

The Kuwaiti Digest

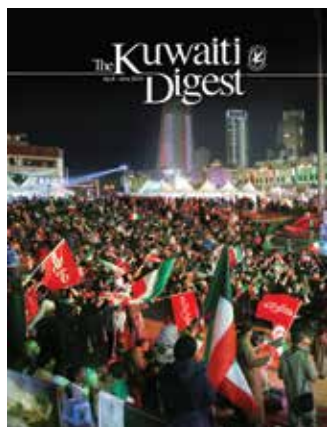
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CONTENTS

03 | KOC Takes Part in Kuwait's 3rd International HSSE Conference

08 | KOC Holds Integrated Talent Management Forum

12 | Planning Kuwait's Energy Future

16 | Caring for the Community: KOC's Community Outreach Programs

21 | The KOC London Office

24 | Patriots Behind the Scenes

28 | Practical Methods of Managing Employees in Financial Teams

31 | Succession Planning: A Way Forward in Achieving Organizational Strategies

36 | The Danger of Air Pollution

38 | Hi Tech

40 | The Kuwaiti Digest at the Louvre Abu Dhabi

46 | Visit Benin



Letter from the Editor



Abdulwahab Mohammad Al-Mithin

Ag. Deputy Chief Executive Officer
Administration & Finance

When this issue of *The Kuwaiti Digest* reaches your hands, the pleasant weather of another beautiful Kuwaiti spring will be giving way to the warmer months of summer. As the new season approaches, I encourage all KOC employees to recommit their efforts toward the creation of better efficiency and innovation in all areas of the Company's operations. As we strive to accomplish the goals of our 2040 Strategy, it is the responsibility of every individual at KOC to aid in the conservation and streamlining of the important work we do for the State of Kuwait.

While the way forward for the remainder of 2019 and beyond calls for us to remain innovative and attentive to our strategic objectives, we do not have to forego the celebrations and pride we feel for our country, especially on the occasion of Kuwait's National and Liberation Days. In addition, I believe that I speak on behalf of everyone at KOC when I say that we are proud of the very important achievements we have made over the past quarter. Naturally, the most visible of these achievements occurred in the month of February, when KOC was active in its support of our national holiday. For example, in addition to the decorations around Ahmadi that the Company is responsible for, KOC once again provided a remarkable display of lights and decorations in Souq Mubarakiya. The Compa-

ny also helped organize a very memorable celebration within Ahmadi that readers can learn about in the pages that follow.

In addition to the work that KOC does for the benefit of Kuwaiti society, our Company continues to focus on the various ways we can improve our operations by raising the bar in terms of the standards we set for safety, efficiency, and the protection of the environment. In the pages that follow, I encourage readers to learn about some of the very important work your fellow employees have been conducting toward the causes of safety, sustainability, talent development, and more. In this regard, some of our lead stories for this issue include overviews of Kuwait's 3rd International HSSE Conference, and the Integrated Talent Management Forum.

Other important stories in this issue of *The Kuwaiti Digest* include coverage of the Kuwait Institute for Scientific Research (KISR) publication of Kuwait Energy Outlook, a new and annual publication which seeks provide an overview of Kuwait's present and future energy requirements. I encourage all readers to learn more about the very important work KOC and other governmental bodies in Kuwait are conducting to ensure we all continue to enjoy the blessings the discovery of oil has brought us.

In addition to the aforementioned stories, this issue also contains a number of submissions from KOC employees who continue their hard work in the pursuit of excellence. In particular, a submission on practical methods of employee management and a retrospective look at KOC medical services during the 1990/91 invasion should be of particular interest to our readers. These articles, the latter in particular, are testament to the ability of our people and their willingness and determination to always rise to meet the challenges before them, especially in times of adversity.

Our commitment to the goals of our 2040 Strategy is as strong as ever, and I look forward to witnessing even more accomplishments over the next quarter. In this regard, I encourage each and every KOC employee to renew their commitment to the Company and the State of Kuwait as we continue to work toward delivering energy to the world in a safe, efficient, and responsible manner.

KOC Takes Part in Kuwait's 3rd International HSSE Conference

Under the patronage of Dr. Khalid Ali Al-Fadhel, Kuwait's Minister of Oil and Minister of Electricity & Water, KPC recently organized Kuwait's 3rd International Health, Safety, Security and Environment Conference & Exhibition at the Jumeirah Messilah Beach Hotel. The event, which took place over the course of two days, was held under the theme of "Transforming HSE Culture for a Resilient Future." Delegations from 25 countries representing various industries related to the oil and gas sector attended the event, where presentations and workshops featured the exchange of information and best practices related to the promotion of HSE culture in the workplace.





“Kuwait’s oil sector is investing in HSSE capital projects, most of which aim to reduce emissions, utilize renewable energy, and improve energy efficiency.”

- KPC CEO Hashem Sayed Hashem -

In a statement delivered to the media, Minister of Oil and Minister of Electricity & Water Dr. Khalid Ali Al-Fadhel said that matters related to HSSE were of paramount importance to all major industries, and that adherence to HSSE guidelines were a requirement for operators worldwide.

The Minister of Oil went on to say that Kuwait’s 3rd International Health, Safety, Security and Environment Conference & Exhibition was a “Premier knowledge sharing platform for more than 1,000 global decision makers, influencers, and industry stakeholders to gather under one roof as they lead an evolution and expansion of a truly forthcoming HSSE industry.”

He went on to say that industries today want to navigate

trends and agendas that embrace a sustainable HSSE culture, adding, “Regardless of the positivity towards the discipline, we must not overlook the multi-dimensional growth of the industries across the globe, and we must act cautiously and creatively to explore opportunities offering cutting edge technology solutions that provide a catalyst for achieving major milestones beneficial to the industries.”

The 3rd International HSSE Conference & Exhibition, which was hosted by Kuwait Petroleum Corporation (KPC), featured opening remarks from KPC CEO Hashem Sayed Hashem, who welcomed the audience and upheld the importance of promoting a robust health, safety, and environmental culture which he said should form the foundation of all K-Company operations.

“We have made key strategic choices that strengthen the value of KPC and its subsidiaries in accordance with our 2040 Strategy. Among those choices is to transform KPC’s culture so that it becomes safer, stronger, and a better performing corporation. KPC’s Strategic Direction focuses on local and international HSSE standards in order to enhance HSSE performance and commitment towards HSSE. One of the most important aspects of KPC and its subsidiaries’ 2040 Strategy is to fulfil KPC’s share of Kuwait’s Greenhouse Gas Management commitments in the field of HSE to reduce greenhouse gas emissions through various specialized projects that have been implemented in Kuwait’s oil sector,” the KPC CEO said.

KPC CEO Hashem Hashem went on to say that KPC and its subsidiaries were proud to be



“Delegation for HSE is everybody’s job.”

KOC CEO Emad Sultan

among the local bodies working to translate the goal of H.H the Amir’s vision of generating 15% of Kuwait’s electricity requirements from renewable energy by 2030. He added that climate change and energy security concerns have been major drivers of energy and environmental policies in Kuwait. Therefore, the KPC CEO maintained that plans were underway to execute a number of renewable projects throughout the country which will ensure the expansion in the use of solar applications to help achieve strategic directions in terms of meeting growing demand for electricity, besides protecting the environment.

According to the KPC CEO, Kuwait’s oil sector is investing in HSE capital projects, most of which aim to reduce emissions, utilize renewable energy, and improve energy efficiency. These projects include the development of an Energy Management System and the growth of solar projects, and



KOC CEO Emad Sultan

plans for carbon capture and storage with Enhanced Oil Recovery (EOR).

In terms of major operational challenges, Hashem said that high gas flaring, which has both environmental as well as economic impacts, has previously affected Kuwait’s image. However, that reputation was now a thing of the past, as Kuwait’s gas-flaring percentage has been reduced from 17% in 2005 to 1% in 2010, while Kuwait continues to minimize its gas flaring percentage throughout all of its oil sector operations.

He added that the Al-Zour Refinery and the Clean Fuels Project are environmentally-driven projects which aim to protect Kuwait’s biosphere and significantly improve environmental conditions of the country. In this regard, KPC and its subsidiaries have also pioneered the launch

of strategic initiatives such as the Al-Dibdibah Solar Project and Sidra 500 Solar Energy Project.

The KPC CEO went on to uphold some of the environmental achievements of the K-Companies, such as the establishment of the Subaihiya Oasis, which is a landmark project that has done much in the way of rehabilitating damaged ecosystems around the oilfield area of Burgan.

“KPC’s focus on HSE represents its full commitment towards protecting our employees, contractors, suppliers, community, customers, as well as facilities, operations, and the environment. It is generally recognized that health and safety management should embrace the interactions between the working environment, equipment, systems and procedures, and the people





Participants of the Executive Plenary Panel session pose for a group photo.

in the organization,” Hashem said, adding, “Despite having clear corporate policies and expectations and good risk mitigation processes and systems, accidents, injuries, and fatalities do occur. Safety culture consists of shared values and beliefs that interact with an organization’s structure and control systems to produce behavioral standards. For every accident that occurs, a high-level investigation is conducted to discover the causes of the incident, and come up with recommendations and lessons learned in order to prevent the risks of its occurrence in the future.

We focus on building capability when things are going well so that recovery can be more rapid when incidents or unexpected events do occur.”

The KPC CEO concluded his speech by telling the audience that the world needed more clean energy for economic and social development, adding that Kuwait was committed to ful-

filling its role in meeting energy security through continuous investments while focusing on health, safety and a clean environment for all.

Following KPC CEO Hashem Sayed Hashem’s speech, senior officials from Aramco, ADNOC, and Baker Hughes delivered speeches related to the conference theme. In their addresses, Yaser Al-Mazrouei, ADNOC CEO, Aali Al-Zahrani, Saudi Aramco Executive Director for Safety & Industrial Security, and Kevin Wetherington, Chief HSE Officer from Baker Hughes, shared a common sentiment by all expressing the need for employees and stakeholders in the oil and gas industry to be fully engaged, with the importance of senior management clearly demonstrating their support and active involvement in driving matters related to HSE forward.

In addition, the keynote speakers also said that HSE culture needed to be an integral part of

every organization’s business. In that regard, they maintained HSE matters should be supported and considered as an enabler for the business to succeed and achieve the desired goals and objectives of the organization. They all added that HSE is value-adding and that it has an essential role to play in every company’s business strategy, in addition to creating organizations that are more resilient and sustainable.

Following the speeches from the event’s keynote speakers, KPC CEO Hashem Sayed Hashem and KPC MD Planning Wafaa Al-Zaabi cut the ribbon of the accompanying exhibition, which included displays and promotional materials from a number of companies, corporations, ministries and governmental entities from the region and beyond.

The plenary panel discussion of the event was titled “Leadership’s Role in Transforming HSE Culture.” Panelists in-

cluded KOC CEO Emad Sultan, Chairman & Managing Director for Shell in Kuwait Walid Al-Nader, Halliburton's Global Director for HSE Dennis Lynch, and GOFSCO Chairman Husam Marafie. The panel was moderated by Abdullah Al-Marzouqi, ADNOC Senior Vice President, HSE Group.

During the discussion, the panelists discussed how organizational leaders play a major role in the success of HSE systems, and how their involvement – or lack of it – can either create the right culture for HSE to thrive or lead to failure of the whole HSE system. The panelists discussed the various approaches they have used within their organizations to ensure the sustainability of positive and proactive HSE cultures, in addition to their experiences and best practices which have been adopted to ensure that HSE is integrated into their business processes and operations.

In a statement he made during the discussion, KOC CEO Emad Sultan said, "Delegation for HSE is everybody's job." He upheld that effective HSE systems could only be maintained if there was a strong commitment from the organization's leadership, adding, "KOC provides the necessary resources to all our staff, from Executives to Seniors to Juniors, so that they can initiate HSE measures and have all those aspects noted down in a very effective system. We have learned that if you do not establish a system for everyone to follow, you will lose an opportunity to follow the performance of HSE matters within the Company. It's not a matter of delegation – it should be a

day-to-day business for everyone in the Company, from the leadership to the employees in the field. After all, it is the employees in the field and in operations who are really owning this HSE culture and HSE behaviors. If you don't establish a system for them to follow, you cannot have an effective form of HSE management."

On the last day of the conference, DCEO Corporate Services Abdulwahab Al-Mithin was a panelist on a discussion titled "Future Outlook of HSE & KI-HSSE Way Forward." Other sessions at the conference fea-

Al-Buhairi chaired a session on crisis management and emergency response planning, and Manager Marine Operations chaired a session on oil spill management and mitigation. Other KOC employees who took part in sessions included Dr. Entesar Al-Hindal, Head of the Health Promotion Unit at Ahmadi Hospital, and Ali Askar, Environment Engineer from the HSE Group.

Kuwait's 3rd International Health, Safety, and Environment Conference & Exhibition provided attendees with various opportunities to create new



tured participation from KOC employees from various fields. Manager Corporate Information Technology Group Ali Al-Naqeeb chaired a session on cyber security, with panel participation from Reem Al-Shammari, Team Leader Information Security. Fire Manager Ali Al-Failakawi chaired a session on safety competency and emergency response competency, Team Leader Fire Nasser

channels of communication with an international roster of industry players and decision makers. As one of the key meeting destinations for the HSSE sector in the world, the conference did much in the way of providing valuable information to Kuwait's next generation of oil and gas leaders through keynote speeches, leadership panels and presentations, and workshops.



KOC Holds Integrated Talent Management Forum

KOC recently hosted the Integrated Talent Management Forum at the Jumeirah Messilah Beach Hotel, which was held under the theme of “Innovate in Human Capital for Sustainable Success.”

The KOC Integrated Talent Management Forum was organized by the Training & Career Development Group with the aim of leveraging collaboration and partnership as inspiring values in the Company’s 2040 business strategy for operational excellence.

In a statement released to the media, KOC CEO Emad Sultan said, “The KOC Integrated Talent Management Forum holds a high status and serves as a vital corporate event, which is endorsed by the KPC HR Community, and reflects deeply the efforts of our Think-K Strategy.”

“It is significant for me to acknowledge that a historical moment is waiting for Kuwait’s oil sector. This year, we will celebrate an important milestone, as it is the 85th anniversary since KOC was founded and started operations. This forum couldn’t be more significant as we focus on, and realize, how Human Capital has impacted the sustainability of our country. The

Kuwait economy depends on oil production. To continue this important work, a strong Talent Development Strategy will need to meet the current and future challenges of the oil production agreed on in the KPC 2040 Business Strategy,” said KOC CEO Emad Sultan in the prepared statement.

The KOC CEO went on to say that there was a pressing need for Kuwait’s oil industry to explore new ways of conducting its business through innovation. This includes the necessity for Kuwait’s talent to adapt quickly, manage the dynamics and complexity of increasingly demanding workplaces, deliver enhanced skills, and to ensure operational excellence for many years to come. According to Sultan, Kuwait’s oil industry is at the forefront of a new age of HR and Talent Development innovation.

The KOC Integrated Talent Management Forum had as its main



KOC CEO Emad Sultan delivering the event's opening remarks.

theme: “Innovate in Human Capital for Sustainable Success.” The forum provided opportunities to hear from and work with leading global experts in human capital, and it also served as a launch point for the presentation of the most current approaches, frameworks and methodologies in talent development, enabling attendees to understand and address the challenges of the modern workplace.



In the statement released by the KOC CEO, he concluded by saying he was confident the forum would provide a collaborative space that would KOC employees to proactively discover how to lead in a changing world. He then encouraged those in attendance to take the opportunity offered during the two-day forum to open dialogues and explore new ideas and ways that can continue to drive business value and position Talent Development as a key problem solver of KOC's business challenges.

The event's opening remarks were delivered by Ahmad Alhamad, KOC DCEO Administration & Finance, and Forum Chairman. In his address, Alhamad said that the forum aimed to leverage collaboration and partnership as inspiring values in the Company's 2040 Strategy, and that the forum would provide opportunities to hear from and work with leading global experts in human capital. In addition, he said it would present

the most current approaches and methodologies being deployed in the industry, which would enable attendees to further meet the challenges of the modern workplace.

"The forum provides an extraordinary arena and opportunity to explore the future of the workplace by gathering the community of professionals, decision makers and disruptors, along

with a roster of international keynote speakers. They will share their insights on Talent management and examine the impact of innovation and collaboration on leading multigenerational workforces. Furthermore, they will examine new learning and Human Resources technologies, such as trends in neuroscience, artificial intelligence, robotic applications, enhanced human



Visiting speakers and members of the event's Organizing Committee pose for a group photo.



Tony Bingham, ATD President & CEO.

capital operational frameworks and analytics as driving forces in the future of Human Capital and workplace innovation.”

The DCEO went on to say that KOC makes appropriate investments to ensure required human capabilities are achieved with an Integrated Talent Development Management Strategy. It meets workforce demands by forecasting, recruiting, developing, optimizing and retaining employees. In recent years, a number of corporate projects to enhance the Talent Management and Development process have been achieved with integrated and unified systems, and by pro-

moting the Think-K initiatives. The DCEO maintained that these projects helped KOC move closer to its vision of remaining innovative, transferring knowledge, and enhancing collaboration and partnership to ensure operational excellence.

“We have recognized that we are facing a turning point in Human Capital maturity. That is, the arrival of a new generation now, who are the future leaders. Therefore, a robust talent succession should guide us to be ready a decade from now. In addition, the trends of the future of the workplace, new learning technologies, and new demands to

engage and retain the workforce encouraged us to search for the best talent development practices,” he said.

“To be ‘an employer of choice’ is a strong driver for the oil sector in managing its human capital processes. Consequently, the need for our industry to explore new sources and to innovate includes the necessity for our talent to adapt quickly, to manage dynamic and increasingly complex workplaces, to deliver enhanced skills, and to ensure operational success.”

The DCEO went on to say that KOC seeks to promote a work



**KOC DCEO Admin. & Finance
Ahmad Alhamad.**



Jensen Group CEO Bill Jensen.



**Dr. Carol Kinsey Goman,
Kinsey Consulting Services
President.**

atmosphere geared towards participation and integration in the work environment, and to focus on embedding its strategic values. Moreover, if the workplace is changing, the DCEO said that the Company would need to make the time for dialogue around new insights.

"As we begin to celebrate our Company's 85th anniversary and commemorate a major milestone - we must remember that we have been blessed with a natural resource, oil, which enabled the State Kuwait to transform itself from a small city to a country that is now one of the most important oil and gas players in the world. Today, we must keep cultivating our talent for the future so that we can continue on our path of world-class operational excellence for sustainable success," he concluded.

Meanwhile, Qusai Al-Amer, Training & Career Development Group Manager and Fo-

rum Organizer Lead, issued a prepared statement in which he made note of new learning and HR advances, which he said will all be potential driving forces in the future of Human Capital and workplace innovation. "All these new developments will have an impact on workplaces, and future generations will have different needs, wishes and expectations, so there will be rapid changes and a need to adapt even faster to such new approaches and technologies."

The forum's agenda on day one focused on the future of the workplace and the most current Talent Development and Management approaches and methodologies. International keynote speakers such as Tony Bingham, Dr. Carol Kinsey Goman, Bill Jensen, Neville Pritchard delivered presentations to the audience.

On the second day, the program included six interactive human capital workshops which pro-

The forum provided opportunities to hear from and work with leading global experts in human capital, and it also served as a launch point for the presentation of the most current approaches.

vided opportunities to hear from and work with international speakers who are specialists in their fields, in addition to expert ATD facilitators in human capital. The workshops provided opportunities to discuss and explore new principles and opportunities and their relation to talent management and development.



PLANNING KUWAIT'S ENERGY FUTURE

KISR Publishes Kuwait Energy Outlook to Predict & Plan for Kuwait's Energy Needs

The Kuwait Institute for Scientific Research (KISR) recently held an event at its headquarters in Shuwaikh to commemorate the publication of the first edition of the Kuwait Energy Outlook (KEO) – an annual, evidence-based review of Kuwait's energy production, usage and demand. The report is the first of its kind in the Gulf region, and puts forward recommendations to create a more sustainable, energy-efficient and diversified economy and society in Kuwait.

For the first edition, KISR's Energy and Building Research Center (EBRC) collaborated with the General Secretariat of the Supreme Council for Planning and Development (GSSCPD) and United Nations Development Programme (UNDP).

This year's report highlights and analyzes three main challenges Kuwait is facing in sustaining its prosperity – the need to diversify its oil-dependent economy, stimulate efficient usage of energy, and further develop the country's potential renewable energy sources.

In addition, the report calls for improved collaboration between Kuwait's key energy players across the public and private sector, to better facilitate the collection and analysis of energy data in Kuwait. Investing in these changes will benefit not only Kuwait's environment, but will also have a positive impact on its economy and society, ensuring prosperity for generations to come.

In her opening remarks, Dr. Samira Omar, Director General of the Kuwait Institute for Scientific Research (KISR), said,

"In the past fifty years, KISR has been at the forefront of energy research in Kuwait, and today's launch of KEO symbolizes the next step in Kuwait's energy planning. We are looking forward to further discussing our findings and recommendations with policy-makers, in order to move towards a diversified, sustainable and energy-efficient society and economy."

During her opening speech, Dr. Samira Omar discussed some of the reasons which necessitated the publication of Kuwait Energy Outlook. While Kuwait,

with its relatively small population and prosperous economy, is one of the world's top ten oil producers, it is also in a precarious position because of the extreme imbalance that exists as a result of its heavy dependence on oil-export revenues. To put the actual figures in perspective, the oil sector accounts for approximately 90% of export revenues, while net oil-export revenues are approximately 40% of GDP. Kuwait, like all oil-producing countries, is facing a changing energy world today. Shifting supply, demand, and technology trends have ushered in an energy world where oil-price volatility and market uncertainty are the defining features. To ensure economic development and social prosperity in the years to come, Kuwait will require a new energy strategy, combined with a plan to foster economic diversification and reduce fossil fuel dependency.

Meanwhile, Dr. Khaled Mahdi, Secretary General of the Supreme Council for Planning and Development (GSSCPD), delivered his keynote speech at the event and said, "GSSCPD is proud to support the launch of the first Kuwait Energy Outlook;

the first of its kind in the GCC and an important project for our nation's future as we work towards the goals of Kuwait Vision 2035."

Dr. Edward Christow, UNDP Resident Representative, underscored the importance of the first Outlook, saying, "In line with the UNDP's mission to support the people of Kuwait in their realization of the Sustainable Development Goals, we are delighted to see the report assume the role of a catalyst for Kuwait's economic diversification and encourage cooperation between key energy stakeholders in Kuwait."

Dr. Christow went on to say that Kuwait was making good progress in terms of achieving some of its sustainable development targets, but that several challenges still remained as Kuwait aimed to ensure the sustainability of these gains in the long term. The root cause for many of these challeng-

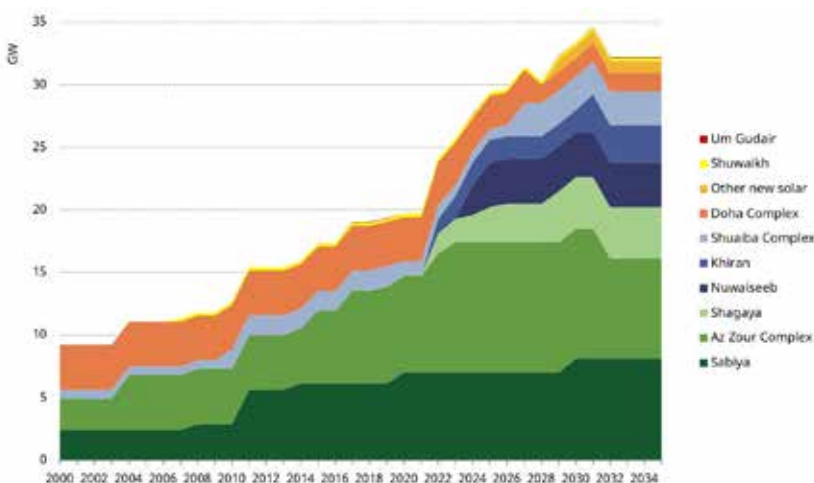


Dr. Samira Omar, Director General of the Kuwait Institute for Scientific Research.

es, he maintained, was the country's continued high dependence on petroleum, which requires more effort toward the diversification of Kuwait's energy mix as defined in the Kuwait Vision for 2035. Despite these challenges, Dr. Christow commended the work that has already been conducted, such as Kuwait's efforts to utilize solar energy through the construction of dedicated solar energy plants, such as the Shigaya Project. In addition, he also pointed to the fact that Kuwait was doing much in the way of ensuring new building projects were being constructed in a way that would ensure they consume less energy over the long-term.

Following Dr. Christow's speech, Osamah Al-Sayegh, Executive Director of the Energy and Building

Research Center delivered a presentation which provided an overview of the Kuwait Energy Outlook and the circumstances which preceded its creation. According to Dr. Al-Sayegh, today's Kuwait Energy Outlook is actually an extension of KISR's efforts which have been ongoing since



Power generation capacity by location over the Outlook period



KISR officials take part in a discussion focusing on findings from their latest publication.

at least the 1990s, when similar information gathering was being conducted for specific sectors, such as electricity and water, the oil industry, and the environment.

In 2013, the Kuwait Foundation for the Advancement of the Sciences (KFAS) tried to coordinate these efforts, leading to the creation of a white paper and a committee which sought to analyze a host of information related to development in Kuwait's energy sector and related matters. As a result, a coordination of efforts between KISR, KFAS, and governmental bodies was required, in addition to cooperation with the UNDP, resulting in a report that serves as a planning tool which is dynamic and addresses domestic and international energy affairs. In part, Dr. Al-Sayegh said the report assesses the present energy situation while also forecasting potential future scenarios. This, he said, will help serve the important purpose of helping to develop discussions surrounding policy implication with respect to infrastructure,

technology, the economy, geopolitics, and the environment.

Dr. Al-Sayegh's informative discussion was followed by a presentation from Dr. Yousef Al-Abdullah, Associate Research Scientist at KISR and member of the Energy Efficiency Technology (EET) Program. Dr. Al-Abdullah said that the objective behind the Kuwait Energy Outlook project was to produce a body of work related to Kuwait's energy situation annually, in addition to serving as a channel which seeks to strengthen the institutional capacity of Kuwait's professionals in the energy field. The project, he said, was conducted with KISR's coordinating partner, the UNDP, where a number of workshops were held at their location. In part, the Kuwait Energy Outlook also helps to fulfill a number of Kuwait's sustainable development goals, and Dr. Al-Abdullah expanded on this point by delivering information which provided a glimpse of the data within the pages of the report. The report itself is divided into three

chapters, with the first providing context, the second providing an energy outlook to the year 2035, and the third dedicated to policy recommendations.

In part, the Kuwait Energy Outlook expands on some of the following points:

- Kuwait relies almost exclusively on oil products and natural gas to meet its energy needs, with each fuel accounting for about a half of total primary energy consumption. The report touches on the ways in which natural gas and renewable energy will be utilized, allowing Kuwait to free up more crude oil for export and address the impacts of climate change.
- Consumption of oil products, electricity, and water are all heavily subsidized in Kuwait. The report discusses the potential for improvements in various energy efficiency schemes. Kuwait has vast potential for improvements in energy efficiency through actionable national en-

ergy efficiency plans, incentive/rebate programs and subsidy reduction.

- In the period to 2035, energy demand in Kuwait is projected to increase by a third in the Business-as-Usual Case, growing at a much slower pace than over the past, due to decelerating GDP and population growth.
- Keeping pace with rising demand for electricity will be critical to Kuwait's economic development, and reforms, such as opening up the power generation sector to independent power producers and independent water and power producers, are key to increasing the currently low share of private company involvement in the sector.
- Improving energy efficiency in the buildings sector in Kuwait will require a clear long-term government commitment, combined with well-designed packages of efficiency policies reinforced by adequate capacity for implementation and sufficient enforcement.
- Greenhouse-gas emissions increase from 83 million tons of CO₂-equivalent in 2015 to 103.4 Mt of CO₂-eq in 2035 - at an annual rate of 1.1% - twice the global average.
- Price reform and energy efficiency offer major opportunities to rationalize consumption and encourage more diversified growth, without foregoing the economic opportunities to capitalize on abundant energy resources.
- Reliable data and robust projections will serve as the essential foundation for Kuwait's policy choices as it prepares for a more sustainable energy future.

In addition to expanding on the aforementioned highlights from the text of Kuwait Energy Outlook, the report also touches on a broad spectrum of issues pertaining to Kuwait's future energy needs, while also underscoring areas of concern related to environmental degradation and climate change.

As part of the process in compiling the report, the Energy and Building Research Center at KISR based its thorough data analysis on a specific Long-range Energy Alternatives Planning (LEAP) model, developed by the KISR team in collaboration with the Stockholm Environment Institute in the United States. This model will serve as a foundation for examining energy efficiency and renewable energy policies in Kuwait going forward.

Following the publication of the first Outlook, KISR established the KISR Energy Policy Team, which has been tasked with the creation of future editions of the annual report.

To learn more about the Kuwait Energy Outlook report, or to request a copy under the resources tab, please visit <http://www.kisr.edu.kw/en/facilities/energy-building/?research=1>.

About the Kuwait Institute for Scientific Research (KISR)

Established in 1967, KISR is an independent national institute for scientific research.

The main objectives of the institute are to develop and implement best practice in science, technology, knowledge, and innovation to support public and private sector entities in Kuwait and other countries facing similar challenges and opportunities. Today, KISR is home to over 580 researchers and

engineers spread over 100 laboratories, at 9 locations.

About the (GSSCPD)

The Planning and Development Council was established under the Decree No. 323 of 2008. GSSCPD is an independent development and planning body, mandated with developing social and economic policies in Kuwait, as well as overseeing their implementation. It is chaired by His Highness the Prime Minister, and members include the Deputy Prime Minister and Foreign Minister, the Deputy Prime Minister and Minister for Cabinet Affairs, Minister of State for Housing Affairs and Minister of State for Development Affairs, Minister of Oil and Minister of Electricity and Water, Minister of Finance, Minister of Health, Minister of Public Works and Minister of State for Municipal Affairs, Minister of Education and Minister of Higher Education, Minister of Social Affairs and Labour, Minister of Information and the Governor of the Central Bank of Kuwait, amongst members from the private sector and civil society organizations.

About the United Nations Development Programme (UNDP)

UNDP works to eradicate poverty and reduce inequalities through the sustainable development of nations, in more than 170 countries and territories. UNDP has been working in Kuwait since 1962 cooperating with the Government and civil society to realise the country's aspirations for sustainable human development. UNDP programming is fully-funded by the State of Kuwait, and is designed to support the country to meet its national developmental priorities.

CARING FOR THE COMMUNITY: KOC's Community Outreach Programs

As part of KOC's commitment to the society it operates in, the Company recently inaugurated the lights and decorations that were set up throughout Ahmadi to celebrate Kuwait's National and Liberation Day holiday. The celebration was sponsored and attended by a number of KOC's senior officials. The lights and decorations throughout Ahmadi have become an annual, signature occasion for KOC and Ahmadi residents.

Meanwhile, KOC also contributed to Kuwait's National and Liberation Day celebration beyond Ahmadi with a large festival that was held at Safat Square in the Mubarakiya Souq area. The festival took place over the course of two days and consisted of a number of activities, contests, and cultural and entertainment shows where many gifts and prizes were distributed to participants and guests.





KOC DCEO Administration & Finance Ahmad Alhamad, Manager Public Relations & Information Mohammad Al-Basry, Team Leader Information Bodoor Sayed Omar, and Team Leader Community Services Jasem Al-Nasser attended the event, in addition to a large number of Company employees, citizens, and residents of Kuwait. The event comes within the context of KOC's commitment to social responsibility, as it strives to ensure the Company and its employees actively participate in various social and national events which have value for the community.

The event included various entertainment shows targeted at all age groups, with a particular emphasis on children. In addition, the Kuwait Military Band delivered a musical performance, which was followed by more performances from traditional music and dance groups from Kuwait and the GCC, all of which were met with admiration from the public.

On the sidelines of the event, winners of the KOC-organized

"Kuwait in the Eyes of its People" photography competition were awarded. Winners included Mohammad Al-Qattan (1st Place), Yousef Bou Hamad (2nd Place) and Faisal Al-Naumas (3rd Place), whose photographs showcased Kuwait's most notable landmarks and natural beauty.

A large draw at the end of the celebration featured the distribution of many valuable prizes for guests and participants. Kuwait TV was present to cover the event, with live broadcasts from the stage every day from 7-8 p.m.

A Brief History of Kuwait

Archaeological finds on the Kuwaiti island of Failaka suggest that the island was a trading post at the time of the ancient Sumerians. Failaka continued to serve as a trading post for approximately 2,000 years, and was known to the ancient Greeks.

Kuwait's modern history began in the 18th century with the founding of the area that would later become Kuwait City by the Bani Utba, a federation of Arab clans originating from Najd. In January 1899, H.H. Sheikh Mubarak "The Great" Al-Sabah





signed an agreement with the British Government that governed the terms of a protective agreement. When Mubarak died in 1915, the population of Kuwait of about 35,000 was heavily dependent on shipbuilding, using wood imported from India, and pearl diving.

Kuwait achieved independence from the British under Sheikh Abdullah Al-Salem Al Sabah. By early 1961, the British had already withdrawn their special court system, and the Kuwaiti Government began to exercise legal jurisdiction under new laws. On June 19, 1961, Kuwait

became fully independent following an exchange of notes with the United Kingdom.

Kuwait enjoyed an unprecedented period of prosperity under Sheikh Sabah Al-Salem Al-Sabah, and the country was transformed into a highly developed welfare state with a free market economy.

In August of 1990, Kuwait was invaded. Following several weeks of aerial bombardment, a UN-mandated coalition led by the United States began a ground assault that finally liberated Kuwait on February 26, 1991.

Caring for the Community:

KOC's History of Corporate Social Responsibility

Since its earliest days, Corporate Social Responsibility (CSR) has played a major role in Kuwait Oil Company's day-to-day activities. Stretching as far back as the 1930s, when the Company was still run by a mostly British workforce, employees were provided with housing, health care and food. Of course, these earliest accommodations and services were very basic; however, over time, KOC went on to build one of the strongest support structures that directly benefited not only employees, but residents throughout Kuwait as a whole.

Happiness and Health

During the 1940s, the first major steps were taken to create a vibrant community within Ahmadi that would turn the small desert town into a self-sustaining hub where KOC employees could live comfortably and enjoy various activities for entertainment after work hours. It was around this time that major construction began which saw the building of more homes, swimming pools, playing fields and parks, a golf course and a number of different clubs for entertainment, such as the Kuwait Little Theater, which is one of the oldest theaters in the region.

Ensuring the health and safety of its employees has also been a long-standing tradition of KOC. Before 1960, most employees received their medical care at the medical center in Magwa, which was used as the Company hospital until Ahmadi Hospital was built. Today, the hospital provides a range of medical services to not only KOC employees and their families, but all oil sector employees.



The Environment

Part of KOC's CSR initiative is to do everything in its power to ensure the Company's oil operations have as little negative impact as possible on the country's environment. Examples of these initiatives include the water re-injection program, where polluted and unusable water resulting from production is re-injected into the reservoir instead of being dumped on the soil on the surface in evaporation pits.

KOC's extremely successful effort to reduce gas flaring must also be mentioned, as this campaign has resulted in positive results thanks to the cooperation that exists among employees throughout KOC. Recently, KOC has been able to reduce gas flaring from 17% to 1.75%, and in many cases, that figure is even lower, with some extremely successful cases attaining figures of

less than 1% flaring. The environmental and economic ramifications of this extremely significant achievement will leave a positive impact on Kuwait for years to come.

Ahmadi is considered by many to be one of Kuwait's greener areas, and this is definitely not the result of chance or accident. KOC has spent decades planting and maintaining the many trees that line Ahmadi's streets and boulevards, and this practice has turned out to be a very good investment. Many studies indicate a greener environment leads to happier people, and happy people are generally more satisfied and productive at their jobs, which leads to an arrangement that is mutually beneficial to the Company and its employees.

The One Million Trees Project was also an undertaking that witnessed the Company make

efforts to beautify Kuwait by planting trees throughout the country. In addition, concerns about the impact of oil production on the local landscape resulted in KOC initiating two projects. These included Spirit of the Desert and the Kuwait Oasis, whose goal was to bring areas of the desert back to their natural state. Both projects involved the transformation of polluted land into green areas that are available for use by company employees. In addition to being leisure areas, the parks are also sanctuaries for local and migrating wildlife. In addition, the Company's concern for the environment affected its decision to work with the Kuwait Environment Protection Agency to review and improve local legislation pertaining to the environment and the actions of the petroleum industry.



KOC is active in and financially supports local projects that aim to improve the environment, such as the formation of the Marine Colony, the cleaning of local beaches, and the preservation of sensitive nature areas such as the local islands. In fact, the Marine Colony was a first for an oil company and is one of the largest reserves in the Gulf. Covering an area of 54,000 square meters, the reserve includes 1,000 reef balls which are intended to foster Kuwait's marine life.

On top of its direct efforts to make a positive impact on the environment, KOC routinely holds awareness campaigns that touch on issues such as energy conservation, recycling, safe driving, health related issues such as back pain, and more. These awareness campaigns not only target employees and their families, but extend to students as well. In recent years, KOC has made an active effort to hold regular awareness sessions for students throughout Kuwait.

Education and Awards

The continuous drive to better train KOC employees and send them abroad for higher education is demonstrative of the Company's realization that a highly educated staff of employees leads to a better-run organization. A focus on training has resulted in the construction of many training centers that prepare Kuwaiti employees for life in the oil sector. As a result,

this has led KOC to accept more Kuwaiti applicants, which falls in line with Kuwaitization policy of hiring more Kuwaitis in various positions when possible. Approximately 80% of KOC employees today are Kuwaiti nationals.

Health, Safety and Environmental issues are very important to KOC, which was reflected in the creation in 1998 of the annual Chairman's HSE Awards, which recognize initiatives within the company that focus on reducing damage to the environment while safeguarding the health and safety of employees. Receiving an HSE Award is quite an honor, and many employees and their families are now more aware than ever of the importance of leading initiatives that go a long way in caring for the community.

Corporate Social Responsibility will continue to play a major role in the day-to-day operations of KOC. As the Company grows and makes plans for the future, KOC's CSR initiatives will grow in turn and increase in their scope, resulting in a community that can be proud of its accomplishments and eager to do more in the future.





THE KOC LONDON OFFICE

An inside look at KOC's home away from home

While the majority of KOC's daily operations – both in the field and in the office – are conducted in and around the Township of Ahmadi, there is a great deal of work that is conducted by a team of KOC employees in London who, because of their great distance from KOC's home base in Ahmadi, are sometimes forgotten. Their role, however, in contributing to the smooth flow of the Company's operations is immense. For example, during the 1990/91 invasion of Kuwait, the KOC London Office remained open and successfully provided assistance and critical information to KOC employees and other Kuwaitis in the UK at a time when accurate information was hard to come by. Following the invasion, the London Office had between eight to nine employees at any given time, but after 2006, this number began to steadily increase, and today, the office has expanded considerably and is comprised of a staff of 30 employees.

From the coordination of medical services to assisting in the provision of training programs for KOC employees, the KOC London Office, which was established in the 1970s, is the Company's international hub which provides valuable services for KOC in a variety of fields.

KOC London Office Manager Dr. Aref Al-Abbasi has the important job of ensuring the Company's interests are being managed effectively abroad. Recently, Dr. Al-Abbasi reached out to The Kuwaiti Digest to tell us about the mission and vision of the KOC London Office. According to the London Office Manager, part of that mission and vision includes offering facilities which can be utilized by KOC for international recruitment activities, training programs for KOC employees, and medical services for employees and their families.

In a statement he made recently, KOC London Office Manager Dr. Aref Al-Abbasi said that the London Office would be more than happy to provide KOC teams with any support they needed, as the London Office serves as KOC's international hub.

The KOC London Office's facilities are quite valuable for the

The KOC London Office is the Company's international hub which provides valuable services for KOC in a variety of fields.

Company in a number of ways. For one, the London Office's facilities can support KOC operations by serving as a meeting point for the recruitment of international specialists or experts, who can come to London as a halfway point from their home countries to conduct interviews during the recruitment process. These facilities, which are equipped with everything required for such meetings, including the capability for video conferencing, etc., are located at Pall Mall, which is in the center of London and easily accessible from anywhere in the UK or abroad.

In addition, any meetings that need to be held with medical organizations for the treatment of KOC employees abroad can be

held at the London Office, and the same types of meetings can also be held at the office with organizations specializing in oil and gas services which KOC may be interested in utilizing for operations at home. For example, it is much easier to hold a meeting with potential KOC partners in London if they are based in Europe or North America than it is to fly them all the way to Kuwait. By serving as a middle ground for KOC and its potential partners, the London Office can do much in the way of streamlining and expanding KOC's business potential, which is especially important today as the Company aims to live up to the objectives of the new KOC 2040 Strategy.

As part of its general suite of operations and services, the KOC London Office provides administrative support and services for KOC in the field of international medical services for K-Company employees, their families, and retirees. The Medical Department of the KOC London Office aims to provide the fastest, safest, highest quality and most cost effective health care services to oil sector employees and are referred for treatment abroad by Ahmadi Hospital.

The KOC/London Office Medi-



The Late Amir Sheikh Abdullah Al-Salem Al-Sabah at the KOC London Office.

cal Department manages a referral process that is of the highest standard and one which only utilizes the most trusted medical authorities in Europe, the UK, and the United States. The department also coordinates with international medical associations to seek out forms of mutual cooperation for medical services, whether they be treatment abroad programs or coordinating visits for medical specialists to come to Kuwait and perform procedures on patients at Ahmadi Hospital. Every year, the London Office oversees the provision of medical care for around 700 patients and their families.

The London Office's Medical Department's responsibilities also include updating the referral abroad office at Ahmadi Hospital with medical reports on the status of all patients under treatment abroad. In addition, the London Office Medical Department provides assistance to Ahmadi Hospital's Pharmacy Department in Kuwait for medi-

cation which is not available at home. The London Office sources these medications from the contracted pharmacies in the UK by placing the orders and having them delivered to the relevant authorities at Ahmadi Hospital so that patients can be treated in a timely and efficient manner.

While the majority of the KOC London Office's work involves the provision and coordination of medical care, it also plays a large role in ensuring KOC employees receive adequate training that will better prepare them as they develop their careers at the Company. According to the London Office, more than 1,000 courses, seminars, and related training activities are organized by the office for KOC employees every year.

In this regard, the Administrative Department of the London Office arranges international training for KOC employees. In addition, the department also maintains service provider contracts and oversees all the ad-

ministrative support which is required to run the London Office. Meanwhile, the Accounts Department processes the invoices for international patients, in addition to handling the contract invoices.

The KOC London Office plays an instrumental role in ensuring the medical needs of K-Company employees are being met. In addition, and perhaps more importantly, the London Office serves the critical function of providing the proper training for the next generation of KOC's leaders through specialized training programs which take place throughout the world, which helps fulfil the objectives of KOC's 2040 Strategy. Without such programs, it would be impossible for KOC to realize its full potential, as the Company is reliant on ensuring its future success is cultivated today through the proper care that is provided to its employees – both young and old.



Patriots Behind the Scenes

KOC Medical Services During the Invasion

"ويؤثرون على أنفسهم ولو كان بهم خصاصة"
(المحشر: ٩)

"And give them preference over themselves, even though they are in privation."
(Quran, Surah Al-Hashr, 9)

The holy phrase above can be interpreted as symbolizing the theme of the article that follows. In August of 1990, Iraqi forces under the regime of Saddam Hussein invaded the lands of Kuwait, and from Abdaly to Wafrah, Kuwait and its inhabitants feared for their lives as chaos descended onto the once peaceful country. Despite this dangerous situation, many women stood up to defend and provide medical aid to those suffering around them. At KOC's Ahmadi Hospital, aside from providing emergency medical aid, the medical staff played other roles such as organizing food relief, providing protection for children, and providing critical support services for the community in the form of psycho-social support. The invasion, despite its brutality, highlighted the growing role of women in the humanitarian sector while

men were preoccupied with the conflict.

In this special report by The Kuwaiti Digest, we are for the first time revealing the stories that have never been told before about the working staff of KOC's Ahmadi Hospital during the invasion. These women are true heroes from this critical juncture of Kuwait's history, as they were prime examples of courageous individuals who led the humanitarian relief effort during the conflict. Torn from their families and friends, a group of nurses from Egypt, Palestine, India and Kuwait recently expressed that life at Ahmadi Hospital during the invasion should not be forgotten, and despite the cruelty people had witnessed, they were invulnerable from dangers due to the firm and wise management of KOC's senior leadership.

NURSES ARE EVERYDAY HEROES

"We did not wait for a hero to save us. We grabbed the sword ourselves."

Rawyah Yousif joined the Nursing Team at Ahmadi Hospital in 1989. A year later, she was at the nurses' residences when an Iraqi soldier knocked on the door of the house and asked for food and water. "You will be seeing us here regularly, but I ask you not to panic," the soldier had told her. As soon as he left, Rawyah and her fellow nurses received a call from the management of the hospital demanding that they leave the house at once. As soon as Rawyah stepped out of the door, a peculiar emotion took hold of her. This was not the first time for her to leave the house, but the sight she saw then was unlike anything she had ever seen. The



Rawyah Yousif and Eman Al-Baradei

streets were loaded with military vehicles and soldiers that she had never encountered before.

At the hospital, the management allocated Wards 5 and 6 for the staff, while they transferred all bedridden patients to three other wards. Rawyah covered the emergencies while her colleague, Eman Al-Baradei, covered the ICU. "My body shivers as I recall what happened," she said.

Eman continued to illustrate the pressure they were put through. As soon as they reached the hospital, nurses were assigned to dismiss ambulatory patients and transfer bedridden patients to specified wards. "At first, we thought that the conflict would come to an end soon, and so we were not terrified. A few days later, we said many goodbyes to our colleagues and friends and realized that the war was serious," Eman said.

A week later, Ahmadi Hospital wards became empty, beds were unoccupied, and clinics were abandoned. Rawyah and Eman, on the other hand, decided to put their medical backgrounds to work and assumed the role of ensuring that the wellbeing of patients was looked after.

Before the departure of most medical staff, nurses were working in shifts at the hospital.

Later, they had no choice but to work 24 hours a day with only short breaks in between shifts. A month after the invasion, no more than 13 nurses were working at the hospital, so Eman Al-Baradei had to stay in the hospital for days before returning to her apartment in Mangaf. "It was easier for women to move around because the occupying forces considered most women to be mostly harmless. My husband, however, was a bit worried that something would happen to me on my drives back home. Therefore, sleeping at the hospital was comforting for both of us."

Eman and Rawyah stated that barring Ahmed Al-Rashid and Dr. Mohammed Al-Sawwan from the Radiology Department, most staff joined the emergency staff. "We had volunteers from the reception, the secretary, the management and other volunteers, all of whom we had trained to fill the gaps."

Dr. Hasan Al-Zaid, Head of the Treatment Abroad Committee, and Hasan Sharif were non-KOC staff who also volunteered at the hospital. Injured soldiers brimmed over beds with less than 2% survival rates, while the medical staff was not able to run more than one operating theater. "We worked against the clock

and divided our time between cleaning beds that were flooded with blood and lending a hand in the operating theater," Rawyah added.

BENDING OVER BACKWARDS TO SAVE LIVES

Mrs. Fanon, Nona Berry, Anne Baxter, and Ms. Rose were British nurses serving during the first week of the invasion. A few weeks later, they were arrested and kept in a house in North Ahmadi. The news was shocking to other nurses at the hospital, and with the lack



Mohammed Abdul Raheem,
Team Leader of Administrative
Affairs and Medical Services

of staff, this added more tension as well as more working hours. As luck would have it, the British hostages were released and sent to Saudi Arabia, and the hospital was in need of more volunteers. "We had to cover all jobs at the hospital, from cleaning toilets, assisting doctors, laundry, and even cooking. I remember Mrs. Nihad Al-Furaih serving food to us at the wards," Rawyah said.

The hospital kitchen, however, was covered by Mrs. Ahmed Affas, Mr. Khodour Shaban, and Ahmed Al-Rashid. They were in charge of baking and cooking for all hospital residents.

Because the emergency room was piled up with injured soldiers,



1st row (from left): **Ahmad Al Rayes, Shibebe Al Ajmi, Mumtaz Al Matrouk**
 2nd row (from left): **Abbas Malik, Mohammed Al Jazzaf, Jumaa Malik**

Kuwaiti patients were admitted to the Internal Medicine Ward, which was arranged to serve as an extension to the emergency room. According to the nursing staff, to avoid arresting injured Kuwaiti resistance fighters, the medical staff visited patients on location. The medical team consisted of Dr. Nizar Al-Shawwa, Dr. Mohammed Sakijha, Dr. Mohammed Khalili, Dr. Mahmoud Mustafa, Dr. Omar Bassam, Dr. Abdul Shahid Al-Radhi, Dr. Ayham Ezzat, Dr. Mohammed Al-Sawwan, Dr. May Mamo, and Dr. Salah Tahseen.

It soon became apparent that an Iraqi medical team had been assigned to monitor the medical staff's performance. "We were terrified at first, but we realized that as long as we provided aid to the soldiers, we were safe." Eman noted that the nursing and medical care profession is governed by an overriding oath which upholds the importance of providing care to all people, regardless of nationality or status. "We aided them because this is what we were supposed to do. I was shocked by the ages of soldiers admitted to the hospital. Some

were too old, while others were too young." According to Rawyah, many of the soldiers she treated were unaware of how to safely handle their weapons, and many of the casualties coming through Ahmadi Hospital were the result of accidents and friendly fire amongst the occupying forces. Other soldiers suffered from dehydration because they were left without food and water for days.

"Many suffered from food poisoning due to consuming dog and cat food," Eman added. "The real issue was that our willingness to provide medical care was seen as an invitation by them to live at the hospital. Therefore, within a month, the hospital was full of military people."

MANAGING THE HOSPITAL

Life at the hospital became more dangerous as Iraqi soldiers put down their roots. According to Khodur Shaban, a secretary at Administrative Affairs and Medical Services at the time, "Soldiers resided in Ward 2. We provided them with shelter, toilets, food, drinks, and even entertainment through videos tapes just to keep them satisfied and harmless."

Employee ID cards were re-issued to state the new name of the hospital: "Al-Nida." KOC employees were also requested to wear the KOC coveralls to distinguish them as non-Iraqis. According to Lateefa Al-Kanderi, a KOC social researcher, the medical staff was able to go to work without harassment because of the good treatment the soldiers had previously received.

On the first day of the invasion, all medical equipment was hidden in storage, along with the medical aids and tools. Police officers Mohammed Saber and Faleh Al-Enzi, in addition to Abdullah Adass, used the medical record room to create fake IDs of executive employees, and to superintend other operations.

Meanwhile, pharmacists Abdulaziz Al-Diridi, Omar Abu Shalih, Nabeel Zaki, Majid Nimr and Hafsa Al-Zubaidi were in charge of dispensing medication at the hospital. "We locked the pharmacy from the inside to prevent robbery. Each morning a four-year-old girl sneaked into the pharmacy through the drive-thru window to open the pharmacy for us."

Eman and Rawyah also said that the management provided protection and daily supplies to all medical staff to keep the hospital running. "At night, they locked the wards to keep us safe," Rawyah added. The headquarters were manned by Abbas Malik, Hashim Al-Gharabally, Mumtaz Al-Matrouk, Shibebe Al-Ajmi, Ahmed Al-Rayyis, and Mohammed Al-Jazzaf, who managed all hospital operations and essentials during the invasion under fake names and designations. Operations included providing food, drinks, medical aid, blood, and fuel. Based on Khodour's description, Ahmed

Affas and Jumaa Malik had authorization from Mohammed Abdul Raheem, Team Leader of Administrative Affairs and Medical Services, to provide the hospital with food supplies since the medical staff was requested to remain at the hospital. "Mohammed Abdul Raheem put all the hospital's food and supplies out of sight."

LEAVING THE HOSPITAL & COMING BACK

"I remember the words Mohammed Abdul Raheem shared with us after asking us to travel safely back to our homelands: 'You will come back as soon as this ends. I promise you that.' It was hard to leave everything behind. Like getting blood out of a stone," Rawyah said.

Seeing that the conflict did not end as quickly as anticipated, a decision from headquarters was made to send female staff to a safe place. At first, nurses were asked to train male volunteers to take over before being transferred to the Egyptian Embassy. Abdul Raheem contacted Mohammed Al-Noqali, Egyptian Cultural Chief Officer, to move all Egyptian nurses using the hospital's ambulances and affirm their safe departure. Eman Al-Rawyah left Kuwait in September. Nurses remaining at the hospital included Maryam Al-Ali, Fatma Al-Ali, Fatma Al-Fayez from Palestine, and Jameela Abdullah.

"I never thought that I would return to Kuwait. I wept like a child, saying my goodbyes to patients and colleagues. They became part of my family, part of me. It ached more as soon I saw the hospital becoming smaller and smaller the further I traveled away, until it disappeared in the dark. I never left Ahmadi since I

came, and I never left the hospital, not once, during the invasion. I wasn't only attached to the people. I was attached to the place."

Staying beside the TV most of the time, on February 26, 1991, they were in high spirits to know that the war had finally come to an end. Based on a personal request from the management, in April of 1991, Eman and Rawyah returned to Kuwait. Rawyah described the hospital: "Most patients we left were not there, and we did not know their fate. The Iraqi soldiers were also gone. It was an unfamiliar place for us. Deserted and unfamiliar."

Eman added, "We thought that the war was over until we heard another explosion. It was a close one this time." Mines were planted all over Ahmadi. They used to hear explosions almost every day while working at the hospital. During the invasion, the emergency room was loaded with soldiers, but now it was packed with innocents. Children, women, and the elderly were also victims. The hospital received many corpses and separated limbs and body parts. Rawyah said, "It was the first time in my life to collect separated organs when we received the call. I accompanied the ambulance not knowing what to encounter. All that I thought of that time was to help. It was horrific."

STORIES WORTH TELLING

The nurses said the most difficult challenges provide the most significant experience. Aside from the critical situations, each employee had encountered a unique situation, one that was engraved in his or her mind. When we brought up this topic, Eman Al-Baradei said, "It was a little girl in the incubator called Reem. I can't remember her family name

though. What I remember was that her family had to depart the country leaving her behind. She became everybody's case. Every person at the hospital was asking about her health. She was the daughter of the hospital."

Reem was a story of a birth. Other stories were stories of death. Both stories occurred at the same time, in the same place, in Ahmadi Hospital. As she wiped away a tear, Rawyah described the situation: "To me, I cannot forget the moment when an old lady passed away. Her family could not visit her because visiting was forbidden, and the lady died alone. We also couldn't contact her family, nor were we able to bury her right away. She was buried a few days later, and a few people said their prayers and attended the burial."

The invasion of Kuwait proved that women are not passive spectators. In fact, they have always been actively involved in the protection of their families by leading humanitarian relief efforts. Women played a significant role, alongside men, to shape the trajectory of Kuwait's history, especially during the invasion. Lateefa Al-Kanderi said, "It wasn't a time to play the victim. It was our responsibility as much as it was men's responsibility. One hand cannot clap alone."

The invasion caused much destruction, but it did not destroy the determination of the women who worked at Ahmadi Hospital. Nor did it destroy the determination of all women within Kuwait's borders, for they gained more strength, became more independent, and are able to speak out. The hardships of the invasion helped shed light on the names of true patriots - especially the medical staff at Ahmadi Hospital.



Practical Methods of Managing Employees in Financial Teams

It is crucial for financial managers to monitor their employees in financial departments and institutions in an effective way because there is always the prospect of regulatory auditing and compliance methods by outside organizations that could potentially cause financial and legal repercussions and damage to reputation if irregularities are discovered. Although firms occasionally report that it is somehow difficult for them to regulate their employees, they will suffer much more if these monitoring methods are not included as part of the Manager's regular tasks.

The most important and first step is to provide necessary staff training, including updates on the regulatory landscape. Employees must know how changing regulations can affect the Company's day-to-day business. More importantly, they must understand what they can do, in their specific roles, to help the organization ensure it stays in compliance and prepares for an audit.

Managers should also rotate jobs so that employees can add to their skillset and increase their business acumen. This will also help to keep them from becoming bored with their duties. An-



Submitted by
Wafa'a Mohammed Al-Athaab,
Team Leader Financial Support

other recommendation is to introduce mentorships and assign cross-departmental teams, so that staff will develop an appreciation for other positions in the organization. In addition, Managers can bring in guest speakers at monthly lunch sessions, led by industry experts. Some ideas include the benefits of cloud technology, changing legislations, year-end audits, and the latest news and developments. Managers also need to encourage volunteer work among staff and



make sure that employees have time for further development by appropriate consultants.

Audits of Previous Work Performed

It is important for managers to conduct their own internal audits of employees before the regular auditors do. They should conduct them on a regular basis and can help identify any potential noncompliance issues. Hence, eventually, most companies will have to go through a regulatory compliance audit, and these small, regular audits will better prepare both managers and staff for that probability, providing them with more knowledge of what types of questions and issues might present themselves.

Compliance

Compliance is vital, and there is usually at least one compliance manager or team of compliance managers in a company,

who know where to look for blind spots or probable pitfalls in a company's day-to-day functioning. They can also recommend ways to tighten controls and what best practices to implement. Their expertise can also go a long way toward reducing compliance costs for the business.

Aside from these internal compliance managers, the financial manager should consider bringing in external compliance experts who can offer a more objective view of the organization. These consultants can both help to adhere to the compliance mandates, and in addition, they can recommend ways to improve compliance processes and ensure that financial systems are up to date and sound. It is important for managers to ensure that the employees are complying with all of the company's guidelines and best practices.

Occasional Staff Meetings

It is important that managers get to know their employees, and this can occur with either regularly scheduled or occasional staff meetings. As mentioned, one recommendation is to bring in outside speakers or consultants for a friendly meeting, after which the staff can discuss the subject with the manager and broach any questions or concerns. Informal meetings are a way of getting to know staff, so that if it appears someone is acting strangely, the manager might want to scrutinize that person's work or habits to see if any malfeasance has been taking place. Furthermore, these meetings give the manager a chance to present a peer relationship to employees, so that he or she is not perceived by employees as the 'big boss' in the office, but also as a staff member. Moreover, if the manager shows in meetings that he

treats his or her employees fairly, they will be much more likely to perform at a higher level and to be more loyal to the organization than those who feel their work is less significant. It is also better for all concerned for the manager to act as a leader because managing implies suppressing or controlling employees, whereas leading refers to guiding and pushing them to grow. Leading your financial team requires more than just issuing orders.

Managing Finance: Millennials

Millennials bring a different perspective to an organization, and the challenge for managers is to accept them while at the same time keeping an atmosphere of discipline.

There are a few crucial practices involved – one is delivering the details, because millennials work best in defined systems that include clear instruction and established outcomes. Millennials are looking to managers to give detailed and clear explanations as to how they are expected to proceed. Thus, they need positive and constant feedback and recognition of their accomplishments. This also gives managers an opportunity to mold performance by reinforcing desired actions and

behaviors. Another recommendation is to ask for their input, as they grew up sharing their views with parents and so, as discussed; regular meetings are an important part of managing, as it is here where they can easily express their insights. While their views might not always fit with others on the team, they do have a unique perspective and often see or hear things different from other employees.

Mentorship

Managers need to make mentorship a priority in dealing with their employees, especially in the current climate of intergenerational workforces. Here, mentorship can work both ways, where the younger generation benefits from the experience and work ethic of the older generation; in turn, the elders can learn about new technology and methods. Those just starting their accounting careers also have unique knowledge and skillsets that more experienced accountants and auditors may not, such as creative ways to reach millennial clients. Mentors may also come in the form of compliance experts.

Assign Cross-departmental Teams

It is important for employees to familiarize themselves with

other workers who do a variety of tasks in other parts of the company. Therefore, managers should create project task forces that span two or more divisions so that the financial employees get to know their colleagues. This can boost both technical and interpersonal skills, as staff will have a better appreciation for the roles and workflow of co-workers across the company. Accordingly, when an issue arises, the team will know right away, and whom to contact for help.

Volunteering

It has been observed that employees who are encouraged to volunteer outside of their work obligations bring in a more diverse skillset, and they experience a higher degree of wellness than employees who do not donate their time and energy to causes.

In conclusion, there are a myriad of ideas and processes that go into successfully managing financial employees and these are open to change, as innovations came in the industry. It is important that managers have all of these resources readily available, from talking to employees at meetings to providing audits and checks and balances, to make a financial organization work at its maximum efficiency.



SUCCESSION PLANNING: A Way Forward in Achieving Organizational Strategies

Submitted by the Technical Personnel Development Team

The Technical Personnel Development Team (TPD) is responsible for developing subsurface employees' competency levels, covering all subsurface job families (Geoscience, Petroleum Engineering, Reservoir Engineering, Drilling and Data Management). Based on our past and current experience, we are witnessing rapid crew changes and a new generation coming onboard various Subsurface KOC Teams.

After analyzing the the manpower situation, the TPD Team strongly believes a comprehensive succession planning strategy should be introduced. The detailed paper that follows was written for an SPE conference and is titled: "Succession Planning: A Way Forward in Achieving Organizational Strategies." It was accepted by the conference committee.



Abstract/Introduction

As good succession planning is critical for companies facing the “big crew change,” a systematic approach to implement fast track processes is proposed. It involves: I) Critical analysis of manpower (aging/ specialization, etc.), II) Identification of specialized jobs/competencies, III) Designing training & development roadmap for all jobs/levels, IV) Young professionals, mid-career and advanced career competency development roadmaps V) Shadowing personnel according to the jobs with target date and VI) A robust competency assessment process.

The significant impact of implementing the above processes will ensure the changed crews acquire the desired competencies within a defined timeframe and will be able to take over the retired employee’s position. Moreover, there will be no substantial setback to the organization in achieving the organizational strategies because technical capabilities are retained through a systematic knowledge transfer process.

Implementing a proper succession plan process within the



Company is one of a significant initiative that will support the development of technical capabilities and leadership capacities to address challenges such as growth in production targets and handling maturing and more complex fields. Proper succession planning and management will also overcome the challenges of selecting the top performers and pooling the tal-

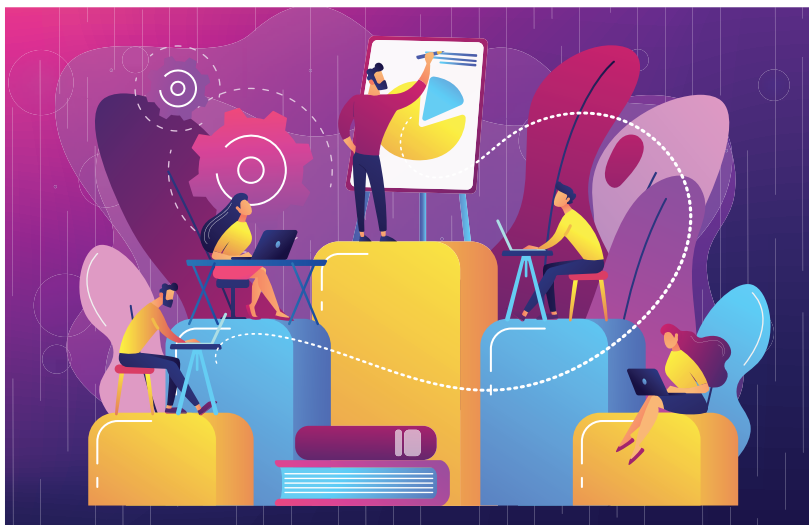
ent with equipped technologies.

The approach adopted will not only solve the problem of emerging big crew changes, but also help in achieving the Company’s goals as defined in the 2040 Strategy.

Succession Planning: A Way Forward in Achieving Organizational Strategies

The succession planning process is a long, drawn-out process that needs collaboration with key personnel and stakeholders to ensure that it is consistent with the Company’s mission and business goals. This is the most crucial aspects of talent mobility.

Succession planning is a strategy to identify and develop future leaders at all levels. It is prepared to address the predictable and unpredictable changes that occur when employees resign, retire, are fired, get sick, or die. A successful succession planning strategy ensures that





Different Constituents of Management Strategy

the organization is prepared for all contingencies by identifying high potential employees for advancements in to key roles.

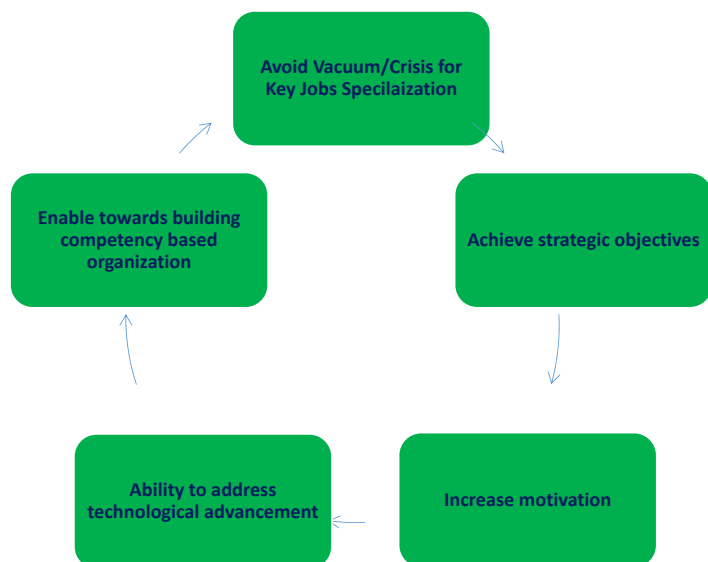
Most of the time, the succession planning efforts are focused only on a handful of high potential employees who are considered next in line for leadership. However, there are employees who actually produce results for the Company – “pivotal talent” that make the organization successful. According to Todd Hoffman and Stanley Womack (2011 PwC), succession planning can provide a long-term competitive advantage for companies in the energy industry. The key is investing the proper amount of time and attention to ensure that pivotal talents are identified and nurtured. Many organizations have robust career progression development plans. The same has been given elaborations in a paper by E. Daihani in 2016. The career progression development plan, along with the competency verification and management model proposed by E.Daihani et.al. will help organizations identify pivotal talents.

In the past few years, the word “restructuring” is more often used as oil and gas com-

panies across the globe have molded their organizations’ operations in response to the dramatic decline in oil prices. With the current market climate, there are many companies who are implementing organizational planning and identifying necessary changes to balance and overcome the financial impact due to the uncertainty in oil prices. Part of that includes preparing for the sudden or voluntary change of senior level executives. By taking a strategic approach to succession planning, oil and gas companies will be better equipped to handle the cycles common to the industry.

Additionally, organizations are facing challenges with the aging dilemma, i.e. senior employees are retiring and new crews are not ready to take over the senior positions. In this paper, we introduce the strategy and approach to deal with this challenge to avoid any adverse impact on the organization.

A succession plan is an investment for the company’s future. By knowing the importance of identifying potential future leaders and developing a succession plan, we can help employees feel valued for their contributions and eager to realize their potential within the Company. Succession planning can reduce potential risks to an organization by addressing new future jobs in a proactive manner. It integrates a number of other internal processes, such as talent management and employee retention initiatives, and includes an ability to measure the results.



Positive impacts of Successful Succession Planning



There are greater chances where the result of succession planning might fail. This is the result of failing to engage the stakeholders in the entire process. A major obstacle could be an ineffective communication plan or change management process.

Approach Towards Succession Planning Strategy

Any growing organization needs to ensure that processes are in place to attract, retain and develop the employee's talent for succession planning and management. The management strategy on succession planning should align with the following:

I. Manpower Analysis (Aging/ Specialization)

It is very critical to first analyze the existing workforce by focusing on two parameters: A) Age B) Job specialization. By doing so, we should be able to get the deliverables below:

- How many employees are going to retire in the next 5-10 years?
- What are the jobs they are currently handling and their other specialization areas?

Moreover, the organization also needs to identify the future projects as mentioned in the organizational strategy. It will ensure the strategic alignment of succession planning and the overall organizational strategy. It will also help in dealing with future or upcoming challenges. It is therefore essential to establish a robust selection criteria for future leaders.

II. Identification of Specialized Jobs and Related Competencies

A parallel exercise needs to be carried out to identify the details of specialized jobs that are essential for the organization (current and future). Then, through the Subject Matter Experts (SMEs) of the organization, relevant competencies can easily be identified.

III. Designing a Roadmap Overview for all Jobs/ Levels

After completing the two steps above, a broad roadmap needs to be designed as a guideline to develop the workforce skills for identified jobs. It includes identification of resources, timeline, and roles and responsibilities of stakeholders.

IV. Detailed Training & Development Roadmap at all Levels

(Young Professional's Roadmap, Mid-Career Roadmap and Advance Career Roadmap- Specialization)

Based on identified competencies for each level of employee, training & development teams need to design a detailed roadmap that includes competencies, learning tools, timeline for each competency/level, detailed objectives/content and tangible deliverables. A new hire's road-

map developed and published by E.Daihani in 2015 is an example in this regard.

V. Identify Mentors/Coaches for Shadowing the Personnel according to the Jobs

It is very critical for all organizations to identify experienced and qualified mentors/coaches who can take the lead in the learning & development process. Adequate allocation of mentors and coaches is the key for implementing a successful knowledge transfer process.

VI. Robust Competency Assessment Process

Measuring training events is always a challenge for all Human Resource specialists. The assessment tool may differ from organization to organization, and hence, a customized assessment tool kit needs to be developed for measuring the effectiveness of training events. The tool kit should be user friendly and transparent for credibility, adaptability, and more importantly, for competency assurance.

Additional Note: Managing through a crisis is a true test of leadership abilities, but proactively preparing for a crisis is an even better test of management competence.

Key Success Factors

The key success factors for succession planning are as follows:

- I. Identification of an adequate Job Profile
- II. Intensive monitoring
- III. Assessment
- IV. Address Challenges within time- frame
- V. Review outcome and Lessons Learned

VI. Recognize Achievements (Link with HR)

Impact on the Organization

Effective implementation of a succession plan strategy will lead to an increase in the efficiency of the organization at all levels. Regardless of the level of successor jobs identified, it will have a positive impact in many ways. Below are the few areas that will be positively impacted with the result being a successful implementation of a succession plan strategy:

Conclusion

A successful succession planning strategy ensures that the organization is prepared for all contingencies by identifying high potential employees for advancements to key roles.

The management strategy on succession planning should have constituents like manpower analysis, identification of specialized jobs and related competencies, designing roadmap overview for all jobs/levels, training & development roadmap at all levels, identify mentors/ coaches for shadowing the personnel according to the jobs, and a robust competency assessment process.

The key success factors on succession planning are identification of adequate job profiles, intensive monitoring, assessment,

addressing challenges within a specified timeframe, review outcomes and lessons learned, and recognizing achievements.

Effective implementation of a succession plan strategy will lead to an increase in the efficiency of the organization at all levels. The paper provides insights into how to successfully implement succession planning within an organization and answered several related questions such as: Will our workforce be ready to execute our future business strategies?

Effective planning for any project leads to better outcomes. Therefore, it is important to involve all stakeholders at the planning stage and prepare a comprehensive plan ahead of time.

The impact of an effective implementation of succession plan strategy is enormous. Mainly, it reduces the vacuum of specialized personnel at all levels and enables the achievement of organizational strategies.

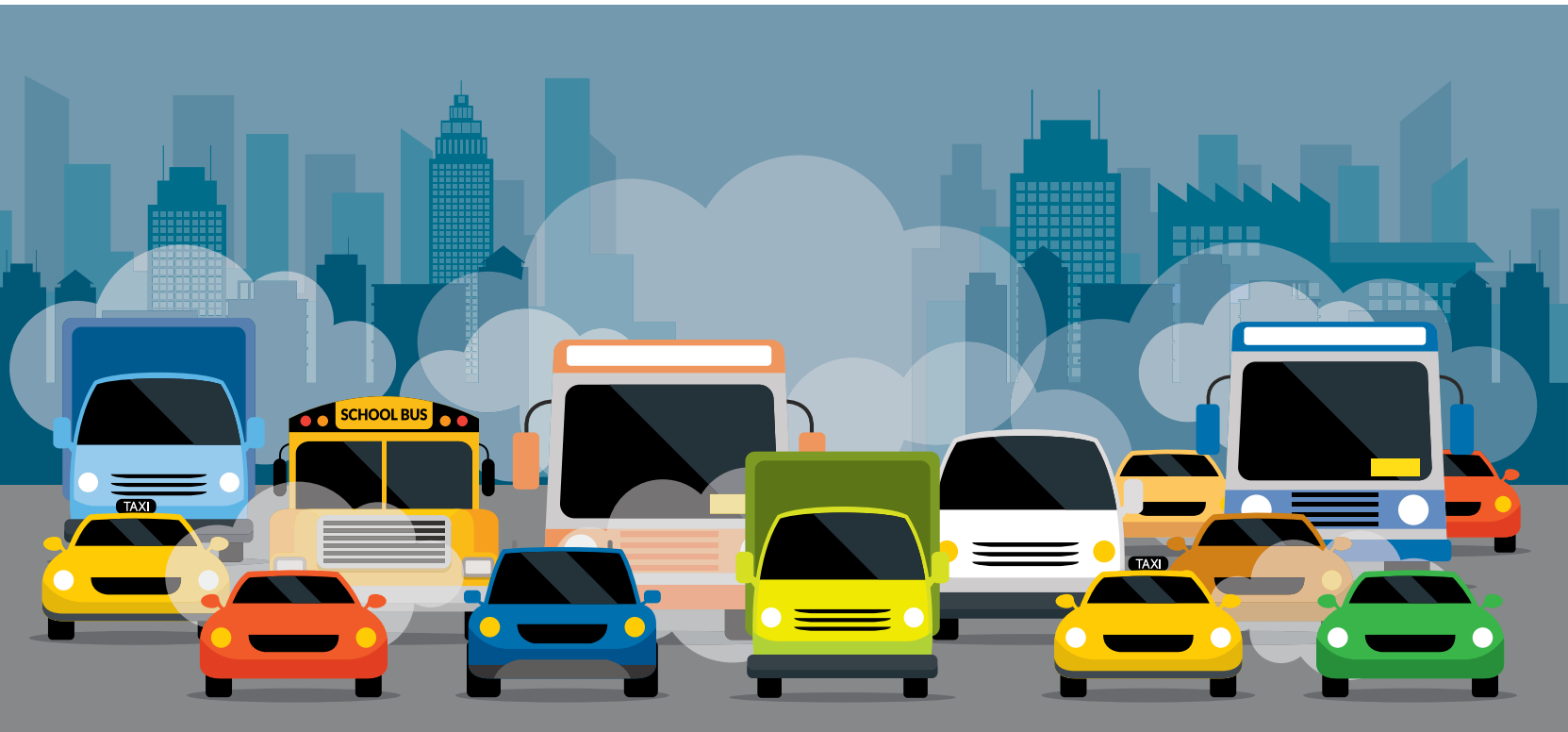
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The Danger of Air Pollution

A recent study has found that air pollution could be killing 8.8 million people worldwide each year - almost double the figure previously thought. Deaths caused by air pollution appear to have overtaken those caused by smoking, according to a study published in the *European Heart Journal*. In 2015, air pollution was thought to be responsible for 8.79 million deaths, compared with the 7.2 million caused by tobacco smoking, the study - which focused on Europe - found.

An additional 790,000 deaths in Europe were likely caused by air pollution, with between 40 to 80 percent of those associated with cardiovascular disease, according to the study. Fine particulate matter could be shaving 2.2 years off the life of the average European, likely due to a combination of densely populated areas and poor air quality.

Fine particulate matter, known as PM2.5, is the term used to describe tiny particles measuring 2.5 micrometers or smaller that can be breathed into the body. It can come from sources such as burned hydrocarbons and biomass, as well as dust. A strand of human hair is around 30 times larger than the biggest piece of PM2.5.

Being exposed to excess levels of fine particle matter is thought to impact the blood vessels, and in turn raise the risk of conditions like heart attacks and failure, as well as stroke. Air pollution is therefore an underappreciated threat to health, eclipsed in the public imagination by better-known factors such as smoking and poor diet.

Politicians and policymakers should move to replace hydrocarbons with clean, renewable energy, which "could substantially reduce the loss of life expectancy from air pollution," the authors of the study wrote. That includes committing to the promises laid out in the Paris Climate Agreement, of which Kuwait is a signatory of.

Past research indicated air pollution caused 4.5 million deaths annually worldwide. To calculate the new estimate, the researchers used an updated technique for modeling data to investigate how outdoor sources of air pollution affect death rates.

Professor Jos Lelieveld of the Max-Planck Institute for Chemistry in Mainz and the Cyprus Institute Nicosia, who co-authored the study, said, "New data has become available for both low and high

concentrations of fine particulate matter (PM2.5), indicating that the hazardous health impacts of PM2.5 are much larger than assumed previously. We had not anticipated such a large increase,” Lelieveld said. However, he acknowledged the study was limited because it was difficult to link particles in the air to specific sources, which are needed to understand how to reduce pollution.

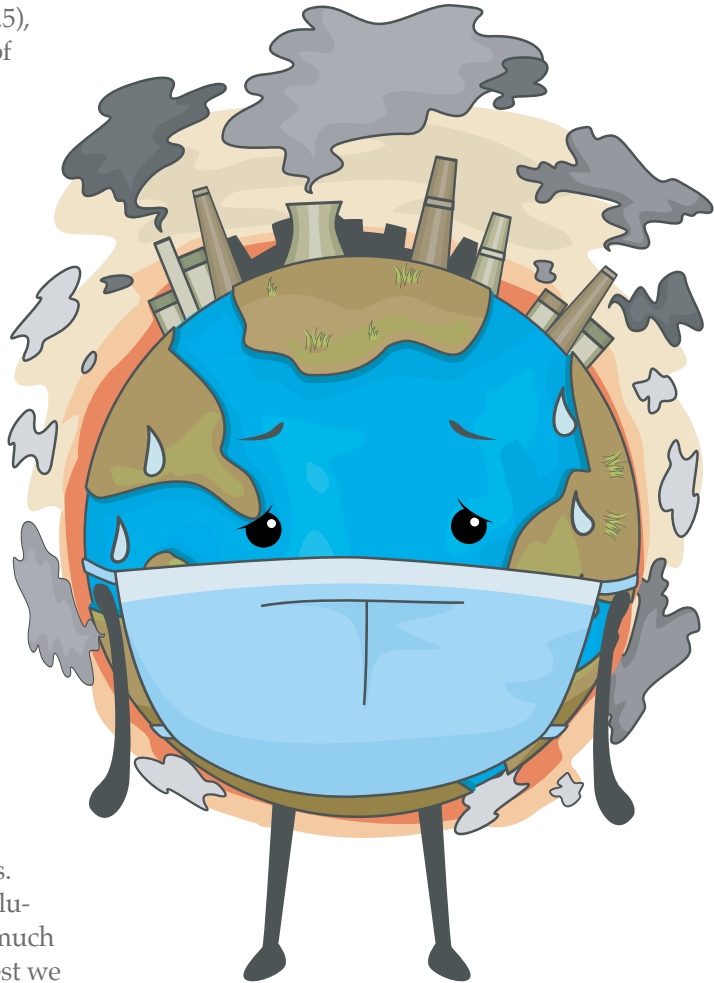
Commenting on air pollution more generally, Lelieveld said, “Even though the limits for air pollution in the USA are stricter than in Europe, the health impacts are still significant, also at lower concentrations.

“We hope to show that it is urgent and important to further reduce fine particulate matter in ambient air. The main message is that PM2.5 air pollution is a health risk factor that is comparable to other main risks such as hypertension, diabetes and tobacco smoking,” he said.

Francis Pope, Professor of Atmospheric Science at the University of Birmingham, U.K., said that the findings had some limitations. “The study looks at modeled outdoor air pollution, but most of us live our lives indoors for much of the day,” he said. “Some estimates suggest we spend less than 10% of our time outdoors. Hence, we need to know much more about our indoor exposure to air pollution to be able to completely model the burden of air quality upon human health.”

Audrey de Nazelle, from the Center for Environment Policy at Imperial College London, said, “We know this is undeniably a major problem that needs to be tackled urgently, and this paper is just one more proof of that. Hopefully, the clear message of air pollution surpassing tobacco smoking as a killer will help mobilize citizens and politicians to change the vision of cities so that streets become places where people can easily, safely and comfortably walk, cycle, take public transport and interact with each other, and where children can play.”

Pope said those who are concerned about their exposure to air pollution can change when and where they spend their time. “In urban areas, air pollution varies both through time and space. For example, traffic rush hours, with associated pollution, are at well-defined times in most cities. By changing our behavior, we can try to minimize our exposure to air pollution by avoiding areas and



times with high air pollutant concentrations,” he said.

“Even better would be for policymakers to make roads a lower source of pollution in the first place by encouraging lower and non-polluting forms of transport.”



A Cure for Blindness?

A Japanese committee has provisionally approved the use of reprogrammed stem cells to treat diseased or damaged corneas. Researchers are now waiting for final approval from the health ministry to test the treatment in people with corneal blindness, which affects millions of people around the world.

The cornea, a transparent layer that covers and protects the eye, contains stem cells that repair it when damaged. But these can be destroyed by disease or by trauma from chemicals or burns, which can result in patients losing their vision. Currently, cornea transplants from donors who have died are used to treat damaged or diseased corneas, but good-quality tissue is scarce.

A team led by ophthalmologist Kohji Nishida at Osaka University plans to treat damaged corneas using sheets of tissue made from induced pluripotent stem cells. These are created by reprogramming cells from a donor into an embryonic-like state that can then transform into other tissue, such as corneal cells. Nishida's team plans to lay 0.05-millimetre-thick sheets of corneal cells across patients' eyes. Animal studies have shown that this can save or restore vision.

The health ministry is expected to make a decision on approving the decision soon. If Nishida and his team receive approval, they will treat four people, whom they will then monitor for a year to check the safety and efficacy of the treatment. The first treatment is planned to take place before the end of July.

Other Japanese researchers have carried out clinical studies using induced pluripotent stem cells to treat spinal cord injury, Parkinson's disease and other eye diseases.

From the Abstract by the Japanese Team:

The eye is a complex organ with highly specialized constituent tissues derived from different primordial cell lineages. The retina, for example, develops from neuroectoderm via the optic vesicle, the corneal epithelium is descended from surface ectoderm, while the iris and collagen-rich stroma of the cornea have a neural crest origin. Recent work with pluripotent stem cells in culture has revealed a previously under-appreciated level of intrinsic cellular self-organization, with a focus on the retina and retinal cells. Moreover, we and others have demonstrated the *in vitro* induction of a corneal epithelial cell phenotype from pluripotent stem cells. These studies, however, have a single, tissue-specific focus and fail to reflect the complexity of whole eye development. Here we demonstrate the generation from human induced pluripotent stem cells of a self-formed ectodermal autonomous multi-zone (SEAM) of ocular cells.

In some respects the concentric SEAM mimics whole-eye development because cell location within different zones is indicative of lineage, spanning the ocular surface ectoderm, lens, neuro-retina, and retinal pigment epithelium. It thus represents a promising resource for new and ongoing studies of ocular morphogenesis. The approach also has translational potential and to illustrate this we show that cells isolated from the ocular surface ectodermal zone of the SEAM can be sorted and expanded *ex vivo* to form a corneal epithelium that recovers function in an experimentally induced animal model of corneal blindness.



FedEx Unveils Autonomous Delivery Robot

FedEx Corp. recently announced the "SameDay Bot" – an autonomous delivery service designed to help retailers make same-day and last-mile deliveries to their customers.

Using this machine, retailers will be able to accept orders from nearby customers and deliver items directly to homes or businesses the same day. FedEx is collaborating with companies such as AutoZone, Lowe's, Pizza Hut, Target, Walgreens and Walmart to help assess retailers' autonomous delivery needs. Approximately 60% of these merchants' customers live within three miles of a store location, demonstrating the opportunity for on-demand, hyper-local delivery.

"The FedEx SameDay Bot is an innovation designed to change the face of local delivery and help retailers efficiently address their customers' rising expectations," said Brie Carere, Executive Vice President for FedEx. "The bot represents a milestone in our ongoing mission to solve the complexities and expense of same-day, last-mile delivery for the growing e-commerce market in a manner that is safe and environmentally friendly."

The FedEx bot is being developed in collaboration with DEKA Development & Research Corp. and its founder Dean Kamen – inventor of many life-changing technologies including the iBot Personal Mobility Device and the Segway.

"The bot has unique capabilities that make it unlike other autonomous vehicles," said Ka-

men. "We built upon the power base of the iBot, an advanced, FDA-approved, mobility device for the disabled population with more than 10 million hours of reliable, real-world operation. By leveraging this base in an additional application, we hope that the iBot will become even more accessible to those who need it for their own mobility."

The FedEx bot is designed to travel on sidewalks and along roadsides, safely delivering small shipments to customers' homes and businesses. Its features include pedestrian-safe technology, LiDAR and multiple cameras, allowing the zero-emission, battery-powered bot to be aware of its surroundings. These features are coupled with machine-learning algorithms to detect and avoid obstacles, plot a safe path and allow the bot to follow road and safety rules. Proprietary technology makes the bot highly capable, allowing it to navigate unpaved surfaces, curbs, and even steps for an extraordinary door-to-door delivery experience.

FedEx plans to test the bot this summer in select markets, including Memphis, Tennessee, pending final city approvals. This prototype will be re-

fined to meet safety standards and regulations, and the specific needs of customers.

"We couldn't be more excited that FedEx chose its hometown as one of the pilot cities for this revolutionary innovation," said Jim Strickland, City of Memphis Mayor. "We look forward to working with FedEx to continue introducing technologies that will help improve the quality of life in our community."





The Kuwaiti Digest at the Louvre Abu Dhabi

The Louvre Abu Dhabi, the sister institution to the Musée du Louvre in Paris, opened its doors on November 8th, 2017 to the public. The \$1.3 billion, 30-year contract was signed in 2007 with the aim of supplying the Louvre Abu Dhabi with a number of art pieces on loan from various French museums for 10 years until the permanent exhibition is completed. The most significant artwork owned by the museum is Leonardo da Vinci's *Salvator Mundi*, which sold for \$450 mil-

lion, breaking the record for the most expensive painting sold at an auction. Recently, The Kuwaiti Digest had the pleasurable and privilege to visit the museum, which is located on Saadiyat Island in Abu Dhabi, to view the exceptional pieces of art on display and learn more about Abu Dhabi's educational and cultural outreach initiatives, which are doing much in the way of bridging the cultural gap between East and West.

The Musée du Louvre: A Historical Heritage

The Musée du Louvre in Paris is a historical heritage in itself, in terms of the building and architecture, the events which took place in the palace, the art pieces that were exhibited, and the ones still remaining on display and in its archive. In fact, the Louvre is considered to be the world's largest and most visited art museum, receiving 8.1 million visitors annually.



In the 12th century, Philip II ordered the construction of the Louvre Palace, which was to be used as a fortress to protect the city from the British. In the 14th century, Charles V resided in the palace and transferred all his royal holdings there, the collection of which would become his legacy. Over time, the royal belongings increased, as did the proposals to establish an art gallery for the public. Louis XV endorsed those proposals, and 96 pieces were displayed including artworks by Raphael, Titian, Veronese, Rembrandt, and Van Dyck until the gallery closed in 1780.

The palace, along with all the artwork within, was seized by the army during the French Revolution. However, the museum was not opened again until 1793,

as the new government feared vandalism and thievery. The Napoleonic era was a flourishing period for the museum because it received a vast amount of artwork that was acquired through military campaigns. For a time, the museum was called: Musée Napoléon. However, most pieces were handed over to their owners after the abdication of Napoleon in 1815. Later on, the museum acquired its pieces through donations and gifts, and today it holds more than 380,000 works with more than 35,000 on display throughout eight departments. The museum is famous throughout the world for housing Leonardo da Vinci's Mona Lisa, created in 1517, Egyptian antiques, and the Code of Hammurabi, which was discovered in 1901. The museum also pos-

sesses more than 5,000 Islamic artworks composed of ceramics, glass, metalwork, carpets, and other items.

Abu Dhabi's Cultural Investment

The Department of Culture & Tourism of Abu Dhabi was established in 2012 as part of an effort to discover and explore existing archaeological sites, promote tourism, and develop better understating of the region's heritage and culture in order to enrich the lives of the members of the city's community. This was achieved by developing tourism and constructing new museums, including the Zayed National Museum, The Guggenheim Abu Dhabi, and the Louvre Abu Dhabi. These pivotal projects will contribute to creating



Self-portrait, Vincent Van Gogh

a vibrant environment for arts and culture in the emirate.

The Saadiyat Island was designated to be the center of the cultural region by organizing a number of unique exhibitions, permanent art, hosting performances, as well as many other cultural events. The structures of the cultural institutions were designed to reflect their place in the 21st century while also recognizing the region's heritage and history. The institutions on the island will give prominence to educational and cultural development through collaboration with local and regional technical and cultural institutions such as universities and research organizations.

In 2009, the department contracted with the British Museum as part of a collaborative effort to manage and exchange around 500 pieces to the Zayed National Museum project. Unfortunately, the project that was supposed to be completed in 2016 has not begun construction yet. According to architectural sources, the structure of the project is designed by Foster + Partners "with five solar thermal towers that will act as chimneys to draw cool air through the building. The towers are shaped like falcon wings to commemorate Zayed's love of falconry." The purpose of establishing the museum is to sculpt the history of the culture and economic transformation of the UAE, which was unified by Sheikh Zayed bin Sultan Al Nahyan. It will illustrate the biography of Sheikh Zayed and his achievements on the national, regional and global level. Therefore, this

architectural monument is the first and most vital of its kind to the country.

In an award-winning architectural project designed by Frank Gehry, another famous upcoming museum project on Saadiyat Island is the Guggenheim Abu Dhabi. Officials from the Guggenheim Foundation announced that the building will serve as a manmade breakwater configured to protect the island's pristine north beach zone. The design also incorporates sustainable elements appropriate for the region, including natural cooling and ventilation of covered courtyards derived from the concept of traditional wind towers found throughout the Middle East. Following an agreement with the New York-based Solomon R. Guggenheim Foundation, the project began in 2011. The museum will exhibit a series of contemporary artworks from the 1960s to the present day, with a focus on art from the Middle East in the 20th and 21st century. It will also serve as a medium for the distribution of scholarships in various creative fields.

Because a reliance on seafaring trade was the basis of the region's economic engine before the discovery of crude oil, Abu Dhabi's cultural department made plans for a maritime museum, with a design by Tadao Ando, to celebrate the emirate's maritime heritage. The museum will tell the history of ancient maritime means of navigation and the commercial



A specially-designed limestone wall at the museum with quotes from Ibn Khaldun's *Muqaddimah*.

routes which connected the region with the rest of the world.

Agence France-Muséums

The Agence France-Muséums was established under a government agreement between Abu Dhabi and France in 2007. Under the scope of the Louvre Abu Dhabi since its inception, the agency has provided direct consultancy services in contributing to the development of scientific and cultural programs and participating in organizing the systematic description of the museum's holdings through training the museum's staff, coordinating the exhibits for the Louvre Abu Dhabi for the next 10 years, as well as the permanent collection of the museum, and arranging international exhibits for 15 years. In other words, the agency forms an essential link between the Louvre Abu Dhabi and its cultural institution partners, which include the Musée du Louvre, Centre Georges Pompidou, Musée d'Orsay, Musée de l'Orangerie, The National Library of France, The Musée du Quai

Branly – Jacques Chirac, National Museum of the Middle Ages, The National Museums Union, The Rodin Museum, The National Domain of Chambord, Fashion and Textiles Museum, The National Ceramics Museum, The National Museum of Antiques, and the Palace of Fontainebleau.

The Louvre Abu Dhabi

This project is actually the first of its kind in the Arab world and is associated with the world's largest museum. It will establish a communication between various cultures and arts from ancient to contemporary all over the globe, including the Islamic arts and other Arab contemporary art. The museum also consists of a children's museum that includes workshops and independent showrooms.

The site was designed by Jean Nouvel and is inspired by the Saadiyat Island itself and the heritage of Abu Dhabi, with a 180-meter white dome that covers two-thirds of the museum's area, which was derived from

Islamic arabesque patterns. The water surrounding the site also expresses sophistication and modernity. As Jean Nouvel said, "The building is more like an island advancing in water and benefiting from it to create a local climate phenomenon thanks to the wind passing under the dome." The shadows produced by the dome reflect the palm groves and the memory of a traditional street in the emirate, while in the nighttime, the site turns into a "light oasis under a starry dome."

A Tour Inside The Louvre Abu Dhabi

The museum contains an impressive collection of artworks from different cultures and civilizations. There are also various facilities that fulfill visitor's requirements, such as translation tablets which are available in several languages with audio commentary developed especially to cover the museum's collection as well as information about the museum and its architecture. There is also a pre-



booked tour guide for groups which changes every season throughout the year. The 12 exhibit halls take visitors through a journey of art, from ancient eras to contemporary:

The First Villages: Artwork in this wing is more than 10,000 years old. The era saw the first settlements of people in primitive communities in the East, Mesopotamia, China, and America.

The First Great Powers: Pieces exhibit the 4,000 B.C. era, a marked era in the history of mankind with a cultural revolution and the start of civilization in Southern Mesopotamia, and later in other parts of the world. The appearance of writing, the first rulers and shields found in Europe indicate the beginning of military conquests and civil laws. In another wing at the hall, pieces from ancient Egypt are found.

Civilizations and Empires: Pieces in this hall are related to the first establishment of the Achaemenid Empire in Persia, the Greeks, and Central America in 1,000 B.C. It is characterized by large sculptures

which were built by various peoples throughout the world.

Universal Religions: Referred to as the “dominant religions.” The first was Buddhism, which appeared in India in the 5th century B.C, then it was Christianity in the Roman Empire in the 4th century, and finally Islam in Arabia in the 7th century. Antiques and statues are all common in spreading the same principles as well as representing the religions’ profound impact on societies, and therefore, the development of artistic creativity.

Asian Trade Routes: In the 5th-15th centuries, a trade route had been established between Asia, the Islamic World, and Europe. Artworks found in this era affirms that China and the Islamic World imposed themselves as key players in these exchanges.

From The Mediterranean to the Atlantic: Artworks in this wing represent the first financial markets in Europe and the cultural exchange between Europe and Andalusia, as well as the exploration of the African coast and the Americas.

The World in Perspective: Artworks in this wing clearly exhibit the concept of globalization and the cultural exchange impact as Chinese porcelain appeared in Islamic civilization, Europe and America. There are great similarities in artworks and antiques as portraits also appeared, especially in Europe.

The Magnificence of the Court: Monarchs’ portraits reflect the influence and lifestyle of royalties. Sculptures, weapons, and shields of royalties are decorated with precious metals and stones to enhance the prestige of their royal owners.

A New Art of Living: With the establishment of business centers, the bourgeoisie began to grow. The extravagance in decorating furniture and items are evident.

A Modern World?: The industrial revolution in the 19th century was a great leap forward in history. The most significant artworks in this wing are by Van Gogh and Edouard Manet.

Challenging Modernity: The



The sarcophagi of Princess Henuttawy, daughter of King Sheshonk, 10th century BC.



World Wars had altered the Capital of Art from Europe to New York. Therefore, artwork in this wing is totally different.

A Global Stage: The final wing is dedicated to contemporary arts which reflect questions such as collective identity, environmental issues, and globalization.

Most Notable Pieces At The Museum

The collection of Hanout Tawi, a royal figure of the 22nd dynasty of Egypt, represents a great model of mummification. It is distinguished by the excellent embalmed body conditions and the quality of the materials used in decorating and embalming. The princess's mummy is decorated richly and sealed in three wooden coffins, of which only two are intact. The three sarcophaguses of the collection are painted in yellow and inscribed with her title and pedigree: "The Daughter of King Shishak, The Earth's Ruler" and "Chebbit- Acet" her mother. The mummy's sheath, made of

linen, and wood (some parts are gilded, and supported by a layer of glass paste) is adorned with a floral motif and decorated with feathers and detailed inscriptions along with her title.

This limestone wall was specially designed for the Louvre Abu Dhabi. Jenny Holzer, an American artist, quoted a text from Ibn Khaldun's Muqaddimah, one of his most famous works.

This late 15th-century portrait by Leonardo da Vinci depicts a young lady and the complexity of her personality rather than the scrutiny of her social status and physical appearance.

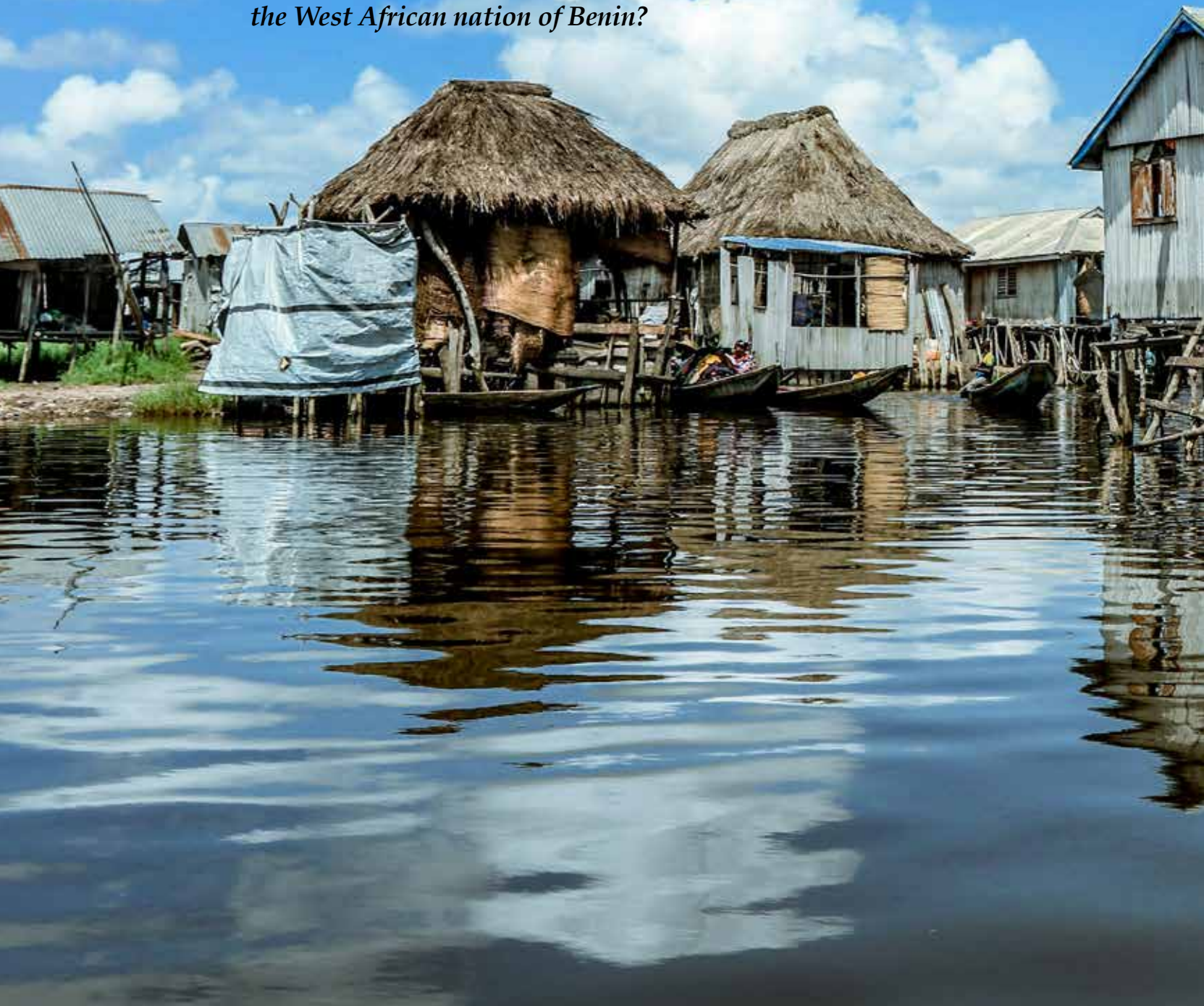
Van Gogh was 43 years old when he painted this self-portrait. The Dutch painter, who barely earned his living from art at that time, had suffered from syphilis and knew, subsequently, that his days were numbered. His suffering appeared clearly in his self-portrait, as his vibrant brush and bold colors add a significant element which inspired many successive generations of painters.

Dated to around 1500, Leonardo da Vinci's Salvator Mundi was possibly made for Louis XII of France. It was lost during the 18th-19th century and re-appeared in 1958, as it was ascribed to Giovanni Boltraffio, an Italian painter who worked in the studio of Leonardo da Vinci and sold for only \$60. In 2011, The National Gallery exhibited the painting as a work by Leonardo da Vinci, which raised the painting's cost to \$75 million when a Swiss dealer purchased the painting.

This artwork, which is considered to be the biggest discovery of the 21st century, was bought in 2017 by Prince Bader bin Abdullah Al Saud in an auction at Christie's in New York for \$450 million, which broke the record for the world's most expensive painting ever sold. The prince announced that he acted on behalf of Abu Dhabi's Department of Culture and Tourism and that the painting would be displayed at the Louvre Abu Dhabi.

VISIT BENIN

As the temperature in Kuwait begins to rise, it should come as no surprise that many people throughout the country are beginning to think about their summer plans. While escaping the sweltering heat for cooler climates is usually everyone's top priority, why not also add in something adventurous and totally new? For those who are unafraid of discovering different cultures and journeying beyond their comfort zone, why not consider the West African nation of Benin?



Benin, once known as the Kingdom of Dahomey, is the perfect introduction to Africa in many ways. A land of pristine beaches, bountiful wildlife and hospitable inhabitants, travelling around the country is easy thanks to its small size and efficient infrastructure.

The birthplace of voodoo and one of the major departure points for the more than eight million people forced to leave the continent as slaves, the country also has a complex and compelling history that filters down into everyday life to create a jumble of the familiar and strange.

Visitors wishing to experience Benin's major cities should stay in the south, where they can relish in the slightly chaotic yet vibrant commercial hub of Cotonou or the laidback capital of Porto Novo. Take some time out from the capital's lagoon-side location and palm-fringed Atlantic beach to request an audience with the tribal princes of Ajase, Porto Novo's ancestral name, while visiting the Palace Museum.

It may not be the true capital city of Benin, but Cotonou is definitely the country's liveliest. The city is an intense blast of urban energy combined with African charm. If it is your first time in Africa, the city can be a little bit daunting and full on but for those willing to risk the adventure, Cotonou has plenty of rewards. These rewards include a number of stunning paradise beaches with golden sand and palm trees. The Pendjari National Park is also a must see in Cotonou and is seen as one of the leading animal reserves in Africa. For those looking for a more obscure attraction, the "Fetish Market" sells a large variety of dead animals for voodoo festival celebrations.

For a cultural experience, visitors can head along the coast to experience the unique lives

of the Tofinu people at Ganvié, a bamboo stilt village that is often referred to as the "Venice of Africa." Continue on by taking advantage of Benin's small size and good roads to explore the country's spectacular countryside, which harbors remote towns and exquisite national parks. Home to lions, hippos and elephants, not to mention a wide range of bird species, Benin's flagship national park is Pendjari, which serves up spectacular fauna without the crowds.



A thriving arts scene across the country has given rise to stunning public sculptures and fantastic architecture, which complement the elegance of the wooden Afro-Brazilian mansions of Porto Novo and Ouidah. The latter is the beating heart of Benin's voodoo practitioners and an important stop for those interested in the history of the Atlantic slave trade.

Small in size but not in stature, Benin has something to suit every interest, be it the wild landscapes of the north, the bustling metropolises of



the south, or the shared religion and history that bind this country and its people together.

Kuwait Charity Work in Benin

Kuwait, through organizations such as Direct Aid and the Kuwait Fund for Arab Economic development, has a long history of charity work in Benin. For example, recently a loan agreement between the Republic of Benin and the Kuwait Fund for Arab Economic Development was signed in Cotonou, where the Kuwait fund extended a loan in the amount of KD 5 million, to participate in the financing of the water supply in Benin's Three Cities Project.

The loan agreement was signed by Romuald Wadagni – Minister of Economy and Finance of the Republic of Benin, on behalf of the Republic of Benin, and Nedhal Abdulaziz Alolayan, Deputy Director-General of the Kuwait Fund for Arab Economic Development, in the attendance of Thamer Al-Failakawi, Regional



Manager, West African Countries from the Kuwait Fund.

The project aims to support the socio-economic development in three cities, namely Boukoumbe, Cove, and Zagnanando, through the expansion and rehabilitation of the existing water supply systems, to provide adequate and sustainable quantities of water to meet the increased water demand, thus improving the health and social conditions of the residence at the project area.

The project consists mainly of the civil and electromechanical works, which include construction of new borehole wells, distribution networks, storage reservoirs, pumps, and house connections. The project also includes consulting services and institutional support.

The signing of the loan brings to 14 the number of loans extended by Kuwait Fund to the Republic of Benin, where the fund previously provided 13 loans totaling about KD 36 million.



Female Technician at KOC

1960s



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