

EGYPT'S MINING SECTOR: TOWARDS STRATEGIC TRANSFORMATION



EDITOR'S LETTER

Dear Reader,

Soon regional and global mining leaders will head to Cairo for one of the world's biggest mining events, Egypt Mining Forum 2023, which will start on July 18.

The forum will host international mining companies, investors, service companies, and suppliers. It will not only be an occasion for highlighting and discussing new opportunities for expanding the mining business in Egypt and the region, but it will also be an event to celebrate the achievements of the ambitious reform plan initiated by the Egyptian government to develop this essential sector.

On several occasions, Minister of Petroleum and Mineral Resources Tarek El Molla confirmed that Egypt's ambitious and flexible strategy to maximize the exploitation of mineral resources has succeeded in attracting the attention of international mining companies and encouraged them to invest in Egypt. Looking at Egypt's mining potential, there is a growing belief that we are still at the beginning of a long road.

The mining industry in Egypt has a rich history that dates back thousands of years. It has played a significant role in the country's economy, providing valuable resources and employment opportunities. And we have no reason to see anything different today! Mining remains an integral part of Egypt's development, while the country is keeping its status as an important player in the global mining industry thanks to its geological landscape that offers a diverse range of mineral resources, making it a promising destination for mining activities.

We are taking the opportunity to share mining industry success stories. In our mining-dedicated issue, we are bringing to light the latest achievements, unlocking the most recent reforms, and highlighting promising opportunities.

Our Research and Analysis Department offers an analysis of recent developments and reforms in Egypt's fuel subsidy policies, while the Politics section highlights the outcomes of the recent summit in Paris, where a group of world leaders debated a new road towards an innovative world financial pact to help vulnerable countries combat climate challenges.

We hope that you find reading this issue both enjoyable and informative!

IHAB SHAARAWY

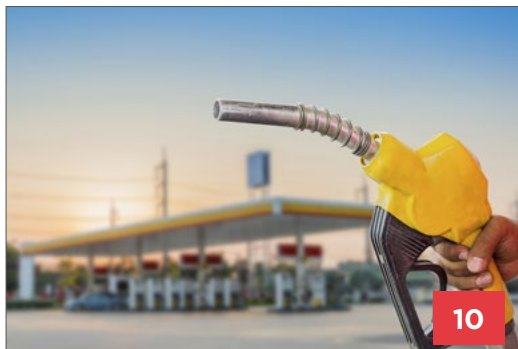
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TOP 5

EL SISI'S MEETING WITH ITALIAN COMPANIES SIGNALS INTEREST IN ATTRACTING MORE MINING INVESTMENTS

President Abdel Fattah El Sisi met with CEOs and representatives of a number of Italian mining companies, including Breton, BSM and Minerali Industriali.

The meeting was attended by Prime Minister Mostafa Madbouly, Minister of Petroleum and Mineral Resources Tarek El Molla and Ahmed Al Shazly, Head of the Armed Forces Financial Affairs Authority.

The meeting was also attended by Walid Abul-Magd, Director General of the National Service Projects Authority of the Armed Forces, Abdel Salam Ahmed Shafik, Chairman of The Egyptian Company for Mining, Management and Exploitation of Quarries and Salines, Sherif Abd EL-Halim, Group CEO of Alsherif Brands, in addition to Ambassador Michele Quaroni, Italian Ambassador to Cairo.

Spokesman Spokesman for the Presidency, Counselor Ahmad Fahmy, said the meeting explored prospects of

cooperation with the Italian companies to leverage Egypt's mineral wealth, in light of the huge success of the industrial cooperation between Egypt and Italy. Such cooperation included the Complex of Quartz Production Plants in Ein Sokhna, which the President inaugurated last May.

During the meeting, CEOs and officials from Italian companies expressed their aspiration to intensify work towards deepening the process of cooperation with Egypt. They highlighted that the President's careful follow-up of the efforts to push private investment reflects the state's keenness to achieve a real breakthrough in this field.

Moreover, they pointed out their commitment to strengthening fruitful cooperation with Egypt in the field of mining activities. This is especially in light of its wealth of mineral ores as well as the attractive investment climate in the Egyptian mining sector.

EGYPT, UK TO COOPERATE, EXCHANGE EXPERTISE IN HYDROGEN, NATURAL GAS FIELDS

Minister of Petroleum and Mineral Resources Tarek El Molla has met with Aidan Stringfellow, Head of Crisis Response and Policy and International Affairs at Ofgem, the UK utility regulator for gas and electricity, to hold discussions related to adapting with current changes related to the hydrogen market and efficient regulation for the natural gas market.

During their meeting, El Molla showcased the Egyptian vision and its role as a regional energy hub for oil and gas as well as the efforts of the ministry according to this vision to open the natural gas market gradually which started since 2017.

The meeting also witnessed discussions on the necessity of developing regulations related to hydrogen utilization within the current gas grid to support their mix.

EGYPT'S MINING PRODUCTION REACHES 11M TONS IN 2022/23

The Ministry of Petroleum and Mineral Resources stated that production of mining products and materials has increased to 11 million tons in the fiscal year (FY) 2022/23.

According to the ministry's press release, this volume of production rose from 8.3 million tons during FY 2017/18, recording an increase of 32%.

EGYPT TO BOOST OIL PRODUCTION BY 11% IN 2023

Egypt is working to increase its oil production by 11% in 2023 to reach 650,000 barrels per day (bbl/d) from 587,000 bbl/d, according to an oil official who spoke with Asharq Business.

most of which are in the Gulf of Suez region, as well as the increase in the investments of foreign partners.

Egypt annually consumes around 12 million tons of diesel and about 6.7 million tons of gasoline. Any increase in its oil production means a reduction in the import bill for petroleum products at a time when the country, with a population of more than 100 million, suffers from a scarcity of foreign currency.

Egypt is expanding its exploration operations. Last year, it awarded eight areas for oil and gas exploration to Eni, bp Apex International, Energy Egypt, INA-Industrija nafte d.d., Enap Sipetrol, and United Energy, through a global bid.

The exploration areas proposed by Egypt included two regions in the Mediterranean Sea, four regions in the Western Desert, as well as two regions in the Gulf of Suez, with a total area of about 12,300 square kilometers.

The expected increase in production comes with the start of operating new fields and expansions in existing fields,

EGYPT, CZECH REPUBLIC EXPLORE COOPERATION IN MINING, GREEN HYDROGEN, SUSTAINABLE ENERGIES

Minister of Petroleum and Mineral Resources Tarek El Molla has met with the Ambassador of the Czech Republic to Egypt Ivan Jukl to discuss the possibility of cooperation in several fields including mining, green hydrogen, sustainable energies and training cadres for developing their skills, in addition to the preparation for the signing of an Egyptian-Czech memorandum of understanding (MoU).

He added that the Czech Republic witnessed major developments at all levels and has expertise and advanced technologies in mining and energy through which it seeks to boost cooperation with Egypt during the coming period.

At the beginning, Jukl affirmed the importance of cooperating with Egypt especially in mining and energy in light of the visit of President Abdel Fattah Al-Sisi to the Czech Republic to get into high-level economic talks.

Additionally, the ambassador elaborated that there are several Czech institutions and universities that have offered cooperation opportunities with Egypt in mining technologies and hydrogen technologies especially green hydrogen as well as providing training programs in mining, decarbonization technologies and carbon emissions reduction.

A BLAST FROM THE PAST

On 4th July 2022, with the presence of a number of senior heads of international gold and mining companies, Minister of Petroleum and Mineral Resources Tarek El Molla virtually inaugurated the Egypt Mining Forum (EMF) under the theme 'Putting Egypt on the International Mining and Minerals Map'.

The Forum came within Egypt's strategy to enhance its mining sector and promote economic development and assert the development of the mining industry which is taking place in Egypt, as well as the reforms and measures taken, encouraging many companies to take interest in Egypt and participate in bid rounds for gold and minerals exploration. The Forum included several panels, sessions and discussions to attract investors and discuss ways to develop and enhance Egypt's mining sector.

During the opening session of the EMF 2022, under the title (Egypt is a Destination for Mining Investment), El Molla encouraged international companies to seize investment opportunities in the Shalateen Company's concession areas and the Golden Triangle.

It is worth noting that El Molla will host the second edition of the EMF that will take place from 18 - 19 July 2023 in The Nile Ritz-Carlton, Cairo under the title "Egypt's premier mining, minerals and commodities." The Forum is expected to bring together key regional stakeholders, international mining companies, and investors who are looking to do business in Egypt and North Africa.

23%**Growth of Egypt's Petrochemicals Exports in 2022**

Egypt's petrochemical exports increased in 2022. During this year, petrochemical exports were recorded at \$8.6 billion compared to \$7 billion in 2021, as announced by the Chemicals and Fertilizers Export Council, affiliated with the Egyptian Ministry of Trade and Industry.

This increase was driven by the implementation of several strategic projects in the fields of refining and petrochemicals due to their fundamental role in the production of various products. In addition, the Ministry of Petroleum and Mineral Resources (MoPMR) actively works to facilitate Egypt's transition from being a petrochemicals importer to a key exporter that can meet local demand.

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PETROLEUM PROJECTS

EL MOLLA, SWEILEM DISCUSS WATER SUPPLY ARRANGEMENT FOR TWO PETROLEUM PROJECTS

Minister of Petroleum and Mineral Resources Tarek El Molla and the Minister of Water Resources and Irrigation Hani Sweilem held a meeting to discuss cooperation between the two ministries regarding licensing the provision of water needed for two petroleum projects that are being implemented to increase fuel production capacities and maximizing the added value.

These two projects are the new diesel production complex in Assiut affiliated with the Assiut National Oil Processing Company (ANOPC), and the methanol production

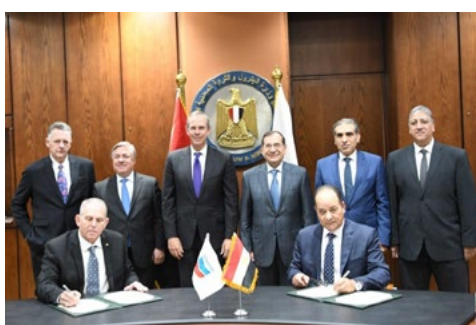


plant in Damietta, one of the petrochemical production projects.

EGYPT SIGNS 119 PETROLEUM AGREEMENTS OVER THE PAST NINE YEARS

The Ministry of Petroleum and Mineral Resources (MoPMR) stated that after the petroleum sector returned to roll out bid rounds, 119 new petroleum agreements were signed with international companies, with investments of \$22.3 billion as a minimum, and signature grants of up to \$1.34 billion.

This came in a published a statement from the Ministry tracking its achievements over the past nine years. After the petroleum sector returned to bidding, Egypt also implemented 53 projects to develop the discovered fields, with an investment of about \$33.7 billion. Moreover, there are a number of new projects that are being implemented to develop natural gas and



crude oil fields, with an investment of about \$1.9 billion. In the past nine years, MoPMR successfully attracted new companies in the field of research and exploration, such as Chevron and ExxonMobil.

CARBON REDUCTION

BAKER HUGHES HIGHLIGHTS EFFORTS TO REDUCE CARBON EMISSIONS IN EGYPT

Minister of Petroleum and Mineral Resources Tarek El Molla held a meeting with Lorenzo Simonelli, CEO of Baker Hughes, while he was in London during the British Egyptian Business Association's (BEBA) trade mission event.

During the meeting, the company's projects in reducing emissions and its advanced applications in recovering flare gases associated with production processes were reviewed within the framework of efforts to preserve the environment and achieve sustainable development.

**EGYPT, BNY MELLON DISCUSS FINANCING CARBON REDUCTION PROJECTS**

Minister of Petroleum and Mineral Resources Tarek El Molla met with Hani Kablawi, Chairman of International at the Bank of New York Mellon (BNY Mellon), and Ghada Kandil, General Manager of BNY Mellon, and a number of officials of the bank's sectors.

The meeting discussed the efforts and activities of the Ministry of Petroleum and Mineral Resources within the framework of the ministry's strategy for carbon reduction and energy transition. El Molla highlighted the importance of accessing concessional financing sources to accelerate the energy sector's efforts towards switching to low-carbon sources of energy.



HYDROGEN INDUSTRY

EL MOLLA OUTLINES EGYPT'S HYDROGEN POTENTIALS DURING BEBA EVENT IN LONDON

Minister of Petroleum and Mineral Resources Tarek El Molla participated as a keynote speaker in a dialogue session titled "Hydrogen Pathways" within the activities of the British Egyptian Business Association's (BEBA) trade mission in the UK to promote green investments, the ministry said in a statement.

The session was attended by Jane Toogood, the UK's First Hydrogen Champion and the Chief Executive of Catalyst Technologies at Johnson Matthey; Terje Pilskog, CEO of the Norwegian Scatec; Anja-Isabel, Executive Vice President of Gas and Low Carbon Energy at BP; and Mike Scholey CEO of Globeleq Energy Company. The session was moderated by Heike Harmgart, Managing Director for the Southern and Eastern Mediterranean (SEMED) region at the European Bank for Reconstruction and Development.

During the session, El Molla stated that hydrogen is gaining increasing importance in global energy markets as a low-carbon source of energy. Egypt is aware of the importance of developing a hydrogen economy locally to take advantage of its potentials to become a global hub for green hydrogen production in the medium and long terms.

The minister added that the Egyptian petroleum sector plays a major role in all value chain activities of the low-carbon hydrogen industry, including green hydrogen, from renewable energy generation to the production of hydrogen derivatives, which include ammonia and methanol. Both are essential elements in the petrochemical industry in the sector.

EL MOLLA, TOOGOOD DISCUSS EGYPTIAN EFFORTS IN HYDROGEN INDUSTRY

Minister of Petroleum and Mineral Resources Tarek El Molla has held talks with Jane Toogood, the UK's First Hydrogen Champion and the Chief Executive of Catalyst Technologies at Johnson Matthey to discuss Egyptian efforts in hydrogen and the important outcomes of Decarbonization Day during COP27.

This came on the sidelines of the British Egyptian Business Association (BEBA) event in London. During the talks, El Molla noted that the Egyptian petroleum sector is working according to an integrated strategy for reducing carbon from its activities through six pillars, including low-carbon hydrogen.

NATURAL GAS INDUSTRY

BP HAILS EGYPT'S GROWING ROLE IN NATURAL GAS INDUSTRY

A delegation from bp headed by the company's CEO Bernard Looney has praised Egyptian efforts in carbon reduction as well as its growing regional and international role in the field of natural gas, emphasizing the country's capabilities to be a hub for hydrogen production.

This came during their meeting with the Minister of Petroleum and Mineral Resource Tarek El Molla on the sidelines of the British Egyptian Business Association (BEBA) event in London to promote green investments.

**MODERN GAS LIGHTS FIRST NATURAL GAS FLAME IN SOHAG'S ASAKRA VILLAGE**

Modern Gas announced the launch of the first natural gas burner in the first housing unit in Asakra village in Sohag, as part of the first phase of Haya Karima ("Decent Life") and the national project for developing the Egyptian countryside.

According to a press release issued by the Ministry of Petroleum and Mineral Resources, the company has established

a low pressure grid with an operation pressure of 100 millibars that extends 6,400 meters. Additionally, the company called on residents to quickly contract to deliver gas to their houses and benefit from this excellent civilized service. The Ministry pointed out that there are plans to connect natural gas to 900 consumers in the village.

EGYPT DELIVERS NATURAL GAS TO 8M HOUSING UNITS IN NINE YEARS

The Ministry of Petroleum and Mineral Resources has succeeded to deliver natural gas to 8 million housing units in nine years which represents 56% of the total number of houses connected to the natural gas grid since 1981 to reach 14.1 million houses.

According to a press release issued by the ministry to recount its achievements over the

past nine years, natural gas has replaced 143 million butane cylinders. It noted that butane consumption has declined from 4.2 million tons per year in the fiscal year (FY) 2015/16 to 3.5 million tons per year in FY 2022/23 thanks to the installment initiative provided by the ministry.

WINTERSHALL DEA MAKES NATURAL GAS DISCOVERY IN THE ABU MADI RESERVOIR

Wintershall Dea has found natural gas in its Disouq concession in the onshore Nile Delta. The step-out well (NSG-3) targeted the Abu Madi reservoir inside the Disouq concession under the development lease. It follows a previous discovery in the East Damanhour exploration block in January 2023. The Disouq gas project is operated by DISOUCO, a Joint Venture between Wintershall Dea and the Egyptian Gas Holding Company (EGAS).

"The latest reserves additions is another example of the great cooperation with our partner EGAS in the Joint Venture and will

prolong production at Disouq," Olaf Reetz, General Manager at the DISOUCO JV, commented. NSG-3 well was drilled to a total depth of 3070 m and encountered 22 m of the reservoir in the Abu Madi formation.

To fast-track production and maximize economic feasibility, Wintershall Dea is using existing Disouq infrastructures in the vicinity of the well linked to the national natural gas grid. "The additional gas volumes will contribute to Wintershall Dea's efforts to ensure a secure and sustainable energy future in Egypt," said Sameh Sabry, Managing Director of Wintershall Dea Egypt.

COOPERATION

STOREGGA EXPLORES CCS COOPERATION OPPORTUNITIES IN EGYPT

Minister of Petroleum and Mineral Resources Tarek El Molla held bilateral talks with Andrew Brown, Chief Operating Officer (COO) at Storegga, which specializes in providing green energy solutions and carbon storage, and its delegation, on the sidelines of the British Egyptian Business Association's (BEBA) trade mission event in the UK.

El Molla explained that reducing carbon and switching to low-carbon energy sources are two essential elements of the Egyptian petroleum sector's strategy. This strategy



emphasizes cooperation in the carbon capture and storage industry as well as the use of modern technologies and specialized expertise.

EXPLORATION

PARLIAMENT APPROVES FIVE OIL, GAS EXPLORATION LICENSES

The Egyptian Parliament approved the reports of the joint committee from the Energy and Environment Committee and the Office of the Constitutional and Legislative Affairs Committee, on a draft law licensing the Minister of Petroleum and Mineral Resources Tarek El Molla to contract with the Egyptian Natural Gas Holding Company (EGAS) and IEOC Production B.V. to explore and exploit gas and crude oil in the offshore area of Thebes in the Mediterranean Sea, El Ahram Newspaper reported.

Moreover, the Parliament approved a draft law licensing the Minister to contract with EGAS, IEOC Production B.V., and BP Exploration (Delta) Limited to search for and exploit gas and crude oil in the Bellatrix-Seti East block offshore Mediterranean.

CHEVRON OUTLINES EXPLORATION ACTIVITIES IN A MEETING WITH EL MOLLA

Minister of Petroleum and Mineral Resources Tarek El Molla held a meeting with Clay Neff, President of Chevron International Exploration and Production, during his London visit.

The meeting tackled the developments of the company's activities in Egypt and its plans to increase production in its various concession areas to search for natural gas and oil.

Moreover, they reviewed the operational status of the development of the offshore Nargis field, which was announced last January 2023, in which Chevron (the operator) invests in its concession area in partnership with the Italian company Eni.

The meeting further discussed the development of the company's fields in the eastern Mediterranean region and bilateral cooperation to expedite the transfer of gas from the eastern Mediterranean fields to re-export it to Europe via Egypt. This will be done through Egyptian gas liquefaction plants that will convert natural gas to liquefied natural gas (LNG) ready to be shipped to European markets. These efforts are within the framework of Egypt's mission to become a regional hub for the circulation and trade of natural gas.

TOTALENERGIES



TOTALENERGIES TO INCREASE SAF PRODUCTION TO MEET SURGING DEMAND

TotalEnergies is actively responding to a call from its aviation customers to increase production of sustainable aviation fuel (SAF).

The company elaborated that by 2028 it will be able to produce half a million tons of SAF, which will be sufficient to cover the gradual increase in the European SAF blending mandate, set at 6% for 2030.

In addition, TotalEnergies aims to annually produce 1.5 million tons of SAF at manufacturing facilities in Europe, the United States, Japan, and South Korea by 2030, accounting for 10% of the global market at that time.

"TotalEnergies is taking action to meet the strong demand from the aviation industry to reduce its carbon footprint. Sustainable aviation fuel is

essential to reducing the CO2 emissions of air transport, and its development is fully aligned with the Company's climate ambition to get to net zero by 2050, together with society," said Patrick Pouyanné, Chairman and Chief Executive Officer of TotalEnergies.

PETRONAS



PETRONAS, TEGAS WORK TOWARDS STRONGER TECHNOLOGICAL COOPERATION

PETRONAS and Tabung Ekonomi Gagasan Anak Sarawak (TEGAS) inked a Memorandum of Understanding (MoU) to create digital jobs and talent upskilling through the newly-established PETRONAS Regional Delivery Centre in Sarawak that will generate digital jobs for local talent and serve as a launchpad for developing the region's digital ecosystem.

Datuk Bacho said, "PETRONAS is committed to the holistic development of the local community

not just by creating more digital jobs but also through upskilling in areas such as software and data engineering.

"Our efforts will also include training unemployed and underserved job seekers in low code development skillsets so that they, too, can participate in the digital economy," he added.

Commenting on the collaboration, Datuk Len Talif said, "We look forward to working with

PETRONAS on developing an inclusive digital innovation and entrepreneurship ecosystem through the TEGAS Digital Village and Digital Innovation Hub, in line with the Sarawak Post COVID-19 Development Strategy 2030. We will further promote the partnership by leveraging our existing relationships with local startups, ecosystem partners and universities in Sarawak".

PETROFAC

PETROFAC, STEP INK \$1.5B EPC CONTRACT IN ALGERIA

Petrofac and STEP Polymers SPA, which is a 100% subsidiary of Sonatrach that works for a petrochemical complex in the Arzew Industrial Zone in Algeria, have entered into a definitive agreement.

According to this agreement, Petrofac will deliver the \$1.5 billion project with its joint venture partner

China Huanqiu Contracting & Engineering Corporation (HQC), with Petrofac's share valued at over \$1 billion.

Tareq Kawash, Petrofac's Group Chief Executive, said: "I am delighted to be in Algiers alongside our partner and client to mark the official award of this pioneering project. Broadening Petrofac's

portfolio within the petrochemical sector, this contract builds on our 25-year track record of safely delivering strategically significant energy infrastructure in Algeria, while developing local workforces."



ARAMCO

ARAMCO EXPECTED TO PROVIDE COMPLETE OIL VOLUMES TO SOME ASIAN REFINERS IN JULY



Despite Saudi Arabia's announcement of cutting oil output from 10 million barrels per day (bbl/d) to 9 million bbl/d in July, Aramco said it will send full nominated volumes of crude oil to a number of North Asian customers in July, according to several sources with knowledge on the matter, Reuters reported.

Saudi Aramco unexpectedly increased its official selling prices for all grades of oil to Asia for shipments due to load in July, which would harm refining earnings and would encourage refiners to purchase additional feedstock.

Some Chinese state-owned refiners requested a lower supply in July, while other Chinese refiners have asked for more supply. For this reason, China's total July intake of Saudi crude is likely to stay around the same level as June, sources said.

CHEVRON



CHEVRON TO INVEST \$500M IN ARGENTINA VACA MUERTA SHALE AREA

Chevron, the U.S.-based oil company, will start a \$500 investment to develop the Trapial block before July in western Neuquen province, Argentina's economy ministry announced after a meeting between Economy Minister Sergio Massa and company officials, Reuters added.

Trapial is a 109-square-mile (283-square-kilometer) block.

The Vaca Muerta shale formation contains the second-largest shale gas deposit and the fourth-largest shale oil reserve in the world. In the future,

it will be a significant source of both local energy and exports to other countries for the South American nation.

ENI



ENI, LIBYA INK MOU TO REDUCE EMISSIONS, ACCELERATE ENERGY TRANSITION

Eni, the main international gas producer in Libya, inked a memorandum of understanding (MoU) with Libya to study and identify opportunities to reduce greenhouse gas emissions and develop sustainable energy in the country.

The MoU works in parallel with Eni's strategy and the Libyan government's plans to accelerate decarbonization and energy transition.

In accordance with the conditions of the memorandum, Eni will seek to reduce CO2 emissions by lowering normal gas flaring, fugitive emissions, and venting, as well as potential projects for the reduction of emissions from the hard-to-abate sector.

Additionally, fresh approaches to the growth of renewable energy and programs for the

nation's electricity efficiency will be assessed. The business will also try to identify additional gas resources from current fields that can be exploited as part of a comprehensive project for the domestic market and possibly for export.

ADNOC



ADNOC DRILLING ACQUIRES TWO NEW JACK-UP RIGS

ADNOC Drilling Company has inked an agreement to acquire two premium high-specification Gusto MSC CJ46 design offshore jack-up drilling units (the "rigs").

The \$220 million rigs will be brought into the waters off Abu Dhabi, where they will start producing revenue in the fourth quarter of 2023.

This acquisition is in line with ADNOC Drilling's fleet expansion and growth strategy, which is a key enabler of ADNOC's accelerated production capacity growth to meet rising global energy demand. With this purchase, the Company will roughly treble its fleet of offshore jack-up rigs starting in early 2021, and additional considerable growth is anticipated from this point forward through the end of 2024.

Abdulrahman Abdulla Al Seiri, Chief Executive Officer of ADNOC Drilling, commented: "The acquisition of these premium jack-up rigs will support one of our major customers, ADNOC Offshore, with its drilling and completion services requirements, as it delivers accelerated production capacity. It is the next step in the execution of our strategy to rapidly grow our business, significantly boost revenue and increase shareholder returns.

EXXONMOBIL



EXXONMOBIL, NUCOR CORPORATION INK CARBON CAPTURE AGREEMENT TO REDUCE EMISSIONS

ExxonMobil and Nucor Corporation inked the newest carbon capture and storage (CCS) agreement to create momentum for helping industrial customers reduce emissions.

This new lower-carbon agreement will capture, transport, and store up to 800,000 metric tons per year of CO2 from Nucor's manufacturing site in Convent, Louisiana.

The Nucor project, that's expected to start up in 2026, will bring the total CO2 the company has agreed to transport and store for third-party customers to 5 million metric tons per year (MTA). That's equivalent to replacing approximately 2 million gasoline-powered cars with electric vehicles, which is roughly equal to the total number of EVs on US roads today.

"Our agreement with Nucor is the latest example of how we're delivering on our mission to help accelerate the world's path to net zero and build a compelling new business," said Dan Ammann, president of ExxonMobil Low Carbon Solutions. "Momentum is building as customers recognize our ability to solve emission challenges at scale."

EQUINOR



EQUINOR POSTPONES BAY DU NORD CANADA OIL PROJECT OVER RISING COSTS

Norway's Equinor decided that due to rising costs, the company will delay its Bay du Nord Canadian offshore oil project for up to three years, Reuters reported.

The announcement is a backstep to one of Canada's biggest oil projects in years, and one which has the rare support of Prime Minister Justin

Trudeau's government. Ottawa backed Bay du Nord saying that it would produce relatively low emissions.

"Bay du Nord is an important project for Equinor. Within the context of the changing market with increased cost, we will now look at the project again to see if we can do further optimizations

to our concept and strategies," said Trond Bokn, Equinor's senior vice president, Project Development, in a statement.

Newfoundland & Labrador Premier Andrew Furey said he was disappointed, but still hopeful the project will proceed.

BAKER HUGHES



BAKER HUGHES CUTS DOWN ON SCOPE 1, SCOPE 2 EMISSIONS BY 28%

In its recently published 2022 corporate sustainability report, Baker Hughes announced that it is on track to reach its net zero emissions goal by 2050 by cutting emissions by close to a third from its operating facilities through energy efficiency initiatives.

It also outlined the improvement in its environmental, social and governance (ESG) performance to drive more sustainable operations.

"Last year was a year of transformation for Baker Hughes, highlighting sustainability as one of the key differentiators of our business. Against the backdrop of a challenging and complex global energy environment, I am proud that while we continue supporting our customers on their energy transition journeys, we have not lost sight of our goal to operate in a responsible and more sustainable way," said Lorenzo Simonelli, chairman and CEO of Baker Hughes. "Sustainability has a clear role to play in advancing our purpose

of taking energy forward, making it safer, cleaner and more efficient for people and the planet."

One of the most important key highlights of Baker Hughes' performance is reducing scope 1 and scope 2 greenhouse gas emissions by 28% through energy efficiency initiatives, facility consolidations, and increased electricity from renewable and zero-carbon sources.

EGYPT'S FUEL SUBSIDY

REFORM DEVELOPMENT

BY JOLLY MONSEF, MARIAM AHMED & MAHA BALBAA

Recognizing the importance of fuel subsidy and its structural reforming are always crucial in Egypt. Fuel subsidies aim to support particular social and economic objectives through ensuring affordable access to energy. However, it has been imposing a stressful burden on the budget. Thus, reforming the fuel subsidy system has become a strategic priority in efficiently managing the budget and reallocating the deficit incurred to more efficient recipients.

Therefore, in fiscal year (FY) 2014/2015, the government launched an energy subsidy reform program that included gradually cutting subsidies and increasing fuel prices in the budget. Furthermore, Egypt adopted a \$12 billion economic reform program backed by the International Monetary Fund (IMF) that included specific measures to improve Egypt's fiscal performance and alleviate heavy burdens on the state's budget, including phasing out fuel subsidies. In addition, in December 2022, a \$3 billion loan backed by an IMF agreement was signed, concerning a new economic reform program on structural policies and reforms.

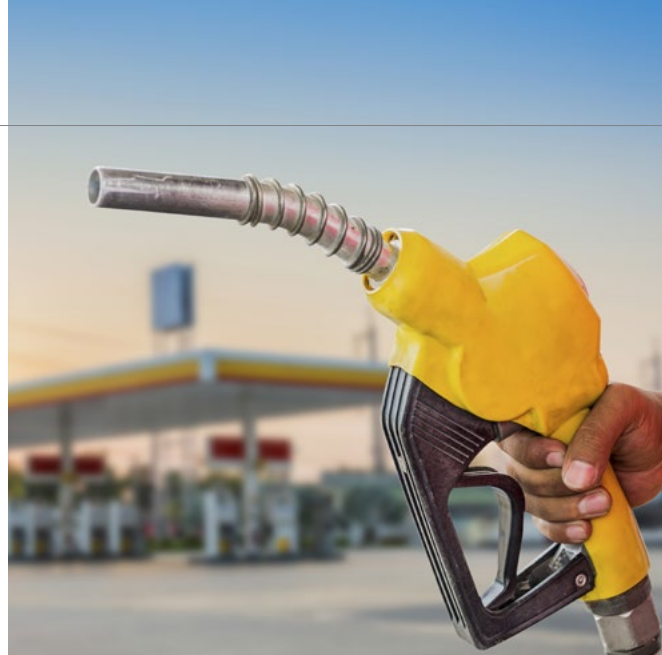
Egypt's petroleum sector has committed its vision to work on switching to low-carbon sources of energy and decarbonization. Accordingly, Egypt's decarbonization strategy focused on six main pillars, including improving energy efficiency and ensuring a well-reformed energy subsidy system. Hence, this report analytically gauges the development of Egypt's fuel subsidy reform over the period from FY 2019/20 to FY 2022/23.

DEVELOPMENT OF THE PETROLEUM PRODUCTS SUBSIDIES

Petroleum products subsidies constitute an essential part of total subsidies in Egypt's state budget. The average of petroleum products subsidies in the period from FYs 2019/20 until 2023/24 are recorded at EGP 49.4 billion. The Egyptian government has embraced the fuel subsidy reform program to address the deep-seated challenges of the fuel subsidies paid by the government. Therefore, the petroleum products subsidies declined in FYs 2020/21 and 2021/22 by 46.8 % and 34.7%, respectively. This decline was also a result of the stability in exchange rates as recorded on average at \$15.78 and \$16.51 in FYs 2020/21 and 2021/22 respectively.

After a continuous decline in stability of exchange rates, the government slowed down the pace of phasing out fuel subsidies as the petroleum products subsidies witnessed an increase in FY 2022/23 driven by the huge increase in global petroleum prices, as well as, the exchange rates instability which jumped to \$30 during the FY.

Then in light of the global inflationary wave and high exchange rates, the government allocated EGP 119.42 billion, the highest allocation during the period, for petroleum products subsidies in the FY 2023/24 state budget which represents 22.5% of total subsidies and 3.99% of total expenditures, according to the Ministry of Finance (MoF).

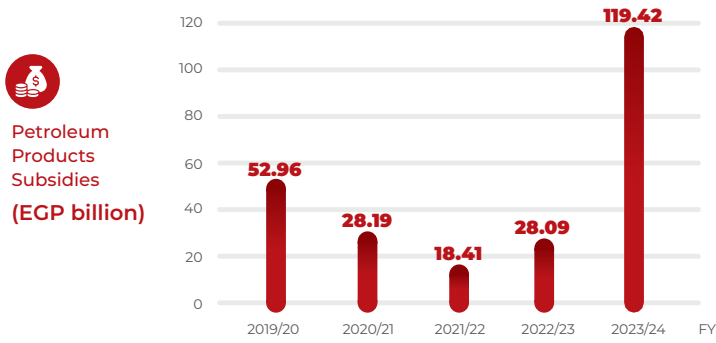


Flashbacks

Energy subsidies have existed for a long time in Egypt to ensure affordable energy services to lower-income households. Historically, there were several attempts to reform fuel subsidies in Egypt, that have been met with failure, perhaps the most popular one is Sadat's 1977 attempt to cancel subsidies on a number of commodities. Yet, the insufficiency of domestic oil and gas production, the increase in energy costs, and the deterioration in the budget deficit have pushed the government to launch the energy subsidy reform program in 2004.

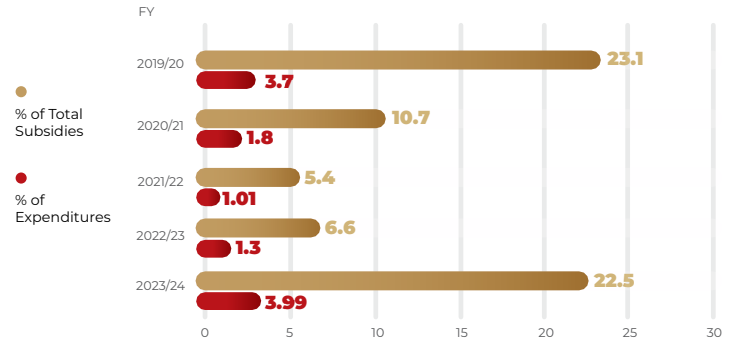
Regarding reforming fuel subsidies, the program targeted raising the gasoline and diesel oil prices until reaching full cost recovery by 2014. Since 2014, the program committed to lifting energy subsidies gradually over five years. In November 2016, the government reduced fuel subsidies by about 50%. It is noteworthy that fuel prices reached the breakeven point in June 2019, according to the Ministry of Petroleum and Mineral Resources (MoPMR).

ANNUAL PETROLEUM PRODUCTS SUBSIDIES



Source: MoF

SHARE OF PETROLEUM PRODUCTS SUBSIDIES

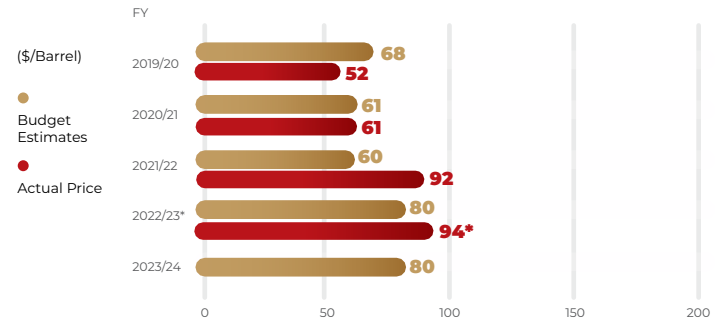


Source: MoF

DEVELOPMENT OF OIL PRICES IN EGYPT

Within the government's efforts to limit the effect of rising Brent prices globally, it estimates prices in its budget. The average actual price of FY 2019/20 was \$52 per Brent barrel, which is down by 23% from the estimated price in the budget, due to covid lockdown and the global economic slowdown. In FY 2020/21, the projected oil barrel price in the budget was in parallel with the global market price at that time. After that, the Russian war in Ukraine made oil prices rapidly grow as it blocked key Russian supply to markets. In FY 2021/22, the actual price of Brent barrel surpassed its estimate in the budget by about 52%. The preliminary budget estimates for the FY 2022/23 budget show that the actual price of the Brent barrel exceeds the estimated price by 17.5%, according to the MoF.

THE PRICE OF BRENT OIL BARREL IN THE BUDGET



*Preliminary estimates
Source: MoF

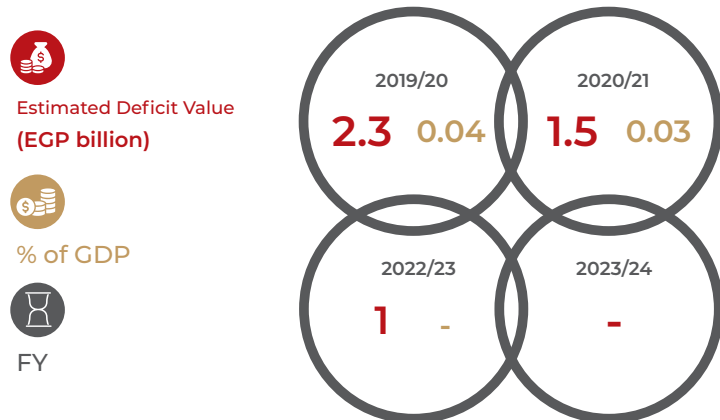
THE BUDGET DEFICIT AND CHANGES IN GLOBAL OIL PRICES

Recent hikes in global oil prices have induced pressure on Egypt's budget, as a \$1 rise in the global price of oil barrel to exceed the estimations, leads to a deterioration in the treasury's net relationship with the Egyptian General Petroleum Corporation (EGPC) and thus the targeted total deficit.

Over FYs 2019/20 to 2021/22 the fuel subsidies declined, lifting the load on the budget deficit. Yet, due to the global inflation pressures on

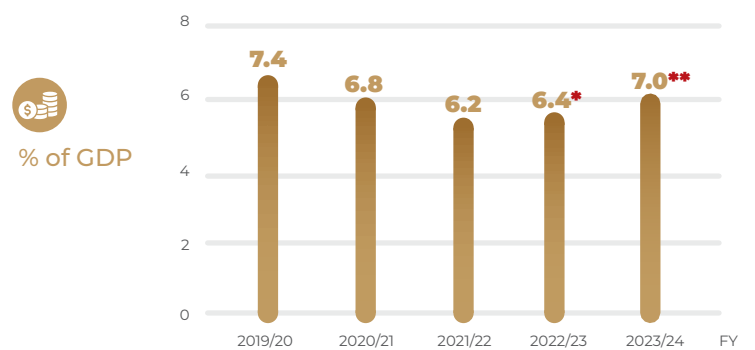
the economy and hikes in global oil prices, the Egyptian government has started to raise fuel subsidies again in FY 2022/23, putting some pressure on the budget. Besides, the sharp devaluation of the Egyptian pound in March 2022, taking place after the Russian-Ukrainian war, further affected the budget. Consequently, the budget deficit is estimated at 6.4% of the gross domestic product (GDP) in FY 2022/23 and is projected to be at 7% of the GDP in FY 2023/24, according to the MoF.

IMPACT OF A \$1 INCREASE IN THE OIL BARREL PRICE ON THE DEFICIT



Source: MoF

BUDGET DEFICIT



*Preliminary estimates
**Budget
Source: MoF

FUEL PRICES & INFLATION

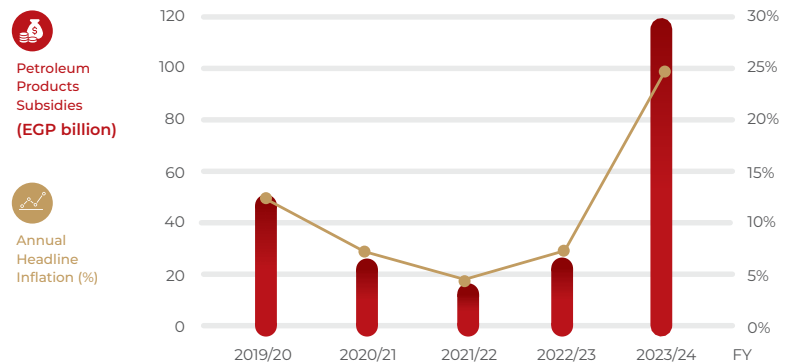
Fuel subsidies usually react similarly with inflation. Hence, fuel subsidy cuts trigger intensive inflationary pressures. Accordingly, the government embarked on a fuel subsidy reform by cutting fuel subsidies gradually to reflect the changes in global prices.

The annual headline inflation, calculated from the CPI data, started to decline over the FYs 2019/19 and 2020/21 as the petroleum subsidies' cut started to be applied. This was ever since energy costs edged higher, imposing extra burdens on the budget within the framework of reforming the fuel subsidies, according to the Central Agency for Public Mobilization and Statistics (CAPMAS)'s CPI data.

However, during the two FYs 2022/23 and 2023/24, petroleum products subsidies witnessed an exponential increase of 52.6% and 325.1% respectively, owing to the global inflationary pressures after the COVID-19 pandemic, followed by the Russian-Ukrainian Conflict,

according to the MoF. This is in parallel to an annual headline inflation recording 7.26% over the FY 2022/23 as well as a 25.8% forecast for the FY 2023/24, according to CAPMAS's CPI data.

ANNUAL PETROLEUM PRODUCTS SUBSIDIES VS. ANNUAL HEADLINE INFLATION



Source: MoF & CAPMAS

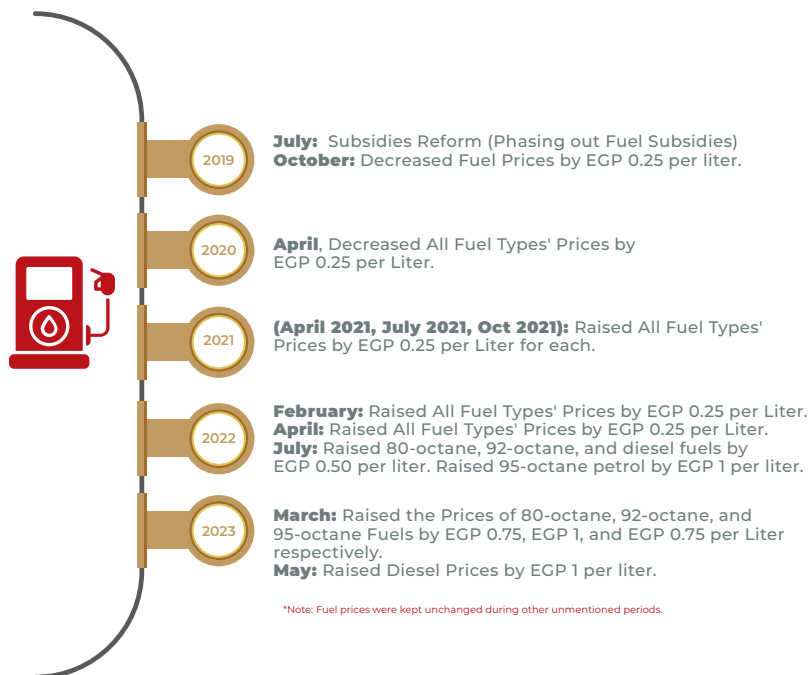
AUTOMATIC PRICING MECHANISM DECISIONS

The fuel pricing indexation mechanism was first implemented in June 2018, within the framework of the \$12 billion IMF loan agreement to efficiently regulate the fuel market in Egypt. Basically, emerging countries adopt automatic fuel pricing mechanisms for key objectives including protecting fuel tax revenues, ensuring full pass-through of international fuel prices to domestic prices, as well as to put governments under control. Furthermore, it represents the initial stage of the transition to a fully liberalized pricing and supply regime, which has been a more effective approach to reforming subsidies and protecting the budget, according to the IMF.

This mechanism determines fuel domestic prices based on a formula of the summation of the global import price of fuel products, domestic wholesale and retail distribution margins, and fuel taxes. Hence, domestic prices will change regularly to fully reflect the changing waves in global fuel prices, according to the IMF.

Accordingly, the fuel pricing mechanism committee convenes on a quarterly basis to assess the prices of petroleum products and propose changes in line with the international price of Brent crude oil and the price of the dollar against the Egyptian pound. Accordingly, the MoPMR initially selected a 10% price cap, as a ceiling and floor, for the fuel prices' change, and accordingly, price adjustments will occur quarterly with a 10% cap on each adjustment, according to the IMF.

FUEL AUTOMATIC PRICING COMMITTEE'S (FAPC) DECISION



Energy subsidies are essential in improving energy efficiency, reducing inequality in income distribution, and achieving social justice. Egypt realized the importance of the fuel subsidy reform program, in which the subsidies were directed to vulnerable groups. The government is moving forward in its subsidy reform to ensure that subsidies for petroleum products are balanced between easing the citizens amid global changes and not putting pressure on the performance of the petroleum sector. This is in addition to ensuring a more sustainable pathway for fuel pricing.

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EGYPT'S MINING SECTOR: TOWARDS STRATEGIC TRANSFORMATION

BY SARAH SAMIR

Egypt has a promising mining potential with several mineral ores, including phosphate, limestone, coal, ornamental stones, dolomite, white sands, and quartz. The Egyptian mining territory consists of phanerozoic sediments formed during Cambrian Period and crystalline basement rocks formed since the Precambrian period. Around 89% of the country's Precambrian Arabian-Nubian Shield area has not been tendered for at least the last 20 years. Accordingly, the Ministry of Petroleum and Mineral Resources (MoPMR) has adopted a strategic plan to enhance the sector's contribution to the Egyptian economy.

The Modernization Program

Egypt has succeeded in attracting international investments and various expertise through the launch of a flexible strategy to maximize the use of its mineral resources, Minister of Petroleum and Mineral Resources, Tarek El Molla, remarked during his participation in a dialogue session entitled 'The Mining and Exploration of the Egyptian Nubian Shield' on the sidelines of the British Egyptian Business Association (BEBA) event in London, in June 2023.

The strategy of MoPMR for development and modernization was launched in 2018 to increase the contribution of the mining sector to the gross domestic product to 5% and increase foreign direct investment in the mining sector by attracting international mining companies such as American, Canadian and English companies with global and diversified mining expertise.

The Egyptian mining modernization program consists of seven main projects. Some of these projects have been completed. One of the success stories accomplished by the sector, thanks to the modernization program, is launching the international bid round for gold mining in 2020. The bid round was to cover around 56,000 km total area in the Red Sea and Eastern Desert, and it was posted for a number of sectors through two rounds.

Adding Value

The Egyptian mining sector seeks to raise the added value of natural resources

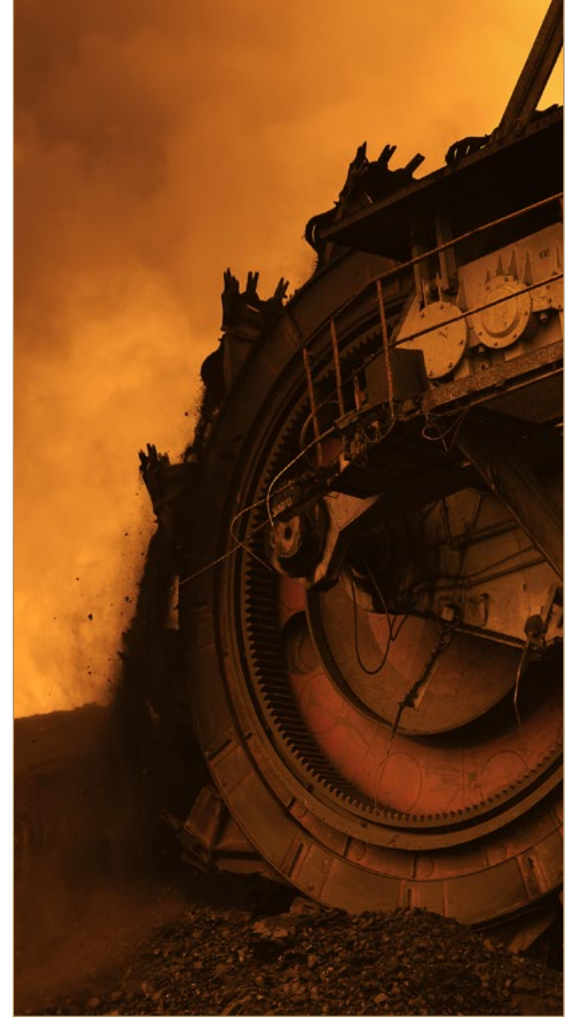
and achieve an effective contribution to the development of societies.

Among the projects launched is the largest Egyptian phosphate project, which aims at maximizing the value added of Egyptian phosphate through Phosphoric acid production complex. The project is set to be implemented in 30 months. It is located at Abu Tartour, Alwadi Aljadid, with a capacity of 500,000 metric tons per year of phosphorus pentoxide (MTPY P2O5).

In May 2023, President Abdel Fattah El Sisi issued directives to efficiently use Egypt's mineral wealth and raw materials. El Sisi highlighted the importance of adopting the most advanced methods of governance and modern management, as well as advanced technologies to maximize the added value of Egypt's mineral wealth.

Moreover, Egypt has high reserves of Tantalum. This is a precious ore that is used in several sophisticated industries, including aircraft components, laptops and mobile phones, and microelectronic circuits and electronics. Tantalum is further used in the process of manufacturing a number of medical components including artificial joints and prosthetics.

Egypt is considered a significant gold producer as Egypt's gold production reached about 14 tons in 2022. Egypt was ranked as the 27th in terms of gold mining production in 2022, according to GlobalData.



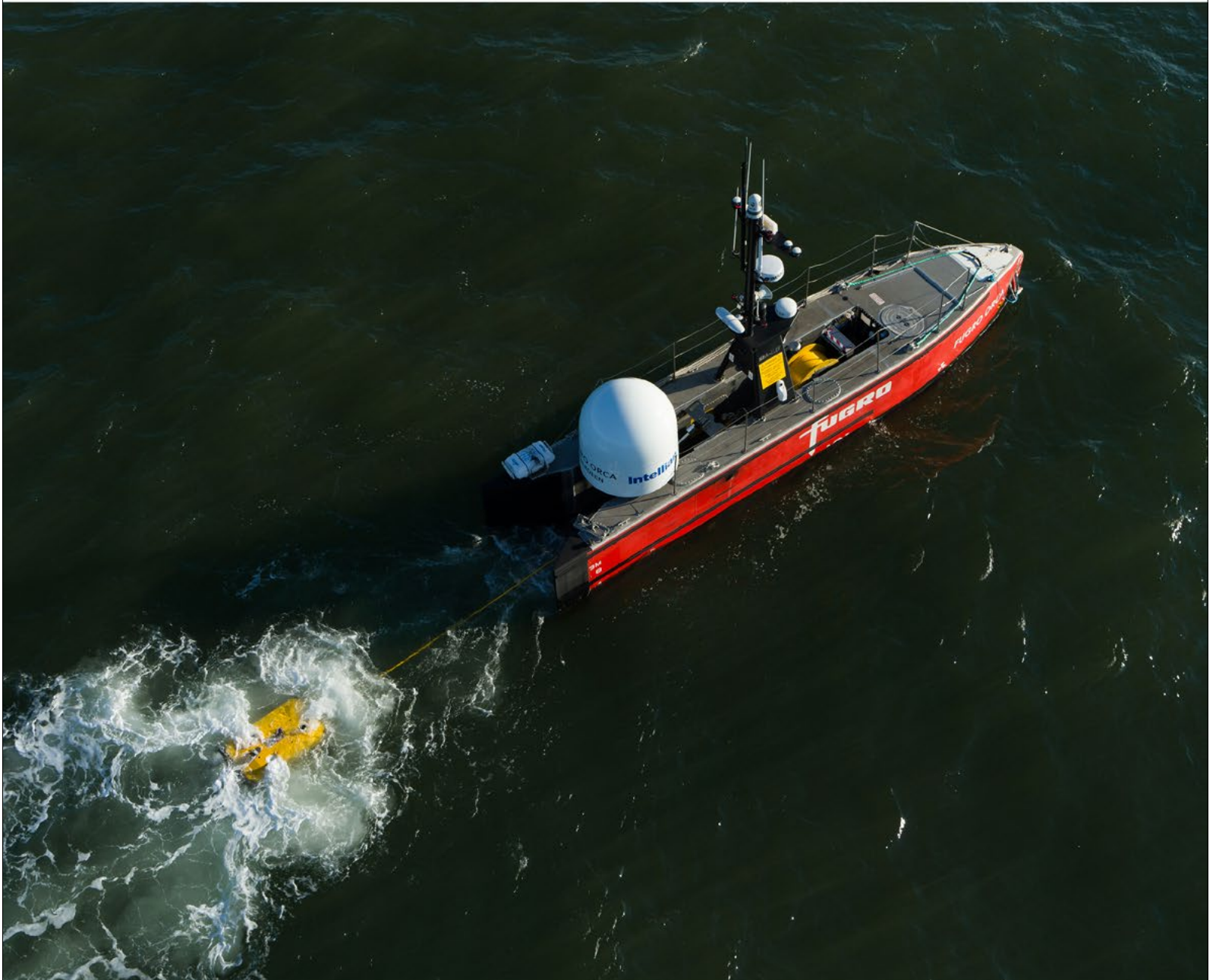
In January 2022, El Molla announced that implementation of the first approved gold refinery in Egypt in the Marsa Alam area in the Eastern Desert is underway to maximize the added value of gold resources.

Egypt's mining sector adopts a strategic plan for the year 2030 to have \$0.7 billion in Foreign direct investment (FDI), \$5.2 billion exports, \$7.8 billion in the Gross Domestic Product (GDP), and \$0.3 billion fiscal revenue. According to the plan, the year 2040 should witness \$0.8 billion achieved in FDI, \$9.8 billion in exports, \$20.2 billion in GDP, and \$0.4 billion in fiscal revenues, according to the MoPMR's report entitled 'Egypt as an Idealistic Mining Destination June 2023'.

With the ambitious strategic plan, Egypt can use its promising ores to boost the added value of many industries. The country will also be able to achieve distinguished economic results in the years to come.

Egypt has succeeded in attracting international investments and various expertise through the launch of a flexible strategy to maximize the use of its mineral resources.

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SUSTAINABLE MINING: THE EPITOME OF A GREENER FUTURE

BY RANA AL KADY

Sustainable Mining is one of the more underrated areas in the mineral resources field that could fulfill its operations in a more sustainable manner. But what exactly is sustainable mining? Sustainable mining typically entails minimizing the detrimental effects that mining activities have on the planet, society, and administration. In order to fulfill society's demand for resources presently while also guaranteeing that the demands of generations to come may be addressed, sustainable miners engage in good environmental management.

General Overview

A great deal of primary materials and resources that propel our civilization ahead, spark economic expansion, and spur growth in technology are provided by mines. But this pressing desire of mine must be tempered with a comprehensive sense of social and environmental accountability. Enhancing the environment's health and social effect for sustainable mining firms is a smart commercial practice as well as a matter of morality and legal adherence.

Industry expert Dr. Mo'nes Mamdouh, Technical Director of ARCHEAN [Mining and Petroleum], weighed in by stating that "Egypt has a long history of mining, dating back to ancient times when gold, copper, and other precious metals were extracted from the earth. Today, mining remains an important industry in Egypt, with significant deposits of gold, iron ore, phosphate, and other minerals."

Innovations in Mining

Furthermore, innovative technologies are assisting miners in minimizing their negative environmental impact while also lowering costs of production and enhancing profitability. These innovations range from cleaner sources of energy to better water and air monitoring abilities to improved tailings reuse. The model for a sustainable mining sector in the years to come is a good, proactive management plan that is currently investing in these innovations as a key pillar of the whole company. With that, Mamdouh mentioned that "in addition to individual mining companies, the Egyptian government has also taken steps to promote sustainable mining practices. In 2020, for example, the government established a new mining law that includes provisions for environmental protection, community engagement, and sustainable resource management."

For instance, in the physical form of stones and scrap metal, mining generates more than

100 billion tonnes of waste annually across the globe. Via toxic dust and petrol emissions and water leakage, if taken care of incorrectly, this can represent a serious risk to the environment and to society. Highly efficient, appropriate scrap disposal calls for a coordinated management approach that combines the highest standards of safety during operation and oversight with the use of contemporary storage structures and dam interiors. Outstanding sustainable miners may go much farther under the appropriate circumstances. Thus, to retrieve the minerals and traces of elements left over by earlier extraction methods and skills, these miners aggressively re-treat scrap metal. Substantial financial benefits may be produced from mining waste with a small ecological impact.

Moreover, the everyday activities of any mine involve a sizable amount of water for everything from controlling dust to slurry transportation and storage to processing minerals. In spite of this, mining corporations continue to be forced to cut back on their use of freshwater and bulk water due to growing worries about water shortages and ongoing water security. As a result, miners may greatly improve the efficiency of their water cycle by continually recycling water used for processing in an enclosed circuit, striving for minimal liquid discharge, by applying advanced water treatment methods, from natural processes to desalinization, evaporation, and crystallisation. This not only lowers the amount of freshwater needed by a mine, but it may also cut per-kilolitre water prices and increase on-site accessibility to this vital commodity in the case of delays in bulk supplies.

Additionally, mining businesses may transition to more environmentally friendly machinery if they wish to lessen their influence on the environment. For example, mining equipment powered by batteries may frequently take the place of diesel-powered machinery. The quantity of CO₂ produced by mining activities



may be greatly reduced by switching, if practicable, from diesel to electrically powered engines.

In broad terms, the mining sector has begun shifting towards electric equipment, with an increasing number of mining producers providing environmentally friendly options. Companies looking to become more resource-efficient might also update to more sophisticated, long-lasting equipment, which reduces machine turnover and lowers resource requirements. Enhancing longevity can also cut down on the environmental impact of damaged equipment, such as the rubber or plastic that is shed when a piece of machinery malfunctions.

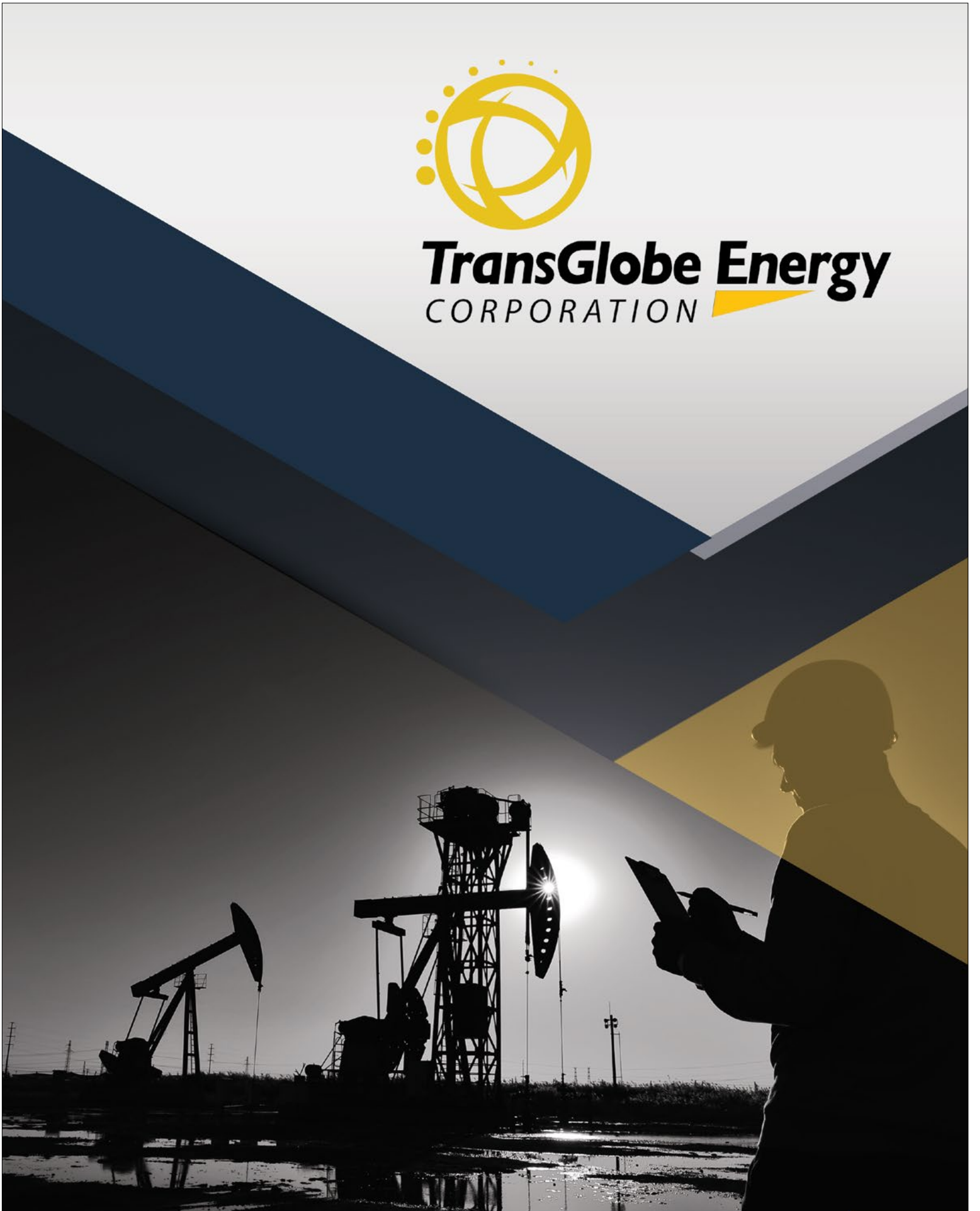
In conclusion, the mining business is still not sustainably profitable in numerous locations, notwithstanding recent advancements and new technologies. As it happens, the industry may employ a number of technologies and methods that are both in use and being developed to lessen its environmental effect.

Innovative technologies are assisting miners in minimizing their negative environmental impact while also lowering costs of production and enhancing profitability.



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INNOVATION RESHAPES THE MINING SECTOR'S FUTURE

BY FATMA AHMED

The mining sector is one of the most vital industries which always seeks development. It usually faces some challenges for being risky, having an environmental impact, and costing a lot. However, digital technology came to the rescue to help miners meet the growing demand for minerals, improve efficiency, productivity, and quality as well as achieve sustainability goals. Let's explore some of the latest technologies that reshape the mining sector and create new opportunities for growth and development.

Artificial Intelligence (AI)

AI has become an effective tool for enhancing the mining sector, especially in exploration and extraction activities. There are various approaches for AI applications in the mining sector. For instance, the autonomous vehicles/trucks technique is one efficient example of it. Autonomous trucks are run without drivers, and they can sense the environment and navigate through the mine without human intervention, according to Global Road Technology. These trucks ensure safe mining operation without hazards and reduce possible errors as it is equipped with software that can make a suitable decision. It also can increase production with low costs.

Another application for AI is Robotics, which can perform a wide range of mining operations as well as ore sampling, according to Mining Digital. Robotics have limitless potential, either autonomously or with minimal human intervention. They are used in drilling, blasting, loading, hauling, and unsafe environments. Mining technology defined several types of robots being used in the industry, such as Robotic excavators, Radar-guided navigation, Mining conveyors, Mining Inspection robots, and Tunnel safety devices.

Moreover, automated drones are also considered one of the beneficial AI applications in mining. They are unmanned aerial vehicles (UAVs) that do not need a human pilot. According to AngloAmerican, UAVs function similarly to a helicopter but at a lower cost. In addition, it can perform operational tasks and improve the industry by providing some services, including safety and surveillance in hazardous areas, asset management, time-lapse technology, site mapping, and infrastructure inspection.

Spatial Data Visualization

Spatial data represents a position on the surface of the earth through numerical values in a geographic coordinate system, an article released by Anglo American stated. So Spatial Data Visualization is the process of displaying these data graphically or interactively, such as maps, charts, graphs, or images. This technology makes the data clearer and more detailed, allowing miners to design new mines more efficiently and gain insights into the mine system at lower costs and lower impacts on the environment.

There are three approaches to Spatial Data Visualization. Three-dimensional (3D) Modelling is one of these approaches, which "creates a life-like impression with depth perception that allows the human brain to understand and relate to complex interrelated issues," the article explained.

Additionally, Virtual Reality (VR) is another example of software that provides real-life data and includes the miners in a simulated working environment or a mine so that they can expect and anticipate what is to occur in real world/environment. The third approach is Augmented Reality (AR), which integrates digital visualization into the real-world. These technologies can effectively provide the miners with valuable insights, reduce costs and keep the miners safe.

Electrification

Electrification technology is being used in the industry, adapting to the global target to reduce CO2 emissions and dependency on fossil fuels. It would also increase the efficiency and safety measurements. According to an article by AZO Mining, electrification makes exploration and drilling



easier as there is no need to use heavy engines and machinery that depend on diesel as well as diesel-powered vehicles. Additionally, electrification could be applied to the fleet of vehicles, mining gear, and haulage trucks, which facilitate the operation without the need to drill large tunnels. Hence, electrification saves costs and provides safer and cleaner working environments.

Internet of Things

IoT is the network of physical devices that can collect and transmit data over the internet. It can optimize mining operations by providing real-time information on various parameters such as equipment performance, ore quality, environmental conditions, and worker health. IoT can also enable predictive maintenance, which can reduce downtime and repair costs by detecting potential failures before they occur. Sensors and wearables are efficient applications for the IOT in mining.

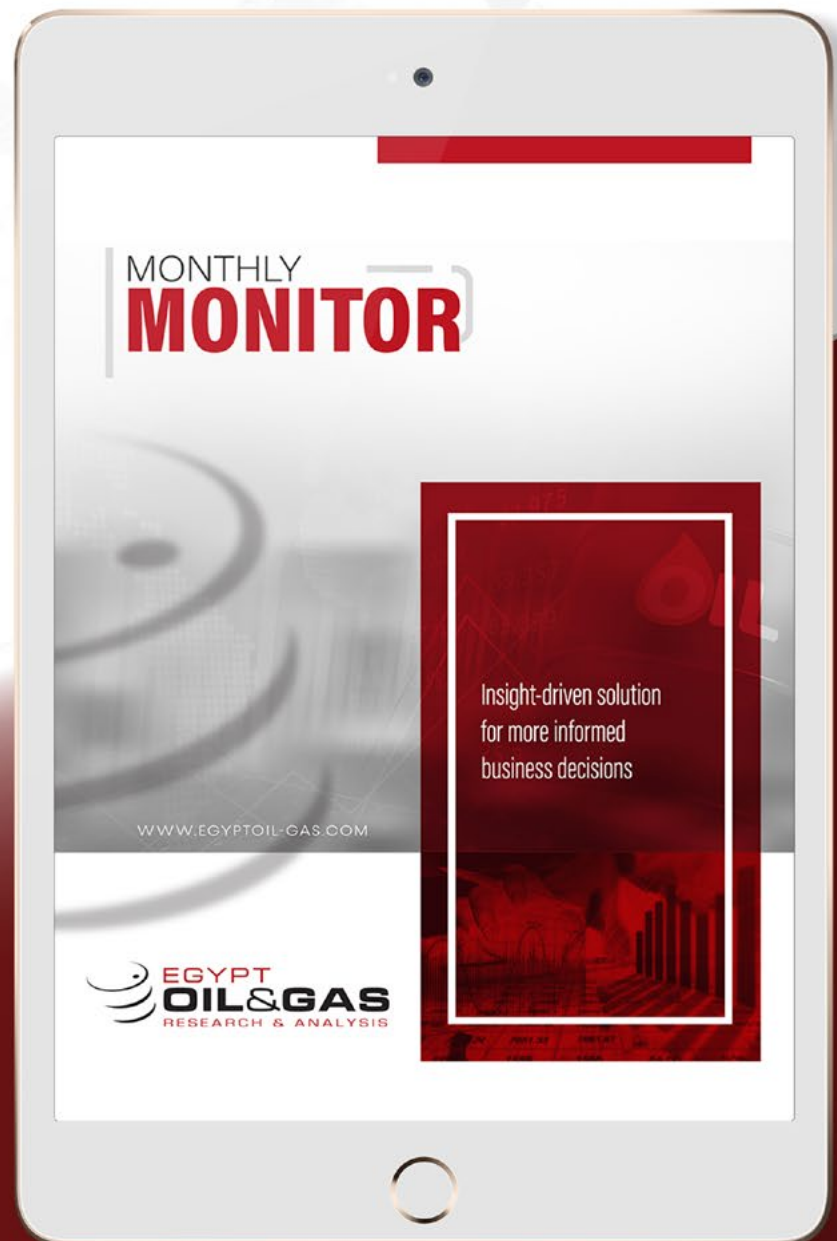
Digital technology came to the rescue to help miners meet the growing demand for minerals, improve efficiency, productivity, and quality as well as achieve sustainability goals.



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EGYPT BECOMES MAIN ATTRACTION OF THIS ERA'S GOLD RUSH

BY NADER RAMADAN

When currency drops and the economy stops, gold is the financial sanctuary that many can reliably turn to, especially when markets are recovering from the reverberations of the Russia-Ukraine war. Long proven as both stable and profitable, gold reserves have been abundant in Egypt since ancient times, but Egypt's economic rebirth within the modern world offers a new place for this vital, valuable, and rare metal.

It could, in fact, be a lifesaver from an economic perspective since navigating the country out of the high tides of challenging economic conditions requires creating new lucrative incentives for investors and experts point to gold as the main tool to save assets from losing any significant value. Reviews indicate that gold is one of the key attractions for investors for the foreseeable future, especially when the world economy is plagued with inflation. "As inflation continues to run high, this might be an excellent time to increase allocations to gold," said Frank Trotter, president at Battle Bank in a news article by CBS News titled "Why You Should Invest in Gold". He added, "Over time, analysts have shown that gold has been a good hedge against inflation."

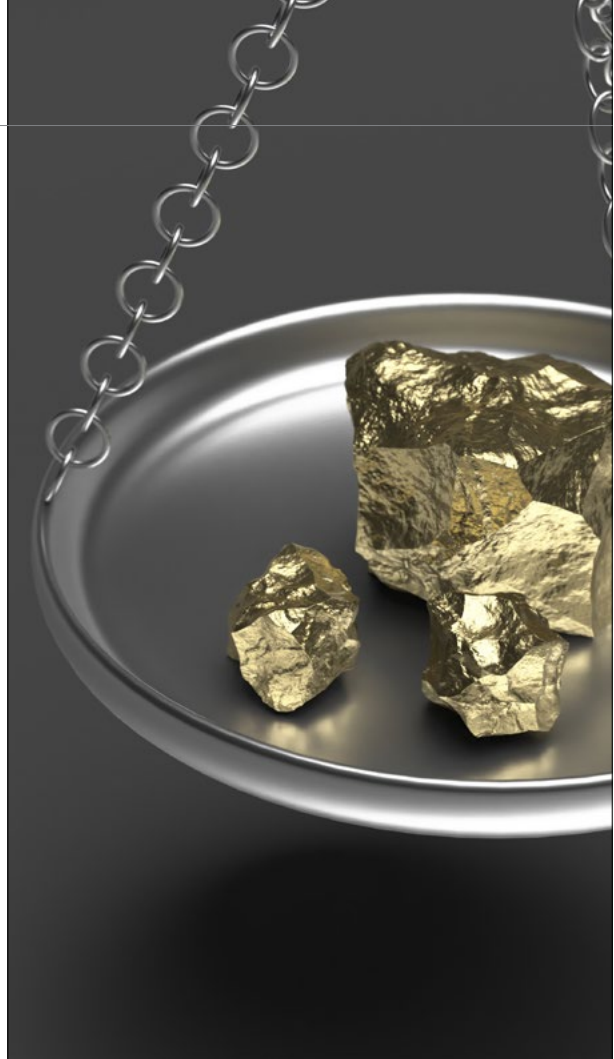
Adopting strategies to effectively boost sources of income, gold exploration and production has been one of the priorities of the Egyptian government to boost production. The outcome of these efforts is that production for Egyptian gold has already been proven impressive with a recent report indicating that the Sukari gold mine, one of the country's main mines produced 5.2 million ounces since production began until the end of February 2023. This entails that the gold market in Egypt managed to raise estimated revenues of \$7.5 billion.

Though these revenues may be impressive, this is just the beginning with the Egyptian government which seeks to invest in the long-term potential of the gold industry as its economic reforms begin to take shape. Now, Egyptian government seeks to take things to the next level with The Gold Hub, a project that seeks to support the gold value chain in Egypt through the establishment of an accredited gold refinery within the country's Eastern Desert.

Considered by many in the upper echelons of government to make Egypt the key investment location in the Middle East, the Gold Hub will consist of an industrial area, a vocational area, and a residential area, having a total area of 200,000 m². The industrial area will be fully equipped with a refinery with an annual capacity of 50-100 tons. There is an additional laboratory facility for all the relevant refinery and exploration activities. In seeking to build human cadres as well the vocational area will also include a vocational training institute that will ensure that the employees are working with internationally accepted standards of professionalism and diligence. This hub will also have a residential area that will generously provide quality living spaces and other facilities that employees may need. Hence, the Gold Hub is a complete package that creates jobs, enhances human cadres and ultimately attracts investments by offering the global market a unique and stable asset.

The Gold Hub is within the framework of an innovative strategy of the mining resources sector development program to push the industry's contribution to the gross domestic product (GDP) up with a goal of 5% by the year 2030.

This project is not only catering to the interests of investors but the benefits are also expected to trickle down in resolving unemployment since The Gold Hub has the potential to offer many direct and indirect job opportunities. In addition, it creates a variety of lucrative opportunities for companies that work within the mining exploration field by providing them with all the essentials and necessities in mining services investments. The Gold Hub is one of the core pillars of a comprehensive strategy to boost foreign direct investments (FDI).

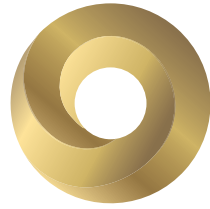


All the ingredients for Egypt to become the main attraction of gold investors around the world are there. The secret behind making this a success is by providing the right environments for investors to build confidence in the market while providing the facilities and infrastructure to ensure that gold reserves in Egypt are easily accessible by mining companies. The government has already taken huge leaps already with the Shalateen Mineral Resources Company (SMRC) recently announcing a bid round in many other areas including Fatiri, Umm Ud, Atud, Barramiya, and Hamata. This is in addition to many other bid rounds that have been announced in the past. Though the country may be enduring rough tides, there's no doubt that there will be long-term benefits for these efforts.

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EGYPT INCENTIVIZING GREEN HYDROGEN PROJECTS THROUGH A NEW LAW TO BE RATIFIED SOON

BY HADER HELAL, PARTNER, HELAL & FRASER INTERNATIONAL¹

Egypt's role as a host for COP27 has been a catalyst for the government's decision to issue a new bill for a law offering incentives for projects involving green hydrogen and its derivatives. The law shall aim to accelerate the deployment of such projects in Egypt, with the country relying on its status as one of the world's leading locations for green hydrogen production.

The London-based Energy Industries Council's latest Africa Projects and Markets Update has identified \$200 billion of energy projects in the pipeline for Egypt looking out to 2030 of which \$70 billion are marked as "energy transition" contracts. Egypt is clearly on the road to a global top 10 position in the green hydrogen production league.

Paving the Way to Becoming a Leading Energy Hub

On May 17, 2023, the Egyptian Cabinet, presided by Prime Minister Mostafa Madbouly, approved a new bill regarding incentives for projects involving green hydrogen and its derivatives.

On June 14, 2023, the Minister of Petroleum and Mineral Resources Tarek El Molla, in a panel held in London, discussed the energy transition and use of green hydrogen, further emphasizing the keenness of the Egyptian government on soon ratifying the new law. The minister noted that the government is finalizing the national green hydrogen production strategy while taking into account a governance structure compatible with the best international practices in order to make it economically viable for investors.

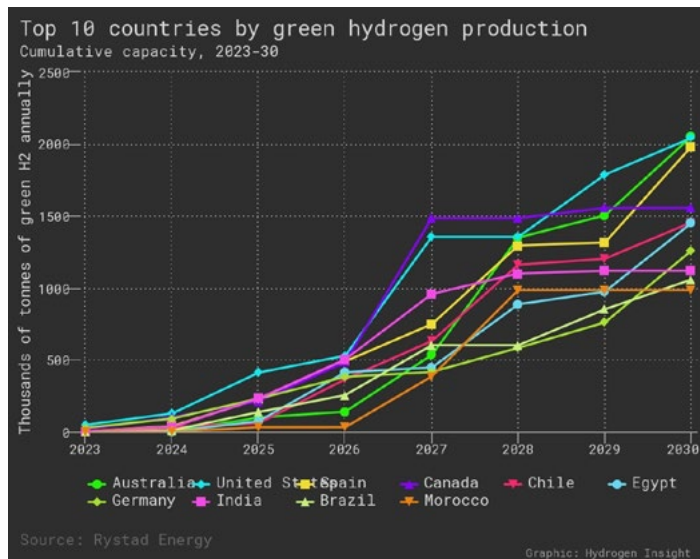
The Purpose of the Law:

The legislation is intended to encourage environmentally friendly initiatives and applies to projects involved in the production of green hydrogen and its derivatives, provided that agreements are concluded within five years from the date of the law coming into force.

Scope of the Law:

The projects which shall benefit from the incentives under the law are as follows:

- Projects aiming at the production of green hydrogen and its derivatives,



- Water desalination facilities that dedicate a portion of their output to green hydrogen and its derivatives,
- Renewable energy facilities that allocate at least 95% of their output to feed green hydrogen production, derivatives production and water desalination facilities,
- Projects targeting the distribution, storage, and transportation of green hydrogen and its derivatives produced inside Egypt,
- Projects that manufacture the necessary components and supplies used in green hydrogen production and,
- Future expansions to ongoing projects, where "expansion" is defined as any improvement that boosts green hydrogen output.

Requirements:

In order to be eligible for the incentives outlined in the law, the following requirements should be satisfied:

- The maximum duration of the project cannot exceed a period of fifty (50) years.
- The project should commence its commercial operations within a period of five (5) years from the date of the conclusion of the agreements.
- The project or its expansions should rely on foreign investment of at least 70% of the investment cost for financing its operations and which should be transferred from outside Egypt.
- The projects should source at least 20% of their production inputs from domestically

produced components to the extent that it is available in Egypt.

- The project should contribute to the localization and the transfer of modern and advanced technology to Egypt.
- The project shall be committed to developing and implementing training programs for Egyptian workers.
- Corporate social responsibility programs should be developed and implemented in the areas where the projects are taking place.

Incentives:

The projects meeting the above mentioned requirements should benefit from certain financial and non-financial incentives. These incentives will also apply to expansion contracts that are signed within seven years of the project's start of operations commercially, as follows:

- A tax credit of 33-55% on revenues made from the production of green hydrogen and its derivatives
- (The Cabinet shall issue the necessary decrees to regulate the criteria and implementation thereof.)
- Exemption from value-added tax (VAT) on equipment, machines, vehicles (not including passenger cars) and materials purchased and which are necessary for the project.
- Exports from green hydrogen projects and derivatives are subject to VAT at a rate of 0%
- A waiver on taxes and fees relating to company and land registration, as well as those due on setting up credit facilities and mortgages.
- The projects shall be entitled to obtain the Golden License for the project under the Investment Law no 72/2017 and which shall include obtaining building permits or any licenses pertaining to the operation or the management of the project in a single step.
- Freely importing and exporting equipment, machinery, raw materials, vehicles and spare parts necessary for the project without the need to be registered at the Importers/ Exporters Register.

Conclusion:

Egypt has witnessed major challenges in recent years. However, Egypt's strategic location and natural resources give it an advantage. In addition, with such major legislative reforms promoting and supporting FDIs, we are optimistic about the country's ability to overcome the current economic turbulence.

Note:

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Helal & Fraser's focus is on ventures which combine advanced technology and know-how with opportunities in the Egypt, North Africa and Mediterranean region including new business establishments, joint ventures, acquisitions and divestments.



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TOWARDS NEW GLOBAL FINANCING PACT

BY IHAB SHAARAWY

In a message to leaders participating in the New Global Financing Pact Summit, Egyptian President Abdel Fattah El-Sisi urged rich and developed countries, which possess the technology and knowledge, to shoulder the responsibility towards others, which do not possess this technology.

The President's remarks matched a strategy of action declared by French President Emmanuel Macron which relies on leveraging all sources of finance, development assistance, and private investments.

Macron hosted the summit on June 22-23 in Paris "to rethink the global financial architecture" and to mobilize financial support for developing and low-income countries (DLICs), which are in distress, facing the challenges posed by excessive debt, climate change, and poverty.

During the summit, around 40 leaders, many from the Global South, were given the chance to debate changes to multilateral financial institutions in the face of climate change and other development challenges.

During his participation, President El-Sisi has shown determination to focus on various issues of prime concern to the developing nations, pertaining to bolstering the international efforts to facilitate their access to the required financial flows amid the challenges they suffer as a result of the escalating global crises.

The Egyptian President also referred to the potential positive impact that a fulfilled \$100-billion climate finance pledge by developed nations to developing nations could have had on climate change results, reiterating the necessity of offering the developing

states active support to help them achieve the 2030 Sustainable Development Goals (SDGs).

The Summit gave the floor to several vulnerable countries to showcase their cause and put more pressure on international financial institutions, including World Bank and International Monetary Fund (IMF) to boost climate change finance. Leaders insisted that the World Bank and other multilateral financial institutions needed a new vision, especially in light of the war in Ukraine, the climate crisis, and declining progress.

They were joined in their attack on financial institutions by the United Nations Secretary-General Antonio Guterres, who indicated that "It is clear that the international financial architecture has failed in its mission to provide a global safety net for developing countries." The UN Chief even described the current financial system as "outdated, dysfunctional, and unjust."

In response to the debate, a new vision was revealed to squeeze more financing from multilateral lenders for the countries that need it most.

There was some good news for those needy countries as World Bank said it would ease financing for countries hit by natural disasters, while the IMF announced it had hit its target of making \$100 billion in special drawing rights available for vulnerable nations.

US Treasury Secretary Janet Yellen said that proposed reforms to the lending practices of international development banks could unlock \$200bn in new funds over the next decade.

For his part, Macron called for a "public finance shock" and stressed the need to address the world's challenges without having to choose between reducing poverty and protecting the planet.

Barbados Prime Minister Mia Mottley advocated for an absolute transformation of the global financial system to help developing countries invest in clean energy and boost climate resilience, while Guterres urged a \$500 billion stimulus per year for sustainable development and climate action.

Many observers think that the summit has failed to bridge the gap between the countries of the global North and South or even to deliver significant headline announcements. However, other observers see that the real value of the summit was offering a platform for leaders from the Global South to articulate their desires for reform. It also presented a roadmap requiring specific actions by specific dates. Additionally, the summit prepared the floor for more detailed discussions during important events later in the year, including the IMF and World Bank annual meetings, a G20 meeting in September in India, and the COP28 climate talks in Dubai.

A statement by the Elysee described the summit as a historic event on international solidarity, defining its prime goal as a "world where poverty is eliminated and the planet preserved; a world where vulnerable countries are better equipped to face the crises from climate change and conflicts."

The statement indicated that this goal can be achieved by leveraging all sources of finance, including official development assistance, domestic resources, and private investment.

Engaging the private sector was one of the new ideas that was deemed necessary for meeting global challenges, which will crucially depend on the scaling up of private capital flows to transform emerging and developing economies, for a net-zero and nature-positive world and to reduce inequalities more efficiently.

However, one of the most important results of the summit is this agreement among participants that no country should have to choose between fighting poverty and fighting for the planet.

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GREEN HYDROGEN PAVES THE WAY FOR ENERGY SUSTAINABILITY IN EGYPT

Green hydrogen is a lightweight and highly reactive global fuel, produced through a chemical process known as electrolysis. The electric current is used to separate hydrogen from oxygen in water. It is called "green" because the sources of energy used in the electrolysis process are renewable, sustainable, green, clean, and environmentally friendly, and do not emit carbon dioxide into the atmosphere.

The type and color of hydrogen depend on the process of extraction, production, processing, and the type of energy sources used.

Currently, hydrogen is considered the future of green energy, where it can be used as an alternative fuel to fossil fuels in cars, trucks, airplanes, and in the production of electricity using fuel cells. Hydrogen is also an important raw material in chemical, space, defense, and other industries.

When a kilogram of hydrogen is burned, it produces three times the energy generated by burning a kilogram of natural gas.

The cost of producing one kilogram of gray hydrogen using natural gas is around \$1, while the cost of blue hydrogen is \$2 per kilogram. Currently, the cost of producing one kilogram of green hydrogen is \$5, but it is expected to decrease to \$1.50 dollars per kilogram by 2030 and may reach just \$1 by 2050. The global demand for green hydrogen is projected to reach around 800 million tons by 2050 and it is expected that investments in this field will reach \$600 billion.

Today around 120 million tons of hydrogen are produced annually worldwide, and manufacturers rely on fossil gas and coal to produce 95% of the available quantities of hydrogen. It is expected that investments in this field will reach \$600 billion by 2050. Additionally, green hydrogen is expected to contribute significantly to reducing carbon emissions that pollute the environment, which is one of the causes of climate change. The whole world is affected by the harmful effects of climate change and efforts to preserve the planet were discussed at the COP26 conference in Geneva and also at COP27 held in Sharm El-Sheikh, which witnessed the active and productive participation of President Abdel Fattah El Sisi.

Moreover, Egypt has the advantage of having renewable energy sources such as wind and solar power, as well as access to water in the Red Sea and the Mediterranean.

Egypt has vast windy desert areas spanning around 8,000 kilometers that can generate impressive amounts of electricity. This can be utilized to produce green hydrogen, making Egypt one of the world's leading producers. The Ministry of Electricity has signed 16 memoranda of understanding (MoUs) to initiate discussions and studies for the production of green hydrogen in Egypt.

Green hydrogen is the future for Egypt and we could say that it is the 'green gold' for sustainable investments in Egypt. The future of Egypt lies in green hydrogen.

Sabry El Sharkawy

General Manager & Managing Director of Wastany Oil Company

WASTE IN THE WORLD: FROM CRISIS TO EXPLOITED WEALTH

The global energy crisis and energy inflation require countries all over the world to study and deal with new methods of obtaining renewable and clean energy. This is in addition to the volume and levels of carbon emissions that the world plans to reduce to prevent global warming. Emissions significantly declined in 2020, which witnessed the start of the corona pandemic, but then harmful emissions started rising again over the past year, precisely before the Russian-Ukrainian war. According to the statistical review of bp for the year 2021, which was issued in the middle of this year, emissions of the energy sector globally rose again by about 5.9% over the past year, to record about 33.88 billion tons of carbon dioxide, compared to a decrease of about 6%.

Currently, an important and profitable industry is booming worldwide, namely the conversion of waste into energy using electricity, heat, biofuel or synthetic fuel production technologies. This conversion does not necessarily imply incineration, since the technology selection process depends heavily on the mix of these wastes. For example, the higher percentage of organic matter and the percentage of moisture in the waste, the lower the incineration efficiency. These newer technologies fall into two categories: thermal and non-thermal, with most burning directly to generate electricity or to produce combustible fuels such as methane, methanol, ethanol, hydrogen and synthetic fuels. Global confidence in these advanced processes is growing as they deliver safe and proven renewable energy while also meeting stringent environmental standards.

From here, we can say that the process of converting waste into electricity represents a global trend that combines meeting the needs for clean energy and optimal disposal of waste, which pushes towards the implementation of the concept of sustainable development. This is due to the increasing demand for electricity, accompanied by the exponential increase in urban populations, and the global trend that aims to reduce carbon emissions in order to combat climate change.

Although Egypt's share of the total volume of emissions does not exceed 0.6%, the Egyptian state is taking serious and rapid steps towards the transition to clean energy. Egypt has in many respects excelled in converting waste into electric energy while benefiting from the economic, environmental, social and tourism returns of this important strategic industry.

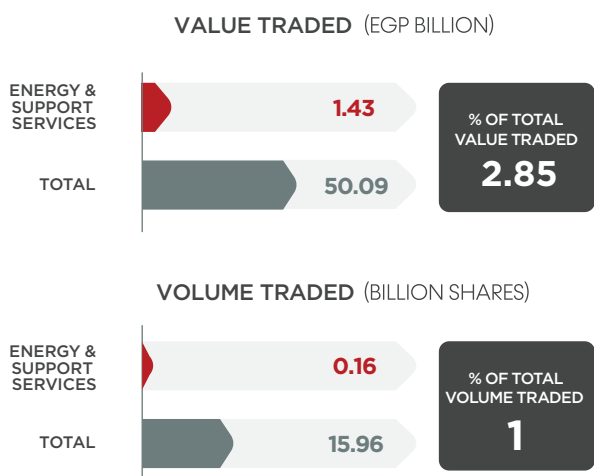
In summary, projects using energy from waste achieve several economic and environmental goals, in addition to serving the community, and there are few projects that achieve such goals together. Therefore, producing energy from waste is one of the most important solutions to get rid of environmental pollution and reduce emissions, in addition to producing energy locally. Finally, waste in Egypt in its current form does not constitute a problem or a burden, but it is a huge asset that the Egyptian state deals with using the utmost precision, as the waste management process was managed in the past in a random and unsafe manner.

Dr. Ahmed Sultan

Vice-Chairman Energy Committee Cairo Engineers Syndicate



01 VALUE AND VOLUME OF SHARES TRADED FOR ENERGY & SUPPORT SERVICES SECTOR IN MAY 2023



02 PERFORMANCE OF PETROLEUM COMPANIES IN THE EGYPTIAN EXCHANGE IN MAY 2023



NATIONAL DRILLING

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
USD	4.69	-



ALEXANDRIA MINERAL OILS CO.

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	8.36	↑ 32.28



EGYPT GAS

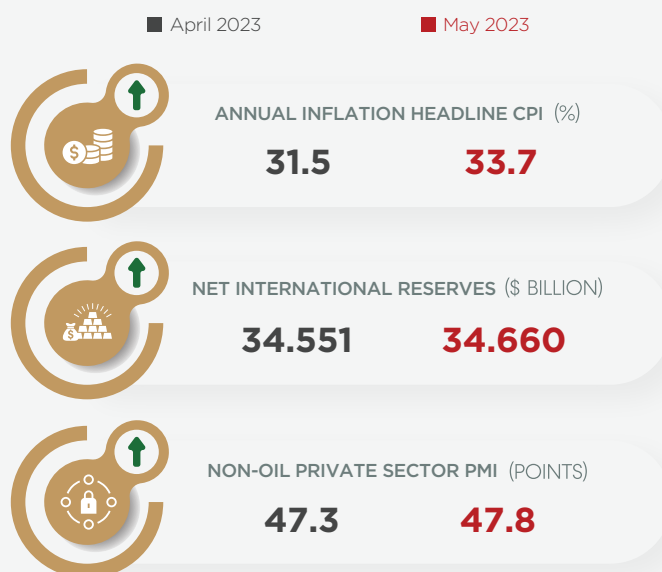
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	32.71	↓ 12.07



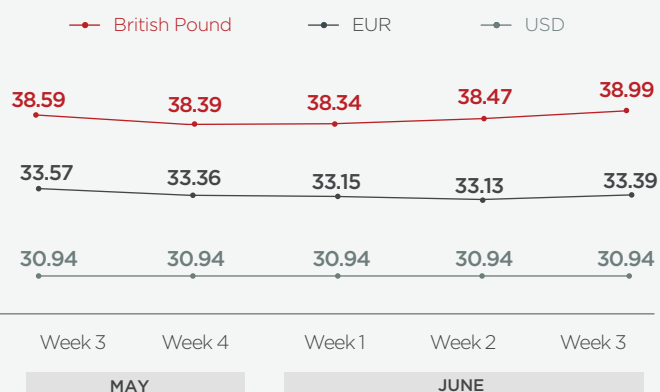
SIDI KERIR PETROCHEMICALS

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	20.81	↑ 58.61

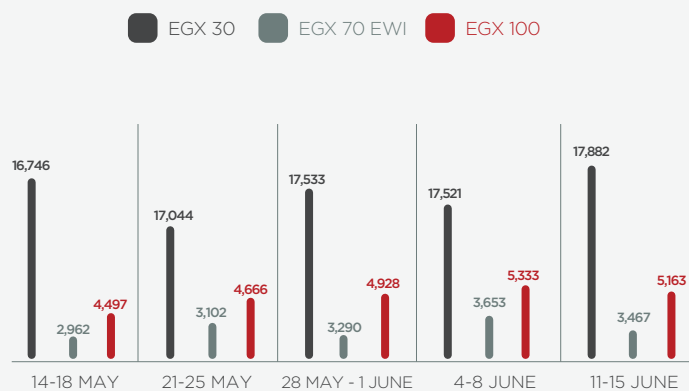
03 MAIN ECONOMIC INDICATORS



04 EXCHANGE RATES



05 CAPITAL MARKET INDICATORS

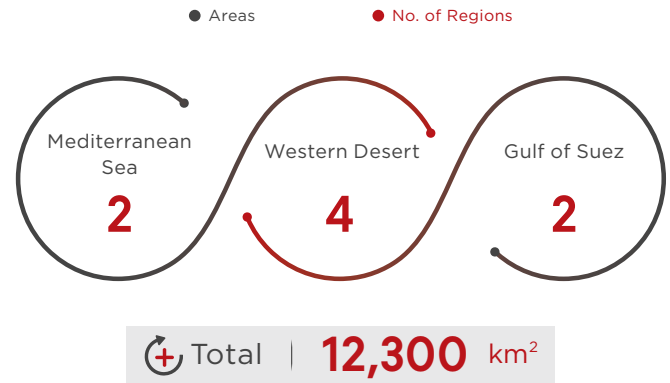


Source of Raw Data: CBE, CAPMAS, Egyptian Exchange, PMI by S&P Global

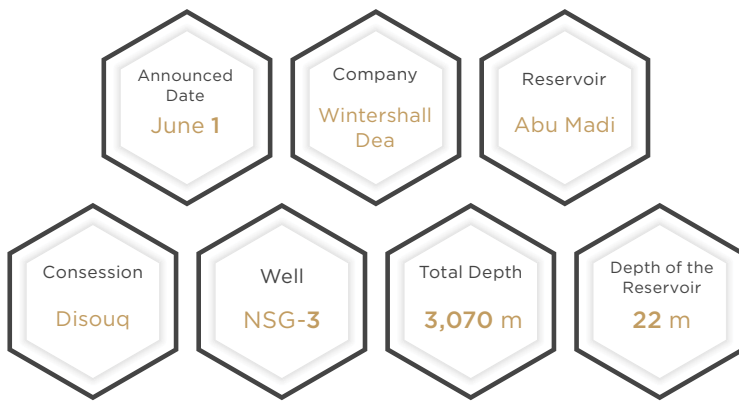
01 EGYPT SIGNED SEVERAL PETROLEUM AGREEMENTS OVER THE PAST NINE YEARS



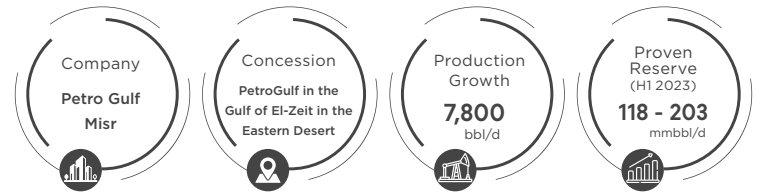
02 EXPANDING OIL & GAS EXPLORATIONS IN EIGHT AREAS IN 2022



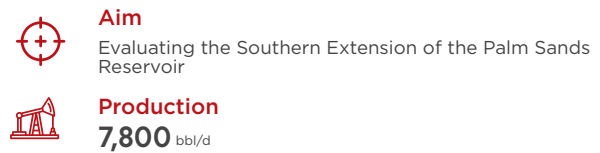
03 NEW NATURAL GAS DISCOVERY IN THE ONSHORE NILE DELTA



04 INAUGURATING NEW EXPANSIONS OF THE NORTH GEISUM FIELD*



TWO DRILLED APPRAISAL WELLS THROUGH THE DELTA OFFSHORE PLATFORM



*Announced on May 30

05 EGYPT, JORDAN SIGN TWO NATURAL GAS COOPERATION AGREEMENTS

1st EGAS & NEPCO

Purpose
Reducing the operational costs of LNG storage and Gasification Facilities

Through
The joint use of the floating storage regasification unit (FSRU) in the port of Sheikh Sabah Al-Ahmad Al-Sabah



2nd EGAS & Fajr Egypt

Purpose
Supply natural gas from Egypt to Jordan

Through
A gas pipeline linking the two countries

06 INTERNATIONAL OIL PRICES

	BRENT PRICES (\$/BBL)	OPEC BASKET PRICES (\$/BBL)	NATURAL GAS PRICES (\$/MMBTU)
12 April	87.33	86.65	2.09
26 April	77.69	81.12	2.12
03 May	72.33	73.79	2.17
24 May	78.36	77.49	2.40
02 June	76.13	73.33	2.17
15 June	75.67	74.2	2.53



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- Advancements in energy-efficient technologies for extraction and refining processes
- Implementing renewable energy solutions in upstream operations
- Gas Flaring Reduction: Best Practices

2. Water Conservation and Management

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ABSTRACT CONTENT

- Description of the proposed paper summarizing the scope of business upon which the paper will be based.

ABSTRACT CONDITIONS

- Must be technically factual and includes lessons learned
- Should avoid commercialization
- Must be written in English
- Should be submitted in electronic format and be maximum of 500 words

ABSTRACTS DEADLINES

- **August 1, 2023** – Abstract Submission
- **August 15, 2023** – Notification of Acceptance
- **September 15, 2023** – Presentation Submission

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