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November 2023

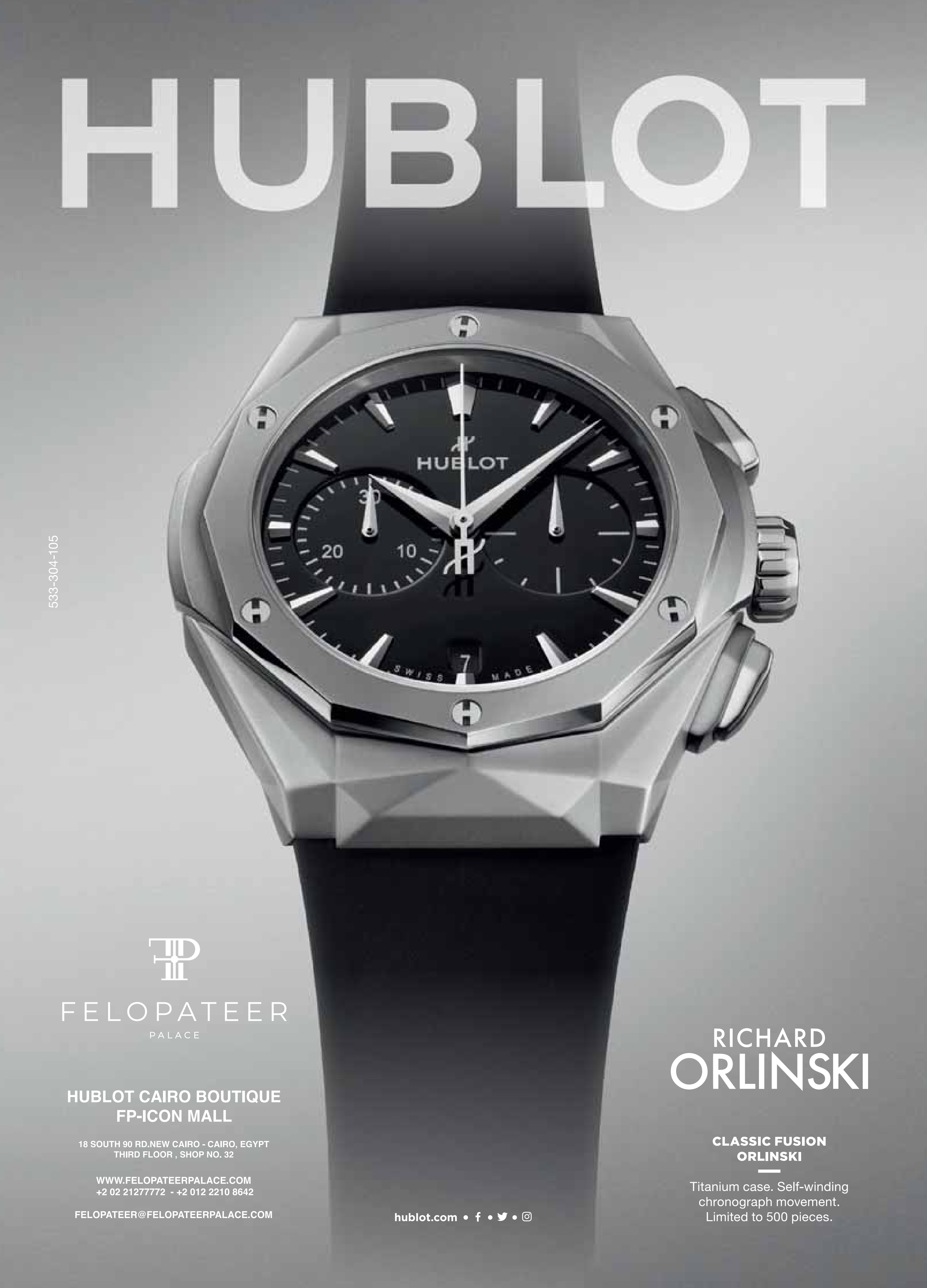
NOT FOR SALE

Business monthly

RESTORE THE PLANET: A CALL FOR RECONCILIATION

COP28

Will decisions approved in Egypt's COP27 last year turn to implementable commitments in COP28?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American Impact

Cover Story

Regional Focus

In Depth

Market Watch

The Newsroom

The Chamber

Media Lite

Government Update

ROAD TO COP28

At the 28th U.N. Conference of the Parties in Dubai, all eyes will be on what attendees agree to at the end of the two-week event. It should be big. The past two iterations saw countries pledge to keep global warming from crossing the 1.5-degree Celcius mark in COP26. At COP27, wealthy countries agreed to help less fortunate ones pay for damages caused by climate.

A major topic for discussion will be climate adaptation projects and how new technologies and innovations might create new fuels that could replace fossil fuels. In this month's issue, we highlight two of them particularly relevant for Egypt: hydrogen fuel and renewable natural gas.

We also talk about climate adaptation efforts and how the next era will be significantly different from any that preceded it.

To achieve such a transformation, low and middle-income countries need money. Lots of it. In this issue, we look at the latest updates of the Loss and Damage fund that was approved at COP27, but has yet to become operational.

We also look at how G20 nations could support Africa's green transition after the group approved the African Union's permanent membership.

We also are highlighting how the United States is building its own hydrogen-powered economy and the latest updates from Waleid Gamal El-Dein, the Chairman of the Suez Canal Economic Zone.

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Business monthly

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Globally, Tetra Pak managed to collect 1.2 million tonnes of carton packages and send them for recycling in 2022

Tetra Pak
PROTECTS WHAT'S GOOD™

In Egypt, Tetra Pak and Uniboard's first-ever used beverage cartons recycling plant will be operational in 2024, with over €2.5 million joint project value.

Tetra Pak, a world's leading food packing and packaging solutions' company, has succeeded both internationally and in the local market in Egypt, to achieve remarkable milestones in its journey towards sustainability.

In fact, Tetra Pak has lately launched its Sustainability Report FY22 highlighting the company's progress across various aspects of sustainability. The company has always prioritized sustainability, as one of the major pillars of its business strategies and activities. Tetra Pak was founded on the philosophy that a package should save more than it costs. Sustainability has always been at the core for Tetra Pak.

Facts and figures clearly reflect Tetra Pak's sustainability accomplishments. The company succeeded in collecting 1.2 million tonnes of carton packages and sending them for recycling. This is in addition to the investments of 30 million Euros in the collection and recycling of carton packages. In terms of Tetra Pak sustainable and innovative packages' production, the company sold 8.8 billion plant-based packages and 11.9 billion plant-based caps.

Regarding circularity, Tetra Pak has declared its ambition in this vital factor in the achievement of sustainability. The company aims to drive circular solutions by designing recyclable food and beverage packaging, using recycled and renewable materials, and expanding collection and recycling to keep materials in use and out of landfills.

Building up on those ambitions, on the local front, Tetra Pak Egypt Area has taken considerable measures towards the recycling of used carton packages in Egypt, in collaboration with Uniboard, the largest paper board manufacturer in Africa.

1.2
million tonnes
of carton packages collected and sent for recycling

€30
million invested
in the collection and recycling of carton packages

testing of fibre-based barrier
to substitute the thin aluminium foil layer in aseptic carton packages

8.8
billion
plant-based packages sold

11.9
billion
plant-based caps sold

Tetra Pak, through its know-how and engagement with its global recycling solutions suppliers, is bringing the latest technology for UBC recycling. This is an industry-first joint initiative with a paper mill in Egypt. The new recycling plant has a projected capacity to recycle 8,000 tonnes of UBC per year and is planned to be operational in 2023. The ambition is to fulfil its capacity in the next 5 years.

Wael Khoury, Tetra Pak Egypt Area Managing Director, has also recently attended an important meeting with Dr Yasmine Fouad, Minister of Environment and representatives of United Company for Manufacturing Paper and Cardboard, "Uniboard." The aim was to discuss joint cooperation to move forward in the implementation of a national system for Extended Producer Responsibility. This is in addition to discussing the latest updates in the two company's joint project.

In the meeting, Khoury stressed that Tetra Pak constantly works to enhance various sectors of its value chain. He added that the renovation of the recycling infrastructure can transform used cartons into reusable raw materials. This represents a significant contribution to the achievement of sustainable development goals and to establish a circular economy.

The Minister of Environment, at the end of the fruitful meeting, thanked Tetra Pak for the initiative and various projects that have been recently launched, including the project of recycling used carton packages with and Uniboard.

Learn more about our achievements and how we are driving circular solutions.
Source: Tetra Pak Sustainability Report, FY22.

Learn about other recycling initiatives.
Source: Tetra Pak Sustainability Report, FY22.

A COMPELLING CASE FOR CHANGE

We cannot escape the fact that the calamitous war in Gaza is exacerbating our economic suffering in Egypt. The severity of the Israeli response to Hamas' intrusion has sparked a public outcry that cannot be ignored. We are eager to see a rapid end to the atrocities being committed and the massive loss of innocent civilian lives. And while the conflict might seem like a respite from our economic woes by diverting attention toward Gaza, it is in fact adding more injury to our situation.

The Gaza conflict also threatens the sustainability of this year's tourism boom. The sector has posted 20% growth year on year for the first nine months of 2023, but a prolonged war along our Sinai border could stifle future bookings.

Then there is the disruption of our natural gas imports from Israel. Though it looks to be only temporary, the break in supply raises concerns about our energy security and our position as an LNG exporter.

The Egyptian leadership has been the voice of reason, trying to ease the humanitarian crisis and still safeguard Palestinian rights and notably our border integrity. The goal is to keep the doors open for societal conciliation after this current tragedy has ended. The reality is, if you ignore the Middle East's long-simmering crisis, it will always come back to bite you. Perhaps this time around, both sides will finally reach a two-state solution that is equitable for all parties. That could set the stage for regional peace and economic prosperity not experienced in decades.

AmCham Egypt is an apolitical organization, and our primary focus is on enhancing bilateral business relations between Egypt and the United States. But I cannot help but address the facts that have put us in this challenging situation — both political and economic.

Meanwhile, Egypt's own economic woes persist, and the government is in firefighting mode — a situation that cannot be sustained for long. To be fair, it has made progress in divesting state-owned enterprises and is indeed tightening its belt. But there is still no clarity on arrangements with the International Monetary Fund regarding the next review and release of loan funds.

The triple downgrade of Egypt's sovereign credit ratings casts a gloomy view of the economy. Questions over the timing of a float, if ever, have currency speculation running rampant. Add to that the soaring inflation and sharp contraction of private sector activities, and the signs are clear: The monetary and economic practices of the last few years have failed to deliver, and we are in dire need of change.

There is no way out other than more aggressive reforms, more clarity, and more checks and balances to rebuild trust in our economy and put the country where it deserves. Egypt has the tools, expertise and ability to push through this economic crisis, we just need to unleash the momentum. And the timing could not be more compelling.

TAREK TAWFIK
President, AmCham Egypt

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THE NEWSROOM

S&P LOWERS LONG-TERM CREDIT RATING

Standard and Poor's (S&P) Global Ratings has downgraded the Egyptian sovereign credit rating. S&P lowered its long-term rating from B to B- citing concerns over the country's foreign currency shortage, delayed disbursements of multilateral funding and debt sustainability.

The overall outlook rises to stable from negative, given the possibility the government could deliver on structural reforms. Additionally, S&P kept Egypt's short-term sovereign credit rating at B.

S&P said it could raise ratings if Egypt quickly acts on reforms supporting competitiveness and growth, reducing net government debt levels and gross external financing needs.

Earlier in October, Moody's Investors Service lowered Egypt's credit rating to Caa1 from B3 due to the country's worsening debt.

CHINA, EGYPT REACH DEBT SWAP AGREEMENT

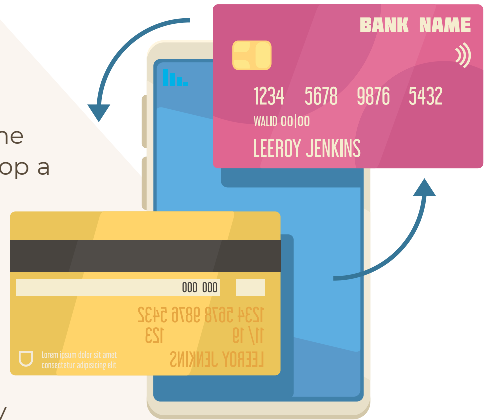
China's International Development Cooperation Agency and Egypt's Ministry of International Cooperation signed a memorandum of understanding to fund development projects. The Chinese and Egyptian representatives signed the debt swap agreement during the Third Belt and Road Forum for International Cooperation.

According to Asharq Al-Awsat news, the memorandum "aims to boost cooperation between the two countries in debt swaps to implement projects to achieve sustainable development by using tranches of Chinese debt to implement projects agreed upon by both sides."

As of the end of March, Egypt owed $8.2 billion to China, Enterprise reported.

Egypt made a debt swap agreement with Germany in June worth EUR 54 million ($ 57 million) to finance Egypt's transition to green energy. According to the German Embassy in Cairo, the deal aims to develop a transmission network for integrating renewable energy into the electricity grid and enhancing capacity.

CBE BACKTRACKS ON CREDIT CARD USE TERMS



In October, the Central Bank of Egypt (CBE) limited credit card use in foreign currency transactions. The decision came after the bank suspended using debit cards abroad to stop a foreign currency drain resulting from misuse of the cards.

However, two weeks later the CBE went back on its decision. Accordingly, clients are once again able to use their cards without limits on foreign currency withdrawals while abroad.

However, to enjoy that privilege, they must inform the bank of their travel plans before they leave the country.

Upon return, they need to prove to the bank that they used the card during the trip by showing them the entry and departure stamps on their passports within 90 days of departure

If travelers don't comply, they risk a lower iScore score and are prohibited from issuing new credit cards.

IFC, BANQUE MISR SUPPORT SMALL BUSINESSES

International Finance Corp. (IFC), a member of the World Bank Group, and Banque Misr join forces to increase access to finance for privately owned micro, small and medium-sized enterprises (MSMEs), including those owned by women.

The IFC will give Banque Misr a $234 million loan to support lending to MSMEs. The loan should help improve job creation, boost economic growth, and reduce the gender financing gap. Half the loan will be allocated to support MSMEs owned by women.

The loan is IFC's first gender-lens investment in a public sector bank in Egypt. It consists of $190.7 million from the IFC and $43.3 million from the IFC's Managed Co-Lending Portfolio Program (MCPP) One Planet.

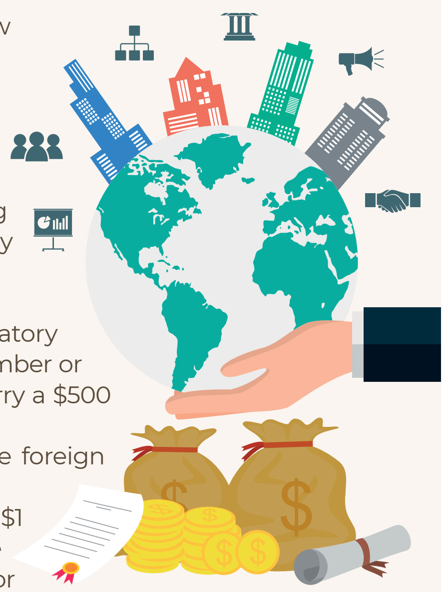
WORTH FOLLOWING

GOVERNMENT SEEKS $3 BILLION LOAN

To secure U.S. dollar reserves, the Egyptian government seeks to borrow $3 billion in fresh debt financing by the end of the fiscal year.

An anonymous Finance Ministry official told Enterprise they would secure the necessary funds through bond issuances and international loans. He added the fresh funds will help support the budget and assist the country in meeting emergency financing needs.

The funds likely could come from several international financing institutions, Deutsche Bank and the Arab Banking Corp., the recently closed panda bond, and a planned samurai bond.



NTRA poised to introduce 5G licenses

If funds are still needed, the National Telecommunications Regulatory Authority (NTRA) plans to introduce Egypt's first 5G licenses in December or early 2024. According to Asharq Business, the 5G licenses should carry a $500 million price tag.

5G licenses can help foster Egypt's foreign reserves and increase foreign currency inflows as they are paid in dollars.

4G licenses were introduced by NTRA in 2016 at a cost of as much as $1 billion. Vodafone Egypt purchased its license for $335 million, Orange for $335 million, Etisalat Misr for $535.5 million, and Telecom Egypt for $1.1 billion.

FIGHTING OVER LOSS AND DAMAGE

Developing nations want wealthy countries to compensate them if they suffer from climate crises. Rich nations seek to limit those eligible. At COP28, both factions need to find a middle ground.

by **Tamer Hafez**

On Nov. 22, 2022, low and middle-income nations celebrated approval of a "loss and damage" fund at the UN's 27th Conference of the Parties (COP27). It was a "historic win for vulnerable countries already suffering the acute effects of climate change," said Olivia Serdeczny, a research analyst at Climate Analytics, an advocacy group, in a January blog. "[That comes] after 30 years of negotiations."

In the following months, wealthy countries argued that not all developing or climate-vulnerable countries should be eligible for compensation. "There are continued points of disagreement between developed and developing countries," Harjeet Singh of the U.N.'s Technical Expert Group on Comprehensive Risk Management wrote in Context, a Thomson Reuters Foundation platform, in August. "Who will pay, who is eligible to receive funding and how easily it can be accessed, what will be funded, and what will be the sources and instruments of funding?"

This year's COP28 should witness tough negotiations between nations the UN classifies as wealthy and the rest of the world. Climate Change News reported in August that Sue Biniaz, deputy special envoy for climate at the U.S. State Department, said she "violently opposes arguments by some countries and environmental groups that developed nations have a legal obligation to pay into the fund."

Advanced countries also debate which nations are "developing" and which are "climate-vulnerable." Their aim is for the UN to stop classifying countries like China (the world's second-biggest economy) and India (the fifth-biggest) as "developing nations." That means they must contribute to the loss and damage fund and are not eligible for financial support, citing "climate vulnerability."

Quick response

The loss and damage (L&D) fund is "designed to respond to immediate needs, so is different from other climate finance that relies on specific projects with no means of disbursing funds quickly," noted Serdeczny. "Ideally, the L&D fund will kick in when a country requires urgent assistance in the immediate aftermath of [a climate crisis] that causes economic and other losses."

It operates under the UN's Framework Convention on Climate Change (UNFCCC) and the 2015 Paris Agreement.

To effectively support emerging and vulnerable nations when climate crises hit, the UN Environmental Programme said in November 2022 advanced economies need to commit at least $100 billion annually until 2030 to the L&D fund. They estimate investments in climate adaptation projects will range from $160 billion to $340 billion by 2030 and between $315 billion to $565 billion by 2050."

To manage funding arrangements before COP28, the L&D fund created a transitional committee of representatives from 24 nations, 14 of which are classified as developing. Of those, two are "small island developing" states, and two are "least developed countries." The rest represent advanced and wealthy nations.

According to the fund's charter, the committee must meet "at least" three times before COP28. Its findings will be presented at a ministerial meeting in November ahead of COP28." Serdeczny said the committee needs to tackle "tricky questions," such as whether the fund will cover the value of lost or damaged assets or the cost of responding to an event.

Another question is whether advanced nations will foot the bill alone or will other countries like China and Saudi Arabia, classified as developing, will contribute.

Then there is the feasibility of "other sources of money ... such as windfall taxes on fossil fuel companies," said Serdeczny. "And who receives the funds and when? Where does the fund fit in with other [green] finance [options]? Coordinating with other finance structures is important." The transitional committee also must decide "how the fund will be structured and governed."

Groundwork

The first committee meeting was in March. Preety Bhandari, senior adviser in the Global Climate Program and Finance Center, told Relief Web, a news portal, in August the first meeting focused on outlining the topics discussed before COP28 and compiling submissions for loss and damage support from the committee's developing member nations.

The second meeting was in May, where conflicts arose between the 14 representatives from developing nations and 10 from advanced economies. "There were ... clear divides, including what the transitional committee should focus on," said Bhandari.

There were debates over setting up funding arrangements, fueled by vague L&D fund documentation. It "made for an easily confusing conversation," said Bhandari.

Nevertheless, attendees agreed L&D money would go to nations that were "particularly vulnerable." Bhandari said that led to debates over which metrics should be used to classify a country as "particularly vulnerable."

Lastly, attendees touched on the potential of developing innovative financing avenues and channels to feed the L&D fund.

Outcomes of the second transition committee meeting "seemed to convey that the process was still in an exploratory phase," Bhandari said. "While some committee members tried to infuse a sense of urgency and engagement, there was an unwillingness by others to even recognize ... emerging issues."

Making progress?

The third meeting, held at the end of August, was the committee's last chance to agree on fundamental topics related to the L&D fund before COP28. The UNFCCC said in a press statement the meeting "resulted in significant progress toward fulfilling the mandate given to the committee at COP27."

Its primary outcome was publishing five "informal notes." The first two-page paper focused on funding, where "the co-chairs [said] further discussions are necessary on the matter of the fund's legal capacity on privileges and immunities." The second note was a six-page "non-exhaustive, indicative list" of funding issues.

The third (two-page) "informal note" gave options on how to structure the L&D fund if it is a "standalone institution." It also outlined a scenario where the fund "would not have its own legal personality or legal capacity." The paper said that option means "the fund's assets ... would be protected by the World Bank's privileges and immunity." Therefore, L&D fund employees would be on the World Bank's payroll.

The note also proposed the terms and conditions of providing funding to "eligible" nations, but there was no mention, let alone agreement, on eligibility metrics.

The fourth note listed the proposed top sources of financing. They include national governments, regional economic integration organizations such as the EU and African Union, the private sector, philanthropies, NGOs and innovative sources.

The fifth informal note highlighted points of convergence and divergence of perspectives and a "non-exhaustive, indicative list of issues raised" about how countries should manage the money they get from the L&D fund.

Politics dominate

Requiring at least $100 billion annually until 2030 from wealthy countries that led the Industrial Revolution in 1799 was never going to be easy.

Despite agreeing to the L&D fund's creation at COP27, the United States and EU specified non-negotiable terms when signing it. The EU signed the agreement on the condition the "highest emitters contributed to the fund and were also excluded from using the fund." According to Climate Trade, an online carbon trading platform, of the world's top 10 polluters, China, India, Iran, Saudi Arabia, and Indonesia are classified as middle-income or emerging economies."

The United States is looking to limit the scope and accessibility of the L&D fund to a handful of small emerging countries. "The new fund should develop expertise, as opposed to covering everything in the universe," Biniaz of the State Department told Reuters in August.

During the third meeting, U.S. negotiator Christina Chan said the United States wants to focus the L&D money on "covering slow-onset events such as sea level rise and desertification, [rather than] floods, heatwaves and storms."

The U.S. also wants to prioritize countries with populations of less than 5 million. That means pushing other eligible countries to deal with multilateral development banks like the World Bank, IMF, ICF, and EBRD. Julie-Anne Richards, Strategy Lead at the Loss and Damage Collaboration, a climate advocacy group, told the Indian news portal The Wire in September, "That limits the [L&D fund's] scope by limiting eligibility."

The EU and the United States are also attempting to divide the term "emerging countries" into several classifications, decreasing the number of nations eligible for L&D money. Media outlets at COP27 reported the EU's attempts to create two new classifications (small island developing states and least-developed countries) under emerging economies and limit L&D fund eligibility to those sub-categories.

Additionally, wealthy countries at COP27 argued for creating a new class of nations called “particularly vulnerable countries.” It would be a subset of "countries vulnerable to climate change" classification, which covers almost all emerging nations.

Meanwhile, media reports say developing low and middle-income nations want to rephrase the L&D fund document to ensure the inclusion of all emerging economies. Instead of L&D money going to a specific category of countries, it would be available to any nation based on the severity of the disaster and capacity to deal with it.

At COP28

This year's COP will put L&D fund negotiators under pressure as the U.A.E. organizers chase a breakthrough announcement to compare with COP27 and COP26's global pledges to keep global warming under 1.5 degrees Celius by 2030.

Cameron Hill, a senior research officer at the Development Policy Center, a think tank, noted there could be negotiations over alternative sources to finance the L&D fund. In a June blog, he said, "One potential option could be greater use of rich countries [IMF] Special Drawing Rights." That means securing money and helping states suffering climate disasters would become the IMF's problem.

Mark Plant, CEO of the Center for Global Development Europe, wrote in a January blog, "Special drawing rights could be useful for financing some part of L&D ... within [a] narrowly defined set of procedures and institutions."

Hill also noted "debt forgiveness" or "international tax and transfer mechanisms" as other options for wealthy nations to finance the L&D.

For tax and transfer proposals, Hill said it could involve "levies on international container shipping, financial transactions and airline travel." Those proceeds "could either be used directly to meet assessed costs via the [L&D] fund or pooled by governments to help purchase tailored insurance products for climate vulnerable nations," explained Hill.

Bhandari said that by the end of COP28, participants need to have "established the [L&D fund's] barebone structure." That includes "identifying constituents of the ... funding arrangement."

Negotiators also need to settle on the L&D fund's hierarchy, create and publish its mandate, sign MoUs with its "constituents," establish a secretariat, and set its guidelines. By the end of COP28, the L&D fund also needs to have a board of trustees, broad organizational procedures, and a governance framework.

COP28's organizers appear determined to make the L&D fund a reality. Sultan Ahmed Al Jaber, the U.A.E.'s special envoy for climate change at COP28, stressed, "COP28 in Dubai ... is the place to deliver and operationalize the fund and funding arrangements."■

LONG & WINDING ROAD

Like other countries, Egypt faces the daunting task of keeping global warming below 1.5 degrees Celsius, which the U.N. says is necessary to avoid permanent climate damage. The transition goes beyond securing enough money from international finance corporations, as politics and technology will also play essential roles in creating bankable projects for local and foreign investors.

By **Tamer Hafez**

ENERGY POLITICS

Shifting from fossil fuels to renewables is more complicated than ever.

When it comes to untapped investment potential in Africa, nothing compares to investing in clean and green energy generated from environmentally friendly sources. As UN Secretary-General António Guterres told the African Climate Summit in September: "Renewable energy could be the African miracle."

"A clean energy transition across the world's developing nations will be crucial to keep alive the Paris Agreement goal [announced in 2015] of capping global warming 'well below' two degrees Celsius since pre-industrial times, and 1.5C if possible," said Guterres.

Achieving that will require a lot of money. According to the International Energy Agency (IEA), in the next 10 years, developing nations, particularly those in Africa, will need to spend a total of $2 trillion on clean energy investments. That represents an "eightfold" increase from today's levels.

Such funding would need to come from wealthy sources, such as the United States, EU, China, and oil-rich countries whose national incomes depend on exporting fossil fuels. Their pace of investing in green projects at home and abroad, however, will depend on political and economic agendas and allegiances.

Out of time?

One of the most significant factors affecting investments in clean energy is the long-term prospects for fossil fuels. Those in the fossil fuel industry argue that investments should be directed to decarbonize and thus extend the economic life of this resource.

A September press release by OPEC, the cartel of oil producers, stressed that "it is an extremely risky and impractical narrative to dismiss fossil fuels." That is because they "continue to make up over 80% of the global energy mix, the same as 30 years ago, [and] the energy security they provide is vital."

OPEC Secretary-General Haitham Al Ghais said sustainable long-term fossil fuel production depends on "technological progress, with the industry [developing] solutions to help reduce emissions." That includes hydrogen fuel, carbon-capture technologies and storage facilities, and ensuring a circular carbon economy that prevents waste.

"While some may suggest that a number of these oil-focused technologies are still immature, they ignore the fact that many ... net-zero ... technologies ... are at an immature, experimental or even theoretical stage," according to the OPEC statement.

The IEA believes fossil fuel-related sectors are running out of time. "We are witnessing the beginning of the end of the fossil fuel era," IEA head Fatih Birol told The Financial Times in October. "We have to prepare ourselves for the next era."

He cited governments' changing policies that have increased investments in renewables driven by climate change awareness. Prime examples are the Nordic countries (75% of their electricity is green) and China (50.9% of its electricity comes from renewables). Others are looking to ensure their energy security in light of sanctions against Russia, the second biggest oil exporter in 2021 with 11.8% of global trade, according to Investopedia, an online financial site.

Birol cited the astronomical global growth of electric vehicle sales from 700,000 cars in 2016 to 13.9 million so far in 2023 as proof of increased environmental awareness among consumers. Accordingly, the IEA estimates that "demand for oil, natural gas and coal [should] peak before 2030 -- with some prior analysis having previously pinned this landmark to the mid-2030s."

Step-by-step

Sultan Al Jaber, who heads the U.A.E. national oil company ADNOC and government-owned renewable energy company Masdar, believes the world is not ready to transition to green energy. "We cannot simply eliminate fossil fuels when the new energy system hasn't yet been built," he said. The first step would be the quick "phase-up of zero carbon alternatives and [then] rapidly and comprehensively decarbonize the energies we use today."

Al Jaber, who will head this year's U.N. Conference of the Parties (COP) in the oil-rich U.A.E., stressed, "the 'phasedown' of fossil fuels is both inevitable and essential." But it is unlikely that significant progress will happen by 2030. "We cannot afford to ... eliminate fossil fuel production within the next seven years," Al Jaber said in September during his keynote address at the U.N. Climate Ambition Summit. "We need to simultaneously increase and decarbonize the global energy supply."

That will prove expensive for governments, businesses and households, especially low-income ones. A case in point is the United Kingdom -- the sixth wealthiest nation in 2021. In September, Prime Minister Rishi Sunak announced extending the deadline to stop selling new fossil-fuel-powered cars from 2030 to 2035. He also delayed deadlines to ban new household fossil fuel boilers but announced a 50% cash incentive for replacing them with clean energy ones. "Ask most people about climate change [and] they want to do the right thing. They're even prepared to make sacrifices," Sunak told the media. "But it cannot be right for [the government] to impose such costs on working people."

Conversely, South Africa has seen its emissions drop since 2021 despite forecasting the decrease would start in 2025. "We reckon we are well within the range of meeting the 2030 target," Crispin Olver, executive director of South Africa's Presidential Climate Commission.

However, that drop in emissions was "unintentional," he added. "Regular breakdowns of the coal-fired power plants that supply 80% of South Africa's electricity means less carbon dioxide is being pumped into the atmosphere."

To ensure that energy transition is affordable while guaranteeing enough supply for GDP growth, clean energy production needs to increase significantly.

Al Jaber estimates the world needs to "triple renewable energy capacity in the next seven years [to] reduce its costs to around a quarter of the current cost of fossil fuel." That should be enough of a price gap to make clean energy "outcompete fossil fuels well within the [following] 20 years ... where emerging markets and population growth will drive electricity demand [by] 185% by 2050."

Meanwhile, governments need to discourage the use of fossil fuels. An IMF paper in August stressed the need to reduce subsidies, which increased by $2 trillion between 2020 and 2022 to reach $7 trillion annually. The IMF said such cuts "would lead firms and households to consider environmental costs when making consumption and investment decisions."

However, the paper acknowledged it "can be tricky." "Governments must design, communicate and implement reforms clearly and carefully as part of a comprehensive policy package that underscores the benefits," it said.

Last chance COP?

November's COP28 will play a significant role in determining how fast and complicated the transition to clean energy will get in the coming few years.

"The COP28 presidency is attempting to strike a difficult balance confronting developing nations: protecting their prosperity while safeguarding the planet," according to Ibrahim Ozdemir, a U.N. adviser and ecologist teaching at Uskudar University in Turkey,

That makes COP28's proposed agenda "the most ambitious agenda ever put forward by a COP presidency in 28 years," Ozdemir wrote in a Euronews blog in September. "If COP28 brokers a global climate deal ... it would help fast-track a just transition away from fossil fuels. If it fails, the chances of such a transition will be dangerously diminished."

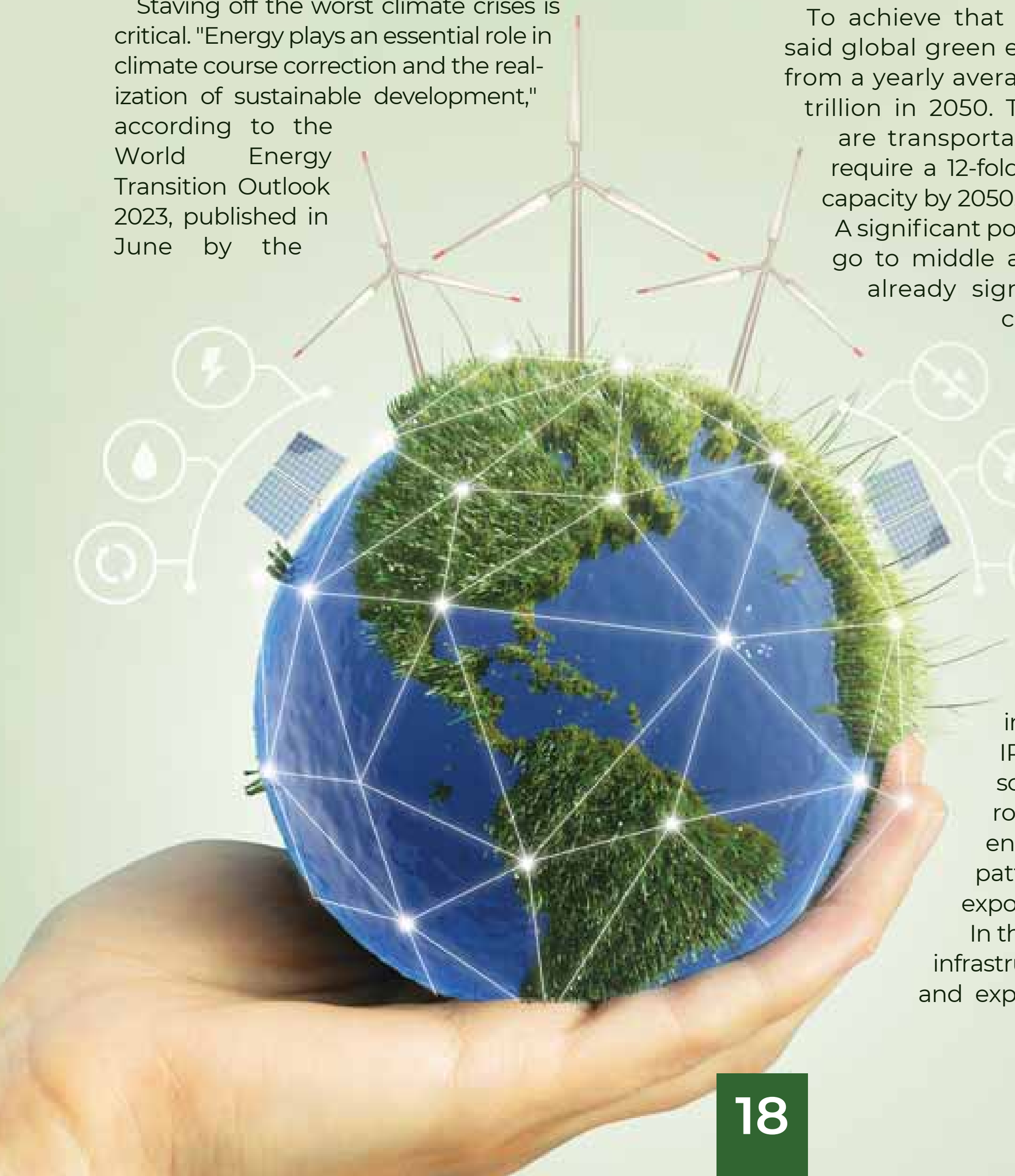
PREPARING FOR THE TRANSITION

A report from the International Renewable Energy Agency highlights what governments must do to ensure a smooth and just transition to clean energy.

For pundits, summer was a teaser of what could happen if the world doesn't limit the average global temperature increase to less than 1.5 degrees Celsius (2.7 degrees Fahrenheit) of pre-industrial levels. According to the Copernicus Climate Change Service, an EU monitoring body, about a third of the days this year saw average global temperatures cross that threshold.

Unusual rainfall patterns resulted in severe droughts, causing massive forest fires, while flash floods in other places decimated communities. The U.S. National Oceanic and Atmospheric Administration said the number of climate disasters exceeding $1 billion in damage increased by nearly 28% in the first nine months of 2023 compared to all of 2022.

Staving off the worst climate crises is critical. "Energy plays an essential role in climate course correction and the realization of sustainable development," according to the World Energy Transition Outlook 2023, published in June by the International Renewable Energy Agency (IRENA). The paper highlights what governments must do to ensure a sustainable shift to green energy. It will not be easy, as "accelerating progress worldwide requires a shift away from structures and systems built for the fossil fuel era."



Game of stats

The IRENA report estimates the percentage of clean energy in the overall energy mix must increase from 16% in 2020 to 77% in 2050 to ensure the world remains under the 1.5-degree Celsius threshold. "Total energy supply [from fossil fuels] would remain stable due to increased energy efficiency and growth of renewables," it added.

To achieve that goal, the World Energy Report said global green energy investments should triple from a yearly average of $500 billion in 2022 to $1.5 trillion in 2050. The most high-potential sectors are transportation and buildings, which "would require a 12-fold increase in renewable electricity capacity by 2050, compared to 2020 levels."

A significant portion of green investments should go to middle and low-income nations, as they already significantly lag behind advanced countries. The report estimated that "85% of global renewable energy investments benefit less than 50% of the world's population." Africa, with nearly 18% of the world's population, accounted for only 1% of the benefit. The report described it as a "concerning trend."

Commit to invest

Infrastructure is vital to transitioning to green energy. According to IRENA, that includes "investing at scale in grids, both land and sea routes, to accommodate new [clean energy] production locations, trade patterns, and demand centers [for exporting excess clean energy]."

In the short term, modernizing existing infrastructure "with grid reinforcements and expansion on both land and sea" is essential to improving energy efficiency and reducing emissions.

The report also stressed the need for infrastructure specific to clean energy, saying it must be resilient, flexible, and long-lasting for a diversified and interconnected energy system.

Meanwhile, transmission and distribution networks need to "accommodate... the highly localized, decentralized nature of many renewable fuels." That is because households and factories could generate their needs from renewable electricity and supply national grids via a feed-in tariff scheme.

Investing in diverse storage solutions also is vital, as clean energy includes renewables and emissions-free fuels like hydrogen and biogas.

Lastly, IRENA recommends diversifying investments in other energy transition technologies such as biofuels, hydropower, and geothermal energy. Currently, 95% of global clean energy investments go to solar and wind projects.

Government role

The World Energy Outlook 2023 report stressed the importance of governments in expediting the transition to clean energy, saying, "Policies and investments are not consistently moving in the right direction."

"While there were record renewable power capacity additions in 2022, the year also saw the highest levels of fossil fuel subsidies," said the report. "Many governments sought to cushion the blow of high energy prices for consumers and businesses."

The other result of diverging policies and investments is that in 2022, investment budgets directed to green projects were just over half the level of fossil fuel capital investments. The IRENA report stressed governments need to reduce investment in fossil fuels while increasing support for renewable energy sources. That is vital, as "every year, the gap between what is achieved [in clean energy] and what is required continues to grow."

Government policies need to "focus on the enablers of a renewable-dominated system that can help address the structural barriers that hinder progress ... and systemically prioritize the acceleration of the energy transition."

Other policies should encourage the private sector, households, and the public sector to migrate from fossil fuels to renewables. That would require changing regulations governing non-power sectors, such as manufacturing, trains, shipyards, and others to ensure they are incentivized to adopt clean energy solutions.

Governments need to ensure their green energy policies and incentives are effective in the short term. "While the energy transition undoubtedly requires time," said the report, "there is significant potential to implement many of the available technology options today."

The government also needs to educate consumers. "Public awareness is ... critical for any large-scale undertaking and can be secured through project transparency and opportunities for communities to voice their perspectives," IRENA noted.

That closely intertwines with building a "well-skilled workforce, [which] is a lynchpin of any successful energy transition," the report said. "It requires concerted action in education and skills building. Government has a critical role in coordinating efforts to align the offerings of the education sector with projected industry needs."

Lastly, the state needs to support private and public sector companies via "public finance and policies that should crowd in private capital [with] greater geographic and technological diversity."

The private sector accounted for "75% of global investment in renewables from 2013 to 2020," the IRENA report said. However, it "tends to flow to the technologies and countries with the least ... risks." Public sector projects fill that gap. "A stronger public sector intervention is required to channel investments toward countries and technology in a more equitable way" geographically and across all income levels, said the report.

Network effect

Such ambitious plans require huge funding from international financing institutions, including the European Bank for Reconstruction and Development (ERBD), International Finance Corp. (IFC), and the World Bank. "Cooperation plays a decisive role in determining the outcomes of the energy transition and is a critical avenue for achieving greater resilience, inclusion, and equality," said IRENA.

Given the "dynamism of the [clean] energy sector, [there is an] expanding variety of actors ... which requires [governments to assess their] roles to leverage respective strengths and efficiently allocate ... public resources." Exporting clean energy or establishing cross-border cooperation agreements to share renewable resources would "require international cooperation on an unprecedented scale."

Getting those factors right is essential for governments to decarbonize their economies effectively. The World Energy Transition Outlook 2023 report noted that pressure to be bold. "We simply cannot continue with incremental changes," the document said. "There is no time for a new energy system to evolve gradually ... as was the case for the fossil-fuel-based system."

'SILVER-BULLET' FUEL?

Natural gas produced from organic waste promises to be as effective as the conventional variant without the harmful emissions. It also is not perishable.

Recycling and repurposing waste has a long and storied history. Allison Emmerson, an academic working on the Pompeii I.14 excavation project, told The Guardian in April 2020, "We found that part of [the city of Pompeii, destroyed in 79 A.D.] was built out of trash. The piles outside the walls weren't material that's been dumped to get rid of it. They're outside the walls being collected and sorted to be resold inside the walls."

Today, recycling is critical to limiting global warming to no more than 1.5 degrees Celsius higher than pre-industrial levels. According to the Intergovernmental Panel on Climate Change, staying under that threshold should be enough to stave off most climate crises.

In 2023, using waste to produce fuel with characteristics similar to fossil fuels but with near-zero emissions is in the spotlight. Renewable natural gas (RNG) is one of the most promising. An August podcast by S&P Global said, "Renewable natural gas is headed for the moon. [It] has gained attention in recent years as a lower-carbon replacement for conventional fossil fuels."

RNG could prove a lifeline for the oil and gas, and farming sectors. However, as with most new fuel technologies, there is debate over its eco-credentials. "While some tout 'renewable natural gas' as a way to mitigate climate change, others see a false solution," wrote John Carey, a senior solar consultant at Energy Saving Pros, in his July blog on PNAS, a peer-reviewed journal of the National Academy of Sciences,

Recycling natural gas

RNG is made by collecting methane gas released from decaying organic waste found in municipal solid waste landfills, water recovery facilities, livestock and food production facilities and waste management operations. The gas can be pumped directly from the landfills or generated by putting the waste in "digesters."

After several treatment stages to remove moisture, contaminants and other elements, the captured gas is converted to RNG and ready for transport via the existing natural gas pipe network to its final destination or liquefaction plants.

According to Clean Energy Fuels, a U.S. company that produces RNG, "It reduces carbon on two fronts." The first is at the source by capturing methane. According to the U.N. Environmental Program, "Over a 20-year period, [methane] is 80 times more potent at warming than carbon dioxide."

On the other front, RNG is usually 96% to 98% methane, meaning burning it in internal combustion engines produces little to no carbon dioxide. The U.S. Environmental Protection Agency (EPA) says RNG is a "biogas [which has a methane content between 45% and 65%] that has been upgraded for use in place of fossil natural gas," In Europe, RNG also is known as biomethane.

The EPA says RNG can use the same infrastructure as fossil natural gas and has the same uses: "thermal applications, to generate electricity, for vehicle fuel or as a bio-product feedstock."

Clean Energy Fuels noted that it can power heavy-duty trucks and buses, "replacing dirty diesel or gasoline" with little to no modification.

New lifelines

Oil and gas companies see RNG as a potential long-term source of revenue. "Phasing out fossil gas would leave oil and gas companies with massive stranded assets," Tristan Brown, director of the Bioeconomy Development Institute, told PNAS in July. "So [RNG] is very appealing [as] they can reuse existing infrastructure."

In October 2020, Chevron partnered with Brightmark Fund Holdings to create Brightmark RNG Holdings. As of May, they have 20 RNG-production projects in the U.S. In December, British Petroleum (BP) spent $3.3 billion to buy U.S.-based Archea Energy, an RNG producer. Shell Petroleum NV followed suit, buying 100% of Natural Energy Biogas A/S in February for $2 billion.

Farmers should receive significant revenue from RNG's increasing popularity. For one, they produce a substantial portion of methane emissions. According to the EPA, "37% of methane emissions from human activity are the direct result ... of livestock and agriculture practices."

Secondly, the price of RNG is "eight to 20 times higher than the price of fossil natural gas," given its ultra-low emissions. Dairy biomethane is classified as "negative emissions." Robert Howarth, professor of ecology and evolutionary biology at Cornell University in the United States, told PNAS. "Dairy farms say they can make more money peddling RNG credits ... than they do making milk."

Expensive fuel

Dentons, a business consultancy, noted that RNG faces multiple challenges. First, it "is expensive ... compared to other gas sources, [making it] not yet commercially viable ... without incentives and grant programs."

That higher price is partly down to feedstock availability. "Each RNG facility will need to procure enough long-term feedstock supply to ensure continuous operations," Dentons' paper said. "That can be difficult due to the cyclical nature of certain types of agricultural waste, as well as supply and demand issues created by more RNG facilities vying for the same resources."

Another challenge is finding locations for RNG facilities close to landfills with the necessary infrastructure to transport the produced biomethane. "If a suitable location is not found, project proponents will need to build out infrastructure access in addition to the technical infrastructure required for their facilities," Dentons explained.

The other issue is the "incredibly high" cost of producing RNG, as the technology used to capture methane from waste is still expensive. Converting RNG from gas to liquid is also "significantly" more costly than liquefying fossil natural gas, Dentons said. The Institute of Transportation Studies at the University of California, Davis, estimates converting RNG to liquid is at least 50% more expensive than fossil natural gas.

However, the Dentons paper stressed, "As RNG conversion and upgrading technology advances, and energy networks expand, we may see the ... cost of RNG decrease with time." That would be a similar dynamic to other non-fossil-fuels, the consultancy added.

Bright future?

Despite RNG being significantly more expensive than fossil natural gas, Europe and North America see its potential.

In September, the European Biogas Association (EBA) and Coalition of Renewable Natural Gas met with Pankaj Bhatia, global director of the Greenhouse Gas Protocol, a global framework to help companies measure their greenhouse emissions and get certified if they are below the protocol's thresholds. Their meeting discussed certification options for RNG producers.

Currently, the protocol "doesn't have accounting rules for biomethane certificates," noted the EBA in the meeting's press release. Having a recognized proof of eco-credentials and sustainability will be the "foundation for growing [the] biomethane market." Bhatia told the media, "We agreed on plans for a workshop in 2024" as a first step toward certifying RNG in European and North American markets.

Ultimately, ensuring the success of RNG and similar low-emission fuels touting nearly identical characteristics to fossil fuels goes beyond economics. Stephen Edel, senior coordinator of NY Renews, an environment-focused advocacy group, told PNAS: "The debate is: Do we want to invest in maintaining the polluting gas system we have now, or do we want to fundamentally move off of combustion sources?"

SCZONE GOES GREEN

Suez Canal Economic Zone Chairman Waleid Gamal El-Dien, talks about hydrogen projects that would allow Egypt to become a regional hub in a one-on-one interview with Business Monthly.

All replies were edited for length and clarity.

What are your plans to make the Suez Canal Economic Zone (SCZONE) environmentally friendly?

We are determined to attract companies and projects committed to the conservation of natural resources, pollution reduction and other environmentally conscious business practices.

Companies are obliged to conduct an environmental and social impact assessment before acquiring their permits, thus ensuring investments coming to this world-class hub are sustainable.

What incentives are available for investors who want to produce green hydrogen fuel?

The SCZONE offers incentives stipulated by the Law of Special Economic Zones (83/2002). It provides zero customs tax, zero VAT and a 50% corporate tax refund for seven years. It also allows 100% foreign ownership of local assets and 10% foreign labor, who get five-year residency permits.

The zone operates as a one-stop shop to ensure effective and efficient facilitation of all the services a new project requires, including further streamlining procedures and minimizing administrative and financial burdens.

Additionally, Parliament is discussing new government incentives to support green hydrogen investments and complementary and feeding industries.

What are the latest updates on green hydrogen projects?

The SCZONE, the Egyptian Ministry of Electricity and Renewable Energy, and The Sovereign Fund of Egypt have signed 23 MoUs with international and national companies and consortiums. Of those, 11 were converted into binding framework agreements to implement their projects for producing green hydrogen and its derivatives between 2026 and 2030.

The signed projects equate to 50 gigawatts of renewable energy from solar and wind, more than 3 million tons per annum of green hydrogen and 17 million tons of green hydrogen derivatives. That includes green ammonia or e-methanol, with investments estimated at nearly $90 billion.

Have investors shown interest in establishing factories that use green hydrogen fuel?

We have passed the “interest phase.” The zone is hosting the first and, to date, the largest operational green hydrogen facility at Sokhna Industrial Area. President Abdel Fattah El-Sisi and Jonas Gahr Støre, the Norwegian prime minister, inaugurated it during COP27.

The plant's capacity is 100 megawatt electrolyzers. That is enough to produce up to 50 kilotonnes per annum of green ammonia. A consortium comprising Scatec, OCI, Fertiglobe and The Sovereign Fund of Egypt built that facility.

In addition to our 23 MoUs and 11 framework agreements, at least 10 companies and consortiums have submitted preliminary proposals and will soon sign MoUs. This number grows almost daily as we see consolidations of current projects.

This industry attracted significant players in the renewable energy and oil sectors that see green hydrogen as the future of their industries. Meanwhile, venture capitalists realized the necessity to hedge their investments by investing in green hydrogen.

What are some other reasons why the SCZONE should appeal to investors?

Green hydrogen investors would benefit from its strategic location around one of the world's most vital maritime routes, the Suez Canal, and its proximity to Europe, where demand for green hydrogen is rising.

The pivotal incentive the government gives green hydrogen investors is the integrated ecosystem, whereby the developer signs off for the project with all relevant Egyptian stakeholders, including the Ministry of Electricity & Renewable Energy, for the upstream segment of the project. That includes generation of renewable energy and connection to the grid.

It also consists of the mid-downstream segment, which happens at SCZONE. It starts with power substations that capture generated renewable energy, desalinated water stations and industrial complexes. It also includes storage tanks at the ports and transportation from the factory to the storage sites.

The Sovereign Fund of Egypt signs off on these projects as a potential equity investor.

The SCZONE has allocated two clusters to host the green hydrogen production facilities. The first is a 30 square kilometer plot at Sokhna Industrial Area, which connects directly to Sokhna Port, Egypt's largest port on the Red Sea. The other is a 5 square kilometer plot at East Port Said Industrial Area directly connected to the East Port Said Port at the northern entrance to the Suez Canal.

We selected those two clusters based on investor preferences, and they can be expanded to meet demand.

Investors gain access to industrial and port lands via a 50-year usufruct model. The SCZONE also offers a "shared facilities scheme" to lower capital expenses, thus allowing the production of green hydrogen at competitive prices.

The shared facilities include a centralized desalination plant and a utility corridor connecting production sites to the storage locations. Investors lay pipe infrastructure, with the zone providing one shared pipe for small to medium-sized producers.

The SCZONE also provides power substations and storage tanks on a shared basis for small to medium-sized projects. We are negotiating with several international liquid bulk operators to build and operate Sokhna and East Port Said Port terminals.

All shared facilities will be powered by renewable energy, thus enabling developers to get sustainability or green certifications.

The SCZONE also is working to attract complementary industries around green hydrogen manufacturing clusters to ensure prompt serviceability of tenants. We are talking to large international producers of PV panels, wind blades and turbines, electrolyzers and water desalination equipment.

Lastly, we are partnering with the private sector to establish a technical academy to train the skilled labor needed for this significant industry.

Will the green hydrogen projects meet local demand only, or do you plan to export?

When discussions started less than two years ago, potential investors wanted to export their production.

However, we are witnessing rapid changes in the dynamics of this emerging industry. Investors see the potential of the SCZONE becoming a regional hub for producing green hydrogen and its derivatives.

The leaps we took to realize this vision made investors willing to move their heavy-energy industries to the SCZONE to benefit from incentives and an abundant green hydrogen supply, thus fulfilling their SDG (sustainable development goal) pledges and complying with international market requirements.

A significant milestone was the first operation to refuel Maersk Line's container vessel with e-methanol at East Port Said Port in August. It was the first e-bunkering operation in Egypt, Africa and the Middle East.

OCI, the world's largest producer of methanol fuel, refueled the Maersk Line container vessel with 500 tons of e-methanol at East Port Said Port. That is the highest quantity it had received compared to its other pit stops in South Korea and Singapore during its journey from Asia to Europe.

Based on this success, OCI was granted a six-month permit to practice e-bunkering at East Port Said Port. ■

HYDROGEN BLUEPRINT

The United States is building a green hydrogen-powered economy. Egypt should take note, as it aims to become a regional leader in hydrogen production.

By **Rania Hassan**

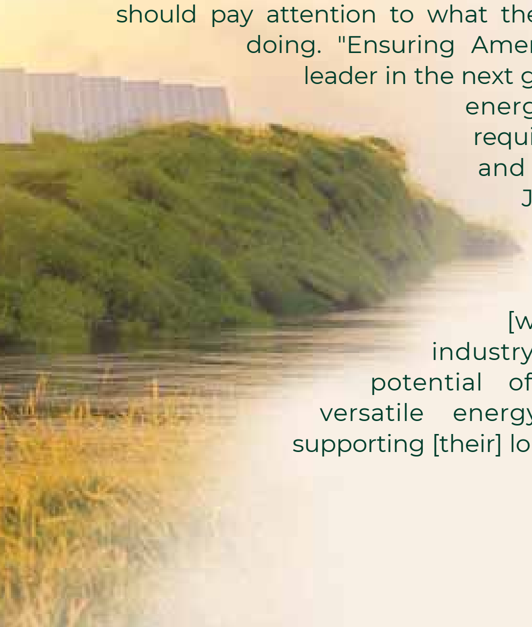
The idea of using the world's most abundant resource (hydrogen) as fuel is not new. According to the World Intellectual Property Organization, Swiss engineer François Isaac de Rivaz patented an engine that used hydrogen and oxygen as fuel in 1806. The idea died quickly when fossil fuel combustion engines proved more feasible.

It was only in 2016 that hydrogen fuel came to the spotlight once more. Countries recognized its potential as a zero-emissions fuel when the EU certified it under the CertiHy Guarantee of Origin that classifies hydrogen's eco-credentials based on its production methods. It can be "gray," "blue," or "green." Gray (and other shades of black) hydrogen fuel uses oil to produce it. Blue hydrogen is when the production process captures and stores carbon emissions, while green hydrogen utilizes renewable sources like solar or wind.

Countries and international agencies are focusing on green hydrogen as one of the best fuels for significantly reducing emissions to meet the 2030 U.N. target of net zero emissions. "Hydrogen as a fuel offers great potential to decarbonize various industries and hard-to-abate sectors," said AirSwift, a consultancy specializing in energy and infrastructure, in a February blog. It "replaces fossil fuels in processes such as refining, iron, steel, chemicals and transport."

Since 2022, the Egyptian government has been floating the idea of becoming a regional hub for green hydrogen. Its main export target is the EU, which is accelerating its transition from natural gas amid supply disruptions from Russia that started last year. According to Mohamed Shaker, minister of electricity and renewable energy, Egypt had signed 23 green hydrogen MoUs as of December.

To convert those MoUs to FDI, the government should pay attention to what the United States is doing. "Ensuring America is the global leader in the next generation of clean energy technologies requires ... government and industry," said Jennifer Granholm, U.S. Secretary of Energy, in July. "That is why [we are] helping industry unlock the full potential of this incredibly versatile energy resource and supporting [their] long-term success."



U.S. vision

The U.S. Department of Energy launched its National Clean Hydrogen Strategy and Roadmap in June. Its vision is to commercialize production and maximize the use of green hydrogen: "Achieving commercial-scale clean hydrogen deployment is critical to creating good-paying jobs and new economic opportunities in communities across the nation while also enabling our long-term decarbonization objectives."

The DOE's "Pathways to Commercial Liftoff: Clean Hydrogen" report, published in March, said, "A hydrogen economy has the potential to add 100,000 net new direct and indirect jobs by 2030." That requires incentivizing and supporting multiple sectors to switch to green hydrogen while ensuring enough supply to meet demand.

The report estimates green hydrogen production would have to increase from just under 1 million metric tons in 2022 annually to 10 million metric tons by 2030 to satisfy projected demand. It added that "near-term demand" will likely come from existing use cases transitioning from gray to green hydrogen. By 2050, the DOE forecasts clean hydrogen production should reach 50 million tons annually.

Creating ecosystems

The DOE established the Regional Clean Hydrogen Hubs (H2Hubs) program last year to "help form the foundation of a national clean hydrogen network." Its funding comes from the Bipartisan Infrastructure Law passed in 2021.

H2Hubs aims to establish six to 10 regional clean hydrogen facilities at an estimated cost of $7 billion. Those centers "will be a central driver in helping communities across the country benefit from clean energy investments, good-paying jobs, and improved energy security."

The program links hydrogen producers, consumers, and the region's connection infrastructure to accelerate the decoupling from fossil fuels. "An added benefit of the H2Hubs program is the opportunity to push for a more diverse mix of hydrogen end-use applications," according to ING Think, the ING Bank's think tank.

H2Hubs will prioritize investments in "production, processing, delivery, storage, and end-use [applications] of clean hydrogen, including innovative uses in the industrial sector," noted the U.S. Office of Clean Energy Demonstrations. Those "are crucial for achieving President Biden's goal of a 100% clean electrical grid by 2035 and net-zero emissions by 2050.

Incentives, incentives

The other "building block" is incentives. Green hydrogen consumers and producers benefit from tax credits under the Inflation Reduction Act (IRA), passed last year. It allocates $369 billion to address energy security and climate change over the next decade.

The IRA gives manufacturers of green hydrogen fuel a tax credit of 2.6 cents on every kilowatt-hour they generate and up to $3 per kilogram of clean hydrogen they produce.

However, those incentives are for valid for the next 10 years. Yuanrong Zhou, a researcher in the International Council on Clean Transportation's fuels program, said that is about a third of the project's lifetime. "Projects starting in 2023 would benefit from the full 10 years' worth of credits, while plants opening later would receive progressively less," Zhou said.

The IRA also gives green hydrogen producers the option of "tax transferability," meaning those producers "can sell their tax credits to a buyer who owes taxes." "The effect of [that option] is still uncertain," said Zhou, adding that benefiting from this option requires additional "legal and due diligence costs."

A February note from ING said producers also can get a "one-time investment tax credit of up to 30% of the cost of a qualified clean hydrogen (or hydrogen storage) property."

She noted this financial support has enticed several U.S.-based manufacturers to scale up their hydrogen dependence and build infrastructure. In the first half of this year, five clean hydrogen projects in the United States were announced, adding to 33 already operational as of the end of 2022.

Challenges

According to the DOE, the first set of challenges facing the U.S. in building a green hydrogen economy is the high cost of infrastructure connecting producers to the project, especially if they are not located in the same vicinity.

ING noted that governments could repurpose existing fossil fuel infrastructure for carrying hydrogen fuel over long distances. Those pipes would "require reconfiguration and adaptation to avoid problems like hydrogen leakage."

Transporters could blend green hydrogen with natural gas to avoid such upgrades. However, that solution has limitations. "Today, natural gas pipelines can handle up to 20% of hydrogen blending; beyond that ... it could damage the pipelines," said ING.

Meanwhile, using land freight to transport green hydrogen requires "specialized ... track and train tanks," also making their application "limited," ING said.

Those factors are coupled with the financial unfeasibility of commercializing hydrogen production. According to Statistica Research Department, the estimated cost of producing blue or green hydrogen in the U.S. is between $3 and $4 per kilogram. A barrel of crude oil (136 kilograms) costs from $3 to $12 to refine. AirSwift's blog post said the higher cost comes from "challenges surrounding production costs, infrastructure, incentivizing demand, storage and transportation."

To reduce production costs, countries must "invest in extensive innovation and technological breakthroughs," AirSwift noted. The most effective approach is to

lower the cost of electricity used to produce clean hydrogen. Producers also need to "increase the efficiency and operating lifetime of facilities."

Those solutions should greatly benefit blue and green hydrogen. The former would use new technologies to capture carbon more efficiently and effectively, while the latter would use advanced solutions to lower the cost of renewable energy. AirSwift stressed that promoting those two types of hydrogen fuel would "unlock structural changes from pilot to commercial scale ventures in time to meet net-zero targets."

The U.S. government says its efforts to entice producers and innovations and increase use cases should bring clean hydrogen costs down to $2 per kilogram by 2025 and $1 by 2030. However, AirSwift stressed those cost estimates are contingent on where the fuel is produced, how it is consumed, and the distribution network and infrastructure used.

Proving credibility

One of the proponents' most significant concerns is eco-friendly production and transportation. That is a sticking point in the United States, given that incentives have four tiers depending on how much CO2 the hydrogen fuel production produces.

Ensuring the eco-credentials of green hydrogen products requires legislation. Frank Wolak, president and CEO of the Fuel Cell and Hydrogen Energy Association, told Reuters in June, "The Treasury must develop a set of guidelines ... The promise of the Inflation Act has been extremely helpful for the United States and has stimulated investments from overseas, but this incomplete guidance leaves unfinished business." That means developing a system to quantify the "greenness" of each producer.

Wolak stressed such a framework is a "high-stakes game" for the industry because "failure to qualify for the highest tier would undermine the economic viability of any green hydrogen project."

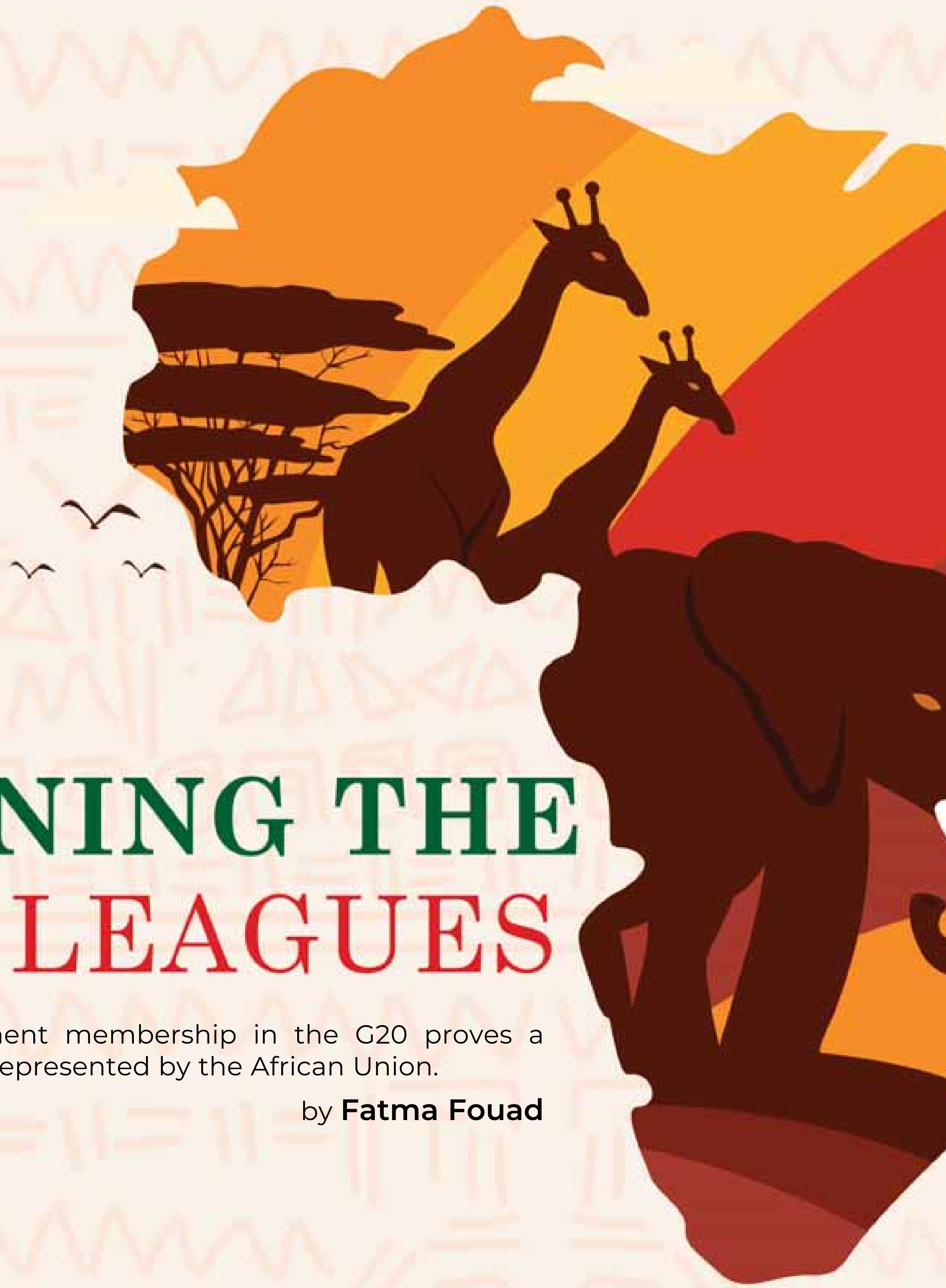
Another question is how "hydrogen producers demonstrate their use of clean electricity" to benefit from the incentives, noted AirSwift. One way is to purchase that electricity directly from producers without going through the national grid. That would be much easier if a green hydrogen producer also had a renewable power plant.

For those who don't have that option, AirSwift stressed the importance of having "power purchase agreements" from the grid to ensure supply. The government also should offer and regulate "renewable energy certificates," which guarantee the purchased electricity is eco-friendly.

The other topic important to hydrogen producers is calculating the "carbon intensity of their delivery," said AirSwift. For one, it determines how much a producer receives in tax credits from the IRA. "Longer-distance delivery of clean hydrogen could [be] more costly, [requiring] further measures to lower transport carbon intensity."

The other factor is whether the hydrogen fuel is transported as a gas via pipelines or liquified and transported on trucks that use fossil fuels. AirSwift noted the environmental impact of the latter is "significantly" higher.

Solidifying eco-credentials quickly while creating use cases for green hydrogen, with supply increasing to match demand, is essential to building a hydrogen economy. "The more quickly guidance rules are out," stressed AirSwift, "the faster projects will be expected to move to their next stages." ■



JOINING THE BIG LEAGUES

Gaining permanent membership in the G20 proves a boon for Africa, represented by the African Union.

by **Fatma Fouad**

The international community increasingly recognizes the importance of coalitions such as the G20, which includes the world's biggest 19 economies and the EU. Such alliances offer valuable support and assist in economic, trade, energy, and climate discussions.

In September, the Financial Times noted that advanced and emerging economies can no longer live in isolated pockets: "The health of our planet and our economy depends on our cooperation."

In September, the African Union (AU) joined the G20 and earned a permanent seat as the second regional bloc in the group. Given Africa's untapped economic potential and fast-growing population, such a step acknowledges the continent's economic prospects.

G20 membership brings numerous advantages, enabling the AU to improve cross-border trade relations, increase clean energy production, and attract FDI, particularly for projects that mitigate climate change.

Fardous Abdel-Baky, a researcher at the Egyptian Centre for Strategic Studies (ECSS), wrote in Al-Ahram Online that AU membership in the G20 will "help attract more investments to Africa in areas such as energy, infrastructure, and technology."

Egypt should significantly capitalize on those opportunities, as it currently chairs the AU's New Partnership for Africa's Development (NEPAD) program.

Two coalitions

Founded in 1999, the G20 is a forum to discuss global economic and financial issues annually.

According to the group's website, the G20's members represent 85% of the global GDP, 75% of international trade, and two-thirds of the world population.

G20 member states recognize the power of enlarging trade relations to maximize global economic growth, capitalizing on the role of the World Trade Organization (WTO). The G20 Summit Declaration 2023 noted that member states will "support policies that enable trade and investment to serve as an engine of growth and prosperity for all." This goal is meant to be achieved by ensuring that trade policies are mutually supportive and aligned with the principles and regulations of the WTO.

The AU comprises all African countries and seeks to build "an integrated, prosperous and peaceful Africa, driven by its own citizens," said the AU website. Collectively, the group has a gross domestic product of $3 trillion, ranked 11th in the world.

Africa has ample human and natural resources that can help the AU boost the continent's growth and excel globally. Africa's young population (40% are under 15, according to data-aggregator Statistica, compared to the 25% global average) of 1.4 billion is set to double by 2050.

Additionally, the African Economic Outlook 2023, published by the African Development Bank Group, says that the continent is endowed with renewable and non-renewable natural resources and minerals necessary for the global transition to a net-zero carbon future. The United Nations notes the continent's vast deposits of natural resources promise a bright future for developing value chains.

"Harnessing the potential of natural resources provides an opportunity to improve the fiscal and debt sustainability of African countries," according to the World Bank,

Internationally, Africa is becoming one of the newest destinations for emerging market investors. According to the United Nations, Africa's economic growth prospects are among the world's brightest and hold significant opportunities for FDI.

Africa's new era

Being included in the G20 alongside major world economies is a step that comes with an array of benefits. "This membership, for which we have long been advocating, will provide a propitious framework for amplifying advocacy in favor of the continent and its effective contribution to meeting global challenges," AU Commission Chairperson Moussa Faki Mahamat, wrote on X (formerly Twitter).

The host of the G20 summit in 2023, Indian Prime Minister Narendra Modi, sees AU admission into the G20 as a mutually beneficial process that will "strengthen the G20 and also strengthen the voice of the Global South," according to Reuters.

Given its substantial population, Africa's representation in the G20 is seen as a pivotal shift from being a recipient to an active influencer in global decisions. "The representation of Africa should be significant because that's how you make for an inclusive global governance architecture. So for the G20 to retain its relevance, it has to reach out to these geographical regions," Harsh Pant, senior analyst at the Delhi-based Observer Research Foundation, said on the National News website.

Trade potential

With its focus on increased cooperation among African countries, the AU is a crucial driver of the continent's development and growth. Globally, the AU also aims to encourage international cooperation and enable the continent to play a more prominent role in the global economy and international negotiations.

The continent is a significant contributor to global economic growth. According to the African Economic Outlook 2023, "Africa remains resilient amidst multiple shocks with average growth projected to stabilize at 4.1% in 2023–24, higher than the estimated 3.8% in 2022."

The AU website noted that the union's trade initiatives are vital in attracting investment and pooling resources to enhance structural transformation. One of the AU's significant initiatives is the African Continental Free Trade Area (AfCFTA) agreement. According to the World Economic Forum Insight Report 2023 titled "AfCFTA: A New Era for Global Business and Investment in Africa," the pact created the world's largest free trade area, which creates a single market that is set to grow to $6.7 trillion in consumer and business spending by 2030.

The AfCFTA should then increase international exports and intra-African trade relations. This will also unlock tremendous opportunities for local and global businesses to enter into and expand throughout new markets across the continent, said the report.

AU membership in the G20 will also open the door for the continent to expand trade with major global players. The World Economic Forum (WEF) says, "The African Union's introduction into the G20 is likely to influence trade flows from the continent."

The G20 has already signaled its openness to easing trade measures and promoting economic integration among its members. Per the 29th Trade Monitoring Report on G20 trade measures, "between mid-October 2022 and mid-May 2023, G20 economies introduced more trade-facilitating than trade-restrictive measures on goods." The G20's facilitating measures were estimated to cover trade valued at $691.9 billion.

Climate agendas

A core topic of G20 discussions is climate change, which significantly affects Africa. In a policy brief published in May 2023 by Development Reimagined, an Africa-based consultancy, "African leaders such as Kenya's President William Ruto have been calling for the inclusion of Africa in climate-related discussions, stressing that Africa has its solutions that will help tackle the matter, which the AU can feed into the G20."

Given these circumstances, the African continent holds significant importance in discussions about climate change due to the abundant resources crucial for addressing and mitigating the effects of climate change. "The African continent has 60% of the world's renewable energy assets and more than 30% of the minerals key to renewable and low-carbon technologies," reported AP News.

Africa's representation in the G20 can be a significant step to foster investments in climate action and green growth. "Between $2.6 trillion and $2.8 trillion is needed by 2030 to implement Africa's climate commitments as expressed in countries' recently submitted Nationally Determined Contributions," said the African Economic Outlook.

The IMF's Global Financial Stability Report 2023 highlights that investments related to climate risk mitigation need to reach 12% of total investments in emerging markets and developing economies by 2030.

During the latest G20 summit, IMF Managing Director Kristalina Georgieva pointed out the importance of bolstering finances for climate action. "G20 members must lead by example in delivering on the promises of $100 billion per year for climate finance, supported by strengthening the Multilateral Development Banks," she said, adding the IMF has secured $40 billion to support vulnerable countries through the Resilience and Sustainability Trust.

In line with the U.N. Sustainable Development Goals, both the G20 and the AU's Agenda 2063 specifically focus on expanding the use of renewable energy. According to the G20 Summit 2023 Declaration, the group aims to "pursue and encourage efforts to triple renewable energy capacity globally through existing targets and policies, as well as demonstrate similar ambition with respect to other zero and low-emission technologies."

The Low-Cost Financing for Energy Transitions Report 2023 estimates a need for $4 trillion in annual investments by 2030 to achieve this goal.

The African Energy Chamber noted, "The continent's overall renewable capacity is projected to increase from about 27.4 gigawatts in 2023 to 280 gigawatts in 2035, showcasing significant opportunities for investors and project developers alike."

However, the continent still needs more funds to develop the African energy sector. The Renewable Energy Market Analysis: Africa and Its Regions report noted that "despite the continent's vast potential and requirements, just 2% of the $2.8 trillion spent on renewables globally between 2000 and 2020 went to Africa."

Members of the G20 according to GDP Dec. 2022

United States.	$25463 billion
China	$17963 billion
Euro Area	$14041 billion
Japan	$4231 billion
Germany	$4072 billion
India.	$3385 billion
United Kingdom	$3071 billion
France.	$2783 billion
Russia	$2240 billion
Canada	$2140 billion
Italy	$2010 billion
Brazil	$1920 billion
Australia	$1675 billion
South Korea	$1665 billion
Mexico	$1414 billion
Spain	$1398 billion
Indonesia	$1319 billion
Saudi Arabia	$1108 billion
Netherlands	$991 billion
Turkey	$906 billion
Switzerland	$808 billion
Argentina	$633 billion
Singapore	$467 billion
South Africa	$406 billion

Egyptian leadership

As an AU member and chair of NEPAD, Egypt plays a significant role in helping the AU achieve its goals of promoting economic integration, accelerating the implementation of the Africa Agenda for Development, and facilitating the AU's integration into the G20.

NEPAD coordinates and implements key continental and regional projects outlined in Agenda 2063. "The primary goal is to expedite regional integration to attain the vision of the Africa we want," said the program's website.

During the New Delhi Summit, Egypt expressed its readiness to become a global hub for grain storage and trade. The AU seat will further facilitate and strengthen existing and future trade relations between Egypt and G20 nations. According to CAPMAS, trade between Egypt and G20 countries reached $88 billion in 2022, up 10% from $80.1 billion in 2021.

Egypt's participation in the G20 as part of the African will enhance its economic potential and weight among the world's top economies. ■

Keyword: Fertilizers

After EGX 70 EWI underperforming for most of the second quarter of 2023, the market's bellwether EGX 30 finally began to stage a comeback in the third quarter. And no, it was not CIB (COMI) that led the index performance from Sept. 15 through Oct. 15. CIB rose only 1.3%, while the EGX 30 rose 4% and the EGX 70 EWI fell 2.3%. The EGX 30 performance was led by some usual suspects, such as Orascom Construction (ORAS, up 56%) and Ezz Steel (ESRS, up 17%). The EGX 30 performance came despite declines outnumbering advances by 80%.

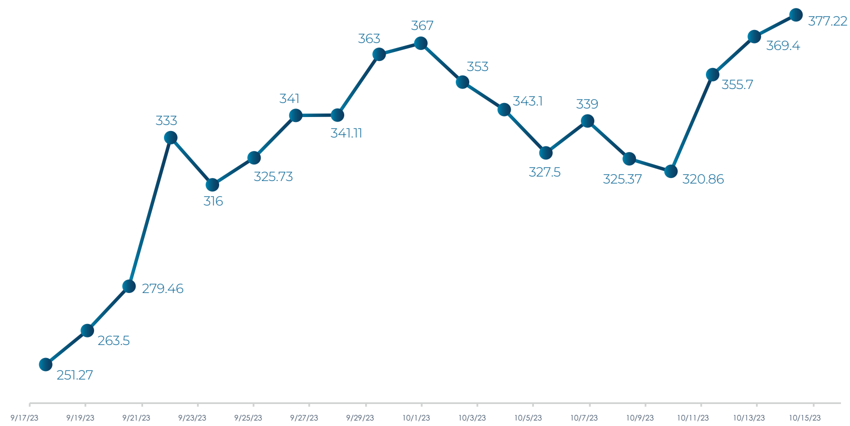
But the keyword during the period was "fertilizers." Almost all stocks linked to fertilizers rose, possibly because of exports. Indeed, Samad Misr (SMFR, up 124%), Misr Fertilizers Production Co. (MFPC, up 75%), Abu Qir Fertilizers (ABUK, up 28%), Kima (EGCH, up 24%) and International Agricultural Products (IFAP, up 22%). There was no explanation for the sector's outperformance, especially with neither urea prices nor the exchange rate moving much. Even IFAP, which has exposure to phosphate fertilizers, rose, while Egyptian Financial & Industrial Co. (EFIC) fell 4%. As Isaac Newton once said, sometimes the madness of the people is incalculable.

Elsewhere, the "export-linked companies" theme seemed to be playing: ORAS, Alexandria Containers Handling (ALCN, up 35%), Delta Sugar (SUGR, up 32%), Misr Chemical Industries (MICH, up 22.5%). Even Misr Hotels (MHOT, up 21%) extended its previous gains. Ironically, other export-linked names were lagging by the end of the period, such as Ezz Ceramics (ECAP, up 5%), Lecico Egypt (LCSW, up 4%), and Alexandria Mineral Oils Co. (AMOC, up 3%). Meanwhile, the year's top performer through 2023 was Memphis Pharmaceuticals (MPCI, up 254%), followed by commodity-related stocks, namely SMFR (up 236%), MFPC (up 235%), SUGR (up 173%), ESRS (up 157%) and Sidi Kerir Petrochemicals (SKPC, up 150%).

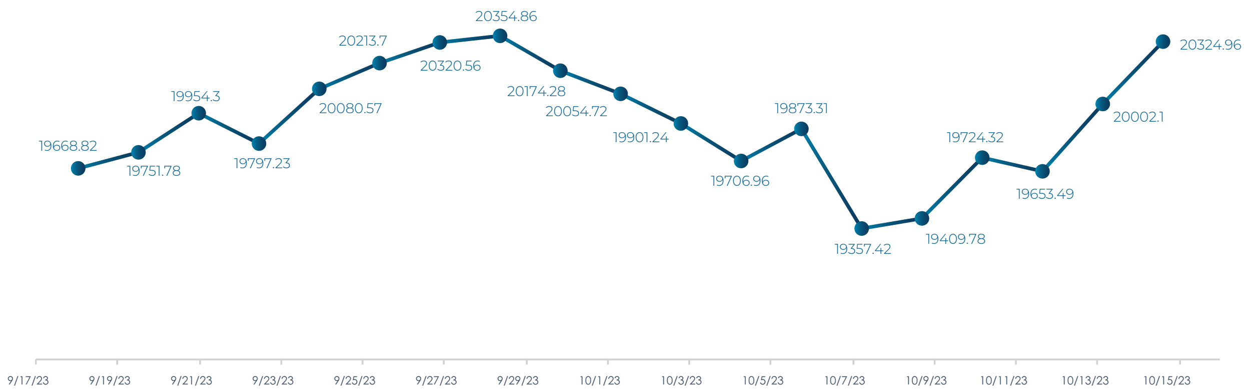
During the period, the Central Bank of Egypt kept its key policy rates unchanged, although inflation continued to rise. But the market seems to be stepping into the "shopping season," where foreign investors often pick and choose companies to pursue for acquisition. On the one hand, foreign investors are looking for highly profitable, high-growth companies that can withstand Egypt's macroeconomic issues. On the other hand, the Egyptian government is looking to sell critical assets to raise foreign currency. It's just a matter of time until some deals are revealed.

Misr Fertilizers Production Co. 'MOPCO' (MFPC)

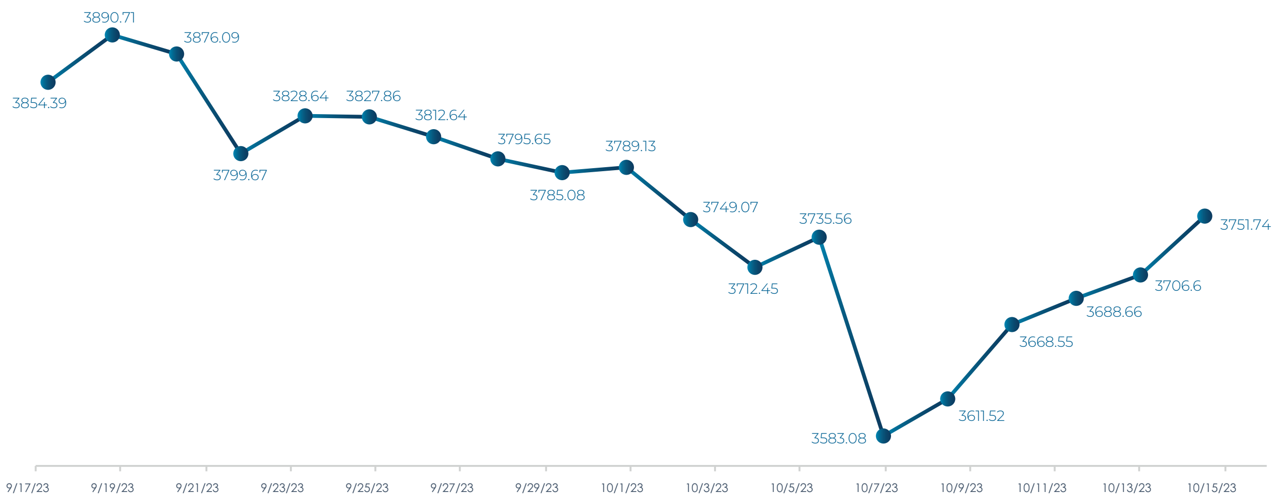
Picture this. Misr Fertilizers Production Co. started t with a market cap of EGP 58 billion, but EGP 100 billion at the end of the period. Later, the stock hit an all-time high of EGP 637, valuing MOPCO at a whopping EGP 146 billion. MOPCO had no significant news except its decision to merge with its wholly-owned subsidiary, Egyptian Nitrogen Products Co., using a 9-to-1 share swap. The stock rose 75%, with 5 million shares (only 2% of outstanding shares) worth EGP1.75 billion changing hands.



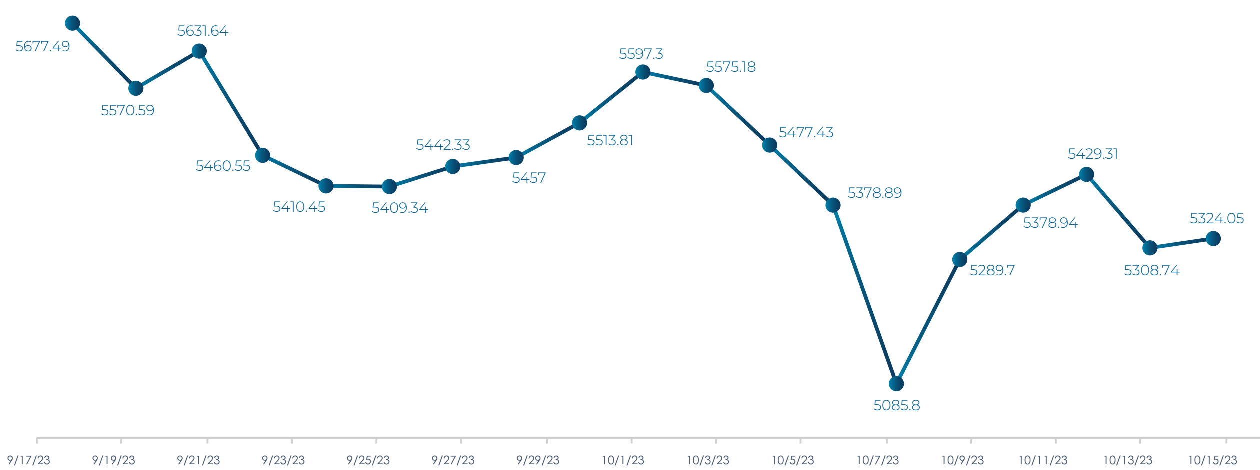
EGX 30



EGX 70



Tamayuz



Tamayuz index is an all-new weighted index, launched on June 23rd. It comprises companies with high free cash flows from operations. EGX stresses that this is not an endorsement of those stocks.

BUILDING A GREEN EGYPT

The Ministry of Environment has been busy introducing initiatives, launching projects and enticing private investment to make Egypt's economy sustainable and eco-friendly.

Compiled by **Rania Hassan**

Given that the world just witnessed its hottest summer on record and projections next year will be even hotter, efforts to decarbonize economies must be immediately effective.

That comes as many countries, including Egypt, face economic pressures. "Despite the economic challenges, the government remains committed to work to protect the environment," Minister of Environment Yasmine Fouad told state-owned Ahram English in June,

Her ministry's work includes initiatives to promote eco-friendly (green) projects, attract private sector investment, and support zero-emission infrastructure and projects. The ministry also is raising public and civil servants' awareness of the need to decarbonize the economy. Financing that transition likely will fall to other ministries and private sector banks.

National strategy

In 2020, the government launched its National Strategy for Climate Change (NSCC) 2050. It comprises four dimensions: managing climate change's adverse effects; ensuring the use of natural resources is sustainable; preserving biodiversity and sustainability of ecosystems; and waste management. "Each of those pillars has a group of targets and enablers to achieve them, plus metrics to monitor progress," Minister of Planning and Economic Development Hala el-Said told the State Information Service in October,

The government directed EGP 410 billion ($13.3 billion) to climate change and adaptation projects in the fiscal year 2022/2023. According to el-Said, 78% of that money went to fix damages caused by extreme weather events, with the rest going to climate adaptation.

El-Said said the near-term target is to increase green investments by 40% this fiscal year, which ends in July 2024, and 50% in fiscal year 2024/2025.

Ministry initiatives

Since 2014, the Ministry of Environment has launched several initiatives to raise public awareness about adopting eco-friendly behavior and protecting the environment.

The first was in 2015, called the Egyptian Pollution Abatement Program (EBAP), in cooperation with Agence Française de Développement and the German government's development and investment bank KfW. The program supports manufacturers that want to decarbonize their operations by offering technical assistance; low-interest, long-term loans; and a grant equivalent to 10% to 20% of project value.

The government has executed EBAP's first three phases, costing EUR 300 million. In late September, Fouad said the next step is to implement the EUR 250 million phase four of the EBAP project from 2024 until 2029.

In April 2021, the Ministry of Environment launched the E-Tadweer initiative to raise awareness and help companies and individuals recycle electronic devices, repurposing reusable materials to manufacture new products.

E-Tadweer has a digital platform and smartphone app to help companies and individuals submit waste collection. The initiative has partnered with Vodafone Egypt, 2B, RAYA and Burger King in Egypt to collect unwanted electronic devices.

In August 2021, the Ministry of Environment announced the "Prepare for Green," the "first environmental initiative in Egypt," said Fouad at the time. "Its focus is on launching a campaign that promotes forestation, recycling, rationing food and energy consumption, limiting plastic use, preserving aquatic life, reducing air pollution, and protecting natural reserves."

In July 2022, the ministry launched the "Return Nature to its Natural State" initiative under the "Prepare for Green" program to raise public awareness of climate change and its consequences ahead of the U.N.'s 27th Conference of the Parties (COP27) in November 2022.

Those efforts allowed the ministry to implement 179 projects that protect natural resources, such as air and water. Others relate to sustainably managing natural reserves and waste.

Waste to energy

In 2013 and 2014, the Environment Ministry invested between $340 to $400 million in converting waste to energy, "encouraging the private to invest in this new opportunity," noted a ministry report in September.

Fouad said the government invested and started promoting waste-to-energy projects in 2021, capitalizing on Egypt's annual 4.5 million and 5 million tons of waste that can be converted to energy. The latest was a $120 million project announced in September in cooperation with Renergy Group Partners and the Ministry of Military Production to convert solid waste to electricity.

To promote investment, Fouad announced the Waste-to-Energy Program in February. It focuses on improving waste collection from major cities nationwide. It also supports the private sector in building waste-to-energy facilities to meet their needs or link to the national power grid.

Air quality

In September 2020, The Environment Ministry announced a $200 million project to improve air quality in Greater Cairo, home to nearly 25% of Egypt's population. Fouad noted, "There was a great focus on projects that dispose of rice straw in an eco-friendly way."

In the past decade, the ministry increased the number of air pollution monitoring stations from 87 in 2014 to 121 in 2023. Air pollution detection outposts, which relay readings to the nearest monitoring stations, rose from 161 to 469 in the same time frame.

The aim is to reduce particulates in the atmosphere by half by 2030. Helping achieve that goal is the presidential initiative to plant 100 million trees by 2030, announced in August 2022.

Water

Over the past 10 years, the Environment Ministry established a network of sensors to measure the quality of water sources across Egypt "in real-time," Fouad said in July. The ministry also oversaw the construction of 25 water purification stations. Five of them are at Lake Mariout, and two at Lake Manzala.

Fouad also noted there are 12 field trips yearly to collect samples from the Red Sea, Mediterranean and Gulf of Suez to measure water quality. The ministry also commissioned a study in cooperation with the National Institute of Oceanography and Fisheries on maintaining ecological balance in rivers, lakes and seas.

In 2017, the ministry announced it was closely monitoring various state-owned facilities to prevent them from dumping their waste in the Nile River and Mediterranean Sea. The ministry also monitors 12 oil and gas excavation sites operated by nine petroleum companies near the Gulf of Suez to ensure they comply with national environmental standards.

Waste management

The Environment Ministry has invested in treating waste and recycling. As of 2023, there were 28 recycling facilities in Egypt handling steel and iron scrap, aluminum cans, glass, paper, wood and plastic.

Between 2014 and 2023, the government also established 17 fixed and 14 mobile processing facilities to sort, weigh and transport recyclable materials collected from trash dumps and collectors.

By 2030, the ministry plans to increase the number of recycling facilities to 56, comprising 50,000 treatment units and employing 150,000 collectors, sorters, traders and truck drivers. In June, Fouad told the media the goal is to recycle 80% of Cairo's waste.

In September 2022, the government announced it was working on the MENA region's first "fully integrated" recycling facility in 10th Ramadan City. It consists of a landfill for dumping non-recyclable waste and four plants to recycle municipal, construction, manufacturing and healthcare waste.

Green opportunities

Efforts to decarbonize Egypt's economy resulted in significant national revenue increases over the past decade. Fouad said they raised revenues of the country's Environment Protection Fund, created in 2007, by 1,600% to EGP 751 million.

Meanwhile, income from natural reserves jumped 2,242% in the past 10 years to reach EGP 280 million thanks to heavy investments in building eco-friendly facilities that serve visitors and simplify and expedite the licensing process for private companies to offer services and activities inside those reserves.

In the first quarter of 2023, Fouad announced the creation of a specialized unit that promotes green and climate investments. The Ministry also organized the first green and climate investment conference, where they announced and launched a digital platform highlighting over 46 investment opportunities in waste management, tourism, bioeconomy and other pollution-abating opportunities.

"Those are just the preliminary opportunities," Fouad told the media during the announcement event. She also said those opportunities are for private-sector investors, including SMEs. "We will offer matchmaking and networking opportunities where they can create partnerships or benefit from the expertise of their peers."

Green money

Specialized financing tools to fund government and private sector projects are to decarbonize Egypt's economy. That would require working with the Ministry of Finance and local banks.

The Finance Ministry and Commercial International Bank (CIB) already have successful track records in issuing specialized instruments.

In September 2020, the government was the first in MENA to issue green bonds. The issue was for $500 million at an interest rate of 5.75% paid over five years. "The bond was more than seven times oversubscribed," said a statement from the World Bank. That "led the government to increase its size to $750 million and lower the interest rate to 5.25% (below Egypt's benchmark conventional bonds)."

In November 2021, CIB issued a $100 million, five-year, fixed-rate green bond to finance companies investing in "renewable energy, industrial energy efficiency, green buildings and resource efficiency," the bank said. Almost immediately after the announcement, CIB said it had identified green investments worth $70 million in Egypt.

A year later, the government announced it had established Egypt's first carbon credit company, opening the door to creating a carbon credit market where low polluters could sell credits to high polluters. It entices the former to invest in green projects to benefit from that additional revenue stream. Meanwhile, the polluter will see operational costs rise if they continue to purchase those credits.

Sarah Abdel-Kader, an environmental and sustainability engineer at the Institute of Global Health and Human Ecology, told Al-Monitor in November 2022, "This step is important in boosting Egypt's efforts to reduce emissions without negatively affecting economic development.

Chamber News

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Luncheon meeting and panel discussion

3 October

Speakers offer lessons for education's future

Building human resources capacity through a proper education system is an important step that boosts the qualifications of Egyptian youth and enhances their employability. That was the topic of discussion during a joint AmCham Egypt luncheon with Education for Employment event on Oct.3.

Ahmed Galal, former minister of finance, shed light on the intrinsic value of education in upholding the concept of "upward social mobility." Galal said getting a good education is the best way for societies to advance, stressing that population growth is

not a problem but a solution in which governments should invest.

Galal said demand for workers is dynamic. However, given the changing technology, workers must be flexible and agile, so ensuring the learning process covers the skills needed is essential. He added that to reform education systems, countries have to work on three main elements: engineering, incentives, and accountability.

"School is part of the society, and society is part of education," said Pekka Kosonen, Finland's ambassador to Egypt. Kosonen noted that people never stop learning and stressed that countries cannot survive without sound education systems.

He noted the Finnish school system is one of the top-ranked in the world, as it teaches students to think for themselves with

minimal guidance. Kosonen also said society and government respect teachers, giving them a lot of liberties.

Becoming a teacher in Finland is desirable because of the critical role of teachers in the community.

Hossam El-Badawy, president of the Badrawy Foundation for Education, said the educational structure in Egypt is uneven in a way that does not lead to change and innovation. He highlighted that vocational education in Egypt is underestimated and considered a "garage for kids."

El-Badrawy said vocational education activities are all related to job creation and market needs. Therefore, vocational

education is an opportunity that can be utilized. However, we as a country are not managing it well.

"The whole idea is to have a critical value for our vocational education. And it cannot be done without the private sector," said El-Badrawy.

On another note, Dalia Ibrahim, chairperson and CEO of Nahdet Misr Publishing House, shed light on the importance of changing the perspective of Egyptian society regarding education from within. She said society has a big problem recognizing the importance of education, particularly vocational training.

Ibrahim pointed out that Nahdet Misr Publishing House is concerned with vocational education training. To realize that goal, the NGO founded Ta'heal to specialize in offering vocational education and training. Furthermore, Ta'heal partnered with the Finnish company OEP, a vocational training provider.

Ibrahim stated there are 52 applied technology schools in Egypt where industry leaders collaborated with the Ministry of Education to fund and operate the schools. Nahdet Misr sponsors a school specializing in hospitality.

Given the development of technology and the importance of making education more responsive to change, she cited a study by McKinsey saying 375 million people will have to switch jobs by 2030, making up nearly 14% of employment worldwide.

Customs and Taxation

4 October

The latest on Taxation Policy

On Oct. 4, the AmCham Customs and Taxation Committee hosted a session addressing "Egyptian Tax Authority Latest Updates and Developments" with guest speakers Fayez El Dabaany, Head of the Egyptian Tax Authority, and Sayed Saqr, Deputy Head of the Egyptian Tax Authority.

El Dabaany said they have undertaken significant steps to modernize and automate the Egyptian Tax Authority. Those changes play a pivotal role in advancing the financial stability of Egypt.

One of his key initiatives is implementing the electronic invoice system, with a strict policy for registration. That ensures comprehensive coverage and transparency in tax-related transactions.

To expedite the tax audit process, El Dabaany emphasized the dedication of tax centers in swiftly conducting tax checks. Additionally, the Egyptian Tax Authority boasts a team of highly qualified examiners with top-notch training to perform meticulous inspection work.

To boost compliance and tax revenues, the government announced an incentive system to encourage citizens to request electronic invoices or receipts. Furthermore, the automation of tax business, including the management of salaries through the payroll system, proves to be a pivotal step, offering significant benefits.

Saqr is actively involved in establishing a seamless connection between the electronic invoice system and the customs platform, Nafeza. This integration enhances efficiency in cross-border transactions and taxation.

Hassan Hegazi, Chairman of the AmCham Customs and Taxation Committee, extended his gratitude to the Ministry of Finance and the Egyptian Tax Authority for their quick and responsive approach to addressing issues within the business community. Hossam Nasr, Committee Co-Chair, has also recognized Egypt's pioneering efforts in automation of tax procedures. He highlighted that the Egyptian Tax Authority is a model for the Arab region.

Banking

18 October

Navigating Digital Payment Security

On Oct. 18, AmCham Egypt's Banking Committee held a session on Navigating the Digital Payment Security Landscape: Dynamics and Imperatives. Guest speakers were Charles Lobo, the Vice President and Regional Risk Officer for Visa (CEMEA), and Faten Wehbi, Head of Risk-North Africa, Levant and Pakistan at Visa.

The session highlighted the payment dynamics in the CEMEA Region, the top five trends for payment security, and the efforts of Visa to combat payment fraud and misuse.

After COVID-19, users widely adopted digital payments, some of which are new to that ecosystem, having never used eCommerce, digital platforms, or digital payments to buy products or services.

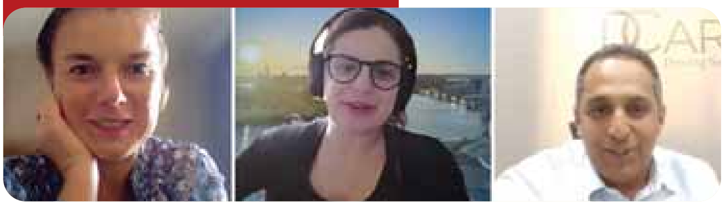
There were also permanent behavioral shifts post-pandemic, which put consumers at risk of fraud. Meanwhile, studies have shown that 81% of consumers are willing to pay more for a positive shopping experience. Globally, experts forecast the number of consumers using digital wallets to grow from 3.5 billion users in 2022 to 5.2 billion in 2026.

With the growing trends in the digital payment landscape, attacks on consumers are increasing, and fraudsters are becoming more sophisticated when attacking susceptible users.

Fraudsters usually target the early stages of the transaction lifecycle. That resulted in capital and funding for technology companies slowing down, just as interest and participation in the digital economy have grown.

To protect consumers from fraud, Visa is working on securing the ecosystem by protecting against potential threats, defending against ongoing attacks, tailoring risk management to consumers' unique needs, and evolving its capabilities with a shifting landscape.

Women in Business and IFC



18 October

Inclusive Green Jobs in Egypt's Climate Transition

The Women in Business Committee and the International Finance Corporation (IFC) hosted a session on "Inclusive Green Jobs in Egypt's Climate Transition" on Oct. 18. Guest speakers were Ehab Shalaby, CEO of DCarbon; Eva Bernard, Principal, Gender and Economic Inclusion in EBRD; and Laura Schmid, Skills and Employability Specialist for North Africa and the Horn of Africa at the ILO.

Schmid said a just transition maximizes the social and economic opportunities of climate and environmental action while minimizing engagement and respect for fundamental principles and rights at work.

Bernard said EBRD has two new strategies to increase women's employment in climate-related projects. One tackles inequality, while other promotes gender equality. She noted that women are well-represented in agriculture, tourism, and waste management, but underrepresented in energy, transportation, and construction sectors.

EBRD's Programme for Supporting Renewable Energy and Promoting Gender Equality in Egypt is one aspect of a $7 million technical cooperation initiative co-funded by the EBRD and the Gender Climate Fund (GCF).

It aims to enhance renewable energy integration, policies, and planning to support the country in meeting its 20% renewable energy generation target by 2022 and 42% by 2035.

The Program aims to lower socioeconomic barriers, enabling the government and private-sector companies operating in renewables to promote women's access to economic opportunities.

Shalaby noted that it is essential to identify the return on investment regarding women's employment opportunities, the return on impact, and the return of a just transition to develop a strategy that includes women.

Creating a supportive policy framework that promotes green investments, encourages innovation, and provides incentives for creating green jobs is crucial. Speakers also highlighted the importance of collaboration between government, international organizations, private sector actors, and civil society to drive the green transition and ensure inclusive outcomes.

Field Trip

22 October

A visit to Trans Misr Terminal (TMT)

On Oct. 22, AmCham Egypt’s Transport and Logistics Committee organized a field trip for AmCham members to the newly inaugurated Trans Misr Terminal (TMT) at the Port of Alexandria. The tour provided an in-depth exploration of the cutting-edge facilities at the TMT, including planning hubs, warehouses, platforms, and general port facilities.

Trans Misr Terminal (TMT) is a substantial new addition to the Alexandria Port, officially opened on June 2023, by Egypt's President Abdel-Fattah El-Sisi. The terminal occupies 500,000 square meters and features three dedicated stations for handling containers, general goods, and vehicles.

TMT boasts a remarkable maximum annual throughput capacity of 1.5 million TEUs and incorporates innovative and eco-friendly loading technologies. These advanced features enable the terminal to efficiently handle between 12 million to 15 million tons of goods annually while simultaneously accommodating up to seven large-tonnage ships.

The members enjoyed detailed presentations by Christophe Cassang, the Head of the Terminal. He provided insights into the operations and capabilities of the facility, and the Terminal's Technical Consultant, Ahmed El Mahdy, shared his expertise on the technical aspects. AmCham members also had the opportunity to participate in a guided tour around the terminal. This tour allowed them to witness firsthand the advanced logistics systems in action, providing a deeper understanding of the terminal's day-to-day operations.

This field trip was an invaluable opportunity for AmCham Egypt members to witness the innovation and efficiency that TMT brings to the logistics landscape, making it a noteworthy addition to Egypt's transportation and logistics infrastructure.

Breakfast with SAP Regional President

23 October

Leveraging AI in Business

"Hyper-cycles are common in technology," Emmanuel Raptopoulos, Regional President of SAP Southern Europe Middle East and Africa, told AmCham Egypt during a Breakfast event held on Oct. 23. "OpenAI's [tools] prove they are the dawn of a new technology that will benefit all businesses."

He said, Generative AI (GenAI), which OpenAI pioneered, is not a "democracy, with companies choosing to adopt them," said Raptopoulos. "The competition will use GenAI to catch up and surpass market leaders. We have many stories from history on new entrants pushing market leaders out of business because they don't adapt to the latest technologies quickly."

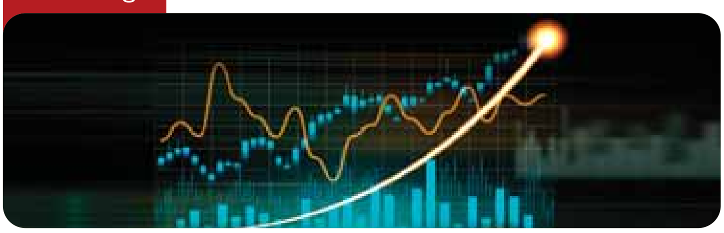
Ernesto Schmitz, Business Transformation Lead at SAP Southern Europe Middle East and Africa, said, to fully benefit from GenAI and similar tools, "companies must focus on their strengths, whether in products to create new business models, talent and people to improve talent and process intelligence, and lastly data to create trusted data sets to innovate.

A panel discussion followed SAP's presentation. Hani Berzi, CEO of Edita Food Industries, talked about how their newly-created Research and Innovation department which helped them create new products and improve existing ones. It also helped them improve their sales operations, increase efficiency and reduce costs.

Mohamed Abou Ghaly, Abou Ghaly Motors CEO, said AI helped them reduce their inventory by 60% while increasing parts availability by 85% by simulating the driving habits of customers using previous maintenance visits.

Mostafa El Gabaly, Managing Director of Abu Zaabal Fertilizers, used the downtime of COVID-19 lock downs in 2020 to expedite the company's digital transformation in seven months. "Before 2020, we had nothing," he said. The key to that turnaround was after partnering with tech companies who worked with other fertilizer companies. "We customized nothing," El Gabaly said.

Banking



26 October

Moody's Views on Egypt's Credit Risk Profile

AmCham Egypt's Banking Committee hosted its first Webinar discussion with Moody's Investment Services on Oct. 26.

Elisa-Parisi Capone, Vice President and Senior Analyst at Moody's, spoke on "Moody's Views on Egypt's Credit Risk Profile from the Sovereign Credit Perspective."

The presentation focused on Egypt's liquidity risks, policy constraints, and recent exposure to geopolitical events. Capone also highlighted how those factors impacted Egypt's credit rating and sovereign credit profile.

The IMF program, asset sale program, and partial floating of currency in early 2023 have helped stabilize government finances, allowing it to report a positive net asset position for the government.

Those policies and circumstances put the economy on the right track for recovery. However, throughout the year, several geopolitical and economic events resulted in the stalling or reversing those positive steps.

That resulted in a renewed buildup in the parallel exchange rate. Combined with ongoing challenges to secure foreign currency, that led Moody's to drop Egypt one step to CAA1- with a stable outlook grade.

Throughout 2023, foreign exchange shortages and rising external debt service payments contributed to the October downgrade of Egypt's long-term foreign and local currency issuer ratings from B3 to B2. Capone noted that tightening external and domestic financing conditions raises reliance on reform-conditioned international financial support.

Capone engaged in a Q&A session with members regarding the challenges the Egyptian economy is facing, how Moody's analyzes the macroeconomic factors affecting the economy and the strength and commitment of the international credit rating agency's internal regulations in terms of evaluating a country's risk.

NEW MEMBERS

Membership Type:
Associate Resident

INFORMATION & COMMUNICATION TECHNOLOGY

Swift Act
Mohamed Madbouly
Chief Executive Officer

Address: Smart Village, B107, Km 28 Cairo-Alexandria Desert Road, 12577, Sixth of October City
Website: www.swift-act.com

Membership Type:
Associate Resident

HOSPITALITY/TOURISM/TRAVEL

Arab Company for Hotels & Tourism Investments ACHTI
Asser Hamdy
Chairman & Managing Director

Address: Al Marwa Towers 2, Tower 4, Ahmed Tayseer Street, Koliyet El Binat , Heliopolis
Tel: (20-2) 2291-2053
Website: www.achti.com.eg

For any change to contact information, please contact the Membership Services Department at the Chamber's office
Tel: (20-2) 3333-6900, ext. 0016 | **Fax:** (20-2) 3336-1050 | **E-mail:** membership@amcham.org.eg

NEW AFFILIATE MEMBERS

Agriculture

Adel El Wahsh
CFO, Al Dahlia for Import & Export

Dina Nabil
COO, Al Dahlia for Import & Export

Samy El Wahsh
CEO, Al Dahlia for Import & Export

Ahmed ElNaggar
CEO, Daltex Corporation

Consultancy

Ahmed Fahmy Ezzat
Managing Director, Midwater

Financial Sector

Yasmine Haggag
Head of Products and Marketing, Tanmeyah Micro Enterprise Services

Hospitality/Tourism/Travel

Sherif Osman
Director of Sales & Marketing, Four Seasons Hotel Cairo at the First Residence

Investment

Hana Hussein
Investment Director, Tawasol Holdings for Financial Investments

Pharmaceuticals

Amir Ghattas
Country/Regional Director, Medtronic Egypt

NEW REPLACEMENTS IN MEMBER COMPANIES

Moustafa Abdelbaki
Agricultural Director,Domiatec Group for Investment & Agriculture Development

Category: Affiliate
Sector: Agriculture

Nihal Ibrahim Mossilhi
Business Development Section Head, Domiatec Group for Investment & Agriculture Development

Category: Affiliate
Sector: Agriculture

Omar Tarek ElGamal
Commercial Director,Redcon Construction

Category: :Affiliate
Sector: Construction Engineering Services

Salma El-Sayeh
Deputy Managing Director,Ahead of the Curve

Category: Associate Resident
Sector: Consultancy

Jinu Johnson
CEO and Managing Director,Tanmeyah Micro Enterprise Services

Category: Associate Resident
Sector: Financial Sector

Yasmine ElFiqi
BEO,Nestlé Waters Egypt, SAE

Category: Associate Resident
Sector: Food & Beverage

Mohamed Hefny
Managing Director,Kyndryl

Category: General
Sector: Information & Communication Technology

Zaher Ibrahim
Vice president EMEA Region,Baker Hughes

Category: General
Sector: Petroleum

Senol Keserlioglu
General Manager,Hayat Egypt

Category: Associate Resident
Sector: Pharmaceuticals

Ayman Hassan
Vice President and General Manager,NovoNordisk

Category: Associate Resident
Sector: Pharmaceuticals

Ashraf Hamasa
Managing Director,Siemens Energy

Category: Multinational
Sector: Power and Renewable Energy Services

Sherif Taha
Chief Development Officer,City Edge Developments

Category: Affiliate
Sector: Real Estate

Aya Waheed
Director, People & Culture,Basharsoft

Category: Affiliate
Sector: Service Providers

Change in Membership Category

Mai Abdel Rahman
Programme Analyst,United Nations Development Programme UNDP - Egypt Country Office

Category: Public & Diplomatic
Sector: Diplomatic Missions

Ahmed Auf
CEO, Abu Auf

Category: Asscoiate Resident
Sector: Food & Beverage

Omar Shelbaya
CEO,AXA Egypt

Category: Asscoiate Resident
Sector: Insurance

A Glance At The Press

Food and drink are now very expensive, so we are living on photosynthesis !!

Al Masry Al Youm, Oct 25

Media Lite collates a selection of some the most entertaining offbeat and lighthearted news items published in the local press. All opinions and allegations belong solely to the original source publications and no attempt has been made to ascertain their veracity.

Arab movies set for an Oscar run

The Arab movies "Bye Bye Tiberias" and "Inshallah a Boy" will run for nominations for this year's Oscars race if shortlisted.

Lina Soualem's "Bye Bye Tiberias" is a Palestinian documentary that tells the story of Hiam as she returns to her village in Palestine with her daughter after leaving to pursue an acting career in France. The film explores four generations of women and their shared legacy of separation.

Amjad Al Rasheed's "Inshallah a Boy" is a Jordanian movie about a woman in desperate need trying to claim her late husband's inheritance. Under Jordan's inheritance law, his family is entitled to his belongings as she does not have a son.

In addition, Egypt has recently nominated the movie “Voy! Voy! Voy!” for the Best Foreign Language Film category. Directed by Omar Hilal, the film tells the tale of an Egyptian security guard who dreamed of traveling and living abroad. One day he decided to pretend to be blind to join a blind soccer team participating in the World Cup in Europe.

Scoopempire, Oct.1

Archaeologists find pyramid storage chambers

An Egyptian-German team of archaeologists from the University of Würzburg discovered storage chambers in the Pyramid of King Sahure at the Abu Sir site near Giza in September.

The team, led by Egyptologist Mohamed Ismail Khaled, found eight chambers, offering significant insight into the design of the king's pyramid.

The storage chambers will be available for future research projects upon the completion of the excavation. According to the secretary-general of the Supreme Council of Antiquities in Egypt, Mostafa Waziri, the chambers will be opened to the public in the near future.

Egyptian Streets, Sept. 29

Alexandria Graeco-Roman Museum reopens

After nearly two decades of restoration work, Alexandria's Graeco-Roman Museum reopened its doors to the public in October.

"The development of the museum was aimed to amplify the enlightening message of one of the most important and greatest museums in the entire Mediterranean basin," Minister of Tourism and Antiquities Ahmed Eissa said during the reopening ceremony.

"This museum is a new institution added to Egypt's tourism map and an achievement within the state's plan to revive archaeological areas and headquarters," Prime Minister Mostafa Madbouly added.

At the inauguration event were Minister of Local Development Hisham Amna, Minister of Environment Yasmine Fouad, Minister of Culture Nevine El-Kilani, and Alexandria Governor of Alexandria Mohamed El-Sherif.

The attendees also included Dr. Mostafa Waziri, head of the Supreme Council of Antiquities (SCA), and the ambassadors of Greece and Cyprus to Egypt.

Egyptian Streets, Oct.13