وزارة التعاون الدولي
Ministry of International Cooperation

Building Momentum to UN COP27: Strengthening Stakeholder Collaboration on Climate Action

FINANCING OPPORTUNITIES FOR SUSTAINABLE INFRASTRUCTURE PROJECTS IN EGYPT

March 2022

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Introduction

- As the world aligns its efforts to build back better on its route to recovery from the COVID-19 pandemic, climate change has been pushed to the forefront of the international agenda.
- Given the multidimensionality and complexity of climate change, its consequences extend to affect every aspect of the peoples' and nations' sustainability efforts.
- Combating climate change and the enhancement of the citizens' social, economic, and environmental resilience is at the heart of government's national agenda .
- Investment in sustainable infrastructure is fundamental to meet the climate agenda and abide by the Paris Agreement commitments.
- Innovative finance is an effective tool to support the achievement of sustainable development goals.

DRIVING RESILIENCE THROUGH INVESTING IN SUSTAINABLE INFRASTRUCTURE

Green and sustainable infrastructure is the driving force of economic growth, creating a multiplier effect by reflecting on human capital and on the country's overall sustainable development by:

- expanding outreach of public services,
- facilitating access to markets, and
- reducing logistical costs,
- Unleashing the potential of the economy and enhancing private sector engagement.

PRIOR TO COVID IT WAS ESTIMATED EGYPT NEEDED $ 675 BN OVER A PERIOD OF 20 YEARS

(G20 Global Infrastructure Outlook)

INFRASTRUCTURE IS AT THE FOREFRONT OF EGYPT'S DEVELOPMENT AGENDA

The GoE put addressing regulatory reforms and identifying investment gaps at the forefront to create an enabling environment to facilitate private sector engagement in green and sustainable infrastructure projects and leverage international partnerships to bridge the technical and financing gap.

All reforms initiatives have climate change, gender and digital transformation as cross-cutting themes to ensure investments are sustainable and inclusive.

WORLD BANK'S REPORTON EGYPT

IDENTIFIED 4 PRIORITY AREAS

Energy

Diversified & renewable energy supplies > Regional Energy Hub

Transport

Multimodal freight and integrated mass transit > Global Trade Hub

Water

Wastewater management & water desalination > Enhanced Security & Sustainability

Agriculture

Efficient production and supply > Agribusiness Transformation Hub

EGYPT

Enabling Private Investment and Commercial Financing in Infrastructure

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PAVING THE ROAD TO A GREEN ECONOMY

EGYPT: REGIONAL ENERGY HUB

ELECTRICITY AND RENEWABLE ENERGY

Starting 2014, Egypt has put the sector on top of its priorities to keep pace with the growing demand for energy.

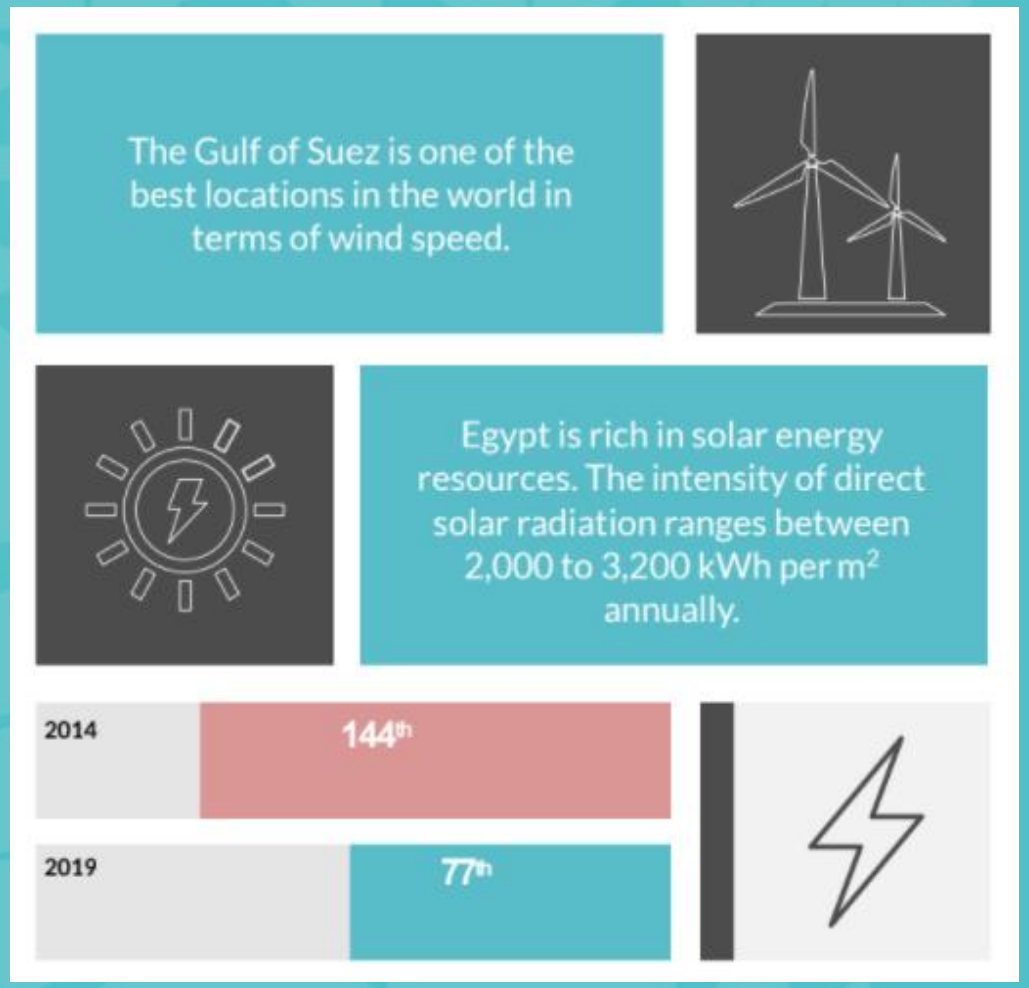
The energy sector accounts for 13% of the country's

GDP.

Egypt seeks to increase private investments in projects related to renewable energy sources such as wind and solar energy, in addition to investing in electricity transmission network.

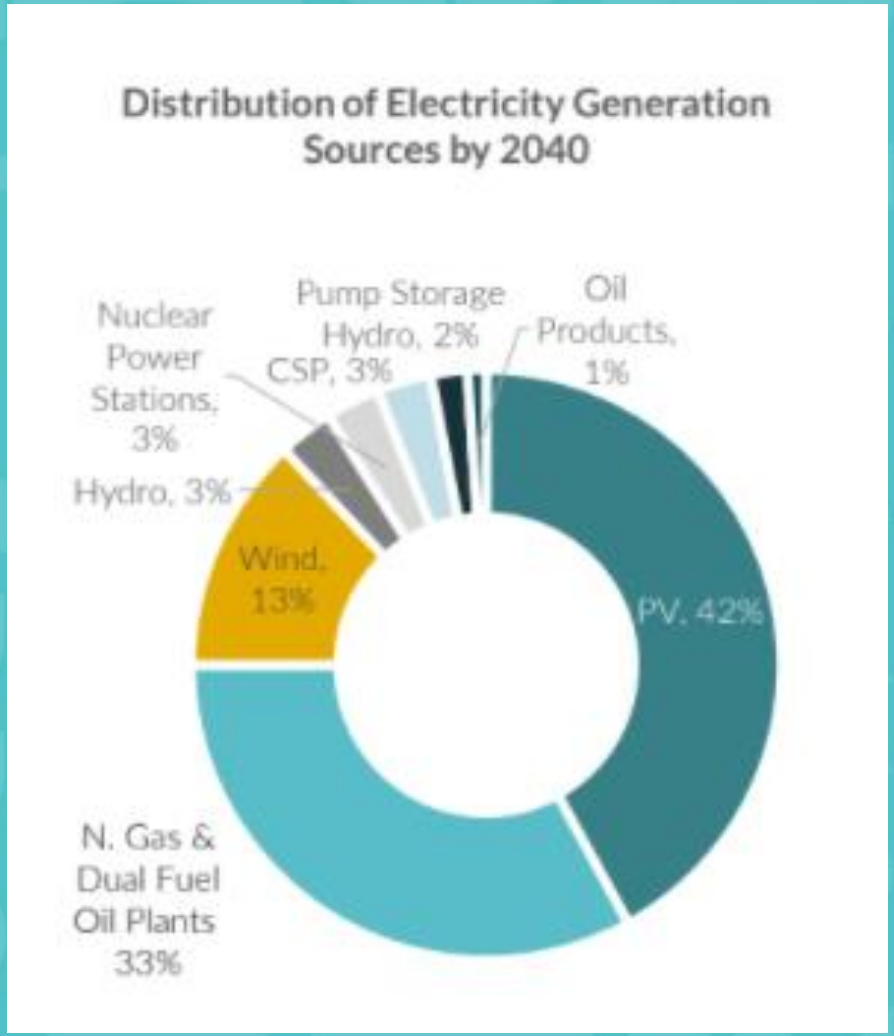
Egypt has a distinct geographical location that enables it to produce wind and solar power in large quantities.

Egypt has advanced 67 positions in the access to electricity index according to the World Bank's Doing Business Report out of a total of 190 countries between 2014 and 2019.



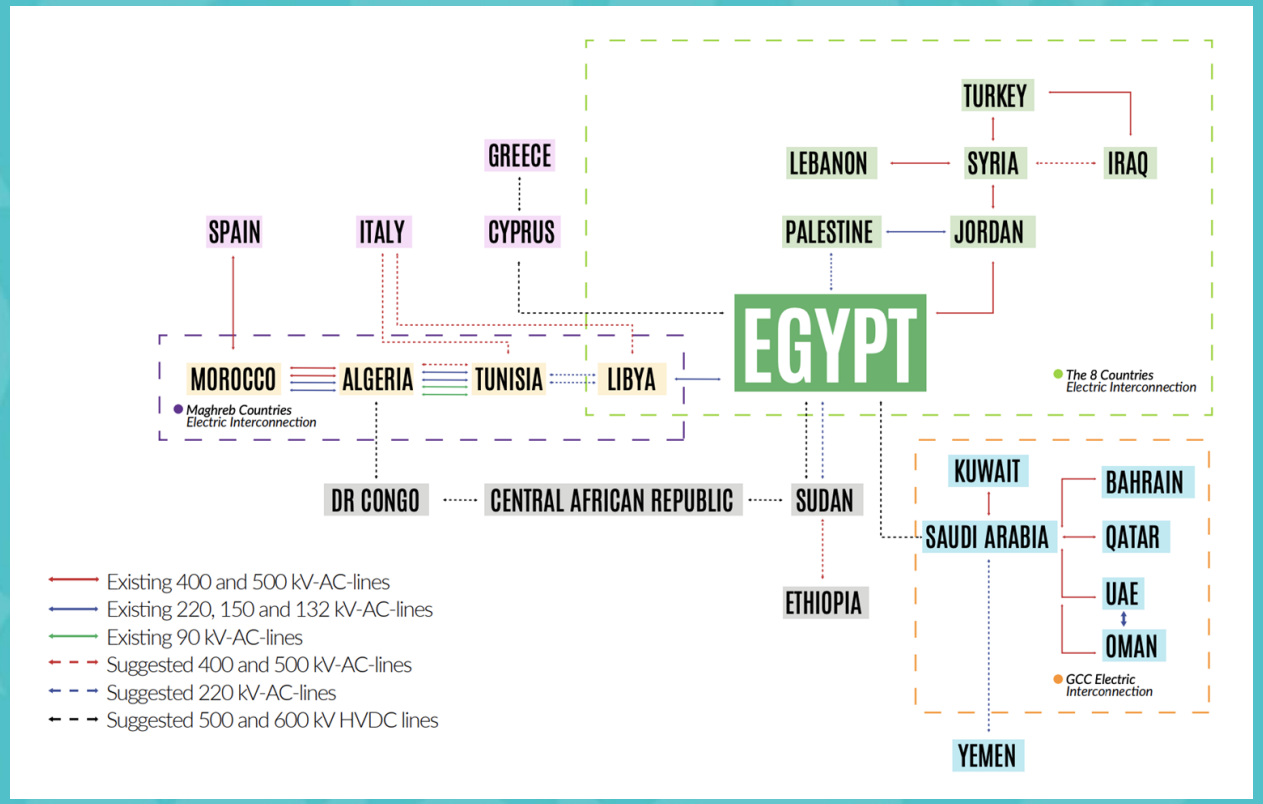
THE INTEGRATED SUSTAINABLE ENERGY STRATEGY

- The Integrated Sustainable Energy Strategy 2040 has abolished the use of coal for electricity generation and replaced it by renewable sources of energy. The strategy targets the production of 20% of electricity from renewable sources by 2022, 55% by 2035 and 61% by 2040 distributed as follows:
  - 45% solar energy
  - 13% wind energy
  - 3% hydroelectric energy
- Green hydrogen generation has been included in the National Energy Strategy to expand its uses as a source of new energy.
- The Government of Egypt is currently developing a National Green Hydrogen Strategy in collaboration with the EBRD.



A REGIONAL HUB FOR ELECTRICITY & INTERCONNECTIVITY

- The economic reform program has resulted in a surplus in electricity production and net exports. This provides a real opportunity to invest in the electricity storage.
- Egypt has become a regional hub for electricity & interconnectivity between the three continents. There are many investment opportunities to participate in electrical interconnection projects.
- Egypt seeks to achieve electricity connectivity with neighboring countries in Africa, Europe and Asia which stimulates the intra-regional electricity trade.



POWER CONNECTIONS

EGYPT-KSA Electrical Interconnection Project:
This submarine and land cable system will and foster the strategic exchange of energy amounting to 3000 MW and connect two continents.

EGYPT-CYPRUS-GREECE Subsea Cable:
This link that would later extend to the rest of Europe is a way to export some of Egypt's electricity at a time when the country is banking on clean energy, to increase its installed capacity and diversify its electricity mix.

Connection with Africa: Egypt has power links with Libya in the west and Sudan in the south.

EIGHT-COUNTRY Interconnection Project:

Another mega project involves interconnecting the electrical grids of Egypt, Iraq, Jordan, Libya, Lebanon, Palestine, Syria, and Turkey.

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REFORMS IN THE ENERGY SECTOR

LEGISLATIVE REFORMS

- The Renewable Energy Law issued in 2014 (Decree Law 203/2014), encouraged the private sector to play a role in the country's green transformation strategy and produce electricity from renewable energy sources.

- The Egyptian government launched an electrical tariff reform program in 2014 and is to be completed by 2025

- The law put in place to encourage investment in renewable energy was issued in December 2014. It includes four mechanisms to promote electricity generation from renewable energy sources:
  - Engineering, Procurement and Construction (EPC) + Finance scheme
  - Independent Power Plant (IPP) scheme
  - Build Operate Own (BOO) scheme
  - Feed-In-Tariff (FIT)
- New legislative reforms were issued to allow partnership with the private sector to build and operate renewable energy projects.

RENEWABLE ENERGY: AN EVOLVING NARRATIVE

IMPACT ON PRIVATE SECTOR

- Total current renewable power generation capacity is 5878 M.W. and was to reach 6378 M.W. by the end of 2021.
- Given the competitive conditions of the renewable energy market, the current offers are at 2 and 3 cents/kWh for solar and wind energy, respectively.
- The government's efforts have helped to increase the investment of major international companies in the sector, such as:

- KarmSolar, the first private solar integrator in Egypt to obtain a license from the Egyptian Electricity Regulatory Agency, helped Egypt become one of the region's leading countries in renewable energy in the recent 2020 Solar Outlook Report.
- The government has opened talks with European infrastructure investors and traders to join in on investing in the EuroAfrica electricity transmission link. It will connect Egypt's electricity grid to mainland Europe via Cyprus, making it the longest interconnector cable in the world.

Egypt enjoys an abundance of renewable energy resources with high deployment potential, including hydropower, wind, solar and biomass.

There are 30 projects within the Ministry of International Cooperation's portfolio addressing SDG 7: Affordable and Clean Energy, with a total of $4.6 billion, making the third highest share of ODA financing, 17.5% in 2021, compared to 23.5% in 2020, due to an increase in the private sector investment contributing to SDG7

There are currently 7 electricity stations with a generation capacity of 8900 MW, 5 renewable energy power plants (wind and solar) were established with a generation capacity of 396 MW, 397 thousand tons reduction in carbon emissions for renewable energy projects annually.

RENEWABLE ENERGY IN EGYPT | *Solar Power*

RENEWABLE ENERGY IN EGYPT | *Solar Power*

Egypt is rich in solar energy resources. The intensity of direct solar radiation ranges between 2,000 to 3,200 kWh per m2 annually.

Leading up to 2035, Egypt's Sustainable Energy Strategy outlines the country’s aim to increase the supply of electricity generated from renewable sources to 20% by 2022 and 42% by 2035, with solar providing 25%.

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RENEWABLE ENERGY IN EGYPT | *Solar Power*

BENBAN SOLAR PARK

The world's largest solar array.

It involves **13 private sector companies**, employs more than 10,000 people, and houses 32 power plants.

The solar park produced more than 1,650 megawatts of electricity, enough to power hundreds of thousands of homes and businesses.

The project is expected to avoid **2 million tons of greenhouse gas emissions** a year, the equivalent of taking about 400,000 cars off the road.

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RENEWABLE ENERGY IN EGYPT | *Wind Farms*

RENEWABLE ENERGY IN EGYPT | *Wind Farms*

In 2018, new power plants were completed at Beni Suef, Burullus and the New Administrative Capital, which can supply reliable power to **40 million people**. The new power stations include 12 new wind power parks with approximately 600 wind turbines.

RENEWABLE ENERGY IN EGYPT | *Wind Farms*

GULF OF SUEZ WIND FARM

GoE implemented the Gulf of Suez Wind farm in partnership with EBRD, KFW, AFD and the EU.

The project is considered Egypt's first private and largest wind farm.

The project is being developed by Ras Ghareb Wind Energy, a special-purpose joint venture company established by Engie, Orascom Construction, Eurus Energy and Toyota Tsusho Corporation.

RENEWABLE ENERGY IN EGYPT |

Hydropower

RENEWABLE ENERGY IN EGYPT | *Hydropower*

- Egypt aims to re-energize and re-frame the dialogue on water as its availability and sustainable management is crucial for survival, and is a basic human right to all communities.
- Since the built of the Aswan High Dam in the 1960s, Egypt has been investing in the hydropower energy generation.
- The country has a technically feasible hydropower potential of an average of 50,000 GWh/year strongly depending on the Nile River, the flow, upstream requirements and irrigation needs.
- Therefore, the 2035 Integrated Sustainable Energy Strategy, emphasizes the importance of renewable energy, with hydropower expected to supply 3% of the total 61% of electricity supply by renewable energy by 2040.

NEW ASSIUT BARRAGE

The New Assiut Barrage is the third largest water project on the Nile after the High Dam and Naga Hammadi Barrage.

The construction of this barrage is the largest single water project ever financed by KfW worldwide, worth $300 million.

It aims to improve navigation of the Nile, provide irrigation to 1.6 million feddans and supply clean electricity to 130,000 households through its 32 MW hydropower plant.

It was contracted to the Egyptian-French Joint Venture between Vinci (France), the Arab Contractors Company and Orascom (Egypt).

Development Partners: KFW, EIB, AFD, EC, and Switzerland.

RENEWABLE ENERGY IN EGYPT | *Green Hydrogen*

RENEWABLE ENERGY IN EGYPT | *Green Hydrogen*

A letter of intent was signed in January 2021 between the Egyptian Electricity Holding Company and Siemens to implement a pilot project for the production of green hydrogen in Egypt with a capacity of 100 MW or more, as a first step towards expansion in this field and opening the door for exports.

On March 4, 2021, a cooperation agreement was signed to establish the first industrial center for generating green hydrogen in Egypt with a consortium of Belgian companies, which will be a major shift in Egypt's entry into the hydrogen field in addition to the industry localization in the field as part of the country's efforts to transform the energy sector and ensure its sustainability.

An MOU has been signed in December 2021, between the sovereign fund and Scatec company for a large scale seawater desalination, hydrogen and ammonia production based on renewable power in the country.

EGYPT: ADVANCED TRANSPORTATION NETWORK

TOWARDS A SUSTAINABLE TRANSPORT SYSTEM

LEGISLATIVE REFORMS

New Law No. (33) was issued to allow the National Authority for Tunnels to establish Public-Private Partnerships to manage and operate electric traction railways.

IMPACT ON PRIVATE SECTOR

The National Authority for Tunnels assigned the operation, management and maintenance of the third line of the metro to the French company (RATP) for a period of 15 years.

A contract was signed for the maintenance and operation of the two monorail lines (Administrative Capital - 6 October) for a period of (30) years with the coalition implementing the project led by Bombardier Company.

The Ministry is very keen on engaging the private sector in the development process through promoting partnerships, synergies and integration among development cooperation financing and private sector investments.

Throughout 2020 and 2021, MoIC secured **$4.7 billion** in development financing in support of the transportation sector, with development partners that include the WB, AfDB, EIB, AFD, EBRD, China and KFAED

EGYPT'S 1ST DRY PORT IN 6TH OF OCTOBER CITY

In 2020, El-Sewedy Electric, 3A International and DB Schenker won the bid to operate the $176 million Dry Port in 6 October city, the biggest facility of its kind in Africa.

The EBRD has approved a **$29.6 million** loan in favor of the port.

The state-of-the-art facility is set to be the first of its kind in Egypt, with a maximum daily capacity of 720 TEUs - a total potential of **250,000 TEUs** per year. The port is expected to create 3,500 direct and indirect jobs.

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EGYPT: FOOD SECURITY & SUSTAINABLE VALUE CHAINS

TOWARDS FOOD SECURITY AND TRADE BALANCE

LEGISLATIVE REFORMS

Legal and regulatory frameworks were enacted to promote investments and businesses in the food industry.

GOVERNMENT INITIATIVES

The GoE public-private dialogue, with the participation of FAO and EBRD, has resulted in important regulatory and policy changes in the grain sector, to increase the efficiency of the grain supply chain.

These changes allowed for greater reliance on private sector inspection companies in the exports' port and a transition to more targeted subsidies, which improved the performance of the grain sector and increased investments.

AGRICULTURAL DEVELOPMENT STRATEGY

The Strategy aims at:

- Strengthening food security
- Improving health and security
- Promoting sustainable agriculture
- Eradicating poverty in rural areas
- Improving living standards
- Increasing the competitiveness of agricultural exports
- Creating employment opportunities, especially for youth and women.

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SUSTAINABLE AGRICULTURE

The Ministry' current portfolio in 2021 includes **$553 million** targeting rural and agricultural development, which features projects that encompass the reclamation of **22 thousand feddans** promoting efficient irrigation.

In addition, these projects also feature **renewable energy technologies** such as solar panels as well as modern and smart farming techniques that conserve water and promote land consolidation.

Furthermore, our work with a wide array of development partners including the European Bank for Reconstruction and Development, the World Food Programme, International Fund For Agricultural Development, Food and Agriculture Organization, France and USAID has helped finance agreements to strengthen Egypt's agribusiness sector through helping local farmers adopt environmentally friendly agricultural practices. **These initiatives aim to transform Egypt's agriculture value chain into "smart farming"** through new methodologies that promote climate-related risk management and stress testing.

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AGRICULTURE IN EGYPT |
Projects

1.5 MILLION ACRES PROJECT

The project aims to increase the agricultural land by 20% and to create promising investment opportunities in various fields, including reclamation of agricultural lands, establishment of industrial clusters in food & beverages manufacturing. In addition, the project creates an integrated and sustainable environment according to the 2030 strategy.

The 1.5 MN Acres Project will achieve land reclamation through tailored-made investment packages targeting foriegn investors with a mutually beneficial and complementary approach.

EGYPT: EFFICIENT WATER MANAGEMENT

National Water Resources Plan (NWRP 2017-2037)

The National Water Resources Plan is a four-pillar EGP 900 billion, 20-year initiative aiming to mitigate Egypt's water scarcity issues.
As Egypt aims to re-energize and re-frame the dialogue on water, the national water plan will be executed by nine ministries, including housing, agriculture, health, environment and planning, with four key areas of activity.

PILLAR 1

Purification and recycling of water, including industrial wastewater

PILLAR 2

Rationalization of agricultural water consumption through modern irrigation systems and using seeds that consume less water.

PILLAR 3

Improving new sources of water, such as desalination plants, rainwater collection, and improved cooperation with Nile Basin countries.

PILLAR 4

Establishing open and clear channels of communication with the Egyptian population in order to raise awareness about water-resources

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REFORMS IN THE WATER SECTOR

LEGISLATIVE REFORMS

The new Water Resources and Irrigation Law aims to improve the management of the water sector and support the recently approved water resources strategy which sets out $50bn of investment in the country's water sector up to 2050.

A key aim of the law is to encourage private sector participation in Egypt's water sector, to manage, operate and maintain important areas of the country's water and drainage infrastructure.

IMPACT ON PRIVATE SECTOR

The Egyptian government is partnering with the private sector to design, build, operate and finance 19 water desalination plants between 2020 and 2025, to promote sustainable development and optimally utilize water resources.

WATER | *Desalination Plants*

WATER DESALINATION PLANT FOR EASTERN PORT SAID

In the light of the commitment of the Egyptian government t reduce water loss and increase investments in water desalinatio reaching a daily capacity of 2.8 million cubic meters of water in th following 3 years using solar power, through effective public private partnerships,

the Ministry of International Cooperation secured financing $16 million for wastewater management, during 2021.

The Water Desalination Plant for Eastern Port Said is develope by a consortium of Orascom and Metito companies, with a tota cost of $130 million, to fulfill the demand for water for variou purposes such as drinking, agricultural, and industrial activities.

The desalination plant will have a capacity of 150,000 cubi metres per day, with plans to be expanded in the future to capacity of 250,000 cubic metres per day and is expected t serve around 1 million citizen.

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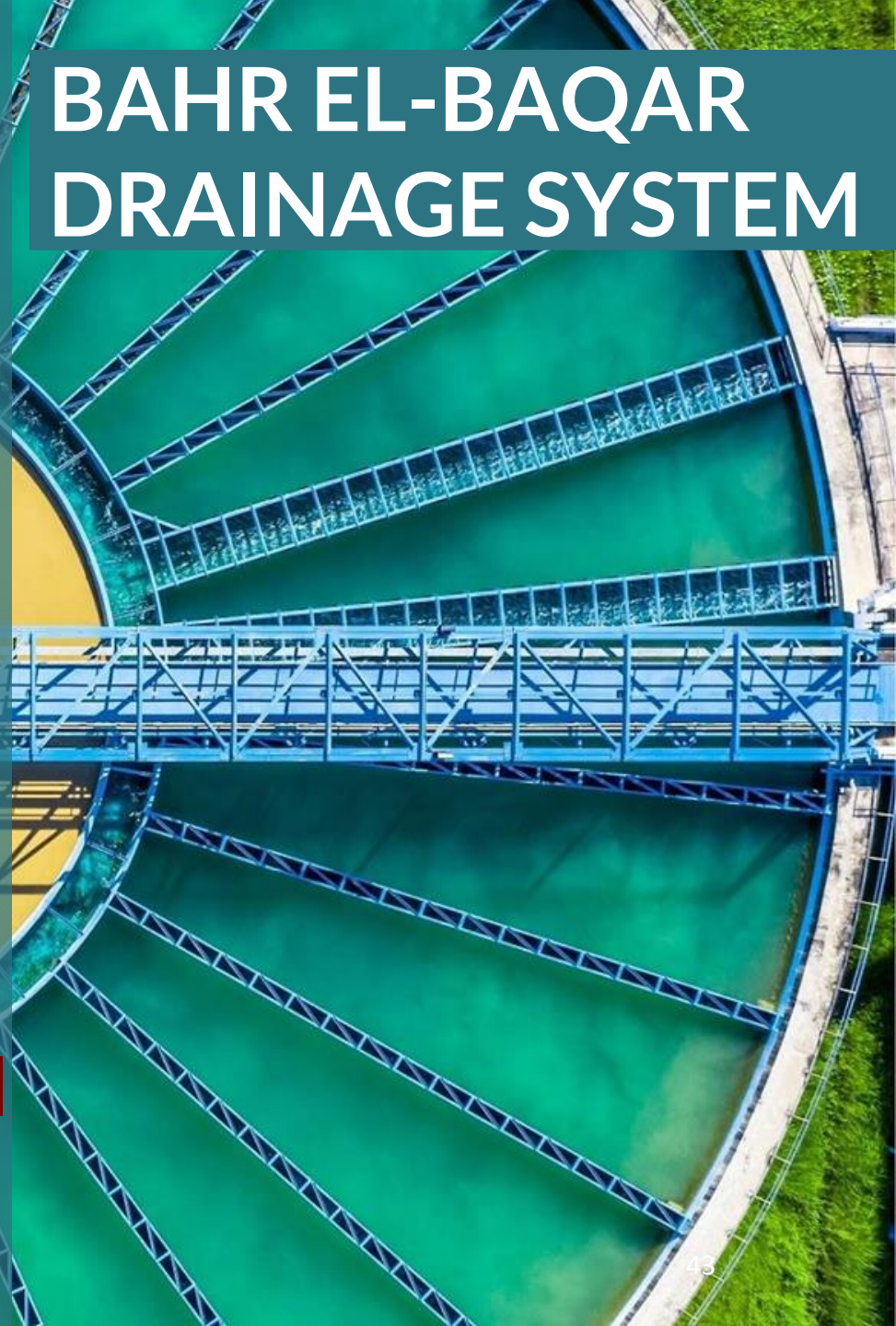
WATER | *Wastewater Management*

BAHR EL-BAQAR DRAINAGE SYSTEM

- In June 2020, a $249 million financing agreement was signed with AFESD for Bahr El-Baqar drainage system for sewage and agricultural waste treatment to achieve the optimum utilization of Egypt's available water resources and as part of the Sinai Peninsula development program.
- This mega project is being implemented through a joint venture with two private sector companies; the Arab Contractors and Orascom Construction.
- The project's cost is estimated at $1.15 billion and aims to treat 5.6 million cubic feet of water per day, the sewage and agricultural waste treatment plant is developed to achieve the optimum utilization of Egypt's available water resources, and reclaims 459,471 feddans in northern and central Sinai as part of the Sinai Peninsula development program and provide 100,000 job opportunities that can help sustain families.



INTERNATIONAL COOPERATION PORTFOLIO

In 2020

ACROSS ALL THE SDGs THERE ARE MORE THAN

377 PROJECTS

25.6$ BILLION

Ensuring **consistent** and **continuous** progress to meet the **2030 development targets.**

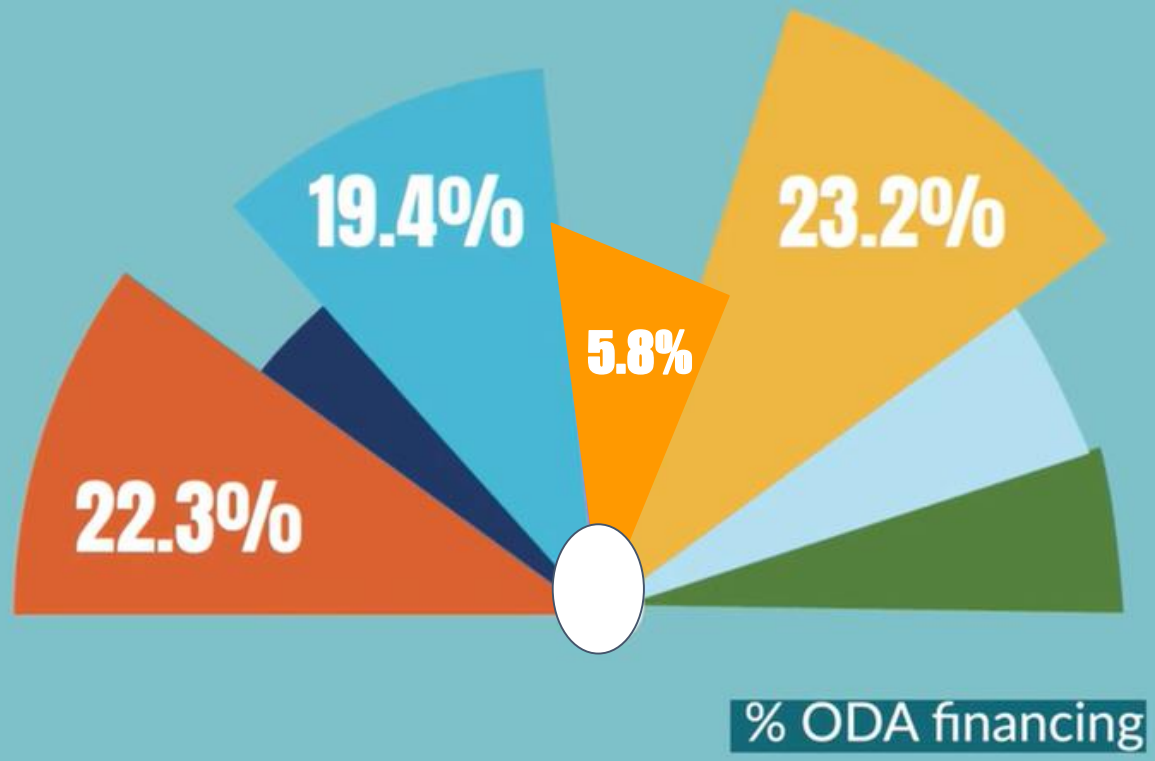
MORE THAN 70% of the ODA PORTFOLIO RESPONDS TO INFRASTRUCTURE INITIATIVES IN 2020

7 AFFORDABLE AND CLEAN ENERGY
34 PROJECTS
$5.9 BILLION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
36 PROJECTS
$5.7 BILLION

6 CLEAN WATER AND SANITATION
43 PROJECTS
$4.9 BILLION

11 SUSTAINABLE CITIES AND COMMUNITIES
30 PROJECTS
$ 1.4 BILLION



In 2021

ACROSS ALL THE SDGs THERE ARE MORE THAN

372 PROJECTS

26.5$ BILLION

Ensuring **consistent** and **continuous** progress to meet the **2030 development targets.**

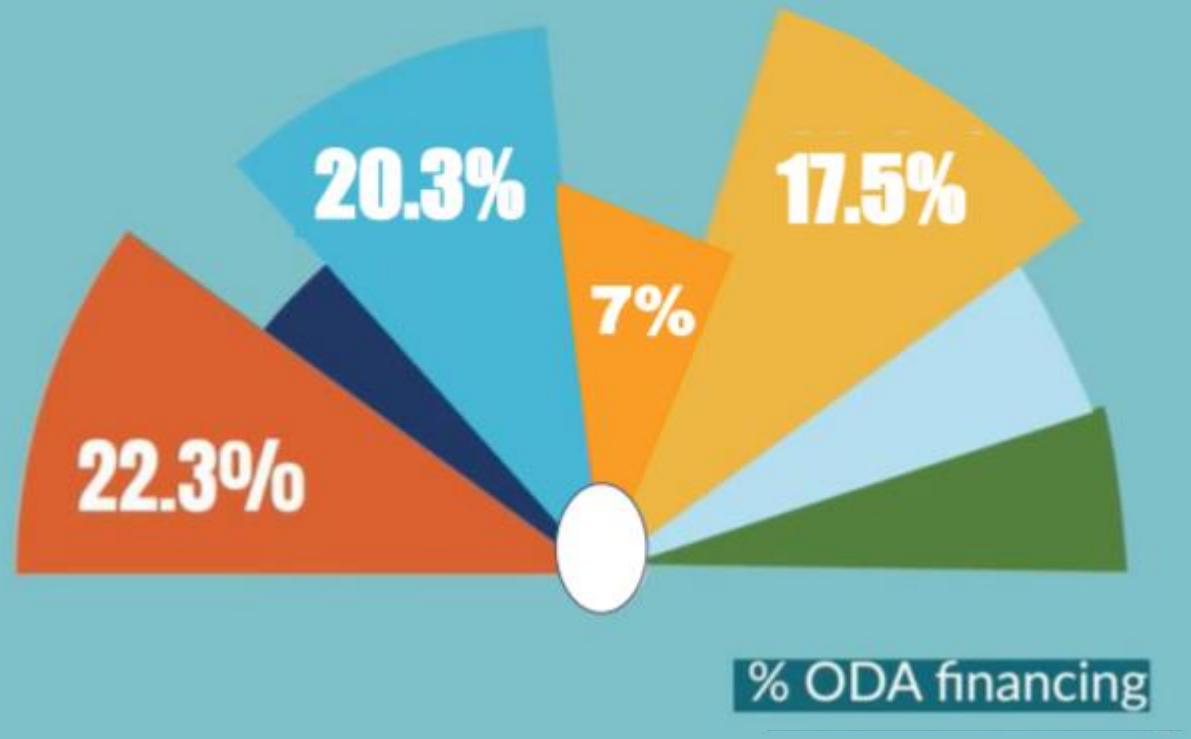
MORE THAN 60% of the ODA PORTFOLIO RESPONDS TO INFRASTRUCTURE INITIATIVES IN 2021

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
35 PROJECTS
$ 5.9 BILLION

6 CLEAN WATER AND SANITATION
39 PROJECTS
$ 5.3 BILLION

7 AFFORDABLE AND CLEAN ENERGY
30 PROJECTS
$ 4.6 BILLION

11 SUSTAINABLE CITIES AND COMMUNITIES
33 PROJECTS
$ 1.8 BILLION

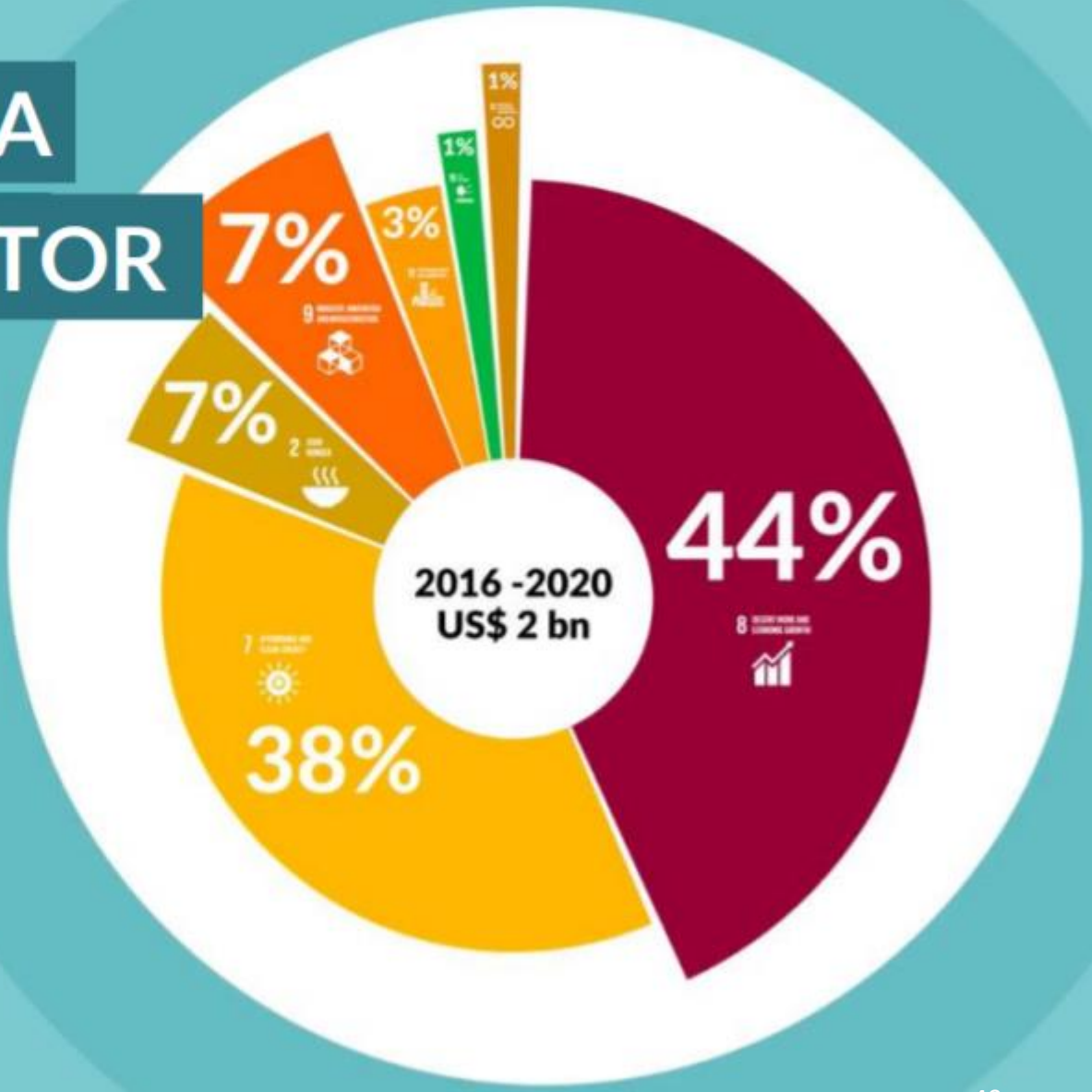


FOR IMPACT INVESTING APPLIED MAPPING TO ODA FINANCE TO PRIVATE SECTOR

Mapping IFC-Egypt financing to private sector provided evidence that many contributions to SDGs may go unnoticed if they are not measured or at least mapped against the 2030 Agenda.

(FDI Intelligence, Financial Times)

About 31% of the total development financing in 2020 was directed to the private sector, amounting to $ 3.1 billion.



ROOTED IN PARTNERSHIP

In cooperation with the development partners and Egyptian ministries, the Ministry of International Cooperation is

providing **$11.9 bn**

to **85** projects

contributing to

SDG13

In Mitigation & Adaptation

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Adaptation Projects

$2.85 Bn financing

28 projects

- Energy Efficiency
- Agriculture
- Wastewater Management
- Water Desalination

MITIGATION PROJECTS

$7.83 Bn
in financing
46 projects

- Renewable Energy
- Sustainable Cities
- Sustainable Transport

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