

EGYPT SOVEREIGN GREEN LOAN ALLOCATION & IMPACT REPORT



2022

PREPARED BY
GREEN FINANCING WORKING GROUP

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A Message from His Excellency Dr. Mohamed Maait, Minister of Finance

The Arab Republic of Egypt stands today confidently supported by a myriad of initiatives pertaining to sustainability. The state has succeeded in leading and hosting the Conference of the Parties (COP27), with the aim of renewing international solidarity to achieve the goals of the Paris Agreement and to mobilize efforts to address the inevitable impact of climate change while allowing nations to meet their commitments to sustain growth and provide a decent life for all citizens. During COP27, Egypt successfully built on the outcomes of COP26 to deliver action on a range of critical issues to address the climate emergency, including urgently reducing greenhouse gas emissions, strengthening resilience and adaptation to the inevitable effects of climate change, and meeting commitments to finance climate action in developing countries.

With the aim of diversifying the country's financing building up on its commitment to become a regional leader in green development, the Ministry of Finance was able to obtain its first green loan with an amount of 1.5 billion dollars on November 2021 from several international and regional commercial banks to secure funding for green projects. The issuance was coherent with the Green Financing Framework and was met with a high level of demand, with a coverage ratio of 2.5 times. The proceeds of the loan are directed to financing and refinancing 13 eligible green national projects, including, but not limited to, water treatment and desalination plants, solid waste management, medical waste treatment, as well as other green projects.

The Ministry of Finance proudly presents the first allocation and impact report for the 2021 Sovereign Green Loan. The report highlights the use of loan proceeds for the project categories as per the green framework and presents the environmental impact of projects supported. Egypt's first sovereign green loan Allocation and Impact Report's preparation was led by the Ministry of Finance, and supported by the Ministry of Planning and Economic development, in cooperation with the Ministry of Environment, the Ministry of Irrigation and Water Resources, the Ministry of Housing Utilities and Urban Communities, the Ministry of Health and Population, and the Ministry of Local Development. I would like to take this opportunity to express my utmost appreciation for the team's immense support.

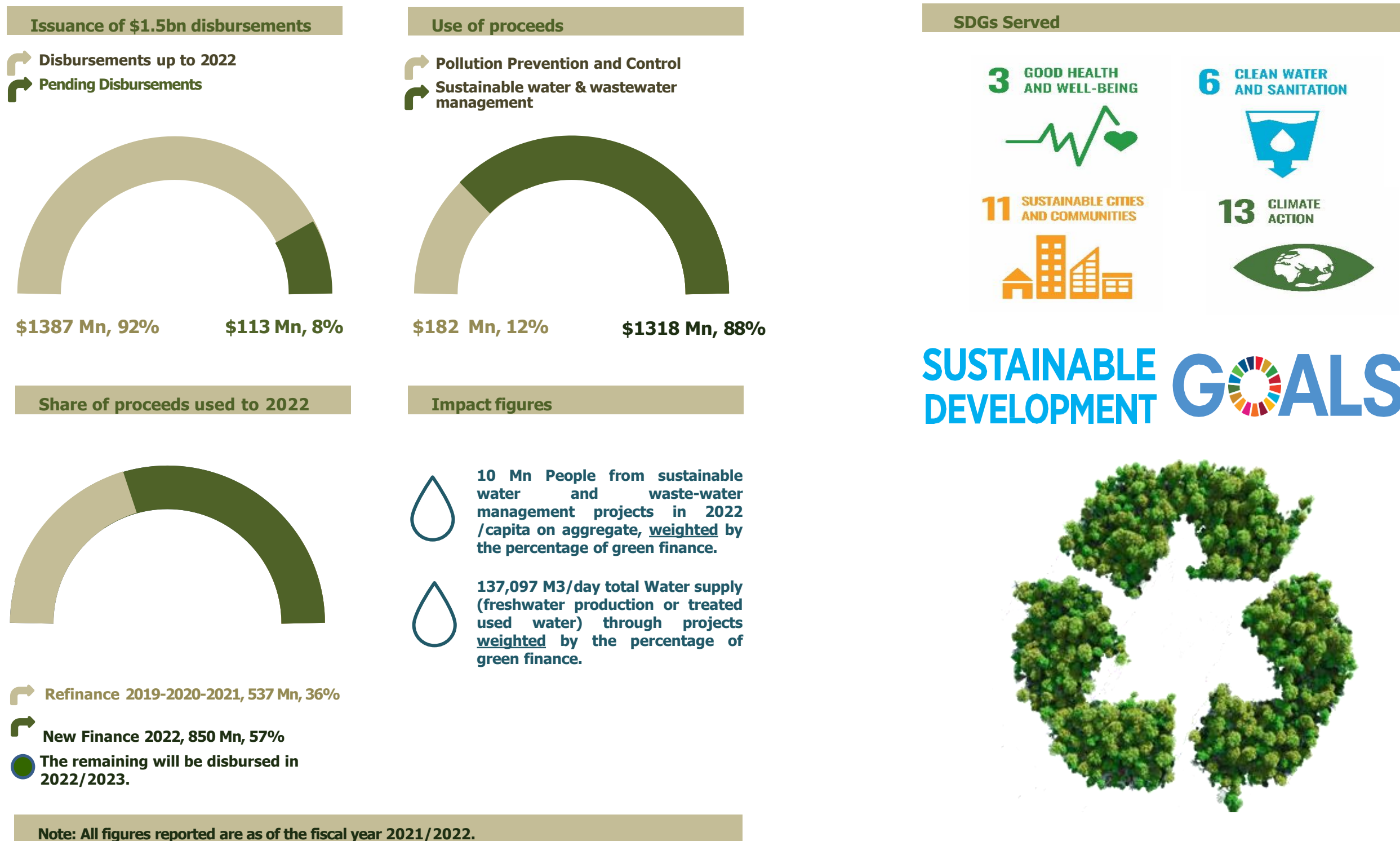


Dr. Mohamed Maait
Minister of Finance



Executive Summary

Figure 1



Introduction

Egypt only produces 0.6 percent of the world’s greenhouse gas emissions but is extremely vulnerable to climate change across several sectors, including its coasts, agriculture and water resources, health, population, and infrastructure. A key challenge is the rising unpredictability of the timing and volume of water available from the Nile River, which currently supplies 97% of Egypt’s freshwater. Another concern is the cities and coastal areas’ high exposure to rising seas, flooding, higher temperatures, air pollution, and desertification.

This situation creates an urgency to tackle climate change and allocate resources towards sustainable investments. Egypt’s ambitious strategy and ongoing commitment to climate action has begun to transform these risks into opportunities and help the country reach its sustainable development goals. The country has in fact already made important steps towards addressing climate change, through pioneering green bonds in the Middle East and North Africa (MENA) region, launching its 2050 Climate Change Strategy, and providing updated targets for emission reduction by 2030. Egypt has also launched the Country Platform for Nexus of Water, Food, and Energy (NWFE) Program, designed to promote the list of green development projects in the water, food, and energy sectors, which come to the forefront of the state’s National Climate Change Strategy 2050.

Efforts have been and still are dedicated to allocating capital towards SDG driven investments. The UN Sustainable Development Report 2022 ranks Egypt 4th out of 47 African countries, and 7th out of 10 Arab countries in achieving Sustainable Development Goals (SDGs). The Egyptian government increased the percentage of SDG related public investments from 15% in 2021/2022 to 30% in the budget of 2022/2023 and is targeting to reach 50% in the fiscal year 2024/2025.

Furthermore, the Ministry of Finance’s hosting of Finance Day on the margin of COP27 was a clear representation of the government’s keen interest in this direction by tackling and presenting various ideas that can avail green financing opportunities for developing countries. The conference enabled fruitful discussions around the movement “from climate pledges to implementation.” Moreover, two important initiatives were launched by the Ministry of Finance during the Finance Day. Those initiatives are important to enhance fiscal sustainability: “Reducing the Cost of Green and Sustainable Borrowing,” which aims to reach concrete solutions to lower the cost of borrowing and the “Sustainable Debt Coalition,” which was announced by the Ministry of Finance in coordination with UNECA, ESCWA, and the University of Oxford as an attempt to attain higher debt sustainability.

To date, approximately EGP 259 billion of the government’s budget has been allocated to clean transportation, EGP 38 billion to sustainable sanitation, and EGP 25 billion to clean energy in the fiscal year 2022/2023. Alongside these investments, the government invested EGP 22 billion in ensuring the availability of clean drinking water, EGP 18.5 billion for environmental action, EGP 14 billion for sustainable irrigation, and EGP 11 billion for agricultural development.

With the aim to further tackle climate challenges and to further diversify the government’s financing tools, the Ministry of Finance obtained its first green loan with an amount of 1.5 billion dollars on the 30th of November 2021 from several international and regional commercial banks to secure funding for sustainable investments. The loan was met with a high level of demand, with a coverage ratio of 2.5 times.

Prior to obtaining the green loan, the government of Egypt issued a Green Financing framework disclosing the governance arrangements and parameters established to identify the eligible projects and the allocated funds to the projects (see a summary of the framework in annex 5). The projects financed by the green loan fall under two of the Eligible Green Project categories mentioned in the framework, which are (1) Pollution Prevention and Control; and (2) Sustainable Water and Wastewater Management. The framework has then been reviewed by the leading environmental research firm Vigeo Eiris, as a second party opinion provider, and was deemed compliant with the Green Bond Principles as evidenced by the “Robust” rating achieved.

The proceeds of the loan were directed to financing and refinancing 13 eligible green projects in accordance with the categories identified in the Green Financing Framework, which included water treatment and desalination plants, solid waste management, medical waste treatment, etc. This loan was a validation of the interest of the market in financing future adaptation projects. Climate change is not only about managing risks but also about capturing new opportunities and catalyzing private sector engagement in climate resilience. The green loan has allowed the engagement of the private sector, catalyzing its important role as a financier, innovator, and provider of climate friendly goods and services.

It is worth noting that on the 8th of November 2022, the Ministry of Finance has upgraded its Green Financing Framework to a “Sustainable Financing Framework” to extend beyond green and environmental considerations to also consider social and governance aspects. (See a summary in annex 6). The framework has been reviewed by Moody’s, with an SQS2 Sustainability quality score (Very Good).

Environmental and Social Commitments

According to the IPCC Fifth Assessment Report (AR5), the earth will encounter manifold environmental transformations due to climate change in the coming years, unless countries collectively adopt policies and actions to limit the increase in the global average temperature to well below 2°C compared to pre-industrial levels, and pursue efforts to limit warming to 1.5°C. Egypt faces a wide variety of environmental issues, including air, water and waste pollution, which significantly affect the efforts of promoting economic and social development. Hence, the Egyptian government is intensifying its efforts to mitigate the impacts of climate change on resources, ecosystems, biodiversity, food security, etc.

Egypt is among the first Arab countries to engage in global efforts to challenge climate change. The founding of the Egyptian Environmental Affairs Agency (EEAA) in 1982, followed by the creation of the Ministry of State for Environmental Affairs in 1997, were early indications of Egypt's commitments towards environmental preservation. The Climate Change Unit, established at EEAA in 1996, was transformed and upgraded to become the Climate Change Central Department (CCCD) in 2009 to reinforce the institutional structure in combating climate change at the state level. CCCD has three departments: Vulnerability and Adaptation General Department, Mitigation and Clean Development Mechanism (CDM) General Department, Technology and Research General Department.

Egypt first published its Nationally Determined Contributions report in 2015, which communicates the contributions by country towards mitigation to the UNFCCC.13. This addressed the urgent need for Egypt to formulate and implement a comprehensive and economically feasible mitigation program that would help it achieve the proposed reductions in emissions by 2030 at the lowest cost to the national economy. To support the objectives in Egypt's Vision 2030 strategy, Egypt has established various strategies and policies. In May 2022, the NCCC launched the National Climate Change Strategy 2050 (NCCS) to ensure the integration of climate change dimension into the general planning of all sectors in Egypt and to provide a comprehensive institutional framework for the articulation of climate action to 2050 with two goals on mitigation and adaptation priorities and three enabling goals intended to overcome the governance, financing and technology, and awareness constraints.

The NCCS reflects continuity with other national articulations, such as Egypt's Sustainable Development Strategy (Vision 2030) and other sectoral strategies such as the Integrated Energy Strategy 2035 and National Strategy on Water 2050.

Underpinned by Egypt's NCCs and updated NDC, the Ministry of International Cooperation (MOIC) launched Egypt's Country Platform for the Nexus of Water, Food and Energy program (NWFE) in July 2022, which is part of the implementation of Egypt's updated NDC. The NWFE program prioritizes critical adaptation and mitigation projects covering the nexus of water, food and energy, reflecting the interlinkages between climate action and development efforts. The NWFE program is key to accelerating Egypt's transition towards a low-carbon, resilient and inclusive economy, and aims to mobilize funding for priority projects across renewable energy, irrigation, water desalination and sustainable agriculture covered under Egypt's updated NDC.

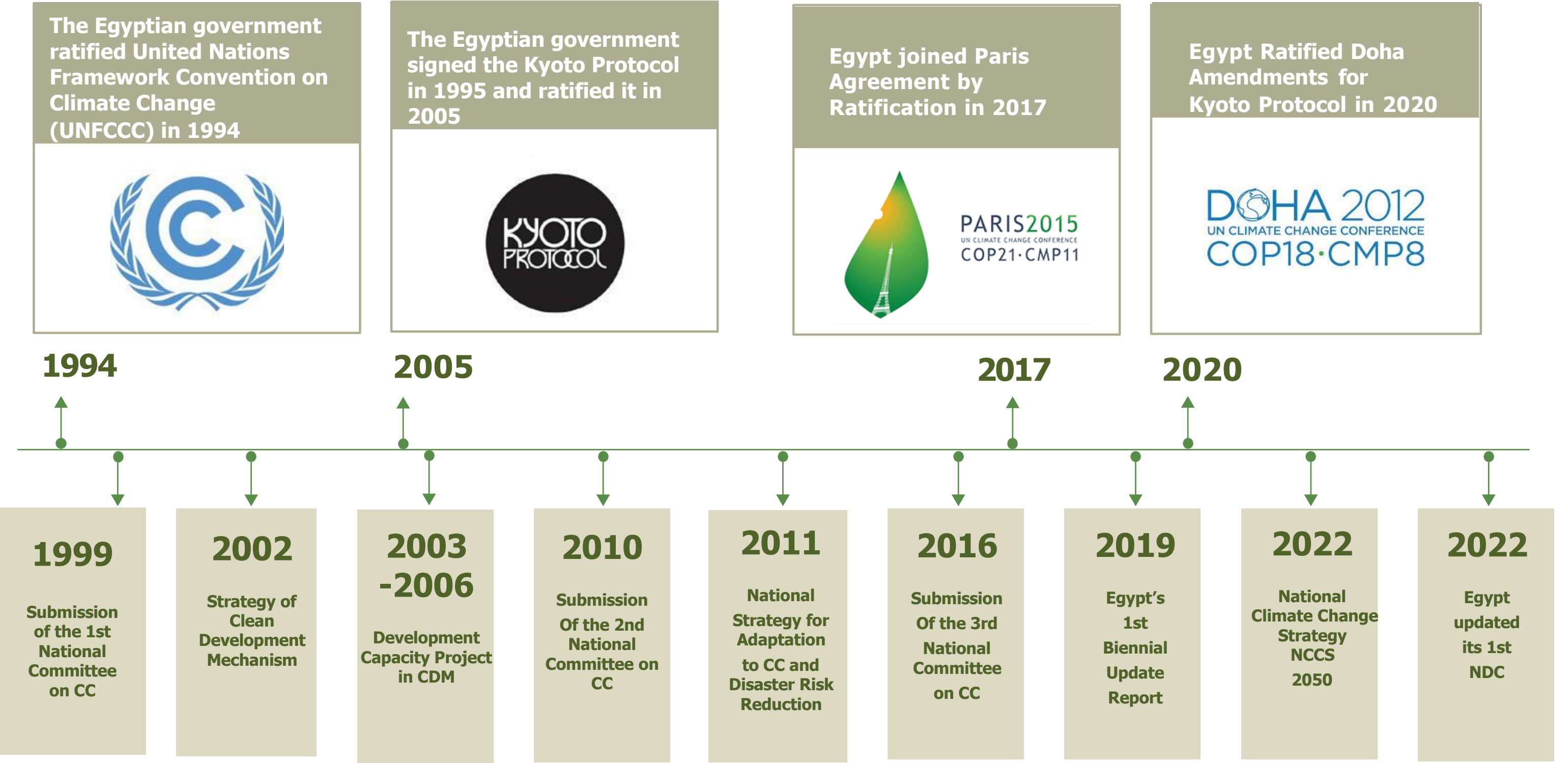
Egypt launched the National Structural Reforms Program (NSRP) in April 2021 under the auspices of the Ministry of Planning and Economic Development (MPED). In line with the Social and Economic dimensions of Egypt Vision 2030, Egypt launched the first phase of the National Structural Reform Programme (NSRP) in November 2016 which was aimed at achieving a balanced and sustainable inclusive growth underpinned by the establishment of the new Constitution in 2014. Egypt's development vision was to establish a strong infrastructure that provides better services to Egyptian citizens, particularly the poorest through the construction of social housing projects, strengthening of social protection programs, healthcare and education initiatives under the umbrella of "Decent Life Initiative." (SSFF, 2022).

Egypt adopted the Strategic Plan of Pre-University Education 2014-30 which underscores its commitment to ensure every child's right to equally receive quality education service standard, allowing every child to contribute effectively to social and economic development of Egypt and compete regionally and globally, consistent with the United Nations Charter for Human Rights. In 2018, the National Education Project called the Education 2.0 was launched to restructure pre-tertiary education. (SSFF, 2022).



International Commitments

Figure 2





Use of Proceeds

Figure 3

Pollution Prevention and Control

12%

Use of Proceeds



Sustainable Water & Wastewater Management

88%

Use of Proceeds



Eligible Categories Receiving Proceeds

Pollution Prevention and Control

Waste generation has always been a key challenge facing the Arab Republic of Egypt, that continues to grow due to the strong population growth the country is experiencing. With 22 million tons of waste production annually, tackling waste management has become a priority for the Egyptian government, as it is necessary to avoid climate change and air pollution, in addition to preventing many ecosystems and species. Waste collection, recycling, and composting activities have important and positive short-and long-term effects on all stakeholders involved. These activities are in fact coherent with the mandatory requirements of international codes and standards that are incorporated in the Egyptian Waste Management Law, which is part of the country's national strategy for integrated water management. The "Pollution Prevention and Control" category is therefore important as it aims to mitigate climate change through achieving a significant reduction in the waste collected and recycled. A note worthy project that is contributing to achieving the goals of the category mentioned is the "Solid waste management in a safe and hygienic manner," project by the Ministry of Local Development, which received \$172 Mn from the green loan proceeds. The second significant project is the "The National Project for the Safe Disposal of Hazardous Medical Waste by Digitized Purification," by the Ministry of Health and Population, which received \$9 Mn from the green loan proceeds. These projects are considered a vital step in reducing waste generated by the country, as well as avoiding the unprecedented adverse impacts of high levels of generated waste on the quality of life, human health, freshwater resources and local environment and ecosystems.

Sustainable Water And Wastewater Management

Water availability, wastewater infrastructure and reduction of water consumption are key environmental issues in Egypt. The Egyptian government has therefore been scaling up efforts to increase investment in seawater desalination and wastewater reuse for irrigation, in support of Vision 2030. Desalinated water ensures access to potable water, provides water to the agricultural industry, helps preserve current freshwater supplies, and contributes to habitat protection. This sector is organized by the Ministry of Housing, Utilities & Urban Communities (MHUUC), along with the Ministry of Water Resources and Irrigation. The MHUUC has a nationwide plan for seawater desalination to meet drinking water needs from 2020 to 2050. The plan encompasses the following pillars:

- 1) Providing drinking water to meet the current requirement and future increase in population.
- 2) Provide drinking water to stop long transmission of surface water to governorates (Matrouh – Red Sea – South Sinai).
- 3) Meet the drinking water needs of new urban development communities

The green loan proceeds have supported 11 projects in this sector, which received \$1.3 Bn from the green loan proceeds.

Featured project: Rehabilitation and Lining of the Canals

With the aim of improving the process of water management and distribution, and improving the climate resilience capabilities, the ministry of water resources and irrigation has implemented projects to rehabilitate watersheds and transform into modern irrigation. These modern irrigation projects aim to rationalize water use and maximize the return from the water unit, one of the goals of Egypt's national water resources strategy, which is intended to resolve Egypt's water-related issues by the year 2037. One of the most prominent projects is the Rehabilitation and Lining of the Canals with total length of 20,000 km. The project aims to ensure easy access of irrigation water to agricultural lands, in addition to solving the problems of water delivery at the ends of the canals and increasing agricultural productivity, as well as overcoming health and environmental problems. This project will contribute to the development of the Egyptian countryside and the advancement of the standard of living of Egyptian citizens. the total area benefiting from the rehabilitation is 5.7 Mn Feddan. The project also enabled the availability of an area of 27.7 Mn m2 for the establishment of roads and bridges. Moreover, it resulted in a 27% improvement in the efficiency of water delivery to the end of the damaged canals to overcome irrigation difficulties. Furthermore, the number of complaints related to the efficiency of delivering irrigation water has decreased by almost 50%. Moreover, the expected increase in the adequacy and reliability of irrigation water from the project would further support farmers in combatting the effects of drought, demonstrating the government's efforts towards climate adaptation. About 18% of the Rehabilitation and Lining of the Canals project has been funded by the green loan.



Figure 4

The project is located in Beheira, Ismailia, Alexandria, Dakahlia, Qalyubia, Menofia, Damietta, Portsaid, Gharbia, Sharqia, Kafr El Sheikh, Giza, Fayoum, Beni Suef, Sohag, Qena, Asyut, Minya, Aswan governorates.



Served Population

50,000,000

Progress to date

34%

Allocation

100 %
disbursed of
total Eligible
amount in
2022

\$896 Mn
Total Eligible
Amount

Lengths of Rehabilitated Canals

Total 20,000 km

To date 6,750 km

Rehabilitated Canals (Weighted to % of green loan finance)

3,501 km



Total Area Benefiting from Rehabilitation (weighted to % of green loan finance)

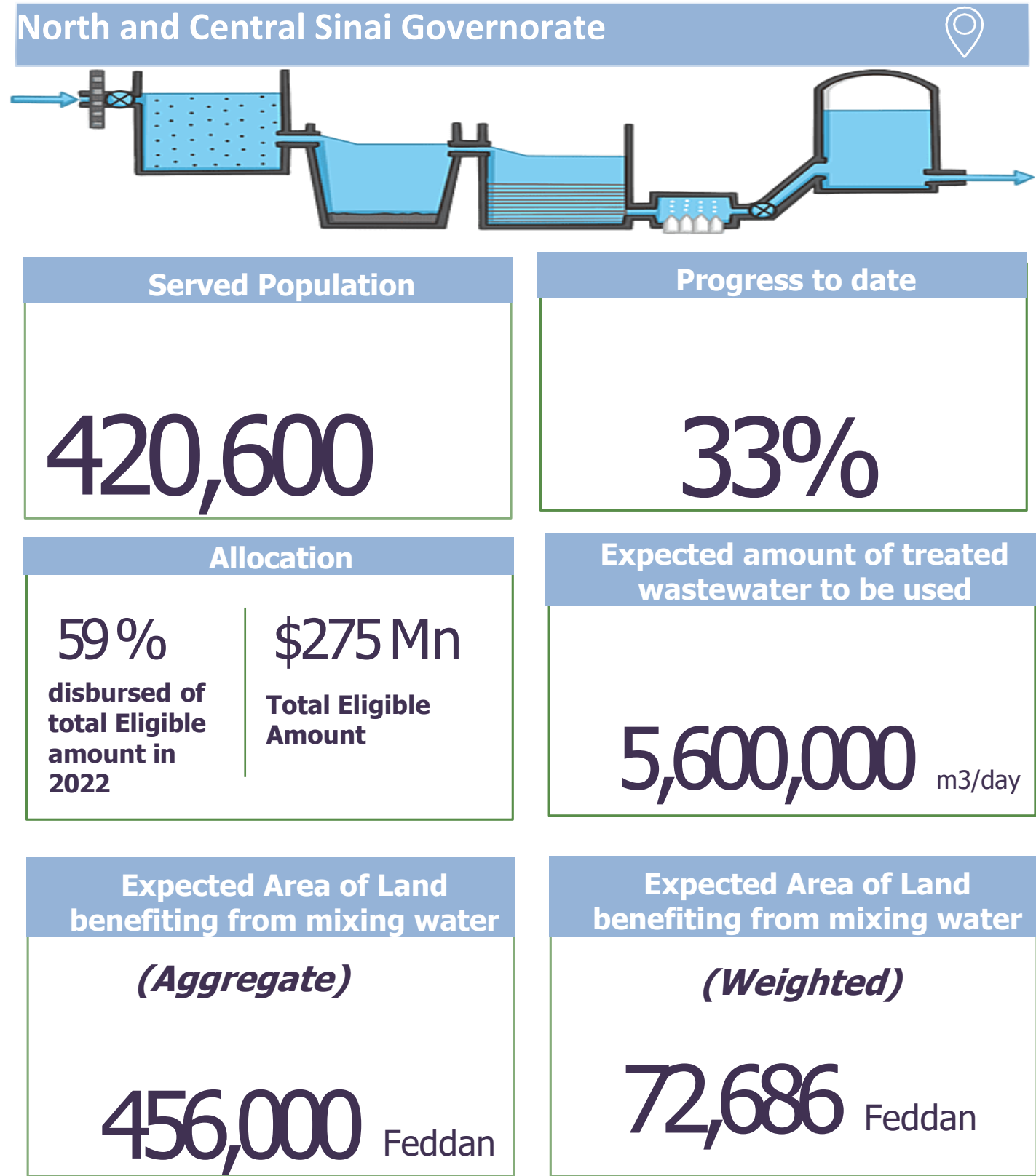
997,856 Feddan

Featured project: Bahr El Baqar Water Treatment Plant

Rising global temperatures, a rapidly increasing population and an expanding economy indicates that the Arab Republic of Egypt will face increasingly severe water stress in the coming years. Studies suggests that the Nile alone may no longer be able to sustain the country. The Bahr El Baqar wastewater treatment plant has therefore been implemented as an unconventional source of water to combat water scarcity. Egypt’s record-breaking wastewater treatment facility is one of the largest agricultural wastewater treatment plants in the world. It is located 10 km south of Port Sai’d tunnels in Sinai, 17 km north of Al-Qantara Sharq city. It is considered one of the most important projects that aim to develop the Sinai Peninsula to leverage its natural resources. The daily capacity of Bahr El-Baqar Wastewater Treatment Plant is estimated at 5.6 million cubic meters. The project is part of the Sinai development program, which includes infrastructure projects and development initiatives aimed at strengthening the economy and raising the standard of living for the individuals in the region. This project will contribute to the enhancement of water quality, the implementation of resource efficient and cleaner production, the restoration of the vitality of the ecosystem, and help support efforts of adaptation to climate change. With Egypt’s exposure to potential droughts, reusing water from this waste water treatment plant can become an essential tool to ensure a safe and predictable source of water, whilst lowering the pressure on water bodies and enhancing the government’s ability to adapt to climate change. 16% of the project’s total capital is financed by the green loan, particularly the financing related to **transferring the produced water from Bahr El Baqar water treatment plant to the lands planned for cultivation in North and Central Sinai.**



Figure 5

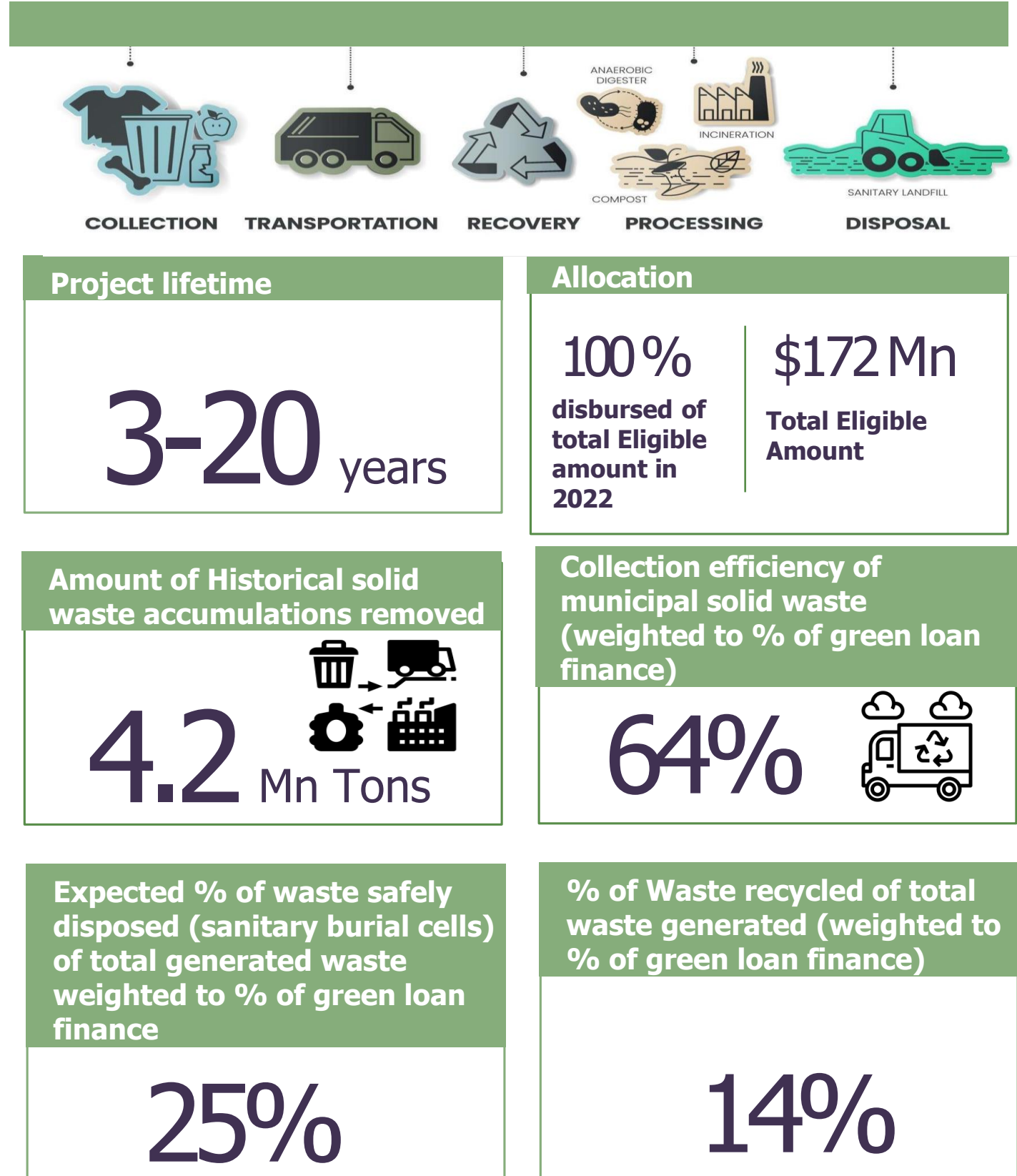


Featured project: Solid Waste Management in a Safe and hygienic manner

Over the past few decades, the Arab Republic of Egypt has struggled with waste collection in disposal, making it crucial to establish a proper system to ensure the safe disposal of waste. This has led to the establishment of a mega-project by the ministry of local development “Solid Waste Management in a safe and hygienic manner,” which entails the establishment of 94 fixed and mobile intermediate stations, 52 sanitary burial cells, raising the efficiency and establishing 63 recycling plants, treating waste, closing random dumps, raising historical accumulations and daily generation, and repairing hygiene equipment. The project aims to provide an infrastructure for the disposal of solid waste, reduce the number of dumps, reduce air pollution that results from burning waste, reduce greenhouse gas emissions, preserve the health of citizens, and reduce the amount of waste leaking into water bodies. 91% of the project’s capital is funded by the green loan, with the aim of supporting the country’s efforts in reducing air pollution, implementing resource efficient and cleaner production, reducing greenhouse gas emissions, and improving the environmental carbon footprint.



Figure 6



Allocation and Impact Reporting

The use of loan proceeds is disclosed in table 9. The allocation data was provided by the Ministry of Housing, Utilities and Urban Communities, the Ministry of Health and Population, the Ministry of Water Resources and Irrigation, and the Ministry of Local Development. In Egypt’s Green Sovereign Framework, the Egyptian government of Egypt committed to allocating Green Loan Proceeds to eligible expenditures no later than 24 months from the bond issuance date, supporting new and existing expenditures with a look-back period of no more than 36 months. Accordingly, the 2021 Green Loan proceeds were allocated to eligible expenditures between 2019 and 2022. For years between 2019 and 2021, expenses are accounted as re-financing and the rest as new financing.

Out of the USD 1.5 Bn raised through the Green Loan, USD 537 Mn was disbursed for expenditures in 2019, 2020, 2021 (refinancing), corresponding to 36% of total committed disbursement. 2022 disbursements amounted to USD 850 Mn, corresponding to 57% of the commitment. To date, 92% of the green loan proceeds have been allocated, the remaining (8% equivalent to USD\$113 Mn) will be allocated in 2023 and presented accordingly. Egypt will temporarily hold an amount equal to the unallocated proceeds in its Treasury. See figures 10 and 11.



Figure 7

Total allocation in US\$ Mn with respect to date of issuance

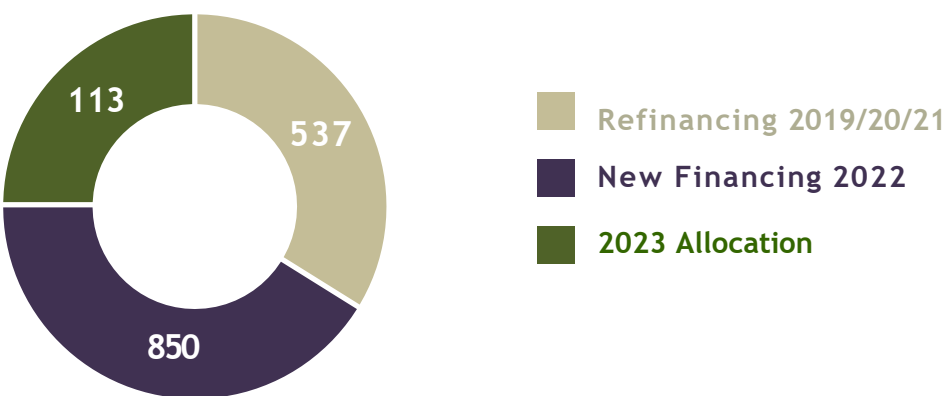
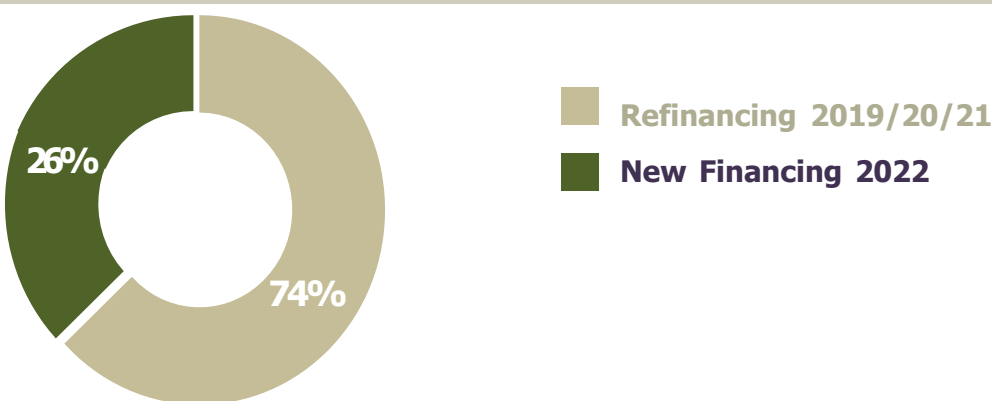


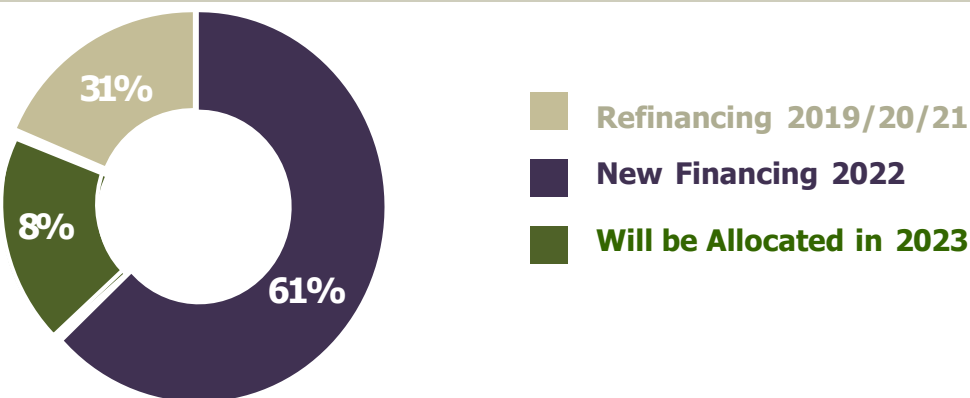
Figure 11:

Refinancing, New Financing and Fully allocations by green category

Pollution Prevention and Control with respect to date of allocation through issuance



Sustainable Water & Wastewater Management with respect to date of allocation through issuance





ANNEX 1: Environmental Impact

The environmental impact data for each project was reported by the relevant ministry. The majority of these projects are ongoing projects, yet some are not operational yet. Hence, reported results for some projects are expected figures rather than actual ones. The weighted data is calculated by multiplying the actual value for each indicator by the weight of Green Loan financing directed to the project to quantify the environmental effect attributed to the Loan. Actual indicators are as of December 2022. For the project of the treatment plant in El Dabaa, actual figures will be reported once the project is fully operational.

Table 1: Ministry of Irrigation & Water Resources - Aggregate

Indicator	Lengths of rehabilitated canals (Km)	Area benefiting from rehabilitation (Feddan)	Area with irrigation difficulties that benefited from rehabilitation (Feddan)	Area enabled for the construction of roads and bridges (m2)	Efficiency of water delivery to the end of damaged canals to overcome irrigation difficulties (% improvement) ¹	Reduction in Intermediate mixing water used for rehabilitated canals (Bn m3/Year (% reduction))	Rate of disinfection and disposal of grass and waste ((times/year), % reduction)	The reduction in complaints related to the efficiency of delivering water for irrigation (%)	Amount of treated wastewater to be reused Million (m3/day)	Total area of land benefiting from mixing water (Feddan)	Total Area of land expected to benefit from treated wastewater (Feddan)
Project											
Rehabilitation and lining of canal	Expected: 20,000 Actual: 6,300	Expected: 5.7 Mn Actual: 1.8 Mn	Expected: 1.4 Mn Actual: 0.41 Mn	Expected: 27.7 Mn Actual: 8.7 Mn	27%	15%	33%	48%	Not Applicable		
Utilization of Water Treatment plant in Bahr-El Baqar	Not Applicable								Expected: 456,000	Not Applicable	
Construction of an agricultural and sanitary sewage treatment plant in El-Dabaa	Not Applicable								Expected: 6.5	Not Applicable	Expected: 362,000

Table 2: Ministry of Irrigation & Water Resources - Weighted

Indicator	Lengths of rehabilitated canals (Km)	Area benefiting from rehabilitation (Feddan)	Area with irrigation difficulties that benefited from rehabilitation (Feddan)	Area enabled for the construction of roads and bridges (m2)	Efficiency of water delivery to end of damaged canals to overcome irrigation difficulties (% improvement)	Reduction in Intermediate mixing water used for rehabilitated canals (Bn m3/Year (% reduction))	Rate of disinfection and disposal of grass and waste ((times/year), % reduction)	The reduction in complaints related to the efficiency of delivering water for irrigation (%)	Amount of treated wastewater to be reused (m3/day)	Total area of land benefiting from mixing water (Feddan)	Total Area of land expected to benefit from treated wastewater (Feddan)
Project											
Rehabilitation and lining of canal	Expected: 3,501 Actual: 1,134	Expected: 1.0 Mn Actual: 0.3 Mn	Expected: 245,088 Actual: 73,800	Expected: 4.85 Mn Actual: 1.57 Mn	5%	3%	6%	8%	Not Applicable		
Utilization of Water Treatment plant in Bahr-El Baqar	Not Applicable								Expected: 72,686	Not Applicable	
Construction of an agricultural and sanitary sewage treatment plant in El-Dabaa	Not Applicable								Expected: 32,273	Not Applicable	Expected: 1,797

1 The rehabilitation and lining of the canals was able to increase the efficiency of water delivery from 68% to 95%. This metric measures the efficiency in the outreach of water to the canals. It is calculated based on the ratio of (the parts of the canal with no issues with regards to water delivery) to (the total length of the canal).

ANNEX 1: Environmental Impact

The data provided by the Ministry of Local Development and Ministry of Health and Population are based on the current situation. For the Ministry of Local Development, 18 Sanitary Burials have started to operate, while 17 Sanitary Burials did not operate yet, indicating further enhancement in the environmental impact (ex: % of waste recycled) upon project completion.

Table 3: Ministry of Health and Population – Aggregate (Actual Impact)

Indicator	Amount of Hazardous medical waste collected and treated or safely disposed	
Project	Amount of waste generated (ton)	Amount of waste treated (ton)
The National Project for the Safe Disposal of Hazardous Medical Waste by Digitized Purification	41,000	41,000

Table 4: Ministry of Health and Population – Weighted (Actual Impact)

Indicator	Amount of Hazardous medical waste collected and treated or safely disposed	
Project	Amount of waste generated (ton)	Amount of waste treated (ton)
The National Project for the Safe Disposal of Hazardous Medical Waste by Digitized Purification	1319	1319

Table 5: Ministry of Local Development – Aggregate (Actual Impact)

Indicator	Collection efficiency of municipal solid waste	% of waste safely disposed (sanitary burial cells) of total generated waste	Waste recycled of total waste generated (%)	Quantity of Refuse Derived Fuel (RDF) produced (Tons)	Quantity of compost produced (Tons/Annum)	Amount of historical solid waste accumulations that have been removed (Tons)	Number of illegal dumpsites that have been closed
Project							
Solid waste management in a safe and hygienic manner	71%	27% of collected waste (22 Million tons of municipal solid waste collected annually)	15%	350,000	200,000	4,300,000	53

Table 6: Ministry of Local Development – Weighted (Actual Impact)

Indicator	Collection efficiency of municipal solid waste	% of waste safely disposed (sanitary burial cells) of total generated waste	Waste recycled of total waste generated (%)	Quantity of Refuse Derived Fuel (RDF) produced (Tons)	Quantity of compost produced (Tons/Annum)	Amount of historical solid waste accumulations that have been removed (Tons)	Number of illegal dumpsites that have been closed
Project							
Solid waste management in a safe and hygienic manner	64%	25% of collected waste (20.02 Million tons of municipal solid waste collected annually)	14%	317,956	181,689	4,000,000	48

ANNEX 1: Environmental Impact

The environmental KPIs provided by the Ministry of Housing, Utilities, & Urban Communities are indicated based on the project's stage. Figures under stage 2 portray the total environmental impact of the project after the completion of stage 2.

Table 7: Ministry of Housing, Utilities, & Urban Communities - Aggregate

Indicator	Amount of Water Production (thousand M3/day)		Number of Households Served (thousand households)		% of Clean Energy used in the Station		Amount of treated wastewater to be reused (thousand M3/Day)		% Increase in sewage coverage in the governorate	
Project	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2
West portsaid desalination plant		20		20		100%				
Nabq desalination plant Phase II	5	12		15		100%				
Almaeraka processing station				20				10		0.3
Hadhiq processing plant			28	42			14	21		1.0
Sanitation of Al-Khatahtbeh and Kafr Daoud			40	54			20	27		1.0
Bir Al-Abed Sanitary Drainage			18	24			9	12		4.2
Ballana treatment plant			64	128			32	64		6.7
East Matrouh Desalination plant		65		90		100%				

Table 8: Ministry of Housing, Utilities, & Urban Communities - Weighted

Indicator	Amount of Water Production (thousand M3/day)		Number of Households Served (thousand households)		% of Clean Energy used in the Station		Amount of treated wastewater to be reused (thousand M3/Day)		% Increase in sewage coverage in the governorate	
Project	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2	Stage 1	Stage 1 & 2
West portsaid desalination plant		1		1		4%				
Nabq desalination plant Phase II	2.6	6		8		52%				
Almaeraka processing station				7				4		0.1
Hadhiq processing plant			14	22			7	11		0.5
Sanitation of Al-Khatahtbeh and Kafr Daoud			28	38			14	19		0.7
Bir Al-Abed Sanitary Drainage			15	20			8	10		3.5
Ballana treatment plant			28	55			14	28		2.9
East Matrouh Desalination plant		27		37		41%				

Table 9: Allocation of Proceeds and Expected Impact as of 30/6/2022 [For projects under construction or otherwise not operational yet, the impact is anticipated/expected. For projects that are operational, the impact is realized] Green Loan financing % [Share of financing sourced from Green Loan proceeds relative to total financing]

Project Name	Project Capital \$Mn	Eligible amount \$Mn	Allocated Amount till 30/6/2022 \$Mn	Disbursement of total eligible amount up till 30/6/2022	Goals	Project Life	Capacity or Coverage	Units	Expected production or improvement from baseline	Units	Total Water Supply (Freshwater production or treated used water) through projects (Weighted) M3/day	Progress to date	Green Loan financing (% of 1.5 Mn\$)
Rehabilitation and lining of canals	5,120	896	896	100%	1) Enhance the efficiency of water delivery to the end of damaged canals to overcome irrigation difficulties 2)Reduce the number of farmer complaints regarding the inefficiency of delivering irrigation water 3) Reduce annual maintenance costs 4) Increase employment 5) Achieve fairness in the distribution of water	Continuous benefit from the project	50,000,000	individuals	20,000	km	Not Applicable	34%	59.8%
Utilization of Water Treatment plant in Bahr-El Baqar	1,726	275	163	59%	Agricultural development through increasing the agricultural development area.	Continuous benefit from the project	420,600	individuals	456,000	Feddan	Not Applicable	33%	18.3%
Construction of an agricultural and sanitary sewage treatment plant in El-Dabaa	3,867	19	19	100%	Reusing agricultural wastewater	Continuous benefit from the project	6,000,000	individuals	7,500,000	m3/day	32,273	50%	1.3%
The National Project for the Safe Disposal of Hazardous Medical Waste by Digitized Purification	294	9	9	100%	The safe disposal of hazardous medical waste to protect both the health of citizens and the safety of the environment	till 2030-2050	<u>Current Situation:</u> Purchased: 243 vehicles equipped to transport waste, 45 shredding and sterilization devices, 176 incinerators, and 14 complexes distributed among 14 governorates. <u>2022/2023 Plan:</u> Purchase of: 10 incinerators, 6 shredding and sterilization devices, 8000 containers to contain hazardous materials and waste, 246 weighing scales to measure the hazardous material and waste, security cameras, devices that are able to track the cars that transport waste.		40,000	tons of hazardous medical waste treated/annum	Not Applicable	22%	0.6%

Table 9 : Allocation of Proceeds and Expected Impact as of 2022 - continued

Project Name	Project Capital \$Mn	Eligible amount \$Mn	Allocated Amount till 30/6/2022 \$Mn	Disbursement of total eligible amount up till 30/6/2022	Goals	Project Life	Capacity or Coverage	Units	Expected production or improvement from baseline	Units	Total Water Supply (Freshwater production or treated used water) through projects (Weighted) M3/day	Progress to date	Green Loan financing (% of 1.5 Mn\$)
Solid waste management in a safe and hygienic manner	189	172	172	100%	1) Preserving Public Health and the Environment 2) Preventing the burning of waste 3) Providing the highest level of quality for integrated waste management services 4) Achieving sustainable development goals of Egypt's Vision 2030	3-20 years	Target: 87 Intermediate Transfer Stations (Moving), 14 have started operating, pending 73. Target: 18 Intermediate Transfer Stations (Fixed), 9 have started operating, pending 9. Target: 35 Sanitary Burials, 18 have started operating, pending 17. Recycling Factories: 5 new factories + enhancement of 6 production lines				Not Applicable	Stage 1:98% Stage2: 55% Stage 3: 25% Stage 4: - Signed Nov. 2022	11.5%
West Port Said desalination plant	64	2	2	100%	Securing enough water to sustain its rapidly growing population and expanding economy. Turn to alternative sources to protect against water stress.	till 2050	100,000	individuals	20,000	m3/day	757	15%	0.2%
Nabq desalination plant Phase II	17	9	9	100%		till 2037	75,000	individuals	12,000	m3/day	6,257	70%	0.6%
East Matrouh Desalination plant	87	36	36	100%		till 2055	700,000	individuals	65,000	m3/day	26,765	25%	2.4%
Almaeraka processing station	10	4	4	100%	Conserving water by Removing suspended solids and other pollutants protects groundwater and prevents water pollution.	till 2035	100,000	individuals	10,000	m3/day	3,660	70%	0.2%
Hadhiq processing plant	16	8	8	100%		till 2055	200,000	individuals	21,000	m3/day	10,861	65%	0.6%
Sanitation of Al-Khatahtbeh and Kafr Daoud	39	27	27	100%	Treating wastewater before it is released back into the environment.	till 2050	250,000	individuals	27,000	m3/day	18,913	90%	1.8%
Bir Al-Abed Sanitary Drainage	44	36	36	100%	Treated Wastewater can be used in different sectors, including industry and agriculture.	till 2055	125,000	individuals	12,000	m3/day	10,015	50%	2.4%
Ballana treatment plant	12	5	5	100%		till 2035	480,000	individuals	64,000	m3/day	27,578	100%	0.3%

ANNEX 3: Summary of Egypt’s National Climate Change Strategy 2050

The Egypt’s NCCS aims to address the impacts of climate change while improving the quality of life for Egyptian citizens, achieving sustainable development and sustainable economic growth, preserving natural resources and ecosystems, and strengthening Egypt’s leadership at the international level in the field of climate change.

Five main goals were identified in the NCCS. The 5 goals are (1) Achieve sustainable economic growth and low-emission development in various sectors; (2) Build resilience and adaptive capacity to tackle climate change and alleviate the negative impacts associated with climate change; (3) Improve climate action governance; (4) Enhance climate financing infrastructure and (5) Enhance scientific research, technology transfer, knowledge management and awareness to combat climate change. These goals are followed by several objectives and specific directions for achieving the objectives, in addition to performance indicators for each goal, and the proposed enabling policies and tools. The strategy also includes eight general directions to be adopted by the Egyptian government to promote and underpin the achievement of the strategy's goals.



ANNEX 4: Summary of Egypt's Nationally Determined Contribution

Egypt submitted its first Nationally Determined Contribution (NDC) in 2015 to the UNFCCC, the first biennial update report in 2019 and updated its first NDC in July 2022, covering the period between 2015 till 2030. The NDC update is aligned with Egypt's sustainability strategies including Egypt Vision 2030, National Climate Change Strategy 2050, National Strategy for Disaster Risk Reduction 2030 and National Strategy for Adaptation to Climate Change, amongst other sectoral strategies.

Egypt's first NDC report acknowledged the need for Egypt to develop and implement a strong and economically feasible mitigation program in the near future, which would achieve the proposed emission reductions for 2030 at the lowest cost to the national economy. Hence, a comprehensive emission reduction program for Egypt should be based on three main initiatives:

1. Stimulate mitigation actions through a portfolio of strong and coordinated policies for the efficient reduction of GHGs across industry sectors and different geographic areas
2. Pursue energy efficiency and low-cost options through fast development of the infrastructure required for low-carbon energy systems; and encouraging research and development in promising technologies, which are suitable for the local context and stimulate their deployment.
3. Develop a national monitoring, reporting, and verification system

Egypt updated its first NDC in July 2022 and for the first time, provided projections of business as usual (BAU) GHG emissions by 2030 for three sectors and quantification of GHG emissions reductions from the implementation of its mitigation projects/programs. T

he updated NDC also includes a review of the climate mitigation and adaptation measures reported in the first NDC and an update on progress since 2015 across the following areas:

Energy policy reforms	• Energy subsidy phase-out and comprehensive reforms for electricity and oil & gas sectors initiated in July 2014 which are expected to complete in FY2024/25. The energy reforms included substantial renewable energy and energy efficiency programs reflected in the Integrated Energy Strategy 2035.
Renewable energy	• Total installed wind and solar power plants is 3,016MW in FY2019/20 which is a 340% increase from FY2015/16 while total renewable energy (including hydropower) in FY2019/20 is 5,848MW.
Energy efficiency in electricity sector	• A set of measures were implemented on both supply and demand side to improve energy efficiency leading to significant drop-in generation fuel consumption rate in 2017/18 to 2019/20.
Energy efficiency and low carbon fuels in petroleum sector:	• The 2016 Egypt's oil and gas sector modernization project was implemented to improve energy efficiency in the sector while Egypt continue to support promotion of cars operating on low carbon fuels
Energy efficiency on demand side	• Measures and programs have been implemented leading to reduction in electricity consumption in FY2019/20 compared to FY2018/19 despite a growing population and large development initiatives
Low carbon transport	• Further expansion of underground metro and high-quality service buses to achieve modal shift to low carbon mass transit
Solid waste management	• Policy reforms supporting waste-to-energy and waste management programs as well as air pollution management programs to reduce vehicle emissions, improve management of solid waste.
Green finance	• Launch of Sovereign Green Bond in 2020, environmental sustainability criteria guideline and other policies supporting the development of green finance.
Climate adaptation action	• Several sectoral adaptation projects implemented through pilot projects financed by national and international sources

ANNEX 5: Summary of Egypt's Sovereign Green Financing Framework

Egypt developed a Green Financing Framework in accordance with the 2018 ICMA Green Bond Principles, under which the government can issue Green Bond(s) and Sukuk. **The Green Loan's lending banks (including their sustainability teams) have thoroughly reviewed Egypt's Green Financing Framework and agreed to proceed with the loan as governed by the provisions of this framework.**

The framework is segmented as follows:

- i. Use of Proceeds
- ii. Project Evaluation and Selection
- iii. Management of Proceeds
- iv. Reporting

Use of Proceeds

An amount, equal to the net proceeds of any Green Bond issued by Egypt, will be allocated to finance new or re-finance existing projects/expenditures, in part or in full, as long as they meet the requirements of Eligible Green Projects. Eligible expenditures include investments expenditures, operating expenditures, and tax expenditures, insofar as any expenditure contributes to the Egypt's climate change mitigation and adaptation policies. Eligible Green Projects will exclude any state disbursements to a local agency or local authority that participates in capital markets to raise financing, such as the issuance of Green Bond. **Eligible project categories** include clean transportation, renewable energy, pollution prevention and control, climate change adaptation, energy efficiency, sustainable water and wastewater management.

Project Evaluation and Selection

The proceeds of any Egyptian Green Bond/Sukuk will be allocated to new lending or existing projects/expenditures that meet the criteria set out in the Use of Proceeds section. Egypt established a Green Finance Working Group (GFWG) to carry out the evaluation and selection process. The GFWG consisted of members from:

- Ministry of Finance
- Ministry of Planning and Economic Development (MPED)
- Ministry of Environment (MoE)
- Ministry of Transportation (MOT)
- Ministry of Housing, Utilities & Urban Communities (MoHUUC)
- Ministry of Electricity and Renewable Energy (MOEE)
- New and Renewable Energy Authority (NREA)
- Egyptian Electricity Transmission Company (EETC)
- Construction Authority for Potable Water & Wastewater (CAPW)

On a semi-annual basis, the GFWG will review all proposed eligible Use of Proceeds to determine compliance with the Egypt Green Financing Framework before approving the allocation of proceeds. GFWG will ensure the compliance of the selected projects with the criteria set out above in the Use of Proceeds for the lifetime of the bond.

Management of Proceeds

The Ministry of Finance and Ministry of Planning and Economic Development will oversee the allocation and tracking of expenditures on Eligible Green Projects up to an amount equal to the net proceeds of Green Bond issued. The Green Financing Register is reviewed annually by the Ministry of Finance and the Ministry of Planning and Economic Development. To manage this process, Egypt established a Green Financing Register.

Reporting

This report will be made on an annual basis by the GFWG Impact Report Working Group to capture the environmental impact of financed projects, and the allocated proceeds. All reporting will be made public on the Ministry of Finance website.

ANNEX 6: Summary of Egypt's Sovereign Sustainable Financing Framework 2022

The Egyptian Finance Ministry launched its new framework for issuing sustainable sovereign debt. The framework demonstrates a significant contribution to sustainability through enabling the addition of new categories of green projects with a social dimension to Egypt's sustainable portfolio. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles 2021, Social Bond Principles 2021 and Sustainability Bond Guidelines 2021, and the Loan Market Association's, the Asia Pacific Loan Market Association's and the Loan Syndications & Trading Association's (LMA/APLMA/LSTA) Green Loan Principles 2021 and Social Loan Principles 2021. **The framework is segmented as follows:**

- i. Use of Proceeds
- ii. Process for Project Evaluation and Selection
- iii. Management of Proceeds
- iv. Reporting

Use of Proceeds

An amount equal to the net proceeds of any Sustainable Debt Instrument issued by Egypt will be allocated to finance or re-finance expenditures that meet the requirements of Eligible Project Categories. Eligible Expenditures include direct/indirect investment expenditures, subsidies, tax expenditures and selected operating expenditures which may include R&D, education and training and other expenditures related to day-to-day servicing of fixed assets to ensure continued and effective functioning of the assets. Eligible Expenditures are limited to those that have been undertaken up to three budget years before issuance of any Sustainable Debt Instrument, the budget year of issuance and two budget years following issuance. Eligible Expenditures will exclude any state disbursements to a local agency or local authority that participates in capital markets to raise Green, Social, Sustainability or Thematic ESG-related financing. When issuing Thematic issuance such as Blue and Gender bonds and loans, Egypt will conduct appropriate due diligence on the Use of Proceeds outlined in the Green and Social project categories under the Framework to refine the selection to the most appropriate and impactful projects underlying the specific theme. **Eligible Project Categories include:** Clean transportation, renewable energy, pollution prevention and control, climate change adaptation, energy efficiency, sustainable water and wastewater management, terrestrial and aquatic biodiversity conservation, affordable basic infrastructure, access to essential services, affordable housing, Socioeconomic Advancement and Empowerment, MSME Financing to Support Employment Generation and/or alleviate unemployment, Food Security and Sustainable Food Systems.

Process for Project Evaluation and Selection

The Process for Project Evaluation and Selection will ensure that an amount equal to the net proceeds of the Sustainable Debt Instruments are allocated to new or existing Eligible Expenditures that meets the criteria set out in the Use of Proceeds section. The process will be carried out by a Sustainable Finance Working Group (SFWG) that consists of members from:

- Ministry of Finance
- Ministry of Planning and Economic Development (MPED)
- Ministry of Environment (MoE)
- Ministry of Transportation (MOT)
- Ministry of Housing, Utilities & Urban Communities (MoHUUC)
- Ministry of Electricity and Renewable Energy (MOEE)
- Ministry of Higher Education & Scientific Research (MHESR)
- Ministry of Social Solidarity (MOSS)
- Ministry of Water Resources & Irrigation (MWRI)
- Ministry of Agriculture and Land Reclamation (MoA)
- Ministry of Health and Population (MoHP)
- New and Renewable Energy Authority (NREA)
- Egyptian Electricity Transmission Company (EETC)
- Construction Authority for Potable Water & Wastewater (CAPW)
- Ministry of Communications and Information Technology
- Social Housing & Mortgage Financing Fund (SHMFF)
- New Urban Communities Authority (NUCA)
- National Organization for Potable Water and Sanitary Damage (NOPWASD)
- General Organization for Physical Planning (GOPP)
- Micro, Small & Medium Enterprise Development Agency (MSMEDA)
- Ministry of Local Development (MLD)
- Ministry of Manpower (MoM)

Management of Proceeds

The Ministry of Finance and Ministry of Planning and Economic Development will oversee the allocation and tracking of Eligible Expenditures up to an amount equal to the net proceeds of the Sustainable Debt Instruments issued. The Sustainable Financing Register will be reviewed annually by the Ministry of Finance and Ministry of Planning and Economic Development.

Reporting

Egypt commits to report on the allocation and impact of proceeds from any Sustainable Debt Instrument on an annual basis, until full allocation and in the event of any material changes. An annual allocation report will be made publicly available within one year of issuance of any Sustainable Debt Instrument, which details the allocation of the net proceeds from any outstanding issuance.

ANNEX 7: List of Abbreviation

MOF	Ministry of Finance
MLD	Ministry of Local Development
MOE	Ministry of Environment
MOI	Ministry of Investment
MPED	Ministry of Planning and Economic Development
GFWG	Green Financing Working Group
m3/d	Meter cubed per day
MWH	Mega Watt Hour
ICMA	International Capital Market Association
MOHUUC	Ministry of Housing, Utilities & Urban Communities
MOHP	Ministry of Health and Population
EETC	Egyptian Electricity Transmission Company
CAPW	Construction Authority for Potable Water & Wastewater
IPCC	Intergovernmental Panel on Climate Change
UNSDG	United Nation Sustainable Development Goals
WWTP	Wastewater Treatment Plant
NCC	Nasr City- New Administrative Capital
STF	Sludge Treatment Facility
tCo2e	Tons of Carbon Dioxide equivalent
TP	Treatment Plant
DP	Desalination Plant
NCCS	National Climate Change Strategy
NCCC	National Council on Climate Change
BAU	Business as Usual
NSRP	National Structural Reforms Program
SSFF	Sovereign Sustainable Financing Framework
NDC	Nationally Determined Contribution



ANNEX 8: Environmental Challenges

Egypt is highly vulnerable to the impacts of climate change. According to the assessment reports of the Intergovernmental Panel on Climate Change (IPCC), Egypt's Nile Delta is one of the world's three hot spots for "extreme" climate vulnerability. Projections indicate that Egypt will suffer from the following climate change influences: sea level rise influencing migration and food security, water scarcity and deficiency, and an increase in the frequency and intensity of extreme weather events such as heat waves that would bring detrimental effects to health conditions, food security, energy consumption, tourism, and infrastructure. Flash floods affecting health conditions and food security, heavy rains, sand and dust storms. This is expected to have a major impact on infrastructure, beaches and fertile land in the Nile Delta as they are subject to erosion, saltwater intrusion and inundation. Therefore, food security, human health, economy and ecosystems in Egypt are at risk. Sectors which are anticipated to be particularly affected include water resources, agriculture and fisheries, health, housing and settlements, biodiversity, telecommunications, energy, tourism, as well as coastal zones and coral reefs.

Egypt relies on suitable climate and natural resources (land and water) for agricultural production and for food supply. The top three sectors vulnerable to climate change in Egypt: i) water resources and irrigation, ii) agriculture, and iii) coastal zone protection. Climate change is anticipated to be a cause of pressure on coastal zones, particularly with the effect of a rise in sea level on low land and the recurrence of severe storms and extreme weather events (IDSC, 2011). The coastal area of the Nile Delta is highly prone to flooding as a result of rising sea levels. This may be accompanied by soil subsidence at varying rates, depending on topographical and geological characteristics. Delta coastal zones can be divided into three sub-zones, based on the degree of vulnerability of the location to sea level rise and erosion.

Efforts to address climate change and other environmental priorities

The Egyptian Government of Egypt is steadfast to achieving the United Nations Sustainable Development Goals (SDGs). This promising commitment is mirrored in Egypt's comprehension of the intertwined nature of sustainable development and is embodied in the framework of Egypt's national strategy, "Sustainable Development Strategy: Egypt Vision 2030" (SDS).²² The strategy reflects the three dimensions of sustainable development: economic, social and environmental.

The plan is a national framework that guides and sets policies and programs in order to realize the SDGs, as well as other national objectives. The updated version of Egypt's Vision 2030 unfolds in four Guiding Principles putting the citizen at the core and center of development, while guaranteeing equity and accessibility for all, coupled with an approach of resilience and adaptation, all within a mindset of sustainability. These principles are considered the overarching umbrella that guides the implementation of the six National Strategic Goals. The strategy identifies a group of seven Enablers to galvanize the implementation of the goals.

The SDS is a governmental strategy that encompasses a plan for a diversified pool of stakeholders including the private sector, civil society and international organizations. SDS is aligned with the 17 SDGs, as well as the African Agenda 2063, and acts as the governing agenda for all executed development programs and projects spanning until 2030. The inauguration of the strategy was followed by the establishment of a national committee, the National Committee for Monitoring the Implementation of the Sustainable Development Goals, as a result of a prime ministerial decree.

Additionally, the Government Program (2018/2019 – 2021/ 2022) acknowledges several development programs, realizing different aspects of sustainability, including water consumption rationalization, coasts protection, developing renewable energy resources, transformation to green economy, establishment of environmentally compatible industrial clusters, expansion of establishing the smart and fourth generation cities, refining the environmental conditions in the most vulnerable villages, developing slums, enhancing water and air quality, waste management, solid wastes disposal, and linking scientific research with environmental improvement. Therefore, the Sustainable Development Plan of the Fiscal Year 2020/2021 has shed light on prioritizing the finance of green investment projects, which embody approximately 15% of total public investments (as of 2020). These projects span sustainable transportation, generation of renewable energy, solid waste management, water desalination plants, and sewage treatment plants. Additionally, a guide has been prepared by the Ministry of Environment and the Ministry of Planning concerning the sustainability criteria to be considered when formulating the Sustainable Development Plan of the Fiscal Year 2021/2022 to amplify the proportion of green investment projects to 30% by 2022 and eventually 50% by 2024/2025.