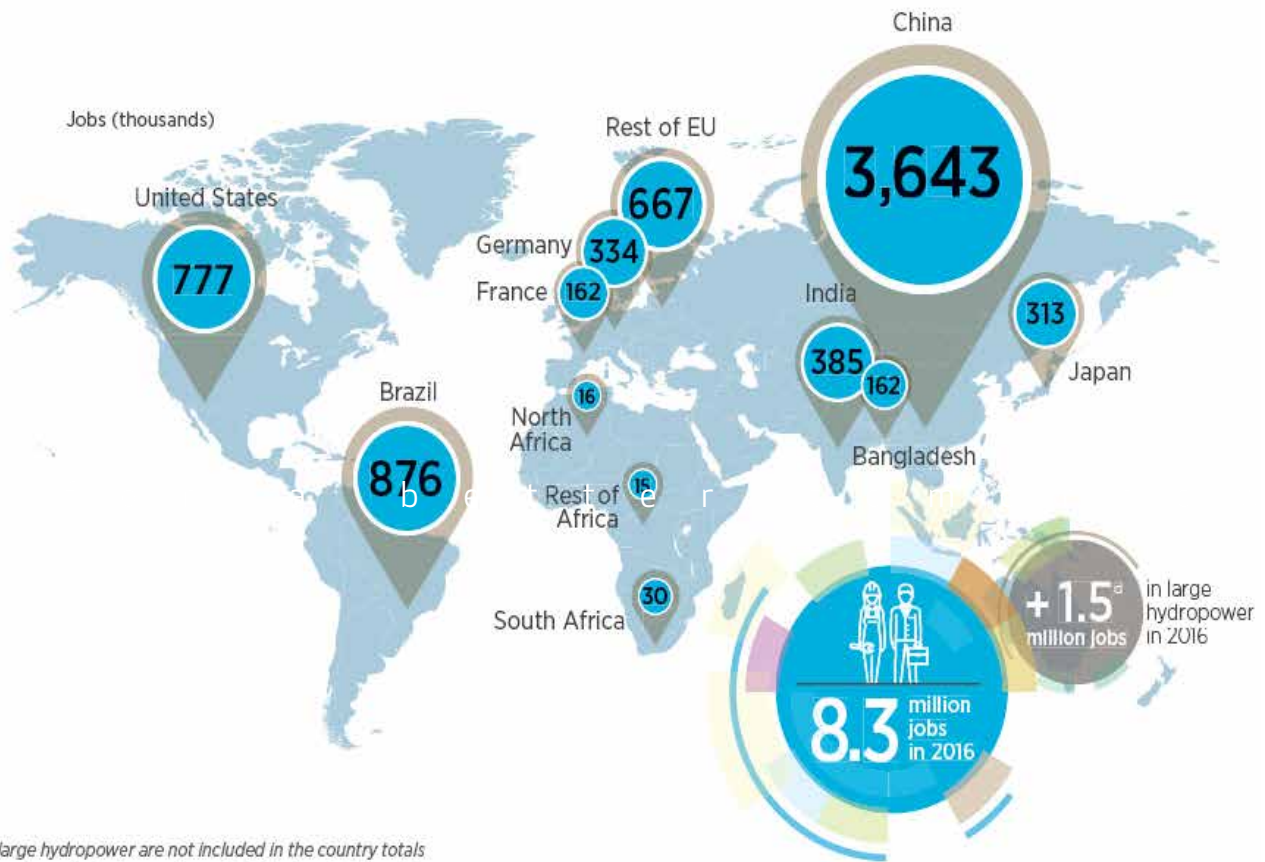
renewable energy worldwide since IRENA’s first annual assessment in 2012, when just over five million people were working in the sector,” said IRENA Director-General Adnan Z. Amin. “In the last four years, for instance, the number of jobs in the solar and wind sectors combined has more than doubled.

“As the scales continue to tip in favour of renewables, we expect that the number of people working in the renewables sector could reach 24 million by 2030, more than offsetting fossil-fuel job losses and becoming a major economic driver around the world.”

The Annual review shows that global renewable-energy employment, excluding large hydropower, reached 8.3 million in 2016. When accounting for direct employment in large hydropower, the total number of renewable-energy jobs globally climbs to 9.8 million. China, Brazil, the United States, India, Japan and Germany accounted for most of the renewable-energy jobs. In China for example, 3.64 million people worked in renewables in 2016, a rise of 3.4 per cent.

IRENA’s report shows that solar photovoltaic (PV) was the largest





Note: <sup>a</sup>Jobs in large hydropower are not included in the country totals given differences in methodology and uncertainties in underlying data.

*Renewable Energy and Jobs – Annual Review 2017 provides the latest employment figures of the renewable energy sector and insight into the factors affecting the renewable labour market.*

employer in 2016, with 3.1 million jobs — up 12 per cent from 2015 — mainly in China, the United States and India. In the United States, jobs in the solar industry increased 17 times faster than the overall economy, growing 24.5 per cent from the previous year to over 260,000. New wind installations contributed to a 7 per cent increase in global wind employment, raising it up to 1.2 million jobs. Brazil, China, the United States and India also proved to be key bioenergy job markets, with biofuels accounting for 1.7 million jobs, biomass 0.7 million, and biogas 0.3 million.

“IRENA has provided a more complete picture on the state of employment in the renewables sector, by including large hydropower data. It is important to recognise these additional 1.5 million working people, as they represent the largest renewable energy technology by installed capacity,” said Dr. Rabia Ferroukhi, Head of IRENA’s Policy Unit and Deputy Director of Knowledge, Policy and Finance.

The report finds that globally, 62 per cent of the jobs are located in Asia. Installation and manufacturing jobs continue to

shift to the region, particularly Malaysia and Thailand, which has become global centre for solar PV fabrication.

In Africa, utility-scale renewable energy developments have made great strides, with South Africa and North Africa accounting for three-quarters of the continent’s 62,000 renewable jobs.

“In some African countries, with the right resources and infrastructure, we are seeing jobs emerge in manufacturing and installation for utility-scale projects,” he said.



# Green Flash

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green communities for a better tomorrow



## Green Energy Outlook

To get an idea of how much energy is consumed; let us take the U.S. which generated 1,068.4 gigawatts (GW) in 2014. This is around 4 kwh/capita, which is 20 times the per capita consumption in some developing countries. In 2012, around 13.2% of total primary energy supply in the world came from renewable sources, while they accounted for almost 22% of global electricity generation in 2013. According to the IEA Medium-Term Renewable Energy Report 2015, this is expected to increase by 34% in 2020.

Renewable energy sources accounted for around 15% of the U.S. electricity generation and 10% of total energy consumption in 2016. Wind power installed capacity is more than 72,000 MW, supplying 4.1% of the nation's electricity. This is real progress, regardless of government policies.

In the World Energy Outlook, the New Policies Scenario predicts that renewable electricity generation will triple from 2012 to 2040. The UN report on energy-efficiency technologies (May 2017) shows clearly that low-carbon technologies aid clean air, save water and cut land use, and could reduce 25 billion tons of greenhouse gas emissions and 17 million tons of particulates every year. Clean air greatly benefits both human and environmental health, in addition to reducing the damaging climate change. But this will not be enough. We also need serious action to build a circular economy that cuts waste, and to encourage production innovations that create green jobs.

A panel of eminent UN experts in natural resource management examined eight energy efficiency technologies and 36 sub-technologies across buildings, industry and transportation and provided a global assessment of the benefits, risks and trade-offs encountered when energy efficiency technologies are deployed alongside low-carbon electricity supply technologies. The research confirms that demand-side technologies can reduce greenhouse gas emissions, as well as many other environmental impacts, depending on the variation among technologies and regions.

To keep the temperature rise under the 2-degree target, low-carbon energy production and energy efficiency technologies have the potential to cut about 25 billion tons a year of greenhouse gas emissions by 2050, which is 34% lower than the emissions under business-as-usual. Also, more than 17 million tons per year of particulate matter and over 3 billion tons of toxic emissions could be avoided through the use of low-carbon energy technologies. This is in addition to saving more than 200 billion cubic meters of water a year and nearly 150,000 square kilometers of land occupation by 2050.

The Green Energy Train is rolling and gaining momentum every day. Abu Dhabi has achieved a record low cost for solar powered electricity. Dubai is on track to produce 75% of electricity from renewable sources by 2050. 2016 was a record-breaking year for the solar power industry in the MENA region, dominated by the UAE.

I believe that we should concentrate more on household solar and wind technology to generate electricity for domestic use. Shams Dubai is a model project for all countries to install household solar system and/or Wind Energy Tree to produce green energy for all.

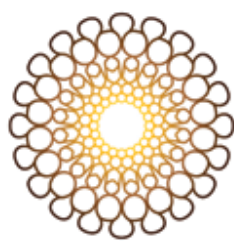
**Dr. Eisa M. Abdellatif**  
**Chief Technical Advisor**  
**Zayed International Foundation for the Environment**



**Zayed International Prize for the Environment**



**Together for a green century**



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