Environmental Sustainability Standards Guide

“Strategic Framework For Green Recovery”

First Edition 2021

Environmental Sustainability Standards Guide

in the Sustainable Development Plan

Contents

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Minister of Planning and Economic Development

The current development plans and programs all fall under the umbrella of “Sustainable Development Strategy: Egypt Vision 2030”, which comes in parallel with the Egyptian State’s efforts towards making this vision come true, in all its economic, social and environmental dimensions, and to extend the integration of these dimensions into the planning system and to widely spread the culture of “sustainable development.”

In this context and as a result of the exerted efforts and close cooperation over the last period with various relevant State authorities, especially the Ministry of Environment, the Ministry of Planning and Economic Development introduces the “Guide to Environmental Sustainability Standards in the Sustainable Development Plan”, which is a practical and critical step to achieve environmental sustainability and to set specific frameworks and standards to this end.

Our cooperation with our partners will continue to work on developing and updating this Guide, which makes it a living and a dynamic document, in order to keep pace with national changes and priorities and international developments, as well as the constant evaluation of the Guide to monitor the achieved progress in relation to implementation of standards.

This Guide acts as the framework governing the preparation of the State’s plan for the fiscal year (21/2022), as it includes the general standards on environmental sustainability to be observed throughout all implementation stages of all development projects, and its scope expands to include (14) fields and activities with a direct positive impact on the environment. The Guide determines the government bodies responsible for such projects and for measuring the relevant performance indicators, which in its turn evaluate the development effect of various projects and priority interventions, in a quantitative manner that facilitates monitoring, according to the sustainability codes and standards that will be drawn on. There is no doubt that integrating everything related to the standards of environmental sustainability in the State’s development plans places Egypt in a leading position as the first state in the region that seeks to integrate the green economy into the State’s plan and budget, which is contributing significantly to accelerate the pace towards achieving Sustainable Development Goals (SDGs).

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The quest to achieve sustainable development is the result of the integration and interconnectedness of the economic, environmental and social strategic goals, which has been supported by the political leadership in Egypt to achieve a sweeping economic reform based on observing environmental dimensions.

Although all States adopt methodologies and mechanisms to achieve sustainable development as per their priorities and capabilities, Egypt has selected one of the most important and successful methodologies for the green economy transformation, and thus achieving sustainable development, based on Greening the National Plan and Budget. Such methodology is characterized by overcoming the most important transformation challenges, represented in providing the funding required for implementing green projects, planning for production or service projects, or developing and regularizing the conditions of ongoing projects to comply with environmental standards.

This Guide is the outcome of the environmental work efforts in Egypt, as from the environmental monitoring and data analysis, through measurement of environmental indicators and all other environment protection tools, up to developing the standards, requirements and guidelines for integrating environmental dimensions into all economic sectors and activities.

We cannot fail to commend the partnership with the Ministry of Planning and Economic Development that believes in the importance of natural capital in Egypt and the inevitability of planning and funding the green economy transformation in order to protect and improve the Egyptian environment to fulfill the rights of citizens and upcoming generations to a decent life and ecosystems capable of providing their services in a sustained manner.

Introduction

Introduction:

During the current period, the Egyptian government attaches great importance to spreading the culture of "Sustainable Development", and the expansion of integrating its economic, social and environmental dimensions into the planning system, in order to achieve an integrated and fair planning system based on five main pillars:

- An economy based on knowledge and human development;
- An economy based on the natural resources development;
- An economy based on production;
- An economy based on investment, transfer and localization of technology; and
- A diversified economy based on knowledge-intensive innovation and manufacturing.

To that end, the State aims to adopt the green economy approach to achieve sustainable development within the framework of Egypt Vision 2030, and it is perceived as the guarantee bond for the future generations rights to the uses of natural resources and development dividends.

In this context, this Guide has been prepared in cooperation with the Ministries of Planning and Environment, in order to consolidate the government's serious steps towards the sustainable development, by focusing on developing and implementing productive projects acting on diversifying sources of production, localizing technology, supporting the growth of gross domestic product (GDP), and providing more decent job opportunities.

The Guide is a dynamic document that will be regularly developed and updated in accordance with national developments and priorities and global technological trends. From this guide, other detailed guides will be emanating for various areas and production and service activities in coordination with ministries and stakeholders, in persistent pursuit of participatory approach that has been observed in all stages of the Guide development.

1 Section One:

Framework of the Environmental Sustainability Standards Guide

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Framework of the Environmental Sustainability Standards Guide

First: Purpose of the Guide:
This Guide has been developed with a view to identify indicative general standards that aim to integrate sustainable and fair development standards into development plans in order to maximize returns on public investments and development revenues, improve the quality of life for citizens, ensure the achievement of a specific development goal for doubling the ratio of green public investments observing the sustainability dimensions from 15% in the plan of the fiscal year (20/2021) to 30% in the plan of the fiscal year (21/2022).

Second: Importance of the Preparation of Environmental Sustainability Standards Guide
Egypt is among the first Arab states involved in the process of Greening National Plan and Budget, through the effective application of the environmental sustainability standards contained in this Guide, which contribute to:

- Accelerating the progress in fulfilling the indicators of the UN SDGs, and all relevant international obligations;
- Integrating environmental sustainability considerations into projects financing criteria; and
- Developing a roadmap to gradually replace, amend, or substitute technologies and practices causing depletion of natural resources.

Third: Key Definitions and Concepts:

• Sustainable Development

The United Nations define sustainable development as the mean to achieve balanced social, economic and environmental development for current and future generations, that ensures the fair and optimal use of natural, human and material resources in a manner that enhances the ability of future generations to meet their needs.
In its most comprehensive sense, sustainable development can be defined as the concerted efforts of all segments of society, including organizations, bodies and institutions of public and private sectors and civil society, youth, women and people with special needs to prepare and implement an integrated national strategy aiming at improving the living conditions for citizens, through the optimal use of natural resources, and human and material potentials, channeling resources in a manner that ensures the fulfillment of the requirements of current and future generations, and is based on maintaining the protection and safeguarding the environment, and achieving social justice, and social cohesion and solidarity.

•Green Public Investments:

It means the allocations included in the sustainable development plan, for each of the units of the government apparatus, economic bodies, and public companies, which have a positive effect on comprehensive and fair development, and stimulate the economy by creating new production and service areas and activities aspiring to enhance the efficiency of public expenditure and increase its development returns through the following:

1. Improving the efficiency of energy and water production and rationalizing their consumption;
2. Expanding the production of renewable energy;
3. Maximizing the use of non-conventional water resources;
4. Rationalizing the uses of natural resources and production inputs;
5. Increasing rates of recycling and reusing of water;
6. Promoting and localizing industry 4.0 based on modern, clean and eco-friendly industries and technologies;
7. Encouraging and localizing communications, information technology, artificial intelligence, big data, internet of things (IoT), cloud computing, communications, digitization, and employing them to achieve SDGs;
8. Promoting sustainable and organic agriculture based on rationalizing the use of water and energy, reducing the use of chemical fertilizers and inorganic pesticides, and recycling the agricultural waste;
9. Promoting eco-tourism and diversifying tourism areas. This includes integrating environmental considerations into the tourism sector, represented in building and construction methods and the uses of energy, water and natural resources in general, and supporting various tourism fields, including archaeological tourism, beach tourism, medical tourism, conference tourism, and cultural tourism;
10. Adopting an integrated approach on new sustainable cities and communities based on rationalizing water and energy consumption, using energy and renewable water sources, and reduction and recycling of waste;
11. Expanding sustainable multimodal transport services;
12. Raising the capability to adapt to climate changes;
13. Reducing the rates of waste generation, emissions and environmental pollution;
14. Increasing the rates of waste recycling and the production of organic fertilizers and biogas;
15. Expanding sustainable production patterns and integrated management of all types of waste;
16. Strengthening the role of scientific research in the areas of sustainability;
17. Promoting outsourcing services as a promising field to provide job opportunities, which is also supportive to economic growth;
18. Raising the competitiveness of national production and exports;
19. Spreading the culture of sustainability and non-wasting of natural resources in all educational systems and curricula;
20. Supporting natural reserves and national heritage preservation programs;
21. Supporting and developing handicrafts and heritage;
22. Ensuring the non-implementation of projects that would violate the provisions of multilateral

environmental agreements; Especially the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the United Nations Convention to Combat Desertification (UNCCD); and

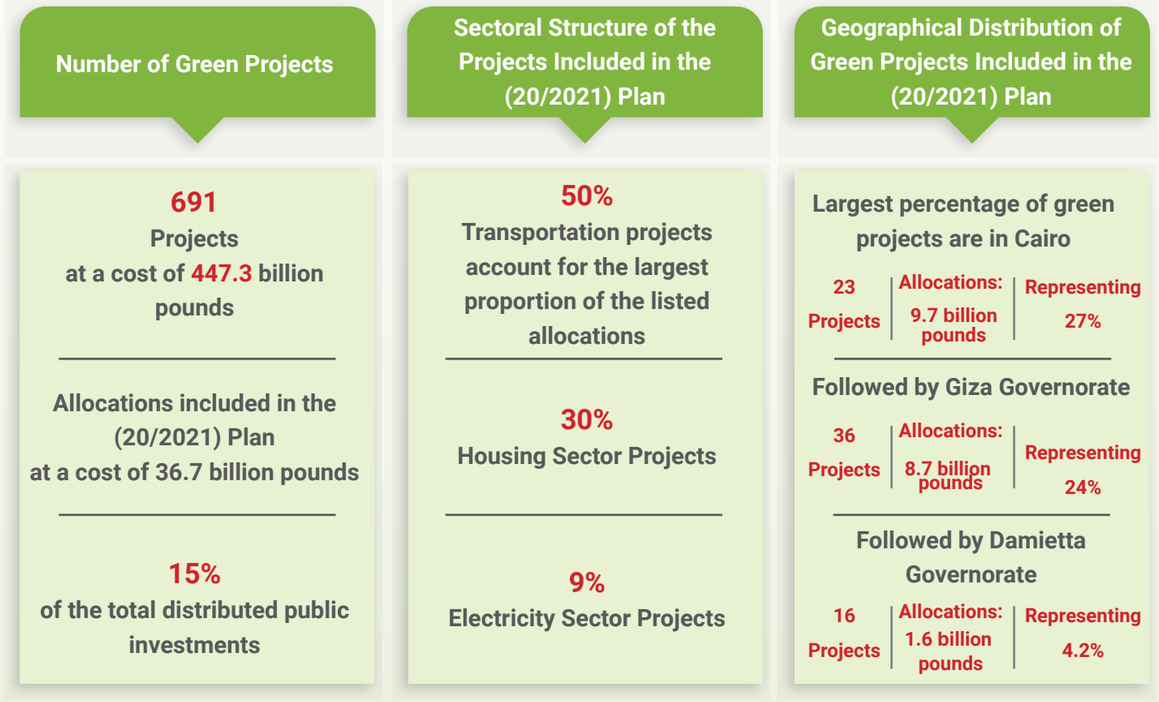
23. Supporting the uses of modern technology and artificial intelligence in all fields, production and service activities.

• Investments Non Responsive to Sustainability Patterns:

Any projects that do not contribute to the improvement of the citizens' living standards, or causing waste of natural resources, especially water, energy, land, or pollute the environment, or result in an increase in the generation and non-recycling of waste, whether in the implementation or operation stage.

• Green Investment Projects Report:

The report prepared by the Ministry of Planning and Economic Development to account for the green investment projects included in the State plan for the year (20/2021), which has revealed that the percentage of public investments allocated for these projects amounted to 15% out of the total distributed public investments included in the plan.



• Report on the Development of Balance of Trade (BOT) after the Green Products:

The report prepared by the Ministry of Planning and Economic Development to list the most important green products and goods that are exported and imported by the State. The report concluded that green exports and imports represent 13.3% and 16% of Egypt's total exports and imports during 2019, respectively.

• Green Economy:

The United Nations Environment Program (UNEP) defines the Green Economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities."
It is thus an economy that improves the citizens' living standards while achieving social justice. It is also concerned in channeling growth into the national income and operation by investments in both public and private sectors in order to enhance resource efficiency, reduce carbon emissions, waste and pollution, protect biodiversity and prevent ecosystem degradation.

- Transition to a green economy is important for:

1. Enhancing economic growth opportunities and diversifying production sources;
2. Expanding decent job opportunities;
3. Reducing poverty;
4. Increasing the competitiveness of local products;
5. Creating new investment areas;
6. Enhancing the State's ability to achieve water and food security;
7. Managing well the ecosystems and natural resources; and
8. Protecting the health of citizens; especially in light of the repercussions of “Corona”: Green Recovery.

• Green Jobs:

The provision of decent job opportunities at establishments that produce goods and services benefiting the environment in its comprehensive sense (economic, social, environmental, cultural and institutional environment) and preserve natural resources.

• Circular Economy:

The economy based on promoting the concepts of sustainable consumption (without depletion) and production, while reducing and recycling the generated waste (or re-converting waste to industrial inputs) in order to benefit the environment in its comprehensive concept and the national economy through innovative ways of integrated waste management.

• Green Industry:

The list of projects aiming at meeting the development needs without harming the environment and natural resources, through optimal use of renewable resources, reduction of waste generation and recycling in order to limit the negative effect on health and environment.

• Renewable Energy:

The alternative energy generated from natural sources of a renewable nature, such as the sun and the wind.

• Green Hospitals:

Hospitals of a green building, mercury-free medical devices, and non-recyclable plastic free medical supplies, and equipped with equipment for safe disposal of medical waste.

• Green Sports:

Sports projects, activities and facilities that preserve and do not cause harm to the surrounding environment.

• Agricultural Residues:

The unexploited part of the plant that is produced accidentally or secondarily during the production of field crops, whether during the harvest, collection, preparation, marketing or manufacturing stage of such crops.

• Green Buildings:

Eco-friendly buildings that are highly efficient in the use of natural resources, use of energy, water and resources consumption in general, that ensure overall comfort for users and create a healthy and safe environment.

• Life-Cycle Cost (LCC):

An approach that assesses the total cost of a building through its life. including the cost of installation, operation, maintenance and development. This approach is a key economic analysis used in the selection of alternatives that influences both pending and future costs, as it compares the initial investment options to identify the least cost alternatives. It is an important and key tool used for comparison between investment in green or sustainable buildings compared to traditional buildings.

Fourth: Methodology of Guide Preparation:

Drawing on the scientific and participatory approach, through:

- An accurate description of the Green Projects concept; to determine the percentage of public investments directed towards such projects, based on the international standards and experiences.
- Issuing a report on the green investment projects included in the Sustainable Development Plan for the fiscal year 20/2021.
- Forming a working group, among the representatives of the Ministries of Planning and Environment in order to coordinate and agree on steps to integrate the environmental dimension into the planning system.
- Organizing a series of workshops with the relevant ministries. Seven workshops have already been organized with the Ministries of Housing, Utilities and Urban Communities; Transport; Electricity and Renewable Energy; Petroleum and Mineral Resources; Irrigation and Water Resources; Agriculture and Land Reclamation; Trade and Industry), as a first stage.

Fifth: Legislative and Regulatory Framework for Environmental Sustainability Standards:

• Political Leadership Directives:

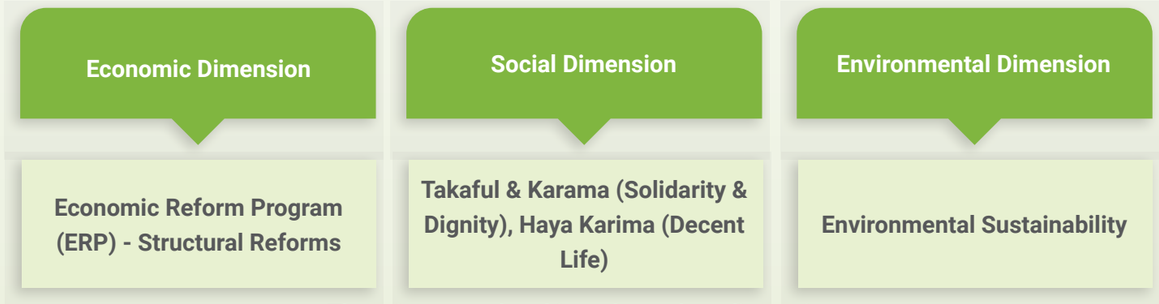
To focus on the Green Economy and integrate all environmental dimensions into the development projects.

• Egyptian Constitution:

Article No. (32) stipulates the preservation of natural resources and safeguard the rights of future generations.

•National Sustainable Development Agenda

Egypt Vision 2030 highlights the necessity of integrating the environmental dimension, as a main pillar, into all development sectors, in order to secure the natural resources, ensure its equal and optimum use and to channel investments into this dimension; which ultimately acts as a safeguarding measure for the rights of future generations, diversifies the production sources and economic activities, supports competitiveness, provides new job opportunities, reduce poverty, and achieves social justice while providing a clean, healthy and safe environment for all Egyptians.



SUSTAINABLE DEVELOPMENT GOALS

The environmental dimension is a key pillar to achieve sustainable development. The natural capital is of utmost importance as an input to the production processes of all development areas, crucial to the Egyptian economy. Investment in environmental capital achieves stable growth rates and enhances resilience to global economic changes and crises.

Integration of environmental dimensions into all economic or social sectors is a key factor in achieving sustainable development, since integration between sectors, with the aim to achieve rational consumption of available natural resources and the well-being of citizens, is the most important approach of sustainable development that builds the capacities of development sectors to grow, through a framework of making available the natural resources in terms of quantity and quality, raising the efficiency of human element, in order for the local product to meet the local needs and achieve global competitiveness.

• Environmental Law No. (4) of 1994 and amendments thereof,

Article No. (19) stipulates that any natural, public or private legal person shall submit an Environmental Impact Assessment (EIA) study on the establishment or project to the competent administrative or licensing authority prior to the implementation of the project.

• Investment Law No. (72) of 2017:

Article No. (11) of the Law grants the projects “that runs on or produces new and renewable energies and projects operating under the agricultural waste recycling industry” a deduction on the net taxable profits at a rate of 30 % as a deduction of investment costs.

• Law No. (182) of 2018 on regulating contracts concluded by public entities:

Article No. (8) stipulates that the State’s economic, social and environmental policies, reported by the Council of Ministers, shall be observed in all contracts, along with other quality and cost considerations, in order to achieve the best value for public money on the basis of the entire life cycle of the subject matter, and the inclusion of qualification prerequisites, evaluation standards, performance indicators, …etc. into the requirements of sustainable contracting.

• Presidential Decree No. (560) of 2018:

Approval upon the United Nations Partnership Development Framework (UNPDF) 2018-2022, «United for a Sustainable Future» between the Arab Republic of Egypt and the United Nations Industrial Development Organization (UNIDO), signed on 18.03.2018.

• Resolution of the Cabinet Meeting No. (98), dated 25/06/2020:

Directing ministries’ main focus on the transition towards a green economy, while observing the sustainability dimensions in development projects, within the framework of determinants developed by the Ministries of Planning and Environment.

• Resolution of the Cabinet Meeting No. (115), dated 28/10/2020:

Approval upon the implementation methodology and mechanisms of the Guide to Environmental Sustainability Standards in the Sustainable Development Plan.

• Building Rating System Standards (Green Pyramid):

Various editions issued pursuant to the resolution of the Minister of Housing, Utilities and Urban Communities, including: “New Establishments Edition, 2017”, “Sustainable Urban Communities Edition, 2018”, “Administrative Buildings and Banks Edition, 2018”, and the Green Social Housing Editon (under preparation).

- **Standards of the Energy Efficiency Code for New Buildings, issued by the Ministry of Housing, Utilities and Urban Communities (Code No. 306-205) of 2015.**

- **Principles for Responsible Banking of the United Nations Environment Programme Finance Initiative (UNEP FI):**

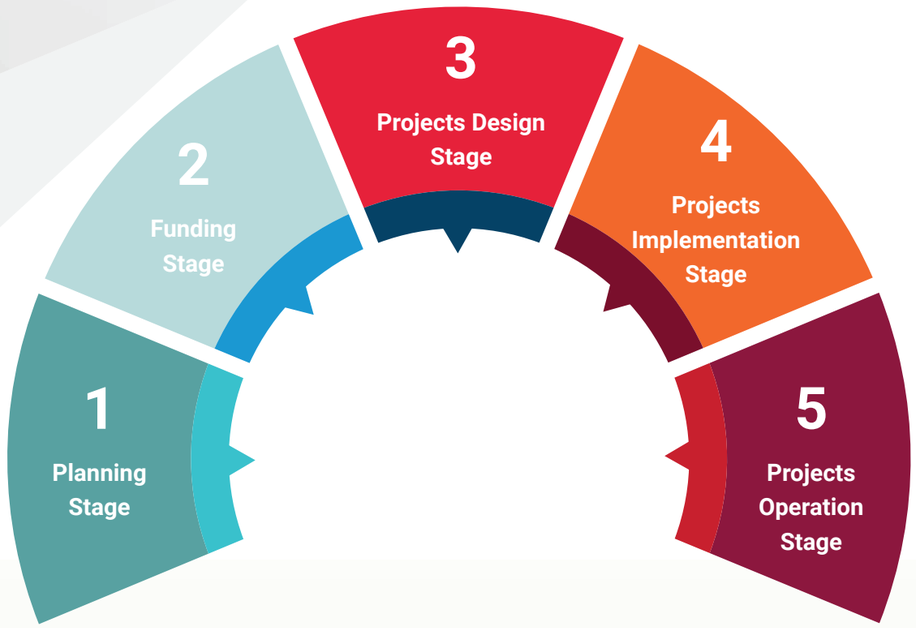
Standards for integrating social and environmental sustainability practices and governance principles into all daily operations of banking institutions, in line with the United Nations Sustainable Development Goals and the Paris Climate Agreement.

- **ISO 14030-3 Environmental Performance Evaluation:**

Specifies the environmental safety standards for each economic sector addressed by the specification, based on a set of basic pillars, in addition to environmental risks management methods to manage potential significant environmental risks associated with eligible projects, assets and activities.

Relationship between Development Priorities and the United Nations Sustainable Development Goals

Sixth: Mechanisms for integrating environmental sustainability standards into the Sustainable Development Plan:



Planning Stage:

The preparation of an Environmental Impact Assessment (EIA) for each of the investment projects to be included in the Sustainable Development Plans, and the exclusion of projects not taking into account the sustainability patterns, by determining the environmental loads resulting from the resources management, and ensuring their sustainability, as follows:

- In case geographical location is in proximity to (coastal areas\ lakes\ River Nile\ natural reserves), the site shall be subject to environmental sensitivity index.

In the case of the natural resources used when operating the project (land\ water\ energy\ minerals), the following indicators are measured:

- Ecological Footprint (carbon\ water).
- Value added and usage efficiency per unit of natural resources (water\ gas\ electricity).

In case the project is generating wastes (solid\ liquid\ emissions), the following indicators are measured:

- Standard criteria for the amount of waste generated in proportion to the number of beneficiaries.
- Pollutant loads resulting from sewage (tons per year).
- The amount of emissions of air pollutants (tons per year).
- The amount of carbon emissions(tons per year).
- The amount of different types of generated waste (tons per year)
- Preparation of environmental records.

In the case of waste disposal methods (establishment of collection sites \treatment plants \ purification plants), the following indicators are measured:

- Amount of generated waste in proportion to investments required for safe disposal.
- Amount of generated waste in proportion to waste properly disposed.

Funding Stage:

Encouraging the implementation of green projects and providing the appropriate funding through the following:

- Giving priority to green projects in financing investment projects.
- Gradual exiting from financing investment projects that do not take into account the Environmental Sustainability Patterns.

« Projects models and practices subject to gradual exiting from financing»

1. Primary sewage treatment plants.
2. Installation of regular light bulbs in light poles and government buildings.
3. Overfishing and intensive fishing in natural fisheries in seas and lakes.
4. Irrational and unregulated use of pesticides and chemical industrial fertilizers.
5. Overgrazing resulting in erosion of vegetation cover.
6. Surface immersion irrigation systems in agriculture.

- Depending on Green bonds for financing eco-friendly development projects.
- Prioritizing Government Green Purchases (GGP) in the “Procurement of Goods and Services” allocations in the State's general budget.
- Reducing customs duty on imports of green products.
- Granting tax incentives and export aid to projects and products of the Green Private Sector.
- Integrating the green approach Sovereign Fund projects.
- Granting financing incentives to green oriented small and medium-sized enterprises (SMEs).

Projects Design Stage:

Supporting the green buildings approach and environmental sustainability during the projects’ design stage, with main focus on:

- Benefiting from the designs compatible with the climatic region construction requirements, as per the climatic regions defined by the Energy Efficiency Code in Buildings, including eight climatic regions in Egypt.
- Adopting the “Passive Design” Strategies, particularly on the orientation, thermal insulation, building envelope, and thermal properties of the used building materials, thereby reducing the energy consumption of buildings, especially cooling and heating.

- Making use of the building's envelope to create good thermal boundaries that isolate the internal environment from the external environment, through prevention of air leakage, thermal insulation, removal of thermal bridges, using suitable exterior finishes materials, and proper windows and glass facades or surfaces characterized by high thermal performance.
- Using natural cooling and heating systems.
- Water usage efficiency, rationalization and recycling.
- Rainwater harvesting and reuse.
- Raising the Indoor environmental quality (IEQ) in terms of compatibility between natural and artificial lighting, acoustic comfort, and thermal comfort.
- Conforming to local codes and specifications, and global trends in Sustainable Green Design.
- Making efficient use of raw materials, using the local alternative of building materials, and adopting environmentally friendly construction methods.
- Using energy-efficient lighting and LED technology, and making use of natural lighting as much as possible.
- High-efficiency devices with the energy efficiency labels.
- Using new and renewable energies whenever possible, whether in the electricity production or water heating.
- Rooftop farming.
- Sustainable management of the building to limit environmental impacts during operation and maintenance, in order to achieve the building's long-term sustainability concepts.

Projects Implementation Stage:

Implementation of all investment projects while taking into account environmental sustainability standards.

- Developing an Environmental and Social Management Plan (ESMP), indicating the implementation team.
- Pre-coordination with the community before scheduling the implementation works, in order to limit the irritating activities (particularly at night, times of rest or prayers) and times when work operations cease (at night, from 6 PM to 6 AM).
- Contractors shall equip worksites with warning signs and surround the site with suitable fence
- Storing flammable liquids far from areas with fire hazards.
- Prohibiting storage of oxidizing substances that interact with flammable substances.
- Prohibiting the storage of interacting chemicals in one place, and must be tagged with warning labels.
- Covering transport vehicles loaded with friable and volatile materials.
- Covering friable and volatile substances, as well as regular moisturizing of them.
- Shutting down all noise-generating machines when not used.
- Placing signs boards at easy-to-see spots indicating locations with high-noise levels.
- Providing means of occupational safety and health, as necessary.
- Determining the distance between the site and the nearest noise receiver.
- Spraying soil for moistening pre excavation works,and during excavation if necessary.
- Providing sufficient onsite dustbins and to be placed at proper spots and emptied at the end of each workday.
- Emptying paint into boxes designated for such purpose, not those used for waste, and to be disposed properly.
- Having proactive measures in place to prevent any pollution or discharge of any solid or liquid wastes into surface water or groundwater or soil surfaces, avoid any emission of dust or other pollutants to the environment.
- Materials and liquids stored onsite shall be at the quantities required for work conditions.
- Contractors shall provide spaces for storage of equipment and materials, separation of waste per type and separation of hazardous waste from municipal waste.
- Contractors shall establish, at worksite, a suitable working space to be used by the competent irrigation management team and the housing directorate, to receive any project-related complaints from citizens, and contractor shall be held responsible to report any complaints or incidents that take place within the scope of work.
- Using licensed equipment effectively, and regular maintenance.
- Setting an appropriate maximum speed limit for vehicles operating within the project boundary (20 km/ h).
- Implementing a preventive maintenance program for all vehicles and equipment used during the project implementation. Vehicles emitting visible smoke or exhausts shall be immediately repaired.
- Restoring the project's surrounding nature and environment to its original conditions as much as possible.

Projects Operation Stage:

- Ensuring the provision of sufficient financial allocations to maintain the current investment assets, extend their useful life and ensure the efficiency of public expenditure.
- Replacing the current investment assets, taking into account developments in modern green technology.
- Reducing carbon emissions from operational processes:

By assessing carbon footprint with the aim of reducing carbon emissions resulting from the consumption of electricity, water, paper, and water-coolers leaks, the use of air and land transportation means and the generation of waste.

2

Section Two:

Sectoral environmental sustainability standards for projects of direct positive impact on environment

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Sectoral environmental sustainability standards for projects of direct positive impact on environment

This section aims at developing particular standards for sustainability and integrating thereof into various service, productive and development activities and areas.

These criteria represent the basis for guiding the competent authorities during the preparation of their annual sustainable development plan proposals, starting from the beginning of the fiscal year 21/2022.

(1) Agriculture & Food Security:

Responsible Entities:

Ministry of Agriculture and Land Reclamation, Ministry of Supply and Internal Trade and Upper Egypt Development Authority.

Performance Indicators:

- Annual loss rate of agricultural lands due to urbanization (Per 1000 Feddans)
- Loss rate of soil's original functions due to salination or other reasons (except urbanization) (Per 1000 Feddans)
- Annual growth rate in organic farming area (%)
- Lands implanted with organic crops using means of sustainable development in proportion to total cultivated lands (%).

Projects and activities prioritized for funding

- Recycling of agricultural waste.
- Field irrigation development.
- Development of Egypt's Agricultural Guidance System.
- Combating desertification
- Breeding and developing new heat-tolerant plant species.
- Organic and sustainable agriculture.

Performance Indicators:

- Organic fertilizers usage rate (%).
- Usage rate of chemical fertilizers and pesticides in proportion to the total fertilizers used in the agricultural sector (%).
- Annually saved amount of water due to the field irrigation project (m3).
- Number of agricultural products with geographical indicators as per the Good Agricultural Practices (GPA) (Product).
- Annual growth rate of agricultural waste recycled and re-converted to organic fertilizers or for other purposes (%).
- Amount of disposed rice straw (Ton).
- Area of Mangrove Forests cultivated annually (Hectare).
- Development of agricultural lands depending on wastewater (1000 Feddans).
- Total area of forests irrigated by treated wastewater (1000 Feddans).
- Share of agricultural sector consumption of natural gas and oil (%).
- Share of agricultural sector consumption of electric power (%).
- Percentage of water resources used in agricultural sector (%).
- Percentage of groundwater used in agriculture (%).
- Percentage of lands irrigated by modern methods of irrigation (%).
- Percentage of solar power used in agricultural sector to the total power consumed (%).
- Agricultural sector greenhouse gas emissions rates (%).
- Annual loss of agricultural lands due to encroachment, degradation and desertification (%).

Projects and activities prioritized for funding

- Production of organic fertilizers from agricultural waste and natural materials.
- Sustainable management of fisheries.
- Optimal exploitation and development of lakes.
- Protecting and improving quality of agricultural and productive lands.
- Establishing farmers field schools for training on the smart agricultural practices, sustainable production and techniques on growing carbon-dioxide absorbing plants.
- Creating geographical indicators for premium agricultural products.
- Construction of windbreakers for lands' protection from wind and dust.
- Developing naturally stress-resistant crops
- Climate mapping of agricultural areas, with a scale of 1 Km, for all areas within the Republic.
- Expansion in growing plants depending on sea water irrigation.
- Expansion in planting timber trees depending on wastewater irrigation.
- Mainstreaming the Integrated Pest Management (IPM) System and limiting the use of chemical pesticides.
- Gradual replacement of chemicals and pesticides harming health and soil with eco-friendly alternatives.
- Expanding the production of high-quality seeds and grains.
- Establishment of agricultural wastewater treatment plants to be utilized in land reclamation projects.
- Providing natural gas facilities to bakeries.
- Reduction of generated agricultural waste and expansion in manufacturing agricultural products.

Relevant Sustainability Codes:

The Egyptian code for recycling and use of different solid wastes in construction (Recycling of Agricultural Waste).

Issued pursuant to the Minster of Housing, Utilities and Urban Communities' Decision No. 440 of 2017. The code sets the requirements of handling solid agricultural waste, such as cotton stalks, flax stalks, rice straw, palm leaf stalks and others used in producing construction boards and units, during the whole process as from the field phase, the intermediate phase up to the manufacturing of final product.

(2) Water Resources and Irrigation :

Responsible Entities:

Ministry of Water Resources and Irrigation

Performance Indicators

- The lengths of the covered channels (km) of the total network of channels at the level of the Republic.
- The lengths of the covered drains (km) of the total network of drains at the level of the Republic (%)
- Lengths of covered canals (Km).
- Lengths of covered drains (Km).
- Percentage of protected shore-lengths out of the total targeted shore-lengths (%).
- Protected shores-lengths (Km).
- Annual growth rate in number of utilized groundwater wells (%).
- Annual amount of non-renewable deep groundwater safely utilized (m3).
- Percentage of production wells covered by the National Groundwater Quality Monitoring Network (monitoring drainage, hydraulic pressure and dissolved salts level at minimum) (%).
- Number of Nile stream encroachments (removals).
- Percentage of actual removals of River Nile encroachments out of the total encroachments (%).

Projects and activities prioritized for funding

- Rationalizing consumption of irrigation water through using modern irrigation methods.
- Rehabilitating, lining and upgrading efficiency of canals and drains.
- Covering drains and canals within residential blocks.
- Shores protection.
- Optimal exploitation and sustainable use of groundwater.
- Preserving the River Nile.
- Protecting water streams from pollution.
- Harvesting torrential rains.
- Constructing spillways to carry water.
- Training, education and raising awareness on water matters.
- Constructing and developing barrages.
- Protection from and adaptation to “Sea Level Rise”.
- Protection systems for plains and lowlands at the shores of River Nile Delta, exposed to risks of climate changes.
- Establishment, restoration and rehabilitation of agricultural covered drainage network.
- Agricultural waste treatment plants.

Performance Indicators

- Annual growth rate in the harvested amount of torrential rains (%).
- Percentage of increase in rainwater harvesting plants’ storage capacity (%).
- Targeted volume for harvesting rain and flood water (m3).
- Number of rainwater harvesting plants (plant).
- Percentage of wells operating on solar energy out of the total number of wells (%).
- Percentage of solar energy consumption in pumping water (%).
- Percentage of non-conventional water resources out of the available water resources (%).
- Annual growth rate of the available volume of usable water (%).
- Lengths of rehabilitated and lined water streams (Km).
- Number of pumping plants to be established, replaced, upgraded or rehabilitated (Plants).
- Areas of lands covered by an established or a restored agricultural drainage network (Feddan).
- Number of awareness seminars convened (Seminar).
- Areas of lands applying modern irrigation methods (Feddan).
- Number of barrages under development (Barrage).
- Number of spillways under construction and restoration (Spillway).

Projects and activities prioritized for funding

- Establishing early-warning stations at different depths into the Mediterranean Sea to acquire data on surges of storms, waves and sudden natural phenomena that coasts may be exposed to.
- Urging beneficiaries to upgrade wells operation on solar energy.
- Rationalizing energy consumption at pumping plants and irrigation networks.
- Increasing production of crops and limiting soil salination.

Relevant Sustainability Codes:
The Egyptian Code for Water Resources and Irrigation (2003)

Issued pursuant to the Minster of Housing, Utilities and Urban Communities Decision No. 350 of 2003 for the unified systems on management of irrigation and drainage networks and implementation of its projects, including marine coasts protection and development works; testing methods; standards on design and implementation of works; testing of construction materials; control measures applicable to construction works, management of irrigation and drainage networks, and the mechanical and electric works.

Benefits of Drip Irrigation Projects

40% Water Savings

30% increase in Wheat Productivity\ Feddan

Benefits of Development Projects of Canals and Mesqas

- 7% Irrigation Water Savings
- 2% Agricultural Lands Savings
- 12% Increase in Agricultural Productivity

Organic Agricultural Products Benefits

- Their prices are increased by 10-50% on average compared to traditional products (higher profitability)
- 20-35% Less Production Inputs
- 48-66% Less Emissions compared to Conventional Agriculture

(3) Industry:

Responsible Entities:

Ministry of Trade and Industry, Ministry of Military Production, Ministry of Communications and Information Technology, Upper Egypt Development Authority and Ministry of Public Business Sector

Performance Indicators

- Percentage of technological centers coverage at the level of industrial areas (%).
- Annual growth rate of operational green industrial clusters that have been operated (%).
- Annual growth rate of electronic products exports (%).
- Percentage of standard specifications compatible with International Environmental Standards out of the total (%).
- Number of issued standard specifications compatible with International Environmental Standards out of the total (Solid Recovered Fuel, Water Treatment Chemicals, Freons' Eco-friendly Alternatives) (Standard Specifications)
- Percentage of hazardous industrial waste safely disposed (%).
- Percentage of saved energy (%).
- Industrial drainage wastewater treatment rate (%).
- Number of factories granted the ISO standard specifications in environmental management and energy conservation (factory).
- Percentage of industrial areas with industrial drainage plants (%).
- Utilization efficiency rate of each natural resources' unit (water, gas, electricity) (%).
- Amount of waste, whether liquid, solid or emissions (tons/year)
- Number of electronic waste recycling factories (Factory).
- The amount of emissions of air pollutants (tons/year).
- Carbon density drop rate (%).
- Number of companies benefiting from Resource Use Efficiency Programme and Clean Production (Company).
- Percentage of eco-friendly products exports out of total exports (%).

Projects and activities prioritized for funding

- Technology zones and centers.
- Eco-friendly industrial clusters and sustainable industrial cities.
- Preparation of environmentally compatible standard specifications.
- Production of environmental, energy saving, new and renewable energy equipment.
- Electric cars manufacturing.
- Production of eco-friendly IT devices.
- Industrial security.
- Development and establishment of industrial drainage networks at the current and new industrial areas and clusters.
- Energy conservation in industry.
- Management and handling of electronic waste.
- Transition from mazut and diesel to natural gas.
- Manufacturing of greenhouses components and equipment.
- Manufacturing smart villages' systems (Establishment of the intelligent multimodal transport stations, smart logistic service center and smart electronic sporting village).
- Manufacturing of desalination plants equipment.
- Manufacturing low-carbon techniques.
- Manufacturing solar energy systems.
- Expansion in the development and installation support of "small solar-energy cells" online systems in factories, hotels, public, commercial and residential buildings.
- Professional capacity building in green technology related jobs.
- Limiting the manufacturing and use of single-use plastic bags.
- Localization of electric railway cars industry.
- Providing export incentives encouraging the exports of eco-friendly industries.
- National mapping of the electronic waste producers, recycling of such waste and applicable practices.
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Relevant Sustainability Standards

- **Clean Development Mechanism Guide.**
- **Industrial Activity Practicing Guide.**
- **Assessment of new industrial establishments must observe conditions on chimney height limits as per the principles of International Good Industrial Practices. Fuel tanks must be equipped with an impermeable secondary container with a 110% storage capacity.**
- **Risks related to hazardous waste generated by industrial cities and using state-of-the-art handling technology must be observed.**

(4) Energy:

Responsible Entities:

Ministry of Electricity and Renewable Energy and Ministry of Petroleum and Mineral Resources

Performance Indicators

- Percentage of new and renewable energy contribution to total electric power generated
- Consumed electric power (Million kWh).
- National energy mix (%).
- Fuel saving achieved from renewable energy projects (kWh).
- Recovered flare gas (m3).
- Reduced volume of greenhouse gases (Tons of carbon dioxide equivalent).
- The number of household units with connected natural gas service instead of butane gas cylinder (Unit).
- Percentage of households units connected to the natural gas network.
- Annual financial savings of replacing butane gas cylinder with natural gas (Million Pounds).
- Water savings achieved from cooling process and recycling (m3).
- Amount of recycled liquid waste generated from oil separation processes (m3).

Projects and activities prioritized for funding

- Production of solar power.
- Production of wind power.
- Hydropower plants.
- Increasing petroleum products efficiency, productivity and conservation.
- Limiting greenhouse gas emissions and use of combined cycles technology.
- Raising current electricity power plants efficiency.
- Rational use of electricity.
- Limiting gas leakage from natural gas distribution networks
- Recovery of flare gases.
- Expanding the delivery of natural gas networks to houses.
- Using natural gas as a replacement of petroleum products.
- Expanding the establishment of industrial drainage treatment and oil recovery units.
- Expanding the establishment of “Zero Liquid Discharge” projects.

Benefits of Natural Gas Use

Economic Benefits

- 53 pounds monthly saving per citizen due to use of natural gas instead of butane gas cylinder (636 pounds yearly saving)
- Saving 5% of the cost of fuel to the vehicle owner

Environmental Benefits “Limiting emissions of harmful gases”

- 35-60% Less emissions of Nitrogen Oxide (NO)
- 25 % Less emissions of Carbon Dioxide (CO2)
- 90- 97% Less emissions of Carbon Monoxide (CO)

Benefits of Energy Efficiency Projects

- 10-15% savings in industry and transportation sectors
- 10% savings in households consumption

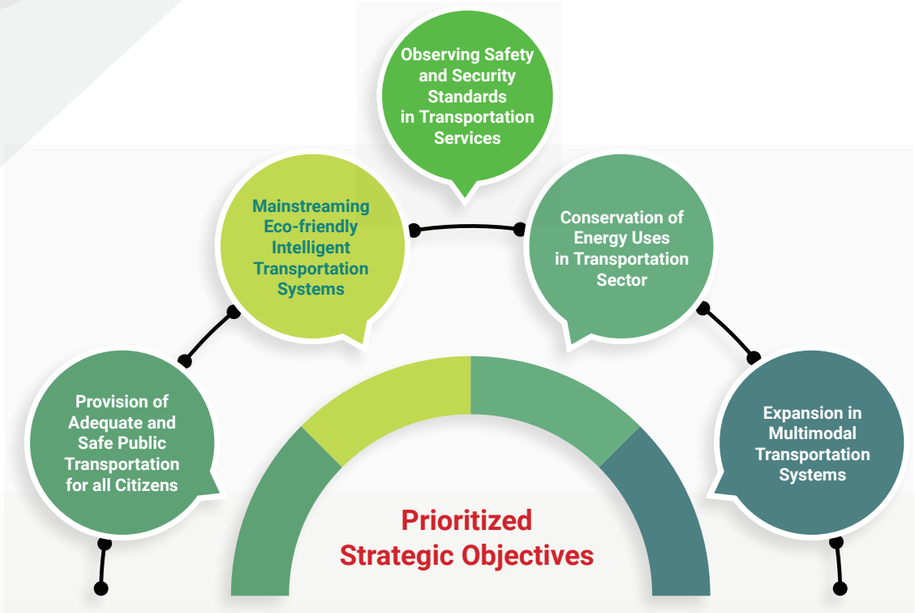
Benefits of Utilizing Solar Power

- In average, saves 7-10 jobs per each megawatt

Relevant Sustainability Codes

- Code on connecting wind plants to the electrical grid.
- Code on connecting solar plants to the electrical grid (March, 2017).
- Energy Conservation Code.

(5) Transportation:



Responsible Entities:

Ministry of Transportation, Ministry of Civil Aviation, Passenger Transport Authorities, Ministry of Local Development and Suez Canal Authority

Performance Indicators

- Annual growth rate in number of in-service metro stations (%).
- Percentage of railway electric signaling out of the total signaling (%).
- Percentage of public transportation vehicles running on natural gas and electricity (%).
- Percentage of public transportation buses compatible with the environmental standards (%).

Projects and activities prioritized for funding

- Metro and tram.
- Electrification of railway signaling and tracks.
- Operation of transport vehicles by natural gas.
- Low-carbon public transportation.
- Development of river transport.
- Electric trains.
- Eco-friendly maritime ports.
- The National Roads Project.

Performance Indicators

- Percentage of new bus routes (Special)(%).
- Percentage of annual sales of electric train and metro tickets out of the total sold tickets (%).
- Percentage of the filtrated lengths of the River Nile (%).
- Annual growth rate of the volume of goods transported by river means (%).
- Annual decrease rate in road accidents (%).
- Percentage of substituted or developed railway trains out of the total (%).
- Percentage of eco-friendly maritime ports.
- Percentage of eco-friendly airports.

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Projects and activities prioritized for funding

- Eco-friendly airports.
- Sustainable development of meteorological stations.

Relevant Sustainability Codes

- **Egyptian code for river transport**
- **Egyptian code of urban roads and backroads (Roads Code)**
- **Assessments of roads projects shall accurately assess the surrounding noise impact so as not to exceed 3 dB.**

(6) Housing:

Responsible Entities:

Ministry of Housing, Utilities and Urban Communities

Performance Indicators

- Percentage of tertiary sanitation treatment plants capacity out of the total capacity of all plants (%).
- Percentage of treated wastewater out of the total wastewater (%).
- Annual growth rate in the capacity of drinking water purification plants(%).
- Annual growth rate in the capacity of desalination plants (%).
- Percentage of water desalination by solar power (%).
- Water leakage rate in water networks (%).
- Volume of desalinated water out of the total annual volume of the generated drinking water (%).
- Relative increase in the desalinated water annual volume (%).
- Lengths of bike tracks throughout the current and new urban cities (Km).
- Percentage of bike track lengths within internal roads network for both current and new urban cities(%).
- Annual growth rate in number of green buildings with Green Pyramid Rating System (%).
- Landscape per capita in cities (m2/per capita).

Projects and activities prioritized for funding

- Tertiary wastewater treatment plants.
- Potable water purification plants.
- Water desalination plants.
- Grey water treatment plants.
- Development of slums and unsafe areas.
- Sustainable cities (fourth generation cities).
- Using eco-friendly construction techniques in housing projects.
- The National Roads Project.
- Use of solar power in water desalination.
- Execution of rainwater drainage networks in new cities.
- Protective structures for floods and severe waves.
- Using natural limestone in construction.
- Generate renewable energy from wastewater treatment plants.
- Construction of bike tracks in current and new cities.
- Execution of development projects on the coasts of Red and Mediterranean seas based on sea water desalination.

Performance Indicators

- Percentage of safe sanitation coverage in villages (%).
- Annual loss value due to flash floods and severe climate changes (Million Pound).
- Number of measures taken to adapt with climate changes in new cities (measure).
- Number of disposed pollution foci as a result of drainage treatment projects (focus).
- Reduced volume of greenhouse gas emissions (CO2 Equivalent\ Ton).
- Percentage of new cities with established waste management systems (%).
- Lengths of constructed pedestrians paths (Km).

Projects and activities prioritized for funding

- Expansion in the construction of pedestrians paths

Relevant Sustainability Codes

Egyptian code for treated Wastewater Reuse in agriculture (Code No.501)

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 383 of 2015 on the conditions and standards of using treated wastewater within and around cities; agricultural uses.

Egyptian code of practice recycling solid waste for construction application.

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 440 of 2017, aiming at recycling solid wastes generated in construction and demolition works, taking into consideration the negative effects of waste piling, as from the points of waste generation, recycling process, and producing new units or materials suitable for further use.

Code of design and implementation conditions of wastewater collection and treatment systems at Egyptian Villages.

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 550 of 2017 on the possible applications of sanitation projects in the Egyptian villages, whether collection projects (pumping networks and plants and discharge lines) or treatment projects, to meet the required standards as per the regulating laws and decisions.

Egyptian Code for efficient use of energy in buildings (Code No. 306)

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 190 of 2009 including the requirements of energy efficiency in air conditioned and non-conditioned commercial buildings, and is not relevant to the health and safety standards and it does not substitute or contradict with any other codes requirements, articles or recommendations.

Egyptian Code of design basis of water desalination plants

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 365 of 2019 on producing new units or materials suitable for further use.

Relevant Sustainability Codes

Egyptian Code for efficient use of energy in buildings (Code No. 306)

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 482 of 2005 including the requirements of energy efficiency in air conditioned and non-conditioned residential buildings, and is not relevant to the health and safety standards and it does not substitute or contradict with any other codes requirements, articles or recommendations.

Egyptian code for housing design and planing (Code No. 602)

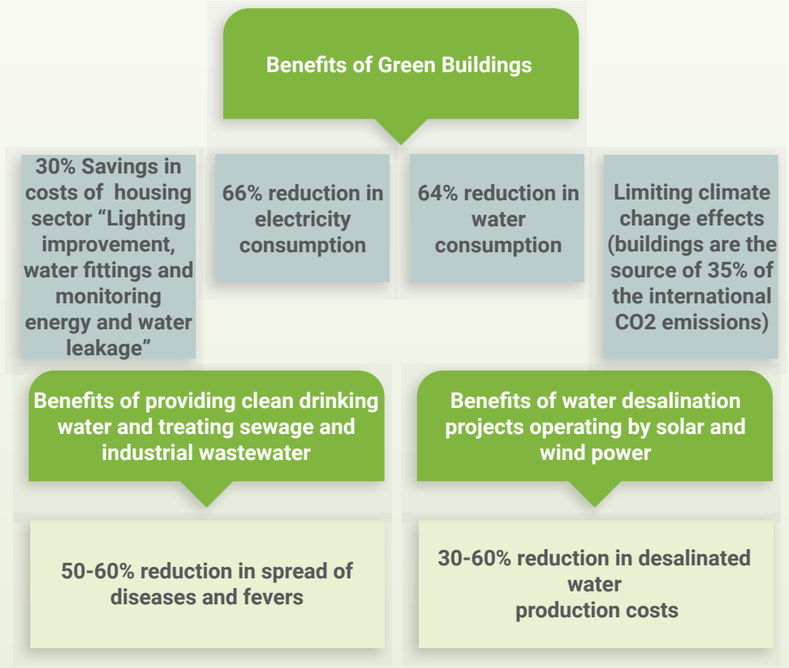
- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 80 of 2009, aiming at setting the minimum basis, standards, rules and technical requirements of housing design and components and the planning, design and development of the housing compounds. The code also determines the minimum of empty spaces and public gardens, as well as the maximum closed built areas at the housing compounds.

Egyptian Code for the design of outdoor spaces and buildings for the use of disabled persons

- Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 303 of 2003, aiming at setting basis, standards, rules and technical requirements of the outdoor spaces, the new public buildings, temporary constructions and current public building to be accessible for visually, hearing, and physically disabled.

Other standards and codes

- Integrated design models code.
- Stabilized soil construction code.
- Assessments of roads projects shall accurately assess the surrounding noise impact so as not to exceed 3 dB.
- Assessments of wastewater treatment plants shall include adequate water balance to ensure sufficiency for the tree forests that will receive the treated wastewater.
- Projects replacing asbestos water pipes must have asbestos waste handling and disposal plan in place.



(7) Health :

Responsible Entities:
Ministry of Health and Ministry of Higher Education

Performance Indicators

- Percentage of hospitals with equipment for safe disposal of medical waste out of the total hospitals (including hospitals serviced by the central medical waste treatment plants (%).
- Annual growth rate in safely disposed health sector waste (%).
- Annual growth rate in green health units and hospitals(%).

Projects and activities prioritized for funding

- Green health units and hospitals.
- Health sector waste treatment.
- Prevention health programs (Insect and vector control).
- Quarantines.
- Central medical waste treatment plants.

Relevant Sustainability Codes
Guide to Green Heath Facilities and Hospitals Design

Issued pursuant to Minister of Housing, Utilities and Urban Communities' Decision No. 1087 of 2018. The guide sets the design standards of hospitals and health facilities and the codes on integrity of hospitals and facilities design. Part one of the Guide covers the green hospitals assessment systems, while part two addresses the application method of buildings' sustainable design during construction and operation phases.

(8) Education :

Responsible Entities:

Ministry of Education and Ministry of Higher Education

Performance Indicators

- Percentage of educational curricula raising awareness on sustainable development (%).
- Percentage of schools complying with green construction code (%).
- Percentage of high school students who have received the "Tablets" out of the total number of students in the two high-school grades (%).
- Number of applied technology schools (School).
- Percentage of colleges/faculties complying with green construction code (%).
- Number of technology colleges (College).
- The rate of coverage with technological universities all over the governorates (%).
- The rate of coverage with technological schools all over the governorates (%).
- Financial savings resulting from reduction of school books printing (Million Pounds).

Projects and activities prioritized for funding

- Integrating sustainable development into development of curricula.
- Expansion in providing technological tools for education.
- Expansion in establishing technology universities, colleges and institutions.
- Expansion in establishing applied technology schools.
- Expansion in establishing schools and colleges observing the Green Construction Code.

Relevant Sustainability Codes

- **Buildings Assessment System (Green Pyramid Rating System).**

Basic Intervention Mechanisms for Sustainable Service Buildings

Mechanisms	Results
Building using stabilized soil systems or by material and energy saving construction systems (load bearing walls).	25 % less costs and creating additional work opportunities.
Transition from conventional lighting to LED lighting.	75% less energy consumed during operation.
Installing thermal ceiling insulation.	The cost per square meter is about 100 pounds.
Designs observing the dependence on natural lighting as possible and window to wall ratio as per Energy Code and the climatic zone.	Initial cost will be subject to 1% increase only, but will conserve energy and improve the building's internal quality.
Thickness of southern wall must be 25cm at least (preferably 12cm wall, 5cm empty space, 12 cm wall) to reduce heat acquisition.	
Exterior paint using light colors to increase heat reflection.	
Installation of solar power plants connected to the network for reducing consumption as possible (Start with guiding models).	The cost of producing "One Kilowatt" is about 10,000 Pounds. Each kilowatt requires 10 flat square meters (10-5 Kilowatt small plant may be installed as guiding model in a number of service buildings).

(9) Scientific Research:

Responsible Entities:

Ministry of Higher Education and Scientific Research; Environmental Studies and Research faculties, centers and institutes; and Ministries' Specialized Research Centers.

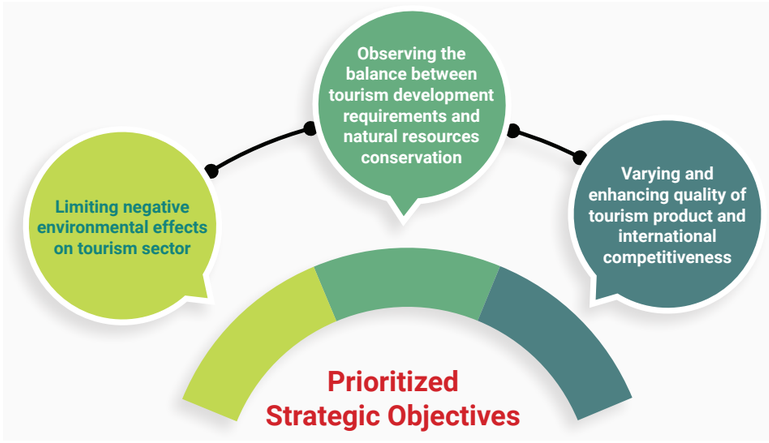
Performance Indicators:

- Percentage of researches addressing sustainable development projects (Projects stated in this guide) (%).
- Annual growth rate of published sustainable development researches at International Peer Reviewed Journals. (%)
- Number of experts and researchers holding post-graduate degrees in Environmental Sustainability (Expert).

Projects and activities prioritized for funding

- Strengthening the role of scientific research in sustainable development by focusing on projects stated in this Guide.
- Specialized post-graduate programs in environmental sustainability and natural resource management.

(10) Tourism and Antiquities:



Responsible Entities:

Ministry of Tourism and Antiquities, Ministry of Youth and Sports and Ministry of Culture

Performance Indicators:

- Percentage of developed archaeological areas out of total areas to be developed (%).
- Annual growth rate of tourism facilities depending on renewable energy sources for operation (%).
- Number of hotels depending on solar power (Hotel).
- Percentage of hotels depending on solar power out of total hotels (%).
- Percentage of tourism establishments with an environmental certification out of total establishments.
- Percentage of tourism establishments with in place smart energy system out of total tourism establishments (%).
- Number of hotels with Green Star certificate (hotels).
- Percentage of hotels with Green Star certificate out of total hotels (%).
- Annual growth rate of environmental tourism beneficiaries (%)

Projects and activities prioritized for funding

- Preservation of antiquities and archaeological areas.
- Archaeological excavations.
- Green tourism and environmental tourism.
- Using eco-friendly electric buses at tourist and archeological sites.
- Promoting the use of renewable energy in tourism establishments.
- Promoting bicycle riding.
- Expanding the establishment of eco-friendly youth centers and clubs.
- Raising awareness for environmental safety through cultural activities.
- Supporting the products of traditional and environmental crafts.

Relevant Sustainability Codes

- **Classification Criteria for Egyptian Hotels including Eco-friendly Hostels and Safari Camps.**
- **Green Star Hotels Program.**
- **Low Carbon development indexes in tourism sector.**

(11) Environment:

Responsible Entities:

Ministry of Environment, Ministry of Local Development and Ministry of Military Production.

Performance Indicators:

- Annual growth rate in number of sanitary landfills in the Republic (%).
- Annual growth rate of Efficient collection and transportation of waste (%).
- Annual growth rate of recycled waste out of total collected waste (%).
- Percentage of safely disposed waste (sanitary landfilling, energy generation) (%).
- Percentage of collected municipal solid waste recycled in an environmentally proper way. (%)
- Number of governorates having management plans in place for municipal waste (Governorate).
- Annual growth rate of current plants and monitoring networks of noise, water and air quality (%).
- Percentage of air pollutants (%).
- Coverage percentage of integrated waste management monitoring network and follow-up system(%).
- Annual growth rate of vehicles that were subject to on-road testing of exhaust emissions (%).
- Percentage of developed Charcoal Kilns out of total Charcoal Kiln targeted for development(%).

Projects and activities prioritized for funding

- Environmental improvement.
- Solid waste treatment.
- Adaptation to climate changes.
- Water and air quality monitoring networks.
- Preservation of biodiversity.
- Biodiversity monitoring programs and assessment for endangered species and their important habitats.
- Development of infrastructure and visitors' services at natural reserves.
- Establishment of marine reserves to manage coral reefs.
- Reliance on clean technology for recycling waste.
- Environmental awareness, training and education.
- New mechanism to review and audit reports on environmental impact assessment for investment projects submitted to the Ministry of Planning.
- Establishment of a national monitoring, reporting and verification system.
- Measures to improve monitoring of emissions.

Performance Indicators:

- Percentage of reduction in organic loads of (Direct/Indirect) industrial waste discharged to the Nile (%).
- Number of establishments associated with Real-Time Network Monitoring to monitor the quality of industrial wastewater on the Nile.(Establishment).
- Number of Real-Time Network Monitoring Stations for monitoring Nile water quality (Station).
- Percentage of reduction in organic loads of industrial waste (Direct/ Indirect) discharged to lakes (%).
- Percentage of reduction in organic loads of (Direct/Indirect) drainage on marine environment (%).
- Percentage of establishments directly or indirectly discharging into lakes associated with Real-Time Network Monitoring to monitor the quality of industrial wastewater (%).
- Percentage of developed natural reserves out of total natural reserves.
- Area of Egyptian natural reserves (Km).
- Growth rate in number of Egyptian natural reserves (%).
- Percentage of reserves self-generated revenues\ total expenditure (%).
- Area of sites declared as sites under special protection or of global importance for biodiversity (Km).
- Percentage of threatened ecosystems whose services have been assessed out of total ecosystems in Egypt (%).
- Areas of marine environment covered with coral reef(%).
- Number of marine species that are extinct or endangered (Species).
- Percentage of reduction in greenhouse gases emissions (tons of carbon dioxide equivalent).
- Egypt's rank in environmental performance index (Rank).
- Annual volume of fine suspended particulates 2.5PM (Micrograms/m3).
- Annual volume of fine suspended particulates 10PM (Micrograms/m3).
- Percentage of reduction in pollution loads caused by thoracic suspended particulates (%).
- Percentage of compatible cars as per the on-road testing of exhaust emissions (%).
- Percentage of coastal marine reserves area out of the Egypt's total reserves area (%).

Projects and activities prioritized for funding

- Providing technological solutions for communications and information technology networks to reduce greenhouse gases (GHG) emissions.
- Measuring environmental performance indicators related to various fields and activities.

Relevant Sustainability Codes

- **Solid waste management projects assessments shall include accurate assessment of the impacts on soil, groundwater and public health.**
- **Each new industrial establishment or an extension or substitution of any existing establishment shall conduct an environmental and social impact assessment, prepare an environmental record and hazardous waste record and update thereof on annual basis since start of operations.**

(12) Local Development:

Responsible Entities:

Ministry of Local Development, Ministry of Housing, Utilities, and Urban Communities, and Governorates General Bureaus

Performance Indicators:

- Annual growth rate in bike tracks in Egyptian governorates (%).
- Percentage of population in slums and unsafe areas out of the total population (%).
- Annual growth rate in the area of public squares and parks (%).
- Percentage of lampposts lit with LED bulbs out of total lampposts (%).
- Annual growth rate in number of ordinary bulbs replaced by energy-efficient LED bulbs (%).
- Annual growth rate in lengths of solar-lit roads(%).
- Annual growth rate in new/ developed solar-powered buildings(%).
- Percentage of governmental solar-powered buildings.
- Number of sanitary landfills for all kinds of waste (Landfill).
- Capacity of current sanitary landfills as a percentage of need (%).
- Volume of treated solid wastes (Ton).
- Percentage of luminaire program credits to energy-efficient LED bulbs and detectors(%).
- Lengths of constructed pedestrian pathways(Km).

Projects and activities prioritized for funding

- Environmental improvement.
- Solid waste treatment.
- Establishment of bike tracks.
- Forestation of squares and increasing green spaces.
- Establishment of arboretums.
- Expanding the establishment and development of public parks.
- Lighting lampposts with energy-efficient LED bulbs.
- Lighting roads with solar power.
- Lighting and powering buildings with solar power.
- Sanitary landfills for disposal of solid waste.
- Establishment and development of garbage dumps.
- Establishment of recycling units for recycling solid waste into organic fertilizers.
- Expanding in construction of pedestrian pathways.

(13) Funding and investment:

Responsible Entities:

Ministry of Planning and Economic Development, Ministry of Finance, Ministry of International Cooperation, Micro Small & Medium Enterprise Development Agency (MSMEDA), Financial Supervisory Authority, General Authority for Investment & Free Zones and Central Bank of Egypt.

Performance Indicators:

- Percentage of governmental investments financed by the public treasury for green projects (%).
- Percentage of green purchases from the allocations of “Procurement of Goods and Services" out of the State's General Budget (%).
- Percentage of available green bonds funding out of total funding directed to governmental investment (%).
- Percentage of customs tariffs reduction on eco-friendly goods (Electric cars and buses) (%).
- Percentage of available funding for green projects provided by Micro Small & Medium Enterprise Development Agency (MSMEDA) (%).
- Percentage of available funding for green projects provided by micro-financing companies, institutions and associations (%).
- Percentage of national banks applying principles of banking services (%).
- Value of private sector credit directed to eco-friendly projects (Million Pounds).
- Percentage of private sector credit directed to eco-friendly projects (%).
- Percentage of grants directed to green projects out of total grants (%).
- Percentage of loans directed to green projects out of total loans value (%).

Projects and activities prioritized for funding

- Granting priority to green projects when funding investment projects.
- Integrating green approach into sovereign fund projects.
- Reduction of customs tariffs on imports of electric buses and its spare parts.
- Observing green purchases in the allocations of “Procurement of Goods and Services” in the State's General Budget.
- Granting tax incentives for private sector green projects.
- Granting funding incentives for small and medium-sized green projects.
- Reliance on green bonds in funding eco-friendly development projects.
- Replacing aging cars with modern ones.

(14) Private Sector:

Environmental Sustainability Practices in Private Sector

- Preparing reports and disclosure forms for the [Framework of Environmental, Social, and Corporate Governance (ESG)\ Corporate Social Responsibility (CSR)\ and the preparation and submission of sustainability reports].
- Corporate Social Responsibility (CSR) program including sustainable activities aiming at achieving SDGs.
- Sustainable consumption plans and procedures.
- Drafting SDGs and relativeness to companies' key principles.
- Workers 'participation and integration into sustainable practices.
- Waste management (separation/recycling).
- Reducing plastic consumption (using cloth bags and non-use of plastic cups).
- Paperless approach and remote working.
- Use of LED bulbs.
- Rating suppliers' compliance with environmental sustainability standards.
- Transparent energy-saving windows.
- Reduction of carbon footprint (employees sharing cars for transportation).
- Reliance on renewable energy sources for energy consumption (installation of solar panels – partial supply of consumed energy).
- Investment in green fields (Clean Energy).

3

Section Three:

Green Projects Initiatives

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Green Projects Initiatives

Purpose:

Launch of a series of initiatives in 21/2022 plan to support the State's approach towards green projects, to address the governorates' development gaps in green projects field, stated herein. These initiatives are prepared as per the attached model.

Work Mechanisms:

1. Observing the current situation of the Republic's governorates as per the key performance indicators.
2. Specifying governorates with development gaps compared to the Republic's overall average.
3. Determining standard cost and financial resources required.
4. Designating the relevant performance indicators.

Proposals Model for Green Initiatives 2021/2022

Responsible Entity								
Project	Total cost (Million Pound)	Proposed Plan 21/2022 (Million Pound)	Relevant Performance Indicators	Unit of Measurement	Base Year (18/2019)	Implemented (19/2020)	Targeted (20/2021)	Targeted (21/2022)

وزارة التخطيط والتنمية الاقتصادية
Ministry of Planning and Economic Development