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Issue 171

creating green communities for a better tomorrow



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and Abu Dhabi Crown Prince
launches UAE National Space
Program

Deputy Ruler of Dubai honors winners of \$1 million Global Water Award



Emirates Appreciation Award for the Environment

Together for a green home

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creating green communities for a better tomorrow

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Prof. Mohammed bin Fahad
Executive Editor

For Dubai, the sky has never been the limit. As HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, said: "The word impossible does not exist in our dictionary." And so it is with the UAE's space programme.

Although the country's space agency was born only in July 2014 with a decision to send an unmanned probe - Mars Hope Probe 2021 project - to study the atmosphere, or lack thereof, on the red planet, today, through creative spirit and imagination we are pushing the boundaries beyond the realms of what was thought possible by aiming to build the first settlement on Mars in 2117.

The space programme is a marker of how far the UAE and the Arab world have come. The programme is not about Mars alone; the emphasis is on the exploration, knowledge and the betterment of mankind. The 100-year space exploration plan will push our students, scientists and researchers to develop innovative and revolutionary ways of thinking to tackle the scientific challenges involved.

Collaboration with the finest minds in the field will hone the nation's skills and expertise. The development of faster transport systems and types of food and fuels can bring huge benefits to our daily lives. Studying the Martian atmosphere will also teach us how to safeguard Earth and protect it from the same kind of change.

One of the most important goals of the Emirates Mars Mission is to enrich human knowledge; and by extending discoveries intended for the space program to our daily life, it will help improve the quality of our lives.

The development of space technologies and the space sector are catalysts for economic development and diversification. The UAE is looking at creating a progressive future for its people and positioning itself as a leading force in the advancement of humanity thereby entrenching itself as an incredibly inspiring role model for other nations to follow.

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From the Managing Editor



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

From words to action

Ever since the adoption by world leaders of the 2030 Agenda for Sustainable Development at a historic UN summit in September 2015 came into force, the UAE, along with other nations, have been mobilizing efforts to implement and deliver the promises that are at the heart of the Sustainable Development Goals to ensure that the sweeping ambitions of the 15-year global development agenda are realized.

Amongst the 17 SDGs, Goal 4 that calls for ensuring inclusive and quality education for all and promoting lifelong learning is critical as it is the key to build the human capacity that will allow many other SDGs to be achieved.

The UAE counts on education as one of the key enablers to deliver its 2021 Vision. Our wise leadership has recognized the paramount importance of harnessing the potential of its human capital and building a knowledge-based society in order to compete effectively on the global stage.

At the Dubai Police Academy where I teach postgraduate students, sustainable development and environmental management are newly launched subjects that are preparing them to execute the theory that are being taught through actions, plans and programmes in their area of work.

Similarly, it is this emphasis on lifelong learning that has led the Zayed International Foundation for the Environment to launch several innovative smart applications that cater to educational needs through the mode of entertainment. The prominence the Zayed Foundation gives to quality higher education has also led to the launch of its new category of Award, 'The Young Scientists Award for Environmental Sustainability'.

Sustainable quality in higher education will be one of the main themes I will be covering at The International Conference on Sustainable Development in Higher Education 2017 in Hong Kong, held in association with The 2nd UNPRME Colloquium. I am certain the Conference will pave the way for further dialogue, interaction and collaboration in scaling up and mainstreaming new and innovative practices in learning and knowledge development.

I look forward to a stimulating action plan that focuses on the key role of higher education and research as a key driver of the 2030 Agenda for Sustainable Development.

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Partnership

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

**Erik Solheim: Man
on a mission to
save the planet**



Norway's former international development and environment minister, Erik Solheim, took over the helm of the United Nations Environment on July 1st last year.

Following an extensive career focusing on environment and development in government and international organisations, Erik Solheim was elected to become head of UN Environment on May 13, 2016. He took the reins of the world's leading global environmental authority in June last year.

According to Dr. Mohammed Ahmed bin Fahad, Chairman of the Higher Committee of the Zayed International Foundation for the Environment, "The Zayed Foundation and the UN Environment have enjoyed a

long and fruitful history of collaboration and partnership that has strengthened with each passing year."

"As early as February 2000, the Zayed Foundation collaborated with UNEP to host the Dubai International Conference on Desertification," he said.

"In 2007, we signed an MoU with UNEP at Nairobi to continue this fruitful partnership as well as pursue the regional implementation of the programme of work of the UNEP," he said.

In March 2014, during The Partnership for Action on Green Economy (PAGE) conference held in Dubai, the Zayed Foundation and UNEP had released the Arabic Version of Building Inclusive Green Economies, which presented data and success stories on green economy practices based on real-life case studies from two dozen countries engaged in South-South cooperation.

Later that year, the two entities announced a new partnership to promote Education for Sustainable Development and



ERIK SOLHEIM is a recipient of the UNEP's Champion of the Earth award, TIME Magazine's Hero of the Environment, and has an honorary doctorate from TERI University in Delhi, India.

Sustainable Lifestyles.

In February 2015, the Zayed Foundation, in partnership with UNEP and with technical support provided by the 10 Year Framework of Programmes (10YFP) on Sustainable Consumption and Production (SCP) Secretariat organized the 1st Dubai International Forum for Sustainable Lifestyles in Dubai that aimed to identify the drivers of unsustainable consumption and lifestyles.

Last year on January 29, Zayed Foundation signed an

agreement with UNEP to produce an international textbook on inclusive green economy.

The sustainable vision of the Zayed International Foundation for the Environment was in the spotlight at UNEA-2 held at the UNEP headquarters in Nairobi, Kenya, in May 2016, added Dr. bin Fahad. "The Zayed Foundation's urgent call for international concerted efforts to tackle global environmental challenges was disseminated globally through UNEA2 on Twitter, UNEA2 Voices on YouTube and a host of international television channels.

We look forward to continuing this strong bond of ongoing partnership under the helm of the new Executive Director"



Zayed Foundation

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creating green communities

Zayed Foundation
to participate
in International
Conference on
Sustainable
Development in
Higher Education



Dr. Meshgan Al Awar, Secretary General of the Zayed International Foundation for the Environment, to deliver a keynote address at The International Conference on Sustainable Development in Higher Education 2017 at Hong Kong on 5th May.

Dr. Meshgan Al Awar, Secretary General of the Zayed International Foundation for the Environment, has been invited as keynote speaker to address The International Conference on Sustainable Development in Higher Education 2017 that will be held in Hong Kong on 5th May. The Conference is being held in association with The 2nd UNPRME Colloquium which focuses on “Exploring Quality Indicators and Collaborative Action Plans for Sustainable Mindset, Sustainable Responsible Programmes, Innovative

Pedagogy and Sustainable Learning Environment in Higher Education.”

Organized by The Centre for Corporate Sustainability and Innovations (CCSI), Hang Seng Management College and co-organised with UNESCO Asia-Pacific Regional Bureau for Education, the Conference is expected to be innovative and action-oriented with measurements.

According to Dr. Meshgan Al Awar, “Higher education is one of the key sectors that will enable us to

build a knowledge-based society and ensure that the sweeping ambitions of the 2030 Agenda for Sustainable Development are realized. Amongst the 17 Sustainable Development Goals adopted by the UN in 2015, Goal 4 - which calls for ensuring inclusive and quality education for all and promoting lifelong learning - is critical as it is the key to build the human capacity that will allow many other SDGs to be achieved.”

She elaborated that higher education influences the development of science and society as well as policy, and that



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

THE ZAYED FOUNDATION and the UN Environment have enjoyed a long and fruitful history of collaboration and partnership that has strengthened with each passing year.

it has a significant role to play in shaping and providing knowledge and learning for today and tomorrow.

Higher education not only boosts the human capital of the individual but is also an essential component in the challenge of problem solving, she explains. "It is crucial in identifying the specific challenges that countries face, whether in public health, or in facing the problems of climate change, or in adapting cities to be more resilient to natural hazards and also to develop policies and strategies vital to the specific

needs of each country or region."

"I hope the Conference will be a good opportunity for all participants to develop new strategic partnerships and align it with the goals of the global development agenda by integrating the principles and practices of sustainable development into all aspects of education and learning," said Dr. Meshgan.

Dr. Shirley Yeung, Director, Centre for Corporate Sustainability and Innovations, Hang Seng Management College will lead

The International Conference on Sustainable Development in Higher Education 2017 with her opening remarks.

Dr. Liang Xiaohui, Deputy Chief Economist, China National Textile Information Centre (CNTIC), will also deliver a keynote address at the Conference.



Cover Story

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

UAE National Space Program launched



Launched by HH Sheikh Mohammed bin Rashid Al Maktoum and the Abu Dhabi Crown Prince, the program includes reaching Mars in 2021 and building first settlement on Red Planet in 2117.

A UAE National Space Program has been launched and the program's strategy approved by 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, Abu Dhabi Crown Prince and Deputy Supreme Commander of the UAE Armed Forces.

The program, which will be executed by young Emirati cadres, was announced on 12th April, 2017 during a visit by HH Sheikh Mohammed Bin Rashid and

Sheikh Mohamed Bin Zayed to the Mohammed Bin Rashid Space Center (MBRSC).

Crown Prince of Dubai HH Sheikh Hamdan bin Mohammed bin Rashid, and Deputy Prime Minister and Minister of Presidential Affairs H.H. Sheikh Mansour Bin Zayed Al Nahyan also attended the tour that also included the launch of a satellite manufacturing complex as part of the MBRSC.

The move is part of the UAE's ambitious space program as it aims to reach Mars in 2021 and

build the first settlement on the Red Planet in 2117.

The Emirates Mars Mission (EMM) is set to launch the Hope spacecraft in July 2020 on a seven-month journey to the Red Planet. The UAE National Space Program also includes a new program to prepare Emiratis astronauts.

"Our national space program is a solid platform to prepare Emiratis cadres specialized in aerospace sciences, and qualify future generations that are able to contribute to humanity



Established in 2014, the UAE Space Agency directs national space programmes that will have direct benefits to the country's economy and human capital.

knowledge,” said HH Sheikh Mohammed bin Rashid.

“We plan to send the first Emirati astronaut to the space over the next few years, and starting from today, we are preparing the first Emirati and Arab astronaut to join scientists at the International Space Station.”

Sheikh Mohammed said that the UAE space program is a message to the Arab world that our sons are able to compete on the global level. “Our objective is to show the world that we are able to contribute to humanity through

quality knowledge and scientific discoveries,” he said.

Sheikh Mohamed bin Zayed said that the UAE is making a new national leading achievement every day on all levels thanks to the leadership of President His Highness Sheikh Khalifa Bin Zayed Al Nahyan and the vision of Sheikh Mohammed Bin Rashid.

“We are very proud of our Emirati youth playing a pivotal role in shaping an ambitious future for their own country and pursuing higher educations in the field of science and knowledge,” he said.

Present during the tour were Minister of Cabinet Affairs and Future Mohammed Abdullah Al Gergawi, and Minister of State for Defence Affairs, Mohammed Ahmad Al Bowardi, along with senior government officials.



Cover Story

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

Deputy Ruler of Dubai honors winners of \$1 million Global Water Award



[The first edition of the Mohammed Bin Rashid Al Maktoum Global Water Awards honored 10 winners from eight countries who will share the \\$1 million prize for their ideas to help stave off global water scarcity using solar power-backed technology.](#)

On 27th April, 2017, H.H. Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum, Deputy Ruler of Dubai, honored 10 winners from eight countries at the Mohammed bin Rashid Al Maktoum Global Water Award, which is worth US\$1 million.

Winners of the Award came from eight countries that included UAE, Qatar, Canada, Switzerland, the Netherlands, Spain, Finland, and Greece.

The first place in the Innovative Research and Development Award

– National Institutions category, was jointly-shared by Khalifa University for a dual-disinfection-modified biosand filter, coupled with solar pasteuriser system, and Masdar Institute at Khalifa University for a solar desalination process using a perforated black fabric under solar collector.

The first place in the Innovative Research and Development Award - International Institutions category, went to the Netherlands Organisation for Applied Scientific Research (TNO), in cooperation with the Qatar General Electricity and Water

Corporation (KAHRAMAA), for a solar-powered desalination technology based on TNO's high-efficiency membrane distillation concept.

The first place in the Innovative Projects Award went to the Elemental Water Makers from the Netherlands, for a solar-powered Reverse Osmosis (RO) plant to produce drinking water. Dr. Marta Vivar from Spain won the Innovative Youth Award for a hybrid solar photovoltaic-photochemical system for water disinfection and electricity generation.



THE AWARDS are organised by UAE Water Aid Foundation (Suqia) which helped provide fresh water to eight million people in 19 countries in 2016.

The Award was launched by Vice President and Prime Minister of the UAE and Ruler of Dubai His Highness Sheikh Mohammed bin Rashid Al Maktoum to encourage research centres, individuals and innovators from around the world to find innovative and sustainable solutions for clean-water scarcity around the world, using solar power. The award is overseen by the UAE Water Aid Foundation (Suqia), under the umbrella of the Mohammed bin Rashid Al Maktoum Global Initiatives. It has three main categories: Innovative Projects Award, Innovative Research and Development

Award, and the Innovative Youth Award.

The award ceremony was attended by Sheikh Mansour bin Mohammed bin Rashid Al Maktoum; Minister of State Sultan bin Ahmad Al Jaber, Minister of State for Higher Education, Ahmad bin Abdulla Humaid Belhoul Al Falasi, and others.

In his keynote speech, Saeed Mohammed Al Tayer, Chairman of the Board of Trustees of Suqia, welcomed the guests to the UAE, describing it as the land of peace,

happiness, and positivity, and the country of giving that assists all those in need and decreases their suffering, wherever they are, regardless of nationality, race, or religion.

He pointed out that in December 2016, UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan had declared 2017 as the Year of Giving in the UAE. He added that he was pleased that the innovators and winners of the first Mohammed bin Rashid Al Maktoum Global Water Award were being recognized during the Year of Giving.



"The UAE was ranked the world's top development assistance donor in 2016 relative to its national income, according to the Organisation for Economic Co-operation and Development.

"The UAE has become a centre for helping the needy wherever they are, in adherence with the teachings of Islam, Arab traditions, and the principles instilled in the hearts of Emiratis by the Founding Fathers. Today, our wise leadership, headed by President His Highness Sheikh Khalifa bin Zayed Al Nahyan, His Highness Sheikh Mohammed bin Rashid Al Maktoum, and Their Highnesses the Supreme Council Members and Rulers of the Emirates, follow the same path," said Al Tayer.

Al Tayer noted that hundreds of millions of children won't have access to clean water in the future, and that girls now spend 200 million hours each day collecting water, which affects their education, according to the United Nations Children's Fund (UNICEF). The United Nations agency has warned us that 600 million children will live in areas with severely limited clean-water resources by 2040.

"The Mohammed bin Rashid Al Maktoum Global Water Award, which bears the name of a person whose generosity is not just for the people of the UAE, but also helps those in need anywhere in the world, is another significant milestone in the UAE's humanitarian efforts. It

supports international efforts to provide drinking water to the needy by devising practical and sustainable solutions to water scarcity," Al Tayer added.

The UAE Water Aid Foundation (Suqia) is committed to achieving one of the key objectives set by the Mohammed bin Rashid Al Maktoum Global Initiatives foundation, which is to combat poverty and diseases by contributing to finding permanent and sustainable solutions to water scarcity around the world, Al Tayer said.

In the words of His Highness Sheikh Mohammed bin Rashid Al Maktoum, "UAE Water Aid will not differentiate between one person and another, so are all of

The inaugural edition of the Mohammed Bin Rashid Al Maktoum Global Water Awards received a total of 138 applications from 43 countries from research centres, universities and innovators.



مبادرات محمد بن راشد آل مكتوم العالمية
Mohammed bin Rashid
Al Maktoum Global Initiatives



جائزة محمد بن راشد آل مكتوم العالمية للمياه Mohammed bin Rashid Al Maktoum Global Water Award



our humanitarian works, such as the UAE's humanitarian mission that lies in helping the afflicted, the needy and disadvantaged people all over the world without any distinction."

Al Tayer thanked the Emirates Red Crescent (ERC) for its cooperation, noting that Suqia's work with the ERC has exceeded the goal set by H.H. Sheikh Mohammed bin Rashid Al Maktoum when he launched Suqia as an initiative to provide water for five million people around the world.

By the end of last year, our projects provided potable clean water to over 8 million people in 19 countries worldwide. Suqia also collaborated with

the Ministry of Foreign Affairs and International Cooperation to provide relief to Yemen, benefitting over a million people, according to the Ministry's report.

The Award committee received 138 applications from 43 countries around the world, Al Tayer noted. "We were also pleased with how many young people took part, which reaffirms the role of the UAE as a platform that motivates innovation, an incubator of creativity, and a destination for innovators from all over the world," added Al Tayer.

He quoted His Highness Sheikh Mohammed bin Rashid Al Maktoum who once said, "We may

not live for hundreds of years, but the products of our creativity can leave a legacy long after we are gone."

The Mohammed bin Rashid Al Maktoum Global Water Award is based on a rigorous assessment process, based on the highest standards and best international practices, to measure the feasibility of projects submitted to achieve the Award's objectives.

They also measure the level of performance and compliance with its basic principles of using innovation and creativity to find environmentally-safe and sustainable solutions for water desalination and purification using solar power.



UAE Water Aid Foundation provides drinking water to over 8 million people in 19 countries

The UAE Water Aid Foundation (Suqia) has announced that over 8 million people have benefitted from its projects to provide clean drinking water to the needy in 19 countries around the world. Suqia, under the umbrella of the Mohammed bin Rashid Al Maktoum Global Initiatives, is primarily engaged in research and development to find solutions to water scarcity around the world and to promote investment in sustainable and innovative solutions using solar energy to provide clean drinking water by building effective and sustainable partnerships in accordance with the best global standards.

Suqia also oversees the Mohammed bin Rashid Al Maktoum Global Water Award, worth USD 1 million. The Award was launched by HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to find permanent solutions to water scarcity around the world, using solar powered water desalination and purification. The award has three categories: Innovative Projects Award, Innovative Research & Development Award, and Innovative Youth Award.

Suqia was launched in June 2014 as a campaign by HH Sheikh Mohammed bin Rashid Al Maktoum, to provide drinking water to 5 million people

around the world. It concluded successfully after collecting AED 180 million in 18 days.

In March 2015, His Highness issued a law establishing the UAE Water Aid (Suqia) as a non-profit organisation. Suqia works to combat poverty and disease, one of the objectives set by the Mohammed bin Rashid Al Maktoum Global Initiatives.

This is done by finding solutions to water scarcity, in addition to serving areas suffering from drought or lack of clean water and the provision of clean water using modern technologies, and purification and desalination of water using solar energy.

“The UAE plays a leading role

UNICEF has predicted that up to 600 million children will have limited access to clean water by 2040.



worldwide in addressing the challenges facing humanity, as well as providing necessary support and humanitarian assistance.

“According to the directives of HH Sheikh Mohammed, to improve the living conditions of poor and afflicted communities, and support the sustainable development, Suqia supports international efforts to combat poverty and diseases.

Suqia works mainly to provide clean water to the needy around the world, in collaboration with several UAE charitable organisations. It also works to find sustainable and innovative solutions to water scarcity around the world through

studies, research, and projects using solar energy to provide clean water. This confirms the UAE’s commitment to actively participate in finding solutions to the challenges facing humanity,” said HE Saeed Mohammed Al Tayer, Chairman of the Board of Trustees of the UAE Water Aid Foundation.

Mohammed Abdulkareem Al Shamsi, Acting Executive Director of the UAE Water Aid Foundation, noted that Suqia cooperates with the Emirates Red Crescent Authority, the Mohammed bin Rashid Al Maktoum Charity and Humanitarian Establishment, and the Ministry of Foreign Affairs and International Cooperation, to provide potable water to the

needy and the disadvantaged. Suqia also conducts research and development in water desalination and purification using solar energy in cooperation with Dubai Electricity and Water Authority (DEWA).

These projects include reverse osmosis of seawater by a photovoltaic desalination plant, and water purification using solar technology with a capacity of 7.7 cubic metres per day, in addition to research and development in the field of desalination and purification of water using solar energy through a desalination plant at the Mohammed bin Rashid Al Maktoum Solar Park, with a capacity of producing 50 cubic metres per day along with electricity storage.

Initiative

18

creating green community

Water Budget concept adopted as part of the National Agenda 2021



The Water Budget initiative aims to balance water use that meet social, economic and ecological needs.

The UAE has adopted the Water Budget Initiative as part of the National Agenda 2021 by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, during a government function at the Etihad Museum in Dubai on 10th April, 2017. This initiative aims to balance water use that meet social, economic and ecological needs.

The adoption of this initiative came during an event in Dubai to evaluate the progress made by

36 executive teams assembled by the UAE Government last October 2016 to implement the National Agenda 2021. Closely evaluated by His Highness, the teams were given the task to work towards the Agenda's objectives with 52 different national indices over the course of the next four years. The goal is to reach perfect scores (100 percent) across all indices and within six key sectors: healthcare, education, the economy, the environment and infrastructure, society, and security and the judiciary.

H.H. Sheikh Mohammed met with

500 members of the 36 executive teams, and was briefed on the results of each team's respective national index, as well as the challenges they face and the initiatives and programmes they have launched to help implement the National Agenda.

Accompanying H.H. Sheikh Mohammed to Etihad Museum were H.H. Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, H.H. Sheikh Mansour bin Zayed Al Nahyan, Deputy Prime Minister and Minister of Presidential Affairs, and Mohammad bin



THE ADOPTION of the Water Budget initiative came during an event in Dubai to evaluate the progress made by 36 executive teams assembled by the UAE Government to implement the National Agenda 2021.

Abdullah Al Gergawi, Minister of Cabinet Affairs and The Future.

The executive team for the Energy Index presented 10 initiatives to meet energy demand, encourage reliance on clean energy, implement green development projects, and reduce carbon dioxide emissions. The initiatives included the Blue Carbon Project, the Carbon Capture Facility, the Electricity Market Initiative, The National Programme for Energy Demand Management, and the Program for the Peaceful Use of Nuclear Energy in Electricity Production. The initiatives were

presented by His Excellency Suhail bin Mohammed Faraj Al Mazrouei, Minister of Energy.

The executive team for the Water Index presented a roadmap consisting of nine initiatives that aim to ensure a holistic approach to water resource management in the UAE. The initiatives cover water demand management, rationing water consumption, establishing a water budget for the UAE, the Rainfall Programme, and the Masdar programme for the development of seawater desalination technologies using renewable energy sources.

During the event, the Environment Agency – Abu Dhabi (EAD) was represented as part of the executive team for the Water Index, chaired by the UAE Ministry of Energy.

HE Razan Khalifa Al Mubarak, EAD's Secretary General said: "Management of water resources have long been a strategic priority for the UAE. The water budget approach requires exceptional coordination between water suppliers and astute water demand management of all users- industry, agriculture, forestry, amenities, government and households."



HE Al Mubarak added, "This approach is expected to have a positive environmental, economic and social impact. First, it will reduce the environmental damage and health impacts related to the depletion of groundwater and the emissions of air pollutants and CO₂ and to the discharge of brine to the Arabian Gulf associated to water desalination.

Second, it will reduce the fiscal burden from infrastructure investments for water production and the need for government subsidies. Third, it will encourage innovation and will provide investment opportunities for citizens to engage in the sustainable production and use of water.

Finally, she pointed out the benefits of adopting a water budget approach that will increase the efficiency of water use and improve water productivity, helping to maximize the return from every drop of water.

Additionally, the Strategic Water Storage Project and Water Security Strategy 2036 were also presented to HH Sheikh Mohammed by the Minister of Energy.

Dr. Thani Ahmed Al Zeyoudi, UAE Minister of Climate Change and the Environment, presented the project created by the executive team for the Waste Management Index – the Roadmap for Waste Management in the UAE. This

includes national projects and a number of initiatives to encourage community members and institutions to reduce waste.

The initiatives include: building and operating a website that connects a waste producer with another party that could benefit from such waste as raw materials for a different industry. Beneficiaries range from commercial enterprises and industrial facilities, to government bodies and academic institutions.

The initiative "Ajyalna" engages public and private schools across the UAE in efforts to preserve the environment and reduce the ecological footprint of the academic community.



Mother of the Nation Festival taps into the importance of water sustainability

Miyah – World of Water, an interactive installation illustrating the importance of global water sustainability, debuted at this year's Mother of the Nation Festival held from 26th March to 4th April on the Abu Dhabi Corniche.

The installation aimed to shed light on the value of water preservation while outlining its role in sustaining all life forms.

Miyah – World of Water helped create public awareness of the positive impact of water sustainability, reflecting the inspirational vision and values of H.H. Sheikha Fatima bint Mubarak, Chairwoman of the General Women's Union,

Supreme Chairwoman of the Family Development Foundation and President of the Supreme Council for Motherhood and Childhood, and in line with the festival's themes of conservation, sustainability, empowerment, education and collaboration. The interactive presentation, displayed in more than 20 languages, showcased the value and origins of this precious natural resource, its uses in sustaining life, and global consumption rates.

The experience's five zones urged visitors to appreciate the cleansing power of water, before taking them into multiple educational and scientific presentations around the water cycle, the human water footprint

and global water consumption in agriculture, industry and households, along with fun facts about its role in human, animal and plant life.

Image galleries also showcased the UAE's collective efforts to address water distribution, desalination processes and scarcity issues. A compelling presentation highlighted some global initiatives in water sourcing and preservation, as well national initiatives to safeguard the UAE's water reserves such as Masdar's Renewable Energy Water Desalination Programme, the UAE Research Programme for Rain Enhancement Science Initiative, and the UAE Water Aid Campaign, amongst others.

Solar Energy

22 c r e a t i n g

First solar-powered service station opens in the UAE



PhotoVoltaic (PV) solar panels installed on canopy can generate 30 per cent more than the average energy required to run the station.

E NOC Group has opened the first solar-powered service station in the UAE, reiterating its commitment to environmental sustainability and energy efficiency in line with the Dubai 2021 Plan to become a smart and sustainable city.

The inauguration was attended by His Excellency Saeed Mohammed Al Tayer, Vice Chairman of ENOC Board and Managing Director and CEO, Dubai Electricity and Water Authority (DEWA), and all the Board of Directors of ENOC along with His Excellency Saif Humaid Al Falasi, Group CEO of ENOC,

Zaid Alqufai, Managing Director of ENOC's retail business, and the Group's senior management team.

Located near the entrance towards Dubai Internet City on Sheikh Zayed Road, the service station has installed PhotoVoltaic (PV) solar panels on the roof of the canopy that can produce a peak capacity of 120kWh (Kilowatt per hour) energy on an ideal day, generating approximately 30 per cent more than the average energy required to run the station. The excess power generated is transmitted back to DEWA's main grid through

a DEWA solar metre that tracks the power injected to the power grid.

His Excellency Saif Humaid Al Falasi, Group CEO of ENOC, said: "As the key energy player behind Dubai's success, we remain committed to expanding the UAE's infrastructural capabilities as we gear up for the Expo 2020. The Group has laid out a detailed plan to deliver 14 service stations by 2017. With two service station openings already announced earlier this year, the launch of the UAE's first solar powered service station demonstrates our efforts



ON CLEAR sunny days, 120 kWh of energy can be generated through the solar panels with excess power transmitted back to the DEWA grid.

to become an environmentally responsible energy player.”

The DIC service station is a pilot site for a number of energy saving technologies such as Vapor Recovery systems and PV panels. All future ENOC service stations will have provisions to install PV solar panels on the roof of the canopy.

“We have been pioneering several initiatives across the country that are in line with the Dubai’s larger plan for a smarter and more sustainable Dubai while managing the emirate’s future growth. We

will continue moving forward by ensuring the availability of clean energy sources and promoting rationalisation of consumption,” added Al Falasi.

The DIC service station will reduce the network’s carbon footprint by 195 equivalent tons of carbon dioxide (CO₂) per year. The station will also deploy several energy saving technologies such as variable refrigerant flow air-conditionings units, motion sensor energy lighting and vapour recovery (VR) system which uses a process to recover vapour released from the

petrol dispensers and storage tanks and condense it back into fuel form. The VR system is expected to convert up to 20,000 litres of fuel.



Recycling

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

World's largest e-waste recycling plant to open in Dubai this year



Enviroserve UAE to set up world's largest integrated electronics, waste recycling plant at Dubai Industrial Park.

Enviroservice UAE, a global leader in the distribution of specific niche waste and ecological options, has authorized an arrangement with Dubai Wholesale City for the construction of a 228,000 sq ft electronic devices and specialized waste recycling plant at Dubai Industrial Park, the committed commercial hub within Dubai Wholesale City.

The signatories included Abdulla Belhouli, President of Dubai Wholesale City, and Stuart Fleming, Group Chief Executive Officer of Enviroservice UAE.

Backed by the Swiss Government Export Financing Company, the AED120 million project represents one of the largest international straight financial investments in the area of environmental administration in the UAE. The center will function as the region's biggest facility of experience for electronic waste management in the Middle East.

This first-of-its-kind plant will recycle the entire range of end-of-life electrical and electronic equipment ranging from consumer and commercial to industrial and military appliances, such

as air conditioners, batteries, IT tools, household appliances, armed forces avionics and mobile phones. Furthermore, it will certainly reuse customized waste material, such as aerosol cans and lightbulbs, to come to be the only dedicated cooling agent reclaim facility in the UAE.

Expected to commence procedures by end-2017, Stage 1 of the plant will comprise state-of-the-art tools to procedure 39,000 tons of electronic waste annually. Talking at the signing ceremony, Abdulla Belhouli stated: "At Dubai Industrial



This first-of- its-kind plant will recycle the entire range of end-of- life electrical and electronic equipment ranging from consumer and commercial to industrial and military appliances

Park, we strongly support green remedies as part of our tactical commitment to advertising sustainable manufacturing and socially responsible methods. Our partnership with Enviroserve UAE shows how our world-class infrastructure and allied solutions aid our clients perfectly adapt to new market problems and opportunities. We are certain the project will spearhead the development of a sustainable electronic waste monitoring market in the region.”

According to Stuart Fleming, “Our new incorporated recycling

plant will be a real game-changer in digital and customized waste recycling for Dubai and the bigger Middle East region. Making use of best-in- class modern technology, this facility will boost the sustainability activity in the region.”

A pioneer in innovation in the recycling field, Enviroserve UAE uses lasting solutions that purely adhere to UAE laws, global criteria established by the United Nations Setting Programme, in addition to and the Waste of Electrical and Digital Devices Directive (WEEE Directive 2002/95/EC). Accredited to

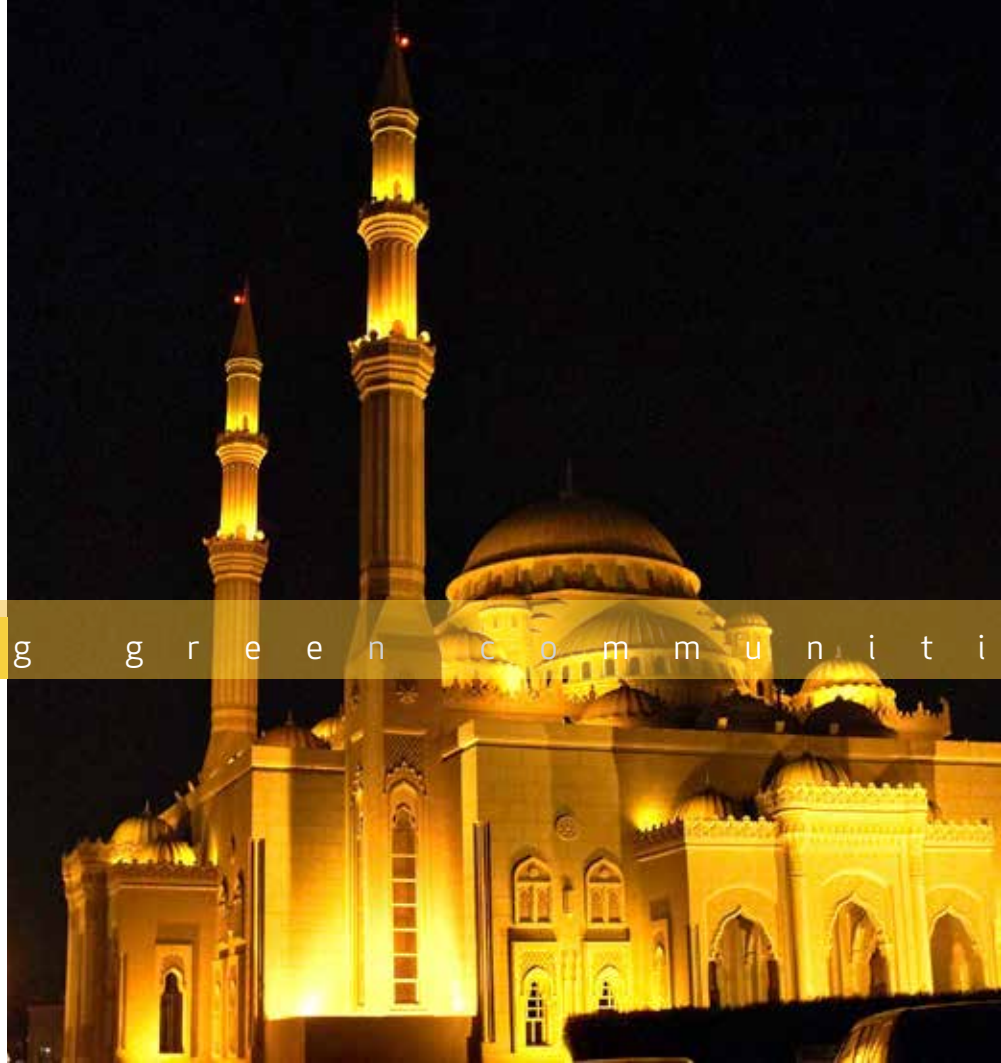
ISO 14001 and OHSAS 18001 requirements, Enviroserve’s plant procedures have gained the stamp of approval from worldwide recognized auditing companies.

Enviroserve’s choice to set up a state-of- the-art recycling center at Dubai Wholesale City comes with a time when a UN-sponsored research project has actually shown that the average UAE local generates 17.2 kilograms of e-waste each year. Totaling up to nearly 600,000 bunches in 2015, e-waste generation in the GCC region is expected to reach 900,000 tons in 2020.

Energy Efficiency

26 creating green community

Dubai mosques to switch to energy saving lamps



Dubai Municipality signs MoUs on Dubai Lamp with five local departments to save energy and water.

More than 2,000 mosques in Dubai will switch to the Dubai Lamp, which is considered to be the most energy-efficient LED lamp in the world. The Dubai Lamp Initiative is the fruit of a unique research partnership between Philips Lighting and Dubai Municipality, resulting in the development of the world's first commercially available, 200 lumen per Watt LED lamp.

On April 17, the Municipality signed Memoranda of Understanding (MoU) on cooperation in the field of energy

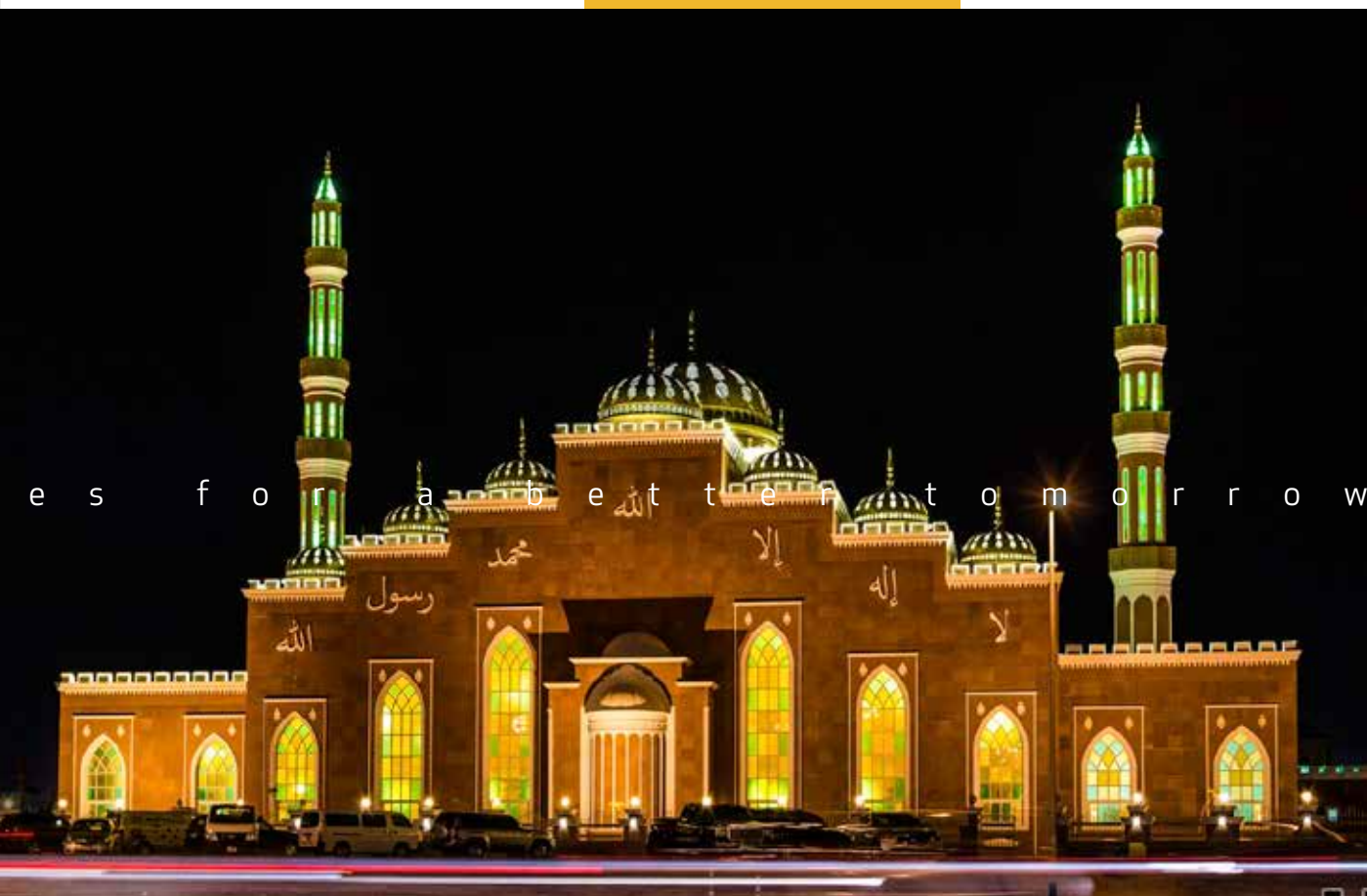
and water conservation with a number of local departments and institutions. The five entities with whom the Municipality has signed the MoUs are the Islamic Affairs and Charitable Activities Department, Dubai World Trade Centre, Ministry of Climate Change and Environment, Roads and Transport Authority and Sheikh Zayed Housing Programme.

The MOUs will involve these entities installing the various models of Dubai Lamp in their existing buildings and facilities and/or upcoming projects

according to their respective lighting requirements and needs. To begin with, more than 2,000 of the mosques in Dubai will switch to energy saving Dubai Lamps.

Dubai Municipality, in partnership with each entity, will assist in carrying out a feasibility study to assess the potential savings as a result of using Dubai Lamp for indoor lighting purposes.

Dubai Lamp is considered to be the most energy-efficient LED lamp in the world, and is available in four of the most commonly used lamps for residential indoor



Dubai Lamp is available in four of the most commonly used lamps for residential indoor lighting.

lighting. Eng. Hussain Nasser Lootah, Director General of Dubai Municipality said that these agreements reaffirm Dubai Municipality's commitment to its strategic relationships with its stakeholders in the Emirate of Dubai in order to achieve its vision of building a happy and sustainable city.

He pointed out that the Dubai Lamp initiative is not just another sustainable initiative to be added to the list of sustainable government initiatives. "It is an innovative, sustainable and comprehensive vision that will

be the first of its kind in the region and will have economic and environmental implications for the emirate," said Lootah, who also directed the Municipality to complete the project with the cooperation of various bodies.

The Municipality's Applied Sustainability and Renewable Energy Department has worked on this unique initiative through a partnership between Dubai Municipality and Philips, which is the largest manufacturer of LED lamps. Dubai Municipality and Philips Lighting are preparing for the supply of two million

Dubai Lamps for residential and professional use across the city in 2017, which is expected to be increases to 10 million lamps by 2021.

It is worth mentioning that the Dubai Lamp initiative offers many tangible benefits, most notably the savings in the electricity bill by up to 90%. The lamp, with an average lifespan of up to 25 times longer than conventional lamps, is characterized as environmentally friendly as it does not contain mercury or generate heat and thus saves cooling costs, and does not spread ultraviolet light.

Launch

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

Dubai launches 3rd cycle of Carbon Ambassadors programme



The Carbon Ambassadors Programme facilitates capacity building under a collaborative framework for Emirati students throughout the UAE.

Dubai Electricity and Water Authority, DEWA, has launched the third cycle of the Carbon Ambassadors programme to encourage creative young people and to enhance their knowledge capabilities. The announcement was made during a session titled, "Future Foresight" that DEWA organised on 19th April, 2017.

In his keynote speech, Saeed Mohammed Al Tayer, MD & CEO of DEWA, announced the launch of the third Carbon Ambassadors programme, building on the success of the first two programmes. Since its launch, the programme

has enjoyed the support of major organisations and has achieved significant successes on all levels.

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, once observed, "History has taught us that advanced civilisations were built on the efforts of their sons, who had devised innovative solutions for all challenges."

"This is the goal of the Carbon Ambassadors programme, which was launched in collaboration with the Dubai Carbon Centre

of Excellence, as per the United Nations Development Programme's criteria. The programme is supported by the Ministry of Climate Change and the Environment. The Carbon Ambassadors are the next generation of experts and leaders who will implement the ambitious national strategies and plans, as well as innovate practical solutions to the environmental challenges," he stated.

"This will contribute to achieving the objectives of the UAE Centennial 2071, which is a long-term government plan to prepare



The Carbon Ambassadors Programme supports DEWA's strategy to prepare a generation of young Emiratis who are capable of driving the sustainable development of the UAE.

the UAE and young Emiratis for the future, the Dubai Plan 2021, to make Dubai sustainable with its resources whose environmental elements are clean, healthy, and sustainable, and the Dubai Clean Energy Strategy 2050, to make Dubai the city with the lowest carbon footprint in the world, and transform it into a global hub for clean energy and green economy," said Al Tayer.

"At DEWA, we realise that young people are the driving force for building a brighter future that protects natural resources and the environment, by combining the new

concepts of renewable energy and involving young people in achieving the sustainable development goals.

Forty students joined the first batch of the programme, doubling to 80 in the second batch. They have shown promise and potential, demonstrating their ability to assume the leadership responsibilities entrusted to them. They will contribute to leading the efforts of Dubai and the UAE in building a green and sustainable economy. Our goal is to prepare a promising generation to lead the sustainable growth, not only in the UAE, but globally," he concluded.

"DEWA provides all the resources essential for the success of the programme, making available all necessary tools and training programmes to strengthen the innovative and creative skills of the participants.

"The hands-on part includes implementing innovative projects that promote sustainability and reduce carbon emissions, in partnership with a number of government and private organisations," said Dr Yousef Al Akraf, Executive Vice-President of Business Support and Human Resources at DEWA.

Waste Management

30

creation



Dubai Municipality
to generate
energy from
organic waste

Organic waste constitute 30% of the volume of waste in Dubai; comprehensive plans in place to deal with waste.

Eng. Hussain Nasser Lootah, Director General of Dubai Municipality has said that the Municipality is currently studying some offers to generate energy from organic waste. Studies are also underway to review the production of compost from organic waste, which forms 30% of the total volume of waste generated in the emirate.

“We have completed the preparation of a comprehensive plan to deal with waste,” said Lootah. “We are looking at it from two main angles, the first is to minimize waste and the second is

to reuse it. We believe that waste is a real treasure and not just waste. Waste should be recycled, especially organic waste, which amounts to about 30% of the total waste in the Emirate. We also have to transfer waste to energy so that ultimately there is no more than 2% of them that can be safely buried so that 98% of the land that is typically consumed by landfills is conserved.”

“The strategic plan to deal with waste includes three stages. In the first phase, the Municipality has succeeded in reducing the volume of waste. For four years

it was 11,500 tons per day, but, today it has become 5,532 tons per day. The Municipality has also succeeded in reusing around 10% of waste currently. We hope, according to the UAE National Plan, by 2020, we will be able to recycle 75% of the volume of waste and by 2030 we will reach a position that there is zero waste in landfills,” he said.

“We have 11 landfill sites in Dubai, the oldest of which is Al Qusais Landfill, which was established in 1976. It still absorbs the waste. The capacity of these landfills is different and its area is about



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

The practices followed by the Dubai Municipality are in line with the environmental objectives of the national agenda for the year 2021.

10.011 million square meters. Hygienic dumping is currently being carried out in six landfills, and these are at Al Qusais, Jebel Ali, Al Bayadiyah, Al Habab, Hatta, and Al-Warsan. The waste is burned in one of the landfills. Special treatment is carried out in one of the landfills while recycling is carried out in three landfills,” Lootah said.

In the first three months of this year, workers collected 328,031 tons of waste from all sites and areas covered by the waste collection and disposal services provided by the Department.

He explained that the Municipality has succeeded in cleaning 17,885 kilometers of waste since the beginning of the year. Last year it cleaned 58,887 Km of waste and removed 3,230 cars from the streets while this year, 625 cars have been removed and were confiscated at the Municipality's special network in Al Qusais.

The practices followed by the Dubai Municipality are in line with the environmental objectives of the national agenda for the year 2021 for the transfer of 75% of the waste produced in the Emirate of Dubai to the landfill.

Dubai Municipality has inaugurated nine centers for collection of materials under the Smart Sustainability Oasis project. These are located in many strategic areas in the Emirate of Dubai such as Al Manara Centre of Dubai Municipality, Al Twar Centre, Hatta Centre, Al Rashidiya Park, Quran Park at Al Khawaneej, Umm Suqeim Park, Al Karama Park, Mirdif Park, and Al Barsha Pond Park.

Four more centers will be developed soon in Nadd Al Hamr Park, Al Nahda Pond Park, Al Muhaisnah-1 Park and Satwa Park.

Food Security

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

Food safety constitutes a basic part of food security system:
Al Zeyoudi



GCC Food Safety Day sheds light on food safety issues and raises public awareness about the importance of food safety.

Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment, issued a press statement on the occasion of the GCC Food Safety Day that is to be marked annually on April 15 by the Gulf Cooperation Council (GCC) as a special day to shed light on food safety issues and to raise public awareness about the importance of food safety.

The inauguration year's celebration was themed: "Food Safety is the Responsibility of All." "The UAE has given food safety issue much attention and has

over the past years strengthened its legislative and institutional frameworks related to food safety," he said, indicating that it has developed integrated and effective control systems on food products, both domestic and imported, including the development of product testing laboratories and tightening food safety and control measures on food establishments and workers to ensure the highest level of food safety in the country.

Dr. Al Zeyoudi noted that the food safety rating in the UAE has increased in the last three

years to reach 98% in 2016. "The changing dietary habits in many countries over the past two decades and the emergence of new ways to produce, prepare and distribute food have made effective health control necessary to avoid health and economic implications caused by foodborne diseases," he said.

Dr. Al Zeyoudi stressed that ensuring food safety and suitability for consumption is the responsibility of all, including producers, farmers, food processing facilities, as well as food transporting and handling



The inaugural Food Safety Day was held under the theme, "Food Safety is the Responsibility of All."

agencies. The most important element of this chain is the consumer who must be fully aware of the concept of food safety because it is his responsibility to conserve his own health and the wellbeing of his family.

He underlined that the UAE has given great attention to monitoring tools, including increasing the regulations and human resources at the border entry points and in national laboratories which utilise modern technologies and follow best practices. "No food products are allowed through the border

entry points unless they are accompanied by documents and certificates that ensure they abide by the local specifications and health regulations."

The UAE minister added that the country is keen on training inspectors, enhancing financial resources for the implementation of activities and programmes aimed at promoting food safety and control, strengthening channels of communication with consumers, regulators and stakeholders, developing food laboratories and acquiring international accreditation, in

addition to promoting control on food relocation, storage and retail facilities, as well as implementing awareness programmes for consumers about best practices in handling food, noting that the ministry has dealt with 127 food notifications in 2016.

Dr. Al Zeyoudi said that focusing on the concept of shared responsibility in the first year of marking the GCC Food Safety Day emphasizes the importance of concerted efforts between governments and society members, who should take responsibility and support



government efforts by reporting any food products that are not suitable for consumption or practices that violate the principles of food safety.

During its third meeting held in June last year in Riyadh, Saudi Arabia, the GCC Ministerial Committee on Food Safety had adopted the choice of 15 April of each year to mark the GCC Food Safety Day in order to highlight the efforts of GCC countries in that regard, and to highlight the importance of following the best practices of food safety.

Ramada Ajman secures second Green Globe certification

Ramada Hotel & Suites Ajman was awarded with the prestigious Green Globe

Certification for the second year in a row.

The 388-key property received an improved score from the audit conducted by Farnek Middle East. A staple frontrunner in sustainability within the hospitality industry, Ramada Ajman boasts a remarkable set of green initiatives including having an in-house compost machine, urban farm, and reverse osmosis plant for water treatment, among others. Recently, the hotel has installed a dewaterer and macerator machine to streamline its waste management scheme and save on cost, time and labour.

It has also attained numerous awards and citations, and

participated in various conferences in the Middle East and Europe to share its sustainable practices.

Iftikhar Hamdani, General Manager, commented: "Green Globe is one of the most coveted certifications in terms of sustainability within the travel and tourism sector, thus, I am very proud of my team for this achievement. The process of tracking our progress had been an elaborate and tedious task, and all the hard work had paid off."

Green Globe is the premier worldwide certification and performance improvement programme developed specifically for the travel and tourism industry.



Children's City in Dubai marks Environmental Sustainability Week

Dubai Municipality's Children's City organized various activities to mark the Environmental Sustainability Week from 16 to 22 April, according to Naila Al Mansouri, Head of Children's City.

"We have seen over the past years, the growing international attention to include the concept of sustainability in education in order to build a future generation capable of dealing with sustainable development," said Al Mansouri. "One of the key strategic objectives of sustainability is to focus on the lives of future generations and the quality of life, and thus finding a society capable of understanding and working to protect our natural resources.

Sustainability requirements should be applied in educating the younger generation to enable them to exercise leadership to continue the sustainability strategy."

The Environmental Sustainability Week organized at Children's City is in line with its strategy to provide an environment suitable for children and young people, she said.

"It encourages them to acquire new and advanced skills in various fields, in addition to providing them with opportunities to learn new effective skills in the technical, sports and craft levels, which will contribute in increasing their knowledge base and developing

their practical capabilities."

The activities included "Let's Protect the Planet" to teach children that preserving the environment is a must for everyone. "Conservation of environment reflects the progress and development of society and the extent to which the members of the society maintain their health as environmental pollution causes many diseases and damage to both humans and animals," she said.

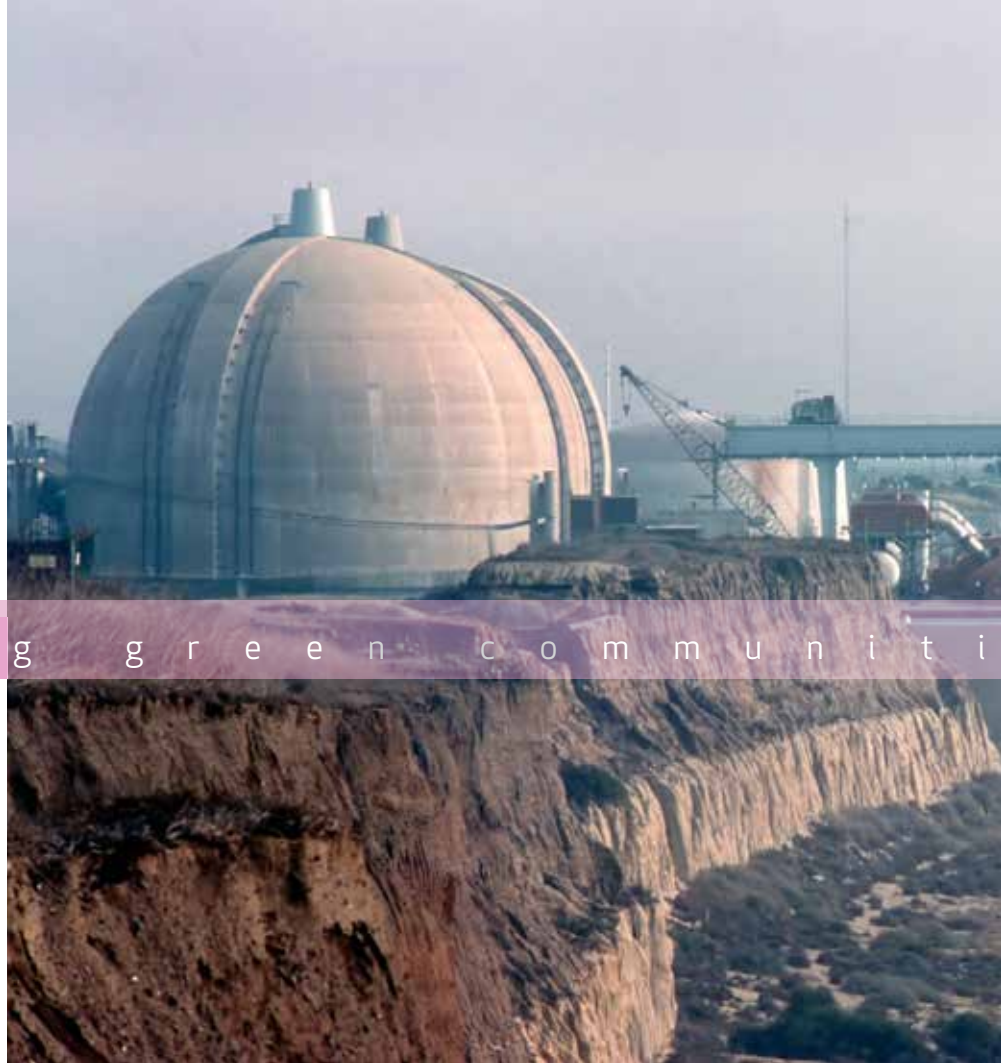
The activities also included interactive environmental workshops and a corner for creations using recycled materials. The workshops included "Blue Ocean," "Solar Energy," "Plastic in the Sea," and "Organic Farming."

Nuclear Energy

36

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 Ambassadors tour Barakah Nuclear Energy Plant



Over 100 UAE Ambassadors briefed on the UAE's Peaceful Nuclear Energy Program; project to have a vital and critical role for the long-term stability of the UAE's energy generation.

The Emirates Nuclear Energy Corporation (ENEC) and Nawah Energy Company (Nawah) welcomed 117 of the UAE's overseas diplomats to the Barakah Nuclear Energy Plant during a tour of the project, which included a briefing on the UAE's Peaceful Nuclear Energy Program and the latest construction and commissioning milestones.

The UAE Ambassadors and Heads of Missions Abroad were hosted by ENEC CEO, Mohamed Al Hammadi, Acting CEO of Nawah Energy Company, Mohammed Sahoo Al Suwaidi, Barakah One

Company CEO, Nasser Al Nasser, ENEC's Deputy CEO Ahmed Al Rumaithi, and other senior management.

During their visit in early April 2017, the delegation was briefed on the latest developments of the UAE Peaceful Nuclear Energy Program, including construction progress, the next stages of testing and commissioning and plans for operational readiness. The Barakah plant is considered the world's largest new build nuclear energy construction site, with four reactors being constructed simultaneously.

The Ambassadors stated that this project marks one of the greatest achievements undertaken by the UAE in the field of technology and nuclear energy, which will eventually have a vital and critical role for the long-term stability of the UAE's energy generation.

On the sidelines of the briefing and tour, the Ambassadors and Heads of Missions Abroad met with employees and talented Emirati students enrolled in ENEC and Nawah's Energy Pioneers program. The visiting delegation expressed its admiration of the students' dedication and



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

ENEC is working to deliver safe, clean, efficient and reliable nuclear energy to the United Arab Emirates - energy that is needed to support the UAE's social and economic growth.

commended ENEC and Nawah's education and capacity building initiatives.

Mohamed Al Hammadi, ENEC CEO said: "Under the guidance of our wise leadership and with the support of the international community, the UAE is paving the way to be at the forefront of clean low-carbon energy with promising projects operated by qualified Emiratis."

"Peaceful nuclear energy will bring many benefits beyond providing the nation with safe, clean and reliable energy. Already more than

AED 11 billion worth of contracts have been awarded to 1,400 local companies up to the end of 2016.

"This highlights the opportunities available to companies who are willing to increase their safety and quality processes to the high international standards mandated by the nuclear energy sector."

Al Hammadi added: "We continue to work closely with the international community, including the International Atomic Energy Agency (IAEA), the International Advisory Board and many other world-renowned

industry and advisory bodies to ensure every aspect of the UAE's Peaceful Nuclear Energy Program is implemented according to the highest standards as the world's leading new nuclear build site."

Since its establishment in 2009, ENEC has focused on the safe delivery of the UAE Peaceful Nuclear Energy Program. Construction began in 2012 and Unit 1 is now more than 94% complete and all four units are more than 78% complete. Once the four reactors are online, the facility will deliver up to a quarter of the UAE's electricity needs.

Earth Day

38 c r e a t i n

Edutainment activities mark Earth Day celebrations in Dubai



This year's Earth Day on April 22 focused on climate literacy to empower global citizens with knowledge to inspire action for environmental protection.

Dubai Municipality celebrated World Earth Day on April 22nd by organizing a wide range of fun-filled, family educational activities at Kite Beach at Umm Suqeim. The activities, which witnessed huge public participation, were divided into Scientific Experiments, Climate Change Activities, Quizzes and Stage Activities.

Earth Day is an annual event that aims to bring together communities to raise awareness on environmental issues and inspire one another to unite for the planet. The theme this

year centered around educating young people and children on climate and environmental issues, towards a goal that by 2020, all high school graduates have basic climate and environmental literacy.

In a statement, Eng. Hussain Nasser Lootah, Director General of Dubai Municipality, "We hope that by raising awareness on environmental issues and teaching our children about its importance, they will become the next environmental ambassadors."

During the Cloud in a Jar

experiment, children were shown the processes that lead to formation of clouds. They also learnt about the massive environmental threat of oil spills and were educated on the various techniques for cleaning up a spill. Children were divided into groups and each group had to decide how best to clean up their oil spill while understanding the risks it poses on the marine environment.

In the Little Scientists session, the children were taught about water salinity and its importance in our marine environment as well as our climate.



Dubai Municipality celebrated World Earth Day by organizing a wide range of fun family educational activities at Kite Beach, Umm Suqeim 1.

Back by popular demand was the “Cycle for you Planet,” which was part of the Climate Change Activities. Participants were invited to pedal a stationary bike to blend their selected smoothie.

A planting workshop was held during the Plant a Tree activity that demonstrated to children how to plant and care for their own plants. At the Wood Workshop, children learnt how all items can be reused and repurposed.

They were given recycled wood, broken down into small shapes

and sheets, and were asked to create art pieces that represent Earth Day. Aided by members from Dubai Municipality’s Environment Department, the children created beautiful recycled masterpieces which they were then allowed to take home with them as a gift.

The main stage featured documentary screenings for the educational shows, which included a global warming cartoon; Basics of Climate Change, an animated short film; Climate Change Facts & Figures, an animated short series providing alarming facts

and data about climate change; and Introduction to Climate Change, a narrated and animated series explaining the key factors affecting climate change.

There were also a series of quizzes on stage, where crowds of people gathered to answer fun questions about the environment. There was also a “Did you Know?” segment, which featured interesting facts about our planet. A series of wildlife models decorated the beach, providing fun photo opportunities for children to pose with their favorite animal.

Exhibition

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

Sustainability marks inaugural edition of Future Cities Show



Held under the theme, “Sustainability, Innovation, Happiness”, the inaugural edition of the ‘Future Cities Show’ focused on building future cities of innovation and happiness, powered by latest technology as well as renewable energy solutions.

Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, visited the inaugural edition of the Future Cities Show on Tuesday to review the innovative projects presented that seeks to serve the UAE’s vision for sustainable and happy future cities.

The inaugural edition of the ‘Future Cities Show’ was held at Dubai World Trade Centre, under the patronage of UAE Ministry of Infrastructure development and themed as “Sustainability, Innovation, Happiness”. Al-Zeyoudi praised the show’s

promotion of sustainable culture, and commended the positive and innovative practices which will help design and build the future cities, and face climate challenges to guarantee safety and happiness for next generations.

He noted that the UAE, inspired by the wise vision of its leadership, aims to be the most effective country for strategic planning involving economic, environmental and development growth.

Al-Zeyoudi also referred to “The UAE Centennial 2071” which was launched by Vice President and

Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum, and aims to make the UAE the best country in the world. The comprehensive government programme seeks to help the UAE diversify its income resources to become the No. 1 country in the world by 2071.

Sustainability and innovation have been the focus of the final day of the “Future Cities Show” 2017 in Dubai. Dubai has been named as the region’s most sustainable city by Construction Consultancy Arcadis. The company has placed Dubai 52nd in its 2016



معرض مدن المستقبل

FUTURE CITIES SHOW

SUSTAINABILITY | INNOVATION | HAPPINESS

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



Future Cities Show, held from April 2 to 4, is a global platform for companies and organizations engaged in developing an advanced infrastructure all over the world.

Sustainable Cities Index, which was compiled by the Centre for Economic and Business Research.

The third day of the Future Cities Show featured a presentation by the Ministry of Infrastructure Development highlighting "How smart technologies are changing in the UAE road network." The presentation focused on the new and smart applications used by the ministry on the federal roads.

"The Ministry of Infrastructure Development aims to increase the safety and security of the public using the road network through

the use of smart technologies. Currently, the Ministry uses and implements several smart technologies such as 'cold asphalt,' 'asphalt recycling' and 'Nano' technology. These technologies help increase the asphalt age by more than five years as compared to the traditional methods. In addition, using asphalt recycling reduces the cost by 35 percent, and decreases the execution time," said Ahmed Abdallah Alhammadi Director of the ministry's Road Department.

"We are delighted with the success the inaugural edition

of the Future Cities show has witnessed. As the world is moving towards a technological revolution, the sustainability agenda is particularly important.

"As such we placed a strong emphasis on supporting a sustainable future at the Future Cities Show which set the stage for scaled-up action on best environmental practices and better luxury for the residents of these cities," said Dawood Al Shezawi, Chairman of Strategic and Head of the Organising Committee of the Future Cities Show.

Conservation

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

UAE agency tracks Egyptian vultures fitted with GSM device

The satellite transmitters help to track the endangered birds' movements and develop conservation plans.

The Environment Agency - Abu Dhabi (EAD) has revealed the status of four Egyptian vultures that were tagged with satellite transmitters in 2016 for tracking their movements. Two of the four Egyptian Vultures stayed in Jebel Hafeet while the two other birds moved to Northwest Oman where they continued to move around Ibri.

EAD has been regularly monitoring the population of Egyptian Vultures in and around Jebel Hafeet, the only place that they have been sighted in the Emirate. The nearest population is located on Al Masirah

Island in Oman. Monthly counts of Egyptian Vultures are conducted in flight as well as those perched on telecommunication towers suggest that the number of Egyptian Vultures on Jebel Hafeet ranges from 50 to 70 individuals.

To further understand their status in the Emirate and UAE and to determine their use of habitat, EAD started the satellite tracking of this species in 2014-2015. Globally, vultures face serious issues due to poisoning related mortality. Some vulture populations in Asia have crashed with over 90% decline. Similar trends are being observed in

Africa due to large-scale poisoning.

Dr. Shaikha Salem Al Dhaheeri, EAD's Executive Director of the Terrestrial and Marine Biodiversity sector, said: "The monitoring of locally important and globally threatened species is part of our effort to understand the distribution and population trends of such species. Understanding their status and ecology is essential in developing appropriate biodiversity conservation plans", she added.

"We expect that the satellite tracking of Egyptian Vultures will



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



The EAD has been regularly monitoring the population of Egyptian vultures in and around Jebel Hafeet, the only place they have been sighted in the emirate.

provide interesting information on the species and possibly help us find breeding grounds of this species on Jebel Hafeet,” said Dr. Salim Javed, Acting Director, Terrestrial Biodiversity Division at EAD.

“We also used GSM technology for the first time. This is similar to receiving text messages on the go. It allows transmitters on the birds’ back to send messages about their whereabouts, similar to the messages on our cell phones,” added Dr. Javed.

“A Multi-species Action Plan (MSAP) for vultures in Europe,

Asia, and Middle East & Africa is being developed and a series of workshops under the Conservation of Migratory Species (CMS) are planned over next few months. The data collected from Abu Dhabi and the UAE as a whole will feed into an action planning process,” he said.

Facts about Egyptian Vultures

- The Egyptian Vulture is a resident and possibly breeding on the Jebel Hafeet mountain in Abu Dhabi
- Egyptian vultures are known to use tools and large eggs are broken by tossing them over

stone or tossing large pebbles on the egg

- The Egyptian vulture is largely a monogamous bird and nests in cliffs, ledges
- Normally two eggs are laid, which are incubated for 42 days. Both parents incubate the eggs and feed the chicks until they fledge at the age of 70 to 85 days
- Egyptian vultures become sexually mature at four to five years of age and are known to live for up to 37 years in captivity
- Egyptian vultures weigh between 1600-2400g

Conference

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

International Conference on Global Warming opens in Ras Al Khaimah



The Conference provided a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, practical challenges and solutions in the fields of Global Warming and Ecosystems Productivity.

The 4th International Conference on Global Warming: EcoSystem Productivity opened on 3rd April, 2017 in the emirate of Ras Al Khaimah bringing together environmental experts, researchers and academicians to discuss the issue of global warming and explore ways of increasing the productivity of ecosystems.

H.H. Sheikh Saud bin Saqr Al Qasimi, Supreme Council Member and Ruler of Ras al-Khaimah, attended the opening of the three-day conference, organised

by the Environment Protection and Development Authority of Ras Al Khaimah at Al Hamra Convention Centre.

Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment, delivered an opening speech in which he shined a light on the UAE's rich biodiversity, diverse terrestrial and water habitats coastal wetland, salt marshes and other water bodies which, he noted, host a range of species and provide natural protection from storms and tide water. Projecting the UAE's efforts in preserving

biodiversity, he said the number of the country's natural reserves went up from 19 in 2010 to 43 in 2016.

He further noted that the UAE has five sites designated as Wetlands of International Importance (Ramsar Sites). The Ramsar Convention is an international treaty for the conservation and sustainable use of wetlands, and is also known as the Convention on Wetlands.

These efforts are in line with the UAE Vision 2021, Zeyoudi said. The 4th International Conference



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

Leading academic scientists and researchers exchanged and shared their experiences and research results on all aspects of Global Warming and Ecological Systems at a 3-day conference in RAK.

on Global Warming delivered state-of-the-art analysis, inspiring visions and innovative research methods arising from interdisciplinary research to support the emergence of the sustainable goals. Leading academic scientists, researchers and scholars exchanged and shared their experiences and research results about all aspects of Global Warming and Ecosystem Productivity, and discussed the practical challenges encountered and the solutions adopted.

The conference also featured technology solutions for

optimization across the nexus. The conference was a major milestone in creating new pathways to meet the integrated challenge of Global Warming and Ecosystem Productivity.

Sharjah's Greenbelt Park project enters 2nd phase

Sharjah City Municipality has launched the second phase of the "Greenbelt Park" project.

"The agricultural boom and sustainable environment witnessed by Sharjah is attributed to the support given by H.H. Dr. Sheikh Sultan bin Mohammed

Al Qasimi, Supreme Council Member and Ruler of Sharjah, to the Municipality of Sharjah and His Highness' directives to increase green areas all over the Emirate to enhance social welfare and sustainability," said Thabit Salem Obaid Al Tarifi Al Shamsi, Director-General of Sharjah City Municipality.

This project complements Sharjah's efforts to enhance greenery in the emirate and provide convenient habitats for plants through the construction of greenhouses that act as a protective environment for plants.

Interview

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

Energy, human
capital key to
sustainable
economies: UAE
ministers

UAE Minister of Energy and Minister of Climate Change and Environment discuss the relationship between economic growth and the environment in a key interview session held at the Global Manufacturing and Industrialisation Summit in Abu Dhabi.

Suhail bin Mohammed Faraj Faris Al Mazrouei, UAE Minister of Energy, and Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, have discussed the relationship between economic growth and the environment in a key interview session held at the Global Manufacturing and Industrialisation Summit (GMIS 2017), held on from 27th to 30th March at the Paris-Sorbonne University in Abu Dhabi.

The interview session, hosted by Simon Baptist, Global Chief Economist, EIU, The Economist, was titled “Today Versus Tomorrow

– Sustainable Strategies Today to Secure a Prosperous Tomorrow.”

Setting the stage, Baptist explained how the economy and environment do not have to be in opposition with each other, even though the reality is that they often are unless appropriate policies and private sector actions are in place to ensure that they are not opposing.

Al Mazrouei said, “We will have almost 50 per cent totally green sources of power generation by 2050, which takes care of the environmental impact.” Referring to the UAE’s energy providers

such as Dubai Electricity and Water Authority and Abu Dhabi Distribution Company, he added, “The best economical choice for those selling energy in the UAE was to go 50 per cent green. We don’t need to subsidise power generation any more, and I’m sure we don’t need to subsidise when it comes to industry. It was a surprise for us, but I think it’s achievable.

“We have a road map and our target is going to need a huge investment of around \$192 billion over the next 30-32 years. It’s really a very exciting time for us to balance the equation and go from almost 98





The inaugural Global Manufacturing and Industrialisation Summit was held under the patronage of the Crown Prince of Abu Dhabi.

per cent fossil fuel usage to 50 per cent renewables. We have one of the most advanced energy sectors in the world. However, while energy is important, we need to move towards those industries in which we can have a more competitive advantage, which we can excel in."

Speaking in terms of what the UAE is doing to build an ecosystem to support industry and diversification, and on his vision for a more sustainable future for the nation, HE Al Zayoudi said: "Heavy industry is important, but small and medium businesses are equally so. The UAE has excellent

infrastructure and mechanisms in place to provide the right direction for small and medium businesses, which is part of Beeatna, the green growth strategy announced by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai."

"Our economic sectors in the UAE are up to date with the latest technologies to support growth. There are three points I would recommend emerging nations to follow to create sustainable economies. One, investing in human capital is essential to building a

sustainable economy. Two, the government has to ensure the right policies and mechanisms are in place to attract manufacturing and industry into their country. Three, energy is a main element to consider; the UAE is lucky in this aspect, in that sustainable and renewable energy is an attractive sector for industries."



Conservation

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

Endangered sea turtles return home to Saadiyat Island for nesting

Abu Dhabi environmental officials are preparing for critically endangered sea turtles to return to Saadiyat Island for the nesting season.

The Environmental Services team at the Tourism Development and Investment Company (TDIC), master developer of major tourism, cultural and residential destinations in Abu Dhabi, has concluded preparations on Saadiyat Island for the Hawksbill sea turtle nesting season.

The critically endangered turtles are due to begin returning soon, and will be under the careful observation of TDIC's experienced Environmental Services team throughout the nesting season, which extends through the month

of September.

As a part of TDIC's one-of-a-kind Hawksbill Sea Turtle Protection Programme, the company's Environmental Services team will monitor and observe the sea turtle nests along Saadiyat Beach.

Additional protective measures have also been taken in the form of cautionary signage and an awareness campaign that aims to prevent visitors from harming the nests until hatching, a period that usually lasts for 50-70 days. Each nest typically contains 90-100 eggs.

Hawksbill sea turtles have been listed on the International Union for Conservation of Nature's (IUCN's) Red List of Threatened Species, with their numbers decreasing globally at critical rates. Over 80 percent of the Hawksbill sea turtle population has disappeared over the past three generations, having fallen victim to natural habitat destruction and excessive hunting.

Since its inception and the commencement of development on Saadiyat Island, TDIC has taken every necessary measure to protect the natural habitat of





Hawksbill sea turtles have been listed in the IUCN's Red List of Threatened Species, with numbers decreasing globally at critical rates.

the Hawksbill sea turtles along the sandy beaches of the Island. Strict guidelines were introduced by the Hawksbill Sea Turtle Protection Programme, including the banning of any development activities within 60 meters of the beach, in order to maintain a natural sand hill barrier between the turtle nesting areas and any human activities.

"We have always prioritised the protection of marine life on Saadiyat Island, and we are very happy to witness sea turtles coming back to nest and lay their eggs. The turtles' return is

a testament to the success of our environmental protection program," said Sufian Hasan Al Marzooqi, TDIC's Chief Executive Officer.

"This achievement would not have been possible if not for the great support and cooperation offered by our partners, residents and contractors, who always strictly observe the guidelines issued by our team," he added.

Buthaina Al Qubaisi, Environment Manager at TDIC, said, "Our main objective during the nesting season is to ensure the sea

turtles are not disturbed during the delicate nest digging and egg laying process. When the hatchlings emerge, we work to safeguard their passage to the water by maintaining a clear route for them to follow."



Conservation

50 c r e a t i o n

Majid Al Futtaim becomes first Middle Eastern company to adopt Net Positive strategy

Majid Al Futtaim has unveiled its strategy to become net positive in water consumption and carbon emissions by 2040.

Majid Al Futtaim, the leading shopping mall, communities, retail and leisure pioneer across the Middle East, Africa and Asia, launched its Net Positive strategy on 18th April, 2017 in the presence of Dr. Thani Ahmad Al Zeyoudi, UAE Minister of Climate Change and Environment.

The strategy aims to significantly reduce the company's water consumption and carbon emissions to the extent that it puts more back into the environment than it takes out, resulting in a positive corporate

footprint by 2040.

Dr. Thani Ahmad Al Zeyoudi, Minister of Climate Change and Environment commented: "Majid Al Futtaim's Net Positive commitment is a landmark step in helping to create a more sustainable future for our region.

"The strategy is in line with the UAE Green Agenda and the UAE National Climate Change Plan to address solutions to pressing current and future environmental challenges. Collaboration with the private sector is key to realising our sustainability goals and

promoting a shared responsibility for our environment."

As part of its Net Positive strategy, Majid Al Futtaim will measure current carbon and water impact and implement measures to reduce it through projects focused on decreasing carbon emissions and water consumption at all its assets across the region. These projects will range from small scale energy efficiency measures and on-site renewable energy installations to on-site rainwater harvesting and grey water recycling. In the long term, Majid Al Futtaim will create





Net Positive is a new way of doing business which puts back more into society, the environment and the global economy than it takes out.

positive impact by providing more accessible and better quality water to local communities where it has extracted water for business purposes.

Alain Bejjani, Chief Executive Officer at Majid Al Futtaim – Holding commented: “We see it as not only a moral imperative, but also a core responsibility to our stakeholders to set the standard for sustainable development in the region and to continually strive to become one of the most environmentally considerate companies in the world. We are delighted with the progress

we have already made in this space but ultimately know our work will not be complete until we have reached a stage where we are giving more back to the environment than we take.

“It is for this reason why we have set ourselves the ambitious, while realistic target of becoming Net Positive in our carbon emissions and water consumption in less than 25 years. We are extremely proud to be the first company in the Middle East to commit to such a target and hope our action inspires others in the region follow suit.”

Ibrahim Al-Zu’bi, Head of Sustainability at Majid Al Futtaim – Holding said: “Our sustainability journey at Majid Al Futtaim started almost a decade ago and in that time, we have made incredible progress. Becoming Net Positive is the next ambitious goal that we have set and we are fully committed to achieving it by 2040.

“In doing so, we will help provide a framework to ensure the private sector becomes a force for good, further protecting our shared resources in a region that faces challenges around water scarcity



and energy consumption. As always we are grateful for the continued support of the UAE government in helping us achieve our sustainability goals.”

The Net Positive movement was developed through the work of the Net Positive Group, a collaboration formed by Forum for the Future, The Climate Group and World Wildlife Fund (WWF).

Jebel Ali Hazardous Waste Treatment Plant awarded three ISO certificates

In line with its approach towards applying the best international technical practices, Jebel Ali Hazardous Waste Treatment Plant under Dubai Municipality Waste Management Department

has obtained the certificates of integrated management systems.

The Jebel Ali Hazardous Waste Treatment Plant accomplished this achievement after fulfilling the requirements for obtaining these certificates in three areas such as the Quality Management Systems ISO 9001: 2015, Environmental Management Systems ISO 14001: 2015 and Occupational Safety and Health Management Systems (OHSAS 18001: 2007).

Eng. Abdul Majid Sifaie, Director of Waste Management Department at Dubai Municipality said that these certificates are approved by the International Accreditation Forum (IAF) and the Dubai

Accreditation Centre (DAC).

“This achievement will enhance the application of the clear vision of the Department on its march with steady pace to achieve its strategic objectives. It has contributed to the achievement of many benefits, the most important of which is the acquisition of more skills and knowledge for employees and the improvement of the services provided to customers,” said Sifaie.

“In addition, it will also activate the concept of teamwork, and enhance the outstanding performance of employees to achieve effective management within the global levels of occupational health and safety and quality management,” he said.



Sustainable Development Goals Festival held at Middlesex University Dubai

On 19 April, students at the Middlesex University Dubai celebrated social causes in a special festival inspired by the United Nation's Sustainable Development Goals (SDG) and the UAE's Year of Giving. The festival took place on Middlesex's Dubai Knowledge Park campus and was inaugurated by Hussain Hassan Mohamed Khansaheb Director, International Cooperation Department, UAE Ministry of Climate Change & Environment, in the presence of Sheikha Shamma bint Sultan bin Khalifa Al Nahyan, founder of Beacon of Hope UAE.

During the spectacle, 11 teams of students used a range of campaigning strategies and

communications platforms, including Instagram, Facebook and SnapChat, to raise awareness of issues such as sustainable tourism, volunteering, health and welfare and more.

The SDG Festival kicked off with the unveiling of a special sustainability 'fresco', designed by the students to promote sustainable consumption. It concluded with a sustainable spelling bee and a Beacon of Hope UAE speed-building competition, supporting the social enterprise founded by Sheikha Shamma bint Sultan bin Khalifa Al Nahyan.

Hussain Hassan Mohamed Khansaheb, Director,

International Cooperation Department, UAE Ministry of Climate Change & Environment, said: "The UAE has been a strong supporter of the Sustainable Development Goals from the inception of the idea. Our domestic work is underway to achieve SDGs by aligning global goals and targets with the UAE's policies, strategies and key performance indicators."

"Innovation and creativity are the fundamental pillars of sustainable and nontraditional solutions adopted by the UAE in its journey towards sustainability. UAE youth could play an important role in terms of putting forward ideas and innovative solutions for these issues," Khansaheb added.

Report

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creating green communities

DEWA studies impact of climate change on Wadi Wurayah, Fujairah



The agenda of the impact study in Wadi Wurayah will include scientific research, panel discussions and field research.

Dubai Electricity and Water Authority (DEWA) organised a 5-day impact study in Wadi Wurayah in Fujairah – one of the few places in the UAE that is home to unique flora and fauna and freshwater resources – in cooperation with Emirates Wildlife Society, in association with the World Wide Fund for Nature.

The programme studied the impact of climate change on the UAE's ecosystem, especially fresh water resources, to help the business community define risks and opportunities in development

activities relating to environment and the preservation of natural resources. This is part of DEWA's efforts to promote sustainable development based on knowledge, innovation and sustainable green growth. It is also aligned with DEWA's strategy to raise awareness on issues relating to the environment, natural resources and reduction of carbon emissions.

The programme consists of two phases: the first in April this year and the second in November 2017, with the participation of a group of DEWA's employees,

graduates and members of DEWA's Youth Council. The programme agenda includes a series of scientific research on the impact of climate change on fresh water ecosystems and the UAE's biological diversification through a number of lectures, panel discussions, and field research activities, under the supervision of environmental experts.

The programme also includes field visits to discover the surrounding environment. This will provide the participants with a rich and enjoyable scientific experience.



Phase one of the impact study was held in April, with the second is scheduled to take place in November 2017.

According to Saeed Mohammed Al Tayer, MD & CEO of DEWA, "This initiative aims to make the UAE a global hub for sustainability and a centre for exporting and re-exporting green products and technology, and preserve sustainable environment that fosters long-term economic growth."

International workshop on illegal trafficking of birds of prey

Emirates Falconers Club has organised, in co-operation with the International Association of Falconry and Conservation of Birds of Prey, an international

workshop on illegal trafficking of birds of prey at Centro Rotana Capital Hotel Abu Dhabi 24th April, 2017. The workshop was attended by representatives from local and international bodies and institutions, as well as experts and researchers from around the world.

The event seeks to support international efforts and provided an opportunity for discussions on ways to preserve hawks, as well as addressing the challenges facing falconers and those interested in preserving the environment, the sustainability of heritage and

natural resources.

Those in attendance also discussed ways to protect hawks from illegal trade and provide a suitable environment for the conservation of wildlife in the region. The workshop further acknowledged the efforts made by the leadership of the Emirates Falconers Club in promoting the sustainability of falcons and their game, as it has succeeded in making qualitative leaps in a short time by supporting international efforts and integration to raise awareness about the risks faced by hawks.



New study exposes UAE's vulnerability to worsening climate change

A report produced by the Emirates Wildlife Society in association with World Wide Fund, EWS-WWF, has revealed a comprehensive summary detailing the projected risks and impacts of climate change in the UAE and aims to act as a catalyst for action.

The report titled, "UAE Climate Change Risks and Resilience: An overview of climate change risks to 12 key sectors," demonstrates how climate change can affect various sectors such as food, energy and water.

A key highlight of the report includes a projected increase in average temperatures of two degrees Celsius by the year 2050, along with humidity,

which is likely to increase by up to 10 percent. According to these projections, the resulting increased demand for cooling from buildings and industry are likely to create an energy demand-supply gap over time, hamper energy security, increase costs to end-users and produce additional greenhouse gas emissions.

Manuel Pulgar-Vidal, WWF's Global Climate and Energy Practice Leader, said, "The well-being of societies, the growth and diversification of economies, and the preservation of the natural world, are at great risk from climate change. The latest findings in this report confirm that unconstrained carbon emissions have wide-

reaching ramifications, and pose a sobering risk to nearly every sector of the economy, business and society."

Laila Mostafa Abdullatif, Deputy Director-General at EWS-WWF, explained, "The UAE is vulnerable to the impacts of climate change as are all countries around the world. If these impacts and risks are left unmanaged, it could be more challenging and costly to achieve the UAE's national strategies and plans. We encourage all private sector champions, public sector policymakers and civil society leaders to play a part in developing and implementing adaptation strategies to boost resiliency and safeguard the economy, society and environment."



Imdaad inks general waste collection contract with Emarat

Imdaad, the GCC's leading integrated facilities management (FM) company based in Dubai, recently entered into a three-year-agreement with Emarat, one of the largest suppliers of petroleum products in the UAE, to deliver innovative, sustainable, and integrated general waste collection services. The scope of the contract includes Emarat's 47 stations, atrium building head office, central workshop, and staff accommodation.

Imdaad's newest partnership with one of the country's major players in the oil and energy industries is the latest addition to the growing list of the FM company's value-added and prestigious portfolio of clients.

The collaboration exemplifies not only its ability to provide efficient facilities maintenance and care but also its capability to address the waste management needs of its clients according to the best international environmental practices and globally recognized standards.

Mahmood Rasheed, COO, Imdaad, said: "We look forward to working with oil industry giant Emarat, whose commitment to its customers, society, and the environment we fully applaud and share. Our newest collaboration is yet another opportunity to showcase our capability to deliver topnotch FM services according to the unique and challenging demands of this sector. As part of its smart

FM services, Imdaad's waste collection and management solutions meet the highest international standards in line with the company's key business strategy of helping drive growth in the industry it serves to contribute to the UAE's overall economic development."

Nabeel Buti Bin Buti, Senior Manager Maintenance & Services, Emarat, said: "As a leading provider of expert supply and distribution of petroleum, aviation fuel, natural gas, lubricants, and liquefied petroleum gas, we exclusively partner with companies with reliable and professional services that can help advance our business goals and objectives and Imdaad fits our requirement.



SEWA, SNOC discuss co-operation to promote innovation, sustainable development in Sharjah

The Sharjah Electricity and Water Authority, SEWA, and the Sharjah National Oil Corporation, SNOC, have discussed ways to jointly promote innovation and sustainable development in the emirate. This step aims to strengthen their strategic plans to preserve the environment, enhance Sharjah's competitiveness and focus on the implementation of relevant research studies to apply the vision and guidance of HH Sheikh Dr. Sultan bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah.

Dr. Rashid Al Leem, Chairman of SEWA, received a delegation from SNOC, led by Hatem Mohammed Diab Al Mousa,

CEO of the foundation. During the meeting, they discussed joint efforts to realise Sharjah's strategy and vision to achieve sustainable development and adopt alternative and renewable sources of energy.

Dr. Al Leem stated that they discussed several ideas and initiatives that aim to achieve sustainable development, environmental protection, and economic support and gain a balance between different sectors of the economy which will guarantee sustainability for future generations.

He added that SEWA has a clear strategy for the next phase and is currently implementing innovative solutions and creative

ideas to overcome various challenges and contribute to an integrated strategy, as well as developing energy efficiency and productivity to ensure a qualitative leap in Sharjah's economy, enhancing its competitiveness and sustainable growth and improving its performance in compliance with international standards.

He pointed out that SEWA has started the implementation of a specific strategy to reduce energy consumption by 30 percent during the next phase. It adopted and applied the United Nations standards and principles in the field of energy management and obtained the ISO 50001, the first Arab body to adopt and apply these principles.



Picture for illustrative purpose only

Dubai Police could use a hot air balloon to track offenders

A brainstorming session of the young leadership of Dubai Police witnessed the presentation of many diverse ideas, notably establishing a smart police station and a solar-powered hot air balloon to survey security conditions from above.

The session also discussed developing an educational and training process for the Dubai Police Academy to prepare for an environment-friendly police vehicle that runs on solar energy.

Another idea was presented about working remotely and introducing artificial intelligence programmes in police work, as well as initiatives using social media websites to direct the security and service messages of

Dubai Police to the community, as well as robots for monitoring the traffic violations.

Major General Abdullah Khalifa Al Marri, Commander-In-Chief of Dubai Police, listened to a number of suggestions presented by the participants from different general departments and police stations in the areas of criminal, traffic, smart services, future foresight, customer happiness, institutional excellence and others.

Among others present were Major General Mohammed Saad Al Sharif, Assistant Commander-In-Chief for Administrative Affairs; Brigadier Jamal Al Jallaf, Deputy Director of the General Department of Administrative

Affairs; Brigadier Dr. Abdullah Abdul Rahman, Director of the Future Foresight Centre and Deputy Director of the Decision-Making Support Centre, and a number of Dubai Police officers.

Major General Al Marri praised the presentation of new and innovative ideas, while highlighting the desire to form a youth council from the youth leadership of Dubai Police on an advisory level to collect innovative ideas, suggestions and initiatives and apply them in the real world, to achieve their ambitions in a manner that upgrades the General Command of Dubai Police to apply best police applications, deliver best services to customers and ensure community security.

Eco Summit

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creating a greener future

Young minds
gather for Eco
Club Summit in
UAE capital



In Partnership with / بالشراكة مع



Under the theme “The Power of Sustainable Giving”, the Environment Agency – Abu Dhabi organised its 4th Eco Club Summit.

Over 247 students and 110 teachers from 120 schools participated in the 4th Eco Club Summit, hosted by the Environment Agency - Abu Dhabi (EAD) in cooperation with Abu Dhabi Education Council (ADEC) and sponsored by BP.

The summit, which is part of EAD's Sustainable Schools Initiative (SSI), brought educational and environmental experts together with environmental youth leaders and members from Abu Dhabi's leading school eco clubs. The event, held from April 12 to 13, was held under the theme “The

Power of Sustainable Giving”, and aimed to strengthen students' social responsibility towards our environment, and promote the spirit of giving back to it.

Launched in 2014, the Eco Club Summit hosts inspirational young speakers, environmental and educational experts and provides a unique opportunity to converse with an elite group of ambitious young environmental activists. This year five speakers shared their stories with SSI students on how they transformed their passion towards the environment, into actions.

Amongst these speakers was Dr. Philippe Pypaert, Programme Specialist, who coordinates major environmental programmes of UNESCO in the region. He is also a focal point for Education for Sustainable Development - with particular emphasis on water education and the application of the Ecological Footprint at schools and universities.

Others speakers included Omniyh Al Hajeri, Lead Officer, Department of Municipal Affairs and Transport, Transportation Mobility Management Team; Dr. Laila El Helaly, a Saudi

المدارس المستدامة Sustainable Schools

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The two day summit brought educational and environmental experts together with environmental youth leaders and members from Abu Dhabi's leading school eco-clubs.

national, specialising in familial relationships; and Arslan Khalid, Associate Programme Officer at the International Renewable Energy Agency (IRENA).

At the event, eco-clubs displayed 348 internal and external projects to raise awareness in their school and communities. These projects focused on five categories including water, energy, waste, biodiversity, and climate change.

The projects included many new and creative ideas to reduce consumption promote good environmental practices.

SSI Schools' most prominent sustainability practices

- 55% of all registered schools compost their organic waste.
- Over 82% of registered schools recycle their paper, plastic and metal waste.
- 81% of registered schools undertake partial recycling of E-waste.
- 60% of registered schools reuse or recycle their white and grey waste water.
- 55.6% of registered schools use energy efficient equipment and technologies.
- 15% of registered schools have initiated the use of renewable energy.
- On average, 73% of all students in SSI schools use shared transport.
- 79% of schools have started growing native plants for enhancing the green area in their schools.
- 94% of all registered schools have reduced their water usage
- 88% of registered schools have reduced their bottled water usage.

Report

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

‘Technological innovation and improved efficiencies to shape Mideast’s water sector’



The Middle East water solutions market is set for strong growth with GCC nations having nearly \$42 billion worth of water and wastewater projects in the study and design phase in the next 10 years.

Technological innovation, improved efficiencies, and supportive policies will shape the Middle East’s water sector, as concerns of water scarcity intensify across the globe, a new report said.

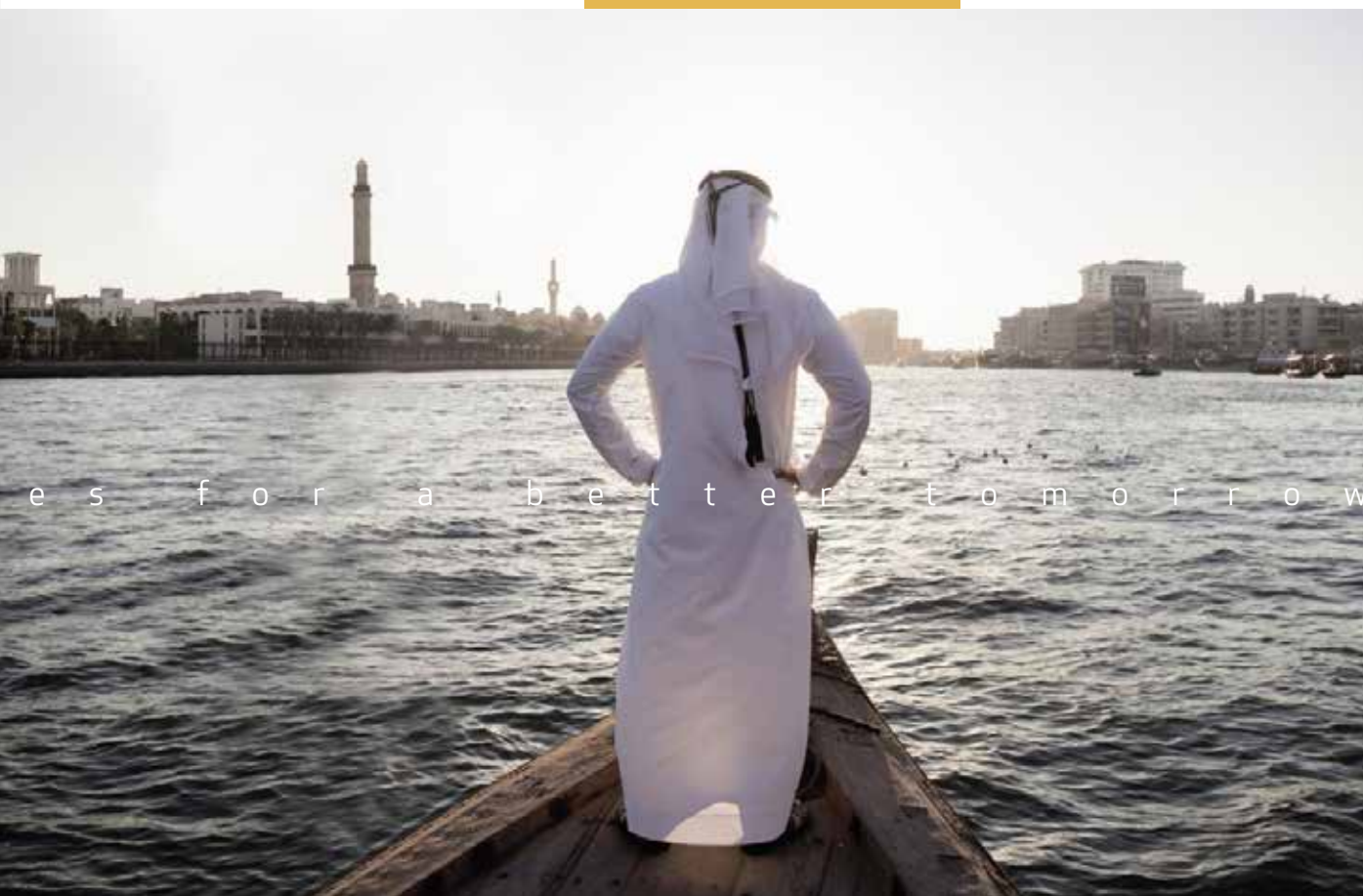
Overall, the Middle East water solutions market is set for strong growth, with the six member states of the Nations in the Gulf Co-operation Council, GCC, having nearly \$42 billion worth of water and wastewater projects in the study and design phase in the next 10 years, noted a recent white paper titled “Soaring Demand for

Water in the Middle East” from Global consultancy firm Frost & Sullivan.

Commercialization of new concepts for desalination, including forward osmosis, membrane distillation, tri-hybrid applications using nano-filtration, and low-temperature distillation, is increasing. The planned plant capacities of reverse osmosis (RO) for the GCC are increasing every quarter and improving economies of scale. About \$17 billion worth of desalination plant projects are in the offing in the next 10 years, said the report.

Governments and policymakers have already begun measures to promote efficient water usage, it added.

GCC countries consume an average 816 cubic meters of water per person per year, which is 65 per cent more than the world average. At the same time, the region is widely recognized for being the vanguard of new technology adoption, deploying thermal desalination, reverse osmosis membrane desalination, and eco-friendly, solar-powered desalination plants for generating potable and process water.



GCC countries consume an average 816 cubic meters of water per person per year, which is 65 per cent more than the world average.

“The Middle East has shifted gears swiftly to address the water demand-supply gap and change its path of economic growth to incorporate sustainability,” noted Kshitij Nilkanth, Frost & Sullivan programme manager, Energy and Environment. “The GCC is looking to desalination and wastewater reuse and recycling to bridge the supply-demand gap.”

GCC countries will also aim to lower loss from non-revenue water (NRW) in order to strengthen water security. For instance, NRW rates in Europe range between 3 per cent and 5

per cent of the water produced, while those in the Middle East range between 13 per cent and 35 per cent. Renewing infrastructure and increasing accountability will help address this issue.

The strong political will of governments in the GCC, to tide over the water scarcity issue and promote economic growth, will continue to expand growth opportunities for water and wastewater technology and solutions providers, noted Nilkanth. “For instance, water has traditionally been heavily subsidized in Arab countries.

However, this is changing with new and revised water tariffs and slabs announced by Abu Dhabi, which is likely to begin a trend of sustainable consumption in the region.”

Such hikes in tariffs can spur research and development and commercialization of smart meters and smart water grids. Rise in electricity tariffs would mean that desalination water plants will be under pressure to reduce energy consumption by resorting to energy-saving devices or shifting to energy-efficient pumps.



RTA confirms success of smart LED lighting technology experiment

The Roads and Transport Authority (RTA) is planning to expand the Smart LED Lighting Technology Project after proving successful on the bridges of the Dubai Water Canal, Sheikh Zayed Road as well as Al Barsha South 1 & 2 residential area. Measuring the implementation impact reveals that the technology has made up to 50% saving in power consumption.

Engineer Maitha bin Adai, CEO of RTA's Traffic and Roads Agency, said, "We took the initiative to expand the use of this technology as it enables central control of remote lighting units in real-time through a smart app tailor-made for the Control Room. This app is fed by a database of feedbacks received

from lighting units, which assists in monitoring the operational condition of lighting as well as the sharing of information & operational commands with these units. Another feature of the system is the automatic reporting of crashes, which cuts the response time to emergency maintenance, and enhances the operational efficiency. Smart, high-definition cameras have been installed to provide statistical data for monitoring the density of pedestrian movement in the locality.

"The smart lighting technology enables the RTA to control the lighting levels through preset fade-out programs at certain times that generates additional savings due to the reduced

rates of power consumption and maintenance costs. LED lighting is one of the best environment-friendly technologies in curbing carbon emission.

"RTA is planning to study and develop technical specifications of the smart lighting systems to bring it at par with the world's top practices. The study covers all aspects of the system starting from on-site equipment and devices and up to the control room. It involves suggesting and designing other feasible smart technologies, which can be integrated into the system. The study will also cover latest technologies of clean and renewable energy that can be added to the smart lighting system."



Children taught importance of saving water at SCRF 2017

Educating young minds about the importance of saving earth's natural resources was the subject of a children's workshop on 19th April, 2017, the opening day of Sharjah Children's Reading Festival, SCRF 2017.

Presented by 'Nutty Scientists,' a UAE-based initiative that teaches youngsters about science and the environment, the 'Save the Planet' session saw junior participants learn about why water was essential for life on our planet and find out about the best ways to conserve what is its most precious commodity.

Presenting the workshop was Najwa Zein, who handed out various items to be used in an

experiment that showed just how water functions in the earth's ecosystem. She demonstrated how water is absorbed into the ground and seeds were placed into earth-filled cups to demonstrate how plant life is sustained.

"Plants are not only a vital source of food; they also produce oxygen which we all need to breathe. That is why this workshop is important, it educates the next generation who will soon be the custodians of our planet about why we should all be conserving water," said Zein.

The session also spoke about the concepts of sustainability, recycling and the importance of

leaving a healthy Earth for future generations.

Visit to Tadweer

Dr. Thani bin Ahmed Al Zeyoudi, Minister of Climate Change and Environment, visited Tadweer, the Centre of Waste Management - Abu Dhabi on 18th April, where he was greeted by Saeed Al Mehairbi, General Manager of Tadweer.

During his visit, Dr. Al Zeyoudi toured the departments at Tadweer and was briefed on the projects and services, including Strategy, Public Awareness, Collection and Transportation of Waste, Public Health Pest Control, Projects, Licensing, Tariff and Customer Service and products of recycling plants.



Green Flash

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creating green communities for a better tomorrow



Are You Ready to Drive Solar?

Just imagine: all vehicles on the road are electric; no tail-pipe emissions either. So we have cleaner, healthier air and much quieter roads, in addition to fighting climate change and boosting the economy by using electricity, which is cheaper than gas and oil. Controlling pollution at the power plant is much easier and cheaper than trying to control emissions of individual vehicles.

This will also help in achieving Sustainable Development Goals as low-income communities can benefit the most from the clean air and cost-saving benefits of electric passenger vehicles.

The breaking news from America last month was that Tesla became the most valuable U.S. car maker, overtaking General Motors, with the largest market capitalization. Its market value is now close to \$51 billion. This is a good indicator that people believe in the future of electric automobiles.

In fact all major automakers now produce electric cars in order not to be left out of the auto market in the near future which will be in favor of electric vehicles. This has led to an incredible advancement in the technology of electric motors and batteries. There are several types of batteries that vary in efficiency, life time and safety, but the Lithium-ion batteries (LIBs) are currently used in the majority of electric vehicles, and it's likely that they will remain dominant into the next decade. Advancement in battery technology will make electric cars more efficient in order to drive much longer distances without having to be recharged. The Lithium-oxygen battery, which is being developed now, has a great potential of revolutionizing the battery industry once again in a great leap forward.

The future of solar driving is even more interesting when we consider the ongoing research to develop solar roadways by converting all those intense sun rays beating on the road to solar power. A US-based company, Solar Roadways, created a system of solar panels coated with bulletproof glass that can replace pavement. The Netherlands and France are also researching solar roadways. They are hoping to be mass-manufacturing these panels toward the end of 2018 and to see them on residential roads probably in two to three years. The company believes that these roads will pay for themselves over time by generating clean energy that can be delivered and sold to consumers. The owners also stated that: "if every road in the U.S. was made of solar panels, we could produce three times more energy than we use as a country". This is definitely a very strong statement which indicates the great potential of solar energy in the near future.

In the UAE, there are more than 100 charging stations in Dubai, each capable of powering 24 cars simultaneously, while there are 12 stations that will be raised to 20 in Abu Dhabi.

Charging an electric car is much cheaper than petrol. It costs around Dh10 to go 160 kms, while charging time varies from 20 minutes to 12 hours depending on the model.

Let us all go electric.

Dr. Eisa M. Abdellatif

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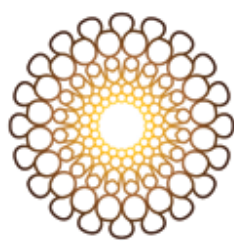
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