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creating green communities for a better tomorrow



UAE President
HH Sheikh Khalifa
bin Zayed Al Nahyan
declares 2017 as
Year of Giving

HH Sheikh Mohammed transforms Dubai into an international role model for sustainability



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creating green communities for a better tomorrow

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Prof. Mohammed bin Fahad
Executive Editor

The UAE ushered in the New Year in a spirit of generosity and benevolence as 2017 has been earmarked as the Year of Giving under the directives of President HH Sheikh Khalifa bin Zayed Al Nahyan.

This call for sowing the seeds of generous giving has resonated well throughout the widely diverse communities of the UAE and even beyond. As a nation known for its humanitarian approach - the UAE is one of the top countries in the world in terms of per capita contributions to humanitarian assistance and development aid - the marking of 2017 as the Year of Giving underlines the values of human dignity, tolerance and cooperation that the nation proudly upholds.

The Year of Giving is the culmination of many initiatives launched by the wise and benevolent rulers of the UAE and is also the embodiment of the long-standing philanthropic approach established by the nation's founder, the late Sheikh Zayed bin Sultan Al Nahyan.

It must be remembered that the launch of the Year of Giving follows the concluding ceremony of the Year of Reading 2016, during which more than 1,500 reading initiatives were launched and most significantly, a strategy that aimed at transforming the act of reading into a lifestyle in the UAE was also launched.

Reinforcing the UAE's culture of giving, HH Sheikh Mohammed bin Rashid Al Maktoum launched the UAE Food Bank with the ultimate goal for Dubai to be the first city in the region to achieve zero food waste. Given the fact that one third of all globally produced food is lost or wasted every year, the launch of the UAE Food Bank initiative will certainly pave the way for facilitating the transformation to more sustainable consumption patterns.

These new initiatives celebrate the Emirati humanitarian approach and showcase the UAE leadership's vision to promote the culture of giving back to the community and enhance the spirit of volunteering amongst its people.

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From the **Managing Editor**



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

The nation's path breaking initiative, the UAE Food Bank, assumes greater significance as it lends new meaning to 2017 which was designated as the Year of Giving by President HH Sheikh Khalifa bin Zayed Al Nahyan.

This innovative initiative, unveiled by HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, is turning into reality the recommendations, conclusions and declarations of several high-level UN and international conferences that have been at the fore of the global sustainable development agenda.

Launched with the ultimate goal for Dubai to be the first city in the region to achieve zero food waste, the ambitious Food Bank scheme is in pursuance of the sustainable approach established and practiced by the founding father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan.

Through its implementation, the UAE Food Bank will provide solutions for achieving some of the manifold goals which are at the very heart of the 2030 Agenda for Sustainable Development. These include the goals of ending hunger, less food wastage, improved nutrition, and the adoption of sustainable consumption and food production systems, amongst others.

By choosing to address a basic human need - food; adopting the 'think local, act global' strategy; and uniting public and private sector partners, the UAE Food Bank is deploying game-changing initiatives to build capacity, reduce hunger, and thus pave the way for facilitating the transformation to more sustainable consumption patterns.

The Food Bank - launched on the anniversary of HH Sheikh Mohammed's accession as Ruler of Dubai 11 years ago - is also a notable humanitarian effort and reflects positively on the country and its people. The innovative solutions towards food security initiated by the UAE government is thus an incredible achievement as it leads to more inclusive, dynamic and sustainable pathways to development.

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UAE President declares 2017 as Year of Giving



President HH Sheikh Khalifa affirmed that designating the year 2017 as the “Year of Giving” mirrors the method adopted by the UAE ever since its formation, a method based on helping others without expecting anything in return.

“Giving is a value we cherish and saw personified in the UAE’s Founding Father Sheikh Zayed. We continue to see this philanthropic legacy embodied by his sons and ingrained in the DNA of our society.”

-HH Sheikh Mohammed bin Rashid Al Maktoum

UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan declared 2017 as the “Year of Giving” to promote the culture of giving back to the community and enhance the spirit of volunteering and loyalty to one’s country.

The “Year of Giving” will focus on three main pillars: the first of which aims at creating a sense of community responsibility in the private sector so as to fulfil its role in serving the community and contribute in the developmental march of the country. The second pillar focuses on enhancing

the spirit of volunteering and encouraging specialized volunteer programs that will effectively assist in social development and community services.

The third pillar aims at instilling loyalty and commitment in the next generations to serve their country, a trait that is characteristic of Emiratis who were raised to love and serve their country.

UAE President affirmed that designating the year 2017 as the “Year of Giving” mirrors the method adopted by the UAE ever since its formation, a method based on



The 'Year of Giving' seeks to promote the culture of giving back to the community and enhance the spirit of volunteering and loyalty to one's country.

helping others without expecting anything in return.

His Highness further explained that the UAE is known for its philanthropic activities and helping the less fortunate worldwide while the people of the UAE follow in the footsteps of the late Sheikh Zayed bin Sultan, the world-renowned philanthropist.

His Highness emphasized that the UAE has made great strides in charitable and philanthropic works and that it is necessary to open people up to the notion of giving back to society.

In implementation of the directives of UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan, Vice President and Prime Minister of the UAE and Ruler of Dubai His Highness Sheikh Mohammed bin Rashid Al Maktoum directed to outline a comprehensive framework to implement the "Year of Giving" and set out targets, draft federal and local initiatives as well as coordinate volunteer works and promote a culture of social responsibility so that individuals and institutions from the public and private sectors, be effective partners in the developmental process of the UAE.

Sheikh Mohammed highlighted that the programs and initiatives of the "Year of Giving" will target the private sector in particular, given the fact that it is an important and major partner in the developmental march of the country.

Sheikh Mohammed affirmed that allocating a year to celebrate and disseminate charitable works reflects the UAE's prominent position as the world's top humanitarian donors, thanks to the relentless efforts of UAE President His Highness Sheikh Khalifa bin Zayed and Abu Dhabi Crown Prince and Deputy Supreme Commander



“Sheikh Zayed’s legacy is not measured in the generous donations he made to the less fortunate only, but in the impact he has had on our lives and our country forever. This is our goal for the Year of Giving – to make a difference in the lives of those we care for, and in ourselves.”

- HH Sheikh Mohammed bin Rashid Al Maktoum

of the UAE Armed Forces His Highness Sheikh Mohamed bin Zayed Al Nahyan.

His Highness Sheikh Mohammed further asserted that the “Year of Giving” sends a message of love, tolerance and hope from the UAE leaders and its generous people to the region and the entire world.

The launch of the “Year of Giving” follows the concluding ceremony of the Year of Reading 2016, which saw more than 1,500 reading initiatives that engaged various segments of the society and most significantly, launched a strategy that aimed at transforming the act of reading into a lifestyle in the UAE and also was crowned by issuing the National Reading Law, the first decree of its

kind in the UAE and the wider region, positioning reading as a cultural value and setting it into a legislative context bound by implementation, monitoring and evaluation mechanisms.

At the end of the ceremony a decree establishing the AED1 billion Mohammed bin Rashid Al Maktoum Library in Dubai was also established with aim to boost the reading culture in the Arab world.

Year of Giving logo

On 1st January, 2017 His Highness Sheikh Mohammed bin Rashid Al Maktoum approved the official logo of the ‘Year of Giving 2017’, to be used by all local, government and media entities in all campaigns, programmes and initiatives related to the initiative.

The design of the logo reflects all meanings of giving, and includes the initiative’s three factors of social responsibility, volunteering and serving the country, in addition to the year 2017.

In his remarks on the occasion, Mohammad bin Abdullah Al Gergawi, Chairman of the Higher National Committee for the Year of Giving said, “The outstanding official and societal interaction with the Year of Giving, launched by President His Highness Sheikh Khalifa bin Zayed Al Nahyan, will contribute notably to achieving the objectives of the initiative and we expect qualitative initiatives and exceptional success in 2017”.

“We also expect the positive participation of the private sector

The design of the Year of Giving logo reflects all meanings of giving, and includes the initiative's three factors of social responsibility, volunteering and serving the country.



and social figures to translate the vision of President His Highness Sheikh Khalifa to be achieved by the end of the year," he added.

All the materials and technical elements of slogan are available through the Public Diplomacy Office of the Ministry of Cabinet Affairs, and online at info@pdo.gov.ae.

He noted that the word 'Giving' represents the main component of the logo and that last letter of 'Al Khair' in Arabic (Giving) was written in the form of the frond of a palm tree. This is because palm trees have always represented a huge morale and cultural value in the UAE, combining the identity, geography and heritage of the country.

The Chairman of the Committee added that the palm tree used to have special status in the heart of the giving pioneer, the late Sheikh Zayed bin Sultan Al Nahyan. He said that Sheikh Zayed had paid notable attention to palm trees and worked on planting millions of them in the oases, cities and deserts of the country.

The UAE achieved a world record in 2009 with the largest number of palm trees in the world in comparison to its area.

He also said that the fronds of the palm trees were being used specifically to be a symbol of the Year of Giving to reveal the importance of this blessed tree. People can benefit from every single part and component of palm

trees. People can eat their fruit, its fronds are used in building houses, and other parts can be used in many local handicrafts.

He also reiterated that palm trees have been a source of life for human beings throughout the ages, adding they were mentioned in the Holy Quran more than 20 times and hailed by a Hadith of the Prophet Mohammed (PBUH).

He also pointed out it was taken into account when designing the logo to embody the nature of the UAE, through choosing seven leaves in the frond of the palm tree on both sides, which on one side represent the seven emirates of the UAE and the harmony and unity among them, and on the other side refer to the contributions and



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creating green community

achievements of the people in all the seven emirates of the country, as well as other segments of the UAE community.

He added that the yellow and gold colour reflect the Sun which refers to the beginning of a new day and symbolises hope, joy, happiness, positive energy and optimism.

His Highness Sheikh Mohammed bin Rashid Al Maktoum also directed the formation of the Higher National Committee for the Year of Giving initiative. The Committee includes seven Federal Ministers and Secretaries-General of the Emirates' Executive Councils in the UAE.

Be Proactive

H.H. Sheikh Hamdan bin

Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and Chairman of Dubai Executive Council, has instructed all entities and departments of Dubai Government to take proactive measures, set broad outlines and plans and establish initiatives and programmes that will contribute to making the Year of Giving a success.

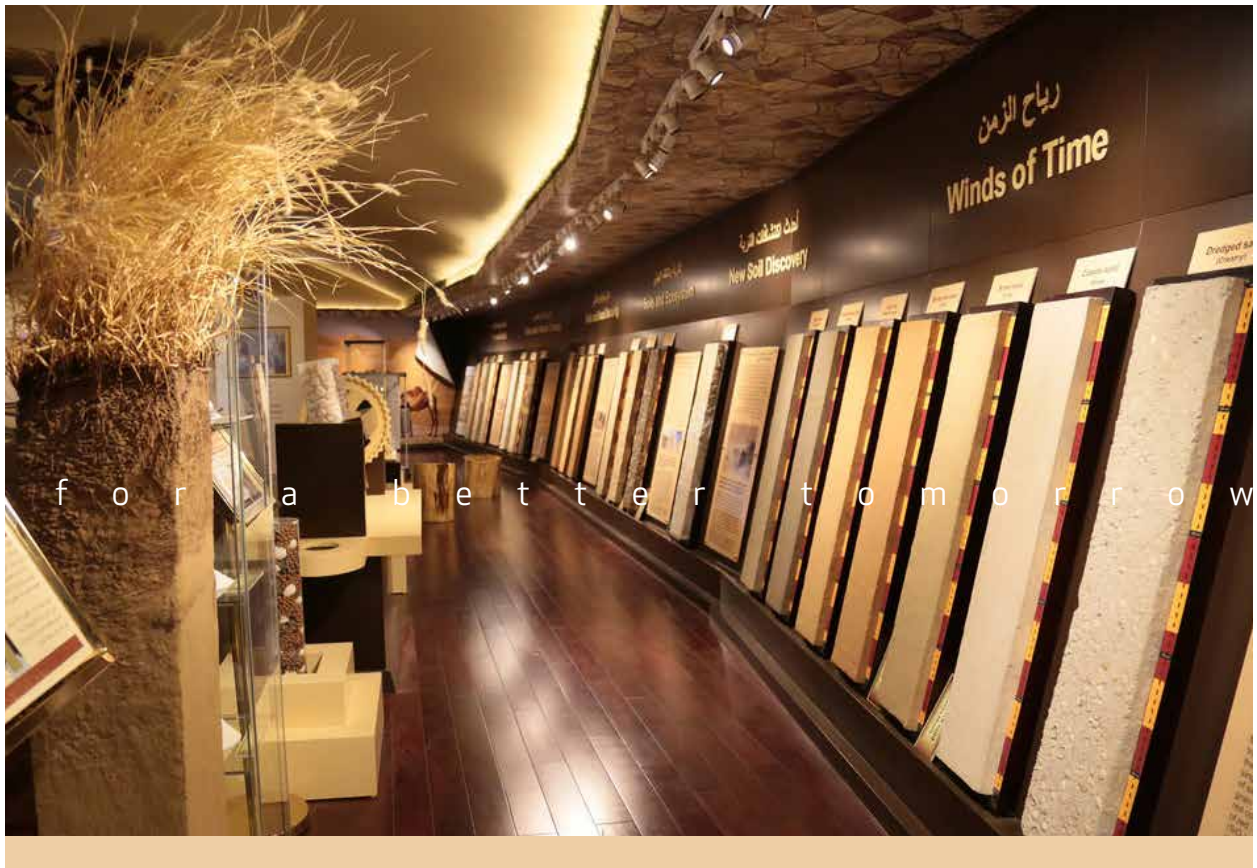
Sheikh Hamdan called government entities to coordinate with each other, on the local and federal levels, to come up with the best possible outcomes, which will further solidify the UAE's leading position in the humanitarian and charity domain worldwide.

Sheikh Hamdan said that by declaring 2017 as the Year of

Giving, the UAE is conveying a new message to the world. "The message is 'we are the state of charity and peace'. We wish everyone good and never spare any effort to ensure the goodness of the entire humanity."

"Through this message, the UAE wants to reaffirm the humanitarian approach it has adopted for decades to help people in need, spread hope and ensure the happiness of people everywhere.

"Serving the nation is one of the greatest aspects of giving that one can do in his life, and this initiative aims to promote the culture of giving back to the community and boost the spirit of volunteering and loyalty to one's country," he stressed.



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

Emirates Soil Museum opens its doors in Dubai

A new museum fully dedicated to the study, presentation and preservation of the UAE's soil and its components has been opened to the public.

The International Centre for Biosaline Agriculture, ICBA, and the Abu Dhabi Fund for Development, ADFD, inaugurated on 8th December, 2016 the Emirates Soil Museum, a unique facility in the Gulf Cooperation Council countries and the Middle East and North Africa region.

Speaking at the inauguration ceremony, Dr. Ismahane Elouafi, Director General of ICBA, said, "The museum is a result of continued support by the UAE government for efforts to collect,

preserve and share information about the country's natural heritage, including soils. We are confident that the museum will serve as an excellent repository of knowledge for anyone who is interested in soil preservation and soils of the UAE."

Mohammed Saif Al Suwaidi, Director General of ADFD, said, "Our nation's continuity depends on research, innovation, environmental consciousness and scientific ingenuity. The museum will serve as a pioneering and informative resource and technical hub for the MENA region."

Soils and the ecosystem services they provide, including food, fuel, fiber, and feed production,

are critical for life on the Earth. Soils also play an important role in regulating greenhouse gas emissions. The largest store of terrestrial carbon is in the soils. So their preservation may contribute to climate change mitigation.

These services, along with the role of soils in the environment, agriculture, and food security, as well as the types of soil that are found in the UAE, will be the focus of the museum. Through both above-ground and underground exhibits, soil information, including soil and water salinity, soil acidity and alkalinity, why soils are of different colors, and the role of soil in water infiltration, will be showcased using interactive experiences.

HH Sheikh Mohammed bin Rashid launches UAE Food Bank



[The initiative aims to collect surplus food in the UAE and distribute it among the needy, both locally and internationally.](#)

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, has dedicated his Accession Day, January 4th, to launch the UAE Food Bank, a non-profit charitable organization committed to distributing food to those in need while eliminating food waste.

The UAE Food Bank will collaborate with local authorities as well as local and international charities to introduce a comprehensive ecosystem improving the efficiency of

food storage, packaging and distribution.

It will partner with food producers such as hotels, restaurants and supermarkets and farms to store and package excess fresh food effectively. It will then work with volunteers and partners to distribute the well-packaged food within and outside of the UAE.

In addition to its philanthropic vision, the initiative also aims to position Dubai as the first city in the region to achieve zero food waste. At the launch of the UAE Food Bank, His Highness Sheikh

Mohammed proclaimed, “the Year of Giving provides a golden opportunity for UAE citizens and institutions to maximize their philanthropic potential by launching humanitarian initiatives.

“We chose “food” as our first initiative as it is one of the most basic human needs. Through the UAE Food Bank, we aim to instill the value of giving deep in the hearts of our people.”

His Highnesses elaborated, “Emiratis are the most generous and giving people. Through the UAE Food Bank, we are creating



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

The Food Bank stems from a vision that aspires to promote social practices and habits to rationalise food consumption, reduce food surplus and, accordingly, cut quantities of food waste.

a sustainable institutional framework inspired by these values and by the legacy of UAE's Founding Father Sheikh Zayed."

"We are also inspired by the boundless generosity of UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan, especially during the month of Ramadan, when he provides meals to millions of underprivileged people daily.

"The UAE Food Bank seeks to immortalize these values in future generations by engaging community-based volunteers and

organizations so that the spirit of philanthropy spreads beyond the borders of the UAE as the Year of Giving unfolds."

Launched under the Mohammed bin Rashid Al Maktoum Global Initiatives Foundation (MBRGI), and as part of the Year of Giving, the UAE Food Bank will reach people on a local and regional level, and will promote the pillars of the Year of Giving, specifically social responsibility and volunteerism. It aims to cement these values in UAE communities, as well as achieve international standards of sustainability.

The Food Bank will promote social responsibility in the private sector by partnering with hotels and restaurants, food-manufacturing companies and supermarkets and introducing a process of preserving, storing and packaging the food, with the goal to optimize usage and achieve zero waste. Volunteers will be invited to collect surplus food from the appointed authorities, and distribute it to those in need, in and outside the UAE.

The UAE's economy will also benefit from the Food Bank, as the UAE currently incurs



approximately AED 13 billion annually in food loss, which can be redirected to benefit other social sectors.

The Bank's mechanism

An integrated mechanism for food preservation will be introduced to Food Bank partners and stakeholders, to ensure maximum efficiency, along with food safety guidelines that abide by international standards.

The Food Bank's operations will begin in Dubai and will expand to other underdeveloped communities in the region and around the world.

The Dubai Municipality will provide operational support,

following an internationally standardized process of food collection, packaging, storage and distribution. Volunteers will also be trained on the health and safety standards, providing support on-ground at UAE Food Bank locations and fridges.

The UAE Food Bank will further recycle the remnants of inedible food through industries that may benefit from it, including fertilizers, chemical and medicinal research, and more. The goal is for Dubai to be the first city in the region to achieve zero food waste.

Chairperson

HH Sheikh Mohammed has appointed Sheikha Hind Bint Maktoum Bin Juma Al Maktoum

as the chairperson of the Board of Trustees of the UAE Food Bank.

"Sheikha Hind's chairpersonship of the Food Bank is a guarantee to achieve our high expectations of this new humanitarian organization. She is closer to people and has strong passion for charity, thus making her the most suitable to lead this new project," Sheikh Mohammed said.

He also appointed Hussain Nasser Lootah, director-general of Dubai Municipality, as the vice-chairman of the Food Bank.

He urged the civic body to apply the highest international performance standards and abide by health safety rules concerning food preservation and storage.



Middle East's first solar-powered abra launched in Dubai

The Roads and Transport Authority (RTA) has announced the formal operation of a solar-powered abra, considered the first of its kind in the Middle East.

The introduction of this sophisticated abra, which is being deployed at Al Mamzar, follows several trial runs to verify the possibility of changing speed.

The scheme is part of Dubai Government's initiative themed "Green Economy for a Sustainable Environment".

"This abra is the first public marine transit mode powered by solar energy in the Middle East. The project was intended to convert an abra powered by

electricity into an abra powered by solar energy through fitting the roof of the abra with solar panels along with other operational accessories," said Abdullah Yousef Al Ali, CEO of RTA Public Transport Agency.

"A specialist company has conducted a Balance Test during a one-month trial run of the abra at Al Jaddaf with no riders onboard. It was established that the solar power system would have no negative impact on the stability and balance of the hull of the abra, and accordingly, there would be no need for tinkering with the design or specifications of the existing abra or even building new ones.

"Results have shown that the solar system can charge the battery

up to 100 per cent every day, the stored power would be good enough to drive the abra for five hours at the normal operating speed of 3-4 knots, and the residual power in the battery would be around 25 per cent. The system requires about six daytime hours to recharge the battery in full," explained Al Ali.

"The launch of this abra is part of RTA strategy towards fully adopting the Green Economy concept and using clean energy in various public transit means. The RTA is focused on turning these concepts into reality through creative initiatives for curbing carbon footprint, and using alternative energy in mass transit means," added the CEO of RTA Public Transport Agency.

Cover Story

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

Setting milestones for a sustainable future



It is the vision of HH Sheikh Mohammed that has seen the ongoing transformation of Dubai into an international role model for success and sustainability where renewable energy is the leading player in providing a clean environment.

The history of the UAE speaks of the ambitious, determined and wise leaders who have been instrumental in charting the path that has shaped this great nation. In Dubai too, the leadership of the emirate has played a key role throughout its history in transforming it from a desert oasis into a world-class metropolis.

HH Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai - who completes 11 years as Ruler of Dubai this month - has been a key inspiration for the people

of the emirate with his visionary foresight, unyielding desire to win, and ambitious reforms.

Leading by example, Sheikh Mohammed's vision for Dubai has been the source of inspiration for the completion of a series of major projects that have transformed both the city and the country. Several monumental and iconic development projects such as the Burj Khalifa, the Palm Jumeirah, the Dubai Metro, Dubai Water Canal and Meydan Racecourse have now become striking symbols of the new Dubai.

Yet, it has been his commitment to the cause of the environment and his plans for sustainable development and adoption of green economy practices that have become an inspiring model for countries across the world.

Amongst the most significant environment initiatives unveiled since his accession as Ruler of Dubai are:

NATIONAL POLICIES UAE Green Economy Strategy

It was in January 2012 that HH Sheikh Mohammed bin Rashid



ess for a better tomorrow

The UAE's efforts to support the transition to a green economy are underlined by its contribution and commitment to reducing carbon emissions.

launched a long-term national initiative to build a green economy in the UAE under the theme 'Green Economy for Sustainable Development'.

Through this initiative, the UAE aims to become one of the world's leading countries in green economy as well as a centre for the export and re-export of green products and technologies, through programmes and policies in the areas of energy, agriculture, investment, sustainable transport and construction. It also seeks to maintain a sustainable environment

to support long-term economic growth.

The initiative includes a range of programs and policies in the areas of energy, agriculture, investment and sustainable transport in addition to new environmental and constructional policies that aim to raise the quality of life in the country.

Amongst the six major fields of the Green Economy initiative, foremost is green energy which consists of a group of programs and policies aimed to promote the production

and use of renewable energy and related technologies as well as to promote the use of clean fuel for energy production.

The second field includes government policies aimed to encourage investments in green economy and to facilitate the production, import, export and re-export of green products and technologies.

The third field of the initiative is green city - a large group of urban planning policies that aims to raise the efficiency of



housing and buildings; and promote environment friendly transportation.

The fourth field consists of means for dealing with the effects of climate change through policies and programs designed to reduce carbon emissions from industrial and commercial sites.

It will also promote organic agriculture and maintain biodiversity to protect the ecological balance, wildlife and marine environment in the UAE.

The fifth field of the Green Economy Initiative is called the green life, which is aimed at rationalizing the use of water

resources, electricity, and natural resources as well as projects to recycle waste generated by commercial or individual uses.

The sixth field of the Green Economy Initiative includes development and promotion of green technology, and the first phase of its implementation includes carbon capture and conversion of waste into energy.

Dubai Clean Energy Strategy 2050

Launched in November 2015, the Dubai Clean Energy Strategy 2050 aims to make Dubai a global center of clean energy and green economy. The strategy includes Dh100 billion investment in Green Fund, and Dh50 billion in

the second phase of Solar Park by 2030. The Dubai Clean Energy Strategy aims to provide 7 per cent of Dubai's energy from clean energy sources by 2020. It will increase this target to 25 per cent by 2030 and 75 per cent by 2050.

The strategy consists of five main pillars: Infrastructure, legislation, funding, building capacities and skills, having an environment-friendly energy mix.

The infrastructure pillar includes initiatives such as the Mohammed Bin Rashid Al Maktoum Solar Park, which is the largest generator of solar energy in the world from a single location, with a capacity to produce 5,000 megawatts by 2030.

“We recognize that preserving our energy resources will be one of the greatest challenges in our drive towards sustainable development.”



The second pillar, legislation, focuses on the establishment of a legislative structure supporting clean energy policies in two phases. The first phase will be implemented through Shams Dubai initiative while the second phase includes the requirement to install solar panels on the roofs of all buildings in Dubai by 2030.

The third pillar is related to financing solutions for investment in research and development on clean energy and its application. This pillar includes the setting up of Dubai Green Fund worth of AED 100 billion.

Building capacities and skills is the fourth pillar which aims to build human resources capabilities through global

training programmes in clean energy while the fifth pillar is focused on creating an environmentally friendly energy mix with solar energy providing 25%, nuclear power 7%, clean coal 7% and gas 61% by 2030.

The mix will gradually increase the employment of clean energy sources to 75% by 2050, making Dubai the lowest carbon footprint city in the world. This pillar also activates energy generation mechanisms through waste by employing state-of-the-art technologies in this area that will help turn 80% of the Emirate's waste into energy by 2030.

Green Building Rating System

In 2016, Dubai launched a green building rating system called “Al

Safat” which has been designed to achieve high performance of buildings to promote human and environmental health by strengthening the planning, design, implementation, and operation phases of buildings.

The concept aims to achieve a smart, sustainable city status for Dubai by 2021. The rating is split into four classifications: platinum, gold, silver and bronze and every building must adhere to the minimum bronze category requirements. This is applicable to those built since the mandatory implementation of green building code in Dubai in 2014.

Al Safat's reduction goals include 20% in electricity consumption, 15% in water consumption, 20%



carbon dioxide emissions and 50% waste reduction.

SOLAR ENERGY **Mohammed Bin Rashid Al Maktoum Solar Park**

The Mohammed bin Rashid Al Maktoum Solar Park was announced in January 2012 to enhance the sustainable development of Dubai. It also supports the Dubai Clean Energy Strategy 2050 to make Dubai a global centre of clean energy and green economy.

The strategy also aims to provide 7% of Dubai's energy from clean energy sources by 2020, 25% by 2030 and 75% by 2050. DEWA is managing the Solar Park, which is the largest renewable-energy project on a single plot in the

world with a planned production capacity of 5,000 MW upon completion in 2030.

In the first phase, 13MW photovoltaic was launched in October 2013. The second phase of 200MW photovoltaic will be launched in April 2017 while the third phase of 800MW photovoltaic will be launched in stages, ending by 2020.

The fourth phase is set for for launch in April 2021 and all future phases of up to 5,000MW is to be launched by 2030.

Shams Dubai Initiative

This leading initiative supports the vision of HH Sheikh Mohammed to make Dubai the smartest city in the world. It also supports diversifying the

energy mix by promoting the use of clean and renewable energy sources to build a sustainable future for the Emirate.

Shams Dubai will regulate the generation of solar energy in buildings and their connection to DEWA's power grid. The initiative encourages household and building owners to install Photovoltaic panels to generate electricity, and connect them to DEWA's grid.

INITIATIVES

World Green Economy Summit

Launched in 2014 by HH Sheikh Mohammed bin Rashid Al Maktoum, the World Green Economy Summit is the world's leading platform to discuss, foster, plan and implement the

Dubai's Clean Energy Strategy aims to provide 7 percent of the emirate's energy from clean energy sources by 2020, 25 percent by 2030 and 75 percent by 2050.



shift to the green economy for government, business, finance and civil society. The Summit's objectives are to maintain WGES as the premier green economy event for global leaders; build the best network of Global Partnerships for the green economy; develop and scale green business and public-private partnerships; and strengthen Dubai's position as the world hub for green business.

Dubai has since supported top international organizations in the Road to Paris, the process for which was actually initiated at WGES 2014, continued at WGES 2015, and concluded at COP 21 with the historic signing of the Paris Climate Agreement with the UAE's key contributions.

World Green Economy Organisation (WGEO)

The UAE's first World Green Economy Organisation (WGEO) was launched in 2016 to bolster a culture of green economy in the country, the region and around the world. The organisation will provide consultations and technical, financial and moral support in the field of green economy. It also aims to be a primary reference for green sector parties doing research related to clean energy, the environment and human protection.

UAE Water Aid (Suqia)

June 2014 saw the launch of UAE Water Aid (Suqia), a non-profit organization aiming to finding sustainable solutions to water

shortage through the use of solar energy to desalinate and purify water. Suqia also aims to improve access to safe water, hygiene and sanitation in the world's poorest communities. The goal is to provide drinking water for five million people around the globe. The campaign activities included drilling wells and providing water pumps and water purification equipment.

AWARDS

The Zayed International Prize for the Environment

HH Sheikh Mohammed established the Zayed International Prize for the Environment in 1999 in recognition of and appreciation for the environmental achievements of the UAE's first



President, His Highness Sheikh Zayed bin Sultan Al Nahyan.

The prize, now widely considered the most significant environmental award in the world, is presented biennially to individuals or organisations that have contributed to the improvement of the environment.

The prestigious award of this Foundation is worth US\$ 1 million, but the scope is not limited to Prize awards. The foundation endeavors to promote sustainable development through various environmental initiatives and through propagating environmental awareness, addressing sustainability issues, conducting international and regional conferences,

workshops and seminars, raising consciousness among the public, professionals, trade and the fraternity; in addition to publications and community activities.

The Zayed Prize is classified into four award categories:

1. Global leadership in environment and sustainable development (US\$500,000)
2. Scientific/ technological achievements in environment (US\$250,000)
3. Environmental action leading to positive change in society (US\$200,000)
4. Young Scientists Award for Environmental Sustainability (US\$50,000)

Mohammed bin Rashid Global Water Award

In June 2014, the Mohammed bin Rashid Global Water Award with total prize of USD 1 million was launched.

This global award aims to encourage leading corporations, research centers, institutions and innovators from across the world to compete to find sustainable and innovative solar-energy solutions to water problems.





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

Al Hefaiyah Mountain Conservation Centre wins Educational Project of the year award

Al Hefaiyah Mountain Conservation Centre, led by the Environment and Protected Areas Authority in Sharjah, EPAA, has recently received an award for Educational Project of the year at the 9th annual Middle East Architect Awards.

The awards serve to recognise the best projects in the architecture community, from residential, cultural and public, across the region.

Commenting on the award, Hana Saif Al Suwaidi, Chairperson of the Environment and Protected Areas Authority, said, “We are deeply honoured to receive the award for Educational Project of the Year; it is truly gratifying to

have our hard work acknowledged and we accept this award with a continued commitment to protecting both the delicate landscape and its wildlife through conservation initiatives and community education.”

Located at the base of the Hajar Mountains on the outskirts of Kalba, Al Hefaiyah Mountain Conservation Centre celebrates the rich biodiversity of the region’s mountain habitats and highlights the strong connections between wildlife and landscape and regional creativity and culture.

Hosting thirty different mountain species, the centre offers unique viewing opportunities from within the centre out across large landscaped enclosures, and within

indoor nocturnal habitats.

“The award reinforces Sharjah’s commitment to protecting endangered species by promoting the culture of environmental conservation in compliance with the directives and visions of H.H. Dr. Sheikh Sultan bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, to protect the environment and develop it in a better and more optimal way,” she added.

Inaugurated by the Ruler of Sharjah, Al Hefaiyah Mountain Conservation Centre has been open since March 2016 and was established to protect endangered animal species native to the region’s fragile mountain ecosystems.

Campaign

24 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 launches 'Beautiful in the Wild' awareness campaign to conserve wildlife



This awareness campaign is in line with the UAE's overall goal of fighting the illegal trade of endangered species.

A new awareness campaign called Beautiful in the Wild was launched by the Ministry of Climate Change and Environment in Abu Dhabi on 27th December, 2016, in a bid to raise awareness on this seminal issue.

Launched for the third consecutive year in partnership with the United for Wildlife Organisation, the initiative aims to raise awareness among UAE visitors and residents about the significance of protection of endangered species to ensure biodiversity at local and international levels. Partners of the campaign include Emirates

Wildlife Society in association with World Wildlife Fund (EWS-WWF), Federal Customs Authority, Dubai Customs, Abu Dhabi Airports, Dubai Airports, DP World, Department of Finance - Abu Dhabi, Emirates Airlines and Etihad Airways.

Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, unveiled an interactive stand promoting the campaign at Terminal 1 of Abu Dhabi International Airport. Abdul Majeed Al Khouri, Acting CEO of Abu Dhabi Airports, Ahmed Mahboob Musabih, Director

of Dubai Customs, Faisal Issa Lutfi, Executive Director of DC World, Hareb Al Muhairy, Senior Vice President for Corporate and International Affairs at Etihad Aviation Group, Aisha Mohamed Abdullah Al Abdooli Director, Education & Awareness Department at the Ministry of Climate Change and Environment and Salem Saeed Al Rumaithi, Executive Director of Technical Affairs of Abu Dhabi Customs, attended the ceremony.

The promotional stand allows passengers to enter a virtual wildlife world via the HoloLens



With the help of a cutting-edge holographic computer, visitors can experience simulated interaction with wild animals in their natural environment.

technology. With the help of a cutting-edge holographic computer, visitors can experience simulated interaction with wild animals in their natural environment. The presentation also includes a virtual brochure with information on wildlife species.

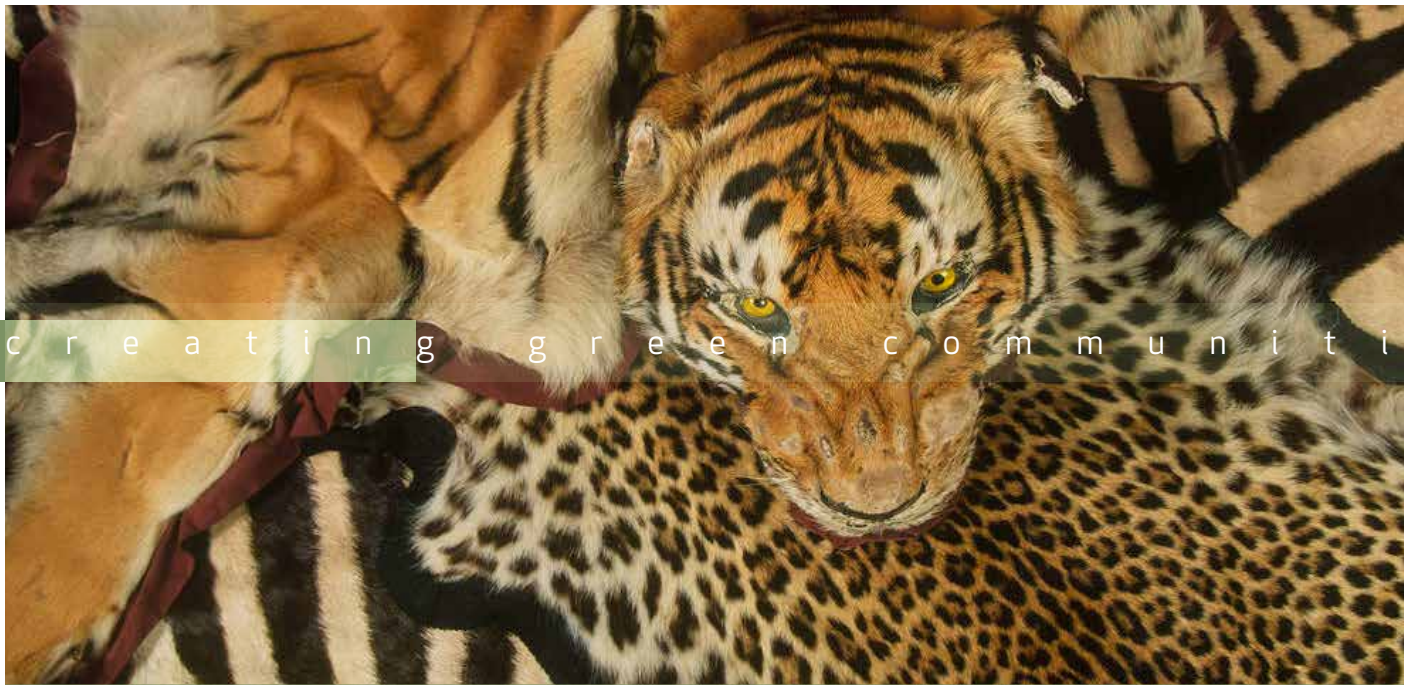
“The ‘Beautiful in the Wild’ campaign is in line with the directives of the visionary leadership of President His Highness Sheikh Khalifa bin Zayed Al Nahyan, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and

Prime Minister of the UAE and Ruler of Dubai, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces. We want to make the public aware of the seriousness of tampering with wildlife for unjustified reasons motivated purely by personal interests,” said Al-Zeyoudi at the launch of the campaign.

“Conservation of the ecosystem is one of the most important responsibilities we have as a nation and as human beings. Unfortunately, we still see

certain harmful practices, such as illegal trade in endangered animals that cause an imbalance to the ecosystem and adversely impact our environment. The UAE government considers wildlife an important aspect of its heritage and sees the protection of endangered species as its top priority,” he added.

Salem Saeed Al Rumaithi, Executive Director of Technical Affairs of Abu Dhabi Customs, stressed that preserving the environment is a common responsibility which needs national and international efforts to ensure



a better life for mankind and the preservation of natural resources for sustainable development for us and for future generations. He noted that customs officers are the “green fence” of any society.

Al-Zeyoudi praised the partners of the campaign and urged other key players to join this noble initiative. He reiterated the necessity of organized international efforts and capacity building in the field of environmental conservation, calling for implementing tougher penalties on illegal wildlife trade at national and international levels, and intensifying awareness building.

He said: “The UAE recognises the extent of its role and

responsibility in the eradication of illegal wildlife trafficking on a global level. We have taken several significant steps in this direction, including the strengthening of our institutional and legislative frameworks, such as the Federal Law No. 24 of 1999 for the protection and development of the environment and Federal Law No. 11 of 2002 concerning regulating and controlling the international trade in endangered species of wild fauna and flora.”

Among other related initiatives is the UAE National Biodiversity Strategy that develops and implements programs to increase the conservation status of highly endangered species to 70 percent. In addition, the

Ministry of Climate Change and Environment collaborates with the competent local authorities such as the Emirates Wildlife Society and International Fund for Animal Welfare, to step-up awareness of endangered species, legislation regulating wildlife trafficking, and the dangers of illegal wildlife trade.





IRENA Director-General meets with Egyptian President to discuss renewable energy deployment

Adnan Z. Amin, Director-General of the International Renewable Energy Agency (IRENA) met with H.E. Abdel Fattah el-Sisi, President of Egypt, in Cairo on 15th December 2016 to discuss opportunities for accelerated renewable energy deployment in Egypt as well as cooperation between Egypt and the Agency. Egypt currently holds the presidency of the IRENA Assembly.

“Egypt has a vast potential of largely untapped renewable energy resources” said Mr. Amin. “More importantly, its leadership is committed to scaling-up renewables to meet growing energy demand and a broad range of sustainable development challenges, and has taken concrete steps in this direction,” he added.

President el-Sisi praised IRENA’s growing role in promoting the widespread use of renewables as the world seeks to transition to a sustainable energy future. “We look forward to strengthening cooperation with IRENA to accelerate renewable energy deployment, not only in Egypt but also in Africa, through initiatives such as the Africa Clean Energy Corridor and the Africa Renewable Energy Initiative,” he added.

Egypt aims to supply 20% of its generated electricity from renewable sources by 2022, installing 3.5 gigawatts (GW) of solar by 2027 and 7.2 GW of wind by 2020. To achieve these objectives, Egypt has several mechanisms in place, including a feed-in tariff system for solar

PV and wind projects of less than 50 megawatts (MW), and a competitive bidding scheme for build-own-operate contracts.

These support schemes have yielded successful results in large-scale renewable energy generation, specifically with auctions achieving attractive prices, such as the 250-MW Gulf of El-Zeyt Wind Farm, which is producing power for just USD 0.04 per kilowatt hour.

“With the right mix of policy support and private sector investment, Egypt can both power its growing economy with clean, affordable renewable energy, and also create an environment for a flourishing domestic renewable energy industry, particularly in the wind and solar sectors,” he said.

Climate Change

28 c r e a t i n g



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

‘Climate change is a top priority for UAE’

Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, stresses the importance of addressing economic and environmental implications of climate change as a key priority for the UAE.

Addressing economic and environmental implications of climate change is a top priority for the UAE, according to Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment.

Based on the results of accurate scientific research and data, the Ministry of Climate Change and Environment is developing approaches to address this issue, especially in light of the domestic and global developments, he said in a statement on 22nd December in the UAE capital. “Sustainability is not something new for the

UAE. Our forefathers practiced sustainability to adapt to harsh weather conditions and they survived through their optimal use of scarce resources. They also preserved these resources for the generations to come,” he said.

The founding father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan, prioritized the environment and sustainable development thus laying the foundation for today’s significant change taking place under the leadership of President His Highness Sheikh Khalifa bin Zayed Al Nahyan, namely in economic

and energy diversification, the minister said.

HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, also launched a number of important relevant initiatives such as the UAE Green Growth Strategy, a long-term national initiative under the slogan “A Green Economy for Sustainable Development”, he added.

The UAE leadership has always been preparing for the post-oil era through innovation, creativity and preparation of qualified



es for a better tomorrow

The UAE's national plan for addressing climate change is being developed in partnership with the private and public sectors.

national human resources and future leaders who will bolster the economy creating new sustainable and knowledge-based sectors and enhance the country's global competitiveness.

A key partner in this national effort, the Ministry of Environment and Climate Change seeks to address pressing environmental issues through approaches that protect long-term economic growth and safeguard the nation's cultural heritage, Minister Al Zeyoudi further said, and noted that the national plan for addressing

climate change is being developed in partnership with the private and public sectors.

UAE forms Council for Climate Change and Environment

A new council has been formed to reinforce the UAE's policies and strategies on climate change, environmental and sustainable development.

The UAE Council for Climate Change and Environment was constituted on 25th December, 2016 by Dr. Thani Ahmed Al Zeyoudi, Minister of Climate Change and Environment.

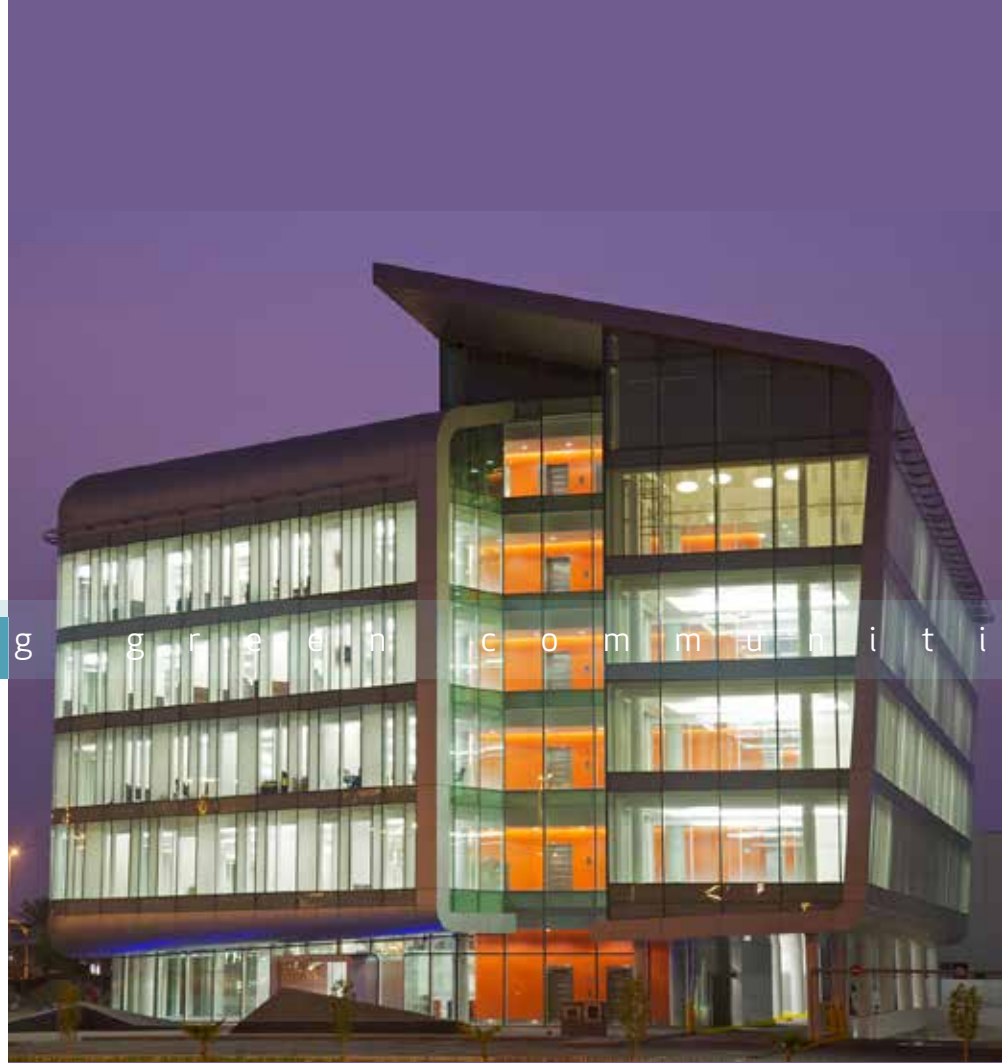
The council will develop plans towards achieving environmental objectives and also represent the UAE in regional and international negotiations related to the scope of work of the ministry. The council will also create partnerships with the private sector and conduct studies and lead scientific research in fields related to the ministry's work.

Dr. Al Zeyoudi, who also chairs the council said, "The council is expected to be a role model in playing the key leadership roles in climate change and environmental issues of the region."

LEED

30 creating green communities

UAE ranks 10th in Top 10 Countries for LEED Green Building



The United Arab Emirates establishes position of international leader for sustainable building design and construction.

On 15th December, 2016, the U.S. Green Building Council (USGBC) announced that the United Arab Emirates (UAE) was placed 10th in USGBC's annual ranking of the Top 10 Countries for LEED, the world's most widely used and recognized green building rating system.

The Top 10 list highlights countries outside of the US that are making significant strides in sustainable building design, construction and operations and represent the ever-growing international demand for LEED-certified green buildings.

"As we grow the sustainability movement from buildings to communities to cities, it is leaders in the international community like the United Arab Emirates that are driving market transformation across the globe," said Mahesh Ramanujam, president and chief executive officer of USGBC.

"With a focus on LEED and green buildings, the United Arab Emirates is prioritizing environmental and human health in the built environment on a holistic scale and helping us get one step closer to a green building for all within this generation."

In total, the UAE had 3.64 million gross square meters (GSM) of LEED-certified space and an additional 55.97 million cumulative GSM of LEED-certified and -registered space, totaling 1,067 projects participating in LEED across the country.

The UAE is part of a growing international trend as global green building is expected to double every three years, according to a Dodge Data & Analytics World Green Building Trends 2016 SmartMarket Report, to which USGBC was a

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



The U.S. Green Building Council (USGBC) is committed to a prosperous and sustainable future through cost-efficient and energy-saving green buildings.

contributing partner. Conducted in 70 countries, the report found that economies like the UAE will continue to be engines of green growth, with development varying from two-fold to six-fold over current green building levels.

Increased consumer demand has also pushed the world's green building market to a trillion-dollar industry, a surge that has led to a corresponding increase in the scope and size of the green building materials market, which is expected to reach \$234 billion by 2019. LEED-certified spaces use less

energy and water resources, save money for families, businesses and taxpayers, reduce carbon emissions and create a healthier environment for residents, workers and the larger community.

The full Top 10 Countries for LEED ranking is as follows: China, Canada, India, Brazil, Republic of Korea, Taiwan, Germany, Turkey, Sweden and United Arab Emirates. Currently, there are more than 82,000 commercial projects participating in LEED, or Leadership in Energy and Environmental Design,

totaling more than 1.4 billion GSM of space worldwide with an additional 112,000 residential units that have been certified under LEED Homes. An estimated 170,000 GSM of space achieves LEED certification every day in more than 162 countries and territories across the globe.

As buildings currently account for an estimated one third of global emissions, green buildings are one of the most cost-effective solutions to climate change as they generate significant environmental, economic and societal benefits.

Convention

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

UAE highlights
efforts on
biodiversity
protection



The UAE delegation at the Conference of the Parties to the Convention on Biological Diversity, CBD, COP13 in Mexico highlights its efforts in biodiversity protection and environmental conservation.

The UAE has highlighted its efforts on biodiversity protection and environmental conservation at the 13th meeting of the Conference of the Parties to the Convention on Biological Diversity, CBD, COP13. A delegation from the UAE participated in the meeting which was held in Cancun, Mexico, from 4th to 17th December along with the participation of 196 other countries.

The convention is aimed at the conservation of biological diversity, the sustainable use of the components of biological

diversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

Khalfan Al Suwaidi, Deputy Executive Director of Terrestrial and Marine Biodiversity Sector, Environment Agency - Abu Dhabi, represented UAE at the meeting. He said, "The preservation of natural life and its development are top priorities in the UAE and considered as the cornerstones of the country's policy in the field of environmental conservation and development." He emphasised that the UAE's exceptional experience

has underscored the success of sustainable development culture instilled by the late Sheikh Zayed bin Sultan Al Nahyan.

"In spite of the harsh desert environment, high temperatures and low rainfall rates, the UAE has a relatively rich biodiversity which includes ecosystems, wild and aquatic habitats, and species adapted to such environments and climate conditions," he elaborated. "The UAE also invests in the agricultural sector of other countries and provides a good portion of its development aid for the agricultural sector



The preservation of natural life and its development are top priorities in the UAE.

in developing countries, in addition to supporting global efforts to develop agricultural technologies and innovations such as the Sheikh Zayed Award for Agricultural Innovation," Al Suwaidi said.

MoU to implement 100-day emission reduction initiatives

Emirates Global Aluminium, EGA, and GE Power signed a Memorandum of Understanding (MoU) on 21st December, 2016 to work together on a 100-day programme to reduce EGA's nitrogen oxide (NOx) emissions under the UAE Government

Accelerators programme. Abdulla Kalban, Managing Director and CEO of EGA, and Joseph Anis, President and CEO, Power Services for the Middle East & Africa, GE Power, signed the MoU, in the presence of Dr. Thani Ahmed Al-Zeyoudi, Minister of Climate Change and the Environment, in Dubai.

Both companies are working in partnership with the Ministry of Climate Change and the Environment to secure tangible goals relating to the environment. EGA's goal is to reduce its NOx emissions by 10 percent by the

end of February 2017. NOx is also emitted by motor vehicles and contributes to poor air quality. Success in the project will improve air quality by the equivalent of removing 280,000 cars and their emissions from the UAE's roads.

Under the MoU, GE will work with EGA to implement an accelerated programme to minimize NOx emissions at EGA's power plants in Al Taweelah and Jebel Ali, while also contributing to improving further the operational efficiency of the two plants and reduce fuel usage.

Making a business case for the 'green economy'



Abu Dhabi Sustainability Week set to drive business opportunities as investment in renewables reaches record high.

The 2017 edition of Abu Dhabi Sustainability Week (ADSW), scheduled to be held this month, is on track to be the most important in the event's history for driving commercially focused action, said industry leaders at a press event held on 7th December, 2016.

Under the theme, 'Practical Steps Towards a Sustainable Future', the week's anchor event, the World Future Energy Summit (WFES), will be celebrating its 10-year anniversary with a strong focus on technology, innovation and finance. The rapidly falling

cost of renewable energy has transformed the business case for the 'green economy', unlocking an increasing number of investment opportunities.

Last year, global investment in renewables reached an all-time high of nearly US\$300 billion. Competitive bids for solar energy projects in the UAE have twice broken records for the lowest price for solar power generation at less than 3 US cents per kilowatt-hour.

Renewable energy, including solar energy and wind, is now widely

seen as having reached the critical mass needed to complement conventional energy sources in the global energy mix. Recent bids represent an enormous fall in price from around 8 to 9 cents per kilowatt-hour at the end of 2014, which is encouraging established energy companies to diversify and increase investment in renewable projects.

"I am honored to say that ADSW has consistently delivered on motivating global action for a more sustainable future," said Mohamed Al Ramahi, CEO of Masdar, host of the event. "This



As one of the largest gatherings on sustainability in the world, the ADSW is driving progress on energy, water and waste issues.

is reinforced by the strong momentum in the renewable energy sector, which has achieved commercial viability, and is now recognized as a mature, mainstream industry. This year's ADSW will continue to build on the event's unique ability to enable dialogue between policy makers, business and academia, bringing collaboration and shared actions across the interconnected dependencies of energy, water and waste."

First held in 2008, WFES is firmly established as the leading event for green energy investors,

buyers and vendors across the Middle East and North Africa, as well as South Asia. The four-day event will host leading decision makers from major renewables markets including Saudi Arabia, India, Jordan, Morocco, Egypt and the UAE - countries with more than 200 gigawatts worth of sustainable energy projects in the pipeline.

Bookings show the event is likely to host around 880 companies from 40 countries. More than 50 per cent of exhibitors at the event are small and medium sized enterprises (SMEs) from leading

clean tech nations including Germany, France, Japan, China, the USA and the UK, further illustrating the commercial dynamism and maturity of the sector.

Energy is the centrepiece of the UAE's expanding green economy. Renewable energy projects already announced or developed in the UAE will amount to 7 per cent of installed capacity by 2020. This in turn is pushing investment in new, energy efficient desalination methods to secure the nation's water supply. In addition, waste management



36 creating green communities

targets aim to divert 75 per cent of waste from landfill by 2021.

ADSW 2017 will see the return of important co-located events that promote a complete cycle of sustainability, including the 5th International Water Summit, supported by Abu Dhabi Water and Electricity Authority (ADWEA), and the 4th EcoWASTE exhibition and conference, held in partnership with Tadweer, The Center of Waste Management in Abu Dhabi (CWM).

The International Water Summit (IWS) is a global platform for promoting water sustainability in arid regions by bringing together world leaders, field experts, academics and business innovators to accelerate the

development of new sustainable strategies and technologies.

EcoWASTE is an international platform for promoting sustainable waste management practices and recycling, and is the region's largest gathering for waste management and recycling professionals. Held under the slogan 'From Waste to Resource', EcoWASTE aims to support the region's urgent waste disposal challenges in the quest for sustainable development and environmental protection.

ADSW 2017 exhibitions and conferences are expecting 38,000 attendees from 175 countries. That represents a threefold increase since its inaugural edition in 2008, and

a strong indicator of the green economy's growth and the event's success in supporting businesses as the commercial environment matures.

According to Ara Fernezian, Group Managing Director - Middle East, at Reed Exhibitions, the event organiser for WFES, IWS and EcoWASTE, "The events in 2017 will engage global industry partners and professionals, through a bespoke business matchmaking programme that brings buyers and sellers together to drive the industry's development."



UAE launches 'Environment & Business Majlis' to boost public-private synergy

To boost contribution of the private sector and guide private companies to be aligned with the government's environmental strategies, the Ministry of Climate Change and Environment (MoCCA), has launched the "Environment and Business Majlis".

The Majlis will also help create new investment opportunities between the ministry and the private sector.

The announcement was made during MoCCA's 2nd business meeting with businessmen and representatives from leading national companies in the UAE on 18th December, 2016, by Dr. Thani Ahmed Al Zeyoudi, Minister of Climate Change and Environment,

who stressed on the importance of bolstering partnership between public and private sectors in order to achieve the strategic objectives of the UAE's National Climate Change Plan 2017-2050 and the Green Agenda 2015-2030.

Dr. Al Zeyoudi commended the role of national companies in supporting the economic growth of the UAE. He pointed out that the Environment and Business Majlis aims to encourage the private sector to invest in environmental projects and hence contribute towards the UAE's national climate change initiative.

It will also help the nation in fulfilling its environmental and developmental needs in the food security and sustainable

infrastructure sectors. He stressed the importance of collaboration to improve and further develop the procedures that pertain to the services offered by the ministry, to expand the ministry's vision to be aligned with the perspectives of businessmen.

Dr. Al Zeyoudi indicated that the majlis would also propose innovative and technological initiatives in the environment and climate change sector that are in line with the global directive, urging private companies to adopt corporate social responsibility programmes that aim to reduce carbon emissions, in addition to improving and developing the ministry's services to the private sector.

Discussions held on doubling Dubai's green building efficiencies by 2030



Emirates Green Building Council (EmiratesGBC) and Dubai Supreme Council of Energy (DSCE) hold workshop to discuss ways of doubling the rate of energy efficiency in the emirate's buildings by 2030.

Emirates Green Building Council, EmiratesGBC, and Dubai Supreme Council of Energy, DSCE, invited key stakeholders of Dubai's building industry to jointly discuss thoughts and views on future potential policies aiming at doubling the rate of energy efficiency in buildings by 2030.

The joint workshop was held on 26th December, 2016 to discuss the Building Efficiency Accelerator (BEA), a public-private partnership of cities, businesses and organisations, which aims to improve energy

efficiency in buildings. The BEA is one of six accelerators under Sustainable Energy for All (SE4All), an initiative led by the United Nations Secretary-General, and is funded by the Global Environment Facility (GEF).

As one of the larger delivery partners under the BEA, EmiratesGBC and the DSCE's joint efforts are part of the larger global efforts in turning climate finance into concrete, timely and measurable action in cities in the wake of COP21.

The initiative for policy dialogue

hosted by EmiratesGBC and DSCE offered a platform to engage business and government industry stakeholders, identify policy focus areas and share strategic directions that align with the city's sustainability vision in connection to buildings. The event also explored the creation of policy packages to address barriers, bridge efficiency gaps and avoid lock-in of inefficient building stock.

Saeed Al Abbar, Chairman of EmiratesGBC, said, "When Dubai joined the Building Efficiency Accelerator programme in 2016,



ess for a better tomorrow

Energy efficiency within buildings is essential given the current scenario where buildings consume nearly one-third of energy demand and account for about one-third of Greenhouse Gas emissions globally.

we had begun the process of creating a tangible platform to further strengthen energy efficiency initiatives that are aligned with the Dubai Integrated Energy Strategy and the Dubai Plan 2021. This workshop provided a platform for all delegates to share knowledge, evaluate challenges and learn more about the implementation of the BEA initiative that will undoubtedly contribute to meaningful impact globally through innovative strategies.”

Energy efficiency within buildings is essential given the current

scenario where buildings consume nearly one-third of energy demand and account for about one-third of Greenhouse Gas emissions globally. The policy coupled with best sustainable practices will enable all stakeholders to be part of the efforts to tackle climate change.

Al Abbar shared that global building energy demand can be reduced by one-third by 2050, if known energy efficiency best practices are implemented on a large scale across regions. During the workshop, the audience of high profile leaders

from government and semi-government organisations, private developers, professional contractors and building design consultants agreed on the priority to speed the development and implementation of building efficiency policies and practices.

Ahmed Buti Al Muhairbi, DSCE Secretary-General, added, “We are looking at developing an integrated energy policy that can facilitate our need for creating green sustainable buildings which translates into reinforcement of our Dubai Integrated Energy Strategy 2030.”

Conference

40 creating green communities

Dubai hosts global conference on Quinoa



The event brought together more than 150 experts and professionals from more than 46 countries and they discussed the latest developments in quinoa research.

Leaders, scientists and experts from around the world gathered on 6th December, 2016 at one of the biggest international conferences dedicated to quinoa since 2013 was declared the International Year of Quinoa by the United Nations.

More than 150 leaders, policymakers, scientists, experts and professionals from over 46 countries came together to discuss and share the latest developments in quinoa research, production and trade around the world, and develop

a set of recommendations for quinoa cultivation in marginal environments which are affected by water scarcity and salinity.

The global population is forecast to increase to 9.7 billion in 2050 and there are concerns about the capacity of agriculture to produce enough food for the growing population. By some estimates, food production will need to go up by about 60 percent either through an increase in crop yields per unit area or an expansion in the arable land by 2050 to meet the demand. Furthermore, several regions already suffering from

malnutrition, water scarcity and soil degradation are forecast to have a large population growth, which raises concerns about whether traditional agricultural methods and crop species will have the capacity to sustain global food production targets.

People living in marginal environments are particularly vulnerable to the impact of climate change on agriculture. Therefore, there is an urgent need to identify solutions to sustaining and possibly increasing agricultural productivity in areas where growing traditional



The conference aimed at serving as a platform for the transfer of the latest innovation and knowledge on quinoa.

crops has become difficult and sometimes uneconomical. Quinoa is widely considered a promising crop that can contribute to addressing these challenges.

Addressing participants at the opening ceremony, Dr. Thani Ahmed Al Zeyoudi, Minister of Climate Change and Environment of the UAE, said: "Climate change poses one of the greatest threats to humanity. Countries that already suffer from droughts, water shortages, and salinity are at an even greater risk. We urgently need to find solutions and adapt and where possible

mitigate effects of climate change on different fronts, including agriculture. Ensuring future food security in marginal environments requires a shift in agricultural practices and innovative approaches to crop production systems. Quinoa can play a major role as a staple crop in marginal environments due to its adaptability to harsh environments including poor saline soils with annual rainfall as little as 200 mm."

An Oxfam study in 2009 showed that 45.9% of the poor in Sub-Saharan Africa and 25.3% in Asia

live in marginal environments. According to FAO's 'The State of Food Insecurity in the World 2015', 793 million people are undernourished globally.

Despite the growing global recognition of quinoa's potential, and positive research outcomes in pilot studies in recent years, there are still many constraints and issues to be addressed before quinoa becomes a crop of choice in marginal areas where major crops have long been dominant but are progressively failing to withstand increasing salinity and lack of water.



Speaking at the conference, Dr. Ismahane Elouafi, Director General of the International Center for Biosaline Agriculture (ICBA), said: "There has been considerable research on quinoa in recent years. However, there are still many areas to be researched and improved as we introduce quinoa into agriculture in marginal environments, in order to make sure its introduction and production systems are beneficial to the communities and their ecosystems now and in the future."

These challenges include, among others, limited availability of genetic material for cultivation outside the Andes, limited knowledge of best management

practices – especially nutrient and water requirements, pest and disease control, harvesting and processing under marginal growing conditions, and lack of suitable marketing channels where smallholder farmers could sell their produce.

Abdessalam Saleh Ould Ahmed, FAO Assistant Director General and Regional Representative for the Near East and North Africa, said: "The United Nations declared 2013 the International Year of Quinoa and this gave a renewed impetus to efforts to study nutritional, economic, environmental and cultural value of this food. We hope that this conference will be a turning point in raising awareness on the potential of quinoa for food and

nutrition security in marginal environments."

Held under the title of 'Quinoa for Future Food and Nutrition Security in Marginal Environments', the conference sought to find ways to implement research and development programs and initiatives to introduce and scale up quinoa in marginal environments.





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

Oasis Water launches UAE's first recycling map

Oasis, one of the UAE's first bottled water companies, launched the UAE's first recycling map in an effort to raise awareness of recycling and waste reduction initiatives in the country. The online map makes recycling easy for everyone, allowing people to locate their nearest recycling station and giving information on trusted waste management services.

The map can be located on the Oasis website www.ouroasis.com.

This is the latest in a line of activities launched by the water company in its efforts to generate awareness among communities in the UAE of the impact that plastic waste has on the environment. "By introducing this recycling map,

we are helping local communities to make recycling a daily lifestyle habit. People can now easily find the exact locations where these stations are available making it easier for communities to reduce waste as a whole," said Sharif Ramadan, Head of Brands for NFPC.

"With this initiative, our aim is to raise awareness of how we can work together to reduce the impact we have on our environment by recycling the plastic we use and also seek to bring more awareness to the country's recycling efforts."

With these recycling stations, Oasis plans to align with Dubai Municipality's Waste Management Department's vision to recycle

100 per cent of its waste and bringing the percentage of rubbish being sent to landfills to zero by 2030.

According to several studies on plastic waste, only 1 in 5 plastic bottles are recycled with enough plastic thrown away each year to circle the Earth four times. Studies have also shown that recycling plastic takes 88 percent less energy than making plastic from raw materials.



Conservation

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

Public-private partnerships make Gulf Green Turtle Conservation initiative a success



Since the project launch of Gulf Green Turtle Conservation initiative in May 2016, 24 green turtles have been located and tagged in UAE and Oman waters.

Emirates Wildlife Society in association with WWF (EWS-WWF), has reaffirmed how critical public-private partnerships are to protecting the Gulf's marine species and habitats, as it renews commitment from key UAE and Oman-partners for the Gulf Green Turtle Conservation initiative.

The latter was launched in May 2016 and has already made rapid headway, after 24 green turtles were tagged off the beaches in UAE and Oman. As the initiative aims to conserve endangered marine species and critical habitats in the UAE and wider region, EWS-WWF is

urging businesses and governments alike to take action, and fund the initiative as milestones continue to be marked across the region.

In its first year alone, the scientific research initiative has brought together eight partners who share the same vision of safeguarding the marine environment of the Arabian Gulf and the surrounding sea. These include: UAE Ministry of Climate Change and Environment (MoCCA), the Oman Ministry of Environment and Climate Affairs (MECA), Environment Agency - Abu Dhabi (EAD), the Environment Protection and Development

Authority in Ras Al Khaimah (EPDA), Environment and Protected Areas Authority (EPAA) in Sharjah, Environment Society of Oman, Five Oceans Environmental Services and the Marine Research Foundation.

Commenting on the significance of this project for the UAE, HE Eng. Mariam Mohammed Saeed Hareb, Assistant Undersecretary of Environmental Affairs and Nature Conservation Sector at MoCCA stated: "The conservation of the UAE's ecosystems is pivotal in our quest to preserve our natural and cultural heritage. The importance of the Gulf Green Turtle Conservation



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

With additional funding, experts aim to provide a comprehensive analysis of the ecology needs of green turtles and enable the identification of the marine habitats critical to their survival.

initiative is multi-fold and will enable us to build bridges to further strengthen our national and regional efforts to address the conservation of this key species in the UAE, the project plays a role in achieving the goals of our National Biodiversity Strategy and Action Plan concerning the conservation of the most threatened species.”

Highlighting the positive impact that fundraising has on marine conservation, Marina Antonopoulou, Marine Programme Leader at EWS-WWF said, “Marine turtles fulfil important roles in marine ecosystems. Seagrasses -

on which green turtles feed - also happen to be amongst the most productive ecosystems on the planet, providing a nursery for many species of invertebrates and fish. It is therefore essential to safeguard this flagship species and the habitats they and many other marine species rely on.”

Since the initiative was launched in May 2016, marine experts have gathered scientific data on green turtle migration and feeding patterns, and are in the process of identifying critical marine habitats. Working with its partners, experts at EWS-WWF have managed to

locate and tag 24 green turtles with satellite transmitters in the waters around Bu Tinah Island, Ras Al Khaimah, as well as Ras Al Hadd and Ras Al Jinz - two very important nesting areas in Oman.

The successful tagging of these creatures has enabled them to record observations such as post-nesting female turtles in Oman that show interesting movement patterns across the region. One particular female has travelled fast in a northward direction feeding offshore of the Fujairah coast. This highlights important ecological connectivity for green turtles



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creating green community

between the two geographic areas (Sea of Oman and the Arabian Sea).

With additional funding from businesses and governments, experts aim to provide a comprehensive analysis of the ecology needs of green turtles through a regional approach, and enable the identification of the marine habitats critical to their survival by 2020.

The initiative will provide science-based information to governments and policymakers that will prove essential when making informed decisions to protect green turtles and their habitats. In supporting this work, partners have become part of the solutions to ensure the UAE and region's development continues to grow, yet with a

minimal impact on the marine environment.

According to Dr. Thuraya Al Sariri, Assistant Director General of Nature Conservation at MECA, "Through our collaboration with EWS-WWF, we aim to gather information around post-nesting migrations of the females nesting in Ras Al Hadd and Ras Al Jinz – which hold some of the biggest nesting populations of Gulf green turtles in the region. This will help us map out the different feeding and nesting locations."

Dr. Saif Al Ghais Executive Director at Environment Protection and Development Authority (EPDA) added: "Our marine habitats are an important component of Ras Al Khaimah's

natural heritage. We are optimistic that our partnership with EWS-WWF will enhance our knowledge of green turtles in RAK and their associated marine habitats, such as seagrass meadows."

Environment Agency – Abu Dhabi (EAD), is hopeful that this initiative will fill information gaps that will be key to marine planning and protection of marine turtles.

The Gulf Green Turtle Conservation initiative is a continuation of EWS-WWF's efforts to protect the Gulf's marine environment. It follows the success of the previous 4-year Marine Turtle Conservation Project that tracked 75 female hawksbill turtles nesting in the UAE, Qatar, Oman, and Iran.

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



World Soil Day hails symbiotic role of pulses to boost sustainable agriculture

Soil and pulses can make major contributions to the challenge of feeding the world's growing population and combating climate change, especially when deployed together, according to *Soils and Pulses: Symbiosis for Life*, a new report by the UN Food and Agriculture Organisation released on World Soil Day on 5th December.

"Soils and pulses embody a unique symbiosis that protects the environment, enhances productivity, contributes to adapting to climate change and provides fundamental nutrients to the soil and subsequent crops," said FAO Director-General Jose Graziano da Silva.

The new report illustrates a variety of ways that pulses and soils can

be "strategic allies" in forging more sustainable food and agriculture systems.

One-third of the world's soils are now deemed degraded, due to a range of causes including acidification, salinisation, erosion and urbanisation, a matter of growing concern due to the intricate range of life-supporting ecosystem services they provide.

"Pulses are architects of soil health," according to the report. They host special soil bacteria enabling the biological fixation of nitrogen, a natural process that would cost an additional \$10 billion a year in synthetic fertilizers. They also foster soil carbon sequestration and cleaner water filtration. The world is currently losing soil

10 to 20 times faster than it is replenishing it, a trend pulses can help offset. Pulses are a critical ally in addressing hunger, food insecurity, malnutrition and rural incomes, all cardinal goals in the Sustainable Development Agenda.

They have higher protein content - often three times as much as rice or cassava - than staple grains. Pulses also are a significant source of health-enhancing minerals, including iron, magnesium, potassium, phosphorous and zinc.

Other dietary health attributes of pulses include high B-vitamin content, low fat content, no cholesterol and a low glycemic index. While low in calories, they are high in complex carbohydrates and dietary fibers.

Initiative

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DEWA and RTA discuss plans to encourage Green Charger initiative



[RTA has adopted a project to study the requirements for electric-vehicle charging stations and their locations in Dubai.](#)

Dubai Electricity and Water Authority (DEWA) and Roads and Transport Authority (RTA) have discussed cooperation and plans to encourage the use of electric vehicles and promote the Green Charger initiative.

This came up during a meeting between Saeed Mohammed Al Tayer, MD and CEO of DEWA, and Mattar Al Tayer, Director-General and Chairman of the Board of Executive Directors of the RTA, at DEWA's main office on 25th December, 2016.

Mattar Al Tayer was accompanied

by a high-level delegation from RTA comprising of Maitha bin Udai, CEO of the Traffic and Roads Agency, Ahmed Bahrozian, CEO of the Licensing Agency, Adel Al Marzouqi, Director of Parking, and Mendana Al Obaidly, Deputy Director and Manager of Technical Support, Office of the Director-General and Chairman of the Board of Executive Directors.

Also present during the meeting were Waleed Salman, Executive Vice President of Strategy and Business Development at DEWA, Marwan Bin Haider, Executive Vice President of Innovation and

the Future at DEWA, and Majid Al Hazami, Deputy Senior Manager of Smart Grid at DEWA.

“The visit was aimed at enhancing further cooperation in the development of the Green Charger initiative, which was launched by DEWA as part of the efforts to achieve the objectives set by the Smart Dubai initiative of Vice President, Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, to transform Dubai into the smartest and happiest city in the world. The Green Charger aims to install



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

The Green Charger initiative was launched by DEWA to achieve the objectives set by the Smart Dubai initiative laid out by HH Sheikh Mohammed.

and manage the infrastructure to provide electric vehicles with power to reduce air pollution and protect the environment from the environmental effects of the transportation sector in the Emirate,” said Saeed Mohammed Al Tayer.

Mattar Al Tayer emphasised RTA’s commitment to implementing the best green economy practices based on the Dubai Plan 2021 and the UAE Vision 2021.

“RTA has bought and operated 300 hybrid taxi cars, which is 6 percent of the total taxi fleet. We

are working to convert 50 percent of the taxi fleet to hybrid cars by 2021. These vehicles produce 33 percent less carbon emissions compared to other cars.

Hybrid and electric vehicles will comprise at least 10 percent of new cars purchased by RTA between 2016 and 2020. RTA participates in the Eco-Friendly Vehicle Conference, and the International Conference on Future Mobility,” added Mattar Al Tayer.

Mattar Al Tayer noted that RTA has adopted a project to study

the requirements for electric-vehicle charging stations and their locations in Dubai. It has also collaborated with DEWA in establishing 10 electric charger stations at RTA’s multi-level car park building.

DEWA has installed 100 chargers in different areas in Dubai. DEWA cooperated with major developers and stakeholders to identify the most appropriate locations to build the Green Chargers across Dubai. Locations include Dubai Airports, Dubai Municipality, RTA, shopping malls, petrol stations, hotels, and parking areas.

Solar Energy

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

Saudi Vision 2030 gives boost to solar energy investors



9.5 GW target for renewables underlines achievable energy plan and opens the way to greater private sector and international investment.

Private sector investors are showing new interest in Saudi Arabia's solar energy market, after the nation's leadership included plans to add 9.5 GW of renewables to the energy supply as part of Saudi Vision 2030, along with opening the way to greater private sector and international investment.

Announced in April 2016, the Vision 2030 strategy sets 9.5 GW as an 'initial target' to help build the renewables sector, noting that energy consumption will triple in the next 14 years. The Saudi government has since confirmed

that it aims to achieve that target by 2023, a rapid increase from the nation's 25 MW of installed renewable energy capacity at the end of 2015.

Saudi Arabia's plans are being supported by a comprehensive restructuring of government departments responsible for energy. Vision 2030 also promises a complete review of the legal and regulatory framework to allow the private sector to buy and invest in the renewable energy sector.

"The projects that will flow from Saudi Arabia's renewable energy

plan create a landmark opportunity for technology manufacturers, developers and investors in solar energy, setting out a very real, very achievable ambition," said Roberto de Diego Arozamena, CEO of Abdul Latif Jameel Energy, the largest GCC-based solar photovoltaic developer and one of the largest in the world.

With a pipeline of 5 GW in its worldwide solar energy portfolio, Abdul Latif Jameel Energy is promoting the industry's growth by sponsoring the World Future Energy Summit and Solar Expo, to be held in Abu Dhabi this month.



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

First held in 2008, World Future Energy Summit aims to build the business case for renewable energy.

“Given that prices for solar, which is the most practical renewable energy source in the region, continue to fall, it is actually likely that Saudi Arabia could achieve more than 9.5 GW in this time period,” said de Diego Arozamena.

“Private companies can play a vital role in unlocking Saudi Arabia’s potential for green energy, enabling technology transfer through international partnerships, and establish the nation as a global leader in renewables, particularly solar,” he added.

WFES, which is the MENA and

South Asia region’s leading commercial event for the renewable energy industry, is expected to see strong interest in Saudi business opportunities when the event is held as part of Abu Dhabi Sustainability Week this month.

Frost and Sullivan market data on energy efficiency notes that cuts to fuel subsidies saw petrol prices rise by around 50 per cent for 95 octane-rated and around 67 per cent for 91 octane-rated during 2015. In late 2015, Saudi Arabia outlined a five-year plan to raise fuel and energy prices, including

natural gas, petrol, diesel and electricity.

Saudi Arabia has already made considerable steps towards making the electricity network more competitive, separating generation and transmission, and opening the market to greater private-sector and foreign investment. Reducing fuel subsidies and pricing energy based on cost will improve the nation’s fiscal position, and level the playing field for new suppliers and emerging technologies, allowing market forces to contribute to national objectives.

Convention

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

5% of world's oceans are now protected



[UAE announces intention to declare 18 new protected areas, including four marine ones, at Convention on Biological Diversity in Mexico held in December 2016.](#)

Since April 2016, the world has added an unprecedented 3.6 million square kilometers - an area larger than India - to the amount of ocean and sea covered by marine protected areas (MPAs), taking the global total coverage beyond 5 per cent for the first time in history.

The Convention on Biological Diversity, which met in Mexico in December 2016, had urged the world to protect at least 10 per cent of its coastal and marine areas by 2020. That goal - part of the Aichi Biodiversity Targets - has now been exceeded at a global

level for marine areas under national jurisdiction.

According to latest figures from the revised Protected Planet report, the recent creation and expansion of five 'mega MPAs' in Chile, Palau, Hawaii, the Pitcairn Islands and St Helena's in the South Atlantic pushed the global total to 12.7 per cent.

"The establishment of so many new protected areas is tremendous news and should give those fighting tirelessly to conserve the world's oceans and seas an enormous sense of achievement,"

said Erik Solheim, the head of UN Environment.

"But we must remember that the Aichi Biodiversity Targets also call for countries to focus their conservation efforts on the areas of greatest biodiversity. It is not just about size of the area under protection but also about where these zones are located and how strong that protection really is."

Speaking to the delegates to the Mexico conference, UN Environment Patron of Oceans and endurance swimmer Lewis Pugh welcomed their efforts



es for a better tomorrow

Marine protected areas now cover 18.5 million km² - over 5% of the global ocean and nearly 13% of territorial waters.

and announced his campaign Antarctica 2020, which aims to secure additional MPAs in vulnerable Antarctic areas, spanning nearly 7 million square kilometers - roughly the size of Australia.

“We have entered a new era of uncertainty, with many hard-fought conservation achievements now under threat. It’s time to build on our recent success in the Ross Sea. With public support, I believe we can achieve the most ambitious ocean protection plan in history,” said Pugh, who was then in Antarctica’s icy Bellingshausen

Sea, where he was undertaking a swim in the freezing waters to bring the world’s attention to ocean protection.

In October last year, after five years of negotiations, spurred on by Pugh’s ‘speedo diplomacy’, 1.57 million square kilometers of the Ross Sea - an area larger than the UK, France, Germany and Italy combined - was declared a protected area.

The UN Biodiversity Conference in Cancun also saw spectacular announcements, led by Mexico’s pledge to preserve an additional

650,000 square kilometers of land and sea, and place nearly a quarter of its territorial waters under protection. This commitment includes the establishment of the Mexican Caribbean Biosphere Reserve, covering 57,000 square kilometers.

“As president for the UN Biodiversity Conference, Mexico wants to send a clear signal on the urgency to meet the Aichi Targets by taking unprecedented actions to preserve marine and terrestrial ecosystems,” said Rafael Pacchiano Alamán, Secretary of Environment and Natural Resources of Mexico.



“Mexico has surpassed its commitment to achieve the Aichi goals for marine areas and is on track to achieve land protected areas.”

Other pledges made in Cancun included Cambodia’s commitment to nearly double the amount of its protected areas, which will now cover around one third of the country’s total land. United Arab Emirates have indicated their intention to declare 18 new protected areas, including four marine ones.

Today, there are 14,859 MPAs spread across 18.5 million square kilometers of ocean and sea, according to new figures released by the International Union for Conservation of Nature

and UN Environment’s World Conservation Monitoring Centre, which compile data on the world’s protected areas.

However, the two organizations have warned that not all ecosystems and areas rich in biodiversity are equally represented, nor are all protected areas effectively or equitably managed. According to the Protected Planet Report 2016 released last year, only one third of the world’s marine ecoregions have more than 10 per cent of their area protected.

The world’s oceans are its largest source of protein while more than three billion people depend on marine and coastal biodiversity for livelihoods. When managed

correctly, marine protected areas can boost the abundance of fish and increase biodiversity.

Studies show that effective MPAs, where fishing is banned, have twice as many large fish species, a fivefold increase in large fish biomass, and 14 times the amount of shark biomass than fished areas.





Ramada Ajman facilitates future leaders' conference

In line with its continuous advocacy on sustainability, Ramada Hotel & Suites Ajman and Ramada Beach Hotel Ajman organized the International Roundtable Conference (IRC) for future leaders on the topic of climate change on 26th December.

HH Sheikh Dr. Abdul Aziz Bin Ali Bin Rashid Al Nuaimi, also known as the Green Sheikh, graced the event and shared his expertise on environmental missions.

The students, aged between 12 to 16 years, from 21 different nationalities took part in the interactive discussion which aimed to gather insights, identify ecological challenges, and share the best practices being carried out by their respective countries.

Some of the topics that were discussed during the conference related to the drastic change in temperatures globally especially in the desert regions of the Middle East resulting in heat waves; melting glaciers in the Himalayas and Caucasus which have resulted in flooding and landslides.

Rising sea levels which can affect island nations like Fiji and Sri Lanka; coral reef destructions in Australia and other tropical countries were also discussed.

They also touched upon the environmental challenges of countries with large population like China and India; excessive use of natural resources in the US; and the worldwide air, land and water pollution.

They also shared ideas on how to combat climate change including using public transport to minimize carbon dioxide emissions, providing incentive for sustainable companies, and planting trees on a large scale, among others.



Honor

56 creating green communities

RTA wins
'Champion of
Champions'
award for energy
management



The UAE's Roads and Transport Authority, RTA, wins the highest accolade of The Green Organization awards at a ceremony in Bouchon, Korea.

The UAE's Roads and Transport Authority, RTA, has been declared a winner of the Green World Award 2016 - one of the most prestigious awards in energy management in public and private sectors, given by The Green Organisation, an independent, non-profit environment group, dedicated to recognizing, rewarding and promoting environmental best practices around the world.

The RTA competed in the Best Energy Management Practices category and received the award in an event held on 2nd January,

2017 in the South Korean city of Bouchon to honor the winners.

Mattar Al Tayer, Director-General and Chairman of the Board of Executive Directors of RTA, expressed his pride and honor while accepting the trophy from Nasser Bu Shehab, CEO of RTA's Strategy and Corporate Governance Sector and Chair of RTA's Energy and Green Economy Committee.

"Winning the highest accolade of the Green Organisation signals RTA's continuous efforts to adopt the best practices in green

economy," he said. "RTA's practices come as an implementation of the initiative launched by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, in 2012 under the theme 'Green Economy for Sustainable Development'".

"The trophy won by the RTA and received by Amir Saleem, Director of Safety, Risk, Regulation and Planning at Strategy and Corporate Governance Sector in Bouchon, South Korea, is a source of pride for all of us. It reflects



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

Since its inception, the RTA has been making relentless efforts to conserve energy and natural resources.

the RTA's prestigious ranking globally in energy management and green economy practices," Bu Shehab said.

"Since its inception, the RTA has been making relentless efforts to conserve energy and natural resources. It has played a pioneering role in introducing energy management system in all projects and operations.

"In 2013, its efforts had been rewarded when it obtained ISO 50001 certification as the first government entity to attain this accreditation in the region.

"The RTA has charted out a comprehensive structure for green economy, making it the first government entity to accomplish this project in the region, which emulates its strategic drive to promote this global concept," said Nasser Bu Shehab.

"Over the past three years, the RTA has completed 45 projects and initiatives relating to energy and green economy, and established the Green Economy Section under direct supervision of the RTA's Safety, Risk, Regulation and Planning Department, as a reference for

documenting all green projects and initiatives across the RTA. It has stipulated a plan to transform 50 percent of taxicabs into hybrid vehicles by 2020 and embarked on a trial project for converting street lights into LED lights.

Projects launched by the RTA also include starting the trial operation of electric bus and CNG-powered bus, measuring the carbon footprint of vehicles in Dubai, starting the operation of electric and solar-powered abras, and planning for obtaining LEED certificate for Route 2020 Project," he added.

Honor

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

Six environmental leaders receive Champions of the Earth award



President of Rwanda, Australian eco-innovator, Moroccan Agency for Sustainable Energy, Indian organizer of world's largest beach clean-up, Honduran indigenous activist Berta Cáceres, and veteran Mexican biologist all awarded UN's top environmental prize.

Six inspirational environmental leaders representing government, research and grassroots action received the United Nations' highest environmental accolade, the Champions of the Earth award, on 2nd December, in Cancún, Mexico.

The annual award recognizes outstanding figures from the public and private sectors and from civil society whose actions have had a significant positive impact on the environment. From an indigenous activist killed for protecting the environment, to the world's largest beach clean-up organizer, the

awards recognize bold visionaries who confront the defining challenges of our generation, such as climate change, marine litter and the depletion of natural resources.

Each of the laureates, in different ways, shows how shifting the world onto a path that is low-carbon, efficient, inclusive, and socially, economically and environmentally sustainable is not only possible, but already in progress.

The 2016 winners are:

For Policy Leadership

H.E. Paul Kagame, President of Rwanda, for outstanding leadership

in fighting climate change and in national environmental action.

For Science and Innovation

Leyla Acaroglu, founder of Disrupt Design, New York, Eco Innovators, Melbourne, and UnSchool, for dedication to positive change through design, innovation, communication and human connection.

For Entrepreneurial Vision

Masen - the Moroccan Agency for Sustainable Energy, for its commitment to advancing solar power, making solar energy affordable and innovative



The awards were given out at the 13th Conference of the Parties of the Convention on Biological Diversity in Cancun, December 2, 2016.

approaches to green financing.

For Inspiration and Action

Afroz Shah, for outstanding leadership and initiative in mobilizing large-scale public support to remove 3000 tonnes of litter from Versova beach in Mumbai. Berta Caceres, was also recognized posthumously for her tireless campaign for the rights of indigenous people in Honduras and the protection of their natural environment.

Lifetime Achievement Award

Jose Sarukhan Kermez, for a lifetime of leadership and

innovation in the conservation of biodiversity in Mexico and around the world.

The head of UN Environment Erik Solheim said: "All around the world, we have seen significant efforts to translate the historic sustainable development agreements into action, from the ratification of the Paris Agreement on climate change and the New Urban Agenda to the intensifying of efforts to combat illegal wildlife trafficking. But governments know they cannot do it alone, and this year's Champions have demonstrated the vision and engagement needed at all levels

to improve our stewardship of the planet, to develop it sustainably, and secure the prosperity of all of its people."

The annual Champions of the Earth prize is awarded to outstanding leaders from government, civil society and the private sector whose actions have had a positive impact on the environment.

Since being founded twelve years ago, the awards have recognized 78 laureates - ranging from leaders of nations to grassroots activists - in the categories of policy, science, business and civil society.

Clean Fuels

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

West African countries ban Europe's dirty fuel imports



Nigeria, Benin, Togo, Ghana and Ivory Coast to block imports from oil companies and traders of diesel with sulphur levels many times the European limit.

Five West African countries have agreed to ban importing Europe's dirty fuels, a move that will dramatically reduce vehicle emissions and help more than 250 million people breathe safer, cleaner air.

Together, the countries of Nigeria, Benin, Togo, Ghana, and Cote d'Ivoire agreed on 1st December, 2016 in Abuja, to introduce strict standards to ensure cleaner, low sulfur diesel fuels and vehicles emissions standards, effectively cutting off Europe's West Africa market to export its dirty fuels. A report by Public Eye in September

last year exposed how European trading companies were exploiting the weak regulatory standards in West African countries, allowing for the export of fuels with sulfur levels up to 300 times higher than is permitted in Europe.

Erik Solheim, the head of UN Environment said: "West Africa is sending a strong message that it is no longer accepting dirty fuels from Europe. Their decision to set strict new standards for cleaner, safer fuels and advanced vehicle emission standards shows they are placing the health of their people first.

"Their move is an example for countries around the world to follow. Air pollution is killing millions of people every year and we need to ensure that all countries urgently introduce cleaner fuels and vehicles to help reduce the shocking statistics."

Alongside the introduction of the new standards, the West African group has agreed to upgrade the operations of their national refineries, both public and privately owned, to produce fuels of the same standards by 2020. UN Environment has been supporting countries in West



The five countries also agreed to upgrade their national refineries to bring locally produced diesel up to the same quality by 2020.

Africa to develop policies and standards to stop the practice of importing fuel with dangerously high sulphur levels and introduce cleaner fuels and vehicles.

Reducing the emissions of the global fleet is essential for reducing urban air pollution and climate emissions. A combination of low sulfur fuels with advanced vehicles standards can reduce harmful emissions of vehicles by as much as 90 per cent.

Nigeria's Environment Minister Amina J. Mohamed said: "For 20 years Nigeria has not been able

to address the vehicle pollution crisis due to the poor fuels we have been importing. Today we are taking a huge leap forward - limiting sulfur in fuels from 3000 parts per million to 50 parts per million, this will result in major air quality benefits in our cities and will allow us to set modern vehicle standards."

UN Environment is hosting the Secretariat of the Partnership for Clean Fuels and Vehicles (PCFV); a global public-private partnership that supports a shift to cleaner fuels and vehicles world-wide. When the Partnership started

its work on promoting low sulfur fuels in 2005, not a single low- and middle-income country used low sulfur fuels.

Today, 23 countries have shifted to low sulfur fuels and another 40 are on their way.

UN Environment is also hosting the Climate and Clean Air Coalition, whose members have adopted a global strategy for moving the world to clean low sulfur fuels and advanced emissions standards, which would save an estimated 100,000 premature deaths per year by 2030.

New hope for waste management in mountainous regions



140,000 kilograms of trash remain in Mt. Everest region following decades of tourism, says a new UN report.

The expansion of cities, pollution from mining and tourism are exacerbating challenges for waste management in mountain regions - but a new report led by UN Environment shows how policymakers can prevent it.

Mountain cities in developing countries are often expanding into areas vulnerable to natural disasters such as steep hills or riverbanks, finds the study, titled 'Waste Management Outlook for mountain regions - sources and solutions' launched in Vienna on 11th December, 2016, the occasion

of the International Mountain Day.

The resulting waste generation can be staggering. The 7.8 magnitude earthquake that struck Nepal in April 2015 produced nearly four million tons of debris in the Kathmandu valley. This was equivalent to nearly 11 years of waste being generated in a single day, overwhelming sanitary landfill sites, which were in place in only five out of 191 municipalities.

In the specific case of natural disasters, immediate waste management is essential to prevent disease and limit impact

on the environment. Disaster waste management plans should also be drawn-up before they are required to make best use of scarce resources.

"Urbanization is increasing across the world, and this includes cities located in mountainous areas. And while mountain ecosystems are naturally vital to local communities they are also important to those living in downstream regions.

"Since inadequate treatment or disposal of waste in mountains has such far-reaching impact, sound waste management must be a



International Mountain Day seeks to raise awareness of the services the landscapes provide to species and humans, both at high altitude and at lowlands

priority,” said UN Environment Chief Erik Solheim.

Rising income levels in developing countries lead to changing consumption habits that are adding to this challenge by increasing the proportion of non-organic, recyclable waste.

Need to dig deeper to clean up mining

Mining remains the most common heavy industry for mountain regions in developing states - leading to a heavy toll on species and forests, the report finds. Contaminants from extraction

activities can be found over 1,000 kilometres downstream from their source. For example, the Ok Tedi mine in Papua New Guinea has affected up to 30,000 people, harmed fish stocks and killed off forest by releasing copper and other pollutants into the river.

Security funds large enough to cover environmental liabilities for remediation should also be set up at each mine site, the report recommends. Transparency and access to information also creates incentives for all stakeholders to respect mining regulations - which civil society can help monitor.

Tourism

Tourism is often a double-edged sword for mountain areas. For example, the number of visitors to the Mount Everest region ballooned from 20 in 1964 to about 26,000 in 2012. This brought in much-needed income, but also left behind over 140,000 kilograms of solid waste.

Good practices to avoid waste overwhelming local infrastructure include bring-your-waste-back policies, camping and national park fees channelled into bins, eco-labels and community-based initiatives. The report also recommends promoting



waste management within the mountaineering community, including through global bodies such as the International Climbing and Mountaineering Federation and the International Federation of Mountain Guide Associations, as well as national mountaineering organizations.

Ups and downs of altitude

The weather and atmospheric conditions at high altitudes mean that less mosquitos and flies are likely to thrive there and spread disease from trash.

However, it is estimated that up to 40 per cent of the world's waste burnt in the open air and up to 29 per cent of small particulate matter originates from trash fires. With less oxygen in the air

at high altitudes, more incomplete combustion occurs - meaning greater quantities of soot from waste remain in the air. In certain mountain cities, the effects of altitude may be underestimated in air quality standards, the report finds - pointing to the rising prevalence of asthma in mountain cities of Latin America.

Globally, achieving economies of scale for waste collection is far harder in mountainous regions due to higher costs and transport difficulties in remote areas - including in the pan-European region - meaning measures to prevent and manage waste sustainably are even more important.

International Mountain Day

is celebrated annually on 11 December and seeks to raise awareness of the services the landscapes provide to species and humans, both at high altitude and at lowlands. 2017 is the International Year of Sustainable Tourism for Development.

Some 91 per cent of people living in mountainous regions are from developing countries, according to the UN Food and Agriculture Organisation. Of these, more than 25 per cent now live in urban areas or cities and the rate is on the rise.

The report forms part of a series of regional and thematic Outlooks focusing on solid waste management and builds on the Global Waste Management Outlook (2015).



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

Annual sustainable construction material conference held

The Dubai Municipality and the Dubai Central Laboratory (DCL) held the fourth Annual Quality Assurance for Sustainable Construction Materials Conference and Workshop on 14-15 Dec. in Dubai. The conference focused on the role of quality building materials in achieving higher standards for sustainability and safety in buildings and infrastructure.

Khalid Mohammed Sharif, Assistant Director General for Environment, Health and Safety Control inaugurated the conference in the presence of Amin Ahmed Amin, Director of Central Laboratory Department, Amina Ahmed Mohammed, Director of Accreditation Department and a large

number of researchers and specialists in the field of Quality Assurance and Quality Control of construction materials.

The conference brought together more than 150 delegates and speakers from government agencies, engineers, architects, laboratory specialists and cement and concrete professionals, who discussed the latest trends and developments in sustainability in buildings, and its effects on the quality of life.

“However, the focus this year was on the role of the Arab Research Institutes and Laboratories in improving standards and quality control of construction materials with the aim of achieving higher level for sustainability and safety

in buildings and infrastructure,” said Sharif.

The conference also discussed quality control of materials and products of green buildings. The event highlighted the international and regional approach to testing and quality controls.

As a specific feature of the conference, DCL teamed up with Dubai Civil Defence to introduce a new focus on “Fire Performance of Cladding and Thermal Insulation Products.” Other important sessions included the “Role of Research Institutes and Laboratories in Improving Quality Control” and “Onsite Applications and Inspections of Sustainable Construction Materials.”

Green Flash

66

creating green communities for a better tomorrow



The Mohammed bin Rashid Al Maktoum Solar Park

On the occasion of the 11th year of ascension of the visionary HH Sheikh Mohammed bin Rashid Al Maktoum, I wanted to count his environmental initiatives but found them uncountable. However, being a solar energy fan, one initiative that I found very interesting is the Solar Park, which is a key factor in achieving the Dubai Integrated Energy Strategy 2030, the Green Economy for Sustainable Development initiative and the UAE Vision 2021.

Being the largest operating solar photovoltaic (PV) plant in the Middle East and North Africa, this project is leading the inclusion of renewable resources in the energy mix as part of the Dubai Supreme Council of Energy's plans to ensure availability and reliability of energy supply while preserving natural resources and addressing the challenges of climate change through the application and development of renewable energy technologies.

In the first phase, the park generated 13MW of clean energy, which reduced greenhouse gas emissions by 15,000 metric tons of CO₂ per year. The 2nd phase will be operational by April 2017 generating 200 MW, while the 3rd phase is supposed to be operational in 2020 generating 800 MW. It is also worth mentioning that a Masdar-led consortium will implement phase 3 and Masdar is the leading UAE energy company.

This grand project is not about generating electricity alone. It has two supporting arms of international standard - the Innovation Centre and the Research & Development Centre (R&D). The interactive Innovation Centre has the latest technologies in renewable and clean energy to further develop national skills in the field of energy, to spread awareness on climate change and sustainable energy, and to educate people about solar energy and the Solar Park, highlighting Dubai's leading role in the field of sustainability.

Serving as a link between researchers and developers, the R&D Centre is a centre of excellence for innovative research in energy and water, leading regional efforts for scientific research on renewable energy with the aim of shaping a sustainable world-class utility. It is conducting studies to meet industrial and social requirements, developing formal channels linking universities to local and global research centers and developing output strategies for innovative, productive ideas. It has a Photovoltaic Solar Testing Facility for innovative technology demonstrations with key companies in renewable energy and for international collaboration on soiling and dust mitigation on PV equipment. This should set a baseline for development of specifications, tests and standards for PV equipment in the region, in addition to operation and maintenance strategies. It also includes a testing facility to study CSP technologies in a desert climate.

This ambitious project is recognized by the international community as playing an important role in the global efforts to implement the Paris Agreement and combat climate change. This is only one of the outstanding initiatives and achievements of the Ruler of Dubai, H.H. Sheikh Mohammed bin Rashid Al Maktoum, in his 11th year.

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