

**In the name of Allah,
the Most Gracious,
the Most Merciful**

Sustainable Development Strategy: Egypt's Vision 2030

**Ministry of Planning, Monitoring and Administrative Reform
Cairo, Egypt**

Table of Contents

Acronyms and Abbreviations xi

Introduction 1

The Sustainable Development Concept with its Three Dimensions Identifies the Strategy's Pillars	3
Building on the Existing and Benefiting from Leading Experience	5
A Participatory Approach to Preparing the Strategy.....	5
Issues of Women, People with Special Needs, and Different Economic Activities	6
Strategy Preparation Stages	6
Selecting Key Performance Indicators	7
Identifying Quantitative Targets and Challenges Facing a Goal's Achievement	7
Selecting Models for the Programs and Projects	8
Challenges of Funding the Strategy	9
Governing Framework for the Strategy	10
Three Stages for Achieving These Targets	11
Challenges Facing Achievement of These Targets	12
Effective Programs to Achieve the Objectives of Foreign Policies and National Security.....	12

Economic Dimension 15

First Pillar: Economic Development 17

Overview of Current Situation	17
Strategic Vision for Economic Development to 2030.....	18
Strategic Objectives for Economic Development to 2030	18
Key Performance Indicators for Economic Development to 2030	18
Quantitative Indicators	18
Suggested New Indicators	24
Egyptian Economic Potential.....	25
Challenges of Economic Development	27
Economic Growth Challenges.....	27
Economic Growth Challenges at the Sectorial Level:	32
Social Development Challenges	36
Economic Development Policies to 2030	37
Policies at the Macroeconomic Level:	37
Policies at the Sectorial Level.....	41
Programs and Projects for Economic Development to 2030	51
Programs and Projects at the Macroeconomic Level (Mega Projects).....	51
Programs and Projects to Formalize the Informal Sector.....	61

Programs and Projects at the Sectorial Level	62
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Second Pillar: Energy93

Overview of Current Situation	93
Strategic Vision for Energy to 2030	94
Strategic Objectives for Energy to 2030	94
Key Performance Indicators for Energy to 2030	96
Quantitative Indicators	96
Suggested New Indicators	98
Challenges of Energy	98
Energy Programs to 2030.....	102
Programs and Projects Relevant to Implementation Mechanisms	102
Initiatives Related to Specific Topics.....	107

Third Pillar: Knowledge, Innovation and Scientific Research.....109

Overview of Current Situation	109
Strategic Vision for Knowledge, Innovation, and Scientific Research to 2030.....	110
Strategic Objectives for Knowledge, Innovation, and Scientific Research to 2030	111
Key Performance Indicators for Knowledge, Innovation, and Scientific Research to 2030	111
Quantitative Indicators	112
Suggested New Indicators	116
Challenges of Innovation, Knowledge, and Scientific Research	119
Innovation, Knowledge, and Scientific Research Programs to 2030.....	120
Legislation and Governance.....	120
Programs to Support Achievement of the Vision and Strategic Objectives	121

Fourth Pillar: Transparency and Efficiency of Government Institutions.....125

Overview of Current Situation	125
Strategic Vision for Transparency and Efficient Government Institutions to 2030	126
Strategic Objectives for Transparency and Efficient Government Institutions to 2030	127
Key Performance Indicators for Transparency and Efficient	
Government Institutions to 2030.....	128
Quantitative Indicators	128
Suggested New Indicators	131
Challenges of Transparency and Efficiency of Government Institutions	132
Transparency and Efficient Government Institutions Programs to 2030	134

Social Dimension	141
Fifth Pillar: Social Justice.....	143
Overview of Current Situation	143
Strategic Vision for Social Justice to 2030.....	145
Strategic Objectives for Social Justice to 2030.....	146
Key Performance Indicators for Social Justice to 2030.....	146
Quantitative Indicators	147
Newly Added Indicators.....	148
Challenges of Social Justice.....	151
Social Justice Programs to 2030	152
Sixth Pillar: Health.....	157
Overview of Current Situation	157
Strategic Vision for Health to 2030	159
Strategic Objectives for Health to 2030.....	159
Key Performance Indicators for Health to 2030	160
Quantitative Indicators	160
Suggested New Indicators.....	163
Challenges for the Health Sector.....	164
Health Programs to 2030	166
Seventh Pillar: Education & Training.....	171
Overview of Current Situation	171
Strategic Vision for Education to 2030	172
Public Elementary Education (Pre-university)	173
Strategic Objectives for Public Elementary Education to 2030	173
Key Performance Indicators for Public Elementary Education to 2030	175
Quantitative Indicators	175
Suggested New Indicators	177
Challenges of Public Elementary Education	178
Public Elementary Education Programs until 2030	182
Programs Related to Mechanisms of Execution.....	182
Programs Related to Specific Topics.....	184
Technical Education and Training	188
Strategic Objectives for Technical Education and Training to 2030.....	188
Key Performance Indicators for Technical Education and Training to 2030.....	190
Quantitative Indicators	190
Suggested New Indicators	191

Challenges of Technical Education and Training.....	194
Technical Education and Vocational Training Programs to 2030	197
Programs Related to Mechanisms of Execution.....	197
Programs Related to Specific Topics.....	200
University or Higher Education.....	203
Strategic Objectives for Higher Education to 2030	203
Key Performance Indicators for Higher Education.....	205
Quantitative Indicators	205
Suggested New Indicators	207
Challenges of Higher Education	207
Higher Education Programs to 2030.....	210
Programs Related to Execution Mechanisms.....	210
Programs Related to Specific Topics.....	213
Eighth Pillar: Culture.....	217
Overview of Current Situation	217
Strategic Vision for Culture to 2030	217
Strategic Objectives for Culture to 2030.....	218
Key Performance Indicators for Culture to 2030.....	218
Quantitative Indicators	219
Suggested New Indicators	219
Challenges of Culture.....	224
Cultural Programs to 2030	226
Legal Framework and Governance Development Programs	226
Programs that Support Achieving the Strategic Vision and Objectives of Culture	227
Environmental Dimension	231
Ninth Pillar: Environment.....	233
Overview of Current Situation	233
Strategic Vision for Environment to 2030.....	236
Strategic Objectives for Environment to 2030	236
Key Performance Indicators for Environment to 2030	238
Quantitative Indicators	238
Suggested New Indicators	242
Challenges of Environment	242
Environment Programs to 2030.....	246
Programs for Implementation Mechanisms	246

Tenth Pillar: Urban Development 257

Overview of Current Situation	257
Strategic Vision for Urban Development to 2030.....	258
Strategic Objectives for Urban Development to 2030	258
Key Performance Indicators for Urban Development to 2030	259
Quantitative Indicators	259
Suggested New Indicators	261
Basic Challenges of Urban Development.....	263
Urban Development Programs to 2030.....	266
Programs to Develop Legislative Frameworks and Governance.....	267
Programs Related to Certain Subjects	273

Annex 277

Acronyms and Abbreviations

ASIC	Application-Specific Integrated Circuit
BOT	Build, Operate, Transfer
BP	British Petroleum
BRICs	Brazil, Russia, China, India, and South Africa
CAPMAS	Central Agency for Public Mobilization and Statistics
DHL	Dalsey, Hillblom and Lynn (founders of DHL)
DPT	Diphtheria, Pertussis, Tetanus
EEAA	Egyptian Environmental Affairs Agency
EEU	Eurasian Economic Union
EG-Cloud	Egyptian Government Cloud
EGP	Egyptian Pounds
FDI	Foreign Direct Investment
FGM	Female Genital Mutilation
GaWC	Globalization and World Cities (index)
GDP	Gross Domestic Product
GFMIS	Government Financial Management Information System
GOE	Government of Egypt
HCFC	Hydro Chloro Fluoro Carbons
HCV	Hepatitis C Virus
ICT	Information and Communication Technology
ILO	International Labor Organization
IMF	International Monetary Fund
ISDF	Informal Settlements Development Fund
IT	Information Technology
ITC	International Trade Center
JICA	<i>Japan International Cooperation Agency</i>
KPI(s)	Key Performance Indicator(s)
MDGs	Millennium Development Goals (of the United Nations)
MOP	(Egyptian) Ministry of Planning
MTDS	Medium Term Debt Management Strategy
NATO	The North Atlantic Treaty Organization
NCES	National Center for Education Statistics
NGO	Non-governmental Organization
OECD	Organization for Economic Cooperation and Development
PIM	Public Investment Management
PIRLS	Progress in International Reading Literacy Study
PM ₁₀	Particulate Matter up to 10 micrometers in size
PPP(s)	Public–Private Partnership(s)
RIA	Regulatory Impact Analysis
RIA	Regulatory Impact Assessment
SABER	Systems Approach for Better Education Results
Scopus	Citation database of peer-reviewed literature
SDGs	UN's Sustainable Development Goals

SLA	Service Level Agreement
TARES	Technical Assistance to Support the Reform of the Energy Sector
TDMEP	Trade and Domestic Market Program
TIMSS	Trends in International Mathematics and Science Study
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
USD	United States Dollars (\$)
VAT	Value Added Tax
VIP	Very Important Persons

Sustainable Development Strategy:
Egypt's Vision 2030

Introduction

The **Sustainable Development Strategy: Egypt Vision 2030** represents a fundamental step in Egypt's extensive development, which links the present with the future, inspired by the achievements of the ancient Egyptian civilization. It establishes a development march of an advanced and prosperous nation dominated by economic and social justice. It revives the historic role of Egypt in regional leadership. Moreover, it represents a road map that aims to maximize the use of competitive possibilities and advantages. It also seeks the implementation of the Egyptian people's dreams and aspirations of enjoying a convenient and dignified life. Therefore, it embodies the modern Egyptian constitution, which has as a target for the Egyptian economy to achieve prosperity in Egypt through sustainable development, social justice, and ensuring balanced growth.

It is the first formulated strategy in accordance with the methodology of long-term strategic participatory planning. It has been prepared with wide social participation, taking into account the visions of civil society, the private sector, ministries, and government agencies. Furthermore, it had support and effective participation from our international development partners, which means it includes comprehensive targets for all pillars and sectors of the country.

The strategy is particularly important in the circumstances prevailing in Egypt, which require revision of development goals in order to keep up with current and future needs and to develop better solutions to deal with them. This should enable Egyptian society to move into the ranks of developed countries and achieve the desired targets for the country. In this regard, the strategy has identified its vision as the following ...

“By 2030, Egypt will be a country with a competitive, balanced, and diversified economy, depending on knowledge and creativity, and based on justice, social integration, and participation, with a balanced and varied ecosystem, a country that uses the genius of the place and the citizens in order to achieve sustainable development and improve the quality of the life for all. Moreover, the government looks forward to lifting Egypt, through this strategy, to a position among the top 30 countries in the world, in terms of economic development indicators, fighting corruption, human development, market competitiveness, and the quality of life.”

The Sustainable Development Concept with its Three Dimensions Identifies the Strategy's Pillars

The Sustainable Development Strategy: Egypt Vision 2030 takes into consideration the challenges facing the process of development in Egypt. These challenges are represented in the scarcity of natural resources such as energy, land and water (in addition to environmental degradation); human development resources including population, health, and education; the inadequacy of the governance system; and the absence of systems that foster creativity and innovation. In addition, the strategy adopts a number of goals and targets, in order to transform these elements into incentives for development, instead of being major challenges.

In this regard, the strategy has adopted the Sustainable Development Concept as a general framework, meant for the improvement of the quality of life in a way that does not affect the

right of following generations for a better life. Hence, the development concept adopted by the strategy is based on three main dimensions:

- **Economic**
- **Social Dimension**
- **Environmental Dimension.**

Furthermore, the strategy is based on the concepts of sustainable and inclusive growth and balanced regional development, ensuring the participation of everyone in the process of building and development for the benefit of all the Egyptians from the outcomes of this development. Moreover, the strategy takes into account the principles of equal opportunities, bridging some development gaps, the optimal use of resources and supporting the fairness of their usage, and ensuring the rights of the next generations.

In light of the three major dimensions of sustainable development, the strategy includes ten dimensions:

1. **The Economic Dimension comprises the pillars of economic development, energy, innovation, scientific research, and transparency and efficiency of institutions.**
2. **The Social Dimension involves the pillars of social justice, education and training, health, and culture.**
3. **The Environmental Dimension includes the pillars of environment and urban development.**

In addition, there are the two pillars of foreign policy and national security, as well as domestic policy, forming a comprehensive framework for the strategy and determining the other pillars.

Moreover, it is worth referring to ensuring the consistency and coherence between the targets of Egypt's national sustainable development and the universal targets of the United Nations announced during the convening of the United Nations General Assembly (25 to 27 September 2015) in which Mr. President participated to announce Egypt's precedence in integrating the Sustainable Development Concept and targets into the national planning system.

In this regard, each one of these pillars includes its own construction elements, represented in the following: the strategic target, the sub-targets to achieve these goals, the performance indicators, the planned quantitative targets to achieve these goals, the expected challenges, the necessary programs and projects, and the priority of executing these programs in their time sequence.

Building on the Existing and Benefiting from Leading Experience

This strategy was not prepared from scratch. The work necessary was done under the auspices and with the interest of the country's political leadership, which stressed the need to develop a long-term development vision that crystalized the image of the nation and its citizens.

It is a result of revising studies and previous strategic visions at both the domestic and international levels. Some domestic studies include Egypt's Strategy 2017, The Strategic Framework of Income Multiplying, 2022, and The Urban Plan, 2052, in addition to some sectorial strategies, and a study of the population strategy 2030-2050, as well as other visions and strategies that were prepared by both the private sector and by civil society.

At the international level, strategies of the European Union, Australia, Malaysia, India, Turkey, the United Arab Emirates, Bahrain, Jordan, and others have been revised in order to determine the success factors and benefit from these experiences and distinctive international activities in the field of development in general and in the field of sustained development in particular. Thus, this strategy is considered as an integrated general framework, based on certain major pillars with regard to the basic obstacles facing Egyptian society, and taking into consideration the possibilities of the risks that may be witnessed in the global environment during the coming years.

A Participatory Approach to Preparing the Strategy

A participatory planning approach was depended on in the preparation of this strategy. Serious efforts began at the beginning of 2014 and lasted for 2 years, during which about 150 specialized workshops and open meetings such as community dialogues were organized to discuss the strategy with representatives of the private sector, civil society, and international organizations. A large number of experts, academics, and stakeholders participated in these events.

The unification and comprehensiveness of visions, directions, coordination, and convergence of views were the result of the compilation of development partners within each sector on one dialogue table. All economic activity sectors showed a clear interest in participating. They also confirmed their interest in the inclusion of independent pillars of their own in the strategy, but the chosen sectors represent the priority of the country's current phase. However, it does not mean the neglect or lack of interest in any sectors not included, but the intention to include them in the strategy in different ways. As could be expected, some challenges emerged.

Issues of Women, People with Special Needs, and Different Economic Activities

In general, the final document of the strategy reflects attention to files, themes, and sectors. For example, the strategy was reviewed to be gender sensitive and focused on the importance of economic and social empowerment of women and youth in all strategic pillars; moreover, it gave special attention to those with special needs. Furthermore, the economic pillar includes many economic sectors in terms of their contributions to macro-economic variables such as Gross Domestic Product (GDP), income, employment, exports, and investment without including separate pillars for these activities, as the strategy represents a general framework for development at the national level, not at the sectorial level. All sectors have already started to prepare strategies of their own that keep up with the overall vision of the sustainable development strategy, in agreement with its main targets and sub-targets.

Furthermore, it is worth stating in this regard that **the strategy had both participation and support from international development partners**; thus, a large number of international finance and development institutions gave attention to the preparation of the strategy and participated in its formulation. **The International Labor Organization (ILO)** reviewed the economic development pillar in general, and labor issues in particular. **The United States Agency for International Development (USAID)** and **The Japan International Cooperation Agency (JICA)** and the World Bank participated in various workshops and provided recommendations and technical support, particularly with regard to the lessons learned from the experiences of various countries where these international bodies operate. **The United Nations Organization for Women** was contacted in order to add gender to the various pillars of the strategy. Both **the United Nations Development Programme (UNDP)** and the **United Nations Economic and Social Development Program** provided the needed support to coordinate between Egypt's national targets and the objectives of the **UN's Sustainable Development Goals (SDGs)**.

Strategy Preparation Stages

The basic underpinnings of all these elements were put through four basic stages:

First, the preparatory stage (in the first half of 2014), in which the current situation was analyzed; previously prepared strategies at both the national and sectorial levels studied, visions prepared by civil society and the private sector, and international strategies were studied. Finally, challenges facing Egypt currently and in the past were analyzed, and international challenges were reviewed.

Second, main directions were formulated (in the second half of 2014), in which the main directions of the strategy were identified; its main structure and pillars were developed; and the visions, targets, and sub-goals of the pillars were formulated.

Third, policies and priority programs were selected (in the first half of 2015), as the sub-goals of various pillars were converted into priority policies, programs, and projects; and it was

ensured that the pillars meshed together in an integrated framework in order to achieve sustainable development goals. In addition, during this stage, there was also a review of the key performance indicators that would measure progress towards achieving all the goals of the strategy and the quantitative targets of these indicators were determined.

Fourth, strategy documents were prepared and community dialogues were held (in the second half of 2015). Strategy documents were prepared, presented, and revised with all concerned parties and a community outreach plan was developed to announce the implementation of the strategy at both the national and the regional levels following its presentation to the Parliament. It is anticipated that there will be an international conference held under the auspices of the President and the Prime Minister with the participation of all the development partners to announce the strategy.

Selecting Key Performance Indicators

When selecting performance indicators for the various pillars, it was decided they must be specific, measurable, and capable of being achieved in accordance with the available resources and the current conditions within a specific time frame. In addition, three basic principles were also taken into consideration when choosing the performance indicators, as it was taken into account they should not be confused with the proposed initiatives; there should be a logical link between the measurement indicators of input, output, and outcome in order to ensure the achievement of the strategic goals for each pillar; and the existence of a performance follow-up system based on these indicators.

It should be noted that the various working groups focused choosing a limited number of performance indicators as this number should not be so large that they make the follow-up and measurement processes difficult. In other words, it was taken into account to make the number of the selected indicators compatible with its goal as monitoring, evaluation, and the impact of the measurement device.

The importance of the performance indicators is that they identify and clarify the goals and ambitions of a specific pillar, and put them in a quantitative template, in addition to their role in enabling the performance follow-up, determining the achievement level and noting any challenges. Furthermore, the indicators guarantee the concepts' consistency and unification among parties and individuals that worked on the goal's achievement. The indicators contribute to guiding efforts towards achieving targets and help decision-makers have a clear vision of the current conditions and challenges in order to take necessary decisions. Indicators also enable a comparison between the performance in Egypt and that of other countries.

Identifying Quantitative Targets and Challenges Facing a Goal's Achievement

The aforementioned steps were followed by the organization of workshops for all strategic pillars in order to determine the quantitative targets of the various indicators. **These**

quantitative targets have been built on a variety of inputs that included comparative studies of the experiences of similar countries that succeeded in achieving progress, the assessment of the current situation, and the obstacles of growth. In addition, previous studies that had been prepared in this field were reviewed, and the team benefited from the previous experience of other team members. The compatibility and integration of targets with each other was reviewed in order to ensure achievement of desired strategic objectives.

With regard to identifying the challenges that hinder the achievement of targets of each pillar, several joint workshops were held to draw up a shortlist of the challenges that hinder target achievement. This early work was done in order to reach the strategic objectives of each pillar, dividing the challenges according to their relationship to the private or public sector.

The challenges have also been classified into three main groups as follows:

Related resources, including human, natural and financial resources

Infrastructure, both tangible and intangible

Legislative environment, including laws, decrees, or institutional regulations to regulate the relations between the various parties.

After that, each challenge was analyzed according to the programs that were developed to face this challenge. **Two factors were depended on in selecting the challenges** faced through the policies, programs, and projects of the strategy, including a **factor that reflects the impact** of these challenges on achieving the desired objectives, the targeted performance indicators, the degree of urgency in terms of the time element, the negative impact on public opinion, the expected cost of facing the challenge, and the multiplied financial effect on other pillars. **The control factor** included the number of the involved parties, elements beyond the control of the government (such as international commitments and agreements), financial requirements of handling the challenge, the required period of time for handling the challenge, and the available human resources and technological capacity.

Selecting Models for the Programs and Projects

Workshops were organized at the level of each strategic pillar in order to discuss the programs and projects proposed to face the identified challenges. This was followed by the preparation of identification cards that included the program description, its basic elements, the expected cost, and the expected time frame for implementation.

The programs' costs were divided into three basic levels as follows: high cost (more than LE 50 million), medium cost (ranging from LE 10 to 50 million), and low cost (less than LE 10 million).

A time frame work was identified for each program, determining the start and end points of each program or project planned to be implemented between 2015 and 2030. These programs were divided into programs related to the implementation mechanisms that are specialized in programs and projects concerned with developing a general trend in each pillar, such as

restructuring, updating laws and regulations for the sector, and programs concerned with specific issues in each pillar needing a particular focus, such as the issue of subsidies.

Finally, the main party responsible for implementation of each element of the programs' and projects' elements was also identified, in addition to the participant bodies that play a role in the implementation of these policies, programs, and projects.

The final outcome of the workshops with regard to the different pillars was more than 330 indicators associated with the more than 50 strategic targets. Mechanisms were set in order to achieve these indicators and targets for about 200 projects and programs, all of which are based on achieving the basic targets and goals of the strategy.

Challenges of Funding the Strategy

In order to achieve the targets of the Sustainable Development Strategy: Egypt Vision 2030, in a way that will be outlined in detail later, we will need funding necessary to execute all these projects and programs.

The strategy developed depends on various and innovative means and tools, especially with regard to funding and execution of the mega projects and targeted programs. Thus, these means include the issuance of new financial tools such as the securities to finance the development and infrastructure projects, to expand the investor base by attracting more investors including both individuals and non-banking financial institutions, to support the policy of the private sector's participation with the public sector in the infrastructure projects through the system of the Right of Usufruct, to offer incentives and facilities to encourage foreign direct investment, to depend on Build, Operate, Transfer (BOT) systems, to offer long-term development shares and bonds in domestic and foreign markets, and to ensure an effective benefit from foreign aid offered by international donors and to maximize their efficiency.

There is also a target to execute an ambitious program for financial reform, which is expected to lead to an increase in the financial resources of the government's general budget. Generally, the government will do its best in order to establish strong institutions worthy of the investors' trust, in addition to emphasizing the competency and efficiency of general expenditures, as well as investments in infrastructure in order to have a major incentive for investment and to maintain safe levels of the public debt.

The role of the national private sector and of civil society is pivotal and that is in order to achieve the strategy's targets, as the private sector is responsible for executing the greater part of the projects. Civil society has an equally important role in executing the programs and the projects, raising public awareness, building capabilities, and following up and monitoring project and program effectiveness. In most cases, the State's role will be focused on being a more efficient organizer, drafting policies, setting standards, following up, monitoring, and creating a general atmosphere enabling both the private sector and civil society to play their assigned roles as major partners in the development process.

Governing Framework for the Strategy

There is no doubt that achieving sustainable development requires **establishment of a democratic political regime that respects the principles of human rights and the rule of law**, in which executive institutions have an effective role as a means for the development of the State and strengthening the role of Parliament in developing legislation and controlling the power of the executive. The various branches of government should also aim to reach an advanced stage of institutional work that is not person-related, but linked to regulations, laws, and action plans—and this would require the elimination of nepotism and favoritism.

This democratic regime would also include establishment of an effective civil society, strengthening decentralization, local community empowerment in decision-making, reducing pressure on departments of central government, increasing opportunities for political participation in society, supporting and empowering political parties. Other elements of this democratic regime would include public work freedom and political freedoms as a guarantee for democracy, activating the ability of the political system and its institutions in a positive interaction, keeping abreast of global developments, establishing a free and pluralistic society, empowering youth and women, fighting terrorism, and achieving a good level of prompt justice.

Achievement of sustainable development requires an overriding interest in preserving national security and adopting an active, effective, and balanced foreign policy. In this regard, the strategy has given special attention to foreign policy and national security and has developed an overall goal in this regard that:

The Arab Republic of Egypt becomes an Arab, independent, and sovereign country that adopts an active, effective, and balanced foreign policy in order to maintain its national security, including the safety and integrity of its territory, the prosperity of its people, and the independence of its decision, as well as working to achieve international and regional strategic interests, in addition to respecting its international obligations and international law.

This general goal includes those for the short term (2016-2018), represented in securing the continuation of Egypt's share in the Nile water, securing regional and international support to combat terrorism, acquisition of a regional position in the ongoing strategic dialogues in the indirect strategic interaction squares that include the Nile Basin, the Horn of Africa, the Coast and the Sahara, and the Arab East and West, and re-balances the country's relations with major and emerging powers. As for mid-term goals (2018-2020), they include ordering direct vicinity relationships, acquisition of vigorous action possibilities in overall strategic interactions in the Middle East, playing a central role in the development and peace-building efforts in Africa, intensifying efforts to crack down on terrorism and drain its resources, working on Egypt's access to the status of regional power in the Middle East and Africa, and attaining emerging power status at the international level.

Three Stages for Achieving These Targets

In the light of the sensitivity of current political conditions and the status of the political movements that take place in the international community in general and the Middle East in particular, the strategy has confirmed that these goals can formulate Egypt's foreign policy during the next 15 years. Thus, **these targets can be achieved in three basic stages.**

The first stage would be the return of Egyptian foreign policy to its normal position. This stage is important and specific due to what Egypt has witnessed because of consecutive political changes in the years 2011-2015, especially the outbreak of two revolutions that kept Egypt in turmoil. Hence, this stage requires a set of goals to be achieved that include the protection of the Egyptian State and keeping it from terrorist threats in the region, and indeed the whole world, in order to face any emerging threats such as those witnessed by neighboring countries. In addition, management of Egyptian-Gulf relations in a way that ensures maximum benefit from these relation and avoidance of inconstancy or sudden changes that could affect these relations. This stage also focuses on demographic re-distribution within Egypt in order to allow resettlement of the population in strategic areas that provide security threatens such as the Western Desert, Sinai, and Southern Egypt. These are regions that might be exploited by some to smuggle weapons and drugs in order to destabilize the security of the Egyptian State. There also might be some Western attempts to support the desire for separation proposed by areas such as Nubia. These issues deal directly with combating terrorism and upholding Egypt as a key player in any international and regional initiatives in this regard. All this develops the rebuilding of Egypt's sovereignty and empowers it to achieve the interests of Egypt and to protect Egyptians abroad in order to take care of their interests and to benefit from their expertise.

The second stage would be one of recovery. This stage would follow and build on the successes of the first stage. This success would contribute to the restoration of Egypt's foreign policy to its strength and enable Egypt to take the initiative internationally and regionally. This stage requires diplomatic skills, reasoned policies, and careful initiatives in order to achieve the desired goals, the most important of which is achieving a strategic balance in the Middle East through a new perspective on regional security. Egypt would become a regional focal point in the Middle East and redefine its relationship with the West, working to manage this relationship according to a new vision that promotes the concept of achieving common interests and mutual respect, and promoting the concept of strategic partnerships with security and strategic organizations such as the Organization of Security and Cooperation in Europe, The North Atlantic Treaty Organization (NATO), and the Organization of Shanghai, using the soft power of Egypt to contribute to foreign policy goals and positive and orderly interaction with the civil society organizations that support the foreign interests of Egypt.

The third stage would be one of progress. It would evolve as a result of the first and second stages. Egypt's success in achieving the objectives of this stage depends on the accomplishment of implementing the objectives of the previous two phases. The objectives of this stage lie in the adoption of a policy to move in the vital field of Egypt, as well as the benefit from the comparative advantages of Egyptian foreign policy in a way that enables Egypt to launch political initiatives that lead to international and regional political movements, taking a leadership role in combating terrorism and moving in a framework of an pivotal African state in managing strategic relations with major powers.

Challenges Facing Achievement of These Targets

The strategy identified challenges facing the foreign policy and national security issues, including those related to the internal situation such as insecurity (terrorism, the problem of traffic, and security of citizens); food security (infringement on agricultural land, importing 60% of wheat consumption, and low animal and agricultural production); water security (low per capita supply of water, lack of sufficient water to increase agricultural areas, and the lack of coordination with the Nile Basin countries in building dams); low economic growth; the need to raise the standard of living and to achieve economic leaps; and social justice—all of which speak to the demands of the two revolutions of the Egyptian people on January 25 and June 30, which confirmed the importance of reactivating Egypt's regional role and restoring its international status, taking into consideration the relationship between the internal and foreign policies in a way which makes the foreign policy a reflection of interior conditions. As for the challenges related to the external position, they include instability with neighboring countries, terrorist operations from non-states representatives, international terrorism, weapons smuggling operations across borders, the Iranian and Turkish intervention in Egypt's internal affairs, the construction of the Renaissance Dam, and the situation with international and regional representatives.

The strategy emphasizes that the input of international and regional conditions surrounding Egypt requires the Egyptian doctrine to be crystallized in accordance with a number of key considerations including a close interrelationship between foreign policy and the national project of modernization, development, and reconstruction, and to uphold the value of the national interests in the formulation and implementation of foreign policy, and the adoption of regional and international strategic partnerships as pivotal axes for achieving Egyptian interests. The strategy emphasizes that although dangers and threats are challenges that face the Egyptian decision makers, we cannot ignore the fact that this environment gives Egypt free space for movement that makes her able to present herself as a political model based on the elements of a modern democratic civil state.

Effective Programs to Achieve the Objectives of Foreign Policies and National Security

In order to enable Egypt to address these challenges, the strategy contains some effective programs including the development of a new theory for Egyptian national security to face the new global threats and achieve the foreign policy objectives of Egypt. Egypt develops its policies based on changes in the international and regional political environment, adopts economic diplomacy, and employs a mechanism for cooperation with the south countries in order to serve our economic development goals, in addition to the positive and orderly interaction with the civil society organizations that support the foreign interests of Egypt.

The programs include efforts to make Egypt an African power, deepening cooperation with the African countries culturally, economically, and politically, and deepening the strategic cooperation with the Gulf Cooperation Council. The programs also include the establishment of national companies, research bodies, and academies for security techniques and an effective system for security agencies, building external effective focal areas such as China in Asia, Russia

in Eastern Europe, Britain and France in Western Europe, Saudi Arabia and the United Arab Emirates in the Gulf, and Brazil and Argentina in Latin America. The programs also focus on taking the necessary steps to forecast, prevent, and manage crises and natural disasters in a preventive and effective way through the establishment of an institution for disaster management, and well-equipped operation rooms, in addition to the development of a national plan for the management of emergencies and crises and the development of a national database of vital facilities.

The strategy addresses the vision of Egyptian diplomacy and the policies it seeks to achieve within the scope of the Arab, African, European, American, and Asian countries, whether on bilateral tracks or within a multilateral framework. **In the Arab scope**, the strategy focuses on ensuring the security and stability of the Gulf region, securing the Red Sea and the Strait of Bab el Mandeb to ensure that international trade routes in the region do not face the threat of terrorism, coordination with the Gulf states in order to increase the volume of investment, encouraging Gulf tourism to Egypt, and strengthening bilateral relations between Egypt and the western Arab countries. Moreover, the eastern Arab area (Jordan, Syria, Lebanon, and Iraq) has strategic importance for the national security system as the eastern gate of the Arab World.

The neighboring countries are of great importance to Egyptian foreign policy due to their direct association with Egyptian national security and the impact of the security, political, economic, and social developments in these countries on Egypt's internal situation. Therefore, the strategy aims at securing Egyptian borders, blockading terrorist organizations, supporting the political, economic, and social stability of neighboring countries and the unity of their territorial integrity, and maintaining the vital interests of Egypt. A very important issue would be water security with Sudan and South Sudan. Another would be development of economic cooperation with neighboring countries and the use of Egypt's soft power in the fight against extremist ideology in these countries.

The African file has special significance for our sustainable development strategy in general and Egyptian foreign policy in particular since Egypt belongs to this continent and due to the many sensitive files that will require the need to carefully address them to maintain Egypt's interests. Egypt plans to address files including Nile water, consolidation of Egypt's relations with the Nile Basin countries, with the Horn of Africa countries, with Central and West African countries, with South and middle African countries, and with the African Union in general.

Moreover, the strategy considers **the European Union** as the country's first trade and economic partner, the largest market for our exports, an important source for technology and knowledge, the main source for the country's tourists, and a key development partner, in addition to being a main commercial and political player in the Middle East and worldwide.

As for Egypt's relations with the **United States**, the strategy stresses strategic relations between the two countries, which have continued over the past 4 decades. The strategy aims at strengthening bilateral cooperation in the economic, investment, and military fields and continued close bilateral cooperation to achieve stability in the Middle East. The strategy is also designed to take into consideration the peoples of the **Latin American continent**, who have a strong attachment to Egyptian civilization, in order to spread teaching the Arabic language and establishing sections for teaching Egyptology in some universities, in addition to strengthening the role of Al-Azhar and of the Islamic centers in the Latin continent. The strategy also aims to

strengthen the relations and aspects of cooperation with them at all levels. **On the Asian front**, the Egyptian foreign policy aims to strengthen the partnership with the Asian peoples. The strategy seeks to go ahead towards signing declarations to establish a strategic relationship that provides an institutional framework for political, economic, and technical cooperation with the Asian countries.

The strategy emphasizes **the significance of the water security file as a great part of the Egyptian national security** depends on the continuous flow of the Nile waters as agreed upon between Egypt and Nile Basin States since 1902 until the mid-1950s. It was agreed that Egypt would receive a minimum share of 55.5 billion cubic meter of water annually. Egypt faces some challenges resulting from the establishment of the Ethiopian Renaissance Dam. Egypt aims, through discussions with concerned partners, to maintain its share of the river water without any reduction.

The Government of Egypt (GOE) has developed a plan to address this issue including further efforts to implement the recommendations of the Commission of International Experts on the impacts of the Renaissance Dam Project on the two downstream countries and providing the guarantees and alternatives that meet the interests of Egypt in parallel. The plan also includes developing cooperation for water resource management with the Nile basin countries with the aim of promoting the Egyptian presence in these States, pushing for cooperation to minimize water loss to maintain Egyptian water security, stressing the importance of meeting the Egyptian requirements with regard to the framework agreement on cooperation in the Nile basin and further consultations with countries on ways to overcome this obstacle, and continued follow-up of the status of the framework Convention for the States on the Nile and urging the Basin States to adopt a more holistic framework that allows for considering the interests of all parties. The strategy also aims to develop the relationships of Egypt with the Nile Basin countries by monitoring the implementation of the Egyptian initiative for the development of the Nile Basin countries, focusing on priority sectors for Egypt (Department of Water Resources) and for Basin countries (health, energy, and agriculture) and enhancing coordination with national stakeholders to achieve foreign policy goals in the Basin States.

The strategy also develops some programs and projects to enable Egypt to effectively manage the water file, including institutional and legislative reforms in water resources management systems by re-identifying the roles of the governing agencies of the sector, enhancing their administrative efficiency, drafting necessary legislation, expanding infrastructure required to sustain the water systems, and reforming fiscal policy and the use of economic instruments to change the behavior of consumers towards more sustainable production and consumption patterns for water resources.

Economic Dimension

First Pillar: Economic Development

Overview of Current Situation

Economic development is one of the most important pillars of the Sustainable Development Strategy: Egypt Vision 2030 as it is one of the main engines of sustainable development. Such growth would contribute to employment and income generation, which enhances the infrastructure necessary to attract local and foreign investment, increase the levels of education, health and cultural services, achieve social justice, and increase the basic service levels necessary for the citizens to improve their standard of living, enabling them to continue to support the economic development process, generating a sustainable prosperity for all individuals.

Over the last period, Egypt has suffered from political instability that negatively affected its economy. However, it has seen significant improvement during the past 2 years in many economic indicators' performance in the light of the reform procedures and policies implemented by the government. These contributed to rebuilding confidence in the Egyptian economy at the domestic and international levels. The Egyptian economy has seen significant improvement in the real **Gross Domestic Product (GDP) growth rate** in 2014-2015 to reach about 4.2%, compared with a weaker growth rate during the period from 2010-2011 to 2013-2014, with annual real growth rate ranged between 2.1 and 2.2%.

The GDP at the market and current prices increased from LE 2101.9 billion in 2013-2014 to nearly LE 2419.5 billion in 2014-2015, with an increase of about 15.1%. The **unemployment rate** decreased from 13.2% in 2013 to 13% in 2014 and continued its decline to reach 12.7% in the second quarter of 2015. The inflation rate in the period from January to October in 2015 was 10.4% compared to the same period in the previous year. Total investment has improved during the past 2 years, bringing the total volume of investment expenditure to about LE 353.7 billion in 2014-2015, with an increase of 21.7% compared to the previous year, 2013-2014, in which total investment reached about LE 290.6 billion. The saving rate declined in 2014-2015 to reach 5.9%, resulting in an expanding financial gap.

The **balance of payments** saw a surplus of \$3.7 billion in 2014-2015 compared with \$1.5 billion in the previous year due to the net inflows of the capital and financial accounts with \$17.6 billion compared with \$5.3 billion in the previous year, as a result of an increase of **net foreign direct investments** to Egypt from \$4.1 billion in 2013-2014 to \$6.4 billion in 2014-2015. On the other side, the current account deficit increased from \$2.7 billion in 2013-2014 to \$12.2 billion in 2014-2015. By monitoring the progress of the trade balance over the past few years, it was clear that there was an increase in the **trade balance deficit** from \$34 billion in 2013-2014 to \$39 billion in 2014-2015.

As for the **State's general budget**, the **total deficit to GDP ratio** reached 11.5% in 2014-2015 and the **domestic and foreign debt** continued their growth with domestic debt to the GDP ratio of 92.7% and **foreign debt to the GDP ratio** of 15% by the end of 2014-2015 compared with 16.4% in the previous year. The total reserves decreased to \$16.4 billion in November 2015, which reduced the total reserves in months of goods imports to 3.2 months.

Despite the Egyptian GDP growth rate and general improvements, it still faces some challenges that will be discussed later. The most important are the decrease in Egyptian global competitiveness, the lack of resources management and exploitation efficiency due to the high levels of bureaucracy, the lack of security in the region, and the continuous global recession in many large economies. However, Egypt has the potential to face these challenges and enhance the Egyptian economy through the best use of its assets.

The following is a presentation of the economic development vision and strategic objectives, the Egyptian economy's strengths and challenges, and the most important policies, projects and programs to overcome those challenges at both the macro and sectorial level to achieve the sustainable development goals.

Strategic Vision for Economic Development to 2030

By 2030, the Egyptian economy will be a balanced, knowledge-based, competitive, diversified, market economy, characterized by a stable macroeconomic environment, capable of achieving sustainable inclusive growth. It will be an active global player responding to international developments, maximizing value added, generating decent and productive jobs, and a real GDP per capita reaching the level of high middle income countries.

Strategic Objectives for Economic Development to 2030

The economic development strategy aims to achieve the following eight major objectives:

Objective	Definition
Stability of the macroeconomic environment	Decrease the public debt to GDP ratio, reduce the percentage of total deficit to GDP, and maintain price stability
Achieve sustainable inclusive growth	Raise the economic growth rate, achieve balanced regional growth, increase the participation of women and the disabled in the labor force, and achieve an economy able to reduce poverty rates
Increase competitiveness, diversification, and knowledge	Increase the competitiveness of the Egyptian economy internationally, raise the contribution of exports to economic growth, increase the contribution of services (especially productive services) to GDP, in alignment with the governmental strategy and international practices that consider industry and services as the main engine of economic growth engine.
Maximize the value added	Increase the local content in the manufacturing sector and decrease the trade balance deficit.
Become an active player in the global economy capable of adjusting to	Increase Egypt's economic contribution in the global economy to become one of the top 30 economies in the world, one of the top 10 countries in the economic reforms field, a member of the Organization for Economic

Objective	Definition
international developments	Cooperation and Development (OECD) in 10 years and one of the newly industrialized countries within 5 years.
Create decent and productive job opportunities	Decrease the unemployment rate and multiply the productivity rates.
Increase GDP per capita to reach the level of the high-middle income countries GDP per capita	Improve the standard of living for all citizens.
Integrate the informal sector into the economy	Integrate the informal sector into the economy and reduce informal transactions through the development of integration mechanisms, providing incentives and eliminating barriers.

Key Performance Indicators for Economic Development to 2030

The eight objectives are represented by specific performance indicators to measure progress in achieving the objectives and to contribute to the monitoring process of the strategy's implementation. These indicators at the macroeconomic level will be presented as follows:

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1	Strategic Results	Real GDP growth rate (%)	Measures the changes of GDP during the period of comparison	4.2 ¹	10	12
2		GDP per capita (USD)	Measures GDP (at current prices) divided by population	3,436.3 ²	4,000	10,000
3		Share of real GDP in real world GDP (%)	Measures the contribution of the Egyptian GDP in the world GDP	0.21 ³	0.4	1
4		Poverty	Percentage of population	26.3 ⁴	23	15

¹ Ministry of Planning, Monitoring and Administrative Reform, statistics of GDP in constant and market prices for the year 2014/2015 (1801.9 billion EGP) compared to 2013/2014.

² Central Agency for Public Mobilization and Statistics, 2013/2014

³ Calculated based on: World Bank, World Development Indicators, GDP (Constant 2005), 2014.

⁴ Central Agency for Public Mobilization and Statistics, Survey of income, expenditure and consumption (2012/2013)

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
	Economic Indicators	headcount ratio at national poverty lines (%)	below the national poverty line (cost of access to basic goods and services for individuals/household)			
5		Percentage of population below the extreme poverty line (%)	Percentage of population with expenditures below the food poverty line (cost to survive)	4.4 ⁵	2.5	0
6		Public debt to GDP ratio (%)	Represents the total debt owed by the government and the economic authorities after excluding economic authorities' borrowings from the National Investment Bank, as a percentage of the GDP at current prices	92.7 ⁶	85.7	75
7		Budget deficit as percentage of GDP (%)	Measures the net total public revenues and expenditures (including the net acquisition of financial assets) as a percentage of GDP at current prices.	11.5 ⁷	7.5	2.28
8		Total reserves in months of good imports (months)	Measures the reserves ability to finance goods imports.	3.2 ⁸	6	10
9		Inflation rate (%)	Measures change in the consumer price index for consumable items (goods and services purchased for the purposes of daily life)	11.8 ⁹	8	3-5
10		Unemployment rate (%) **	Measures the number of jobless people (aged from 15-64 years) who want to work, are available to work, and are actively seeking employment, as percentage of the labor	12.8 ¹⁰	10	5

* Note that this indicator also related to "Social Justice Pillar".

⁵ Central Agency for Public Mobilization and Statistics, Survey of income, expenditure and consumption (2012/2013)

⁶ Ministry of Finance, 2014-2015

⁷ Ministry of Finance 2014-2015

⁸ Central Bank of Egypt, October 2015

⁹ Central Agency for Public Mobilization and Statistics, consumer price index monthly bulletin, November 2015

¹⁰ Central Agency for Public Mobilization and Statistics, quarterly bulletin on labor force survey, Q3 2015. **the unemployment rate is estimated by sex, age, educational level, and geographical distribution

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			force in the same age group.			
11		Female labor force participation (%)	Measures number of females (+15 years old) participating in part-time economic activities (at least one hour), whether inside or outside the establishment, who are considered as employees associated to specific work and could not practice such work throughout the reference period due to medical conditions or vacation, as percentage from the total number of employees.	22.8 ¹¹	25	35
12		Total fertility rate (children per woman)	Measures the average number of children given birth per mother during her reproductive life according to the detailed and prevailing reproduction rates (per age group) within the geographical limits of the State or for a specific unit in a specific year.	3.5 ¹²	3.3	2.4
13		Macroeconomic environment indicator (rank)	Measures the stability of the macroeconomic environment through five sub-indicators.	137 ¹³	100	30
14		Ease of doing business index (rank)	Measures Egypt's progression by parameters that define the ease of doing business, such as ease of access to electricity, access to credit facilities, ease of tax payment and others.	131 ¹⁴	100	30
15		Global competitiveness	Measures the impact of three key factors that contribute to create the conditions for a	11615	90	30

¹¹ Central Agency for Public Mobilization and Statistics, quarterly bulletin on labor force survey, issue of August 2015, Q2\2015

¹² Ministry of Population, national strategy for population and development, 2015 – 2030, 2015

¹³ World Economic Forum, Global Competitiveness Report, 2015 – 2016

¹⁴ World Bank, Doing Business Report, 2016

¹⁵ World Economic Forum, Global Competitiveness Report, 2015 – 2016

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
		index (rank)	country's competitiveness: basic economic needs (ex: infrastructure and economic environment), ease economic effectiveness (ex: higher education and technology) and innovation and development factors.			
16		Manufacturing growth rate (%)	Measures the change of manufacturing output (excluding petroleum refining).	5 ¹⁶	7	10
17		Manufacturing value added as percentage of GDP (%)	Measures the ratio of manufacturing output (excluding petroleum refining) to GDP, using the constant prices and the factor of production costs.	12.5 ¹⁷	15	18
18		Total trade (goods and services) as percentage of GDP (%)	Measures the ratio of total value of goods and services trade to GDP and this reflects the openness to the world.	37 ¹⁸	45	65
19	Outcomes	Net current balance as percentage of GDP (%)	Measures the ratio of (surplus/deficit) in the balance of goods, services and transfers to GDP	-3.7 ¹⁹	-3	1
20		Services share in GDP (%)	Local indicator measures the contribution of services in GDP at constant prices.	51 ²⁰	53	57
21		High-technology exports as percentage of Egyptian manufactured exports (%)	Measures the contribution of exports with high-technological component (e.g. aircraft industry, computer industry and medicines) to total	1 ²¹	3	6

¹⁶ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015

¹⁷ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015

¹⁸ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015

¹⁹ Central Bank of Egypt, 2014/2015

²⁰ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015, including social and productive services and does not include electricity, water, building and construction

²¹ World Bank, World Development Indicators, 2014

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			manufacturing exports.			
22		Net foreign direct investment (billion USD)	Measures net flow of foreign direct investment.	6.37 ²²	15	30
23		Ratio of private sector contribution to GDP (%)	Measures the ratio of private sector output to the GDP, by market and constant prices.	60 ²³	65	75
24		Value of outsourcing services revenues (transferring services) (billion USD)	Measures the volume of investment revenues in activities that could transfer its services to another country.	1.2 ²⁴	2	5
25		Income taxes (%)	Measures the implemented income tax rate on the companies.	22.5 ²⁵	22.5	22.5
26		Value added tax (VAT) (%)	Measures the implemented value added tax rate (VAT).	10 ²⁶	10	10
27	Inputs	Public investment at the local level (%)	Measures the increase of authorities given to the municipalities for local investments.	12.5 ²⁷	20	30
28		Capital formation rate (investment rate) (%)	Measures the expenditure on the economy's fixed assets growth, in addition to the net changes in the inventory as a percentage of GDP by the market's constant prices.	14.4 ²⁸	20	30
29		Efficiency of public investment management	Measures efficiency of public investments through some sub-indicators including the	1.43 ²⁹	2	3.5

²² Central Bank of Egypt, 2014/2015.

²³ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015.

²⁴ Estimate by Ministry of Communications and Information Technology. According to estimates, it is expected that volume of investment in outsourcing services reach about 2 billion EGP by 2020.

²⁵ Ministry of Finance

²⁶ Ministry of Finance

²⁷ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015

²⁸ Ministry of Planning, Monitoring and Administrative Reform, 2014/2015

²⁹ IMF, Investing in Public Investment: An Index of Public Investment Efficiency, 2010.

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
		PIM (0-4 Points)	methods of projects' evaluation and selection, and determination of the budget, its implementation, and assessment of the quality of implementation			
30		Value of export subsidies (billion EGP)	Measures the development costs to implement export subsidies and promotion programs	2.6 ³⁰	6 ³¹	8

Suggested New Indicators

S.N	Indicator	Rationale	Measurement Mechanism
1	Ratio of informal sector contribution in the economy	The necessity to provide accurate statistics on informal sector to prepare policies and programs aiming to integrate the informal sector into the formal sector systems and monitoring the efficiency of such procedures.	Reflect the real situation of informal sector will be prepared.
2	Regional economic growth	The importance of having a local indicator that measures the change in GDP at regional level.	The Ministry of Planning, Monitoring and Administrative Reform prepared the "Regional Accounts". The value added was estimated at the level of economic regions and governorates, and according to the aforementioned accounts, the targeted growth rates for years 2020 and 2030 will be estimated, and therefore the periodic composition of the regional accounts, which is highly related to the periodic implementation of the economic census prepared by the Central Agency for Public Mobilization and Statistics.

30 Ministry of Finance, Financial Monitoring of the State's General Budget Implementation, 2014/2015

31 Ministry of Trade & Industry, Strategy & Work Plan, 23rd of November 2015.

Egyptian Economic Potential

The Egyptian economy is characterized by unlimited potential that would enable it to achieve its objectives by 2030. Egypt is able to achieve a great leap forward in economic development and an economic revolution if we look at Egypt's potentials such as its ancient history, wealth, unique geographical location, political position, enormous human resources, innovation opportunities, and returns on investments in addition to its position as the largest market in the Middle East. We will present the most important Egypt potentials as follows:

- 1. Egypt's strategic geographical location:** The unique geographical position of Egypt makes it of special importance to world trading routes between east and west. There are a lot of waterways, both natural and artificial, such as the River Nile, that go through Egypt from south to north. Land transport also plays a major role in international trade to and from Egypt. There are nearly 60 marine ports overlooking the Red Sea, the Mediterranean, and the Gulfs of Suez and Aqaba that support and promote Egypt's foreign trade, and form integrated links between river and maritime transport. The Suez Canal is one of the most important international waterways and supports Egypt' crucial geographic location, linking the Mediterranean and Red Seas. Since the Canal was established it has been an important maritime route for foreign trade, especially between the East and the West. It is expected that the new Suez Canal will expand the Canal's capacity and increase Egypt's strategic importance, especially with the growth of international trade.
- 2. Human resources and large-scale consumer market:** Egypt is one of the most populous countries in the Middle East, making it the largest consumer market making it a most attractive country for investment. It also enjoys the advantage of having a large number of young people less than 30 years old as a percentage of the population, representing around 61% of its total population. Egypt has also participating in many international trade agreements, which enable it to be a center for trade in the Middle East if we make better use of these agreements.
- 3. Tourism potential:** tourism is one of the most important sources of income and foreign currency for the Egyptian economy and is one of the fundamental pillars of Egypt's economy. In addition to its charming nature and moderate climate, Egypt hosts one-third of all the monuments and antiquities in the world. It is rich in ancient heritage and enjoys a civilization that dates back 7,000 years. Egypt enjoys many fields of tourism attractions including archeological, cultural, historical, and religious tourism. Other kinds attract broader segments of tourists across the world, including beach activities and diving, therapeutic, environmental, sports, safari, desert, deep sea fishing and other kinds of maritime tourism. Egypt has a variety of festivals, cultural events, and conferences and exhibitions as well.
- 4. Egypt's diverse economy:** Egypt's economy depends essentially on the services sector, revenues from petroleum, agriculture, manufacturing, tourism, and the Suez Canal, which makes the Egyptian economy extremely diverse. This would protect Egypt from the international shocks that can affect any one of these sectors. Also it gives greater

opportunity for Egypt to participate and integrate into the production chains and value at the global level.

5. **Availability of real sustainable investment opportunities:** these will noticeably and positively affects the achievement of sustainable development in Egypt. The most important among such opportunities are the development of the Suez Canal axis, construction and investment in the Northwest area of the Gulf of Suez, North Sinai, and the Northwest Coast. Transforming Egypt into a global logistics center, development of the Golden Triangle area and other projects represent attractive investment opportunities with high profits.
6. **Unexploited large areas:** more than 90% of Egypt's area such as the North Sinai and the Gulf of Aqaba still requires reclamation and exploitation of its wealth.
7. **Resistance of the Egyptian economy to international crises:** during the last decade the Egyptian economy was able to resist two global crises that affected most of the world. The first one was the food crisis in 2008 and despite the fact that Egypt is the second largest wheat importer and imports many other foods, it overcame this crisis and achieved a 4.7% growth rate. It also overcame the consequences of the global economic crisis during the last quarter of the fiscal year 2009-2010 as well and achieved a growth rate of 6%.
8. **Availability of renewable energy resources:** Egypt is one of the most promising countries in the fields of renewable energy production due to its favorable climate and unique geographical location. At the level of wind energy, the Suez Canal area enjoys high wind speeds up to 10m/sec, while the Eastern and Western desert areas and the extension of the Red Sea coast along the Gulf of Aqaba are among the most important areas generating wind energy, which in its turn makes Egypt among the most favorable countries for the implementation of sustainable and continuous wind energy projects. As for solar energy as a renewable source, Egypt enjoys multiple competitive advantages in solar energy production. The intensity of the direct radiation from the sun is high compared with other countries, ranging from 2000 to 2600 kilowatt hour/m².
9. **Mineral resources:** Egypt has a variety of minerals in terms of quality, quantity, and distribution. Mineral resources in Egypt are divided into five main resources: **(a) Energy materials**, including petroleum products such as oil and natural gas. Despite the poor Egyptian production of energy materials, compared to some other Arab countries, which is evident from Egypt's increasing rates of importing oil and gas derivatives, Egypt saw an revolution in the field of new exploration which holds a promising future for energy in Egypt. **(b) Solid energy materials**, including carbon materials, such as coal and oil shale found in rocks above the formation of phosphate in the Red Sea governorates and New Valley. **(c) Radioactive materials**, such as uranium found in the rocks of the Eastern Desert in the Meseikat area, in Qetar, and Mt. Sinai. These materials are used in production of nuclear devices. **(d) Metallic materials**, including three types of minerals: ferrous metals, nonferrous metals, and precious metals. Ferrous metals, such as iron, are an important mineral resource in Egypt. They are the basis of heavy industries, where they are used in the production of cars and trains and in the building and construction industries. Non-ferrous metals such as copper, and precious metals, such as silver,

platinum, and gold are also present. **(e) Nonmetallic materials**, such as those used in the chemical and fertilizer industries are available. All of these minerals are present in large quantities and are used in manufacturing and exporting.

Challenges of Economic Development

Although the potential of the Egyptian economy would enable it to achieve these economic development strategic objectives, there are many structural challenges such as some macroeconomic imbalances, distortions at the micro level, weakness of human capital and infrastructure, financing difficulties, and low level of competitiveness. International indicators reflect these challenges as the Egyptian rank in the 'Doing Business Report' from the World Bank for the year 2016, was 131 out of 189 countries, and it was ranked 116 out of 140 countries in the Global Competitiveness Indicator for the year 2015-2016. The government is continuously working to face these challenges through appropriate and effective policies and programs.

The economic development challenges are divided into **challenges at the macroeconomic level** and **challenges at the sectorial level**. All sectors are participating in the whole economy challenges but they differ from one sector to another depending on the nature of the resources used, the production process, and sector laws. The following are the challenges.

Economic Growth Challenges

- Macroeconomic Level: Egypt's economy suffered over the past few years from many crises that resulted in decreasing the growth rate, investment, employment, public revenues, governmental inflows, and reserves to their lowest level and increasing public expenditures, the budget deficit, and the current and trade account deficits. The economic growth challenges can be divided into challenges related to fiscal, monetary, and investment policies in addition to institutional and structural challenges.
- Fiscal Policy Challenges: The public finance challenges facing the Egyptian economy are as follows:
 - Rigidity of the public expenditures structure: The current structure for public expenditures is not characterized by flexibility. The wages, subsidies, debt payments, and other transfers represent around 75% of the total public expenditure, which prevents the fiscal policy from achieving financial sustainability.
 - Low level of public revenues: tax revenues represent only about 50% of total public revenues. As a result we need a structural reform for the tax system, especially raising the efficiency of tax collection imposed on entrepreneurs, the informal sector, and generally on economic activity in various governorates.
 - High budget deficit: The Egyptian government suffers from an increasing public expenditure and decreasing public revenues, which result in increasing the budget deficit as a percentage of GDP to reach 11.5% during the fiscal year 2014-2015.

- High gross domestic debt: this is one of the major challenges to the Egyptian economy, as the gross domestic debt represented 92.7% of the GDP in 2014-2015. This high level of debt is mainly due to short-term domestic debt to finance the budget deficit. This increasing domestic debt leads to increasing interest payments (debt service), and leads to more debt with higher costs to pay off the previous debts. In general, the challenges associated with fiscal policy negatively affect Egyptian competitiveness and it is expected to increase pressure on the public budget in the light of constitutional obligations to increase public expenditure on education, health, and research to the range of 10% of the GNP.
- Monetary Policy Challenges: The fiscal policy imbalances impose pressure on the monetary policy independence, as the central bank is facing difficulties in balancing between inflation on the one hand and stimulating growth and financing the public deficit on the other. Raising interest rates to decrease the inflation rate increases the cost of borrowing, and thus adversely affects the demand for credit. The banks prefer lending to the government rather than the private sector due to the differences between the interest rate and the returns on government bonds, which leads to the private sector being unable to obtain credit. That leads to a negative impact on economic growth. The challenges faced by Egypt over the monetary policy can be presented as follows:
 - High inflation rate: decreasing the inflation rate is one of the main challenges facing the Egyptian economy. The average inflation rate reached 10.9% during the fiscal year 2014-2015 due to the devaluation of the Egyptian pound, increasing local food prices as a result of energy cost increases, supply shortages, poor storage capacity, and the decline in imports due to the deterioration of our international cash reserves, which added further pressure to domestic production.
 - Deterioration of Egyptian foreign reserves: Egyptian foreign reserves declined from \$35 billion at the end of 2010 to \$16.4 billion at the end of October 2015. This was due mainly to the decline in tourism revenues and in foreign direct investment, in addition to the use of foreign reserves to finance imports during that period and maintain the stability of the exchange rate. Egyptian foreign reserves covered 3.2 months of imports at the end of October 2015.
- Employment Challenges: Egypt's economy has suffered from high rates of unemployment since the global economic crisis in 2008, despite the decrease in the unemployment rate from 13.4% in December 2013 to 12.8% in September 2015. The employment challenges can be presented as follows:
 - High unemployment rates among young people: the high unemployment rate, especially among young people, is a real challenge facing the Egyptian economy. Around 66.4% of the unemployed were under the ages of 15-29 in June 2015. To make this worse, unemployment is most concentrated among the most educated groups.

- High unemployment rate among females: the unemployment rates vary by gender. It was about 9.3% among males by the end of June 2015 compared to 24.1% for females at the same period. Participation of girls and women in the labor force continues its decline despite population growth, due to the rigid conditions in the private sector and its long working hours.
- Inefficient labor market: the labor market is characterized by weak efficiency due to the absence of professional management, lack of links between productivity and wages, and lack of links between the education output and the needs of the labor market. This results in poor ranking in the Global Competitiveness Indicator of the World Economic Forum (Egypt ranked 137 in 2015).
- Large informal sector: The informal labor sector size increased dramatically since the beginning of the global economic crisis. Some believe that this sector has provided jobs for a large number of young people, but working in the informal sector may not be a decent option because of the low wages and the absence of security and safety. The sector is concentrated in the trades and distribution sector, which negatively affects its productivity and lowers the quality of products that are not subject to controls and may harm the consumer's interests. The challenges of the informal sector will be discussed in more detail later.
- Investment Challenges: The Egyptian economy saw a decline in the investment rates after the revolution in January 2011. The contribution of investment in the GDP was nearly 24% during the period between the 2006-2007 and 2009-2010. It decreased to around 14.4% during the fiscal year 2014-2015. The Egyptian economy is suffering from challenges that prevent the increase of investments such as:
 - Low domestic savings rates: The Egyptian economy is characterized by low domestic savings rates. The domestic savings contribution to the GDP was around 11.3% during the period 2010-2014. These rates are considered very low compared to the BRICs countries, which include Brazil, Russia, China, India, and South Africa. The contribution of domestic savings to the GDP of these countries represented about 30.4% during the period 2010-2013, and this percentage is higher in the Asian emerging countries. As a result of the decline in the savings rates, the savings gap increased to 8.4% in 2014-2015 after being only 2.3% in 2004-2005.
 - Decline of foreign direct investment: Foreign direct investment (FDI) plays a big role in stimulating Egyptian economic growth, especially with the weakness of domestic savings and investments rates. The FDI inflows have declined from an average of \$6.5 billion during the period 2006-2007 to 2009-2010 to an average of \$4.1 billion during the period 2013-2014 to 2014-2015. There was a gradual increase in net FDI in 2014-2015 to about \$6.4 billion.
 - Weak business environment: The Egyptian economy has been a weak business environment to stimulate and attract local and foreign investments, which is one of

the major challenges for Egypt. It is characterized by the presence of difficulties and long periods in the administrative procedures to start a project, for the issuance of any building licenses, and in property registration. The mechanism for land allocation is ambiguous, as are those for executing contracts, protecting investor's rights, the phenomenon of 'informal payments' within some agencies, and generally governance and transparency. All these negatively affect the competitiveness of the Egyptian economy. The new Investment Law No. 17 of 2015 was a good step to improve the business environment and make it more attractive for economic activity.

- Institutional Challenges: The most important institutional challenges facing the Egyptian economy are concentrated in the following:
 - Multiplicity and complexity of laws: The government has made efforts to develop the legal framework regulating economic activity, but the age of some of these laws and their inadequacy in light of the economy's progress during recent years indicate that this body of laws needs further development.
 - Governance, transparency, and accountability: Citizens have low trust in government. The absence of transparency and accountability are the most important challenges for the Egyptian economy. The government is trying to provide data regularly and continuously, to follow-up the implementation of governance principles in all institutions, in the private sector, and in civil society, and to increase the horizontal coordination among governmental bodies, and between the central and municipal departments.
 - Centralized decision-making: Decision-making power is concentrated within the administrative bodies in management, which increases the levels of bureaucracy and delays economic development. We need delegation to authorities in order to accelerate development and enable the governorates to realize their developmental needs.
- Informal Sector Challenges: Egypt has a large informal sector, and the transformation of this sector to the formal sector is one of the major challenges in achieving sustainable economic development. The informal sector companies are characterized by their small size and the low level of organization, and there is no separation between labor and capital resources as factors of production. Another hindering factor is the non-official work relationships such as the personal and social relationships and the absence of contractual agreements.

Estimating the size of the informal sector is difficult and inaccurate, which represents a challenge in developing an integrated strategy for the economy, where there is no representation of the informal sector in the GDP or the economic indicators such as national income and unemployment. According to some estimates, the size of the informal sector in Egypt was 35.1% of GDP in 2002, according to the method of

demand for the currency.³² In a recent study on the informal economy for the Arab Organization for Industrialization, the volume of informal economic activities in Egypt in 2013 represented about 40% of GDP, produced by 66% of the total non-agricultural employees in the private sector.

The most important reasons behind the spread of the informal sector is the increase of social insurances, the complexity of labor market legislation, high rates of unemployment, migration from rural to urban areas and the decreasing government role in hiring. Other reasons include poverty, illiteracy, poor health status, as well as the economic pressures faced by many Egyptian households. The main negative effects of the informal sector on the Egyptian economy are the following:

- The problem of income inequality: The capital intensive production is concentrated in the formal sector, while the labor-intensive production is concentrated in the informal sector. This causes a kind of hierarchical sequence for wages, with high wages in the formal sector compared with the informal sector for the same work. The low level of wages in the informal sector is due partly to the absence of a minimum wage in the informal sector and also is associated with the number of unskilled workers in this sector.
- Gender discrimination in the labor market: Female workers in the informal sector do not only get relatively low wages but she also earned lower wages than the male worker in the informal sector. Moreover, child labor is concentrated in the informal sector, which is a violation of the child's rights.
- High poverty rates: the workers in the informal sector earn low wages, and work without formal guarantees such as contracts or social insurance.
- The negative impact on domestic and foreign investment: with tax evasion and costly labor force laws, production costs in the informal sector decrease, and then increase the price competition between the informal and the formal sector products with a difference in quality between the products of the two sectors.
- Reduction of tax revenues: As the firms in the informal sector are not paying taxes, this prevents the government from collecting higher levels of public revenues, in addition to the disparity of the tax burden between the informal sector and formal sector firms.

³² Schneider, Friedrich, and Robert Klinglmaier. 2004. Shadow Economies Around the World: What Do We Know? Center for Research in Economics Management and the Arts. Department of Economics, Johannes Kepler University, Working Paper No. 0403

Demand for the currency approach is based on assuming that informal transactions are usually carried out through cash payments and therefore increase demand for the currency reflects the expansion of the informal sector size.

Economic Growth Challenges at the Sectorial Level:

After presenting the **economic growth challenges at the macroeconomic level**, it is important that we address the economic challenges at the sectorial level.³³ The economic development pillar for the strategy of sustainable development: Egypt's vision 2030 is broken into nine sectors: agriculture, water and irrigation, manufacturing, tourism, transport, information and communication technology, supply and internal trade, housing and utilities, and foreign trade.

The following are the most important challenges facing each sector:

- Industry Sector:
 - Complexity of the energy subsidy system for energy-intensive projects
 - Industrial products are not produced to international or environmental standards
 - Weak linkages exist between small, medium, and large industries
 - Necessary resources are insufficient to provide utilities in the industrial areas
 - Expenditures on research, development, and technological capabilities are low
 - Different authorities for the issuance of licenses and the centralization of business services
 - Lack of a suitable exhibitions system to restore Egypt's position among international exhibitions
- Foreign Trade Sector:
 - Large trade balance deficit: Egyptian foreign currency revenues from exports cannot cover the needs of imports from abroad
 - Bureaucratic barriers: These include the complex examination methods, slow customs procedures, lack of transparency in price announcements, and the evaluation systems
 - Difficulties in internal transport: This is due to unexplained increases in the prices and the lack of the transport companies' commitment to the rules, laws, and shipping dates
 - Low capability of the navigation lines

³³ Despite the importance of addressing the challenges faced by different sectors, but dealing with these challenges is the responsibility of these sectors and the different strategies should reflect the mechanisms to deal with these challenges in details.

- Services trade barriers: such as the government's implementation of a maximum value for the capital of the international firm to limit access to the markets.
- Information and Communication Technology (ICT) Sector:
 - Weakness of business environment to motivate and attract local and foreign investments
 - Non-proliferation of digital culture and the weakness of e-commerce systems and the linkage with the mail network
 - Weakness of Arabic digital content and decreasing the proportion of its existence
 - Inadequate legal and regulatory environment for advanced technological needs such as protection of intellectual property rights
 - Low government expenditure on the communications and information technology sector localization
 - Egypt's belated rank in the e-friction index, which measures the factors that prevent access to the Internet and its uses, which limits the optimization benefits from the digital economy
- Agriculture Sector:
 - Increasing losses ratios in agricultural products³⁴
 - Relatively limited advanced agro-industrial sector
 - Rigidity in marketing systems and the absence of contracts and lack of attention to post-crop harvesting transactions
 - Increasing infringement rates on agricultural areas, which exceeded about 20 thousand acres annually
 - A lack of interest in developing and innovating facilities, services, and marketing systems
 - The absence of quality standards for commodities in the majority of agricultural products
 - Increasing raw materials and agricultural inputs prices and lack of fuel used in machinery and equipment operation

³⁴ The agricultural sustainable development strategy in 2030 (Agriculture Ministry) indicates that the agricultural losses constitutes 10-15% from agricultural income.

- High environmental pollution rates from agricultural wastes (about 26-28 million tons per year)
- Limited agricultural development investments
- Rigidity of credit policies, which are based on traditional patterns
- Poor monitoring of agricultural inputs, especially fertilizers, seeds, and agricultural chemicals
- Limited and inadequate information and market studies for export markets, and the poor participation of small farmers in the trade system
- Occurrence of infringements on the waterways and changing the irrigation systems from advanced irrigation systems that ration consumption to flood irrigation, leading to the need to obtain land at the beginning of canals more than the legalized space
- Planting crops with high water consumption needs, such as rice, in quantities in excess of allowable limits
- Lack of water resources due to insufficient Nile River revenues, in addition to poor water quality due to pollution and salinity
- Water and Irrigation Sector:
 - Continuous population growth resulting in an increase for potable water services with limited availability to meet this demand
 - Deterioration of water quality due to pollution
 - Spatial and temporal distribution of limited water resources
 - Lack of funding and targeted investments to provide water services at the domestic level
- Tourism Sector:
 - Political and security instability over the past few years, irregular flights, and absence of low price flights segments
 - Poor electronic system to deal with tourists
 - Poor motivational policies, for example, incentives for entertainment
 - Poor marketing ability for Egyptian tourism

- Poor infrastructure necessary to link the various tourist regions, and the lack of linkages between infrastructure services and tourism trends
- Lack of diversification for the different kinds of tourism. Currently, marketing and other resources are limited to resort tourism and omits others, such as health, religious, eco-tourism, desert safaris, oases, and conferences and exhibitions tourism.
- Supply and Internal Trade Sector:
 - Weak infrastructure and logistics of storage and transportation, and the inadequacy of supply chain services
 - The absence of specialized trade zones such as industrial zones
 - Increasing rate of losses at the various stages of bread preparation such as the storage and transportation process
 - Low wages and low-skilled workers in the wholesale and retail trade activity
 - Dominance of the informal sector in distribution services, which has a negative impact on the efficiency of the provided services
- Housing and Public Utilities Sector:
 - Expanding gap between population needs and the available supply of housing
 - High housing prices for middle-income households, especially with their slight increase in incomes and the increasing number of homeless people
 - The relative increase in the cost of building housing
 - Slow-moving procedures and their complexity to obtain licenses from specific authorities
 - Low incentives to rent unused units
 - The poor condition of housing units that are rented according to the old rent system
 - Increasing phenomenon of slums and the lack of a comprehensive and effective solution to address slums
 - Obstacles preventing growth of the mortgage market
 - Continuous decrease in land suitable for building, which led to a significant increase in the price of land and expansion onto agricultural areas
 - Migration of the population, especially young people, to the capital and major cities

- Transportation Sector:
 - Poor level of networks and transportation services, and lack of public transport networks coverage
 - Poor safety and security in all transportation services, and increasing traffic accidents
 - Limited infrastructure capacity and resulting traffic jams
 - Lack of necessary financial resources to finance investments in the transport sector, and the poor participation of private sector in the implementation and management of transport projects due to its poor financial returns
 - The sector's contribution to pollution and CO² emissions
 - Lack of dependence on rail and river transport for goods and increasing dependence on roads, which led to increased traffic jam and accidents
 - Insufficient coordination among sustainable transport plans and urban development plans for the new cities
 - Poor institutional and administrative capabilities

Social Development Challenges

According to the Human Development Index, Egypt's rank improved from 110 in 2013 to 108 in 2014, with a value of 0.69. The human development challenges include the challenges of poverty alleviation and access of all population segments to social services (education, health, and family planning). We need to invest in our human resources to compete in the global economy and achieve the best benefits from the current demographic transition and age structure. The following are the most important of these challenges and they will be presented in more detail in the social justice, health, and education pillars within the strategy.

- Income and resources unequally distributed: Egypt's economy suffers from income inequality at the governorate level and among individuals. This is illustrated as follows:
 - Economic and social development imbalance: economic activity is concentrated in the capital and the major urban governorates while Upper Egypt and other rural governorates have limited investment opportunities and low levels of economic growth resulting in high rates of internal migration.
 - Income unequally distributed: in spite of relatively high growth rates that reached an average of 7% during the period 2006-2008, poverty rates rose during the same period and this growth was not felt by the majority of citizens. Those high growth rates did not generate sufficient productive jobs opportunities for new entrants in the labor market and the business environment has not seen any marked improvement.

We need further reforms to achieve the desired social justice in spite of efforts to date.

- Education challenges: the educational system in Egypt suffers from some problems and challenges that represent a real obstacle to the Egyptian education process and its development. These include increasing illiteracy rates, the high level of school dropouts, the existence of a gap between educational outputs and the needs of the labor market, insufficient funds for higher education and capacity research, dependency on private lessons, a high degree of centralization, the low level of investment in schools, in addition to the problems with the technical education and vocational training problems. The backward Egyptian education system increases the gap between educational outputs and the needs of the labor market for skilled, trained, and qualified labor.
- Health challenges: the health of Egyptians suffers from many diseases especially the hepatitis C virus, which negatively affects labor productivity especially among young people. Women also suffer from health problems that lead them to reduce their participation in the labor market.

Economic Development Policies to 2030

These include the most important policies at the macroeconomic level: investment from fiscal and monetary policies, supporting the transition of the informal sector into the formal economy, and the most important sectorial policies.

The following is a review of these policies in some detail:

Policies at the Macroeconomic Level

- Fiscal Policies
 - The achievement of fiscal stability: by finding alternatives to decrease the deficit, improve the expenditure structure, reduce the size of the public debt, develop a government procurement system, develop a subsidy system, administer taxes, and financing the budget deficit.
 - Increase Revenue: Raise tax revenues compared with non-tax revenues, and begin tax reform that depends on broadening the tax base. That would decrease distortions resulting from non-tax revenues. The government would also work to combat tax evasion in order to completely eliminate the phenomenon of total or partial smuggling, and implement a special tax system for small projects. The value-added tax should be considered as one of the structural reforms, as it works to develop a uniform tax rate on goods and services and deduct taxes on equipment and machinery, broadening the tax base to cover a larger range of services.
 - Change expenditure priorities: Re-prioritize government spending and change the expenditure structure by reducing the current expenditures on subsidies, wages, and

interest payments and increasing expenditures on supporting economic growth. This would be accomplished through increased investment on education, health, and other fields of social justice, which is compatible with constitutional provisions and helps achieve sustainable development. This would be done through:

- **Subsidy System Reform:** Continue efforts to rationalize the different kinds of subsidies and ensure that subsidies reach those who deserve them. The government is planning to increase fuel prices by about 20% annually until the price is in line with the cost by the year 2018-2019. In addition to the government's efforts towards the implementation of smart cards in the fuel distribution system with complete data on the consumption and distribution, in order to improve the targeting, prevent smuggling and the emphasis on access to eligible consumers of subsidized fuel.

The government also intends to remove subsidies on electricity by the financial year 2018-2019 and cut energy subsidies by up to 0.5% as a percentage of GDP. This is not limited to price reform only, but the reform of the energy subsidy policy taking into account increasing energy efficiency, diversifying the energy mix, and promoting the transition to clean and renewable energy sources.

- **Control the wage bill:** Implement maximum wages for the government and the public sector, revise distortions in the wage structure, and reduce the gap between wages in different sectors. These reforms would reduce the burden of wages on the State budget, which would have a positive impact on the State's finances, and would increase current and investment expenditures on sectors that affect citizens' lives, such as education, health, housing, utilities, and transportation.
- Determine the credit limit: This policy is linked to Egypt's external debt management and returning to a credit limit commitment, which was exceeded by Egypt in recent years.
- Establish the nature of debt for development: Implement developmental debt on the most profitable sectors, which would make the government able to pay down debt burdens without increasing the pressure on the State budget. In addition, address aid in the form of grants to the social sectors that do not generate revenues such as health and education.
- Monetary Policies
 - Maintain price stability and lower inflation rates: Control inflationary pressures as it is an important tool for macroeconomic stability. The monetary policy is planned to achieve a balance between price stability and intensive growth, and a balance between controlling inflationary pressures, maintaining Egyptian competitiveness for exports and increasing foreign demand.

- Take into consideration the impact of the policies that curb inflation on different socio-economic groups: To avoid the negative effects of higher interest rates on the most vulnerable groups, such as women who are already suffering from resource scarcity, as well as small and medium enterprises.
- Increase the financial intermediation effectiveness and achieve financial inclusion: Through an increase of credits to the private sector, provide funding to support small and medium enterprises, and enhance the rural banking system.
- Employment Policies

This includes policies targeted to increase labor demand, develop labor supply, and achieve a balance between demand and supply through active labor market policies:

- Short-term policies
 - **Public works programs:** Implemented by the Social Fund for Development in cooperation with the World Bank and a number of donor institutions in the governorates, where these projects provide job opportunities for unskilled labor from young people in the construction and building sector.
 - **Effective labor market policies:** The Ministry of Manpower in cooperation with the International Labor Organization (ILO) are drafting a program for effective labor market policies that are related to education, training, and rehabilitation, encouraging entrepreneurship and establishing small and medium enterprises in order to provide more jobs and decrease the gap between labor supply and demand.
- Long-term policies

These policies are targeted to implement structural reforms that will have positive impacts on the labor market:

- **Raise economic growth rates of the private sector,** and encourage links between large companies and small and medium enterprises.
- **Reform the education and training system,** to increase labor productivity, address wage disparities in the government and public and private sectors, enhance the labor market's flexibility, support decent work through the Decent Work Agenda adopted by the Ministry of Planning, monitor and administer reform with the ILO, as implemented since the beginning of 2016.
- **Macroeconomic support policies** that help to provide job opportunities for young people, especially in the private sector.
- **Focus on providing job opportunities in the highly skilled service sector,** as ease of access to education among this generation of young people has led to increased demand for professional jobs.

- **Enhance vocational guidance and public employment services**, helping to guide young people to technical jobs that require more labor, especially in the sectors of assembly, electronics, information processing and software technology, processing of agricultural products, and the wood and furniture industries.
- **Review the Labor and Social Insurance Law** to achieve a balance between employees and employers.
- Investment Policies

Investment policies that will be implemented in the next period include:

- Complete legislative environment reform to become less complicated, more transparent and effective, and provide an attractive environment for investment.
- Simplify business procedures through expansion of the one-stop shop in the context of Investment Law No. (17) for the year 2015.
- Continue dispute settlement efforts in a short time.
- Restructure the state administrative system through retraining administrative unit cadres and the simplification of government procedures. Facilitate the way the administrative system deals with citizens.
- Encourage more foreign and domestic investment in the booming industrial and service sectors.
- **Review the share of social insurance companies** in order to encourage employers to increase the number of insured workers.
- **Accelerate VAT implementation** in order to achieve a balance between encouraging investors and tax vision clarity.
- **Complete modification of the bankruptcy law**, including institutional governance and strengthen investors' rights.
- **Provide industrial lands** with needed infrastructure and facilitate procedures to use it, such as: grouped approvals from the civil defense organizations.
- **Complete settling the investment map** that divides industrial zones in accordance with activity objectives.
- **Simplify the land allocation system.**
- **Provide incentives** for projects that take place in remote areas such as Upper Egypt.
- **Expand the partnership system between Public/Private Partnership(s) (PPPs)**, which aim to improve the quality of services available in the country,

reduce the financial burden on the government, and work to create a local market for long-term financing.

- Policies that support transition from the informal to the formal economy in order to enable small investors to participate in the economy through the integration of the informal sector and the promotion of small and medium industries to participate in the economy through positive incentives as follows:
 - Adopt macro and sectorial policies that support employment through providing more job opportunities for the formal sector, achieving higher equality for job opportunities, especially for the poor and enhancing inclusive growth. Focus on high value-added and labor-intensive sectors, which would have a multiplier effect and forward and backward linkages with the domestic economy, as well as enhancing the value-added chains.
 - Provide a favorable environment for the establishment of projects such as facilitating registration and licensing and reducing costs to help enterprises to integrate into the formal sector.
 - Provide programs to develop skills and to facilitate access to credit through the provision of micro-loans for small and micro projects to provide job opportunities and increase revenues.
 - Develop programs to empower women and expand the provision of health care services for women and children in the informal sector in order to achieve gender equality and fight discrimination against women. Expand the coverage of social security through the provision of health care and education, which would contribute to improving the health status of employees and increase their productivity.

Policies at the Sectorial Level:

- Industry:
 - Correct the market imbalance, support fair competition, and provide additional resources to support industry and other sectors.
 - Continue the export orientation and openness to the world, through the achievement of greater coherence between industry and the growth of exports, and convert part of trade activities to industrial activities.
 - Combine the horizontal policies that affect all industrial activities and the development of sectorial strategies to achieve industrial development objectives.
 - Achieve regional development through industrial strategies at the regional level.
 - Protect the environment as one of the fundamental objectives of industrial policy.

- Rationalize energy use and take advantage of renewable energy and recycling wastes.
- Increase the value added and the shift towards knowledge-based products.
- Achieve geographically balanced industrial development.
- Support high knowledge and technological content industries.
- Deepen the domestic component in industrial goods and move up the value chain.
- Achieve coherence and integration among industrial and free zones, and domestic, regional, and global value chains.
- Encourage investment in industry and facilitate establishment by streamlining procedures, especially for land availability and issuing licenses.
- Review and develop investment incentives, encourage domestic products, and support exports.
- Complete the road network and infrastructure in the industrial zones.
- Expand technological centers services to cover the producers and exporters of all categories and various community needs.
- Promote the adoption of typical rates of spoilage and wastage rates by industrial control authority in coordination with the concerned authorities and update it continuously to remove obstacles to take advantage of special regulations.
- Review companies' share in social insurance to encourage employers to increase the number of insured employees.
- Foreign Trade:
 - Review the import and export laws and update them to be compatible with local and global standards.
 - Change the terms of import and export laws and their implementing regulations, particularly Law No. 770 for year 2005 in order to facilitate foreign trade and improve Egypt's rank in international classifications.
 - Review institutional structures in order to achieve coordination among all government agencies that provide services to exporters and to prevent interference between them.
 - Facilitate customs procedures according to international best practices and international, regional, and bilateral trade agreements.

- Expand accredited laboratories to examine products at the ports so as to not waste time and money.
- Adopt a risk management system.
- Raise the ability of customs officers to classify goods and apply decisions on targeted goods.
- Simplify customs procedures and improve temporary access and customs and duties drawback systems management.
- Develop an electronic link among the specific authorities for import and export and automate its processes.
- Develop border procedures to protect intellectual property rights in accordance with international best practices.
- Exchange information to protect intellectual property rights and increase cooperation among customs authorities to prevent infringement on intellectual property rights.
- Expand establishment of logistical areas such as yards and refrigerated storage.
- Improve and develop ports and reduce the time and cost of customs clearance. Extend the working hours of both ports and customs officials.
- Restore navigation lines that increase trade between Egypt and Italy and the direct navigation line to Morocco and provide regular transport lines between Egypt and the Eurasian Economic Union (EEU) countries.
- Complete the Nile Navigation Project to connect Victoria with the Mediterranean.
- Take advantage of the transport project to establish links with the countries of Central Africa (Lakes Region) and with the east coast of Africa.
- Restore the direct navigation line to Morocco.
- Exploit regular shipping to Africa.
- Reduce expenses that are added to the sea and land freight known as risk allowance in some navigation lines.
- Support Exports
 - o Increase export subsidies in light of the diversity of subsidy programs in competitive countries and link between export incentives, value-added, and the right economic definition.

- Complete automation of work funded by the Exports Automation Fund.
 - Activate the infrastructure service support programs for exports.
 - Promote Egyptian products abroad through participation in foreign exhibitions and promotional scholarships.
- Finance
 - Develop a mechanism to stimulate the banks to finance the feeding industries.
 - Develop and diversify financial services, taking into account different needs through establishment stages.
 - Activate the role of the Export Development Bank and the Egyptian Company for Ensuring and Financing Exports to finance exports, ensure risks, provide services with facilitating conditions, and expand export risk services, especially for the African countries.
- Quality
 - Activate the Supreme Council for Quality to play its role in the publication, adoption, and commitment to quality standards in all fields.
 - Modernize Egyptian specifications on a regular basis to keep abreast of global developments.
 - Design training programs specializing in production, shipping, and transport quality.
 - Create incentives to encourage domestic producers to commit to quality standards and facilitate export.
 - Expand the implementation of supplier development programs to raise the quality of the feeding industries.
 - Develop market surveillance systems in accordance with developed countries' best practices.
- Human Capital
 - Provide financial and tax incentives to encourage them to develop and support training programs.
 - Design programs for industrial care and apprenticeships on the lines of the German model.
- Export Marketing and Promotion

- Maximize benefit from commercial representative offices in providing necessary information on export opportunities, particularly in emerging markets, and make such information available on the website.
- Reap benefits from preferential trade agreements signed by Egypt to increase export opportunities for Egyptian products.
- Complete free trade agreement negotiations with the EEU countries after completing studies of its impact on Egyptian exports.
- Revitalize trade relations with other countries by holding joint trade committee meetings between Egypt and the other countries in order to overcome difficulties and problems that affect movement of trade.
- Establish logistics and storage centers for Egyptian products in the important African markets so that they become centers for the distribution and marketing of Egyptian products to those and surrounding markets.
- Improve mechanisms to provide information for all exporters about the privileges granted in the various markets, especially countries that have trade agreements with Egypt.
- Take advantage of international trade networks to maximize e-commerce outcomes and enhance the efficiency of the Egyptian international trade point in this activity.
- Direct marketing efforts to emerging markets, especially Asian and African markets.
- Encourage companies in the marketing field to promote the products of small and micro enterprises.
- Develop a system for electronic promotion and marketing for Egyptian products.
- Information and Communication Technology Sector:
 - Integrate Information Technology (IT) into the various sectors of the economy to increase its efficiency and productivity.
 - Open new markets for the IT and electronics industries and support its exports.
 - Optimize the benefit from current trade agreements with the African and European countries and with the United States to support the IT industry and increase its trade volume.
 - Liberalize telecommunications service prices in Egypt to increase use and achieve the consumers' well-being.

- Provide telecommunications and IT services at low prices for the poor and marginalized areas.
 - Further activate the consumer rights laws.
 - Develop and activate the laws of privacy and intellectual property.
- Agriculture Sector:
 - Horizontal expansion of agriculture and agricultural localization.
 - Rationalize the use of water resources.
 - Protect agricultural lands.
 - Develop fisheries and aquaculture.
 - Agricultural productivity for land and water
 - Develop agricultural technology.
 - Develop an agricultural guidance system.
 - Activate the role of the media about agricultural development issues.
 - Improve the performance of farmers' voluntary institutions.
 - Agricultural product competitiveness
 - Encourage contract farming.
 - Develop e-commerce and electronic marketing systems for the agricultural sector.
 - Promote regional agricultural cooperation.
 - Develop an agricultural information system.
 - Develop the agricultural investment climate.
- Water and Irrigation Sector:
 - Develop and manage water resources and rationalize the use of water in all fields.
 - Complete and rehabilitate the national infrastructure for water systems and horizontal expansion.
 - Develop an integrated water resources management system.
 - Strengthen relations between Egypt and the Nile Basin countries.

- Develop methods for groundwater, rainwater, and flood harvesting.
- Desalinate sea water and brackish water.
- Construct and rehabilitate pump stations.
- Maintain the quality and efficiency of the High Dam and Aswan Reservoir, and protect the Nile River, its subsidiaries, and Lake Nasser.
- Rehabilitate canals and drains networks and all irrigation facilities.
- Execute studies and scientific research about technical and scientific applications in agriculture, using up to date databases and electronic government facilities.
- Tourism Sector:
 - Promote Egypt as a tourist destination while highlighting the country's modern character, hospitality, and safety.
 - Develop existing tourist destinations and create new ones on the western northern coast, the oases, and the southern Red Sea.
 - Attracting segments of tourists that spend more per night.
 - Encourage repeat visits, increase the visit period, and reduce the impact of the country's seasonal nature on tourists.
 - Decrease the gap between domestic and international tourism.
 - Promote new products in the Egyptian market to reach different segments, such as health and hospitalization, religion, eco-tourism, deserts, oases, and conferences and exhibitions tourism.
 - Cooperate with efforts of the Ministry of Tourism and other concerned parties in the tourism industry to ensure decisions are consistent with tourism objectives in achieving growth in this sector.
 - Expand the promotion and activation of tourism through the organization of tourist convoys, participating in international conferences and exhibitions, and increasing media campaigns in foreign markets.
 - Open up to new promising tourism markets, especially in East and Southeast Asia and the new Commonwealth countries.
 - Expand infrastructure projects serving the tourism sector.

- Develop human skills for workers in the tourism sector and related services.
- Encourage the private sector to invest more in this sector.
- Add tourism material to the primary education curricula and highlight its importance and the importance of citizens' good behavior to attract tourists.
- Give attention to technical education and introduce a special section for tourism and hotels for distinguished students with specific conditions for enrollment.
- Develop qualifications and capabilities for accepting students in tourism and hotel management education, whether technical, secondary, or higher education.
- Identify numbers for admission to tourism or hotel management schools depending on the labor market needs
- Disseminate awareness programs via various channels of communication to explain the importance and value of the tourist.
- Address the phenomenon of harassment by publishing awareness programs in various channels of communication, and implement strong punishment for the harasser in coordination with the Ministry of Justice.
- Supply and Internal Trade Sector:
 - Develop internal trade through implementation of logistics projects.
 - Increase the marketing space up to 20 cm for each individual instead of the current marketing space.
 - Ensure the availability and quality of rationed commodities linked to the ration cards. Ensure the availability of goods and services, and their flow without complications or problems.
 - Protect consumer rights and ensure the quality of goods and services offered to the Egyptian citizen.
 - Continue the subsidy development system to ensure access to food subsidies to those who deserve them, and continue developing the bread distribution system.
 - Review the laws and decisions that prevent fraud and anonymous commodity trading and other irregularities that are harmful to the consumers' welfare.
 - Ensure the sufficiency of goods and services in the markets.
 - Address harmful business practices.

- Respond to attempts to raise prices, especially for basic food commodities.
- Develop and conduct research relating to goods, especially strategic goods, to study their production, pricing, and circulation conditions.
- Develop legislative frameworks critical to the movement of internal trade in line with local, regional, and global developments.
- Protect intellectual property rights, especially in the fields of trademarks, trade data, industrial models and designs, and geographical origin.
- Promote the role of consumer cooperation in the trade movement.
- Forecast crises related to basic and strategic commodities and develop scenarios necessary to face them in the future.
- Transportation Sector:
 - Achieve a balance among different means of transportation, and develop their regulations, with attention to multi-modal transport, especially maritime ports, railways, and river transport.
 - Support the importance of multi-modal transport to decrease traffic congestion on roads and take necessary measures to achieve this, especially in the field of container transport.
 - Activate the role of the railways in terms of both operating and management, as railway transport is the main sector that would lead to the success of efforts to achieve a balance among the different means of transport. Raise railway participation for goods transport by 20%.
 - Encourage river transport, which is an essential transportation link with some maritime ports, in order to decrease traffic congestion. Increase river transport participation by 5% for goods transport.
 - Support the vital role of maritime transport, as the Egyptian maritime ports are important for the economy, since they are used intensively for goods transport in foreign trade.
 - Enhance the role of the private sector participating in developing the transport system and providing facilities, services, and opportunities for this sector so it can play its role in investing or participating in transport sector projects.
 - Maximize the quality and efficiency of safety levels for travelers, especially long-distance travelers, and transport providers.

- Support human resources development of the training and incentives programs for the professional cadres in the Ministry of Transport.
- Achieve high safety levels in the transportation sector, especially road transport, and set the necessary regulations and procedures to reduce road accidents.
- Update legislation and develop regulations that ensure free competition in the transportation services, leading to improved standards of living and raising the citizens' economic level.
- Determine the environmental objectives that enhance the transport sector's sustainable development, particularly with regard to reducing all types of pollution, such as air pollution, marine and river pollution, visual pollution, and noise pollution.

Programs and Projects for Economic Development to 2030

Mega national programs and projects are the starting point that will lead to the recovery of the Egyptian economy and achieve sustainable development. It is expected that the rationalization of government expenditure programs, energy subsidy reforms, and increased public revenues will lead to the reduction of the budget deficit and public debt. Giant national projects will produce a positive impact in reducing unemployment and creating new job opportunities for young people. Such projects include a reclamation project for 4 million acres, a project to develop the Suez Canal axis, the Golden Triangle project, and other projects.

It is important to note that the first steps towards sustainable development and the implementation of the strategy have already been taken through the government program that covers the years 2016-2018.³⁵ The government program presents the projects and programs that are to be implemented within the next 2 years, but the strategy incorporates a number of projects that are more comprehensive, covering a period of 15 years with various maturity dates.

The following are the most important projects at the macro and sectorial levels that will contribute to achieving the strategic objectives of the economic development pillar, reflecting the trends and policies previously mentioned:

Programs and Projects at the Macroeconomic Level (Mega Projects)

Suez Canal Development Project

- **Project Description:** This project aims to maximize use of the enormous potential of the Suez Canal, generate many jobs, and make the region a navigable global center for shipping, a logistical and industrial center, and a gateway for trade between East and West by 2030. This is a high cost project.
- **Project Key Elements:**
 - In accordance with the provisions of Law No. 83/2002, as amended, the land located in the Suez Canal Zone, an area of about 460 km², is deemed an economic zone of a special nature consisting of West Port Said Port, East Port Said Port and their industrial zone, an industrial zone in West Qantara, the Technology Valley east of New Ismailia, Adabia Port, the Ain Sokhna area and Port, the El-Arish Port, and the Al Tour Port.
 - The project includes development of an area Northwest of the Suez Canal, which contains a major industrial zone near the Sokhna Port, covering an area of 200 km², and including an industrial park with an area of 176.5 km² and an area of 22.5 km²

³⁵ For more information about the work program of the Government of Dr. Sheriff Ismail during the period from January 2016 till June 2018, kindly see the website of the Ministry of Planning, Follow-up and Administrative Reform.

connected to the port and containing an economic zone comprising an area of 20.4 km².

- The Ministry of Trade and Industry contributed to achieving the set objectives of the project by funding small and medium-sized enterprises, providing vocational training for the activities required by the labor market on the canal, community development and public works in the Canal governorates, establishing a licensing unit for small-sized projects (one-stop shop) within the administrative building of the Canal, and a permanent exhibit of products—especially environmental, crafts and traditional products—and establishing an entrepreneurship center in the administrative building of the Canal.

Construction of the New Administrative Capital

- **Project Description:** aims to create a new economic and administrative city in the Greater Cairo region including residential and commercial areas and other service areas.
- **Project Key Elements:**
 - System depends on the partnership between the public and private sectors.
 - Residential areas represent about 67% of the project area.
 - The project includes about 285,000 housing units for low-income people, 185,000 units of middle-income housing, and 15,000 housing units for the highest income strata

4 Million Acre Development Project

- **Project Description:** The main objective of this project is to build an integrated society within the new land and to support the overall objective of the strategy for sustainable development: Egypt's vision 2030, and increase the urban area by about 5% of the total area by 2030 at a rate of 1% every 3 years. In addition its impact would support economic diversification, provide productive and decent jobs, and increase the participation of all the provinces of the republic in achieve sustainable growth. This project includes the industrial Zraaa-integrated approach for specific vegetables and fruits, and the provision of facilities required to mobilize and manufacture products. The land will be allocated among large, medium, and small companies.

- **Project Key Elements:**
 - Implementation of the first phase of the project will start with development of 1.5 million acres in the reclamation and cultivation areas within the 1.5 million acres project, Al Moghara in the Western Desert with an area of 170,000 acres, Al Amal Village in Ismailia with an area of 3,500 acres, an area southeast of Al Monkafad of 50,000 acres, Al Tour with an area of 20,000 acres, an extension of the area southeast of Al Monkafad of 50,000 acres, an area east of Siwa of 30,000 acres, three areas

west of Minya of 225,000, 220,000, and 183,000 acres, Old Farafra with an area of 100,000 acres, New Farafra with an area of 100,000 acres, Al-Mrashadah with an area of 41,500 acres, extension of Al Dakhlah with an area of 50,000 acres, an area west of Kom Ombo (underground) of 25,000 acres, Toshka with an area of 142,000 acres, and Toshka Wells with an area of 25,000 acres.

- The first phase was launched on 30 December 2015 for the development of 10,000 acres in Farafra fully prepared for cultivation. Pivot irrigation equipment was installed and laser leveling and soil fertilization was completed. The new villages and housing units established were opened, comprising approximately 2,500 units, in addition to the government and service facilities with full utility connections.
- Integrated agro-industrial development: cultivation of water-saving crops, vegetables and fruits such as pomegranates, palms, medicinal and aromatic plants, figs, and olives, and the establishment of factories for packaging and production of oil and processing of medicinal plants. It also includes projects for breeding cattle, sheep, and camels in addition to other projects for the development of fisheries with the aim to bridge the gaps between the demand and supply of commodities and reduce imports from abroad.
- Adoption of a refrigeration and transportation system, where products go from the producer to the consumer directly to eliminate intermediaries that leads to higher prices of commodity and crops.

Sinai Company for Investment and Development

- **Project Description:** The project aims to develop and change Sinai into an advanced and integrated society that utilizes its competitive advantages and exploits the natural, human, and agriculture resources within the Suez Canal Development Project. The project contributes to the accommodation and redistribution of Egypt's human resources by investing in labor-intensive sectors to provide job opportunities for the people of Sinai and attract population density from the Canal and Valley governorates.

- **Project Key Elements**

- Establish economic zones with a special nature in Sinai at Bir al-Abed Industrial Zone of 150 acres, average space of the industrial pieces ranges from 2,000 to 6,000 m², road space of 70 acres, services space of 13.5 acres, and green areas of 6.5 acres.
- Establish a joint stock company for investment to support development in Sinai, with a focus on North and Central areas as a first phase, with the participation of the private sector and local capital of the people of Sinai.
- Establish projects including fish processing, raw salt-based industries (sodium carbonate), building materials industries using local materials of cement, clay, marble,

white sands, glass sands, processing, flat glass, and the establishment of a cement plant, gypsum cracking and grinding factory, marble factory, and fodder factory.

Northwest Coast Development Project

- **Project Description:** The project aims to develop the Northwest Coast through establishment of a set of linear and transverse roads and routes between this area and the rest of the governorates in order to strengthen the roads and transportation network, transport population and labor, and achieve population and commercial deployment and diverse economic activities. It also plays an important role in solving the problem of energy shortages through power generation by solar energy, in addition to generating electricity through nuclear energy in the region of Dabaa. The project extends from the city of Alamein to the town of Saloum, approximately 500 km and 280 km. This project aims to create several ways to support the road networks and improve transport.
- **Project Key Elements:**
 - The roads and routes include the Al Qattara–Monkhafad Road (Cairo–Alexandria) eastward along 220 km down to Raas Al Hekma and its sub-links to the El Alamein (Al Dabaa), Al Bhensa route (Minya), Al Wahat Al Bahariya (Siwa), Hof (along the Libyan border), Assiut–Farafra route and Ain Dallah–Siwa.
 - The project also includes land reclamation and cultivation of about one million acres due to availability of groundwater resources in the desert hinterland with coastal ranges where rainwater accumulates, in addition to a source of irrigation from the River Nile through the Al Hammam Canal. This project contributes to the promotion of agriculture and reclamation of these lands and restoring leadership to the area which was previously called the Roman granary through the cultivation and export of this grain, mainly wheat, to the old Romanian State.
 - Tourism also has the largest share in development in this area due to its proximity to the Mediterranean Sea through the coastal shores along 400 km west of Alexandria down to Egypt's western borders.
 - The Northwest Coast area is filled with many mineral resources including limestone, clay, bentonite, dolomite, gypsum, quartz sand, and rock salt crystal, in addition to oil and natural gas. This represents a great opportunity for establishing industrial and mining projects in this region and urban, agricultural, and tourism development along with the roads and routes network that will be implemented. The area will represent a center of attraction for the population and the establishment of diverse urban communities accommodating about 34 million people in the coming years.

Golden Triangle Project for Mineral Resources in Southern Egypt

- **Project Description:** The project aims to create a new economic zone in Upper Egypt by establishing an integrated global center to achieve sustainable development in the

Upper Egypt Region. It is planned to implement this project over six phases, each phase lasting 5 years.

- **Project Key Elements:**

- The Golden Triangle area is located in the Southeastern region of Egypt in the Red Sea Governorate stretching along the coastal road in the triangle area between the boundaries of the city of Safaga in the north, Qoseir in the south and Qena in the west.
- The project aims to establish four mining and industrial areas and mining logistics storage areas, each specialized in specific types of mining industries. West of Safaga the area is specialized in the quartz and glass industries. North of Mersa Alam is the gold refining industry, with an industrial zone north of Mount Al Dawa. The cement industry would be at Mount Al Gir with an industrial area proposed to be 60,000 acres.
- The project includes establishment of a power station with a capacity of 4 gigawatts (coal/oil clay), a 250-megawatt solar power station, and desalination plant with a capacity of 100 m³ per day, supported by a salt factory and chlorine factory, a refinery with a capacity of 200,000 barrels/day linked to petrochemical production units.
- The project also includes establishment of mineral development units specialized in the extraction of raw materials and 5–7 new mining pools in addition to road and route connections to connect the regions of mineral exploitation with major regional roads.
- The project aims to establish a center for finance, business, and logistical services and the main minerals stock exchange in the region of the city of Safaga in addition to Safaga Port to serve as the main central port for the export of mining materials and main mining industrial products at the Red Sea States level and at the national level.
- The project includes strengthening the new cities of Safaga/Qena to serve as poles of growth that motivate the mechanisms of human settlement, increasing the size of population for each city to 250-350 people, and linking Safaga and Al Qoseir cities to the map of sustainable tourism development.
- The project includes the establishment of the network of roads necessary for the development of the golden triangle, mainly completing the 2-way Qena-Safaga road with an expected completion date of 3 years, provision of LE 615 million for the completion of the first phase of the 2-way road of Upper Egypt-Red Sea, establishment of an industrial business and 2-way road on the Red Sea coast from Al Qoseir to Mersa Alam, and establishment of a new road in the desert east of the Nile as an extension of the Qena link on the Upper Egypt-Red Sea road.

- The project also includes the establishment of maritime ports necessary for the development of the golden triangle including the establishment of a maritime port at Safaga with multiple docks for containers and general cargo with a length of 5 km along the coast with a total capacity of 40 million tons and the establishment of Abu Tartour port with a dry and a liquid bulk terminal and multi-purpose docks along 300 meters, at a total cost of \$135 million.

New Development Axis

- **Project Description:** The project aims at the development of about 5,000 km of roads, which represents about 20.4% of existing roads estimated at 24,000 km, in addition to the development of the surrounding areas. The project will be completed in two phases, the first phase includes the development of approximately 3,400 km and will be completed in September 2015, and the remaining part will be completed before the end of 2016.

- **Project Key Elements:**

- These roads include all the regions and governorates, including Al Qaws–Al Gharby road off the regional ring road of Western Assuit–Cairo road down to Cairo–Alex desert road, development of Arish–Rafah road, development of Taba–top of the Negev, completion of Shalatin–Sohag road, interchange Ismaili–Port Said route, development of Wadi Natrun–El Alamein road and the regional ring road (Banha–Alex desert) and others.
- The project provides employment opportunities, reduces the cost of transporting goods, attracts investment, and improves the infrastructure and road safety.

30th of June Axis and the New Galalah City

- **Project Description:** The project aims to establish the 30 June Road, which starts from the International Coastal Road south of Port Said down to Cairo–Ismailia desert road. The project is planned to complete to intersect with the Cairo–Suez road down to Wadi Hagoul tunnel on the Cairo–Ain Sukhna road and the start of Gabal Al Galalah road crossing Al Galalah City, which is located on top of Al Galalah mountain in the Eastern Desert on the Gulf of Suez at an altitude of 700 m from sea level. The city is located on an area of 17,000 acres.

- **Project Key Elements:**

- Al Galalah city contains King Abdullah University. It is a globally-recognized medical city with residential areas and tourist and services destinations. The tourist resort of Al Galalah is located on the shore of the Gulf of Suez covering an area of 1,000 acres and including tourist and leisure facilities and a yacht marina.

- Al Galalah City is connected to the resort by an ascending road to the top of the mountain with a length of 17 km and a cable car with a length of 6 km.

Completion of Underground Phases IV and V Project

- **Project Description:** Completion of phases IV and V of the metro.
- **Project Key Elements:**
 - Complete the 4th stage of the metro line from Heliopolis to the Cairo Airport, a distance of 18.2 km. The final line will extend from the Aaron station to the Cairo Airport and include 15 stations. This project will take 5 years.
 - The 4th line (6 October–Fustat–New Cairo) connects the city of 6th of October in central Giza and other parts of the metro network. The line provides passenger service and links them with high population density areas in the pyramids, Faisal, and urban Giza areas. This line is being developed in two stages: the first includes the last station at the west ring road on the border of 6th of October City and the Fustat station, a length of about 19 km with a total of 17 stations. The second phase extends from Fustat station via Old Cairo to Nasr City and New Cairo. Much of this phase has been completed and new studies were implemented at the beginning of 2016.

Building One Million Housing Units within the Framework of the Social Housing Program

- **Project Description:** The project aims to provide one million housing units for low-income citizens in all governorates at a total cost of LE 150 billion in 5 years. The Egyptian government issued a Social Housing Act that was endowed with the establishment of the Social Housing Fund, which aims to reduce the burden of the cost borne by the State for the construction of these units.
- **Project Key Elements:**
 - It is expected that this project will provide about 250,000 jobs and contribute to support the achievement of the objectives of social justice, according to the Strategy for Sustainable Development: Egypt's vision 2030.
 - The project is currently focusing on implementation of the national program for social housing to provide complete housing facilities for low-income young people and provide space to found suitable industrial and commercial communities.
 - Subsidized for low-income residents over 5 years, an area of 50 and 70 m² per unit would provide one million housing units.
 - Implementation of the project began in July 2012, and about LE 7.4 billion had been disbursed to March 31, 2015.

Legislative Reform Program to Improve the Investment Climate

- **Project Description:** This program aims to improve the investment climate to provide an attractive, fair, and competitive investment environment, governed by the legal and legislative framework. The program works on reforming the regulatory environment over the next 3 years.
- **Project Key Elements:**
 - Modify the Companies Act.
 - Modernize the Commercial Registration Law.
 - Prepare the Bankruptcy Code.
 - Amend the legislative framework governing the labor market.
 - Reconsider the distribution system and allocation of land.
 - Develop an integrated investment map geographically and by sector in cooperation with all concerned ministries and agencies, the private sector, and civil society.

Curb Inflationary Pressures for Macroeconomic Stability

- **Project Description:** Construct a number of storage and logistics centers to reduce inflationary pressures by 2020.
- **Project Key Elements:**
 - This project aims to create global storage and logistics centers that will contribute to the achievement of food security in Egypt. This includes the establishment of a global logistics center in Damietta on an area of 3.5 million m², including an industrial zone, at an investment cost of up to nearly \$2 billion.
 - This project would have a significant positive impact on the implementation of the objectives of economic development, according to Egypt's vision in 2030, particularly with regard to diversity and increasing the contribution of the service sector in economic growth.

Sovereign Wealth Fund “Amlak”

- **Project Description:** The “Amlak Fund” aims to make optimum use of the State’s wealth and raise the efficiency of management of State assets and possessions. Amlak is a sovereign, wholly State-owned fund and represents the State’s investment arm and one of the basic tools in partnership with the private sector in infrastructure projects. The Fund aims to engage with financial institutions and sovereign Arab and international funds in large projects.

- **Project Key Elements:**

- The Amlak Fund aims to achieve sustainable financial returns and social and economic benefits for the people of Egypt, to achieve the following objectives:
 - Stimulate investment in infrastructure.
 - Amlak represents a channel for direct foreign investment to finance major national projects in the areas of energy, transport, logistics, and others and provide investment packages for development into other key sectors.
 - It represents a mechanism for facilitating investment packages to promote the optimum use of capital in other major sectors and maximize the impact of the public investment program to achieve the objectives of social and economic development.
 - It contributes to improving the bargaining power with private investors and supports Egypt's position on the map of global sovereign wealth funds.

Decent Work Program

- **Project Description:** The program aims to promote decent work opportunities for all young people especially those with disabilities in all governorates. The program works to provide decent work opportunities over the next 5 years.
- **Project Key Elements:**

- Develop a strategy for decent work and an integrated program of work for the next 5 years.
- Coordinate with the Ministry of Manpower and Immigration and labor offices in the provinces to promote the concept of decent work.
- The Social Fund for Development has an important role in the program in the context of non-financial services for small enterprises in cooperation with development partners for entrepreneurship and training such as the ILO, Shell Oil, the organizer of the United Nations Gender Equality and Women's Empowerment Program, the Egyptian Junior Business Association, EGB, and trade unions and universities with the aim of the rehabilitation and training of young people and improving their capabilities through supported software to be able to generate and evaluate the success and continuity of ideas and management of special projects.

Regional Economic Development Program

- **Project Description:** Support for programs and projects of regional economic development during the period 2016-2030. This project is high cost.

- **Project Key Elements:**

- The development of the Local Administration Law and issuance of Unified Planning Law supporting the idea of setting up and activating the economic regions and supporting the idea of integration and coordination between the bodies entrusted with economic development.
- Granting local authorities in a wider area of local resource development.
- A greater role for local councils elected to manage the local economy through integrated plans for economic development at the regional level.
- The establishment of economic development at the regional level forums.
- Support for local economic competitiveness.
- Support the trend towards decentralization in the field of investment and activate the idea of one on the geographical and sectorial levels.
- Encourage economic integration among the regions in accordance with existing competitive advantages.
- The Social Fund for Development operates through 31 regional offices in all governorates of the Republic and through extension services complexes the one-stop system allows the beneficiary to license and register commercial enterprises and receive tax card services. Under this development, His Excellency the Prime Minister issued Decision No. 1034 dated 04/30/2015, which is designed to enable the units one-stop shop to do all the procedures to establish and license small and micro enterprises, approve licenses, and permit operation of the projects.

“Irada” Program

- **Project Description:** This project aims to contribute to achieving some of the objectives of the economic axis and the axis of transparency and efficiency of the private strategy of sustainable development in 2030. Government institutions are helping the state build better government regulations and implement policies leading to economic and social development in a sustainable way while sending messages important for all parties at the local, regional, and international levels concerned with the extent of interest and commitment of the Egyptian government on the following matters:
 - Consistency with international best practices and standards and applying them appropriately.
 - Commitment to transparency and the availability and accessibility of information for all parties concerned.

- Work on the unification and integration and interdependence of legislative frameworks and lack of inconsistency and complexity.

- **Project Key Elements:**

- Build and develop a database and electronic record of the legislative tools, including the organization of business climate, the legislation record, database preparation, and record-mail services provided by the administrative authorities of the investor. Also included will be a Log of Investor Services to support the achievement of raising the efficiency and effectiveness of the administrative system and provide excellent services using technology.
- Review and study issues of economic importance to the ministries involved to ensure the initiatives keep pace with changes to the legislative framework of the Organization of Economic Activities. Build mechanisms to help increase competitiveness and the degree of diversification of economic activities.
- Participate in simplifying procedures related to the business environment so as to help enhance the efficiency of the state administration's performance in dealing with government services associated with doing business and remove the costs and unnecessary procedures imposed by legislative instruments that would limit economic competition.
- Introduce a legislative impact assessment system before and after the issuance of legislation of legal and economic terms or Regulatory Impact Assessment (RIA). Determine the desired objectives of the legislation and the study of different alternatives to be presented to the decision-maker to ensure the quality of economic legislation and sustainable development.
- Establish a mechanism for consultation, dialogue, and community building to take into account the interests of management bodies, the business community, and civil society to establish the rules of transparency and the creation of a mechanism to receive the views of those concerned and affected by government policies.

Programs and Projects to Formalize the Informal Sector

- Develop a strategy and definition for the informal sector in an institutional and legislative manner to formalize the informal sector.
- Develop a national ID card for enterprises to take advantage of and use in financial transactions and to standardize their transactions with government agencies, to accept bank deposits and withdrawals, and download special incentives for small and medium projects, according to segments of the common definition.
- Develop a package of incentives for integrating the informal sector businesses, for example for taxes, training, land, and technical services.

- The Social Fund for Development review Act 141 of 2004 as part of broadening the base of the definition of small projects and optimal use of incentives available from concerned authorities.
- Coordinate with the General Authority for Financial Control to provide education about the Non-governmental Organization (NGO) law regulating the activity of microfinance (Law No. 141 for the year 2014) and help the association in the issuance of licenses to practice business activities and provide loans for microenterprises to create jobs, increase incomes, and raise living standards.

Programs and Projects at the Sectorial Level

Industry Sector

In addition to the projects contained in the Government's program for the next 2 years, which include a stalled factories support program, the 1,000 factories project, expanding local industry with the aim of replacing imports and increasing exports, continuous efforts for technology and innovation transfer, simplifying procedures, and project development, the following are examples of the major programs contained in the strategy for strengthening industry and increasing its contribution to economic activity:

Industrial clusters for small and medium industries:

- **Project Description:** Establish industrial clusters as a solution to support industrial integration between large, medium, and small factories and contribute to raising the industrial added value and creating jobs. This would link small- and medium-sized enterprises with the development of a range of projects. The project is high cost.
- **Project Key Elements:**
 - This project aims to establish 25 industrial complexes in 14 provinces, specializing in the fields of furniture; garments; feeding industries for household appliances, cars, and industries; nutritious components; food; marble; building materials; aluminum; household appliances; electronic industries; software; engineering; petrochemicals; and spare parts for heavy transport vehicles.
 - Develop small industries: the government aims to increase the contribution of these industries in the industrial output growth rate of about 5%, increase investment and employment and exports about 10%, and reduce the consumption of energy for these industries by about 10%. The government has developed a strategy for the development of small industries, providing programs for factories at the sectoral and geographical levels to increase competitiveness, contribute to sustainable development with a focus on maximizing the value added, increase exports, provide decent and productive jobs, reduce energy consumption and production costs, produce awareness campaigns about the importance of specifications, provide reductions in prices for services for small industries including tests, calibrations and

standards, training, and help small- and medium-sized industries in the application of the standards through the authority experts in various fields.

Leather City project in ‘Al-Robeiky’:

- **Project Description:** Create an attractive city for national industry by encouraging the movement of tanneries and their employees to develop a sector and increase the added value of the Egyptian product in order to achieve competitiveness in the global market by the year 2030. This is a project with a high cost.
- **Project Key Elements:**
 - Adapt existing tanneries to the use of modern technologies.
 - Increase productivity, raise quality, and increase value added.
 - Improve working conditions and environment, raise entry-level workers through training, and protect employee health.
 - Remove pollution from tanning processes.
 - Maintain the ‘Magraa el Oyoun’ area because of its archaeological and historic character.
 - The government is targeting the completion of the first phase of the project in 2 years so that by the end of 2017-2018 the internal and external infrastructure and treatment plants for the second phase would be completed, in addition to allocation for housing of tannery owners in the production units of the first phase.
 - The government aims to transfer tanning activities from Misr Al Qadima to Al Robiki by the year 2030 to establish a specialized city for leather tanning and associated industries, doubling production capacity from 95 to 200 million feet², providing 20,000 jobs, and ending the pollution in Misr Al Qadima.

Establishment of a Furniture City in Damietta:

- **Project Description:** This project aims to increase the percentage of exports of furniture from 2% to 8% of the global market.
- **Project Key Elements:**
 - This project involves upgrading the infrastructure surrounding the city including roads and ports to facilitate the movement of goods, raw materials, and final product. In addition, a set of attractive incentives would be developed for investors.
 - By the end of 2017-2018, the infrastructure of the city and the first phase (industry and services) would be completed.

- Establish an Egyptian joint stock company for the implementation and management of the project with the purpose of the establishment and development of the city. This is underway.

Support heavy industries:

- **Program Description:** Resettle heavy industry on economic, environmental, and scientific foundations to build a strong industrial base. Develop an economic database to attract medium and small craft industries. The program would take more than 10 years to support heavy industry in full, and is high cost.
- **Program Key Elements:**
 - Target expansion of the industrial map aimed to increase value-added products for industrial projects.
 - Develop logistics associated with development of various industries, as well as roads and ports.
 - Expand use of renewable energy.
 - Recycle industrial waste.

Improve and develop the industrial zones of the Suez Canal project:

- **Project Description:** Intensify effort to exploit the location of the axis of the Suez Canal industrially to work on Egypt to be a central hub where economic activity is distributed through the expansion of the development and the establishment of industrial zones within the axis of the Suez Canal by the year 2025. This is a project with a high cost.
- **Project Key Elements:**
 - Integration of the Sinai in the industrial sphere of other Egyptian provinces and regions.
 - Develop the geographical area within the axis of the industrial areas.
 - Resettle industrial activities within those areas.
 - Establish a legal framework for the development and utilization of industrial land.
 - Attract and encourage investment and increase and diversify high value-added industrial exports.

Industrial map project:

- **Project Description:** Provide adequate data on industrial uses of all land to serve the purpose of industrial planning based on the analysis of information including geographic potential of the land, the natural resources of metallurgical and mining wealth, and the basic logistics and infrastructure—hubs, roads, services, population, and urban communities existing and new by 2030 data. The project is high cost.
- **Project Key Elements:**
 - Expand efforts to increase value-added products for industrial projects.
 - Develop logistics associated with various industries.
 - Provide opportunities for expansion in new and renewable energy applications in industry.
 - Increase recycling of industrial waste applications.

Establish small projects in the field of mobile retail outlets:

- **Program Description:** There is a need to develop retail services for mobile marketing outlets that use vehicles instead of shops, reducing investment and operating costs and increasing the desired profit margin along with ease of service and availability in places where they are needed. These mobile shops operate on the principle ‘from the producer to the consumer through a single intermediary.’ The project provides various job opportunities for young people and women.
- **Program Key Elements:**
 - Targets young graduates and job seekers across all governorates.
 - Establish about 5,000 projects.
 - Provides nearly 10,000 jobs.
 - Provides a market for traditional and handicrafts, and implements a quality assurance program in coordination with the Egyptian governorates.

Ships manufacturing strategy:

- **Project Description:** The project aims at activating the strategy of ship manufacturing, which has been prepared for the development of the industry in Egypt by 2030 because of its impact on the economy.
- **Project Key Elements:**
 - Develop and complete the Suez Canal ports and industrial areas.

- Activate marine logistics.
- Form shipping companies for the operation of vessels and the establishment of dry docks for repair and shipbuilding.
- Attract navigation agencies and companies to charge, discharge, bunker, tow, and rescue.
- Establish companies for the manufacture and repair of containers as well as plants for container handling.

Create clusters of agro-industries:

- **Program Description:** This program aims to expand the agro-industry and export subsidies from the sector through the empowerment of the agro-industrial centers and the creation of an enabling environment for the establishment of these industries. It also aims to achieve integration between the agricultural sector and the industrial sector and raise the value-added in irrigation water and agricultural crops by creating a relationship between the farmer and the manufacturer and to increase the economic value of agricultural products by 2020. The program is high cost. The project is expected to provide job opportunities for young people and women in rural areas.
- **Program Key Elements:**
 - Establish agro-industrial complexes.
 - Support the provision of a transport network and ports for these industries.
 - Provide incentives that encourage the expansion of agro-industries.
 - Develop the infrastructure of the agro-industrial complexes through partnerships between the public and private sector.
 - Prepare economic and social studies for each zone.
 - Prepare a clear map of the proposed areas.
 - Prepare pamphlets with the conditions required for private sector tendering.
 - Provide facilities and infrastructure for the agricultural and industrial areas.

Achieve transformation in the mining industry sector to support the development and competitiveness of the private sector and promote job creation in Egypt:

- **Program Description:** Create a major shift in the mining industries sector by assessing the current state of ore mining in Egypt and selecting five strategic raw materials. Create a favorable and enabling environment for private sector investment in improving the

added value of these raw materials that can be used to appropriate a mining environment for other ores in Egypt, and encourage the establishment of new companies, including small and medium enterprises. Provide decent and productive job opportunities, especially in remote areas, in addition to reducing the negative effects of mining activities on the environment and on the health of Egyptian citizens over the next 4 years. The program is medium cost.

- **Program Key Elements:**

Support the mining industry sector to contribute to economic and social development in Egypt, over the short, medium, and long term by:

- Increasing the added value of Egyptian mining ores.
- Encouraging local and foreign investment in the mining industry.
- Increasing Egypt's exports of mineral raw materials manufactured with high added value.
- Creating jobs, especially in remote areas.

The green economy program:

- **Program Description:** Support for the industrial sector to introduce the concept of the green economy in various activities in order to increase competitiveness and access to global markets, ensure environmental conservation and energy efficiency, make use of alternative energy, reduce the cost of production, optimize use of resources, and increase productivity.
- **Program Key Elements:**
 - The project is to be implemented as a pilot project in three industrial cities (Burj Al Arab, El Obor, and Sadat) over 3 years and then the model would be transferred to other industrial areas.

Foreign Trade Sector

The government's program for the next 2 years includes preparing a comprehensive strategy for the development of non-oil commodity exports and the trade balance control, resolving the Egyptian exporters' problems, developing the global markets, developing plans to control and reduce imports and adopt an import substitution strategy with domestic production, and attract more foreign direct investment. The following are examples of additional major programs in the sustainable development strategy to enhance the foreign trade sector and increase its contribution in the economy:

Construction of the Egyptian Trade Network (Egytrader)

- **Project Description:** Establish an integrated technological platform at the national level to link service providers (Port Authorities, Customs Agents, Supervisory Boards, and Logistics Centers) and beneficiaries (Exporters, Importers, Shipping Agents, and Customs Authorities) by 2020.
- **Project Key Elements:**
 - Provide a safe, rapid, and accurate exchange of information within the trade and logistics community inside and outside the ports. It would provide a transparent and fertile environment for investment consistent with applicable international regulations.
 - Maintain confidentiality of information and internal systems for all devices operating within the ports and provision of selected data points related to the organization in accordance with the rules of Service Level Agreements (SLAs).
 - Reduce the time, cost, and documents required to lower limits. Support companies in the sectors of trade and logistics for the formation of unions to integrate key trade and logistics unified platforms at the level of the Republic.
 - Adapt to completely or partially mechanized models at different ports.
 - Use technology that has proved efficient in international ports, airlines, banks, and others.
 - Provide services according to their availability and readiness of the various parties to provide services to the public, such as electronic files for exports and imports and follow-up examination of exports and imports of services and electronic payment messages in addition to the provision of external trade data and analysis.

The green economy project as a tool to achieve sustainable development in Egypt:

- **Project Description:** The United Nations Conference on Trade and Development (UNCTAD) to provide technical and administrative assistance to developing and least developed countries to maximize exports compatible with the environment (green products) and increase their access to markets by 2030 through a review of the national strategy for the sectors of green goods in these countries.
- **Project Key Elements:**
 - Implement and develop green economy policies.
 - Develop regulatory and institutional frameworks and cooperation mechanisms to enhance the capacity and efficiency.

- Support the competitiveness of the sectors of the green economy (environmental goods), which generate jobs and creates export opportunities.
- Achieve sustainable development through national policies that encourage the green economy.
- Increase Egyptian exports' access to markets.

Trade and Domestic Market Program (TDMEP)

- **Program Description:** Ensure access of Egyptian products of the highest quality to European markets, ensuring quality through control of the market over the next 3 years.
- **Program Key Elements:**
 - Provide technical support to the laboratories of the Public Authority for the Control of Antibiotics and Imports chosen for ISO 17025 certification.
 - Support and rehabilitate the currency dependence global specification 17020 as a global inspection and according to the international specification 17065 as a global version matching products certificates.
 - Provide equipment and technical support for the central management of information technology to support based on risk management examination.

Information and Communication Technology (ICT) Sector

In addition to continuous progress in building infrastructure, human capacity, and the legislative and institutional frameworks for the development of this sector, raising its contribution to economic activity, the strategy provides other programs and projects that will advance the telecommunications sector to achieve sustained economic development:

Transformation of Egypt into a global digital hub:

- **Project Description:** Exploit the various national assets for the development of Egypt as a global digital center, focusing on three areas: optimization of submarine cables, services of the Suez Canal Development Project, and advantages of the Technology Valley.

The project aims at making use of Egypt's unique geographical location, whereby 18 submarine cables with a total capacity of 8 terra house/second pass through, enabling us to enhance the benefit of cable passage and add many value-added services to make Egypt a digital services provider and an online global hub. In addition, the country would develop industries and information technology centers and improve the Egypt Centre in providing outsourcing services at the international level, in particular digital service in general by 2030.

The project aims to create new jobs especially for young people and women, as well as promote economic and social development as a means for realizing the state's plan for sustainable development.

The project is a mega national project as it contains a number of mega-projects that relate to many different industries and sectors of the state that require the installation of the necessary communications and information technology infrastructure for the implementation of these projects. The cost of this project is high. The project is divided into two phases; the first phase entails developing the exporting capacity of the telecommunications sector and information technology, while the second phase addresses the role of the ICT sector as a principal participant in the development of other sectors.

- **Project Key Elements:**

- Develop the Egyptian ICT sector to transform Egypt to a global digital path to increase its share in the GDP growth rate.
- Promote outsourcing industry in the various governorates through the establishment of communication centers with a competitive rent value and high-quality services for global corporations and through the creation of the technological investment zone to export information and communication technology services located in Maadi.
- Increase the number of skilled people that contribute to the Suez Canal Development Project (Technology Valley) through modern technological disciplines and applications from 17 to 40% from the total university graduates of the region with an employment rate of at least 80% by 2018, and increasing the percentage of graduates in the of modern technological disciplines and applications to 60% by 2030.
- Launch mega national projects such as Real Estate E-registration, smart water meters, and court automation.
- Promote e-commerce through the provision of an enabling and legislative environment, and provide electronic payment infrastructure through banking and non-banking systems. In addition to supporting small and medium enterprises and entrepreneurs to increase their business on the Internet in order to increase the expected rate of electronic commerce in the internal market to 7% of total e-commerce by 2015-2016, and 12% by 2018.
- Establish a global center to provide telecommunications services related to marine cables.
- Establish a free zone for telecommunications services and information technology.
- Establish companies for ICT in the free zone.

- Develop models for incentives and building human capacity.
- Establish large data centers and facilities for cloud computing and hosting.
- Establish digital media companies, and companies that specialize in the digital content industry.
- Support research and development and innovation in the ICT sectors.
- Provide infrastructure and information technology for the development of other sectors such as shipping, logistics, and energy.

National Project for a high-speed Internet:

- **Project Description:** The deployment of broadband services in Egypt through the enhancement of networks and services by the development of a combination of regulatory and investment packages over the next 4 years, where broadband service is a key driver for social and economic development required by many sectors of the state. The project is a medium cost.
- **Project Key Elements:**
 - Support the spread of high-speed Internet by 10%, leading to an increase in national income in small and medium-income communities by 1.38% (50,000 jobs).
 - Develop the required infrastructure.
 - Encourage governmental contribution to broadband projects and services.

Build a digital society to support and enhance the efficiency and transparency of all institutions:

- **Program Description:** Building an environment in which ICT helps to build a digital society where the technology is used to drive sustainable development and enhance the efficiency and transparency of government and private institutions. Provide high-quality IT services to citizens over the next 5 years. Develop a national digital platform to ensure seamless integration among the various systems and government databases, open those services to the private sector, develop necessary protection of rights and freedoms, and preserve the higher interests of the country. The project is of medium cost.
- **Program Key Elements:**
 - Integrate government systems to provide complex electronic services and ensure they are accessible to persons with disabilities.
 - Develop availability of governmental and non-governmental digital services and provide affordable and easy-to-use communications channels.

- Increase the proportion of acceptance of the use of electronic services among citizens and employees.
- Develop governance institutions and governmental and non-governmental bodies systems.
- Restructure national institutions.
- Implement and apply digital services.

Establish technological areas:

- **Project Description:** This project aims to create a knowledge-based society, a friend of the environment, and an atmosphere to encourage investment and strengthen the global position of Egypt. It would increase technological export earnings, increase competitiveness, and support economic development in the governorates. This would be made possible through establishment of a series of technological areas throughout Egypt as an attractive environment for local and regional companies and investors to work in various urban cities over the next 5 years. Establishment of these areas is expected to reduce internal migration from the provinces to Cairo by providing thousands of jobs in many sectors in the governorates outside Greater Cairo. The project is a medium cost.
- **Project Key Elements:**
 - Prepare feasibility studies for each business and technological area.
 - Prepare and establish the company that will manage construction and development of technological areas.
 - Develop partnerships with the private sector.
 - Plan, establish, and implement the main stages in all technological areas.
 - Design and implement a marketing strategy.
 - Manage facilities and technological infrastructure for the technological areas.

Develop cloud computing:

- **Program Description:** The project aims to increase and support reliance on cloud computing in the government sector to enhance performance and reduce costs, as well as to encourage a private sector model, and build a base for the development of an environment of public cloud, which in turn will support local companies. The project is medium cost.

- **Program Key Elements:**

- Prepare an initial policy for government cloud governance procedures and cloud development.
- Standardize data centers.
- Develop architectural framework.
- Develop and apply EG-Cloud.
- Develop general rules for using the cloud.
- Build and deploy public cloud services.

Develop information and communication technology industry:

- **Program Description:** Develop the telecommunications industry and information technology in order to increase its contribution to the GDP and its ability to generate new jobs.

- **Program Key Elements:**

- Provide adequate funding.
- Develop the capacity of companies.
- Organize and regulate trademarks in the markets.

Electronic design and manufacturing:

- **Program Description:** Enhance the electronics industry in Egypt by focusing on two main sectors: manufacturing solid electronic parts and systems, which in turn depend heavily on innovation, technology, and the electronic industrial services sector. Both are characterized by being labor-intensive and capable of generating new jobs.

- **Program Key Elements:**

- Establishment centers of excellence and innovation.
- Invite foreign direct investment in these industries.
- Develop the local and regional markets.
- Increase the yield of the electronics industry to \$10 billion by 2020 and \$80 billion by 2030.
- Attract manufacturers to the special economic zones.

- Develop trade agreements with Europe and Africa in this area.
- Support Application-Specific Integrated Circuit (ASIC)-based companies and develop a program to stimulate exports.
- Provide funding mechanisms and incentives to attract investment.

Develop entrepreneurship:

- **Program Description:** Take advantage of the creative energies of Egyptians and use them to ensure economic growth. This project aims to create small- and medium-sized enterprises and create jobs. The project also focuses on the importance of cooperation and integration between the government, industry, and citizens to promote economic growth over the long term. Such economic growth based on innovation and creativity would bring more job opportunities that would improve the quality of life for all Egyptian citizens.
- **Program Key Elements:**
 - Build capacity through education and training.
 - Develop innovation centers.
 - Develop funding methodologies.
 - Develop partnership programs.
 - Encourage innovation and entrepreneurship.
 - Develop innovation and systems management of intellectual property rights in small and medium-sized companies.

Agriculture Sector:

Increase agricultural area and support agro-industrialization:

- **Project Description:** The project entails reclamation of 4 million acres in a number of regions of the republic, and encouraging investment in agro-industrialization fields.
- **Project Key Elements:**
 - Promote inclusive societies within the new cities.
 - Support the overall sustainable development strategy objective related to increasing the urban area by about 5% of the total area by 2030 at a rate of 1% every 3 years.
 - Increase agricultural output and achieve self-sufficiency in some agricultural crops.

- Take into account the environmental dimension and the trend towards sustainable agriculture.
- Support agro-industrial development.
- Increase processed agricultural exports.
- Provide decent and productive job opportunities in the green economy fields.
- Promote modern biotechnology's use in Egyptian agriculture to meet export requirements, improve food processing, benefit from agricultural wastes, and rationalize the use of chemicals to achieve food health safety.
- Establish and optimize use of an agricultural information bank to provide agricultural information in a comprehensive and accurate way.
- Support the government program to develop ago-industrialization to increase agricultural value-added through upgrading quality, preparing manufactured products for export, establishing productive villages specializing in industries based on agricultural products such as olives, dates, milk, summer silk, and rural traditional crafts, increasing the number of small and medium agro-industrial projects in different regions, and issuing a unified law for food production and handling.
- Expand biotechnology use in agricultural development to develop new varieties tolerant to limited water, soil salinity, and high temperatures and produce varieties resistant to diseases and pests. Improve the nutritional content of some plants as well as increasing dairy and meat productivity.
- Introduce nanotechnology in agricultural development to improve water quality, solve the water pollution problem, and have our own technology instead of external dependency until 2018.
- Expand organic agriculture to allocated space in reclaimed areas and open new prospects for export. Increase the production of bio-components and develop their efficiency (pesticide alternatives, vital fertilizer, and organic substrates), through recycling agricultural wastes and production of organic substrates. Prevent or rationalize the use of fertilizers and chemical pesticides, and benefit from natural materials as sources for non-chemical fertilizers that are allowed in organic agricultural systems.
- Issue and activate the Egyptian organic agriculture law and legalize the Egyptian registration and inspection offices. Establish compost manufacturing units.
- Implement an inclusive national program for agricultural guidance for all Egyptian villages over the next 2 years.

- Increase production of major crops such as wheat through planting 4 million acres to produce 11 million tons by 2018, while improving productivity by deploying the cultivation of new varieties and implementation of the specific technical recommendations packages, and reducing waste, which would save about 1 million tons of production.
- Allocate 33,000 acres until 2018 to increase cotton production and pure seed for all varieties either for export or those suitable for the textile industry, with expansion into modern varieties to produce sufficient quantities for the local textile industry.
- Continue efforts to reduce water-consuming crop production, with a focus on reducing rice-cultivated area, which would save large amounts of irrigation water, while maintaining total production and export surplus through increasing productivity and expanding hybrid rice cultivation.
- Increase areas in the new territories within the future expansion plan for the 1.5 million acres, and increase horticultural crop production through expanded use of glasshouses.
- Expand sweet corn and maize production and reduce areas of white corn to fill the gap in domestic sweet corn production, which represents 75% of demand.
- Promote rural industries and export-oriented industries in the rural sector, as the rural non-agriculture sector is one of the most promising sectors in contributing to generate job opportunities for low-income groups, particularly women.
- Enhance the efficiency of field irrigation in the Valley and Delta lands by replacing canals with plastic pipelines or lining them and establishing uniform lifting points and valves for water inlets, expand land grading by laser, and upgrade water rations for crops by using climate data.

Create assembling points and storage facilities for strategic goods:

- **Project Description:** This project aims to build a network to collect and store agricultural crops in strategic locations throughout the country, in order to strengthen farmers' access to markets and reduce losses resulting from transport and storage. This project provides job opportunities for young people, women, and the disabled.
- **Project Key Elements:**
 - Establish logistical-agricultural centers through partnerships between the public and private sectors.
 - Increase profitability through leasing or trade.

- Develop the surrounding areas of strategic logistics centers for major foods such as flour, tomato sauce, and oil projects. Do the same for lesser foods such as frozen corn, pickle, and olive industries.
- Build strategic storage centers and 330 collection points.
- Coordinate in order to maximize the use of domestic production of strategic goods.

Develop aquaculture projects:

- **Project Description:** This project aims to promote and facilitate investment in fish farming activities in order to reduce the challenges of food self-sufficiency, and reduce Egypt's imports of fish, and to build on the competitive advantage of Egypt from the availability of inputs required for this activity including water, land, labor, and climate.
- **Project Key Elements:**
 - Establish new fish farms.
 - Reform the legislative environment to attract investment in this economic activity.
 - Establish cooperative societies for fish cultivation.
 - Establish a committee to encourage exports of fish under the supervision of the Export Council for Agricultural Crops.

Establishing a ‘center for modernization of agriculture’:

- **Project Description:** This initiative aims to establish a new entity that is capable to lead and manage the implementation of the development of the agricultural sector initiatives, in collaboration with the private sector.
- **Project Key Elements:**
 - Establish a center for the modernization of agriculture as an independent entity under the supervision of the Ministry of Agriculture and Land Reclamation.
 - Encourage collective farming through the reform of agricultural cooperatives and the promotion of agricultural exports. Launch a program for land allocation, purchase, and re-allocation to stimulate the acquisition of land and improve infrastructure. Establish legislative agricultural extension centers.

National program for the development of livestock, poultry, and fish resources:

- **Program Description:** Develop an inclusive national program to maintain and develop the current livestock and poultry industries, and the fisheries, to meet growth in demand, increase supplies, improve quality, and reduce costs.

- **Project Key Elements:**

Livestock

- Reduce or eradicate infectious animal diseases, raise animal productivity and reproductivity, start a national project for livestock insurance, and expand support for projects to fatten veal at the national level.
- Establish an integrated system for numbering and registration of animals, expand livestock production projects on reclaimed land, and increase the percentage of artificial insemination and embryo transfer.
- Support early warning systems for internal and external diseases and update the epidemic map for various factions of diseases.
- Activate the insurance umbrella—the livestock insurance fund--to promote cooperatives in the area of animal production and the use of non-traditional feed. Establish slaughterhouses, model dairies, and milk collection centers.

Poultry

- Take necessary measures to contain avian influenza and provide poultry vaccines to cover the needs of birds through encouraging the participation of civil society associations and pharmaceutical and vaccine companies in the awareness programs.
- Simplify the licensing procedures for the establishment and operation of farms in the new desert areas.
- Expand model slaughterhouses, particularly in the governorates with higher density in production. Continuously develop vaccines in accordance with the viral alterations and disease map.

Fisheries

- Increase fish production to around 12% annually so that production from the Nile River would rise by 7% annually, and about 13 and 20% annually from lakes and seas respectively.
- Reduce the number of agricultural drainage sources to reduce pollution and create fish hatcheries in the lakes on the Mediterranean and the Red Sea shores.

Water and Irrigation Sector:

The government will launch an ambitious program to preserve water resources, rationalize irrigation, and reduce water loss based on several major pillars including:

Establish new communities to achieve inclusive development:

This project includes the development and reclamation of 1.5 million acres (the new Egyptian countryside), the project to complete the national infrastructure for the development of the Northern Sinai on 400,000 acres (Al Salam Canal), and the project to complete the Sheikh Zayed Canal in the South Valley on 540,000 acres (Toshka).

Rationalize water use:

This project aims to switch from flood irrigation to modern irrigation systems and develop efficiency of canals, while reducing the cultivation of rice.

Strengthen and rehabilitate main canals and lift stations:

This project aims to achieve optimum control of water flows and improve irrigation through implementation of the protection of the High Dam and reinforcement of the Aswan reservoir, establishment and strengthening of barrages, and improving irrigation facilities and lift stations.

Address climate change and coast and facilities protection:

This would develop the inlets of the Northern Lakes and develop and protect the coasts and beaches from the risks of erosion and sea level rise. It would also introduce the use of solar power to operate lift pumps and wells to reduce greenhouse gas emissions.

Water resources development:

Develop new ways to reuse treated agricultural wastes and wastewater according to modern specifications, and expand use of ground water and rainwater collection.

Improve water quality:

Preserving the environment and protecting public health is one of the top priorities in the government program. It intends to cover the waterways into residential blocks and implement programs for monitoring and following-up the water resource system of Lake Nasser and the Nile with its two branches, canals, and drains, and groundwater along with sewage treatment on the waterways.

Expand the sustainable development programs for Nubian sandstone and brackish water reservoirs:

Increase the efficiency of surface irrigation of increased agricultural production in developed irrigation areas by about 30%. Develop a strict system to prosecute unlicensed well users and issue a water law to ensure efficiency of use. The draft law stipulates punishment for whoever causes pollution of water, as well as non-compliance with the requirements for obtaining licenses.

Develop groundwater and combat violations:

Develop the management of groundwater systems and periodically monitor underground reservoirs in quantity and quality. Implement groundwater treatment plants.

Develop a covered drainage network program:

Increase area for covered drainage networks by 100,000 acres through construction and replacement projects. Increase the area of the covered draining system by 480,000 acres by 2017-2018. Establish industrial works such as bridges.

Expand general and covered drainage projects for broadening and deepening open public drains in new and reclaimed areas to add an area of 10,000 acres in 2015-2016, and an area of 44,000 acres by 2017-2018, covering an ownership of 25,000 acres at the present.

Tourism Sector:

Develop the Pyramids area:

- **Project Description:** Revive cultural tourism around the pyramids through the design of an integrated tourism project. The project is high cost.
- **Project Key Elements:**
 - Design investment and model operations plans.
 - Develop a detailed work plan.
 - Produce detailed engineering and architectural drawings taking into account the availability of the status code.
 - Prepare a feasibility study for the project.

Create resorts taking into account the environmental quality in the Western Desert:

- **Project Description:** Exploit domestic assets as oases to attract tourists with high spending power. The project is medium cost.
- **Project Key Elements:**
 - Identify areas of convenience for the establishment of these projects.
 - Ensure adequate infrastructure and logistics for easy access for tourism development.

Establish archaeological museums in Sharm el-Sheikh and Hurghada:

- **Project Description:** Introduce cultural products to attract repeat visitors who come to the beaches in Sharm el-Sheikh and Hurghada. The project is medium cost.
- **Project Key Elements:**
 - Design theme and the story of the museums.

- Develop a plan of action, including economic and financial feasibility of the museums.
- Secure necessary approvals from the Ministry of Culture to take advantage of original and replica artifacts.

Create healthy eco-friendly resorts:

- **Project Description:** Exploit natural domestic assets such as therapeutic waters to attract high spending visitors to tourism with a healing nature. This is a high cost project.
- **Project Key Elements:**
 - Develop logistics infrastructure necessary to ensure easy access and mobility.
 - Develop an agreement with investors for therapeutic tourism development of the region with economic security guarantees.

Encourage transformation of the tourism sector to a green economy:

- **Program Description:** This program is based on the principle of preserving the environment, the increased importance of the role of environmental and climate protection in sustainable tourism, and that tourist activities require a clean environment, and society-friendly tourism should be economically feasible.
- **Project Key Elements:**
 - Design and implement initiatives to promote the introduction of clean energy technologies in the tourism sector, obtain the 'Green Star Hotel' certification, expand use of renewable energy by using solar water heaters and the use of energy-saving systems, including energy-saving light bulbs and adopting smart lighting systems.
 - Design and implement a pilot program to meet the challenges facing the hotel sector in terms of higher prices for energy products as well as reduced occupancy.
 - Build strong working relationships based on mutual interests with business partners at the local, regional, and international levels to disseminate and apply the concepts of green tourism. Continue to exchange experiences with international partners including the World Council for Sustainable Tourism and the African Alliance for Green Tourism. Coordinate with relevant local actors such as the Egyptian Council for Competitiveness, the New and Renewable Energy Authority, Electricity Regulation and Consumer Protection Agency, the investors' associations in the tourism sector, and the Chamber of Hotel Facilities.

Create racetrack and yards for sporting championships:

- **Project Description:** Exploit the vast land available in tourist areas for the implementation of complementary projects to attract international sports tourism. This is a high cost project.
- **Project Key Elements:**
 - Determine proposed sites for the establishment of sports racing tracks and assess the legal and technical situation of the project.
 - Implement measures to facilitate the acquisition, leasing, and licensing of the land.
 - Provide incentives for investment in the field of sports tourism.
 - Provide supportive services for such projects.

Review and apply sustainable regulations:

- **Program Description:** Review existing regulatory environmental laws in line with global trends, and allowing application and reduction of the negative impact of tourism on the environment. The project is low cost.
- **Program Key Elements:**
 - Move towards achieving outstanding green tourism destinations.
 - Formulate regulations to motivate service providers such as hotels and restaurants to abide by the concepts of sustainability.
 - Coordinate workshops with key partners and service providers to increase environmental awareness.

Establish tourist and residential clusters on the North Coast:

- **Project Description:** Create tourist concentrations over large areas containing all living requirements and provide high quality facilities to attract foreign and Arab families to spend their long-term vacations in Egypt. The project is high cost.
- **Project Key Elements:**
 - Conduct feasibility studies and identify suitable land for the project.
 - Provide infrastructure for the project.

Apply a refunded value-added tax system to increase tourist spending on shopping:

- **Program Description:** Review existing tax systems that apply a refund of the value-added tax on goods to increase the amount tourists spend on goods. The project is low cost.
- **Project Key Elements:**
 - Study programs in place in many countries of the region.
 - Launch an international tender to select a company with better access to such programs.
 - Establish the proposed tax structure.
 - Develop a model to assess the proposed tax structure.

Adopt an open sky aviation policy:

- **Program Description:** Evaluate the requirements of open skies aviation programs and their repercussions on the ecosystem, on tourism, on aviation, and the implications of the open skies aviation programs on the various stakeholders such as airports, tourism, and Egypt Air. The project is medium cost.
- **Project Key Elements:**
 - Studying the open skies aviation programs and their implications for existing regulations in the Egypt Air Requirements.
 - Assess the readiness of Egyptian airports to implement open skies aviation programs.
 - Develop a plan for implementation phases.
 - Develop service level agreements with service providers to ensure the highest standards of quality in services.

Establish training centers according to international standards:

- **Project Description:** Build training centers to provide programs designed specifically to describe the development of the necessary skills for workers in the tourism sector. The project is high cost.
- **Project Key Elements:**
 - Adopt a national plan of education and training for human development in the field of tourism.

- Prioritize implementation of the training centers on the basis that implementation of the project would start in low-skill areas.
- Identify programs and courses to meet staff requirements and improve skills, for example, focus on language skills for individuals who do not speak English.
- Employ professional trainers.
- Create centers for the dissemination of awareness programs.

Legislative and legal development:

- **Program Description:** Speed up revision of laws and legislation in the field of tourism, hotels, and the aviation industry. The program is medium cost.
- **Program Key Elements:**
 - Plan legislative and legal development.
 - Identify priorities to amend laws and legislation.
 - Employ professional law experts.

Supply and Internal Trade Sector:

Establish a global logistics center for trading and manufacturing grain and foodstuffs in the Damietta project:

- **Project Description:** This project aims to make Egypt a global logistics center for handling, storage, processing, and all value-added activities associated with grain, including manufacturing and packaging of oil producing grain and seeds and refining oil and raw sugar and other related foodstuff that are strategic commodities and products to achieve food security for Egypt and the states of the region.
- **Program Key Elements:**
 - Receive and handle grains and cereals such as wheat, corn, and soya received from producers in Northern and Eastern Europe, Central Asia, and North and South America through 4-6 berths.
 - Store grain and seeds in modern silos and fiberglass domes with advanced systems for maintaining quality and ventilation of grain with the latest scientific methods.
 - Establish value-adding industries for processing grain and seeds for the service of domestic and international markets with a total capacity of approximately 7.5 million tons annually over four modern industrial zones: the Industrial Zone for Milling and Production of Fine Flour, for Soya Industries, for Corn, and for Sugar Refining and

Filling, in addition to an industrial zone for complementary industries based on the above mentioned industries.

- Re-export seeds, grains, and manufactured goods to foreign markets.
- Ship processed and unprocessed seeds and grains and various food commodities within the Republic by using river transport and railway networks.

Develop subsidiaries of the Holding Company for Food Industries:

- **Project Description:** A development plan has been prepared dependent mainly on the optimum economic management of the holding company for food industries and subsidiaries, using modern scientific management mechanisms with a focus on the development of the performance of all activities of the holding company and its subsidiaries to achieve higher production of different products, which contribute effectively to the achievement of desired abundance of goods in the markets and helps stabilize prices and increase the rates of growth of the Egyptian economy to achieve the key strategic objective of the “Sustainable Development Strategy: Egypt Vision 2030.”
- **Program Key Elements:**
 - Develop employment policies by reviewing basic work regulations and financial regulations in line with current developments, while achieving the future vision for different activities.
 - Develop and update the organizational structure of the subsidiaries of the Holding Company for Food Industries to implement key tasks such as marketing, production, supervision, follow-up, and control efficiently; and complete the study of the current shortage of possibilities and effects on the specialized efficiency of the Holding Company and its subsidiaries such as transportation of all kinds, specialized equipment, production equipment and lines, modern automated systems, and trained personnel.
 - Assist in strategic projects for food industry projects such as logistic areas, industrial cities, factory development, new Suez Canal project, North and South Sinai governorates, and Upper Egypt.
 - Establish or construct no new projects without economic feasibility studies using specialized experienced firms.
 - Automate all activities of the subsidiaries using information systems software to achieve many advantages, most importantly the provision of the best alternatives for specialized decision making, rapid access to data, and development of the current performance method for tasks to achieve full control.

- Integrate the performance of all subsidiaries in matters such as information exchange, deployment of scientific thought, uniting efforts to provide raw materials, equipment, and similar product lines, and expanding and optimizing exploitation of sites and assets for the highest comparative advantage and value added.
- Cooperate with all specialized scientific and research parties to improve performance for all disciplines to achieve management of production and sales operations using scientific methods with optimization of their use for the benefit for the companies.

Develop garner projects:

- **Project Description:** This project aims to raise available storage capacity and reduce the rate of loss of stored wheat and grain by connecting the garners with electronic operating systems with a high level of precision that ensures safety and monitoring of the garners and wheat.
- **Program Key Elements:**
 - Develop and implement a number of garners, including 105 garners out of which 23 garners would be at company sites by fiscal year 2015-2016.
 - Connect the garners with electronic operating systems with a high level of precision that ensures safety and monitoring of the garners and grains.

Silos projects:

UAE-funded silos projects:

- **Project Description:** This project is an enormous addition to the available storage capacities of the country.
- **Program Key Elements:**
 - Establish 12 silos with a storage capacity of 60,000 tons each and a total capacity of 720,000 tons.

Italian debt exchange project:

- **Project Description:** Establish 10 horizontal silos, 2 logistics areas and 1 vertical silo.
- **Program Key Elements:**
 - Establish 10 horizontal silos with a total capacity of 165,000 tons over 5 sites.
 - Establish 3 logistics areas in Kom Abu Radi, Al Wasta in Beni Suef Governorate, and Abu Khalifa in Ghantara Gharb, Ismailia Governorate.
 - Establish a vertical silo in Shata in the Damietta area.

Building a network to monitor markets and provide early warning:

- **Project Description:** This project aims to prevent harmful practices to the health and safety of consumers and prevent unjustified changes in prices of products, especially of fruits and vegetables.
- **Program Key Elements:**

Exchange information among the various regulators in the Egyptian market about products that have reached the market and are causing a risk to consumer health and safety to achieve the following:

- Using the system as an effective tool for market monitoring.
- Prevention of harmful products reaching the Egyptian market and protecting consumers from possible risks.
- Registering notifications of foodstuffs to be withdrawn from the market.
- Taking advantage of daily monitoring by the Central Agency for Public Mobilization and Statistics (CAPMAS) through 15,000 monitoring points nationwide to identify areas of unexplained changes in prices of goods, particularly of fruit and vegetables. The Ministry of Agriculture, Ministry of Supply, young graduates, and the armed forces can then increase supplies at outlets at reduced prices, resulting in automatic balance for commodity prices.

Develop partnerships between the public and private sectors in the internal trade sector:

- **Program Description:** Establish commercial projects and logistics zones in different Egyptian governorates during three phases:

First phase: governorates of Dakahliya, Kafr el-Sheikh, Beheira, Beni Suef, and Luxor.

Second phase: governorates of Port Said, Gharbia, Dakahlia, and Kafr el-Sheikh.

Third phase: governorates of North Sinai, South Sinai, Ismailia, Eastern, Fayoum, Minya, Assiut, Sohag, Qena, and Aswan.

- **Program Key Elements:**

Divide the governorates into three divisions per capita:

- 18 cm² in urban governorates: Cairo, Giza, Alexandria, Port Said, and Marsa Matrouh.
- 50 cm² in tourist governorates: South Sinai, Red Sea, and Luxor.
- 4 cm² in other governorates: Damietta, Dakahlia, North Sinai, Ismailia, Kafr el-Sheikh, Qalubia, Suez, East, Lake, Menoufia, Qena, Aswan, Fayoum, Beni Suef, Minya, New Valley, Assiut, and Sohag.

Housing Sector:

Reform the institutional environment in the housing sector:

- **Program Description:** This program aims to restore balance in urban development and increase private sector involvement in the housing sector, in addition to providing affordable, decent housing for a large segment of citizens.
- **Program Key Elements:**
 - Develop and implement a framework for land management to facilitate allocation of land to real estate developers.
 - Activate the real estate market and the Real Estate Registration Act as well as establish and operationalize the union for real estate developers, and the creation of a fund that guarantees the development of real estate projects.
 - Expand the services provided in the housing assistance program to cover the low-income residential sector that is unable to buy a residential unit.
 - Complete development of slums with application of the availability code in accordance with the priorities of the national plan.
 - Monitor implementation of the property registration system for all regions.
 - Establish a system for monitoring the maintenance of buildings in order to extend the life of existing structures.
 - Develop a plan for the gradual liberalization of rents.

Create a new generation of new cities on the new national roads:

- **Program Description:** This program aims to establish the new administrative capital East of Cairo (as described in the framework of great national projects), the new city of El Alamein, the new city of Toshka, the new city of Farafra, and East Port Said City.
- **Program Key Elements:**
 - The total area of the new city of El Alamein is 49,000 acres with a target population of about 2 million people.
 - The total area of the new city of Toshka is 3,000 acres to accommodate 80,000 people, to provide 30,000 job opportunities, and to be integrated with rural villages surrounding the Toshka Project, including services and light manufactures, agricultural industries, and recreational activities.

- The new city of Farafra includes three villages, including two farming villages and a full services and utilities village with a total area of 1,600 acres.
- The total area of East Port Said City is 12,000 acres and is the first new coastal city east of the Suez Canal to serve the purpose of the development of the Suez Canal area aimed at absorbing more than half a million people at the completion of its growth.

Transportation Sector:

Develop and extend the road network for development purposes:

- **Project Description:** Develop the existing network of roads in order to facilitate movement of people and goods throughout the Republic and improves connectivity indicators.
- **Program Key Elements:**
 - Develop the Mediterranean and Sinai routes for the development of traverse roads along the Mediterranean coast and within Sinai Governorate.
 - Implement the Cairo–Damietta–Port Said route to develop the roads from Cairo to the ports of Port Said and Damietta on the Mediterranean coast.
 - Implement the Red Sea route and develop the coastal road on the Red Sea, contributing to the service of the Safaga mining port development project.
 - Implement the Upper Egypt route for the development of roads and railways along Upper Egypt on both sides of the Nile.
 - Implement the Suez development route and develop the roads in the Delta.

Development of the railway network:

- **Project Description:** Develop an inclusive program for Egypt's railways with the aim of improving the service provided by the road transport sector.
- **Program Key Elements:**
 - Renovate and develop mobile units and renewal of wagons.
 - Supply, manage, and operate the VIP line between Cairo and Aswan at a special price.
 - Establish the Alexandria–Aswan high-speed rail.
 - Create a new power line linking the governorates of Luxor and the Red Sea.

- Develop the productive authority and subsidiary workshops to raise the efficiency of maintenance of tractors and wagons.
- Create a workshop for manufacturing railway and metro wagons in Abu Zaabal district over an area of 126 km.²
- Develop control systems and provide security through developing and updating the crossings and signal control systems.
- Develop and update the fixed installations on the lines in stations, at railway crossings, and replace the rails.

Develop the maritime transport sector:

- **Project Description:** This program aims to increase the capacity of many ports including the ports of Alexandria, Port Said, Damietta, Nuweiba, Sharm el-Sheikh, Suez, Hurghada, and Safaga, and enhance the services provided.
- **Program Key Elements:**
 - Establish projects to replace and develop piers and dry docks and establish logistics zones.
 - Develop the loading and discharging systems to reduce ship waiting time.
 - Develop and update the work environment within the ports and electronic connectivity for work systems within each port.
 - Exploit all available space and warehouses within the ports.
 - Implement the one-stop shop project to facilitate dealing with the public.
 - Upgrade the equipment used in securing the ports.

Develop the river transport sector:

- **Project Description:** Raise efficiency of maritime transport across the river Nile and its shipping lines and develop it to achieve optimal exploitation based on technical and economic foundations.
- **Program Key Elements:**
 - Cleanse, improve and maintain shipping lines to achieve optimum use and to divide them into lines for the transport of goods and of passengers.

- Enhance river transport infrastructure to attract internal and external investment in maritime transport projects for passengers and for goods to participate in projects, reduce dependency on the government budget, and achieve self-implementation of the Authority's projects.
- Contribute to reducing roads damage by transferring 28% of goods across the Nile and its tributaries.

Second Pillar: Energy

Overview of Current Situation

The energy sector is mainly responsible for providing for the energy needs for all economic sectors as well as families, in addition to increasing the sector's contribution to GDP. In order to achieve sustainable development, the energy sector has to take into account national and global environmental considerations and standards, besides reaching the 7th goal of SDGs, "affordable and clean energy."

The energy sector in Egypt is mainly dependent on fossil fuels (oil and natural gas), particularly natural gas due to the expansion of explorations for new gas fields in the Western Desert and offshore, as well as relatively stagnant oil production. Egypt's oil and natural gas production rates have decreased in the last few years due to the general political and economic unrest, also because of the unsigned concession and exchange agreements during the years 2010-2012. As for electricity, most is produced via thermal power plants, whose main operational capacity depends on steam turbines. One-third of the production facilities have been in service for more than 20 years.¹ The energy sector contributes nearly 20% to GDP, especially through direct foreign investment. Notwithstanding that, it's been noticeable lately that there has been decreasing investment during the period from 2009-2013 by 6% especially in the exploration and development fields.²

Energy subsidization represents a burden on the Egyptian economy. The state general budget for the fiscal year 2012-2013 included subsidies of LE 120 billion for petroleum products, whereas it reached LE 126.2 billion for the fiscal year 2013-2014; however, due to the government's approach towards phasing out subsidies in the 2014-2015 budget, it was reduced to LE 100.3 billion.³

Egypt is earnestly trying to increase energy production: 36 new concession agreements were signed during the fiscal year 2013-2014 in addition to 20 other agreements currently being drafted.⁴ Also, the state is seeking new variations in its energy mix through relying on renewable energy sources, especially wind and solar power. Egypt exploits almost all of its hydroelectric energy and nearly 5% of Egypt's electricity generation depends on it.⁵

The Egyptian government has launched several initiatives to reform the energy sector institutionally and legislatively to encourage the private sector's participation, especially for building wind and solar power farms, in addition to encouraging technological solutions and applications for rationalizing energy consumption and optimizing exploitation of available energy

¹ Egypt Economic Recovery Plan, unpublished report

² Ibid

³ Ministry of Finance, the financial monthly report, September 2015

⁴ Egypt Economic Recovery Plan, unpublished report, and the American Chamber of Commerce's report on energy in Egypt, 2015.

⁵ Ibid

resources and reducing the west. And in its quest for variation of the energy mix, the government approved the use of coal in electricity generation or as an alternative fuel for some industries since 2014 and encouraged applying sustainable and environmentally friendly technologies. As the State continues its efforts to expand the use of nuclear energy, it has started building Al Dabaa nuclear power plant project. For the short-term, the State's initiatives will concentrate on supporting the production of oil and gas alongside with the reform of the subsidization system.

Strategic Vision for Energy to 2030

An energy sector meeting national sustainable development requirements and maximizing the efficient use of various traditional and renewable resources contributing to economic growth, competitiveness, achieving social justice, and preserving the environment. A renewable energy and efficient resource management leader, and an innovative sector capable of forecasting and adapting to local, regional, and international developments and complying with SDGs.

Strategic Objectives for Energy to 2030

Energy strategic objectives to 2030 include:

Objective	Definition
Ensuring energy security	Providing the required energy while maintaining the aspired growth rates
Increasing the contribution of energy sector to the GDP	Increasing the share of energy sector to the GDP
Maximizing utilization of domestic energy resources	Increasing the energy production of local resources and maximizing its reliability
Enhancing rational and sustainable management of the sector	Working on the energy mix to reach international levels
Reducing the intensity of energy consumption	Reducing energy consumption rate for all sectors
Limiting the environmental impact of the sector's emissions	Reducing the levels of sector's emissions and pollutants

The first strategic objective aims to provide energy supplies required to fulfill the needs of the productive and household sectors in a sustainable manner. This objective includes providing the

required infrastructure for importing and transferring energy to fulfill all needs of productivity, household, or other needs. In order to achieve that, the optimum energy mix should be identified as a cost and as an energy production rate. It also includes the role of stakeholders in developing the reliability of renewable energy resources and increasing the efficiency of energy use in order to achieve energy security.

The second objective of the economic aspect of the energy sector including the energy contribution to GDP through export of petroleum or electricity products, or by providing sustainable technologies for the renewable energy fields and selling it to other countries such as smart meters and solar energy generation products. Also to provide the energy needs to economic sectors and household sector.

The third objective aims to maximize the use of local energy resources through increasing the efficiency of production plants and sustainable rational management of the sector's institutions. For example, increasing the efficiency of electricity production plants either administratively, economically, or technologically and reduction of losses in transfer and distribution. As for the petroleum sector, the sustainable technologies needed would be provided to achieving maximum efficiency of exploration in addition to enhancement of supply networks for petroleum products such as gas and oil.

The fourth objective focuses on enhancing rational and sustainable management of the energy sector to reach international levels of the energy mix.

The fifth objective aims to reduce the intensity of energy consumption by rationalization of energy consumption rates for all sectors.

The sixth objective aims to limit the environmental impact of the energy sector's emissions by providing the needed sustainable technology and applying legislative regulations to guarantee citizens' safety against these various emissions caused by production, transfer, or usage. It is worth mentioning that this objective concerns enhancing the efficiency of the current energy production plant and limiting global warming gases.

Key Performance Indicators for Energy to 2030

Quantitative Indicators

S.N.	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Ratio of primary energy supply to the total planned energy consumption (%)	Measures the State's ability to meet its energy needs by comparing the primary supply of energy (domestic production and imports) with expected energy consumption. It will be measured quarterly in order to meet any significant increases in demand	*	100%	100%
2	Strategic results	Average duration of outages	Measures the degree of electricity provision, taking into account the access degree to the consumer	*	0	0
3		Percentage change in energy intensity	Reflects trends in the ratio of total energy use to the GDP	The intensity value of the base year (2010): 0.65 ⁽¹⁾	-1.3%	-14%
4		Contribution of energy sector to GDP %	Measures the contribution of the energy sector to the GDP	13.1% (7))	20%	25%
5		Percentage decline in greenhouse gas emissions from the energy sector	Measures the total greenhouse gas emissions produced during the production, transfer, and use of energy	*	-5%*	-10%*
6	Outputs	Crude oil reserves (years)	Shows the future ability to meet the needs of domestic crude oil production	15 ⁽²⁾	15	15
7		Natural gas reserves (years)	Shows the future ability to meet the needs of domestic natural gas production	33 years ⁽²⁾	33 years	33 years
8		Efficiency of electricity production	Measures the thermal efficiency for electricity production by comparing the total input with the total output	41.3% ⁽³⁾	*	*

9	Efficiency of electricity transmission and distribution	Measures the efficiency of electricity systems by calculating the total losses during the transmission and distribution process	15% ⁽⁴⁾	12%	8%*	
10	Percentage of residential, commercial, and industrial buildings connected to electricity	Measures the progress achieved regarding the connection to electricity service for all kind of building units	99 ⁽⁵⁾	100%	100%	
11	Percentage of primary fuel mix	Shows the optimal fuel mix of all primary resources.	Gas: 53% Oil: 41% Renewable: 1% Coal: 2%	*	*	
			Hydro-electric: 3% ⁽¹⁾			
12	Percentage of fuel mix for electricity production	Shows optimal mix of various resources used to produce electricity, including both fossil fuels and renewables	Oil and Gas: 91% Hydro-electricity: 8% Solar and Wind: 1% ⁽⁴⁾	*	Oil and Gas: 27% Hydro-electricity: 5% Solar: 16% Wind: 14% Coal: 29% Nuclear: 9%	
13	Value of fuel subsidy	Measures the value of fuel products, which are planned to be redistributed	LE 126.2 billion in 2013-2014 ⁽⁶⁾	0	0	

¹ Egypt, Economic Recovery Plan, unpublished report

² BP Statistical Review, 2014

³ Electricity Regulation Authority and Consumer Protection report, the Holding Company of Electricity, 2013

⁴ Ministry of Electricity and Renewable Energy

⁵ Central Agency for Public Mobilization and Statistics, statistical yearbook, 2014

⁶ Ministry of Finance, the financial monthly report, September 2015

⁷ Ministry of Planning, Monitoring, and Administrative Reform (GDP data in 2013/2014)

Suggested New Indicators

Indicator Category	Indicator	Reason	Measurement Mechanism
Outputs	Efficiency of transportation and distribution of petroleum products	Reflects the efficiency of delivery systems for petroleum products to different consumers	Will be measured by an equation that includes the demand, supply (includes local production and imports), and inventory of various petroleum products, whereas consumption will be measured via new smart cards introduced by the government

Challenges of Energy

The energy sector faces three groups of challenges:

The first group of challenges is high impact and relative ease of control:

- **Legislative and monitoring trends affecting feasibility of the decision making process.** This challenge leads to stalling business activities and increases bureaucracy due to fear of legal responsibility in case of worker problems; hence there is a need to create balance between disciplinary actions according to the type of violation to be deterrent to officials who waste the country's national resources and play around the nation's future and hold everyone who cause delays to the work's achievement to be accountable for his deeds.
- **Lack of investors' trust in the government's ability to commit to financial responsibilities** due to the public debt accumulation and the delay of financial payments due. These causes leads to reduce the investments in various levels of the value chain.
- **State monopolization of importing or exporting petroleum products.** There is an urgent need to liberalize energy markets by preparing legislation to encourage the private sector to participate in import and export of petroleum products and participate in achieving energy security.
- **The absence of a specific agency responsible for the preparation and implementation the sector's strategy.** The absence of an integrated and sustainable plan for energy production leads to multiple losses in various sectors and the inability to anticipate the recurring challenges in the various stages of the value chain, production, and trade. In addition to the need for a futuristic vision for the energy sector in order to raise production efficiency and achieve the desired development rates.

- **Lack of required accurate data and information.** Data and statistics for the energy sector are the main determinant of the level of progress achieved in various objectives and indicators. Availability of required data must be ensured to decision-makers.

The second group of challenges, which is of relatively low impact and less ability to control, includes:

- **Lack of integrated subsidy management plan.** A unified plan should be prepared for the energy sector through coordination between the electricity and oil sectors, and to be integrated with Egypt's unified subsidy plan.
- **Absence of clear identification of energy subsidy beneficiaries,** which causes uneven distribution of subsidies and forms a significant financial burden on the State's general budget while not delivering support to those who deserve it.
- **Absence of a unified utility for energy regulation.** This challenge causes conflicts of interest between the electricity and petroleum sectors. In addition, there isn't a specific authority responsible to prepare an integrated and sustainable plan for energy and to protect consumers and investors.
- **Unfair competition between the private and public sectors.** There is conflict of interest due to the role of the State as regulator and investor and the government participation in various value chain levels, as the government plays the role of the regulator, investor, and operator at the same time and thus the energy sector needs liberalization.
- **Weakness of attraction factors for working in the energy sector,** which reflect on migration of skilled manpower abroad, which raises costs and results in lack of investment and low productivity.
- **Limitation of sector's ability to manage renewable energy operations.** This challenge may lead to a reduction of renewable energy capacity to achieve the objective of new energy mix ratios, especially with non-developed technology. Also, this challenge includes the capability of control center and storage capacity management, as energy storage is a main element that needs to be addressed.
- **Development of institutional management for the energy sector.** Inefficient management leads to breakdowns and interruptions that cause negative impact on productivity of electricity plants. This challenge consists of several issues, e.g.: economic management of plants and the absence of an electronic management system for plants and storage.
- **Insufficient expenditure on research and development and the limitation of research systems' effectiveness.** This challenge leads to the slow pace of efficiency in improving technology in exploration and using available solutions and to import foreign technology.

- **Inadequate infrastructure to import gas and petroleum products.** The State's plan needs strong infrastructure to import gas and petroleum products, including gas grid lines, extended oil pipelines, in addition to building re-gasification of liquefied natural gas processing facilities.
- **Poor infrastructure for deep water exploration.** Exploration infrastructure needs renewal and development, as the current infrastructure represents poor design and non-developed technology lagging behind modern technology, and it is needed for foreign investment and foreign experts to carry on seismic surveys and other technical work.
- **Bureaucratic procedures of commitment and mutual benefit agreements** that lead to weak participation of investors in the discussions of commitment agreements, mutual benefits, and modifications of current agreements.
- **Environmental impacts of energy production facilities.** Current legislation doesn't include control procedures to reduce emissions of various pollutants from companies or electricity production plants, as well as the use of coal as an alternative fuel for energy plants in the production of environmental problems. For that a treatment technology should be implemented and the control system for environmental performance.
- **Limitation of domestic refining capability.** The current refining capacity doesn't provide for local needs as many of the refineries are not well developed and this leads to limited capability.
- **Lack of consumer awareness of the importance of energy conservation.** Lack of sufficient awareness of the importance of rationalizing consumption leads to electricity network wastage.
- **Poor mechanisms for encouraging decentralization in electricity production.** The current situation depends on one source and one network for electricity distribution, and there is no mechanism to encourage energy transfer in different ways to connect remote locations through the decentralization of production and micro networks.

The third group of challenges is the least in terms of priority and the most difficult to deal with, but that does not mean they should be ignored. All the challenges mentioned are important and must be addressed.

- **High cost of exploration.** The high cost of search operation, exploration, and development, leads to reduce the investments, discoveries, and total production.
- **Shortage of dollar liquidity.** The shortage of dollar liquidity keeps many local and foreign investors from investing, due to their fear of inaccessibility of their financial dues, thus leading to a lack of investment in the sector and causing a noticeable loss of energy available for local demand.

- **Increasing demand due to population growth.** Continued population growth leads to an increase in total consumption, which needs increasing local productivity capacity and energy imports.
- **Difficulty of network planning due to overcrowding.** This challenge causes an increase in the cost of network connectivity due to the difficulty in avoiding populated areas.
- **Increase of the number of laborers in the production, distribution, and transportation companies,** causing an increase in wages, salaries, and additional sector personnel costs rising, in addition to many administrative problems.
- **Low efficiency of local companies.** Poor technical capacity and the limited ability of human and financial resources cause a decrease in the productivity of companies and their ability to meet the needs of citizens.
- **Lack of coordination with other sectors to establish the Smart Grids.** Smart Grids significantly contribute to the saving and rationalization of consumption and help reduce interruptions and must therefore be taken into account when planning and coordinating with other sectors, such as urban development.
- **The need for developing the education system curriculum to be compatible with the energy sector's needs.** Failure to develop and modernize the curriculum to keep pace with the requirements of the energy sector for competencies and qualified human resources forms a gap in the provision of technical expertise, which affects the level of efficiency and leads to the use of foreign expertise.

Energy Programs to 2030

In addition to the energy programs and projects included in the government program for 2016-2018, other relevant programs and projects for the period 2016-2030 are presented in the following parts of the document.

Programs and Projects Relevant to Implementation Mechanisms

Developing an integrated medium- and long-term energy strategy:

Program Description: The development of a medium- and a long-term integrated strategy for the energy sector that is approved by all stakeholders. It should be noted that this strategy is currently being prepared, and will begin to be implemented during the period 2016-2020. This is a low-cost program.

Key Elements: An integrated plan for the energy sector includes the various elements of the value chain (planning, production, transportation, distribution and control, refining and petrochemicals, and consumption) including:

- Ratios of energy fuel mix required for production
- Exporting and importing plan for energy
- Mechanisms for increasing efficiency of energy production
- Policies to rationalize energy consumption for the following sectors: industry, transport, electricity production, and construction
- A plan for energy pricing for the medium- and long-term in accordance with global changes
- Studying the development of the refining capacity and petrochemical production in the medium- and long-term
- Considering the development of energy production, transport, and distribution networks.

Restructuring the energy sector:

- **Program Description:** The development of a plan for restructuring the energy sector in order to increase its efficiency in achieving energy security and its contribution to the GDP, while maximizing and organizing private sector participation and creating a fair competitive market. It is targeted to start the implementation of this program in 2018 and to be completed by 2030. This is a high-cost program.

- **Key Elements:**

- Accelerate the establishment process of the "Energy Planning Agency" to be responsible for making general policies and integrated and sustainable strategy for the energy sector, monitoring and evaluation of its implementation, as well as ensuring agreement of all concerned parties
- Consider merging the two energy ministries (Ministry of Petroleum and Ministry of Electricity and Renewable Energy) in order to increase efficiency in the operating, planning, and management process and to curb bureaucracy
- Establish a unified energy regulatory utility including petroleum products, gas, and electricity networks to be responsible for consumer and investor protection and ensuring level of competence
- Forming a specialized emergency management work team following the Supreme Energy Council, to be responsible for determining the current and future challenges of the sector, and developing a plan to manage and address the relevant risks behind it such as expectations of the global oil price, developing and modifying current importing procedures, and following-up and dealing with the international cases brought against Egypt.
- Improving efficiency of some energy facilities including:
 - Companies affiliated to the Electricity Holding Company including raising their productive, administrative, and economic efficiency; and reconsidering their financial and administrative structure, and the role of the private sector in their management, as well as increasing the efficiency of the Electricity Transmission Company.
 - Companies affiliated to the Petroleum General Authority by determining a deadline for approving and updating of the mutual benefit agreements, and updating the necessary financial items of the research and development agreements and improving the efficiency of the Gas Company.

Reforming the current legislative framework:

- **Program Description:** Revision of laws that prevent achieving the desired objectives of the energy sector. It is targeted to start implementation of this program in 2015 and to be completed by 2020. This is a low-cost program.
- **Key Elements:**
 - Providing a fair competitive environment for the energy sector through reconsidering laws related to the participation of the private sector in energy production in order to achieve energy system efficiency and identify the role of the government as a regulator. Introducing incentives to strengthen the role of the private sector, facilitate

investment procedures, provide guarantees for the payment of financial dues, and provide required dollar liquidity.

- Drafting a unified law for energy (including electricity and petroleum) to identify and organize the relationships between different parties, especially the role of the private sector in production operations, transportation, distribution, and sale of energy, in addition to giving permission to the private sector to participate in the processes of importing and exporting petroleum products for the purpose of energy market liberalization.
- Drafting supportive decentralization laws for both production and distribution of petroleum or electricity such as micro networks.
- Enacting laws regulating information circulation, access, and ensuring accuracy to support decision-making processes in the public and private sectors, and the development of a system for energy information management.
- Facilitating decision-making processes and reducing bureaucracy by updating laws to allow administrative accountability rather than criminal trials for decision makers, as well as to develop policies defining a matrix of powers and responsibilities for every decision-maker in the sector.
- Amending laws and regulations that regulate coordination of entities working in the field of energy, to make coordination with the Ministry of Environment mandatory for the application of environmental standards.

Developing the energy sector's infrastructure:

- **Program Description:** The development and modernization of basic infrastructure for the various stages of the value chain in the energy sector in order to achieve the objectives and realization of energy security. It is targeted to start implementation of this program in 2015 and to be completed by 2030. This is a high cost program.
- **Key Elements:**
 - Development of the exploration and current oil and gas services infrastructure, especially exploration in deep water, to enhance Egypt's competitiveness and support the exploration companies to improve their performance.
 - Develop the capacity of refining and petrochemicals in the medium and long term to help meet domestic market requirements.
 - Development and expansion of existing gas networks to raise the degree of access for citizens and industrial conglomerates.

- Development of the basic infrastructure of import and storage of natural gas and coal, due to the expected increase in energy imports in Egypt from these resources.
- Development and expansion of the infrastructure for the transportation of petroleum products, especially diesel and natural gas.
- Modernization of the current electricity network to facilitate dealing with expansion of renewable energies and assimilation of its requirements, such as developing a control center for the management of the network and mechanisms of energy storage, the use of smart grids, smart meters, and management of demand-side.
- Development of the infrastructure for energy exports, especially for electrical power to accommodate the renewable energy requirements.

Promoting innovation in the energy sector:

- **Program Description:** Enhancing innovation in the energy sector by increasing expenditure on research and development and promoting the use of modern technology to develop the sector. It is targeted to start implementation of this program in 2016 and to be completed by 2020. This is a high cost program.
- **Key Elements:** Developing policies that encourage companies to increase their spending on research and development in the following areas:
 - For the Ministry of Petroleum:
 - Developing and improving the technology of exploration in deep water.
 - Enhancing the added value of the refining ability and petrochemical sector and improving efficiency.

For the Ministry of Electricity and Renewable Energy:

- Developing the electric power generation process and encouraging its decentralization, with the development of technologies and operating systems such as micro-networks.
- Concentrating on means of developing renewable energy and raise its productive efficiency;
- Improving efficiency of electric power generation and reducing of greenhouse gas emissions through the use of environmentally friendly advanced technologies.

Skills development:

- **Program Description:** providing and improving human resources in the energy sector in order to keep up with the requirements for achieving objectives. It is targeted to start

implementation of this program in 2016 and to be completed by 2020, and this is a low cost program.

- **Key Elements:**

- The Ministry of Petroleum and Ministry of Electricity and Renewable Energy should coordinate with the Ministry of Education and Technical Education and Ministry of Higher Education and Scientific Research for providing of required efficient human resources in order to help achieving the objectives of improving efficiency of electricity use and production, and fulfilling all needs of renewable energy, nuclear energy and energy produced from coal ,...etc. providing these competencies should be considered in all levels of education including Pre-university, Vocational and University Education.
- Raising level of legal competencies within the energy sector in order to deal with administrative issues.
- Developing the educational curricula to help instill the culture of rational use of energy.
- Raising the level of administrative and technical competencies of the control center and improve the efficiency of power usage.
- Improving efficiency of forecasting system for energy sector, in terms of supply, demand or price changes through human resources training and providing the required sustainable technology.
- Developing a training program for responsible persons of economic management for companies and authorities affiliate to the Ministry of Petroleum and Mineral Resources and Ministry Electricity and Renewable Energy, for help managing companies from an economic perspective and ensuring financial sustainability.

Establishing the nuclear station in Dab'aa:

- **Program Description:** The diversification of energy mix which mainly consists of oil and gas (about 96%), in order to reduce dependence on these resources and turn to more clean energies such as nuclear and renewable energies. It is expected that this program begin to be implemented during the period 2016-2030; and this is a high-cost program.

- **Key Elements:**

- The program includes establishment of 4 reactors from the third generation which is characterized by high level of safety, simplicity design, low cost and long life time which can reach more than 60 years. The production capacity of each reactor reaches about 1200 MG with a total of 4800 MG.

- Capacity building of Egyptian scientists and engineers who are working in the field of nuclear energy technologies and creation many job opportunities for youth whether in the field of construction or complementary industries or other fields.
- It is planned that the first nuclear power plant will start working in 2024 according to strict environmental and safety standards.
- Currently, the first nuclear power plant is under construction including walls, guard towers, gates and residential building for workers in the plant with about 2050 residential units. In addition, the location for a new residential city with all facilities and general services for people who are living in El-Dabaa city has been determined according to the safety standards, the new city contains about 1500 "Badawy Houses" each one with an area of 300 m².

Initiatives Related to Specific Topics

Applying environmental standards and accurate measurements:

- **Program Description:** Limiting pollution produced from the energy sector and activating the supervisory system of environmental performance. It is targeted to start the program in 2020 and to be implemented by 2025. It is a medium-cost program.
- **Key Elements:**
 - Designing the environmental performance unified supervisory system in cooperation with the Egyptian Environmental Affairs authority by:
 - Developing and applying regulatory actions for reducing the emissions of various pollutants (dust and debris) on all companies/energy production plants.
 - Ensuring that there are indicators for the greenhouse gas emissions rates.
 - This initiative will be implemented by activating the role of environmental departments at each establishment, and amending the laws and regulations, for both projects and entities working in the field of energy which stipulates compulsory coordination with the Ministry of Environment.

Improving the efficiency of energy subsidies:

- **Program Description:** Restructuring the energy subsidization system and coordinating between relevant authorities in order to ensure access to those who deserve support through a unified plan. This includes fuel subsidies provided to all consumers, including private electricity production companies, and the subsidiary of the Holding Company for Electricity. This program is scheduled to start in 2015 and be implemented by 2020. It is a high-cost program.

- **Key Elements:**

- Setting a unified price plan for petroleum products, gas, and electricity, and setting up a clear and transparent approach for raising the prices, based on a detailed analysis of consumer categories.
- Defining compensation mechanisms for those who are affected by the change in the subsidization system, by converting fuel subsidies into monetary values delivered to those who are entitled to it.
- Planning a strategy for communicating with citizens; to ensure smoothness of the planned development achievement.
- Completing and updating the Feed-in Tariff and adding a fair tariff pricing for electricity production using new technologies such as critical mass.
- The Supreme Council of Energy would be responsible for monitoring the implementation of this program in cooperation with the Ministry of Finance, and supported by the Egyptian Electric Utility, the Consumer Protection Regulatory Agency, and the Egyptian General Petroleum Corporation.

Third Pillar: Knowledge, Innovation and Scientific Research

Overview of Current Situation

The concept of knowledge, innovation, and scientific research expands to include the production and transfer of knowledge in all forms within various education levels, mechanisms of nurturing youth, fostering talents, as well as encouraging innovation, scientific research, and academic cognitive contribution. The definition also expands to include different fields of application through which the effect of knowledge on "quality of human life" could be determined.

The knowledge and innovation environment consists of the following group of elements and components:

- **General environment:** Represents the role of the State in the creation of an environment that encourages innovation, including motivators and constraints, the economic system, policies, legislation, and principles of governance.
- **Infrastructure:** Play a fundamental role in supporting the cognitive and creative production by setting standards and laying regulatory foundations of innovation and scientific research, supporting business and innovation, protecting copyright, ensuring availability of information, financing and encouraging investment.
- **Education and scientific research:** Includes all research organizations and institutions, technical education and vocational training institutions, higher education and scientific research institutions, and research centers.
- **Industry:** Represents all industrial sectors including large, medium, and small scale companies' activities relevant to research and development.
- **Intermediaries:** Includes the institutions that link between industrial innovation, and research and development on the one hand, with academic and research institutions on the other hand.
- **Development needs:** Represents the required demand for innovation, knowledge, and scientific research to fulfill economic and social needs.

The information and communications technology sector in Egypt is one of the driving sectors that encourages innovation and knowledge. The annual growth rate of the number of companies operating in the fields of IT and communications has reached 13.5%.^[1] This sector succeeded in achieving increased growth rates that required speeding up the development of the information technology infrastructure all over the country and increasing the number of graduates from engineering and information technology educational institutes. Also, the research society

¹ Business Monitor International, 2010, Egypt Information Technology Report, Q4 2010

succeeded in achieving many positive indicators such as the average success of Egypt in "Citation Impact Indicator" in the mathematical research field. Moreover, Egypt ranked 48th out of 132 countries in citation impact indicator (H-index) for the year 2013, while Alexandria University ranked 147th in the Times Higher Education World University Rankings for the year 2010, which highlights the first instance of an Egyptian University being classified among the top 200 universities internationally, due to the high quality of mathematics and physics research.

Knowledge, innovation, and scientific research contribute in achieving the goals of sustainable development in general, whether national or international, where the increase in the contribution of a large number of economic sectors in economic activity can be achieved by connecting scientific research outputs and innovation by the needs of these sectors. Also, raising the quality of life of citizens and the development of public services in sectors such as traffic, drinking water, sanitation, housing, energy, environment, health, and education depends largely on knowledge, innovation, and scientific research.

In order to achieve these goals, knowledge, innovation, and scientific research must overcome the challenges they face, especially their poor funding share in the government budget, and from the private sector and civil society. Also, efforts should be made to raise awareness of the importance of these activities to achieve higher rates of sustainable development and to encourage young people to participate in scientific research and innovation through small projects and entrepreneurial initiatives.

The following is a description of the vision and strategic vision of knowledge, innovation, and scientific research and performance measurement indicators and the most important challenges it faces in addition to the most important programs to achieve this vision.

Strategic Vision for Knowledge, Innovation, and Scientific Research to 2030

A creative and innovative society producing science, technology, and knowledge, within a comprehensive system ensuring the developmental value of knowledge and innovation and using their outputs to face challenges and meet national objectives.

This vision is centered on the provision of all necessary factors that enable the conversion of knowledge, innovation, and scientific research into a valuable product that can be measured and satisfies the developmental needs of the State during the next 15 years.

Strategic Objectives for Knowledge, Innovation, and Scientific Research to 2030

The strategic vision for knowledge, innovation, and scientific research focuses on accomplishing three main objectives within the next 15 years, as follows:

Objective	Definition
Creation of a stimulating environment for the localization and production of knowledge	Maximizing knowledge production by enhancing the legislative, investment, and financing environments and providing the fundamental infrastructure
Activation and development of an integrated national innovation system	Enhancing the efficiency of innovation production by encouraging creative production, increasing the links between innovation and developmental needs, the development of basic education and higher education as well as research and development
Linking the knowledge applications and the innovation outputs with priorities	Determining the sectorial priorities and challenges, how to address them by working on increasing the knowledge product for the priority sectors and by raising the local content

The first objective is specialized in developing knowledge by creating a stimulating environment of legislation, investment policies, and financing facilities, in addition to the development of logistics, information technology, and environmental sustainability infrastructure. It also focuses on maximizing economic and social knowledge production.

The second objective is to establish and develop a comprehensive national system for innovation, able to transform knowledge into a developmental value by developing primary education, higher education, as well as research. This objective also focuses on encouraging innovative production, increasing links between innovation and needs, and enhancing the companies' ability to innovate in order to maximize knowledge impact.

The third objective is to determine sectorial priorities and challenges and how to address them by increasing innovation expenditure within various sectors, whether from domestic or foreign resources or from the private sector, with a focus on private sector outputs and increasing the percentage of the sectorial local content.

Key Performance Indicators for Knowledge, Innovation, and Scientific Research to 2030

Key performance indicators include the indicators that currently exist at the levels of inputs, outputs, and strategic results. Thus, current and targeted values, by the years 2020 and 2030, of

such indicators were determined, as well as suggested new indicators that will be added into a suitable framework for the purpose of evaluation in collaboration with the concerned parties, as per the following:

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status ⁽¹⁾	2020 Target	2030 Target
1	Strategic Results	Global innovation index (rank)	Measures the relative level of innovation in Egypt through high-impact factors, (e.g. human factors, legislative and economic stimulating environment, infrastructure, creative outputs, and its impact on the economy)	99	85	60
2		Innovation efficiency ratio	Measures Egypt's innovation and knowledge efficiency compared with other countries, which enhances the innovation system	0.8	0.85	1
3		Companies' innovation capacity index (rank)	Measures the ability of companies to innovate, which in its turn demonstrates the development of the private sector's ability to innovate	132 ^[2]	100	60
4		Knowledge impact sub-index of the global innovation index (rank)	Measures the utilization development from knowledge production in growth and business management	89	80	60
5		Knowledge transfer sub-index of the global innovation index (rank)	Measures the development in exporting knowledge and consequently it reflects how far knowledge is connected to developmental objectives	69	60	30
6		Innovative products	Measures the development of creative production at	98	85	60

S.N	Indicator Category	Indicator	Definition	Current Status ⁽¹⁾	2020 Target	2030 Target
		and services sub-index of the global innovation index (rank)	domestic and international levels			
7	Output	Information and communications technology sub-index of the global innovation index (rank)	Measures the ICT level and reflects Egypt's progress in using technology as a key factor in the innovation system	73	50	30
8		Public infrastructure sub-index of the global innovation index (rank)	Measures development in providing the required public infrastructure for sustainable development and consequently the tools required for knowledge production efficiency	121	100	60
9		Environmental sustainability sub-index of the global innovation index (rank)	Measures development in stimulating and controlling environmental performance required for sustainable development and consequently required for knowledge production efficiency	65	50	30
10		Knowledge contribution sub-index of the global innovation index (rank)	Measures development in knowledge production at research and innovation levels	71	50	30
11		Intangible assets sub-index of the global	Measures development in the production of registered applications as a result of how far knowledge is linked to	89	80	60

S.N	Indicator Category	Indicator	Definition	Current Status ⁽¹⁾	2020 Target	2030 Target
		innovation index (rank)	business			
12		Digital creativity sub-index of the global innovation index (rank)	Measures development in the production of digital creativity compared with other countries	74	60	30
13		Innovation linkages sub-index of the global innovation index (rank)	Measures development in building linkages and incentives for cooperation between the knowledge productive sector and the beneficiary sector	70	60	30
14		Quality of scientific research institutions	Represents the development level of scientific research institutions	135 ^[2]	100	60
15		Credit facilities sub-index of the global innovation index (rank)	Measures development in facilitating and providing the necessary funds in order to stimulate innovation	123	100	60
16	Input	Investment sub-index of the global innovation index (rank)	Measures development in providing investment in order to stimulate innovation	138	100	60
17		Trade and competition sub-index of the global innovation index (rank)	Measures development in facilitating taxation procedures and achieving transparency to guarantee a competitive environment that encourages innovation	124	100	60

S.N	Indicator Category	Indicator	Definition	Current Status ⁽¹⁾	2020 Target	2030 Target
18		Legislative environment sub-index of the global innovation index (rank)	Measures development in enhancing a legislative environment that encourages an innovation system	131	100	60
19		Business environment sub-index of the global innovation index (rank)	Measures development in enhancing the business environment, which contributes to and enhances the innovation system's efficiency	105	90	60
20		Education sub-index of the global innovation index (rank)	Measures development in education, which is necessary to stimulate sustainable innovation	53	50	30
21		Higher education sub-index of the global innovation index (rank)	Measures development in attracting higher education students	102	90	60
22		Research and development sub-index of the global innovation index (rank)	Measures the development level of R&D and expresses the evolution in knowledge production	50	40	30
23		Knowledge absorption sub-index of the global innovation index (rank)	Measures the knowledge capacity and expresses the technological development level of imports.	119	100	60

S.N	Indicator Category	Indicator	Definition	Current Status ⁽¹⁾	2020 Target	2030 Target
24		Knowledge workers sub-index of the global innovation index (rank)	Measures development in utilizing high-knowledge labor and consequently it measures how far knowledge is linked to business	69	50	30

[1] Source: World Intellectual Property Organization, 2014, the Global Innovation Index.

[2] Source: The World Economic Forum, 2013, The Global Competitiveness Report.

Suggested New Indicators

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1		Ratio of knowledge economy contribution to GDP	Measures how far the economy of research and development is contributing to GDP, representing the importance of the knowledge economy in Egypt's priorities	All expenditures on innovation and R&D shall be calculated. Expenditure includes government, private sector, and civil society from domestic and international resources as a percentage of GDP.
2	Strategic results	Social return on investment in innovation	Measures the impact of expenditure on innovation on Egyptian society and turns it into financial returns in order to ensure the development of an environment that encourages innovation	A combination of qualitative and quantitative indicators, measuring investments returns of innovation on society in general
3		Ratio of local content to gross national manufacturing	This indicator shows how far local content is contributing to gross national manufacturing in order to measure the development of knowledge localization	The ratio of local content in the various productive sectors shall be determined upon accurate collection of data and classification into sectorial indicators and then the overall percentage shall be calculated
4		Sectorial ratio for local component to gross	This indicator shows how far local content is contributing	

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
		national manufacturing	to gross sectorial manufacturing, which illustrates Egypt's progress in knowledge localization in areas of national priority and interest	
5		Number of small and medium companies contracting with government	It represents the government's efforts towards knowledge localization through contracting with small and medium-sized companies	Sectors with high priority at the national level shall be determined in light of fully integrated future studies and then limit the number of small and medium-sized companies contracting with the government in those sectorial fields
6	Outputs	Number of international awards in the innovation field	This indicator shows Egypt's global place among others in the innovation field	Internationally recognized awards related to innovation, knowledge, and scientific research shall be determined and then limit the Egyptian share of such awards
7		Number of newly founded companies in each sector	This indicator expresses the priority sectors	Limit the number of new companies in sectors with high priority
8		Ratio of companies practicing innovation and R&D for each sector	This indicator represents the number of companies efficiently contributing to the role of the private sector in developing and growing knowledge as well as the ability of the government to stimulate such contributions, which serve sustainable development priorities	Limit the number of companies practicing innovation and R&D in sectors with high priority
9		Number of patents per sector	This indicator represents the ability to innovate in the priority sectors in order to	Limit the number of patents in sectors with high priority

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
			localize knowledge and protect its rights	
10		Ratio of sectorial budget expenditure on innovation, research, and development	This indicator represents the development of innovation at sectorial level and emphasizes the national priorities of sustainable development	Measure the percentage of expenditure on innovation and R&D to the gross expenditure on sectors with high priority
11		Ratio of companies' contributions to total sectorial expenditure on innovation and R&D	This indicator measures the contribution of the private sector in developing knowledge, which serves the priorities of sustainable development	Estimating the percentage of company contributions to total expenditure on innovation and R&D in sectors with high priority
12	Inputs	Ratio of international funding for innovation, research and development to total funding	This indicator represents the ability to attract foreign investments to priority sectors, in order to transfer and localize knowledge	Estimating the ratio of international funding allocated for innovation and R&D to the total funding allocated for various national priority sectors
13		Ratio of foreign funding to small and medium companies	This indicator represents how far knowledge is localized in terms of knowledge transferred from abroad to small and medium-sized enterprises	Measurement is performed by determining the percentage of international funding allocated for innovation and R&D of the total expenditure of small and medium-sized companies on sectors with high priorities

Challenges of Innovation, Knowledge, and Scientific Research

Challenges related to innovation, knowledge, and scientific research are divided into three main groups:

The first group is characterized by its high impact and relative ease to control, hence it attracts the biggest share of attention as they could be encountered and overcome much easier compared with others. It includes:

- **Legislative system being poor in motivating and protecting innovation:** There is an absolute necessity to review legislation relevant to innovation protection, and develop an incentives structure, governmental expenditures, and protection of intellectual rights in order to achieve a motivating environment for innovation.
- **Poor coordination between social needs and innovation:** This can be observed in the low proportion of local content in several vital sectors as well as not taking advantage of scientific research outputs in facing the main challenges encountering Egyptian society.

The second group of challenges could be overcome, yet it has a relative and limited impact, including:

- **Inefficient sectorial planning:** Sectorial planning must be focused on defining national priorities and linking them to the system of innovation, knowledge, and scientific research to achieve high levels of competitiveness and sustainability for industries and strategic sectors in Egypt.
- **Lack of a comprehensive mechanism connecting knowledge with innovation:** Due to the lack of a proper comprehensive mechanism to connect knowledge with innovation, the development of curricula and educational methods became irrelevant to beneficial social or economic innovation production, which in its turn led to significant imports of technology.
- **Insufficient economic and financing incentives for innovation:** Limited low expenditure allocated for scientific research and development has a negative effect on knowledge production as a result.
- **Medium and small companies' inability to produce and market innovation:** Due to the high costs of such activities, this consequently undermines their financial capacities.

The third group of challenges is characterized by its high impact and its long-term nature to be overcome:

- **Poor innovation culture of society:** This is one of the most difficult challenges facing the development of innovation, knowledge, and scientific research in Egypt, due to decades of inherited negligence, whether in the terms of instilling the culture of innovation in youth, or in fostering talents in schools, or in creative appreciation and motivation.

- **Poor awareness of the importance of intellectual property and its protection:** In light of the limited implementation of Intellectual Property Laws in Egypt, researchers and innovators do not enjoy their intellectual rights. Violations and infringements are not being prosecuted properly because all parties, whether producers or consumers of innovation, are not aware of the importance of intellectual property protection and its role in motivating and protecting innovation in Egypt.

Innovation, Knowledge, and Scientific Research Programs to 2030

In the comprehensive framework, strategic objectives of innovation, knowledge, and scientific research and performance indicators identified to measure the extent of progress provisionally made until these objectives are achieved and its positive outcome on the future visions of innovation, knowledge, and scientific research in Egypt by the year 2030, in addition to the government program policies, programs, and projects for 2016-2017 in order to develop innovation, knowledge, and scientific research, the following are the most important programs identified that are expected to make great contributions in achieving these visions, objectives, and indicators:

Legislation and Governance

Carrying out legal reform related to knowledge and innovation:

- **Program Description:** A comprehensive review of all legislation and laws related to knowledge and innovation in various sectors such as higher education, scientific research, investment, tax incentives systems, governmental expenditures, and intellectual property protection. It can be done through serious communal dialogue in which all of civil society and the private sector are represented, to contribute in the formation of a motivating environment for the production of knowledge and innovation. The review and amendment of this legislation is scheduled to be performed by the year 2017. This is a low-cost program.
- **Key Elements:**
 - Reviewing intellectual property legislation and implementation methods to promote the protection principles of knowledge, scientific research, and innovation.
 - Reviewing the investment law in the manner that provide incentives for investors investing in scientific research, as well as to motivate them to re-invest a minimum share of profits in the areas of research and development in their business.
 - Reviewing legislation on university regulations in the manner that integrates innovation into the course of career progression and promotion, in order to encourage the academic role in innovation.

- Reviewing the taxation legislation governing the investment system in the manner that grants tax exemptions for research and investment in high-risk activities in terms of research investment volume or its returns.
- Reviewing higher education legislation in the manner that motivates high-impact innovative and research production.
- Reviewing scientific research legislation to provide innovators at universities and research institutions with the right to establish and incorporate companies without prejudice to their academic and research responsibilities.
- Reviewing the legislation governing the customs system in the manner that motivates and protects the local content in the industry.
- Reviewing the laws of tenders and auctions in the manner that gives priority to national companies, products, and services.

Developing and restructuring the knowledge and innovation system:

- **Program Description:** Enhancing the efficiency of knowledge and innovation management systems through the restructuring and implementation of rational governance rules and regulations in a manner that achieves coordination and integration among them and the strategic priorities for sustainable development. The implementation of this program is scheduled to start by 2016 and to be fully implemented by 2030. This is a low-cost program.
- **Key Elements:**
 - Mapping innovation priorities through liaison and coordination among all outputs of future plans at the national and sectorial levels.
 - Achieving full integration among the ministries relevant to pre-university, university, and technical education as well as scientific research, to enhance institutional efficiency and to achieve better utilization of resources with respect to governance, management, rationing, and development of scientific, informational, educational, research, and innovative work.

Programs to Support Achievement of the Vision and Strategic Objectives

Adopting a comprehensive program to promote an innovation and knowledge culture:

- **Program Description:** Encouraging creative thinking and the development of an innovation culture among youth and community through achieving integration between the concerned parties by a number of motivation and awareness initiatives. The implementation duration of this program is expected to start by 2016 and to continue until 2025. This is a medium-cost program.

- **Key Elements:**

- Reviving exploration centers in schools in order to support and develop talents required to serve national priorities.
- Developing educational curricula and expanding the application of methods and tools that encourage creative thinking and develop the culture of innovation.
- Expanding academic programs specialized in the field of innovation management in order to prepare and develop domestic qualified cadres.
- Implementing adequate media coverage to spread success stories, awareness of the innovation concept, and its importance.
- Launching a number of innovation events, competitions, and awards in the priority sectors in collaboration with private sector companies.

Developing a comprehensive program to stimulate innovation activities by SMEs:

- **Program Description:** Creating a motivating and enabling environment for small, medium-sized, and new companies allowing them the ability to innovate and maximize their investment returns and linking it to the national priorities in a manner that contributes to the maximization of competitive advantages and the added value of the domestic product. The implementation duration of this program is expected to start by 2020 and to be fully implemented by 2030. This is a high-cost program.

- **Key Elements:**

- Creating innovation clusters in the high priority fields to maximize the competitive advantage and the added value of the domestic product.
- Establishing entrepreneurship incubators to enable new, small, and medium-sized companies to innovate.

Activating public–private partnerships to support and stimulate innovation:

- **Program Description:** Supporting the partnership between the public and private sectors to maximize the volume of investment in innovation and the creation of possible conditions to ensure rewarding returns, as well as integrating the knowledge output with the market needs. The implementation duration of this partnership is expected to start by 2016 and to be fully implemented by 2020. This is a low-cost program.

- **Key Elements:**

- Adopting a package of financial and marketing incentives to encourage the private sector in order to innovate.

- Expanding partnerships between academic and research institutions and the private sector in order to link knowledge outputs with the needs of the market.

Fourth Pillar: Transparency and Efficiency of Government Institutions

Overview of Current Situation

The State's administrative system is facing a wide range of challenges that have accumulated over many decades. One of the key challenges is the complexity of the organizational structure of the State due to the number of ministries, agencies, and different administrative bodies and the overlapping and conflicting jurisdictions among them. As well, there has been inflation of employment in the public sector and an increase in its total costs, which reached 26% of the total public expenditure of 2014-2015 budget, not including the salaries bill of the economic agencies. One of the main challenges that affects the efficiency of these institutions, in the light of the low productivity of the government employee and the spread of masked unemployment, is that the number of current public employees is estimated at nearly 6.4 million, with an average of one employee per 13.2 citizens, which is considered a low ratio compared to global rates. Besides, the public sector is suffering from the absence of transparency and accountability and the discrepancies of salaries between and inside the different entities, which led to the spread of corruption, favoritism, and power abuse. In addition, the large amount of conflicting legislation has led to the spread of fraud, and predominance of bureaucracy due to centralization inside the government's organs.

All these factors have contributed to a clear setback in the efficiency of the public sector's institutions and the bad status of public services that resulted in citizen dissatisfaction and the increase of the trust crisis between the citizen and the government. As a result of these repercussions, Egypt ranked low in some of the global indicators measuring the efficiency of the State's administrative organs. Despite the relative improvement of Egypt's ranking in the World Competitiveness Indicator, from 119 of 144 countries in 2014-2015 to 116 of 140 countries in 2015-2016 and also the improvement of Egypt's ranking that measures the efficiency of state institutions, from 100 of 144 countries to 87 of 140 countries during the same period; however, the road is still open for more improvements on this important indicator that significantly affects the competitiveness of the Egyptian economy and the flow of local, regional, and international investment that is necessary for the economic boost and jobs creation.

On this framework and for 2 years, the Egyptian government has adapted a comprehensive plan for a reform program of the administrative system, including institutional development, and the development of government services, as well as the development of a planning and resource management system in government institutions, and the creation of a national database. The Civil Service Law, issued in March 2015, comes on the top of these efforts, which is considered an important step towards the reform of the State's public sector apparatus, and aims at an increase of the efficiency of the service delivery process and the enhancement of transparency and accountability. Moreover, the law establishes a new system for recruitment, promotion, and appointment of senior positions in order to achieve justice and equality of opportunity, ending favoritism, in addition to the reform of the salaries structure in order to decrease the

discrepancies between the incomes of public employees, which helps end corruption, and contributes to the achievement of the targeted development. In addition, parallel to the law's application, a modernization and reform of the internal organizational bylaws is taking place as well as the application of the public sector employees' code of professional conduct, and the achievement of improving transparency and integrity.

The internal restructuring process leads to the increase of performance, efficiency, and builds more administrative and organizational structures and the restructuring of the human resources system, and developing a comprehensive program for the rehabilitation of public employees, and linking evaluation to the target goals of every job.

In spite of these efforts, it remains incomplete and unsatisfactory for the aspirations of Egyptian society towards achieving inclusive, sustainable development. Therefore, the Egyptian government, through this strategy, is pursuing the completion of these efforts in order to achieve a holistic improvement of the public administrative sector including its legislation, human capital, and information systems, in addition to changing the work culture, and to achieve better quality standards and the usage of modern techniques in service delivery, which improves efficiency and stops corruption and the promotion of transparency in order to achieve satisfaction for citizens and public employees at the same time.

Hereafter is the introduction of the vision and strategic objectives for transparency and efficient government institutions and the Key Performance Indicators (KPIs), the important challenges facing it, and the important programs to overcome them.

Strategic Vision for Transparency and Efficient Government Institutions to 2030

An efficient and effective public administration sector managing State resources with transparency, fairness, and flexibility. Subject to accountability, maximizing citizen satisfaction, and responding to their needs.

This vision is elaborated under three main aspects that include improvement of the administrative sector's performance with the objective of increasing the efficiency of the State's financial, material, and human resources, and offering the necessary public services needed daily by citizens for their livelihood needs in an efficient manner in order to end their suffering and improve the services needed by the public enterprise in order to bring more investments, and finally, achieving the interaction between the government and society and its institutions through a comprehensive governance system. Besides, these pillars have been transformed into strategic objectives that have been determined carefully and transformed into a set of performance indicators and programs that can achieve these goals, in addition to the current efforts that are included in the government program for the upcoming 2 years.

Strategic Objectives for Transparency and Efficient Government Institutions to 2030

The strategic objectives are to increase the State's administration efficiency, enhance the quality of governmental services provided to citizens and investors, fight corruption in the administrative sector, and increase the degree of transparency in the government.

These strategic objectives include three different dimensions, the internal dimension related to the components of the administrative body, the external dimension of the services provided to citizens, and the dimension related to the relationship between the State, represented in its different institutions on the one hand, and the citizen on the other hand. The strategic objectives include the following:

Objective	Definition
Establish an administrative body that is efficient, effective, and in alignment with local and global changes.	Build an administrative system based on good governance and management of the State's resources by updating the organizational framework, including legislation, human resources, and information database in addition to changing and developing the work culture within the administrative body
Provide high-quality services that apply modern techniques	Achieve better quality standards and expand the use of modern methods in services delivery
Transparent system that interacts with citizens, responds to their demands, and is subject to social accountability	Depend on transparency in policy-making as well as facilitating the availability and access to information to increase citizens' confidence in the administrative sector and fight corruption

With a focus on the internal dimension, **the first objective** is to develop and strengthen the internal components of the State's administrative body, which could be divided into four categories as follows:

- The first category includes the **legislative framework**, which includes laws, regulations, and decisions that control the State's administrative body.
- The second category is related to **information systems**, including modern technology, that facilitates collection and exchange of information within and outside the State's administrative body.
- The third category pertains to the development of **human resources** through building capacities, raising efficiency, and encouraging innovation and sense of organizational belonging.

- The fourth category deals with **the work culture within the State's administrative body**, which must include values such as responsibility and work discipline, as well as the spreading of the culture of cooperation and teamwork among the State's administrative body employees.

The second objective focuses on the services provided to citizens, their availability, quality, and cost. This objective aims to enable citizens to satisfy their needs through a modernized service delivery system, within an acceptable timeframe and in a manner that suits the citizen's income.

The third objective deals with the governance of the administrative body to ensure the promotion of community participation and the consolidation of the principles of transparency, with the development of anti-corruption programs, in order to increase the confidence of the citizen on the one hand and ensure the sustainability of reform efforts on the other hand.

Key Performance Indicators for Transparency and Efficient Government Institutions to 2030

A group of performance measurement indicators were selected in order to follow up achievements on the ground in order to achieve transparency and efficiency of government institutions. The current situation of such indicators has been specified in addition to the targeted values for the years 2020 and 2030. The following are the indicators and the targeted values:

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status(1)	2020 Target	2030 Target
1	Strategic results	Government efficiency (score) (0 worst-100 best)	This indicator monitors the quality of public services and the civil service as well as the quality of policy formulation and implementation, and the credibility of the government	20(1)	50	70
2		Open government (score) (0 worst-100 best)	A composite indicator that monitors dissemination of laws, access, stability, and petition submission to the government, and official information provision upon request	0.44 ⁽²⁾	0.5	0.6

**4th Pillar: Transparency
and Efficiency of
Government Institutions**

S.N	Indicator Category	Indicator	Definition	Current Status(1)	2020 Target	2030 Target
3		Regulatory enforcement (score) (0 worst-100 best)	A composite indicator that records government enforcement of regulations, punctual implementation, and respect of administrative procedures, and non-expropriation of properties without proper compensation	0.42 ⁽²⁾	0.5	0.6
4		Anti-corruption (score) (0 worst-100 best)	This index monitors the minor and major forms of corruption	35 ⁽¹⁾	50	70
5		Transparency in policy-making (score) (0 worst-100 best)	This index monitors the ease of access to information concerning changes in government policies and regulations that affect the activities of corporates	3.9 ⁽³⁾	4	4.2
6		The number of citizens per government employee (score) (0 worst-100 best)	This indicator measures the efficiency of the State's administrative body in terms of population and employee ratio	13.2 ⁽⁴⁾	26	40
7	Outputs	Ease of doing business (score) (0 worst-100 best)	Composite index that monitors procedures for establishing companies and starting businesses, dealing with construction permits, getting electricity, registering property, getting loans, investor protection, paying taxes, cross-borders trade, enforcing contracts, and resolving insolvency	59.5 ⁽¹⁾	70	80

S.N	Indicator Category	Indicator	Definition	Current Status(1)	2020 Target	2030 Target
8		Favoritism in government decision making process (score) (0 worst-100 best)	This index monitors the extent of favoritism in decisions taken by government officials towards companies and individuals	3.7 ⁽³⁾	3.9	4.2
9		Irregular payments and bribes	This index monitors the prevalence of undocumented payments and bribes concerning both imports and exports, public utility services, annual tax payments, writing contracts and licenses, and issuing biased judicial decisions	(4) ⁽³⁾	4.3	4.8
10	Inputs	Share of funds allocated to training as a percentage of wage bill	This index measures the efficiency of the State's administrative body in terms of the improvement and capacity building of its employees	0.04 ⁽⁴⁾	0.5	1

⁽¹⁾ World Bank, Doing Business, 2014

⁽²⁾ Global justice project, .2014

⁽³⁾ World Economic Forum, Global Competitiveness Report, 2014

⁽⁴⁾ Ministry of Planning, Monitoring and Administrative Reform, 2015

Suggested New Indicators

S.N.	Indicator Category	Indicator	Reason	Measurement Mechanism
1		The level of citizens' satisfaction with government services	This indicator measures the citizens' satisfaction with government services	By conducting polls by non-governmental agencies
2	Outputs	Percentage of government services provided electronically from total government services	This index measures the efficiency of the State's administrative body in terms of the number of public employees and time needed for completion of Interactive Services	Surveying government services provided electronically and updating them regularly
3		Percentage of electronic transactions from total transactions	This index measures the efficiency of the administrative system in terms of quick pace of completion of transactions among and between the different State entities	Surveying the government transactions provided electronically and modernizing them regularly

Challenges of Transparency and Efficiency of Government Institutions

For transparency and efficiency of institutions, the challenges are divided into three groups:

The first set of challenges is characterized by high effectiveness and relative ease to control, and therefore is considered as a **first priority**. These include:

- **Complexity of the State's administrative body:** The administrative body of the State is suffering from obvious conflicts of jurisdictions and responsibilities as a result of the large number of ministries, government departments, and agencies, which has led to a lack of clear separation of roles and responsibilities and of coordination mechanisms.
- **Insufficient allocations of financial resources for staff training:** This negatively affects the low productivity of personnel and causes a decline in the quality of services provided to citizens.
- **Weakness of accountability systems and their association with achievement of results and objectives:** Workers are held accountable in front of the State administration based on their application of the procedural processes and not on results and achievement of the objectives, which in turn entrenches bureaucracy.
- **Absence of an effective system for human resources management:** Personnel Affairs Departments of all government agencies are weak and lack efficiency, which affects the efficiency of workers and causes brain drain out of the State administration. The recruitment system is not suitable for attracting skilled personnel.
- **Lack of interest in the development of planning and follow-up systems:** Planning Departments within the government institutions suffer from weakness and decline in efficiency as a result of the weakness of systems and methods of planning and follow-up, as well as the misconception about linking the concept of planning to communist regimes, and its irrelevance to market economies.
- **Traditional methods of budget preparation and the lack of flexibility in the transfer between chapters and financial items:** The current budget preparation system monitors the inputs of human and financial resources and energy and infrastructure systems but doesn't measure the impact of investing those inputs in achieving the State's objectives.
- **Poor information and technological infrastructure:** Lack of proper infrastructure of computers and communication networks and modern programs that enable decision makers to make sound decisions in a timely manner.
- **The absence of a Freedom of Information Act:** Failure to provide and exchange information leads to the lack of transparency and citizens' lack of confidence, which negatively affects the integrity and credibility of the government agencies.

- **Lack of a standard framework for measuring the degree of public satisfaction:** The weakness of the State administration's capacity to assess the effectiveness and efficiency of various services offered by the government to measure the degree of public satisfaction with these services.

The **second set of challenges** is characterized by being relatively low in impact or ability to control:

- **Lack of discipline and lack of respect for the work culture and resistance to change:** The absence of an effective system of monitoring and accountability has led to a lack of discipline and lack of employees' respect for work ethics, which negatively impacts the provision of public services. Attempts to introduce change within the administrative body are faced with great resistance by undisciplined workers.
- **Overstaffing (particularly auxiliary labor):** The successive governments have been appointing workers in the governmental sector over decades in order to reduce unemployment without a real need, which led to overstaffing of the State's administrative body and an increase in the cost of salaries.
- **Numerous, overlapping, and conflicting legislations:** This has resulted from the large number of regulations and decisions, their obsolescence, and widespread fraud and circumvention of laws, as well as reinforcing bureaucracy.
- **Financial and administrative corruption:** All the above factors, from the weak monitoring and accountability mechanism, to the overstaffing of the administrative body and lack of discipline led to widespread corruption practices and squandering of public money in violation of the law. In addition, the act of corruption is being widely justified among workers and labeled differently to ward off suspicion.
- **The absence of automated connections among all computational units:** This challenge is detrimental to knowing the full and exact financial status of the State and hinders proper decisions-making.
- **Poor communication between citizens and policy makers:** Poor communication between the government and the people leads to high levels of distrust, which negatively affects the integrity and credibility of the government.
- **Centralized decision-making:** Decision-making power is concentrated in senior management within the State administration, hence there is no delegation of power, which leads to slow and inappropriate decision-making.
- **Widespread favoritism:** Egypt suffers a widespread culture of favoritism in recruitment, promotions, and service delivery creating a lack of trust among the workers themselves on one hand and between them and society on the other.

As for the **third set of challenges**, it includes challenges of lesser priority, nevertheless all mentioned challenges are important and must be addressed

- **The poor state of government buildings:** Mismanagement of public utilities and State-owned assets, in addition to the weak revenue of these assets, leads to the waste of public money and poor public services, resulting in high levels of dissatisfaction among the citizens.

Transparency and Efficient Government Institutions Programs to 2030

In the framework of the vision and strategic objectives for transparency and efficient government institutions as well as the performance indicators that have been set to measure the level of improvement in what is being achieved on every stage. In addition to the government actions in the period 2016-2018 in terms of policies, programs, and projects related to transparency and efficient government institutions. Hereafter we introduce the most important programs that have been selected, and are expected to contribute, on a large scale, in the achievement of the vision, objectives, and indicators:

Improving the public management system:

- **Program Description:** This program aims to bring about structural and organizational changes needed to raise the State administration's efficiency in the management of its affairs so as to achieve the strategic vision of the State and the requirements of development .It is expected to begin implementation in 2016 and finish by 2018. This is a program of low cost.
- **Key Elements:**
 - Setting a new vision for the form and functions of the State administration, including ministries and dependent and independent agencies, so as to ensure the separation of the State's role as a service producer and provider on the one hand and its role as a regulator and controller on the other hand.
 - Identify the roles and responsibilities of each public entity and make sure to avoid overlapping responsibilities in order to ensure effectiveness and accountability.
 - Setting a timeframe for the new system, taking into account the social and economic implications of this shift.

Improving the planning and monitoring system:

- **Program Description:** This program aims to bring about the necessary changes in the planning and follow-up system to raise the efficiency of the executive rule of the State. It is expected to begin implementation in 2016 and to be completed by 2025 .This is a program of medium cost.

- **Key Elements:**

- Developing frameworks and mechanisms to develop and modernize approaches of sectorial planning, as well as monitoring and evaluation methods.
- Change the approach towards national budget preparation to be a programs- and projects-based budget, and to connect the system's input with its outputs.
- Rehabilitate and empower the planning and follow-up units of each ministry and at the local level, and link them to the States' general strategy and key performance indicators.
- Introduce and entrench the concept of results-oriented management among the State's employees so that results are evaluated periodically and linked to salaries, wages, and incentives.
- Apply electronic control systems in order to improve the efficiency of the performance monitoring system.

Developing the communication mechanisms between the government and citizens:

- **Program Description:** This program aims to consolidate the right of access to information and its exchange, in addition to developing means of communication and social accountability that contribute to the increase of transparency and citizen confidence in the policy making and service delivery process. It is expected to begin implementation in 2016 and finish by 2020. This is a program of low cost.

- **Key Elements:**

- Plan for spreading the culture of information sharing and exchange that includes determining data type, the information to be published, and means of publishing.
- The development of communication and media strategy at the level of ministries, authorities, and governments.
- Unification and dissemination of citizens' relationship management systems in order to receive complaints and proposals.
- Establishment and development of communal participation of all segments of society in the processes of policy formulation and decision-making, in addition to the presence of social evaluation of the government's performance.
- Appointment of an independent General Commissioner who investigates citizen complaints against governmental agencies.
- Issuance of a Freedom of Information Act.

Improving human resources management system:

- **Program Description:** This program aims to improve the means of management of manpower through conversion of personnel affairs and personnel departments into departments of human resources that are supposed to attract talented people and train them, evaluate their performance, and work to retain the most competent of them .It is expected to begin implementation in 2016 and finish by 2020. This is a program of low cost.

- **Key Elements:**

- Conversion of personnel affairs and personnel departments of government institutions into human resources departments that apply modern concepts, attract and retain skillful and competent personnel, in addition to managing and monitoring performance.
- The improvement of the Central Agency for Organization and Management to play its role in formulating of incentivizing policies for State employees, and to set standards for their selection, evaluation, and training.
- Updating job descriptions for all government functions in order to develop them and eliminate unnecessary ones, and facilitate the selection, evaluation, and training process.
- The development of a matrix of authorities to limit the conflict of competences among government agencies.
- Preparing a guide for the flow of administrative processes and procedures in order to ensure flexibility and efficiency of all government agencies.

Updating the legislative structure:

- **Program Description:** This program aims to develop and update the legislative structure of the State's administrative body in order to cope with economic, social, and political changes Egypt experiences .It is expected to begin implementation in 2016 and finish by 2020. This is a program of low cost.

- **Key Elements:**

- Compiling an inventory of all laws, decrees, and regulations enacted in all ministries and agencies.
- Preparing alternative proposals for these laws, decrees, and regulations so as to prevent conflicts and motivate growth.

- Taking necessary actions for the introduction of proposals to the competent authorities for discussion, amendment, approval, and implementation.

Improving the basic infrastructure of public administration:

- **Program Description:** This program aims to create the appropriate environment where workers can do their jobs in an optimal manner so as to ensure the quality of services provided to citizens and to provide support for the decision-making process, through the improvement of the infrastructure of buildings, tools, and equipment. It is expected to begin implementation in 2016 and finish by 2018. This is a program of high cost.
- **Key Elements:**
 - Determine the current status of the buildings and their need for renovation, maintenance, and prioritization based on:
 - The extent of their influence in the decision support system.
 - Its impact on the information infrastructure of the State.
 - The extent of its interactivity with the public.
 - Develop an annual plan for the implementation of various reforms based on the priorities.

Updating the information database of public administration:

- **Program Description:** This program aims to update the information systems in order to facilitate the collection, storing, and use of data in policy-making, planning, and follow up .It is expected to begin implementation in 2016 and finish by 2020. This is a program of medium cost.
- **Key Elements:**
 - Complete the establishment and modernization of the government institutions and agencies databases and connect them so as to help the exchange of information among government agencies in a rapid and efficient manner.
 - Connect all the accounting units via the Government Financial Management Information System (GFMIS) and activate all the State budget items.
 - Raise the efficiency of different resource management systems in all government agencies such as public accounts, inventories, and procurement.
 - Use available data to generate periodic reports for the different agencies to support decision-making (**Big** Data Analytics).

Developing the human resources of public administration:

- **Program Description:** This program aims to raise the efficiency of human resources through the development of a specific vision and plan for general and individual training, in addition to working on a new generation of knowledgeable administrative leadership . It is expected to begin implementation in 2016 and finish by 2022 . This is a program of medium cost.
- **Key Elements:**
 - Increase administrative training budget as a percentage of total wages.
 - Develop an annual plan for staff training in accordance with their functional needs.
 - Improvement and modernization of the training programs and the introduction of new mechanisms for training, e.g., online education.
 - Creating a new generation of administrative leadership that is aware of the concepts of modern management.

Improving government services provided to citizens:

- **Program Description:** This program aims to develop and improve the quality of government services provided by State institutions to citizens. It is expected to begin implementation in 2016 and finish by 2020. This is a medium cost program.
- **Key Elements:**
 - Create an automated services unit to be responsible for the automation of services provided to citizens, and to put a plan for the automation of all government services in accordance with the development priorities pack.
 - Activating the electronic payment system and electronic signature to simplify procedures for citizens and reduce informal payments.

Combating corruption in agencies:

- **Program Description:** This program aims to make the necessary efforts to curb corruption in the various State agencies. It is expected to begin implementation in 2016 and finish by 2022 .This is a medium cost program.
- **Key Elements:**
 - Automation of all financial disclosure statements and subjecting them to electronic analysis to limit corruption.
 - Issuing a law for protecting witnesses, informants, victims, and experts.

- The issuance of a new law on government procurement and tendering.
- Activation of the principle of accountability as well as the strict implementation of penalties.
- Activation of the role of oversight agencies and providing them with the needed financial and technical support in addition to ensuring their independence.
- Activation of rules of professional conduct for public employees.
- Spread public awareness of the risk of corruption and the promotion of public participation in fighting it.

Social Dimension

Social Dimension

Fifth Pillar: Social Justice

Overview of Current Situation

In the framework of the Sustainable Development Strategy: Egypt 2030, social justice strategy is based on a comprehensive concept that aims to achieve social inclusion. This target can only be fulfilled by strong institutional partnerships among the state, civil society, and the private sector as development partners. The social justice strategy ensures equal rights and opportunities among all Egyptians and effective elimination of all sorts of social gaps.

The Egyptian Constitution of 2014 includes many articles that ensure social justice such as protection of labor rights, provision of social insurance and retirement pensions for laborers and farmers, as well as the right to health care. The Constitution also allocates no less than 3% of the GNP for the health sector, no less than 4% for education, and 2% for university education. The Constitution also aims to eliminating illiteracy and digital illiteracy. Additionally, the Constitution ensures equal opportunities, fair distribution of development outcomes, reduction of income gaps, full adherence to minimum and maximum wage laws, and a progressive income tax. Each citizen has the right to healthy and sufficient food and clean water.

Many studies refer to the increasingly widening social gaps that require quick and strong intervention in order to achieve the ambitions of Egyptians who raised social justice as one of their main slogans during the 25 January and 30 June revolutions.

Social justice includes the following seven dimensions:¹

1. **Economic Dimension:** This refers to participating in the production process and reaping its benefits.
2. **Social Dimension:** This aims to achieve equal rights and social opportunities in the education, health, and other basic services.
3. **Human Dimension:** This aims to provide a decent life, human rights protection, and equal opportunities for all.
4. **Regional Dimension:** This aims to reduce the geographical gaps and address the misallocation of resources among different regions of the state.
5. **Generational Dimension:** This aims at ensuring justice among different generations.
6. **Organizational Dimension:** This deals with freedom issues, political rights, and political empowerment.

¹ Center for Private International Projects, 2014, ‘The Way to Social Justice.’

7. **Cultural Dimension:** This emphasizes the system of values and its role in achieving social justice.

The role of development partners in achieving social justice is defined as follows:

The role of the State: The State aims to provide basic quality services and ensure balanced distribution of these services among all the regions. General policies should aim to achieve economic development as well as fair distribution of its benefits. The State will be responsible for providing and expanding social welfare and protection networks. Also, the State should properly determine the legislative, institutional, and managerial regulations in order to fight corruption, eliminate monopolistic behavior, and emphasize consumer protection. In addition, the State should provide an Information Technology (IT) system that allows more transparency and efficiency in achieving social justice, and funding programs that focus on upgrading and empowering women, young people, and marginalized groups.

The role of civil society: Charity aims to mitigate the effects of poverty and reduce the negative effects of societal gaps. It can focus on building capacities, achieving empowerment, and providing opportunities for social mobility. Civil society can cooperate with the State in achieving the priorities of social justice.

The role of the private sector: The private sector could be engaged in social responsibility programs in coordination with other development partners in order to provide equal opportunities for decent work with no discrimination.

In spite of the increase in GDP from LE 425.2 billion in 2004-05 to LE 878.4 billion in 2009-10 in fixed prices, the poverty rates have increased from 19.6% to 25.2% during the same period, according to Ministry of Planning (MOP) and data from the Central Agency for Public Mobilization and Statistics (CAPMAS). Poverty rates are widespread in rural areas, especially in Upper Egypt, whereas more than half of the population lives below the poverty line, which refers to the geographical gap among regions in poverty and standards of living.² With higher population growth within the poor compared with higher income categories, the poverty problem cannot be tackled through direct subsidies and support, even though it is inevitably important in the short and medium terms. It is better to focus on social mobility and provide equal opportunities and quality basic services.

Concerning public expenditures on education and health as a percentage of the GNP, the government will increase expenditures on services gradually to reach the targeted rate according to the Constitution of 2014 during the next period and to enhance the quality of services.

Empowering women and youth is considered one of the most important factors in the strategy of social justice. Women represent around 49% of the total population while young people between the ages of 15-29 are about 30% of the total population.³ However, Egypt's rank in the indicator of gender equality published by the World Economic Forum, declined from 123 in 2011 to 129 in 2014.

² Ministry of Planning, Follow-up and Administrative Reform and CAPMAS

³ CAPMAS

In addition, education indicators, such as illiteracy and enrollment rates, reflect a gender gap as well as notable geographic gaps. The illiteracy rate reached 23.2% in 2014, 15.7% for males and 31% for females. The highest rates of illiteracy were recorded in Assiut and Al Fayoum (33.3% and 30.4% respectively), while the lowest ones were in the Red Sea Governorate (7.1%) and Ismailia (10.5%).⁴

On the other hand, the unemployment rate was 12.8% in 2014-2015 at the macro level. The structural imbalance witnessed by the labor market is also important it reached 9.3% among men and 24.1% among women, among young people age 15-29 it reached 26% for the same year, which indicates a widening generation/gender gap. Also, the rate of net enrolment in university education for urban areas was twice its counterpart for rural areas.⁵

In light of these challenges, the strategic vision for social justice was elaborated until 2030, in order to identify a clear roadmap to determine the objectives for social justice as well as the related Key Performance Indicators (KPIs). This will also contribute in achieving the United Nation's SDGs in general, and especially Goal No.1 that is related to poverty eradication, Goal No. 2 that focuses on hunger eradication, and Goal No. 5 that is concerned with gender equality.

Strategic Vision for Social Justice to 2030

By 2030, Egypt is a fair interdependent society characterized by equal economic, social, and political rights and opportunities, realizing social inclusion. A society that supports citizens' rights to participate based on efficiency and according to law, encouraging social mobility based on skills. A society that provides protection, and support to marginalized and vulnerable groups and protects the neediest.

This strategic vision aims at developing some parameters for the country's economic approach in order to guarantee the achievement of social justice. It also specifies the role of the government and the roles of the private sector and civil society in achieving social justice and the mechanisms of striking a balance between charity work and development work and between the priorities of the present time and the future considerations.

⁴) International Population Council 2014 Survey of Egyptian Youth.

⁵

Strategic Objectives for Social Justice to 2030

The strategic vision for social justice has been translated into a set of strategic objectives as follows:

Objective	Definition
Enhancing social inclusion	Increasing social inclusion and establishing an effective partnership among development partners (the state, civil society, and the private sector)
Achieving equal rights and opportunities	Promoting social mobility opportunities through an institutional system in order to achieve equal economic, social, and political opportunities.
Providing protection for the neediest groups	Guaranteeing fair distribution and reducing class divisions by providing support to marginalized groups

The first objective aims to achieve comprehensive social inclusion, enhancing confidence among development partners, as well as empowering women and young people in order to reduce the gender and generation gaps, in addition to respect for human rights.

The second objective targets equal rights and opportunities in order to establish social mobility, by reducing geographical gaps and providing quality main services including health, education, decent work, and social protection. All of these will be reflected in raising the standard of living for individuals and providing the basic standards of a quality life for the Egyptian citizen.

Finally, **the third objective** focuses on positive discrimination towards marginalized and the most needy social groups, including those below the extreme poverty line, homeless children, people with special needs, the elderly, and residents of the most dangerous slums.

Key Performance Indicators for Social Justice to 2030

These are tools for measuring achievements of social justice in the form of inputs, outputs, and strategic achievements. A set of indicators were chosen to monitor the real achievements registered towards ensuring social justice, as well as the current status of these indicators, and the values of those targeted for 2020 and 2030 were determined. The indicators and targeted values are as follows:

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1	Strategic Results	Geographical gap in human development index	Measuring the geographical gap among the governorates in human development indicator, coming out from UNDP	0.086 ⁽¹⁾	0.06	0.043
2		GDP per capita (USD) ⁽⁶⁾	Measuring the equity of distribution of GDP among social classes	3436.3 ⁽²⁾	4000	10000
3		Income and consumption distribution index	Measuring the geographical gap among rural and urban regions in income distribution and per capita share in national consumption.	31 ⁽²⁾	20	10
4		International rank of the gender gap index	Measuring the international rank of Egypt in the gender gap indicators, measuring the level of achieving gender equality in political, economic, and social rights and opportunities	129 ⁽³⁾	100	60
5		Confidence in government indicator (%)	Measuring how far citizens trust the government	60% ⁽¹⁾	70%	80%
6		Geographical gap in completing primary education index	Measuring the geographical gap among regions in providing primary education in the age range 4-14 years of age	7 ⁽⁴⁾	4	2
7		Geographical gap in child mortality rate	Measuring the geographical gap in the child mortality rate for those less than 5 years of age	8.2 ⁽²⁾	4	2
8		Geographical gap in the percentage of population under poverty line (%)	Measuring the geographical gap in the poverty rate among the regions	17% ⁽⁵⁾	10%	5%
9		Percentage of female headed households living under the poverty line	The percentage of female headed households that live under the poverty line	26.3% ⁽⁵⁾	12%	0%

5th Pillar:
Social Justice

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
10		Percentage of population under the extreme poverty line	The percentage of the poor that suffer from extreme poverty	4.4% ⁽⁵⁾	2.5%	0%

⁽¹⁾ UNPD, 2014, Database of the United Nations Program for Development

⁽²⁾ CAPMAS, 2015, Egypt in Numbers report

⁽³⁾ World Economic Forum, 2014, International Report on Gender Gap

⁽⁴⁾ World Bank, 2014, World Bank Database

⁽⁵⁾ CAPMAS, 2014, Income, Consumption, and Expenditures Survey for 2012-2014

⁽⁶⁾ This indicator is also mentioned in the Economic Development Pillar

⁽⁷⁾ *This indicator is measured according to gender and age groups

Newly Added Indicators*

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1	Strategic results	Axial positive values indicator	The impact of social work on the personal behaviors by measuring the main values of society	Forming a committee of concerned authorities and international experts to define the positive values to calculate the indicator and identify the mechanisms of measurement
2		Human rights indicator	The general situation of human rights in the political, economic, and social aspects via quantitative and qualitative mechanisms	Forming a committee of the concerned authorities and international experts to finally agree on the indicator in order to measure the human rights according to quantitative and qualitative standards
3	Outputs	The unemployment rate among people with special needs	How job opportunities are provided to handicapped people	Forming a committee of the concerned authorities and international experts to specify an appropriate methodology to estimate indicators that focus on employment, unemployment, and handicapped persons
4		The percentage of elderly persons under the poverty line	How poverty spreads among the elderly	Periodic survey of the elderly under the poverty line
5		The percentage of population in insecure slum	The spread of slum zones in Egypt	Periodic surveys of the insecure slum areas

5th Pillar: Social Justice

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
		areas		
6		Homeless children	The number of homeless children as a percentage of the total number of children	Periodic survey of homeless children
7		Political and civil participation of women	How far the woman participates in civil and political life	Forming a committee of concerned authorities and international experts to define the elements of the indicator via polls and data of political participation in elections besides the indicators that measure the impact on policy making
8		Indicator of ease of the civil work	How far the civil work is easy via evaluating the related procedures and laws	Forming a committee of concerned authorities and international experts to suggest methods of measurement including the procedures, complications, costs, registration restrictions, and activities
9	Inputs	Indicator of social responsibility for the firms	How far the firms are committed to social responsibility besides the degree of coordination of the national priorities in developmental and charity works	Forming a committee of concerned authorities and international experts to suggest methods of measurement including assessing the information provided by firms about governmental and environmental practices and the labors and their social responsibility as well as the liquidity and market size
10		Geographical gap in the education quality	Measuring the geographical gap among the governorates about the quality of the educational services via quantity and quality criteria	Forming a committee of concerned authorities and international experts to suggest methods of measurement including polls and data related to educational services and quality in the various governorates
11		Geographical gap in health service quality	Measuring geographical gaps in the quality of health services among the governorates via quantity and quality criteria	Forming a committee of concerned authorities and international experts to put up methods of measurement include polls and data related to the health services and its quality in the various governorates as well as the health rate of the citizens
12		Geographical gap in getting a decent	Measuring the geographical gap among the regions in getting a	Forming a committee of concerned authorities and international experts to suggest methods of measurement

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
		job	decent job	including polls and data related to the economy and employment in the various governorates according to the definition of decent work by the ILO and within the framework of decent work programs (as indicated in the economic development pillar)
13		Geographical gap in the percentage of employees with health insurance	Measuring geographical gaps in the percentage of employees with health insurance in both the governmental and private sectors among the urban and rural zones	Measuring the standard deviation of percentage of employees with health insurance
14		Geographical gap in the percentage of employees with social insurance	Measuring geographical gaps in the percentage of employees with social insurance in the governmental and private sectors	Measuring the standard deviation of socially insured citizens throughout the governorates
15		Subsidy efficiency	Measuring the quality of the governmental system in targeting the classes that are in need of subsidy	Forming a committee of concerned authorities and international experts to suggest methods of measurement that include measures of the social effect of the subsidy system
16		Beneficiaries from micro-loans	How far the limited income and poor groups benefit from micro-loans	Forming a committee of concerned authorities and international experts to suggest methods of measurement that include various aspects of funding small and micro projects
17		Beneficiaries of the social welfare programs	How efficient are the programs of social welfare in full absorption of eligible persons	Preparing a database to be updated periodically about the beneficiaries

* Such indicators are measured according to gender and age groups

Challenges of Social Justice

Social justice covers many challenges that can be classified into three categories: the first category deals with high priority challenges in the short term, the second category are characterized by their weaker impact and are classified as second priority. The third category of challenges are those with the least impact but which could easily be handled. We will discuss the challenges below according to their level of impact and the ability to handle them:

The first group focuses on challenges that could be easily controlled and are characterized by their high impact:

- Continuous increase in the social, economic, generational, and gender gaps as a result of a lack of all types of social justice.
- Increasing rates of population growth especially among the poorest. This constitutes a growing burden for the social protection networks.
- Equality gap in the geographic distribution of services and providing the minimum level in the neediest areas, which could affect social inclusion negatively.
- High rate of internal migration inside and among the different governorates, which would affect the ability and competitiveness of the areas that are most affected by this phenomena.
- High cost of living (housing, clothing, food, education, and healthcare), which could worsen the social gap and exacerbate the status of the poor and the extremely poor.

The second group of challenges is distinguished by its relatively low impact while being difficult to overcome:

- Lack of confidence between the state and civil society, which is a heritage after decades as a result of bureaucracy and the absence of transparency and accountability in addition to the weakness of the governance system that the state is trying to develop.
- Inefficiency of the subsidy system, which should contribute to achieving social protection and welfare.
- Incomplete database of the marginalized and most needy groups, which represents an important step towards planning and distributing subsidies, measuring their efficiency, and better targeting those who need them.
- Growing informal sector and the difficulty in protecting the rights of workers and employees in this sector, which constitutes an obstacle towards providing social protection and care to employees and workers in this sector.
- Lack of institutional efforts that help in empowering young people, women, and marginalized groups, which could hamper effective efforts to achieve social justice.

The third group of challenges with limited impact and characterized by the ability to overcome:

- Lack of coordination among government, civil society, and the private sector and linking them with the priorities of social needs, which would lead to the dispersal of the efforts supporting social justice and losing focus on the priorities of community requirements.
- Poor legal empowerment for marginalized groups, which could hamper the efforts of government, the private sector, and civil society regarding provision of incentives, coordination, and monitoring.

Social Justice Programs to 2030

According to the comprehensive vision and strategic objectives of social justice along with the performance indicators that were chosen to measure the rate of developments achieved to positively accomplish these objectives with a view to the future visions of social justice in Egypt by 2030, we will highlight the most important programs chosen and expected to facilitate fulfillment of the vision, objectives, and indicators.

It is worth mentioning that these programs are integrated with the current State efforts to achieve social justice, including implementing a social housing program all over the country, developing social insurance and pensions system, extending the social insurance umbrella to include small farmers, developing the effectiveness of the subsidization system, and raising the quality of the food supply. These efforts are also integrated with the works of civil social organizations and the activities of the private sector through projects and initiatives with regard to corporate social responsibility.

Developing the Legal and Governance Framework Program:

Reviewing and developing laws and legislation related to social justice and integration:

- **Program Description:** This program aims to develop the legislation and laws related to social justice and social integration to motivate social development work in order to reduce social and categorical gaps. This program is considered a low cost one and is targeted to be accomplished between 2016 and 2020.
- **Key Elements:**
 - Review the Law on Non-governmental Organizations (Law Number 84 of the year 2002) in order to facilitate the registration procedures, work, and process for receiving donations; expanding the law's effectiveness, and repealing the articles contradicted with political practice freedom.
 - Review the legislation concerning micro-loans and bankruptcy to motivate the establishment of small and micro enterprises and businesses.
 - Review the legislation concerning the endowments system to encourage performing the desired role in social development.

- Review the legislation concerning the free speech for journalists in order to achieve transparency and competitiveness in political action.
- Amend the articles of the Penal Code that relate to all aspects of violence against women since harsh punishment shall come into force in order to guarantee the protection of women against violence and discrimination.
- Develop detailed legislative rules determining the obligations of public and private institutions all over the state, relating to equality of opportunities and prohibition of discrimination among citizens.

Institutionalizing the partnership between the State and the civil society:

- **Program Description:** Develop the institutional frameworks for partnerships between the State and civil society by adopting a policy to enhance the governance level in civil society with the aim of working side-by-side with the development efforts of the State, and expanding its role to be more effective as a main partner in development. This program is considered a low cost one and is targeted to be accomplished between 2016 and 2020.
- **Key Elements:**
 - Develop the regulations of civil society governance to increase transparency and enhance the controlling mechanisms for civil society's work.
 - Integrate civil organizations into sectorial plans with executive functions in order to increase the efficiency of civil society and alleviate the burden on government institutions.
 - Encourage the role of the General Union for Associations and Non-governmental Institutions in coordinating between the governmental and civil society work to develop the efficiency of communication and coordination between the government and civil society.

Developing and expanding the role of State authorities concerned with transparency and protection:

- **Program Description:** Develop and expand the role of State authorities that are directly related to achieving transparency and guaranteeing protection in order to increase the citizens' trust in governmental organizations. This program is considered a low cost one and is targeted to be accomplished between 2016 and 2020.
- **Key Elements:**
 - Develop, expand, and encourage the role of the official controlling authorities to achieve transparency and ensure citizen protection, including the Consumer Protection Authority, Competition Protection Body, Labor Office, Central Auditing Agency, Administrative Control Authority, and Central Agency for Public Mobilization and Statistics; and agencies responsible to forbid monopolistic actions.

- Activate the role of the ombudsman and the committee for equal opportunity in order to apply the legalization of equal opportunities and prohibiting discrimination, the ombudsman shall have the independence and necessary abilities to control both governmental and private enterprises and to investigate any complaints.

Supporting programs to achieve visions and objectives of social justice:

Improving the social protection and subsidy systems and expanding their coverage

- **Program Description:** Develop social protection and subsidization systems to be linked to an accurate and updated database, evaluated according to efficiency assessment mechanisms to guarantee the protection and the delivery of subsidies in their various forms, and to meet its social impact.

This program is considered a low cost one and is targeted to be accomplished between 2016 and 2030.

- **Key Elements:**

- Complete the citizens' database that will be the foundation for planning the required volume growth for the social welfare network, raising the efficiency of the state administrative authority, and reducing corruption.
- Implement an integrated program to expand the social protection and welfare network, including all kinds of subsidization, and determining priority groups, responsibilities, and annual coverage objectives in order to provide insurance against unemployment, illness, and old age, ensuring equal distribution of resources and charges and to protect the destitute class of the society.
- Create an indicator for measuring the quality of subsidies via various quality and quantity census and statistics.

Reducing the social generation and gender gaps:

- **Program Description:** This program aims to achieve social inclusion by reducing social, generation, and gender gaps, while maintaining equal opportunities. This program has medium costs and is expected to start be implemented between 2016 and 2030.

- **Key Elements:**

- Support entrepreneurship to provide job opportunities for young people, especially for those in the neediest areas.
- Apply the list election system to encourage young people and women to participate in political life.
- Launch a program that aims to increase the number of students in poor zones to enroll in pilot schools/smart schools/schools with certified quality education.

- Launch a comprehensive program in all the governorates to increase the use of computers among the students of governmental preparatory schools and thus improve the level of social mobility.
- Launch an integrated program in poor areas to increase the enrollment in higher education especially in fields with higher returns and thus improve the level of social mobility.

Achieving a balanced geographical distribution of services:

- **Program Description:** This program targets balanced geographical distribution of services by establishing development activities at the local level. This program has medium costs and is expected to be implemented by 2025.
- **Key Elements:**
 - Establish an integrated incentive program to encourage employees to work in the administrative system in the governorates and neediest areas.
 - Adopt a model for financing investments at the local level to provide public services while performing an ongoing review in order to guarantee meeting the annual investments of citizens' requirements at the local level in addition to bridging the different development gaps.
 - Develop a motivating program for a gradual shift of civil society's focus on charity towards establishing developmental activities for all civil society associations countrywide.

Sixth Pillar: Health

Overview of Current Situation

Human health is one of the main pillars of a strong society and an inherent human right. An individual of sound health has the ability to work and produce, benefiting society and consequently the state's economy. Any state's decision-makers must give the health pillar great importance, as it is an issue that directly impacts citizens and directly affects human and economic development, especially since the citizen represents the state's human capital.

The formulation of the Strategic Vision for the Health Sector should take into account all issues that impact, or are affected by citizens' health, whether these issues fall under the scope of the Ministry of Health and Population or other ministries such as the Ministry of Housing, Ministry of Utilities and Urban Communities, Ministry of Supply, Ministry of Environment, and others.

The 2014 Constitution affirmed the universal right to healthcare, where Article 18 states that each citizen has the right to enjoy a healthy life and to receive comprehensive healthcare in line with quality standards. The Constitution also says that the State shall allocate a percentage of GDP on health equal to not less than 3%, a value that represents almost twice the current governmental expenditure on the health sector, a step that reflects the growing awareness of society and policy makers to the importance of this issue during the coming phase. This echoes both Goals 3 and 6 of the United Nations SDGs, which tackle Good Health and Well-being and Sanitation respectively, as well as other goals that have an indirect correlation to the state of a society's health.

The healthcare system should tackle the positive and negative factors or determinants affecting citizens' health, including (1) the general climate and context, consisting of economic, social, cultural, and environmental conditions; (2) living and working conditions linked to national policies and strategies that include aspects such as access to high-quality health services, clean potable water, and good sanitation; (3) community conditions influencing health; (4) individual lifestyles including aspects such as personal hygiene; and finally (5) characteristics that determine an individual's condition such as age, sex, and genetic factors.

The healthcare situation in Egypt can be analyzed at three levels: public health indicators, healthcare (accessibility and quality of services), and health sector management. The Ministry of Health and Population has taken many positive steps towards improving the health of the citizens, a matter that is reflected in the improvement of some health indicators such as the reduction in maternal and child mortality rates, which are now in line with the Millennium Development Goals (MDGs), in particular, the Fourth and Fifth Goals.

Despite the enhancement of some areas in the **public health category**, there are still many negative issues requiring action, in particular the diseases affecting citizens and existing causes of death. For instance, Egypt has one of the highest incidences of Hepatitis C, where more than 10% of the Egyptian people are carriers of the hepatitis C virus (HCV) carriers.¹ The medical treatment of such a staggering figure requires serious steps towards the reform of the entire

¹ White paper, outlining the health policy in the Arab Republic of Egypt, Ministry of Health and Population.

healthcare system, especially since the spread of the disease is linked to unsafe medical practices as well as inappropriate community practices, such as folk medicine and female genital mutilation (FGM). It is crucial to note as well that the health condition of children directly affects the health of future generations. Estimates indicate that 11% of child deaths in Egypt are due to malnutrition, and that 81% of child malnutrition cases and related illnesses are not being treated medically.

Comprehensive, universal **health coverage**, rooted in a system that is guaranteed to provide preventive and curative services needed by citizens and delivered at an acceptable quality and affordable price, is at the core of the public health sector of any state. The universal provision of healthcare is based on the accessibility and quality of services and the protection against financial risks, especially for the financially vulnerable. In Egypt, healthcare expenditure per capita stands at approximately \$150, compared with \$500 for higher middle income countries, while per capita healthcare expenditure in developed countries may reach more than \$4,500.² When considering the financial burden shouldered by the average Egyptian family it becomes clear that the health insurance system, in its current form, does not achieve its purpose, which may be due to the fact that the healthcare service provider is itself the financier of the service.

The **health sector management system** consists of several entities that affiliate directly or indirectly to the Ministry of Health and Population, such as the General Authority for Hospitals and Educational Institutions, the General Authority for Health Insurance, the Ambulance Authority, and other entities. These entities play four main roles aimed towards the enhancement of the overall health condition of citizens and their access to services of satisfactory quality. The main roles include strategic planning, policy-making and implementation, and regulation of and control over the delivery and funding of healthcare services for all segments of society both rural and urban. In light of the current situation, the healthcare system is in crisis due to the lack of separation between roles (planning role, the executive role, financing role, and the regulatory and supervisory roles) whereby the Ministry of Health and Population is responsible for all roles.

Based on the aforementioned, the enhancement of citizen health and the development of the health sector should not be dependent on the Ministry of Health and Population's efforts only, but must also include the support and contribution of many parties both inside and outside the health sector. It has become necessary to address the health portfolio from a holistic perspective to ensure the consistency and integration of all reform efforts among stakeholders. Hence, the primary responsibility of the Ministry of Health and Population must be the regulatory and supervisory role, and not the role of a service provider.

The following section will delineate the strategic vision and objectives, as well as key performance indicators, key challenges, and implementation programs for the health sector.

² Ibid

Strategic Vision for Health to 2030

The strategic visions for health to 2030 aims that all Egyptians should enjoy a healthy, safe, and secure life through an integrated, accessible, high quality, and universal healthcare system capable of improving health conditions through early intervention, and preventive coverage, ensuring protection for the vulnerable, and achieving satisfaction for citizens and health sector employees. This will lead to prosperity, welfare, happiness, as well as social and economic development, which will qualify Egypt to become a leader in the field of healthcare services and research in the Arab World and Africa.

This Strategic Vision for 2030 identifies the most important factors affecting the health of Egyptians, and the optimal mechanism to apply universal healthcare coverage for all. It also delineates a future management system for the health sector, the roles of the various stakeholders, and the role of the health sector in achieving the goals of sustainable development.

Strategic Objectives for Health to 2030

The strategic vision for health focuses on the achievement of three key objectives until 2030, as follows:

Objective	Definition
The improvement of the health of citizens within a framework of justice and equity	Study all factors affecting the health of Egyptians including social factors, sector resources, general awareness, and lifestyle.
Achieve universal healthcare coverage for all Egyptians and ensure high quality services	Ensure the availability and affordability of preventive and curative services of high quality to all Egyptians.
Improve health sector governance	Ensure the availability of accurate data that leads to sound decision-making in a timely manner, while improving the efficiency, accountability, transparency, and resource management of the health sector.

The first objective is associated with many duties and responsibilities that fall within the scope of several sectors, including the health sector. It deals with various factors that affect the health of citizens that have been identified earlier and include the general climate and context, living and working conditions, community conditions influencing health, and individual lifestyles. As such, the role of the Ministry of Health and Population focuses on the provision and enhancement of primary healthcare through awareness and preventive measures.

The second objective includes three elements of healthcare service delivery including financial burden, accessibility, and quality. The provision of quality healthcare services requires the increase of healthcare expenditure, the contributions of civil society and individuals to this end, and the accessibility of these financial resources by practitioners and beneficiaries, and continuity of service delivery without any financial or other burdens on citizens.

The achievement of **the third objective** requires the diversification and alignment of the health sector's relationship with other sectors, and the amplification of the role of the Ministry of Health and Population as regulator and guide. This requires the availability of accurate data that will aid in sound and timely decision-making that will improve the efficiency of sector resource management within a framework of transparency and accountability.

Key Performance Indicators for Health to 2030

In light of the Vision and Strategic Objectives for Health, a specific set of Key Performance Indicators has been selected to be used to monitor progress until 2030. Current values as well as target values in 2020 and in 2030 have also been identified, in addition to those developed indicators where the required framework for their estimation has been developed in cooperation with the concerned parties, as follow:

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Life expectancy at birth (years)	The number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.	71.1 ⁽¹⁾	73	75
2	Strategic Results	Maternal mortality rate (%)	The number of women who die from pregnancy-related causes while pregnant and during delivery; per 100,000 live births.	51.8% ⁽³⁾	39%	31%
3		Child mortality rate, below 5 years old (%)	The probability that a newborn baby will die before reaching age 5 years per 1,000 live births	27% ⁽⁴⁾	20%	15%
4		Composite indicator for children nutrition	Including 3 sub-indicators: (1) stunting, (2) wasting and (3) anemia among children less	(1) 21% (2) 8% (3) 27% ⁽³⁾	15% 4% 20%	10% 2% 15%

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
		(%)	than 5 years			
5		Mortality rate due to uncommon diseases among persons between 30 and 70 years (%)	The share of all deaths for those between 30 and 70 years by underlying causes. Non-communicable diseases include cancer, diabetes, cardiovascular diseases, or chronic respiratory diseases	24.5% ⁽⁵⁾	22%	20%
6		The spread of Hepatitis C and infected cases (%)	Local indicator measures the spread of Hepatitis C	8.9% ⁽¹¹⁾	2%	1%
7		Per capita health expenditure (USD)	International indicator measures the efficiency of health financing systems and resource management	152 ⁽⁵⁾	300	600
8		Out of pocket health spending (%)	International indicator measures the contribution of citizens in the direct health services payment	59.6% ⁽⁵⁾	40%	28%
9		The number of deaths from road accidents per 100,000	Indicator measures the number of deaths caused by serious injuries from road accidents	13.2 ⁽⁷⁾	10	8
10		Tobacco use among persons over 15 years (%)	The percentage of persons whose age is 15 years and more who smoke any type of tobacco, including cigarettes, cigars, and pipes, except smokeless tobacco (including daily and non-daily smoking)	26% ⁽⁸⁾	24%	22%
11		A composite indicator for the availability of primary health services (%)	Including 3 sub-indicators: (1) the ratio of pregnant women making at least 4 follow up visits, (2) the ratio of using new methods of family planning, and (3) the ratio of vaccinated	(1) 83% (2) 58.5% (3) 94.2% ⁽⁴⁾	85% 64% More than 95%	90% 74% More than 95%

6th Pillar:
Health

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			children by triple vaccine DPT			
12		The trade deficit for pharmaceuticals and bio-medicine manufacturing (million USD)	Local indicator measures the intensity of pharmaceutical manufacturing in Egypt	1465 ⁽⁹⁾	700	0
13	Outputs	The percentage of citizens covered by social health insurance (%)	One of the basic indicators for a health finance system as it measures the health coverage through health insurance (one of the basic indicators of health finance system)	58% ⁽¹⁰⁾	100%	100%
14		Response to International health regulations (%)	The indicator measures the ratio of achieving a set of specific items or functions that reflect the level of performance and capacity	88% ⁽⁴⁾	90%	95%
15	Inputs	Composite indicator for social services (%)	This indicator includes 2 sub-indicators: (1) the proportion of the population using safe drinking water, (2) the proportion of the population with access to a sanitation system	(1) 99% ⁽⁴⁾ (2) 50%	99% 70%	100% 100%
16		Number of hospital beds	The number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.	14.6 ⁽²⁾	22	30
17		Composite indicator for employees of the public sector (%)	This indicator includes two sub-indicators: (1) the number of doctors per 10,000 inhabitants, (2) the number of	(1) 58% ⁽²⁾ (2) 15%	12% 30%	20% 50%

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			nurses per 10,000 inhabitants			

⁽¹⁾ Central Agency for Public Mobilization and Statistics – 2014

⁽²⁾ Central Agency for Public Mobilization and Statistics – 2012

⁽³⁾ Demographic and Health Survey 201

⁽⁴⁾ World Health Organization, database, 201

⁽⁵⁾ World Health Organization, database, 2012

⁽⁶⁾ World Health Organization, database, 2018

⁽⁷⁾ World Health Organization, database, 2010

⁽⁸⁾ World Health Organization, database, 2011

⁽⁹⁾ Trade Statistics for International Business Development (ITC), 2014

⁽¹⁰⁾ Ministry of Health, database, 2013

⁽¹¹⁾ Ministry of Health and Population and Zanati Office Demographic and Health Survey

Suggested New Indicators:

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1		The proportion of health institutions that contain in their medicine stores, supplies and basic life-saving equipment on the visit day and the average of their availability	It indicates the quality of health services provided to citizens and measures the proportion of health institutions that contains in their stores medicines, supplies, and basic life-saving equipment on the visit day (and the average of their availability)	Building a database of information on all medicines, medical supplies, and equipment to facilitate its control.
2	Outputs	The percentage of infections acquired from hospitals	This indicator was developed to reflect the quality of health services provided to citizens. This indicator is a composite indicator including the percentage of infections acquired from hospitals and the number of health institutions with accreditation	Building data linking different health institutions to facilitate the follow up of the number of infections acquired from hospitals and the number of departures in the same period. Develop specific and uniform standards throughout the Republic for the accreditation of health institutions and to control them.

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
3		The accurate registration of births, deaths, and causes of death in the vital registration reports	The accurate registration of births, deaths, and causes of death in the vital registration reports to make suitable decisions at the right time	Automation of the registration of births and deaths and developing a system to review the data and update the regulations to ensure accurate recording by facilities.

Challenges for the Health Sector

The challenges are divided into three main groups.

The first group of challenges is characterized by its significant impact and relative ease of control, and therefore shall take greater precedence. These challenges include the following:

- The poor state of the health insurance system and lack of compatibility with citizens' needs. Despite the large number of health insurance service subscribers, most resort to the services of private sector providers or teaching hospitals.
- The poor implementation of the Family Medicine system, which suffers from poor quality and medical staff shortages, despite the large number of health units across the country.
- The absence of a health referral system from one service level to the next, which leads to great pressure on central tertiary service providers such as the National Heart Institute and the National Oncology Institute.³
- Mismatch between the financial resources available to the health sector and international standards and local requirements, which reduces the quality and availability of nationwide health programs and services, in addition to the poor efficiency and effectiveness of employees in the health sector.
- Lack of awareness of the importance of public health and proper nutrition, where most citizens are ignorant of the importance of maintaining their health and following a proper nutrition regimen, in addition to the lack of healthy lifestyle practices such as sports, which leads to an overall degradation of citizens' health.
- Lack of coordination between the service provider and financier, given that they are one and the same, leading to the existence of a conflict of interest, an inefficient governance system, lack of data accuracy, as well as poor service delivery.

³ Health Referral System

- Modest technological and informational infrastructure that supplies data where there is no unified health information system that includes a unified database for beneficiaries, health services providers, or information about the spread of diseases, and the quality of services provided, which may lead to the lack of available data accuracy for the sector or even its unavailability.⁴
- Modest quality control systems, due to the unavailability of periodic licensing for public hospitals or their employees. The responsibility of quality management in the Ministry of Health and Population is limited to the quality of services provided by the Ministry.

These challenges are followed in terms of priority by **a second set of challenges** characterized by limited impact with relatively weak controls including:

- Lack of economic feasibility for the private sector to invest in remote areas, due to unfavorable economic conditions. Also universal health insurance is unavailable in these areas due to the modest return on investment on healthcare for those areas, leading to lack of investment to establish health services projects that increase the burden on the governmental sector.
- The low availability of supplies and equipment in many public health facilities in light of the modesty of the control system and absence of modern information systems.
- Inadequacy of the legislative system that organizes human resources, since laws that govern the health sector and its employees are not keeping pace with technological or regulatory developments, leading to a reduction of career attraction factors. This challenge causes a large “brain-drain” to other countries.
- Inefficiency of the current appointment system, which requires medical graduates to work in the government sector for 2 years. The system gives preference to jobs at entities within cities, leading to a gap in the quality of services between urban and rural governorates.
- The absence of a mechanism for the circulation, prescription, and dispensation of medicines in hospitals, leading to the inefficient use of medication, especially antibiotics.
- Modest social services, where lack of sanitation services, especially in rural areas, adversely affects the quality of water, in addition to the high rates of pollution in cities leading to the deterioration of citizens' health.
- Modest female educational attainment ratios, especially in Upper Egypt, leading to a decline in their health awareness that adversely impacts the nutrition and health of their children.

The third and final set of challenges includes those that are low-impact but easily controllable including:

⁴ HW, SW, Networks

- The absence of a nursing culture in Upper Egypt. It is hard for Upper Egyptian families to accept their daughters working in the field of nursing, leading to a lack of qualified medical teams in many health units and hospitals in Upper Egypt.
- Mismatch of skills between higher education graduates and the needs of the health sector, where there is no certified mechanism for coordination between the needs and quality of graduates available to fill positions in required specialties.
- High rates of unemployment among young people lead to increased rates of smoking and drug abuse, which threaten public health and community peace, and adversely affect the national economy.
- Failure to enforce the law banning the sale of cigarettes to young people under the age of 18 years and non-punishment of the offender, where the failure to enforce such laws, in addition to the drug abuse laws, leads to the prevalence of smoking and drug abuse among younger people.
- The lack of an independent body for accreditation, regulation, and control of health services adversely affects the level and quality of such services, and citizens' health in general.

Health Programs to 2030

In light of the challenges facing the health sector, which limit the achievement of its Vision and Strategic Objectives, as well as the National Sustainable Development Objectives beyond 2015, the State decided that its first priority in the coming period will be to enhance the quality of healthcare services through the development of periodic and compulsory licensing for healthcare facilities.

The State also aims at creating a mechanism for healthcare facility accreditation to increase fair competition between different service providers in order to enhance the quality of services and attain generally accepted international standards. The State will also adopt the concept of continuing medical education as a prerequisite for the renewal of professional practice licenses for medical professionals.

In addition to these efforts and to enhance and support the policies, programs, and projects related to health development included into the government's work program for 2016-2018, we present the following top programs that have been selected for implementation due to their great positive impact:

Application of universal health coverage

- **Program Description:** This program aims to implement universal health coverage, including health services at all levels across the state, and universal health insurance coverage of citizens, especially underprivileged groups. This program is one of the higher cost programs and is expected to start its implementation in 2016 and to be completed by 2030.

- **Key Elements:**

- Expediting the issuing of a universal health insurance law to ensure the separation between the financier, service provider, and regulator.
- Development of a coordination framework between the service provider and the service financier to ensure provision of service to citizens with economic sustainability for the service providers.
- Develop a program to provide healthcare services at all levels across the country, especially in rural areas to ensure access to all Egyptians.
- Encourage a partnership program between the public and private sectors in Public/Private Partnerships (PPPs) to increase investment in healthcare service provision.

Improve the quality of healthcare service provision

- **Program Description:** This program aims to enhance healthcare services provided through the application of several assessment and control mechanisms. This is a high-cost program and is expected to start its implementation in 2016 and be completed by 2025.

- **Key Elements:**

- Develop a mechanism for the periodic and compulsory licensing of health facilities in accordance with specific and uniform standards country-wide, in order to ensure a minimum level of quality healthcare service provision.
- The gradual adoption of mechanisms for accrediting healthcare facilities to increase fair competition among different service providers in order to enhance the quality of services to comply with international standards.
- Develop and maintain health facilities according to a group of development priorities as they are considered the basic constituents of improving the quality of health services.
- Develop a professional licensing system for medical professionals to ensure the concept of compulsory continuing medical education for the renewal of professional practice licenses.
- Activate quality control mechanisms and spot inspections to ensure quality of services across national, regional, and local levels.

Enhancing Preventive and Health Programs

- **Program Description:** This program aims at improving the population's health through a package of preventive programs and awareness campaigns to promote the health of citizens and achieve social and economic development. This is a medium-cost program and is expected to start implementation in 2016 to be completed by 2030.

- **Key Elements:**

- Develop and implement the family medicine system as it is one of the basic components of primary health care and plays a pivotal role in protecting citizens from diseases and ensuring their health.
- Maximize public health awareness campaigns for the prevention of communicable diseases as improving public health is not only related to raising the quality of health services, but it is also related to all factors affecting citizens' lifestyles.
- Improve social, economic, and environmental circumstances and individual characteristics and behaviors.
- Improve control of non-communicable diseases including in particular stemming the rate of hepatitis C infections.
- Promote reproductive health and proper nutrition programs so as to reduce stunting, wasting, and anemia.
- Improve control of drug abuse and addiction through awareness campaigns and new ways to treat those problems, while also addressing the societal dimensions of unemployment.
- Achieve the nutrition agenda of 2014 adopted by the United Nations.

Improve Health Sector Governance:

- **Program Description:** This program aims to bring about fundamental reform in the health policy-making system and implementation through identifying a framework of responsibility for all stakeholders to ensure prevention of overlap between them, in addition to introducing the organizational and structural changes necessary to enhance health sector governance. This program is a low-cost program and is expected to start implementation in 2016 to be completed by 2020.

- **Key Elements:**

- Update and activate the role of the Supreme Council of Health to include the preparation of the integrated strategy for health and develop a general policy for the sector and following up its implementation.
- Identify the responsibility framework of the Supreme Council of Health and General Medical Council to ensure that there is no interference between the two councils.
- Establish an independent body responsible for the delivery of healthcare services while ensuring the continued coordination between the different parties to ensure the quality of such services.
- Strengthen and activate the regulatory and control role of the Ministry of Health to include everything that affects the health of citizens including food, medicine, health services provided to the public by the government, or by the private or civil sector.
- Restructure the Ministry of Health to fit its new assigned role.

Enable Municipalities to Provide Health Services within a Decentralized Framework:

- **Program Description:** This program aims to support decentralization in the health sector to enable municipalities to carry out their assigned role as part of efforts to raise the quality and availability of health services provided in all governorates. This program is in line with the provisions of the new 2014 Constitution that includes articles supporting the decentralization trend.⁵ This program is a high-cost program and is expected to start implementation in 2017 and be completed by 2025.
- **Key Elements:**
 - Update institutional, legislative, and financial frameworks in the directorates and departments of health in the context of their new role, and identify the map of services provided at various local levels.
 - Review and develop the organizational structure and job descriptions of the health directorates and departments according to their new roles.
 - Develop the infrastructure, equipment, information management, and means of communication for the directorates and departments of health to enable them to carry out their assigned role.
 - Develop strict and comprehensive programs to enhance employees' capacity to acquire the necessary skills to manage health services according to various local standards of quality and efficiency.

Develop IT Infrastructure, the Mechanisms and Methods of Correct Health Data Input, Collection and Availability:

- **Program Description:** This program aims to raise the effectiveness of health sector management through supporting the decision-making system, which depends on the availability of accurate and updated health data. This is a medium-cost program and is expected to start implementation in 2016 and be completed by 2020.
- **Key Elements:**
 - Establish a unified and integrated database to be linked to all health facilities, including quick assess and efficient information transfer among those facilities.
 - Develop a referral system that involves renovating the technical, institutional, legal, and financial frameworks to enable citizens to receive appropriate treatment by the right doctor, so as to reduce the financial burden on the service financer under the overall health insurance system.
 - Apply the Requirement Certificate System when purchasing equipment and medical supplies leading to stopping the waste of public funds on the one hand and ensuring optimal geographical distribution of supplies and equipment that fits the needs of the citizens.

⁵ Articles 176 and 178 of Fifth Part, the Ruling Regime, Section III of Chapter II of Executive Authority.

- Apply international codes when registering the cause of death so that the data can be analyzed statistically to monitor diseases, especially common ones, and the causes of death in order to work on the treatment and prevention if possible.
- Control the birth registration process especially for births that occur outside health facilities to prepare a health file for each citizen that contains all health data.
- Develop a overall database for all health insurance databases across the governorates.

Developing Human Resource Management in the Health Sector:

- **Program Description:** This program aims to enhance the means of managing human resources through a package of measures **to ensure** the stability and retention of medical professionals, as well as the availability of all specialties in all governorates. This program is a medium-cost program and is expected to begin implementation in 2016 and be completed by 2018.
- **Key Elements:**
 - Develop a mechanism to record the number of employees in the health sector in Egypt in order to determine if there is a surplus or a gap in the labor market.
 - Develop a coordination mechanism between labor market needs and the number of colleges and institutes of medicine and nursing graduates.
 - Review and amend the current appointment system to ensure the availability of well-trained and qualified medical professionals to ensure the presence of all specialties in all governorates.
 - Develop and apply an incentives program the help promote job stability and professional development of the medical teams.

Developing the Pharmaceutical Sector:

- **Program Description:** This program aims to develop the drug sector in Egypt, its management, and the elimination of improper practices. This is a low-cost program and is expected to start implementation in 2018 and be completed by 2022.
- **Key Elements:**
 - Define a clear policy for the drug sector and develop the pharmaceutical and raw materials industry so that Egypt can reach self-sufficiency in medicine.
 - Legislate drug descriptions and use activities to reduce the excessive use of medicine by citizens.
 - Establish an incentive structure to encourage investment in the field of establishing pharmaceutical raw materials factories.
 - Develop the framework and procedures that encourage Egyptian companies to use locally produced raw materials in producing medicine.

Seventh Pillar: Education & Training

Overview of Current Situation

The belief that social justice is a central right for citizens renders proper education, which liberates intellectual stagnation and expands horizons, an integral part of the central rights for citizens.

The **Constitution of 2014, Article [19]**, states that education is compulsory until the completion of secondary stage or its equivalent. An allocation of not less than 4% of the GDP for spending on State educational institutions should be increased annually to global levels. Article 21 necessitates that an additional 2% of GDP should be allocated for university education, also to be increased annually to global levels.

As for the institutional framework, there exist more than **47 thousand schools** and more than **450 thousand classrooms**, whose capacity is more than **18 million students**. In addition, there are about **6 thousand private schools**, serving **1.6 million students**, representing about 9% of total enrolled students.

There are 11 sections of specialized industrial and commercial education and each one of them is divided into different divisions. Commercial education includes a General Division, one for Legal Affairs, for Purchases and Warehouses, and for Insurance. Technical education includes secondary schools for hospitality that comprise several divisions such as Internal Supervision and Touristic Services. Moreover, vocational schools for hospitality include Production and Service, Internal Supervision, and Public Service divisions. Technical agricultural secondary schools include animal and poultry production, crop production, food and bakery industries, land reclamation, agricultural mechanization, fish processing, and production technology.

As for higher education, Egypt has seen significant quantitative and qualitative developments regarding the programs introduced at its institutions. One important program is Distance Education, which is available in two forms: partial and complete. The partial form is called hybrid or blended education, offering face-to-face interaction along with distance education. The complete form of Distance Education is fully based on distance learning and has witnessed significant development in the Egyptian Market.

Education saw efforts that aimed to apply decentralization. The competent ministries adopted initiatives aiming to enhance the opportunities for social participation; they performed financial operations at the local level in the fields of school nutrition and simple maintenance. These initiatives were further accompanied by capacity building efforts that are exerted at the various administrative levels. However, these efforts, in spite of being highly significant, still face a variety of obstacles.

The education system in Egypt, at the various levels, faces a number of challenges, which will be described in detail. However, they could be summarized in the challenges that are relating to the availability of educational services. Availability of education is strongly linked with the need to obtain the required finance from the public budget of the State or through social participation. The reduction of the density rate of students in classes, especially in the primary stage, requires more than LE 15 billion.

As well, there is a need to plan for the increase in the number of students that will be the result of the current population growth. Moreover, the improvement of the quality of education requires allocation of additional resources and is linked with the human element that relies on the educational process.

Developed and developing countries strongly focus on "learning," not "education," and use up-to-date technological means to develop various educational instruments. Egypt is still far below the level of such developments. Moreover, technical education and vocational training are not given much interest due to cultural legacies for which the time has come to change in order to be able to provide suitable job opportunities for the graduates of such type of education and promote their social levels. Moreover, university education requires much development in order to cope with the needs of the job market and produce graduates capable of facing competition nationally and internationally.

The education system is heavily burdened in the course of achieving sustainable development targets that are sought by this strategy. Development of any economic or service sector is strongly linked with the human element. The United Nations properly considers that a separate target should be set for education, namely, the fourth target. Please find below a description of the strategic view and targets of education, the performance measurement indicators, the most significant challenges that face such targets, and the most significant programs aiming to implement this strategy.

Strategic Vision for Education to 2030

A high quality education and training system should be available to all, without discrimination, within an efficient, just, sustainable, and flexible institutional framework. It should provide the necessary skills to students and trainees to think creatively, and empower them technically and technologically. It should contribute to the development of a proud, creative, responsible, and competitive citizen who accepts diversity and differences, and is proud of his country's history, and who is eager to build its future and able to compete with regional and international entities

This strategic view is applied to the three types of education: general and technical education (or pre-university education) and higher education. Nevertheless, the strategic targets, performance measurement indicators, and assisting programs for each type of education could vary. Therefore, we shall describe the strategic targets, indicators, and programs for each type of education (general, technical, and university education) separately.

The institutional framework of pre-university education places both general and technical education under the umbrella of the Ministry of Education, but the strategic targets,

performance measurement indicators, and programs that aim to promote technical education are separate from those of general and university education.

Technical education and vocational training are given particular significance due to the major role they perform in qualifying a large number of young people and providing them with skills and capabilities allowing them to meet the needs of the job market for highly-educated, well-trained, and greatly-skilled laborers who are able to deal with up-to-date technology. The development of technical education and vocational training allows such young people to seize appropriate job opportunities both in Egypt and abroad, thus raising their income level. Please find below the strategic targets, performance measurement indicators, and most significant programs that cope with the strategic vision of education at the primary, technical, and higher or university levels.

The vision and strategic objectives for Education and Training conforms to the fourth goal of the SDGs proposed by the United Nations aspiring to “Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.”¹ The various objectives of the Fourth Target do conform to the strategic targets and performance measurement indicators of education. These objectives are planned to make education available to all people, to consider the various availability levels, to guarantee education to persons with disabilities, and to focus on technical education and vocational training in a manner qualifying young people for the job market. These objectives also conform to the national and UN targets with respect to qualifying the educators.

Public Elementary Education (Pre-university)

Strategic Objectives for Public Elementary Education to 2030

The strategic vision addresses both the supply and demand sides, and aims at empowering governance and its role in planning and monitoring. Demand for educational services is expected to surge when citizens feel the actual value added by quality education; that complies with global standards, at the level of the teacher, curricula, and other media that enables competitiveness.

The supply side addresses the availability of educational services for all without discrimination, including males and females, those from rural and urban areas, people with special needs, and distinguished and talented students. The Ministry of Education and its different subsidiaries must be able to plan, follow-up, and implement programs and policies without conflict of interests. In this framework three strategic objectives determining the strategic trend of pre-university education until **2030**, have been set.

¹ <https://sustainabledevelopment.un.org/?menu=1300>

Objective	Definition
<p>Improving the Educational System's Quality to Conform with International Systems</p>	<ul style="list-style-type: none"> • Activate quality and accreditation rules that conform to global standards • Empower the learner with the requirements and skills of the 21st Century • Provide comprehensive and sustainable professional development for teachers • Develop curricula to cope with global developments and information updates, taking into consideration the age of the learner and his biological and psychological needs, so that curricula are integrated and contribute to building up personality • Developing the organizational structure of the ministry, educational directorates, departments, and schools to improve educational services • Reach effective technological techniques in presenting and sharing knowledge among students and teachers • Provide and support solid learning infrastructure (laboratories, libraries, Internet access, facilities for practicing activities, and others) • Developing scientific and subject-specific evaluation and assessment techniques while, focusing on comprehensive evaluation (from knowledge, skills, and psychological aspects) instead of evaluating information acquisition only
<p>Availing Education for All without Discrimination</p>	<ul style="list-style-type: none"> • Providing educational needs necessary for each phase, taking into consideration the disparities in needs at the local level (educational directorates and departments) • Eliminating dropouts at different educational phases • Providing a supportive environment to integrate those with minor disabilities into pre-university schools and improving the quality of special education for learners suffering from severe or multiple disability • Improving the quality of schools equipped for those with severe and multiple disabilities • Providing talented and distinguished learners with a high-quality education with regard to advanced knowledge and skills • Providing a distinguished educational service addressing unprivileged and most needy areas
<p>Enhancing Competitiveness of the Educational Systems and its Outputs</p>	<ul style="list-style-type: none"> • Improving educational indicators in global competitiveness reports • Activating the dynamic relationships between educational outputs and labor market requirements • Improving science, mathematics, communication skills, and technology learning, to become globally competitive • Providing solid infrastructure at schools (laboratories, libraries, playgrounds, and other facilities) to provide equal educational opportunities for all

The **First Objective** is entirely responsible for educational system quality, including application of global accreditation and quality standards via local accreditation of schools by the National Authority for Education Quality Assurance and Accreditation, requiring modification of local accreditation rules to comply with global standards.

The **Second Objective** is responsible for providing high-quality educational services for all students, including provision of adequate classrooms in rural and urban areas for males and females and for all classes of society. This objective also aims at integrating people with minor disabilities into schools and providing necessities for them and for talented and distinguished learners who need a supportive environment.

The **Third Objective** is related to competitiveness tied to quality and availability of education in Egypt compared with other countries. This implies continuous enhancement of educational indicators in global reports, such as global competitiveness and human development reports. These reports compare Egypt with other countries to determine progress opportunities and extract lessons learned.

Key Performance Indicators for Public Elementary Education to 2030

Key performance indicators (KPIs) include the already available indicators at the level of inputs, outputs, and strategic results. These indicators are expected to be revised periodically by the Ministry of Education to evaluate the educational performance levels from all aspects. Current values have been determined and target values for the years **2020** and **2030** have been set for the chosen KPIs. In addition, suggested new indicators are included for which the necessary assessment framework will be set in cooperation with the concerned parties as follows:

Quantitative Indicators

S. N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Percentage of accredited pre-university educational institutions	A flexible indicator that takes into consideration accreditation renewal of already accredited educational institutions	4.60% (1)	20%	60%
2	Strategic Results	Illiteracy rate (15-35 years old)	Percentage of illiterate population (15-35 years old)	28% (1)	7% (absolute zero)	
3		Egypt's rank in primary education quality index	Measures the quality of elementary education in Egypt, compared with other countries according to global competitiveness index.	141/144 Result: 2.1 (2)	≤80	≤30

S. N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
4		Egypt's rank in TIMSS test results	A series of international exams in science and mathematics for evaluating and comparing students' knowledge worldwide	Science: 41/48 Mathematics 38/48 (3)	30	20
5		Egypt's rank in PIRLS studies	Measures the level of Arabic literacy (native language) and compares results to other countries.	To be determined later after ratification by Ministry of Education and setting objectives		
6		Percentage of school drop-out under 18 years old	Percentage of dropped out students from total enrolment	6% (4)*	2%	1%
7		Average number of students per classroom (student/classroom)	Measures the quality of educational environment via average number of students per classroom in different governorates at different educational phases**	42 students/classroom (1)	38 students/classroom	35 students/classroom
8	Outputs	Number of equipped schools for talented and outstanding students	Indicates providing necessities for talented and distinguished students; and honoring them during different educational phases	Sports: 65 Academic s: 3 (1)	Sports: 70 Academic s: 5	Sports: 75 Academic s:12
9		Public spending on pre-university education per student	Measures the public real spending on students in comparison to other countries' achieved and targeted levels****	\$340 (5)	Targets are set in consistency with economic pillar.	
10		Percent pre-school enrollment rate	Measures the percentage of children enrolled at nursery schools	31.3%	47%	80%
11	Inputs	Share of spending on pre-university education in GDP	The ratio of the current expenditures and investments to GDP	3% (1)	5%	8%

(1) Database of the National Authority for Education Quality Assurance and Accreditation, website of the Authority, 2014.

(2) The World Economic Forum, Global Competitiveness Report. 2013

- (3) <http://nces.ed.gov/timss/>
 (4) <http://data.worldbank.org/>

(5) Website of Ministry of Investment, Annual Report, 2013

*Dropout percentage in elementary stage (0.56%), while in preparatory phase (approx. 4.7%) for 2014/2015.

**Dealing with this Indicator should be performed, cautiously, as the average number of students per classroom differs from one governorate to another, from one educational department to another and from one phase to another. Therefore, it reflect the educational process quality all over the Republic, however, this should be evaluated at the local level and on samples chosen from schools and governorates.

***There are 65 schools (309 classrooms) for those talented in sports and 3 schools (45 classrooms) for the academically talented. The ratio of talented to total population within compulsory education phase is unknown.

****It does not indicate the absolute development of education quality. Therefore, another indicator should be added for measuring the efficiency of expenditures on education.

Suggested New Indicators*

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1		Percentage of teachers with practicing license	Measures the professional efficiency of teachers with practicing license, which is renewed periodically based on training and previous experience	Number of teachers applying for a license and number of license holders
2	Outputs	Percentage of students passing national examinations in Science, Mathematics, Arabic Language, and English as a Second Language	Measures teachers' efficiency and outcomes of educational system through a random sample of students representing different governorates in rural and urban areas	Passing national annual exams by assessment and examinations committee as an independent entity and based on universal standards in Science, Mathematics, Arabic Language, and English as a Second Language and establishing a mechanism for evaluating examination results and analyzing them to determine the required developments in teaching and learning systems
3		Percentage of schools with proper educational technology	Measures efficiency of technological infrastructure at schools; including computers, technological devices, digital media, learning tools, and connectivity to world wide web**	This indicator is measured by calculating all educational institutions applying for accreditation, to identify the capability of institutions and to set a timetable for developing institutions that are not yet accredited
4		Percentage of schools	Measures the sincere care to	Analyzing the number of

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
		with integration requirements	people with disabilities by evaluating the extent of equipping school building, teachers and specialists, and developing curricula	students with disabilities, then defining the standards of integration and calculating the number of schools abiding to such standards
5	Inputs	Percentage of curricula that conforms with global standards	Measures the compliance of curricula (that are not culturally loaded) with global standards by measuring the percentage of curricula prepared in accordance with such standards	Supervision and curricula development authorities follow-up on the number of developed curricula to the total number of curricula, to set a mechanism for identifying the parts that require further development

*Other indicators can be introduced, including unemployment rates among the educated and the level of society's satisfaction from educational outputs, to benchmark competitiveness. In addition, providing education for all without discrimination can be measured through the percentage of children outside the educational system and number of under privileged areas.

**The standard limit for using technology at schools (e.g. 10 computers, 5 data show projectors, Internet access, etc.) will be set in accordance to the strategic plan of the Ministry of Education.

Challenges of Public Elementary Education²

The challenges of pre-university education are divided into **three sets**, as follows:

The first set is known for its great impact and relative flexibility to control. Therefore, it becomes first priority; and includes:

- **Decrease in the number of teachers relative to the number of students** and absence of distribution standards, as the educational system suffers from deficiencies in distributing teachers among different governorates according to specialization, which affects the quality of education.
- **Unspecified period or deadline for accreditation**, which discourages schools from applying for accreditation.
- **Lack of trust between society and the educational system** due to the deficiency of quality in educational services and the mismatch between education, on the one hand, and requirements of life and the labor market on the other.
- **The digital illiteracy of most teachers** is one of the most important bottlenecks hindering the efficient integration of technology to facilitate the educational process and increasing its competitiveness.

² The Ministry of Education is aware of such challenges and exerts its efforts to face them, gradually, through educational development strategies along with short- and long-term plans.

- **Lack of detailed databases and the impact on supporting decision making.** This disintegrated system for data collection from within the educational sector obstructs reaching some categories of society.

The second set of challenges is characterized by a relatively limited impact and ease to control them, including:

- **Deficiency of training program for teachers.** There is no annual plan for training different specializations and different levels.
- **Diminishing role of civil society and the private sector in the educational process,** including establishing schools and providing necessary resources, thus increasing the burden on the Ministry of Education for planning, and follow-up processes.
- **Deficiency of evaluation, monitoring and incentives systems** and lack of an integrated results-based monitoring and assessment framework despite, the presence of several departments for follow-up and assessment. Those departments suffer from a lack of coordination and integration due to a deficient organizational structure to determine the obligations and responsibilities at different administrative levels. In addition, the disconnect between the current assessment and incentives systems discourages coping with development.
- **Limited number of classrooms and deficiency in student distribution.** The reasons for the high student density are insufficient classrooms and **more than 42 students** per classroom. In addition, the distributive inefficiency is demonstrated in the elevated student density in some governorates (more than **55** students per classroom) and the lower density in others (**15** students per classroom).
- **Absence of supervision over curricula and development regulations** due to the absence of an entity competent for supervising curricula and ensuring continuous updates and development to cope with global standards. This in turn has resulted in the disintegration of curricula.
- **Poor curricula and delay in updating and integrating them.** Some curricula suffer stagnation and lags behind modern educational trends that links it with knowledge and the economy. These curricula do not give opportunities for creativity, innovation, and critical thinking, and do not cope with life's requirements. Hence, radical development is needed for ensuring integration.
- **Readiness of schools to be accredited (financial and human requirements).** The lack of financial resources and trained and qualified personnel hinders the ability to applying quality standards confirming the importance of supporting schools in both aspects.
- **Limited ability of the Quality Assurance Authority to perform its role in accreditation,** due to the scarcity of financial resources and efficient personnel responsible for: accrediting schools and ensuring abiding to modern accreditation and

quality standards, as well as continuously updating such standards to ensure conformity with global standards.

- **Limited ability of the Professional Academy for Teachers in licensing**, due to the limited human and financial resources available to the Academy to perform its functions regarding granting licenses after comprehensive assessment and continuously developing the prerequisites for the professional license through the provision of pre-licensing training.
- **Infeasibility of accreditation (economic and educational)**, which requires an incentive system to encourage schools to apply for accreditation. Economic incentives are largely financial, while educational incentives include programs and certificates of recognition.
- **Limited numbers of trained psychologists and social specialists**. In addition to its mandate in the educational process, the school also plays a major role in upbringing young people, which cannot be ignored. Children spend most of their time at school and face many factors that affect them socially and psychologically. Therefore, the absence of trained psychologists and social specialists is an important challenge, especially in cases when there are students with disabilities and special needs.
- **Limited educational means for the disabled** due to inefficiency in equipping schools to receive people with minor disabilities, including necessary educational means and resources, and specialized teachers.
- **Fragility of binding regulations for integrating students with minor disabilities** results in the difficulty in providing education for all.
- **Need for adequate authorities to equip and develop schools for quality**. The State exerts efforts to provide adequate authorities to apply developed quality standards and provide necessary training.
- **Absence of binding regulations for obtaining practicing license**. Educational legislation does not oblige teachers to obtain a professional license as a prerequisite for employment.
- **Absence of binding regulations to integrate nursery schooling into the elementary education phase**, as the compulsory stage for attending school starts from the age of **6 years**, which explains the decline in the admission rates for children in nursery schools.

The **third set of challenges** is of lower priority, but this does not indicate ignorance. These include:

- **Lack of financing and its resources**, as pre-university education relies largely on resources allocated from the State's General Budget. These resources are not adequate to fulfill all development needs. Though the constitution allocates **4%** from GDP, the actual percentage reached only **3% in 2014**. In addition, the financing structure is

unbalanced and needs amendments, as **wages constitute 89%** from the total educational budget, while the percentage allocated for investments and other commodities, services and expenses does not exceed **11%**.

- **Dependence of current quality systems on operations, ignoring output quality**, such as student density in classrooms or number of teachers relative to students, and ignoring output quality at the student's level, such as success rates.
- **Professional inefficiency of some teachers.** The educational system lacks highly qualified teachers, resulting in the phenomenon of private lessons.
- **Ignoring subsidizing unprivileged and poor areas** with regards to the provision of school expenses, school uniforms, and the need for incentives to compensate for income generated by child labor.
- **Inability of schools to engage students** and increased absence and dropout rates due to the unattractive educational environment, lack of student activities, density in classrooms, lack of efficient teachers, and lack of focus on student activities and sports.
- **Deterioration of school infrastructure**, which hinders creation of a supportive environment for students and frequently means technology is not integrated into the educational process.
- **High cost of modern education technology**, as the provision of technological learning tools necessary for educational processes such as computers and other electronics requires huge financial resources.
- **Limited number of centers competent for discovering and supporting talented and distinguished students**, due to insufficient financial and human resources and the fragile structure of the systems for discovering the talented student.
- **Cultural values and division of labor within rural families**, as poverty in some areas is a major reason for illiteracy and dropout, as children turn to labor to provide for their families. In religiously conservative areas there is also the prevalence of cultural values discouraging girls' education.
- **Unavailability of schools for all educational phases in poor and unprivileged areas.** Some areas do not have enough schools, and may lack schools for all educational phases, which increases dropout.
- **Need for radical change in the process of teachers' preparation and graduation.** Development of the college of education, and teachers preparation centers is the first step in the teacher preparation process, which requires a radical change in curricula, evaluation systems, and integration of psychology into curricula for preparing specialized teachers capable of increasing the value-added from education for students.

- **Lack of language practice activities.** Despite the fact that learning languages expands students' horizons, and the presence of Arabic as a mother language or a foreign language as a second language in the educational curricula, there is a lack of opportunities for practicing language, inducing language deficiency, especially in the elementary education phase.
- **Lack of participation in global tests.** Irregular participation in global tests such as PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study), hinders comparing Egypt to other countries.

Public Elementary Education Programs until 2030

Within the vision and strategic objectives of Education and Training, in addition to KPIs that have been set for measuring the extent of achievement and the preset educational development programs in the government program for the period 2016-2018, the most important chosen programs expected to contribute significantly in achieving such vision, objectives, and indicators are as follows:

Programs Related to Mechanisms of Execution

Adopt an investment strategy in education and develop new financing schemes at Ministry and school level

- **Program Description:** This program aims at providing financial resources necessary for the development of the current school infrastructure, establishment of new high quality schools, and providing schools with the necessary resources to fill the financing gap of the public sector. The cost of this program is low and is expected to be completed by the beginning of 2020.
- **Key Elements:**

At the level of Ministry of Education:

- Amend the regulations of budget allocated for education in Egypt, ensuring an increase to at least **8% of GDP**. Restructure budget allocations, increasing the proportion allocated for investing in educational establishments and decreasing proportion allocated for wages. Set policies that facilitate and activate expansion in civil society and non-governmental institutions.
- Designing a comprehensive program to unify the efforts of the private sector in view of corporate social responsibility to finance and provide schools with modern educational technologies and to support accreditation.
- Set policies that encourage the private sector to finance the education sector and provide schools with suitable technologies and facilities necessary for enhancing educational performance.

- Set policies to that impose fees to be allocated for the education budget in the municipalities in order to support building schools within the municipalities in order to mainstream the concept of self-reliance in the municipalities.

At the school level:

- Set policies and mechanisms to activate the role of the board of trustees at schools or directorates, allowing it to manage financial resources, identify priorities of disbursement, and facilitate the community's contribution to financing renewal and maintenance of schools.
- Set guarantees for allocating proportions of long-term low-interest international loans and grants for school maintenance in order to decrease the burden incurred by the public sector.
- Remove obstacles faced by civil society in establishing schools and providing for its educational needs.

Develop Teachers' Professional and Technical Skills:

- **Program Description:** This program is responsible for development of professional and educational skills through setting evaluation and development systems responsible for qualifying and raising efficiency. The cost of this program is high and is expected to be completed by the beginning of 2025.
- **Key Elements:**
 - Develop programs to prepare teachers and qualify them to obtain professional licenses and ensure efficiency in the new cadre, while focusing on their technological qualifications to cope with the requirements of this era.
 - Set a monitoring mechanism and develop requirements for obtaining professional licenses while updating the license renewal mechanisms for current and new teachers through periodic examinations to ensure conformity with changes in the methods and contents.
 - Raise the efficiency of the Professional Academy for Teachers and develop it to include modifying regulations of wages and salaries and restructuring of the Academy and training of cadres.
 - Set a mechanism for connecting training centers in governorates with the Academy to ensure continuity of training and qualification.
 - Modify the role of technical guidance and application of the mechanisms necessary to ensure the efficiency of raising quality.

Develop a System for Equipping Schools for Accreditation:

- **Program Description:** This program aims at increasing the ratio of accredited schools through motivating them within the outer scope of the school as a whole or the internal

scope of teachers, managers, and students. The cost of this program is high and is expected to be completed by the beginning of 2025.

- **Key Elements:**

- Accelerate the issuance of a law that obliges schools to apply for accreditation during a specific period to ensure completion of all schools before starting the application of the developed curricula.
- Set a mechanism for updating quality standards that ensures a balance between the quality of operations and the quality of outputs, so that they include passing rates, dropouts, and classroom density.
- Establish branches for Quality Assurance and Accreditation Authorities and set policies to motivate the private sectors' contribution, to ensure coverage and accelerate implementation.
- Set a program encouraging schools to gain accreditation, including a program for recognition of accredited schools (e.g. granting the best school in the governorate a certificate of recognition).
- Set mechanisms and policies to link teachers' promotions to accreditation, thus motivating teachers and helping to achieve a school's quality standards.
- Set policies to improve the quality of outputs and operations through developing standards.
- Provide quality standards training programs for trainers and qualifying schools for accreditation, mandating the task of training on quality standards to local training centers, in additions to establishing assessment and quality centers in the universities.

Programs Related to Specific Topics

Application of Comprehensive Curricula Reform System:

- **Program Description:** This program intends to develop and ensure the integration of educational curricula over different educational stages in addition to providing required supervision for curricula quality development to conform to international standards. The cost of this program is low and is expected to be completed by the beginning of 2020.

- **Key Elements:**

- Amend the Law of establishing the Curriculum Control Center and its implementing regulations, separating it from the Ministry of Education to become subordinate to the Supreme Education Council.
- Design a national context for curricula that is integrated over all educational stages and conformed to international standards and requirements for professional life and the requirements of 21st Century. Create a mechanism to integrate technology with emphasis on scientific subjects such as mathematics and the sciences.

- Enact required legislation for applying a curriculum development program.
- Develop curriculum supervision mechanisms and development programs to ensure efficiency and quality.
- Develop a mechanism for promoting publishing houses to contribute to curricula and educational media enhancement.
- Develop a mechanism for expanding gender equality, such as including the roles of women in curricula, to orient students to ongoing developments, and activating the role of citizens in society.

Develop a Subsidy System for Poor Families:

- **Program Description:** This program intends to provide basic education for all social classes and raise awareness of the importance of education, which may increase enrollment and reduce the dropout rate that eventually results in illiteracy. The cost of this program is high and is expected to be completed by the beginning of 2020.
- **Key Elements:**
 - Develop a clear system that links the availability of education to the current and expected population growth rates to achieve efficiency in class organization and wider coverage.
 - Develop a system that encourages civil society to establish ‘second chance’ schools and illiteracy programs, as well as raising awareness about the importance of educating girls to activate the elements of attraction from outside the Ministry of Education, reducing the burdens accrued by the Ministry.
 - Develop a subsidy system for disadvantaged families, such as providing financial subsidization, meals at school, school uniforms, books, and stationary, and compensating families for the income lost as children leave work to attend school. Such subsidies would cease if the child drops out.
 - Create and activate databases to identify school ages of different social classes and access methodology.
 - Develop a communications system with different social classes, and raise awareness about the importance of education in general and female education in particular.
 - Impose harsher penalties for violating laws banning child labor before the age of basic education completion.

Develop the Pre-school System and Increase Enrollment at Nursery Stage

- **Program Description:** This program is concerned with nursery schooling as the first step to education enrolment through designing an integrated system including financing, policies, awareness, and retraining nursery teachers. The cost of this program is average and is expected to be completed by the beginning of 2020.

- **Key Elements:**

- Enact legislation to modify the compulsory years of basic education to include nursery schooling.
- Merge supervisory authorities competent for nursery schooling integration in one entity overseen by the Ministry of Education.
- Update policies to allocate a portion of the education subsidy to nursery schooling.
- Develop family awareness programs about the importance of nursery schooling, providing subsidies to disadvantaged families, providing meals for needy children, school uniforms, and health care.
- Develop a system for recreational activities (sporting, entertaining, and educational).
- Develop a mechanism to enhance the selection of teachers and training them about the kindergarten stage to ensure the quality of the educational process.
- Develop the nursery school curriculum, emphasizing the integration of psychology as a part of the requirements for teacher certification.
- Conduct periodic tests to evaluate the efficacy of teachers' psychological retraining.

Integrating Students with Minor Disabilities in Schools

- **Program Description:** This program aims at equality in education for mildly handicapped students, in addition to providing special techniques for dealing with them. The cost of this program is average and is expected to be completed by the beginning of 2020.

- **Key Elements:**

- Modernize information and communications technology for various disabilities to keep pace with the latest international developments.
- Set policies to allocate required funding for integration separate from the education budget, to ensure sustainability of integration and quality.
- Modify accreditation standards from the Quality Assurance Authority to include integration mechanisms as one of the prerequisites to ensure integration.
- Provide incentives for teachers and psychologists.
- Establish local, regional, and international partnerships to support integration and special education systems.

Distinguished and Talented Student Support Program

- **Program Description:** This program intends to draw attention to distinguished and talented students and provide them with a supportive environment. The cost of this program is average and implementation is expected to commence in 2020 and to be completed by 2025.

- **Key Elements:**

- Develop tools to discover talented and academically distinguished students to ensure they are provided with a supportive environment.
- Assign the sponsorship of distinguished students to a competent department at the Ministry of Education, while enhancing efficiency via training and rehabilitation.
- Provide training and a special cadre of teachers and special classes for distinguished students through a program that includes discovery, sponsorship, and financial subsidy.
- Enact legislations to accelerate the transition from one stage to another.
- Activate systems supporting talented and excellent students, such as a credit hours system.
- Develop exchange programs and scholarships for talented students at international schools inside and outside Egypt.
- Ensure ongoing coordination with the Ministry of Youth to develop an athletic union for schools, broadcasting matches to encourage students and discover talents.

Periodic Assessment of Students in Accordance with International Standards

- **Program Description:** This program intends to evaluate the quality of the entire educational process, including curricula, teachers, and the educational environment through evaluating the level of students. This program applies international tests such as PIRLS and TIMSS periodically on random student samples from different schools and governorates. The cost of this program is high and implementation is expected to commence in 2020 and to be completed by 2025.

- **Key Elements:**

- Set policies to apply TIMSS and PIRLS tests periodically.
- Specify the type and format of the required examinations in Arabic and English as second languages and science and mathematics (in addition to TIMSS and PIRLS). This should be done annually and the educational levels to be included into the examinations should be specified according to international standards.
- Develop a mechanism to evaluate examination results, through results collection and analysis to identify the required continuing developments in the education and learning systems.
- Develop a database and mechanism to select random student samples representing the population.
- Create an incentive system for the participating sample, such as publishing the results of the best school in every governorate to encourage schools to participate in the examinations.

- Provide training for teachers to promote professional and educational efficiencies to increase their ability in qualifying students for tests.

Within the same context, the Ministry of Education deems the inclusion of some elements that are not considered in the Sustainable Development Strategy for Education and Training. We recommend that a special program should be assigned to each of them in addition to the eight programs included in the education and training strategy. These elements are as follows::

- Necessity of maximizing the ethical and moral values of employees in the sector (teachers and others).
- Enhancing the practices of the educational community (students and employees) towards the environment, since the environmental dimension is one of the three main dimensions of sustainable development.
- Necessity of extending a complete and major program focusing on improving students' performance at all stages of pre-university education in the fields of science, mathematics, and technology, since such fields are the mainstay of future development.
- Necessity of reforming and developing the educational processes governing systems to achieve a committed and efficient educational community, able to cope with ongoing developments, assuming the balance between centralization and decentralization to support the principles of good governance.
- Necessity of taking social justice into consideration while distributing educational resources among the beneficiaries.
- Reforms at the level of the Ministry and the school have been emphasized, ignoring the role of directorates and educational administrations in reform and development processes, in spite of the essential role played by both in achieving the sector's strategic objectives.

Technical Education and Training

Strategic Objectives for Technical Education and Training to 2030

The strategic vision addresses both supply and demand sides, and aims at empowering governance and its role in planning and monitoring. Demand for technical education and training services is expected to surge when citizens feel the actual value-added from quality education that meets global standards, at the level of the teacher, the curricula, and other media that enables competitiveness.

On the supply side technical education and training services must be available for all without discrimination including males and females, rural and urban dwellers, people with special needs, and distinguished and talented students. The Ministry of Education and its different subsidiaries should be able to plan, follow-up, and implement programs and policies without conflict of

Objective	Definition
Improving the Quality of the Technical Education and Training System to Conform with International Systems	<ul style="list-style-type: none"> Activating accreditation and quality rules to conform with international standards Providing the student and trainee with necessary skills to meet the requirements of the labor market Comprehensive and sustainable professional development for teachers and trainers Continuous development of educational and training programs Developing integrated vocational and technical training systems to meet development plans and labor market requirements. Enable the learner and the trainee to have the requirements and skills desired by the labor market.
Providing Education for All without Discrimination	<ul style="list-style-type: none"> Providing attractive schools and training centers that increase enrollment and achieve discipline Achieving effective integration of schools and training centers according to demographics and economic activities Enhancing the social perception of vocational and technical education through effective community participation.
Enhancing Competitiveness of the Technical Education and Training Systems and its Outputs	<ul style="list-style-type: none"> Activating the dynamic relationship between the educational system's outputs and labor market requirements Enhancing Egypt's rank in global indices of technical education and training.

The **First Objective** is entirely responsible for the quality of the educational system, including application of global accreditation and quality standards via local accreditation of schools by the National Authority for Education Quality Assurance and Accreditation. This will require modifying local accreditation rules to comply with global standards in a way that coincides with the special nature of technical education and training.

The **Second Objective** is responsible for providing adequate classrooms and training centers in rural and urban areas, for males and females, and for all classes of society. This objective also includes providing attractive schools in a way that help achieve discipline.

The **Third Objective** is related to competitiveness tied to quality and availability of education as the higher objective is to have a graduate able to interact and compete in the local and external labor markets in order to enhance the dynamic relationship between the educational process and the labor market's requirements.

Key Performance Indicators for Technical Education and Training to 2030

Quantitative Indicators

S.N.	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Percentage of students with outstanding performance enrolled in technical education (scored more than 85% at preparatory stage)	Measures the ability of technical education to attract the largest number of excellent students from the preparatory stage. This indicator reflects the social perception of technical education and vocational training as well as the demand for it	4% (1)	12%	20%
2	Strategic Results	Percentage of technical education graduates working in their fields of specialization	Measures the ability of technical education graduates to work in the fields they specialized in, and helps in identifying labor market requirements as well as measuring the employment rates of technical education graduates	30%(1)	60%	80%
3		Egypt's rank in the World Bank's Index for Technical Education	Measures the international competitiveness of Egyptian technical education. A composite indicator that considers the suitability of both technical education and training for the country's economic strategy. It also accounts for the private sector's contribution to the educational process and sector's overall satisfaction with it.	Score: 2/4(2)	Score: 3/4	Score: 3/4
4	Outputs	Percentage of enrolled students in vocational training to the total enrolled students in technical education	Measures the availability of vocational training relative to overall technical education.	4%(1)	16%	30%

7th Pillar: Education & Training

S.N.	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
5		Number of technical education schools according to demographics and economic activities	Measures the distributive efficiency of technical education institutions based on demographics and economic activities.	1929 schools (2)	Identifying the appropriate distribution based on the characteristics of each governorate from geographic or demographic aspects	
6		Percentage of technical and vocational institutions based on partnerships with civil society	Measures the level of civil society's contribution to establish technical and vocational training institutions in line with quality standards. Thus, the indicator measures the extent of civil society's contribution to the overall educational process.	3%(1)	12%	20%
7		Average number of students per classroom	Measures the availability of technical education in an encouraging environment. The indicator also measures the quality of technical and vocational education provided for students by assessing the student density per class, which directly impacts the student's ability to concentrate.	38 students /class(1)	30 students /class	30 students /class

(1) Unpublished statistics of the technical education sector- Ministry of Technical Education and Training 2014.

(2) The World Bank, the World Report SABER 2012.

(3) Strategic plan for pre-university education 2014.

Suggested New Indicators

S.N.	Indicator Category	Indicator	Reason	Measurement Mechanism
1	Strategic results	Average training hours per employee in each sector of the labor market	Measures the development and enhancement of the employee's capabilities by providing various training means without discrimination	Number of training hours provided to all employees from all sectors compared with the number of attendants

S.N.	Indicator Category	Indicator	Reason	Measurement Mechanism
2		Percentage of technical and vocational education graduates with professional licenses	Measures the competitiveness of technical and vocational education graduates by identifying the number of individuals with professional licenses	The number of fresh graduates applying for a professional license immediately after the completion of the educational stage
3		Private institutions and employers' level of satisfaction regarding the technical and vocational education of graduates	Measures the quality of technical and vocational education provided as well as the graduates' competitiveness through assessing the quality of services provided to employers that represent labor market	Opinions of private institutions and employers who previously worked with technical and vocational education graduates will be surveyed for measuring the effectiveness of technical and vocational education regarding the quality of provided services. Reports will be prepared with recommendations to continuously develop the educational process
4	Outputs	Percentage of developed educational curricula and programs in line with the National Qualifications Framework of each sector	Measures the ratio of curricula and programs of technical and vocational education developed according to the National Qualifications Framework in each sector (industrial, agricultural, and other) relative to the total number of educational programs	Percentage of developed educational curricula and programs in line with the National Qualifications Framework in each sector through comparing such curricula and programs to the National Quality Standards and accrediting the conforming programs. Finally, a schedule for developing the non-conforming ones to be accredited will be set
5		Percentage of training curricula and programs in line with the National Qualifications Framework of each sector	Measures the percentage of training curricula and programs developed according to the National Qualifications Framework to the total number of educational programs	Percentage of developed curricula and training programs in line with the National Qualifications Framework in each sector through comparing such curricula and programs to the National Quality Standards and accrediting the conforming program. Finally, a schedule for developing the non-

7th Pillar: Education & Training

S.N.	Indicator Category	Indicator	Reason	Measurement Mechanism
				conforming ones to be accredited will be set
6		Percentage of technical education institutions accredited by the National Authority for Education Quality Assurance and Accreditation	Measures the progress achieved in regards to accrediting the largest number of technical education institutions by the Quality Assurance Authority	Through counting all the technical education institutions applying for accreditation, then assessing those institutions' eligibility to be accredited. In addition, a schedule for developing the non-accredited institutions to increase their percentage by time will be set.
7		Percentage of training centers accredited by competent authorities	Ensures the quality of provided training through measuring the progress achieved in regards to accrediting the largest number of technical training centers by the competent authorities	Through counting all the technical training centers applying for accreditation, then assessing those institutions' eligibility to be accredited. In addition, a schedule for developing the non-accredited institutions to increase their percentage by time will be set
8	Inputs	Percentage of teachers achieving more than 90% in teachers' comprehensive assessments	Measures the progress achieved in regards to increasing the percentage of teachers who got more than 90% in the teachers' comprehensive assessment	Through conducting a comprehensive assessment for all technical and vocational education teachers to identify those achieving more than 90% as well as setting up training programs for other teachers to increase such percentage by time ensuring the quality of technical and vocational education
9		Rate of providing equipment and tools per student	Measures the ability of the Ministry to provide the necessary equipment and tools for technical and vocational education students. This is a composite indicator for measuring required supplies including machines, raw materials, and other tools	Through measuring the amount of supplies, equipment, and raw materials utilized in all specializations per student and comparing that to the percentage of required tools for each specialization to ensure availability

S.N.	Indicator Category	Indicator	Reason	Measurement Mechanism
10		Rate of transition from one stage to another in technical and vocational education	Measures the student's transition rate from one stage to another, indicating the availability of attracting schools to achieve a low dropout rate	Through comparing the number of students progressing to a higher stage to the total number of students in prior stages

Challenges of Technical Education and Training

The challenges of technical education and training are divided into **three sets**.

The first set is known for its large impact and the relative flexibility to control. Therefore, it becomes first priority; and includes:

- **Scarcity of teachers in some specializations and their inefficient distribution.** There are not enough competent teachers, and there is an inefficient distribution of teachers when it comes to both specializations and geographical locations.
- **Overlooking laws obliging schools to seek accreditation during a specific period.** This reduces the number of schools applying for accreditation and diminishes the perceived importance of acquiring accreditation in the technical education and vocational training system.
- **Deterioration of the social perception of vocational training and technical education and work associated with such education.** It is essential to change the social perception of technical education from a channel to deal with the least successful students in public education to a key educational system that tackles unemployment and develops the economy.
- **Disparities in geographic and program specializations coverage,** due to the absence of a mechanism able to link specializations in technical education and training with geographic and qualitative distribution of industries. Geographical gaps have emerged in all governorates in terms of the industries covered by appropriate training schools. The absence of such a mechanism has resulted in a mismatch between the specializations needed, particularly for females in Upper Egypt.

The second set of challenges is secondary priority and is characterized by a relatively limited impact and ease in controlling them, including:

- **Inefficient assessment, monitoring, and incentives systems.** Poor implementation of such systems has resulted in the deterioration of the quality of technical education.
- **Necessity of integration between technical education, vocational training, and other educational forms.** Basic educational outputs are inputs for technical education,

and likewise; the outputs of technical education are inputs for higher education, in case technical education graduates advanced to the level of higher education.

- **Disparities in distribution of schools and training centers according to geographical and industrial requirements.** This is the outcome of the absence of a clear plan linking the geographical distribution of industries and their expected growth and a clear plan to develop appropriate schools and classes. This violates the concept of equal opportunity in education.
- **Poor, outdated, and disintegrated curricula,** which is present between industrial requirements and educational institution curricula regarding skills and information. This leaves the relevant beneficiaries on both sides dissatisfied with the current curricula.
- **Limited readiness of schools and training centers for accreditation.** To achieve the required standards of quality and be ready to apply for accreditation, schools and training centers should receive financial support that ensures they can provide resources such as classes, workshops, and training centers. Those financial resources would also help provide the required supplies such as equipment and materials. In addition to the financial resources, human requirements including trained and efficient teachers and trainers are needed.
- **Limited capabilities of the Quality Assurance Authority.** The Authority requires highly efficient staff and adequate financial resources to be able to fulfill its role when it comes to accrediting all technical education and vocational training schools according to the newly developed standards.
- **Absence of a unified national authority for accrediting qualifications and issuing licenses.** The government will establish a national authority for certification and accreditation and issuing licenses for technical and vocational education graduates to obtain professional licenses. The actual objective of enforcing issuing the license is to ensure that graduates' skills and competencies meet the requirements of the labor market and are able to support the national economy. Enforcing the license also provides a mechanism to facilitate the classification and ranking of the graduates in various degrees and levels that will reflect on their wages and salaries.
- **Low educational and economic return of accreditation.** The lack of financial and non-financial incentives for schools obtaining accreditation reduces the number of schools applying for it.
- **Absence of an entity responsible for accrediting the training centers.** No entity is currently responsible for accrediting training centers, while the National Authority for Quality Assurance and Accreditation of Education is only responsible for school accreditation.
- **Inefficient supervision over curricula and absence of binding regulations for curricula development.** This is one of the major causes of the impaired integration

between technical educational and vocational training curricula on one hand and the requirements of labor market on the other.

- **Absence of binding regulations for graduates to obtain licenses.** The government intends to issue laws requiring technical education and vocational training graduates to obtain professional licenses. In addition, the government shall monitor the system's ongoing implementation in order to make sure that it is applied by the employer and the graduates, provided that licenses are renewed to reflect the training they receive in a way that leads to an increase of the employee's wages and the incentives.

The third set of challenges is of lower priority, but this does not indicate lack of importance. These include:

- **Lack of adequate budget and its resources.** This results in the lack of available financial resources for the educational institutions as well as a shortage in required technical schools and training centers.
- **Mismatch between graduates' skills and labor market requirements.** Through earlier surveys, it has been shown that employers are not satisfied with the efficiency and competency level of employees who come out of the technical and vocational sector. This adds to deterioration of the social perception of technical and vocational education and reflects the urgent need for a radical change in this system.
- **Inadequacy of the current technical and vocational education quality assurance system.** No special standards are available in the National Authority for Quality Assurance and Accreditation regarding technical education and vocational training schools, while, in fact the schools differ in nature from the pre-university basic education schools.
- **Absence of a clear plan linking vocational education and training system outputs to labor market requirements.** This results in a mismatch between the technical education and training specializations and curricula on one hand and the labor market requirements. This may lead to the lack of balance between the number of vocational school graduates who are employees, technicians, and engineers on the one hand and the labor market's requirements on the other.
- **Professional inefficiency of some teachers.** Teachers in vocational schools lack professionalism in different specializations, especially in scientific subjects. Teachers are not receiving adequate training to keep up with modern and accelerated technological advancements.
- **Deteriorating infrastructure of most schools,** caused by the lack of financing has resulted in the decline of the infrastructure of most schools, which hinders providing a healthy environment capable of attracting students. This is a challenge that obstructs the schools development. The lack of adequate numbers of equipped classrooms leads to high classroom density and the increase in the ratio of students to teachers, in addition to

the unavailability of supporting environment for students in a way that increases the number of school dropouts.

- **Infeasibility of acquiring practicing license.** Some industries such as the ready-made garment and tourism industries pay low wages, reducing the economic feasibility of obtaining professional licenses due to the absence of actual added value.
- **Lack of necessary resources and increasing costs of technical and vocational education equipment.** Technical and vocational schools are in need of workshops and laboratories and require supplies such as equipment, machines, and raw materials. Providing such resources requires substantial funding.

Technical Education and Vocational Training Programs to 2030

In addition to the preset educational development programs in the government program for the period 2016-2018, the most important chosen programs expected to contribute significantly in achieving such vision, objectives, and indicators are as follows:

Programs Related to Mechanisms of Execution

Develop a mechanism for encouraging the private sectors' contribution to technical education development.

- **Program Description:** this program targets increasing the technical education student and trainee's share of total spending on education. It also targets providing highly-efficient, well-equipped schools through creating non-traditional resources for financing. This program is included within low-cost programs and its execution is expected to begin in 2015 and be complete by 2020.
- **Key Elements:**
 - Develop a mechanism for establishing mutual benefit partnerships with the private sector to increase investments. An example for such partnerships would be to agree with factories to provide the practical aspects of the curricula to students inside the factory. This, in return, would reduce the burdens of establishing workshops while, simultaneously, providing workforce for the factories.
 - Set policies to achieve earnings and profits covering the costs of the schools. An example for such policies would be The Productive School project which raises the income of teacher and student through providing services to the private sector.
 - Set motivational policies for the private sector to contribute to establishment of schools or to provide required resources for school equipment. Privately-owned companies could place such endeavors under the umbrella of corporate social responsibility. Such partnerships would provide mutual benefit for both parties.

Enhancing the quality of educational and training facilities

- **Program Description:** This program targets increasing the efficiency of educational and training facilities. This would be achieved through activating the quality system and setting approved quality standards through which such educational and training facilities would be accredited. This program is included within medium-cost programs and its execution is expected to begin in 2015 and be completed by 2020.
- **Key Elements:**
 - Develop the capabilities of the National Authority for Quality Assurance and Accreditation to accredit technical and vocational education institutions to enable it to achieve such tasks.
 - Allocate a designated authority responsible for accrediting training centers. Then, provide the authority with the required cadres, resources, and set of authorities to be able to accredit new training centers and renew accreditation.
 - Accelerate issuing a law that obliges technical education and training institutions to acquire accreditation within a limited time starting from the date of establishment.
 - Define the period of accreditation extension to ensure the quality of all technical education and training institutions as well as keeping them in alignment with international standards.
 - Develop national standards of assessment, quality, and accreditation considering the following:
 - Special nature of technical and vocational education schools relative to basic education schools.
 - Wide diversity of training centers and their variety in terms of content and sectors served.
 - International standards applicable to the Egyptian environment. Develop a system for the continuous development of the assessment and quality standards in light of international standard to ensure international competitiveness.
 - Establish a quality assurance department and define its roles in the light of the roles played by directorates, zones, and schools with the objectives of achieving broader school coverage as well as accelerating the implementation and qualifying the institutions. This should facilitate the accreditation process. In addition, the existence of such institution will enhance cooperation with the municipal training centers to provide the required trainings of high quality.
 - Design a program that provides incentives for institutions to apply for accreditation. Such a program should include financial and non-financial recognition for accredited institutions. The program should also tie the teachers' and trainers' promotions with the success of schools/training centers to acquire accreditation.

Professional Development Program for Teachers and Trainers

- **Program Description:** This program targets increasing the efficiency of teachers and trainers and developing one of the most important factors of technical and vocational education—the human factor. This should be achieved through enhancing the teachers' and trainers' skills as well as creating a comprehensive system for teacher assessment. This program is included within medium-cost programs and its execution is expected to begin in 2015 and be completed by 2020.
- **Key Elements:**
 - Create a mechanism to develop an evaluation and assessment systems for teachers and trainers that ensures their ongoing development and achieves equal accountabilities.
 - Develop tests based on a comprehensive assessment for teachers examining the teachers' educational and vocational capabilities and their expertise in their specializations.
 - Adopt legislation that ties the results of teacher and trainer assessments to their financial incentives and salaries. This should ensure establishing a promotion and reward system that encourages teachers' continuous development.
 - Develop a training system with the objective of raising the scientific and practical efficiency of teachers and trainers that takes their levels and specializations into consideration.
 - Send the scientific subject teachers to missions abroad for training and education as well as developing a system for observing their development. Training courses should also be designed to enable the returning teachers to transfer their acquired expertise to other teachers. Such a program is expected to result in achieving international standards and increase international competitiveness.

Attractive School Project

- **Program Description:** This program targets increasing the efficiency of technical and vocational education schools through developing those schools and ensure they are provided with required equipment and tools necessary for training and educating technical and vocational school students. This program is included within high-cost programs and its execution is expected to begin in 2020 and be completed by 2025.
- **Key Elements:**
 - Develop a system to manage resources and assets that ensures the ongoing maintenance and preservation of school assets as well as the best utilization of resources such as equipment, tools, and raw materials.
 - Develop a mechanism to attract and motivate students through providing training in relevant companies and industry. This could be achieved through executing

agreements with those private sector institutions to activate the association between educational outputs and labor market requirements. Another advantage for such agreements is that they provide opportunities for students to acquire practical experience and to apply the education gained in the technical schools to actual work that produces income.

- Develop a new system to increase sporting and cultural school activities, helping students to acquire 21st Century skills.
- Activate a comprehensive reform system for schools to provide a healthy educational environment for the student that includes:
 - o Restructuring school infrastructure
 - o Equipping schools and providing resources
 - o Establishing equipped classes and workshops.
- Providing a meal in the schools located in poor and disadvantaged areas as a tool for encouraging the attendance of students and easing their families' financial burdens.

Programs Related to Specific Topics

Raising Awareness and Enhancing Social Perception

- **Program Description:** This program aims at raising national awareness regarding the importance of technical and vocational education and its positive impact on the economic sector. The program should result in improving the social perception of the technical and vocational student. This program is included within medium-cost programs and its execution is expected to begin in 2020 and be completed by 2025.
- **Key Elements:**
 - Develop a national communication mechanism for enhancing the social perception of technical and vocational work. This strategy shall include:
 - o Integrated communication plan set with all media channels
 - o Social awareness plan highlighting success stories.
 - Allocate a dedicated governmental body that shall be responsible for raising awareness and implementing programs that help with enhancing the social perception for this kind of education. Such programs shall guarantee the achievement of the desired results and enhancement of the accountability principle.
 - Adopt policies that provide incentives for industry leaders and private sector organizations to finance meaningful media campaigns that aim to improve the social perception of the vocational worker through including such campaigns under the umbrella of corporate social responsibility. The participation of the private sector contributes to the achievement of credibility and demonstrates the real role of technical and vocational education in society.

An Efficient and Integrated Labor Market Information System

- **Program Description:** this program aims to link the needs of the labor market to the curricula of technical and vocational education through the establishment of a database for the Egyptian labor market. This program is included within medium-cost programs and its execution is expected to begin in 2015 and be completed by 2020.
- **Key Elements:**
 - Develop a mechanism to monitor industries in terms of fields, geographical distribution, human resources needs, and expected growth.
 - Develop a system for planning schools and training centers in terms of number and distribution based on economic growth and various industrial needs. The current institutions shall be included in this system and there is a possibility for transforming their current specialization to another; i.e. transforming a commercial technical institution to a hotel technical institution, aiming to achieve flexibility and efficiency.
 - Allocate an authority/unit to be liable for collecting the data related to industry, schools, labor market, and submission of reports to decision makers.
 - Develop a database within the governorates to facilitate information collection and use in the decision-making process.
 - Adopt policies that oblige the various bodies in the labor market to submit the required information at the specified time, so as to guarantee the integration and accuracy of data.

Develop and Activate the Egyptian National Qualifications Framework for Technical Education and Vocational Training

- **Program Description:** this program is designed to construct an integrated system, ensuring the linkage of vocational and technical education with labor market needs, in addition to the development of programs, training, and educational curricula in line with national objectives. This program is included within medium-cost programs and its execution is expected to begin in 2015 and be complete by 2020.
- **Key Elements:**
 - Accelerate the completion of the Egyptian National Qualifications Framework by the National Authority for Quality Assurance and Accreditation of Education in light of:
 - The economic vision and labor market requirements for technical education
 - Training needs in each sector
 - International models, taking into consideration the nature of the Egyptian environment
 - Develop educational and training programs based on the Egyptian National Qualifications Framework to ensure achieving integration between training and

technical education on the one hand and the requirements of the labor market on the other.

- Adopt legislation that enforces developing the training and educational programs based on the Egyptian National Qualifications Framework to ensure their quality.
- Develop a system that links professional standards and career progression in all sectors to the Egyptian National Qualifications Framework, so as to achieve quality and efficiency for the employees and the various sectors.
- Issue legislation that requires the employer and the trainee to abide by the standards and levels of national skill that is based on the Egyptian National Qualifications Framework in order to achieve quality and efficiency for employees and industry.

Establish an Academy with Specialized Faculties to Graduate Teachers Qualified for Technical Education and Vocational Training

- **Program Description:** this program aims at qualifying teacher specialized in their fields and acquainted with their specializations that are able to provide the students with real value. This program is included within high-cost programs and its execution is expected to begin in 2020 and be completed by 2025.
- **Key Elements:**
 - Develop an effective system to identify needed specializations in light of labor market requirements and their expected impact on technical education. This ensures providing qualified teachers that are knowledgeable in their fields and are able to maximize the value added to the students. This system should take into consideration the different specializations related to women so as to promote the role of girls and women in the economy through, for example, the integration of the clothing industry and creation of other specializations for women.
 - Develop a system to identify the curricula and evaluation systems for each specialization based on international standards in accordance with the Egyptian environment. Moreover, an effective system for updating the curricula and evaluation systems should be put in place so as to achieve appropriate abilities in the teaching staff.
 - Adopt legislation required to integrate the specializations of training and technical education within the Faculties of Education or grant the bodies responsible for graduating teachers for technical education and training with the necessary legal authorities to create various specializations.

Professional Practicing License Program for Vocational and Technical Education Graduates

- **Program Description:** this program aims to oblige the graduates of vocational and technical education to obtain a professional license so as to enhance their efficiency, ensure their competency, and ensure that they meet the labor market's requirements.

This program also works on regulating the labor market itself, limiting the informal sector. This program is included within high-cost programs and its execution is expected to begin in 2020 and to be completed by 2025.

- **Key Elements:**

- Adopt required legislation to oblige the graduates of vocational and technical education to obtain a professional license. The legislation should specify the time period related to license renewal to ensure the vocational and technical employees' competitiveness
- Allocate a body to be responsible for providing licenses in various areas of vocational and technical education. The body should also be responsible for accrediting the vocational and technical education graduates.
- Develop systems to achieve continuous communication with the various syndicates in order to specify and update the standards related to obtaining licenses.
- Adopt required legislation to oblige employment entities to hire only applicants that have a professional license to practice the profession at the vocational and technical sector to ensure the quality of services provided to employment entities as well as providing an incentive to the graduates to apply for the license.
- Develop a system to provide training programs for the graduates and the employees, so as to help them acquire a professional license.

University or Higher Education

Strategic Objectives for Higher Education to 2030

The strategic vision addresses both the supply and demand sides, and aims to empower governance and its role in planning and monitoring. Demand for higher education services is expected to surge when citizens feel the actual value-added from quality education that complies with global standards, at the level of the teacher, the curricula, and other media that enables competitiveness. On the other hand, the supply side addresses the availability of higher education for all without discrimination, including males and females, rural and urban dwellers, taking into consideration geographic distribution. The Ministry of Higher Education and its different subsidiaries should plan, follow-up, and implement programs and policies without conflicts of interests. In this framework three strategic objectives determining the strategic trend of higher education to 2030 have been set forth.

Objective	Definition
Improving Educational System Quality to Conform with International Systems	<ul style="list-style-type: none"> • Activating quality and accreditation rules that conform to international standards.

	<ul style="list-style-type: none"> • Enabling the learner to acquire skills needed for the 21st Century. • Supporting and developing capabilities of faculty members and administrative staff. • Developing innovative and diverse academic programs and evaluation patterns. • Developing the organizational structure of the ministry and its institutions to achieve flexibility and quality of education. • Reaching the effective technological and electronic forms for presenting knowledge and scientific research, so as to be considered by the students, the teachers, and the individuals of the community.
Providing Education for All without Discrimination	<ul style="list-style-type: none"> • Providing educational opportunities at higher education institutions. • Developing the admissions systems and policies at the educational institutions.
Enhancing Competitiveness of the Educational Systems and its Outputs	<ul style="list-style-type: none"> • Improving competitiveness rank in international education reports • Activating a dynamic relationship between outputs of the education system and labor market requirements.

The **First Objective** is entirely responsible for the educational system's quality, including application of global accreditation and quality standards via local accreditation of high education institutions by the National Authority for Education Quality Assurance and Accreditation. This objective is represented in having a student capable of innovation and creation, one that can keep pace with the labor market and create job opportunities to advance the economy to reach a sustainable up-to-date economy.

The **Second Objective** is responsible for providing high-quality educational services for all students, including the provision of adequate classrooms in rural and urban areas, for males and females, and for all classes of society.

The **Third Objective** covers increasing quality, accessibility, and competitiveness. This strategy aims at activating the dynamic relationship between the educational process and the labor market's requirements through graduating students that are able to seize market opportunities and even create such opportunities in order to achieve sustainable economic development that is based on knowledge and innovation.

Key Performance Indicators for Higher Education

Quantitative Indicators

S.N.	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Global competitiveness index (higher education and training)	Egypt's rank compared internationally based on elements, including enrollment rates and the quality of education.	Ranking 118/148 3.1 degree (1)	Ranking 75	Ranking 45
2	Strategic Results	Unemployment rate among university graduates to total unemployed according to specialization (%)	Measures the gap between higher education outputs and labor market requirements.	35.1% (2)	30%	20%
3		Number of Egyptian universities listed among top 500 universities in the world (Shanghai Index)	Measures the Egyptian higher education capacity to respond to the increased global demand for higher education	One university(3)	3 universities	7 universities
4		Growth rate of published scientific research in internationally reviewed scientific journals	Measures the increase in scientific research published in different fields internationally.	13.6%(3)	15%	20%
5	Outputs	Percentage of higher education institutions accredited by the National Authority for Quality Assurance and Accreditation	Takes into consideration new institutions applying for accreditation in addition to the already accredited institutions.	7.50%(4)	30%	80%
6		Higher education enrollment rate (18-22 years old)	The ratio of the population aging from 18–22 enrolled in higher education	31%(2)	35%	45%

7th Pillar:
Education & Training

S.N.	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
7		Percentage of faculty members with research scholarships from international universities	Measures the extent of teacher and faculty members development through research grants, whether foreign missions or joint supervision	0.2%(2) (Foreign Missions)	1%	3%
8		Percentage of foreign students to total students enrolled at Egyptian universities according to specialization	Reflects competitiveness and attractiveness of the Egyptian higher education system in various programs and specializations	2%(2)	3%	6%
9		Public spending per student on higher education (per specialization)	Expresses the extent of prioritizing education by the government, since spending includes investment and salaries.	LE 7,600 per student (2012 average) (2)	* Targets will be set in accordance with the economic pillar and the Ministry of Higher Education; to identify the requirements of different specializations.	
10	Input	Number of students per faculty member according to specialization	Measures the direct impact in student educational achievement, as well as the burdens borne by the faculty members	1:42 (Average) (2)	1:38 (Average)	1:35 (Average)*
11		Number of higher education institutions according to density, specialization, and geographical distribution	Measures the capacity of higher education through the number of universities and faculties available in different governorates and specializations (programs)	44 universities **(2)	50 universities	64 universities ***

(1) World Competitiveness Report

(2) General Framework of the Strategic Plan for Higher Education 2012-2013.

(3) Shanghai rank

(4) National Accreditation and Quality Assurance Authority, 2014

*Provided that the maximum limit shall be 1:60 for the theoretical specializations and 1:25 for the scientific specializations

** 23 governmental universities include 371 faculties and 21 private universities include 126 faculties.

*** 20 new public, private, and civil universities, 7 new electronic universities, and 200 new programs

Suggested New Indicators

S.N.	Indicator Category	Indicator	Definition	Measurement Mechanism
1	Outputs	Number of scholarships from international universities according to specialization.	Indicates the level of recognition of Egyptian universities and their competitive advantage. Most demanded specializations should be identified.	A mechanism to be developed for monitoring and collecting data about students studying abroad, and identifying the ratio of students who were granted scholarships by the government.

Challenges of Higher Education

Challenges are divided into three sets. **The first set** is known for its greater impact and its relative flexibility to control.

Therefore, our **first priority** includes:

- **Deficiencies in monitoring indicators and statistics about the labor market and education.** The absence of a mechanism for collecting information and data about the labor market, its growth rate, the various industries, and information about higher education in terms of annual graduation rates and the different fields of the employees, results in lack of information and systemic data and leads to inconsistencies in the statistics.
- **Absence of binding regulations for accreditation in a specified period.** The current legislative framework does not oblige higher education institutions to apply for accreditation. This leads to weakening the importance of accreditation in the vision of higher education institutions and does not deliver the correct message that higher education is a priority for the government, particularly within the framework of decentralization and the independence of the higher education institutions.
- **Weak capacity of current higher education institutions.** It is necessary to expand the capacity of the current higher education institutions and establish new ones in order to accommodate increasing enrollment rates while providing an encouraging and healthy environment for students.
- **Limited foreign language proficiency of some teachers and students.** This is an obstacle to the internationalization of higher education institutions, whether at the teacher or the student level. Consequently, this affects the rates of foreign students, the quality of scientific research, and the number of research papers published in peer-reviewed scientific journals.

The second set of challenges is characterized by a relatively limited impact and ease in controlling them. They include:

- **Weak assessment, follow-up, and incentives systems.** The current faculty evaluation system suffers from weakness and lack of clarity. Clear criteria and measurement indicators are required both at the level of operations, including the attendance rates of faculty members, and at the output level, such as student results. Moreover, the lack of integration between the results of teacher evaluations and their incentives does not motivate the faculty member to further development.
- **Diminishing role of civil society and the private sector in the educational process.** This has occurred despite the existence of some private higher education institutions and other non-profit institutions. The role of private and civil society should be expanded in respect to the establishment of higher education institutions and the development of joint academic programs and electronic universities, in order to achieve accessibility, the principle of equal opportunity, and reduce the burden borne by the State.
- **Absence of a clear policy for marketing scientific research results.** There is no policy or mechanism for marketing scientific research and its results, which is a challenge in maximizing the role of scientific research at society's level as a whole and within higher education institutions. Overlooking the importance of scientific research in different sectors and its significant role in boosting the quality of the educational process leads to low rates of published research in well-known international journals.
- **Academic grades are the only criterion for acceptance into the higher education system.** Admissions to higher education depends entirely on the results of the secondary stage examinations, which leads to graduate students who are not passionate about their faculty or specialization because the desires and skills of the students are not taken into consideration. Moreover, the current admissions system lead to a lack of efficiency in the educational process as a whole, emphasizing the student's test results as the only priority. This emphasis directs all the student's efforts into memorizing in order to achieve the highest marks, rather than understanding, analyzing, and thinking creatively, as well as participating in student activities.
- **Lack of integration between higher education institutions and the labor market.** In addition to the absence of a mechanism to collect information about the labor market and its needs and the insubstantial relationship between the curricula and the labor market, the absence of a national entity responsible for connecting the graduates of higher education institutions to industries reduces the links between higher education and the labor market.
- **Readiness of higher education institutions for accreditation.** Financial resources required for organizing higher education institutions should be provided, in addition to providing such institutions with the resources required to obtain accreditation. Teaching staff and trained faculty managers should also be recruited, so as to achieve the principles

of good governance and to increase the quality of higher education institutions, thus facilitating obtaining accreditation.

- **Limited capacity of the National Authority for Quality Assurance and Accreditation of Education to perform its role in accreditation.** The National Authority for Quality Assurance and Accreditation of Education needs financial resources and qualified staff in order to carry out its role in the accreditation process. There are many forms and several programs at higher education institutions, including universities, institutes, and faculties, that raise the need for specified standards for each one of them.
- **Absence of follow-up and communication policies with graduates.** There is no system to continuously communicate with graduates to identify the employment ratio, the challenges facing the graduates, and the turnover rates of employees, leading to a lack of accurate data.
- **Infeasibility of accreditation (economic and educational).** In order to stimulate higher education institutions to apply for accreditation there should be clear added value resulting from accreditation, as opposed to the current situation that lacks financial or educational return for higher education institutions to seek accreditation.
- **Weak incentives to motivate efficient human resources.** There is a need for a mechanism for selecting faculty members, including--but not solely depending on--standards that involve academic excellence, to raise the efficiency of faculty members. Incentives such as pay raises should also be provided to attract required competencies and skills.
- **Weakness of current research centers and dependency on faculty members.** The current research centers are characterized by their limited number and depend on faculty members. There is no clear system for managing or expanding the centers, nor for increasing their financing resources, achieving sustainability, or maximizing their benefit.
- **Poor supervision over educational curricula and inability to develop them.** Faculty members develop and set the curriculum, and given the independence of higher education institutions. Developing a supervisory role over the curriculum is necessary in order to guarantee the provision of high quality education at the student level in the governorates and in the different specializations.

The third set of challenges is of lower priority, but this does not indicate they should be ignored. These include:

- **Poor financing through one main source:** governmental funding. The State budget is the main resource for financing the different activities related to higher education in Egypt, whether in respect to higher education, postgraduate studies, or funding foreign missions. Despite increases in governmental funding, both inflation and enrollments have risen, leading to an insufficiency in this financing to expand the establishment of higher education institutions.

- **Limited graduate skills compared with labor market requirements.** The skills shown by graduates of higher education institutions in relation to the labor market's requirements are insufficient, as the result of the absence of ongoing revision of the curricula so as to keep pace with labor market needs. In addition, there is a lack of funding for student activities. This raises the need for training about the requirements of different job vacancies in various fields.
- **Declining ratio of research published in recognized international journals.** Scientific research relies on postgraduate studies as well as on the research centers. Lack of funding leads to the paucity of research published in well-known international journals.
- **Relative scarcity of available resources and inefficient use of those that are available.** The financial resources available to provide supplies and equipment to the higher education institutions including classrooms, workshops, laboratories, and hospitals are scarce. Those that are available are not best used. This results in either wasting resources or keeping them idle for example, through storing them instead of making them available for the students.
- **Outdated organizational structures of some educational institutions.** There is a need for structuring the different higher institutions governance systems and organizational entities, each of them according to its kind, rules, and regulations. In addition, clear mechanisms should be developed in order to achieve transparency, internal and external control through incentives, rewards, audit systems, and reviewing of documents.
- **High costs of establishing higher education institutions and providing required resources.** The cost of founding a higher education institute must include funds to cover costs of the establishment of workshops, laboratories, and research centers and hospitals for various specializations.

Higher Education Programs to 2030

Within the vision and strategic objectives of Education and Training, in addition to KPIs that have been set for measuring the extent of achievement, and in addition to the preset educational development programs in the government program for the period 2016-2018, the most important chosen programs expected to contribute significantly in achieving such vision, objectives, and indicators are as follows:

Programs Related to Execution Mechanisms:

Establishing higher education institutions in partnership with civil society and the private sector:

- **Program Description:** This program aims to ease the financial burden incurred by the government due to the high cost of the expansion of higher education institutions, whether through the establishment of new institutions or the expansion of current ones.

This program is included within medium-cost programs and its execution is expected to begin in 2015 and be completed by 2025.

- **Key Elements:**

- Specification of a body vested in communicating with the private sector and international entities, determining the needs required for expanding higher education institutions, in addition to the development of a national map to ensure the geographical distribution for the current institutions based on specialization.
- Development of a system to provide grants for excellent students at private universities as well as motivating private universities to accept such students through, for example, providing support required for these universities to obtain grants from donors in return for being accredited.
- Development of new programs such as credit hours systems in order to create funding opportunities, redistribute the financial support provided by the government, and ease the burden on the existing programs.
- Boosting the establishment of some Egyptian- international universities in some specializations that serve labor market such as the current Egyptian–Chinese cooperation.
- Expansion of electronic universities and promotion of distance learning systems in order to save the costs related to building and equipping classrooms, so as to achieve wider coverage.

Building distinctive teaching cadres at higher education institutions:

- **Program Description:** Higher education depends substantially on the teachers and professors since the work of faculty members at higher education institutions extends to include the development of curricula and specification of evaluation systems. Accordingly, the development of teaching staff becomes a key prerequisite for increasing the quality of higher education as a whole and its influence on the students. This program is included within high-cost programs and its execution is expected to begin in 2015 and be completed by 2020.

- **Key Elements:**

- Develop a new mechanism for selecting lecturers that includes the academic aspect, required skilled competences, and their experiences at various domains, instead of solely depending on their academic supremacy, to ensure the overall competency of the lecturers.
- Develop training system for lecturers to develop research capacities, teaching efficiency, and assessment mechanisms.

- Introduce a mechanism to integrate student feedback and evaluations regarding the faculty members into the Faculty Members Evaluation Systems, so as to maximize its influence on the students.
- Develop a system to increase the number of grants and faculty members exchange programs and activate international agreements in order to develop education and scientific research at the faculty level and in higher education as a whole. Develop a mechanism for evaluating the system's effectiveness.
- Develop a mechanism to accredit centers related to developing the skills of faculty members and managers internationally in order to enhance the efficiency of the faculty members.
- Restructure the current promotions system taking into account the evaluation systems and focus on scientific research.

Improving quality of higher education institutions:

- **Program Description:** This program aims to enhance decentralization of higher education through maximizing the ability of higher education institutions to achieve efficiency and commit to quality standards. This program is included within medium-cost programs and its execution is expected to begin in 2015 and be completed by 2020.
- **Key Elements:**
 - Enactment of a law that obliges higher education institutions to obtain accreditation within a specific period of time to ensure immediate compliance, and encourage higher education institutions to keep pace with quality standards. This law should stipulate the period required for renewing the accreditation.
 - Specify the required quality standards based on international standards in accordance with the Egyptian environment.
 - Develop an incentive programs to motivate higher education institutions to apply for accreditation such as recognition programs or incentives system—provided to faculty members and administrative management—linked to the accreditation of the institution, e.g. the provision of training courses of low price in return for the accreditation.
 - Specify a national entity accredited internationally to develop the skills and capabilities of administrators and administrative management in order to maximize efficiency in higher education institutions and optimization of resources, including human resources, as well as achieving quality standards, thereby increasing the institution's capacity to be independent and achieve decentralization.

Programs Related to Specific Topics:

Activate the role of Research Centers at Higher Education Institutions:

- **Program Description:** Scientific research indicates the student's ability to learn independently and the quality of education he has received. It also indicates the development level of faculty members. This program aims to maximize scientific research since it is seen as the path for continuous education and not limited only to educational stages. These centers form a link between theory and practice and are a channel that supports the economy due to the research it provides that contributes to the development of practical life. This program is included within high-cost programs and its execution is expected to begin in 2015 and be complete by 2020.
- **Key Elements:**
 - Provide financial support required for the establishment of research centers in all higher education institutions and to expand current research centers.
 - Develop incentive systems to stimulate higher education institutions to expand their research centers. For example, start recognition programs for the best research center in the governorate or the research center with the highest number of published scientific papers.
 - Develop a mechanism to motivate faculty members and directors of research centers to rapidly achieve the activation and optimization of the role of their research centers.
 - Develop a system to integrate academic research within the curriculum to familiarize students with the concepts of scientific research and to encourage them to use research centers.
 - Restructure curriculum in all stages of higher education in order to integrate scientific research, i.e. embedding the principles of scientific research in the practical aspect of the student's education.
 - Develop a system to activate and increase electronic gates, digital libraries, and automation of libraries so as to grow and diversify the resources of research centers as well as maximize their contribution.
 - Develop a system that facilitates signing agreements between research centers, the associations of businessmen, and donor entities in order to provide required support for the centers. Capitalize on the knowledge and capabilities of faculty members and apply modern systems to fill the gap between the theoretical and the practical. This can be performed against remuneration that supports the research activities of these centers.

Link Graduates to Employment Institutions at the Local, Regional, and International Levels:

- **Program Description:** This program aims to emphasize the dynamic relationships between the graduates of higher education and the labor market, ensuring the qualification of the graduates. This program is included within high-cost programs and its execution is expected to begin in 2015 and be complete by 2020.
- **Key Elements:**
 - Establish a competent national authority that serves as an employment forum, linking students and employing bodies, whether from the private or public sector.
 - Provide resources required by the authority, including trained staffs and financial resources in order to perform its role properly.
 - Grant the authority the license required to establish branches in governorates and at the various higher education institutions in order to achieve broad coverage and quick results.
 - Develop systems related to career counseling programs at higher education institutions in order to provide advice to students regarding available job opportunities and how to apply for them.
 - Develop training programs to prepare graduates to be able to communicate, think positively, and accept and create job opportunities suitable for their specializations and interests.
 - Develop systems to consult students and provide advice at the initial stages of higher education concerning the selection of specialization and the type of job opportunities available for the different specializations so as to obtain a qualified graduate eager to work in his/her specialization.

Adopt the Egyptian Diploma Equivalence System and Recognition of Higher Education Certificates:

- **Program Description:** This program aims to internationalize Egyptian universities through the equivalence of diplomas. It is considered to be an ongoing initiative, since higher education systems are continually updated. This program is included within high-cost programs and its execution is expected to begin in 2020 and be complete by 2025.
- **Key Elements:**
 - Establish a unit responsible for setting effective partnership agreements and joint academic programs between Egyptian universities and their counterparts internationally. These programs should aim at fulfilling the needs of the local and international labor markets.

- Develop a system to provide study programs that qualify students for examinations of certification, as well as integrating them within the higher education stages as an optional stage.
- Provide training programs for faculty members to enable them to teach the study programs required for the equivalencies.
- Develop required policies to gain the authority to apply the equivalency examinations in Egypt.
- Develop centers at the universities in order to help the students to apply for scholarships at international universities.
- Develop a mechanism to specify the requirements for scholarships at international universities and guide the students as they make applications for such scholarships.
- Develop a system to inform students of available scholarships.

Developing Curricula Based on the National Qualifications Framework:

- **Program Description:** This program aims to enhance the quality of higher education through the continuous development of the curriculum based on the National Qualifications Framework to keep pace with the requirements of the labor market and international standards. This program is included within high-cost programs and its execution is expected to begin in 2020 and to be complete by 2025.
- **Key Elements:**
 - Identify National Qualifications Framework standards with the concerned bodies based on labor market requirements and international standards in line with the Egyptian environment.
 - Enact legislation required to develop the study programs and evaluation systems based on the National Qualifications Framework, as well as integrating them in the different subjects.
 - Provide training required for faculty members on how to integrate National Qualifications Framework Standards into the curricula, in order to maximize the added value of the developed curricula.

Update the Admission Systems at Higher Education Institutions:

- **Program Description:** This program handles the lack of efficiency of the current admission systems and its entire reliance on the students' grades regardless of their desires, which is considered one of the most significant challenges that face higher education. Accordingly, the update of the admissions systems becomes a fundamental mean for acquiring successful students passionate about their fields and specializations. This program also contributes to the decentralization of higher education. This program

is included within low-cost programs and its execution is expected to begin in 2020 and be complete by 2025.

- **Key Elements:**

- Develop an admissions system that takes into account the capabilities and desires of the students and does not depend entirely on grades as a criterion, addressing the gaps and the reasons for lack of efficiency in the current situation.
- Develop a system to introduce the admissions systems gradually and completely.
- Develop policies for university admission in conformity with the real capabilities of the students and their desires, providing students with interviews with the specialists in different fields and discussion of results with the students.
- Institute a mechanism to announce the available specializations, explain them, and indicate the subjects listed under each specialization. Use a sample of student and graduate opinions from each specialization to enable each student to clearly identify the field that is in line with his/her abilities based on a set of integrated and accurate information.

Eighth Pillar: Culture

Overview of Current Situation

Throughout history Egyptian intellectuals have influenced both Arab and international thought and contributed to all fields. The prominence of Egyptian culture includes translation and other contributions in literature—poetry, drama, novels, and literary essays. Egypt has also made great contributions to the cinema, to vocal and plastic arts, to photography, and to architecture. Our cultural heritage is evidence of a long-standing civilization, gifting the world a cultural heritage of great influence.

Culture contributes in developing the citizen through a set of core positive values around which a minimum level of agreement is achieved. Cultural industries come on top of the cultural motives, which witnessed major leaps over the last period improving its role in the cultural system. In addition, the scope of Egyptian culture extends to include all tangible and intangible forms of heritage, as traditional industries represent a genuine part of our cultural industries.

Unlike other Egyptian constitutions, the Constitution of 2014 paid unprecedented attention to cultural issues, as it states the concept of cultural justice, and includes a chapter on cultural pillars consisting of four articles in the second part entitled ‘Fundamental Pillars of Society,’ in addition to other articles highlighting rights, freedoms, and public duties. These culture-related articles in the constitution assert the State’s commitment to preserve cultural identity and its diversity within Egyptian society. These articles also highlight the State’s commitment to protect and preserve ancient monuments and to protecting the modern cultural wealth in its diverse forms.

The current situation of the cultural system in Egypt reflects various manifestations that underline strengths and a number of challenges that cannot be overlooked. Thus, a cultural vision and strategy were set to face such challenges and to implement various cultural and heritage programs that develop the entire cultural system. The government has already started implementing some cultural programs competent to finance innovative cultural projects such as ‘Think and Innovate,’ ‘Awladna,’ and ‘Acquire a Craft.’ The government has already started to train young people to develop arts and craftsmanship.

Strategic Vision for Culture to 2030

Create a system of positive cultural values respecting diversity and differences. Enable citizens to access knowledge, building their capacity to interact with modern developments, while respecting their history and cultural heritage. Give them the wisdom of freedom of choice and of cultural creativity. Add value to the national economy, representing Egypt’s soft power at both regional and international levels.

Strategic Objectives for Culture to 2030

This strategic vision focuses on achieving three main objectives during the next 15 years, as follows:

Objective	Definition
Support cultural industries as a source of strength for the economy. ¹	Empower cultural industries to become a source of strength and value-added for the Egyptian economy to achieve development, thus making culture the base for supporting Egypt's soft power regionally and internationally.
Improve the efficiency of cultural institutions and workers	Enhance the efficiency and effectiveness of cultural institutions, maximizing their role and impact, extending their scope as well as improving the efficiency of the employee in the cultural system in line with current reality and conditions.
Protect and promote all forms of heritage	Protect and maintain cultural heritage and raise internal and external awareness.

The **first objective** is to develop cultural industries including cinema, theatre, music, plastic arts, radio and television, publishing and literature, and traditional crafts. The **second objective** is to enhance the efficiency of cultural institutions and employees, reducing the geographical gap in services provided and supporting civil cultural activity. The **third objective** is to maintain Egypt's heritage through means of protection, maintenance, and awareness as well as attracting local and international visitors.

Key Performance Indicators for Culture to 2030

Key performance indicators include those that currently exist at the levels of inputs, outputs, and results. Thus, current and targeted values, by years 2020 and 2030 for such indicators were determined as well as newly devised indicators, which are to be put into a suitable framework in collaboration with the concerned parties, as follows:

¹ UNESCO defines cultural industries, according to the terms of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions signed by Egypt in 2005, as industries that "produce and distribute cultural goods or services, which at the time they are considered as a specific attribute, use or purpose; embody or convey cultural expressions, irrespective of the commercial value they may have. Cultural activities may be an end in themselves, or they may contribute to the production of cultural goods and services."

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1	Strategic Results	Tourism and travel competitiveness	Measures Egypt's rank among countries attractive to tourists based on defined criteria	85 (1)	70	60
2		Geographical gap in the ratio of public libraries/ 100,000 people	Measures the geographical gap among regions in access to public libraries	0.35(2)	0.2	0.1
3		Geographical gap in the ratio of cultural centers/ 100,000 people	Measures the geographical gap among regions in access to cultural centers	1.95(2)	1.0	0.5
4	Outputs	Number of foreign visitors to museums and heritage sites (million visitors)	Measures the ability of museums and touristic areas to attract foreigners	1.8 (2) million visitors	2.3 million visitors	3.3 million visitors
5		Number of Egyptian visitors to museums and heritage sites (million visitors)	Measures the ability of museums and touristic areas to attract Egyptians	7.5 (2) million visitor	9.45 million visitor	12.7 million visitor

8th Pillar:
Culture

Suggested New Indicators:

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
1	Strategic results	Indicator of main positive values	This indicator reveals the behavioral outcomes by means of measuring the main values in society		Form a committee to identify main positive values upon which the indicator and measurement mechanism will be based

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
2		Cultural industries' contribution to GDP	This indicator measures the total contribution of cultural industries to GDP	Cultural product to GDP ratio	Form a committee to identify main positive values upon which the indicator and measurement mechanism will be based
3		Indicator of cultural product exports	This indicator shows the volume of Egyptian cultural product exports	Total exports of cinema, theatre, publishing, literature, music and singing, ceramic arts, radio and television, press and traditional crafts	Form a committee to identify the main positive values upon which the indicator and measurement mechanism will be based as well as the weighted values of specific exported cultural industries
4		International awards, and certificates of excellence for Egyptian intellectuals or cultural works	Shows the success of Egyptian cultural exports at the international level, represented in awards, recognition, and certificates		Form a committee to identify the global art awards upon which the indicator will be based
5		Indicator of the condition of monuments	Measures the general condition of Egyptian monuments by measuring several factors such as priority, condition, availability to visitors, and registration	Weighted average of the following: Registered monuments Restored monuments Number of visitors	Form a committee to identify the indicator measurement mechanism by using the sub-indicators mentioned in the measurement equation cell.
6		Geographical gap in the indicator of main positive values	Shows how far the gap among governorates in terms of main positive values has been reduced	Difference between highest and lowest governorates in the main positive values	Form a committee to identify main positive values upon which the indicator and measurement mechanism will be based
7	Outputs	Cinema indicator	This indicator shows the cinema activity at local and international levels	Composite indicator of: revenues, movie theatres,	Form a committee to identify the indicator's measurement mechanism by using the sub-

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
				produced films, views, electronic views, expenditures, imports and exports, and cinematic services	indicators mentioned in the measurement equation cell
8	Theatre indicator		This indicator shows the development of theatre activity at local and international levels	Composite indicator of: revenues, theatres, shows, show opening nights, theatre-goers, and expenditures	Form a committee from competent entities and international experts to identify measurement mechanism by using the sub-indicators in the measurement equation cell and weighted averages
9	Publishing and literature indicator		Shows the development of publishing and literature activity at local and international levels	Composite indicator of: published literature, copies, cultural press, revenues, imports and exports, publishing houses, distribution outlets, exhibitions, electronic publishing, and translation	Form a committee from competent entities and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation and the weighted averages
10	Music and singing indicator		Shows the development of music and singing activity at local and international levels	Composite indicator of: revenues, imports and exports, albums, concerts, and online listenership	Form a committee from competent entities and international experts to identify the indicator measurement mechanism by using the sub-indicators mentioned in the measurement equation and the weighted averages
11	Plastic arts indicator		Shows the development of ceramic arts activity	Composite indicator of: revenues,	Form a committee from competent entities and international experts to

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
			at local and international levels	exports, exhibition halls, and fairs.	identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation
12		Cultural radio and television production indicator	Shows the development of cultural activity in radio and television at the local and international levels. It includes documentary films, drama, and cultural programs.	Composite indicator of: revenues, viewership/listening (internal and external), viewership (online)/listenership, exports and imports, and expenditures	Form a committee from competent entities and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values
13		Traditional crafts indicator	Shows the development of traditional crafts activity on the local and international levels	Composite indicator of revenues, exports, distribution outlets, and exhibitions	Form a committee from competent entities and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values
14		Cultural activity at schools (acting, singing, and the arts)	Shows the development of cultural activity level within schools	Composite indicator of the total number of participants along with geographical gaps	Form a committee to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values
15		Cultural activity at universities (acting, singing, and the arts)	Shows the development of cultural activity level within universities	A composite indicator of: the total number of participants along with geographical gaps	Form a committee from competent entities and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values

8th Pillar: Culture

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
16		Number of foreign visitors to official heritage websites	Shows the extent to which official heritage websites attract foreigners	Total number of foreign official archaeological websites visitors	A committee will be formed to achieve a targeted objective
17		Number of Egyptian visitors to official heritage websites	Shows how far official heritage websites can attract Egyptians	Total number of Egyptian official archaeological websites visitors	A committee will be formed to achieve a targeted objective
18		Intellectual property protection	Shows how far intellectual property is protected from violations in Egypt		Form a committee to identify a reliable source for the indicator
19		Geographical gap in expenditure on cultural activity per capita	Shows the equality of cultural expenditure among governorates	Identify the highest and lowest governorate in terms of per capita spending on cultural activity	Form a committee from competent entities and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values
20	Inputs	Ratio of expenditure on national cultural activity to the total State's cultural budget	Shows the level of expenditure directed to national cultural activity	Total budget of national culture/total budget of culture	A committee will be formed to achieve targeted objective
21		Ratio of the State's cultural budget to its total budget.	Shows the level of expenditure directed to culture activity	Total budget of culture/total budget of the country	The competent authority will set the current indicator value, then a committee will be formed to achieve the targeted objective
22		Restoration efficiency	Shows the extent to which human and	Number of reconstruction	Forming a committee from competent entities

S.N	Indicator Category	Indicator	Definition	Measurement Equation	Measurement Mechanism
			material resources are available for the reconstruction of monuments	laboratories, number of restorers, number of reconstructed monuments	and international experts to identify the indicator's measurement mechanism by using the sub-indicators mentioned in the measurement equation cell and its weighted values
23		Ratio of expenditure on restoration and maintenance of monuments from international grants to total expenditure	Shows the level of spending on reconstruction and maintenance of monuments from international donations	Total expenditure on restoration and maintenance of monuments from international donations/ expenditure on restoration and maintenance of monuments	The competent authority will set the current indicator value, and then a committee will be formed to achieve the targeted objective
24		Number of heritage sites registered by UNESCO ²	Shows the extent of international protection of Egyptian monuments	Total number of heritage sites registered by UNESCO	A committee will be formed to achieve the targeted objective.

Challenges of Culture

Challenges of culture are divided into **three sets**.

The first set is known for its great impact and relative flexibility to control. Therefore, it becomes of first priority; and includes:

- **Absence of binding regulations for the protection of intellectual property rights, competitiveness, and monopoly prevention.** The development of a cultural system in Egypt needs a review of legislation related to the protection of intellectual property rights, competitiveness, and preventing monopolies to create an attractive environment for cultural industries, development, and increasing the level of contribution to economic activity and promoting its competitiveness locally and internationally.

² UNESCO - United Nations Educational, Scientific and Cultural Organization

- **Poor cultural and heritage institutions, disagreement over specialties, and lack of coordination.** Poor coordination among cultural institutions leads to disparity in the services provided in terms of quality, availability, and lack of the optimal use of the diverse resources that are available to all governorates.

The second set of challenges is characterized by a relatively limited impact and ease of control. These include:

- **Disparity in the availability of cultural services among governorates,** which limits the scope of a balance in cultural industries' influence among the regions and governorates in Egypt.
- **Lack of financing cultural and artistic works.** Poor financing is seen as the main obstacle to development of cultural industries in production, marketing, and exporting.
- **Lack of financial allocations for the maintenance and protection of heritage and archeological sites.** These financial allocations are not proportional to the size of archeological and heritage sites that need reconstruction, maintenance, and protection.
- **Poor awareness of the importance of intellectual property and its protection.⁽³⁾** Cultural products suffer from lack of awareness on the part of both producers and consumers regarding the importance of protecting intellectual property and its role in motivating and protecting cultural industries. This attitude is supported by the lack of prosecution of infringements on intellectual property. This negatively impacts cultural production in general, and its economic outcome and competitiveness locally and internationally.
- **Relative decline in the Egyptian product effectiveness regionally and internationally,** despite the former leadership of its cultural products at the regional and international levels.
- **Lack of digital information about heritage.** This challenge underlines shortcoming in coping with international technological developments, which impacts the ability of Egyptian heritage to attract tourists.
- **Lack of vision for developing traditional crafts,** which poses a threat to the sustainability of those craft industries despite their great importance. Economic and social opportunities will be lost if those industries are not developed to be a universal force.
- **Limited effect of cultural services in education.** Culture should instill positive values and embrace talents at schools and universities having a positive effect on the formation of the feelings of young people at an early stage of their lives.

The third set of challenges includes those of lower priority, but this does not indicate they should be ignored. These include:

- **Encroachment on archaeological sites and threats to sites from groundwater.** Cultural sites face many threats from infringements on the physical site and from geological risks that may lead to the loss of this cultural wealth.
- **Protection of intangible heritage,** including Egypt's important cultural treasures, especially in the fields of cinema, theatre, music, singing, and television production. Protecting this neglected intangible heritage is one of the challenges that face sponsors of culture and those interested in an attempt to preserve the Egyptian identity.

Cultural Programs to 2030

Within the framework of the comprehensive vision and the strategic objectives of the culture and performance indicators that have been selected to measure the extent of development done periodically in order to achieve its objectives and feel the impact on the future vision of Egypt by 2030, and in addition to the policies, programs, and projects related to cultural development included in the Government's program for the period 2016-2018, the following programs are expected to contribute in achieving the strategic vision, objectives, and indicators:

Legal Framework and Governance Development Programs:

Reviewing laws and legislation related to cultural industries and heritage protection

- **Program Description:** Make a comprehensive review of all laws and regulations related to cultural industries and heritage across sectors. This will create a motivating environment for cultural production and heritage protection. The review of this legislation is intended to be finished by 2018 and is considered a low-cost program.
- **Key Elements:**
 - Review of Protection of Cultural Objects Law number (117) of 1983, as amended.
 - Review of Penal Code number (58) of 1937.
 - Review of Publications Law number (20) of 1936.
 - Review of Law No (96) of 1996 concerning the Regulation of the Press.
 - Review of law number (121) of 1975 on Preserving Official Documents of the State and regulating the way they are published.
 - Review of law number (24) of 1999 and its executive regulation on imposing a Tax for Entering Theatres and other places of entertainment.
 - Review of Intellectual Property Law to ensure protection of cultural industries.

Developing and restructuring the cultural system

- **Program Description:** Raising the degree of governance in the cultural system through reconstruction in a way that eliminates the conflict of jurisdictions, harmonizing visions, coordination, and integration among different governmental bodies and the private sector. The program is to be implemented consistently until 2030, and it is considered a low-cost program.
- **Key Elements:**
 - Update regulations governing the work of unions, chambers, and syndicates associated with the cultural process in order to develop their performance to be able to carry out their tasks and assignments concerning the development of its work within the framework of ambitious strategic objectives.
 - Apply a modern governance system on all the cultural institutions to seek transparency and improve supervision and accountability without imposing additional limitations.

Programs that Support Achieving the Strategic Vision and Objectives of Culture:

Adopt a set of programs to raise historic and cultural awareness within society

- **Program Description:** Launch a comprehensive program aimed at achieving integration among the different efforts exerted to raise historic and cultural awareness of society. This program will continue until 2030, and will be updated consistently according to local and international developments. It is considered a medium-cost program.
- **Key Elements:**
 - Launch competitions and excellence degrees at schools in order to encourage cultural activity for students.
 - Launch competitions at the universities in order to encourage cultural activity for university students.
 - Include school trips to historic and archeological sites and documentary films on heritage into the tools of personal development for Egyptians in basic education.
 - Coordinate between the Ministry of Youth and Sports and the Ministry of Culture to provide and promote cultural activities in youth centers.
 - Allocate media to raise awareness about Egyptian heritage through programs and competitions that attract different ages and strata of society.

- Produce movies and documentary films about historic cities, heritage sites, monuments, and traditional crafts to raise awareness about Egyptian heritage.
- Hold events and festivals at heritage sites in order to attract the greatest possible number of Egyptians and foreigners.

Establish an integrated database for cultural products and activities in Egypt

- **Program Description:** Establish an integrated data structure for cultural work that enables planning that is based on accurate data and provides a great deal of information about culture and heritage and participating in protecting, documenting, and digitalizing it. This program is to be finished by 2018, and is considered a low-cost program.
- **Key Elements:**
 - Establish a database for original and translated intellectual production to motivate the diversity of outputs and of non-repetition.
 - Launch a national program to digitize all tangible and intangible forms of heritage and make it accessible electronically to ensure the protection of intangible heritage.
 - Prepare an integrated atlas for the cultural services map and make it electronically accessible to facilitate exchange of information.
 - Prepare an integrated atlas for the cultural and heritage sites map and make it electronically accessible to facilitate exchange of information.

Increase the efficiency of the cultural services infrastructure and expand its scope

- **Program Description:** Develop the infrastructure of cultural services, reducing its geographical gaps among governorates and building the capacity of national competence for heritage and cultural management. This program is targeted for completion by 2026. This is a medium-cost program.
- **Key Elements:**
 - Turn specialized cultural points into comprehensive cultural centers that allow practicing different cultural activities, with the precedence given to the neediest areas.
 - Reopen closed cultural sites to ensure full coverage and exploitation of all available sites.
 - Activate and expand the scope of partnerships with the private sector to raise the efficiency of cultural infrastructure.
 - Establish and develop academic programs for heritage and cultural management in collaboration with universities to qualify those who are working in the cultural field.

Protect and develop heritage crafts

- **Program Description:** Protect and develop heritage crafts through financing and marketing stimulation, supporting promotion through exhibitions and tourist programs, and launching technical qualification programs to ensure transference of knowledge. This program is scheduled for completion by 2020, and is a medium-cost program.
- **Key Elements:**
 - Launch a national program to identify and document heritage crafts for development and sustainability.
 - Develop technical qualifications programs for heritage crafts aiming to transform and exchange knowledge about these crafts.
 - Adopt a package of marketing and financing motives to stimulate heritage industries.
 - Expand establishment of temporary and permanent exhibitions for heritage craft products to support marketing and outreach.
 - Include heritage crafts in the content of tourist promotion programs to raise awareness locally and internationally.

Support and empower cultural industries

- **Program Description:** Encourage and protect cultural production through the establishment of an environment that stimulates the growth of cultural industries. This environment would ensure its protection and provide additional financing and marketing channels necessary for the growth and expansion of its effect. This program is to be implemented by 2020 and is a medium-cost program.
- **Key Elements:**
 - Adopt a package of marketing and financing incentives necessary for the stimulation of cultural industries.
 - Increase the Ministry of Culture's budget share for unique work to encourage the production of high-quality work.
 - Support organizing and participation in international exhibitions, festivals, and competitions to promote marketing and spread knowledge of Egypt's cultural industries.
 - Expand cultural exchange programs in various areas to raise awareness locally and internationally about Egyptian cultural industries.

- Adopt a periodic program to qualify those working as art works police and raise their awareness about the framework needed to protect intellectual property.

Protect and maintain heritage

- **Program Description:** Protect and maintain heritage through a package of policies and plans that aim to update techniques of protection and reconstruction. This program is to be implemented by 2030, and is a high-cost program.
- **Key Elements:**
 - Link archaeological sites to insurance and monitoring electronic systems to provide security and protection for archaeological sites.
 - Undertake maintenance and reconstruction of mosques and churches to unify the priorities of maintenance and financing.
 - Apply new techniques in carrying out reconstruction works and construction of deep wells to ensure consistency of the ground water level without affecting monuments.
 - Expand production and sale of transcripts and archaeological books.
 - Expand registering heritage monuments with UNESCO, referring to the threats facing these monuments to ensure international rights.

Environmental Dimension

Environmental Dimension

Ninth Pillar: Environment

Overview of Current Situation

During the last three decades of the 20th Century and the first decade of the 21st Century, the concept of “Environment” has been significantly changed. After it was associated to the pollution of environmental systems only, the concept has become more comprehensive. Green economy has become the talk of the day and how to integrate this concept into the development of strategies, policies, plans, and programs. Thus, emerged the new global trend, as many global countries adopted the approach of preparing policies in order to activate this concept in various sectors, including sustainable societies, eco-friendly cities, green buildings, sustainable and organic agriculture, in addition to less polluting manufacturing and production in the industrial field, rationalization of consumption of water, energy, and renewable energy resources, investing in energy-saving and eco-friendly public means of transportation, environmental tourism promotion, and reusing and recycling of wastes in order to achieve sustainable development and achieve the economic, social, and environmental objectives within a proper governance framework, that ensures social contribution, transparency, and accountability.

Accordingly, and due to the fact that the main objective is to ensure the rights of next generation to the use of natural resources and development, the environment pillar framework is divided into two sections: **Section 1** addresses the main elements of managing natural resources—air, water, and wastes—in addition to the ecological systems and biological diversity. As for the other elements included in managing natural resources, such as energy and mineral resources and lands, coordination has been made with other concerned pillars to ensure that their strategies would lead to rationalized management of these resources and their sustainability. **Section 2** covers the environmental impacts of all the developmental sectors. The environmental dimension of energy, urban development, transportation, and all economic activities such as industry, agriculture, and tourism is discussed with the various concerned pillars in order to achieve integrity with those pillars as a main element to ensure that the strategy achieves the comprehensive sustainable development concept.

Generally, the environment strategy copes with the UN sustainable development goals, particularly the goals of environmental activity, underground water, and on-land life, clean energy at reasonable prices, clean water, and healthy hygiene goals, and other goals.

Review of the current situation of the environment reveals a number of facts about water, air, ozone, biological diversity, mineral resources, coastal environment, wastes, and international conventions in these areas, which we will review, in detail, as follows:

- **Water:** In 2015, per capita of renewed fresh water has reached 650m³ per person annually, making Egypt one of the nations suffering from water scarcity.¹ The agricultural sector has the biggest share of water consumption with a percentage of 85% of total consumption. On the other hand, the non-traditional water resources represent 20% only

¹ Central Agency for Public Mobilization and Statistics, Egypt, Statistics of the Year 2015

of the total water resources in Egypt in 2013-2014.² Climate change is expected to have an impact on the water sector, resulting in more demand especially in the agricultural sector in addition to the impact of high sea level on groundwater reservoirs in the Nile Delta, which increases its salinity and makes it non-consumable.

- **Air and Ozone:** Industrial and technological developments have resulted in introducing new chemical substances, leading to the increase of gas emissions from ozone depletion-causing substances. According to the estimates of the World Bank, **environmental deterioration resulting from air pollution costs Egypt about 5% of the annual GNP, or about LE 2.42 billion annually.**³ Egypt has successfully overcome the challenges dictated by the commitment to the provisions of the Montreal Protocol and its various amendments to protect the ozone layer. Many ozone-depleting substances, which have been used in consumable, industrial, and agricultural products, have been gradually disposed of. A national strategy has been prepared for banning the use of HCFCs used in various sectors, in particular the foam and thermal insulation industry sector and manufacturing of refrigerators and air-conditioners.
- **Biological Diversity:** Egypt is a nation that contains various environmental systems in addition to aquatic life and wildlife. Various plant and animal species in Egypt represent tropical and Mediterranean environments dating back millions of years. Egypt is one of the leading nations in caring for the protection of the biological diversity as proven by entering into international conventions, which promote such trends led by the Convention of Biological Diversity in 1992. Egypt has been one of the first countries that prepared and carried out a national strategy and national work plan in the biological diversity field over 20 years (1997-2017) through governmental, civil, and popular contributions. In 2014, Egypt announced 30 natural reserve areas covering more than 149,000 km² or about 14.7% of Egypt's total area. Thirteen natural reserves have an approved and activated management plan.⁴
- **Mineral Resources:** Egypt owns huge natural mineral resources. However, most of them have not yet been perfectly utilized, resulting in low contributions from the mineral resources sector to the GDP.
- **Coastal Environment:** Coastal and marine areas in Egypt have a strategic significance due to the availability of food resources and raw materials, which are the fundamentals of economic development. In addition, the coastal area is considered as a vital source for maritime transport and trade. These areas include a number of significant environmental resources that are the main resource for entrainment and tourist attraction. Coastal areas in Egypt include about **22%** of the total population and they are where more than **60%** of the industrial, economic, commercial, and maritime developmental activities are being practiced on coastal areas, in addition to the Nile Delta, which covers about **60%** of the

² Ibid

³ World Bank, 2002

⁴ Central Agency for Public Mobilization and Statistics, Egypt, Statistics of the Year 2015

agricultural production in Egypt. Moreover, coastal areas in Egypt, especially the Red Sea, produce about **85%** of the total crude oil production.⁵

- **Wastes:** As part of achieving sustainable development, there is an urgent need to deal with solid wastes in terms of resources management rather than wastes management. Wastes constitute an essential resource for reuse and recycling operations in addition to their role in providing new job opportunities in what is known as green jobs. Moreover, the role of integrated and sustainable management of wastes in limiting the emissions of global warming gases causing the climate change phenomenon. According to the estimates of **2011**, the total amount of municipal solid wastes annually generated is about **20 million tons**, representing **250 kg** per person annually. This is a very low rate compared to the countries of the Organization for Economic Cooperation and Development (OECD), in which such rates amount to about **530 kg** per person annually,⁶
- **International Conventions:** Egypt has signed **68 environmental conventions and affiliated protocols for protecting the environment**, human health, and the various environmental resources. Like many other countries, Egypt participates in the negotiations for the development of these conventions. The scope of these conventions expands to include protection, preservation, and promotion of natural capital, transfer to a low-carbon green economy, enhancement of the efficiency of use of resources, and protection of citizens from environmental pressures and health risks. The challenge currently facing Egypt, as it is for most developing countries, is to reach a compromise between its international obligations and national policies.

Following is a review of the vision, strategic objectives, KPIs, challenges and development programs for environment until 2030.

⁵ Egyptian Environmental Affairs Agency (EEAA), 2015

⁶ Information and Decision Support Center (IDSC), Egypt's Waste Problem, 2012

Strategic Vision for Environment to 2030

Environment is integrated in all economic sectors to preserve natural resources and support their efficient use and investment, while ensuring the next generations' rights. A clean, safe and healthy environment leading to diversified production, resources, and economic activities, supporting competitiveness, providing new jobs, eliminating poverty, and achieving social justice.

Accordingly, it is evident that the strategy vision for the environment until **2030** aims at identifying the mechanisms for encouraging investment in natural resources and ecological systems in order to support the economy and provide new job opportunities. This strategic vision identifies the ways for achieving comprehensive economic development without prejudice to the rights of the next generations to natural resources and a clean environment. In addition, the strategic vision addresses the key issues that have priority until the year **2030** and ways to address them. Given the regional and international leading role of Egypt, the strategic vision focuses on Egypt's role and its attitude towards environmental issues at the international level.

This vision is consistent with the UN sustainable development goals after **2015**, which considers environment as one of the dimensions of sustainable development, in addition to identifying a set of issues that are addressed through the 13th, 14th, and 15th goals, relating to facing climate change and its impact; preserving oceans, seas, and maritime resources; and protecting and restoring wild ecological systems and promoting their sustainable usages and protecting biological diversity.

Strategic Objectives for Environment to 2030

Based on the strategic vision, the strategic objectives for environment until 2030 include the following:

Objective	Definition
Rational and sustainable management of the assets of natural resources to support the economy, increase competitiveness, and provide new job opportunities	This objective addresses the rationalization of the use of natural resources and finding non-traditional alternatives to ensure their sustainability, while focusing on water resources, to ensure water security
Reduction of pollution and integrated management of wastes	This objective addresses the reduction of the rates of air pollution and pollution resulting from untreated wastes resulting in hazardous environmental and health impacts, while increasing the benefit from natural resources through the utilization of solid wastes and focusing on municipal solid wastes
Maintaining the balance of ecological systems, biological diversity, and the rational and sustainable management of these systems	This objective includes the protection of the distinguished biological diversity in Egypt and raising the efficiency of its management through natural reserves, thus ensuring continuity and sustainability of this biological diversity

Objective	Definition
Egypt meets its international and regional obligations for environmental conventions and develops the necessary mechanisms, while ensuring their consistency with local policies	This objective ensures Egypt's commitment to its international and regional environmental conventions and developing the necessary mechanisms, while ensuring their consistency with local policies

The **first objective** addresses the achievement of rationalized and sustainable management of the assets of natural resources, including air, water, energy, and lands with the natural and mineral resources they contain, while focusing on water resources and achieving water security given the great impact of this issue on national security, especially after Egypt has entered the water scarcity phase, in addition to the impacts of climate change and the expected increase in population, which will result in increasing demand with fixed available water resources. This will also lead to the failure to meet the needs of the citizens and production activities.

The **second objective** addresses the reduction of environmental pollution. In this objective, focus is placed on two main issues: the first issue is to eliminate air pollution by reducing air pollution rates. The second issue is environmental pollution resulting from wastes, with a focus on solid municipal wastes and hazardous wastes in order to change the manner of dealing with solid municipal wastes, which represent a heavy burden on the State, to an economically sustainable system that enhances the use of natural resources. Hazardous wastes include significant health risks for citizens and environmental safety, especially because the amount that is disposed of in a healthy manner constitutes an insignificant percentage of not more than 10%. With the anticipated developmental enhancement, it has become a necessity to monitor and develop hazardous waste management systems to limit their impact on public health and the environment.

The **third objective** addresses the biological diversity and ecological systems, including natural environments, whether wild, aquatic, or coastal. In this objective, focus is placed on developing natural reserves that are the most important and effective tool for maintaining biological diversity.

The **fourth objective** addresses Egypt's commitment to international and regional environmental conventions. The priority conventions have been classified according to the importance of our international commitments, national priority, and number of projects and activities associated with each convention. The first set includes the Rio Convention of 1992, which includes the conventions of the United Nations on Climate Change, biological diversity, and desertification and the importance of integration and interaction among these conventions to promote sustainable development in the countries that signed these conventions. The second set of conventions covers hazardous materials and wastes, ozone depletion, and marine pollution as another tool for completion of pollution elimination along with the conventions on preserving natural resources. The level of Egypt's progress in international conventions is measured through the number of conventions in force.

Key Performance Indicators for Environment to 2030

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1		Ratio of total water consumption (%)	It shows the total volume of fresh water consumed by humans (agriculture, industry, and home) as a percentage of total renewable fresh water resources available for the State	107%(1)	100%	80%
2		Fresh water resources per capita (renewable)	It shows the sufficiency of renewable fresh water resources (internal and external) for the population needs	650 m3/ year(2)	750 m3/year	
3		Percentage of decreased pollution caused by fine airborne dust (%)	It shows the percentage of air polluters including fine airborne dust, while focusing in this indicator on PM ₁₀	157 micro-gram/m3(3)	-15%	-50%
4	Strategic Results	Percentage of municipal solid waste regularly collected and managed in a suitable manner (%)	It shows the percentage of domestic solid waste (does not include construction, agricultural, or hazardous waste) that is collected, whether officially or unofficially. It shall be recycled or disposed of through sanitary landfill or other healthy means. The collection will be considered regular if it happens at least once weekly.	20% collection efficiency: 60%(3)	40% collection efficiency: 80%	80% collection efficiency: 90%
5		Percentage of hazardous wastes safely disposed (treatment, recycling, final disposal) (%)	It measures the level of disposing of hazardous wastes that have bad impacts on environment and health.	Percentage of hazardous wastes, safely disposed (treatment, recycling, final disposal)	It measures the level of disposing of hazardous wastes, which have bad impacts on environment and health.	Percentage of hazardous wastes, safely disposed (treatment, recycling, final disposal)

9th Pillar Environment

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
				(%)		(%)
6		Composite biodiversity and environment indicator of 3 sub-indicators: (1) the area of nature reserves/ total area of land and watercourses, (2) area of marine and coastal natural reserves/marine and coastal total area, (3) ratio of protected sites classified as AZE to total sites classified.	<p>It consists of 3 sub-indicators:</p> <p>The area of natural reserves/total area of wild regions and internal watercourses.</p> <p>Area of marine and coastal natural reserves/total area of marine and coastal regions.</p> <p>Percentage of sites classified as AZE protected of total sites classified as AZE.</p>	<p>Composite Biodiversity and environment indicator of 3 sub-indicators: (1) the area of nature reserves/total area of land and watercourses. (2) area of marine and coastal natural reserves/total area of marine and coastal regions. (3) ratio of protected sites classified as AZE to total sites classified.</p>	<p>It consists of 3 sub-indicators: The area of natural reserves/total area of wild regions and internal watercourses. Area of marine and coastal natural reserves/total area of marine and coastal regions. Percentage of sites classified as AZE protected of total sites classified as AZE.</p>	<p>Composite Biodiversity and environment indicator of 3 sub-indicators: (1) the area of nature reserves/total area of land and watercourses, (2) area of marine and coastal natural reserves/total area of land and watercourses, (3) ratio of protected sites classified as AZE to total sites classified.</p>
7		Rate of reduction of ozone-depleting materials	<p>It includes the following materials:</p> <p>HCFC-22</p> <p>HCFC-141b</p> <p>HCFC-142b</p> <p>HCFC-123</p> <p>HCFC-124</p>	Rate of reduction of ozone-depleting materials	<p>It includes the following materials:</p> <p>HCFC-22</p> <p>HCFC-141b</p> <p>HCFC-142b</p> <p>HCFC-123</p> <p>HCFC-124</p>	Rate of reduction of ozone-depleting materials
8		Rate of reduction of the expected increasing rates of	It shows the level of progress in the State's efforts to maintain reasonable increase rates in greenhouse emissions, which cause global	276 equivalent tons of carbon dioxide(5)		

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
		greenhouse gas emissions	warming phenomenon and climate change			
9		Ratio of non-traditional water resources to total water resources usage	It shows how far the State depends on utilization of non-traditional water resources in reduction of dependence on available traditional water resources.	20%(¹)	30%	40%
10		Sanitation as percentage of total sewage (%)	It shows the efficiency of the State's utilization of its sewerage water resources, whether agricultural or industrial	50% ⁽⁴⁾	60%	80%
11	Output	Illegal industrial sewage into the Nile River as a percentage of the total industrial sewage(%)	It shows the State's success in banning disposal of industrial wastes in a manner not in conformity with the specifications, in the Nile River, which causes huge water pollution (direct and indirect disposal).	21% ⁽³⁾	16%	0%
12		Sanitation percentage according to the national standards, disposed in the Nile River (%)	It shows how far the sewerage water, which is disposed of in the Nile River, is in conformity with national standards, which guarantee that the quality of fresh water resources has not been affected.	50% ⁽³⁾	70%	100%
13		Number of natural reserves, with an approved and activated management plan (reserve)	It shows the extent of progress in designing and executing management plans for natural reserves, which help in achieving their sustainability and increasing benefit from them.	13 ⁽³⁾	20-15	30
14		Percentage of progress in the commitment to ratified conventions (%)	It shows Egypt's adherence to international conventions in the following fields: desertification – climate change – biological diversity – hazardous materials and		100%	100%

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			wastes – marine pollution, through calculating the percentage of conventions in force.			
15		Percentage of loss in water transfer networks (%)	It shows the efficiency of water distribution networks and amount of water wasted as a result of their damaged infrastructure	15% ⁽⁶⁾	Less than 10%	Less than 5%
16		Percentage of loss in water treatment plants (%)	It shows the efficiency of water treatment stations and amount of water wasted in such stations	30% ⁽⁶⁾	Less than 20%	Less than 10%
17	Input	Number of national plants monitoring air pollutants	It shows the State's ability to monitor air polluters through the number of stations of a national network	87 plants ⁽³⁾	92 plants	120 plants
18		Number of monitoring sites at the national network of monitoring industrial emissions	It shows the State's ability to monitor industrial emissions through the number of stations of the national network.	164 sites 40 companies ⁽³⁾	250 sites	500 sites

⁽¹⁾ Central Agency for Public Mobilization and Statistics (CAPMAS), Egypt, Statistics of the Year 2015

⁽²⁾ Ministry of Water Resources and Irrigation, 2015

⁽³⁾ Egyptian Environmental Affairs Agency (EEAA), 2015

⁽⁴⁾ Environmental Performance Index Report, 2014

⁽⁵⁾ World Bank database on the internet

⁽⁶⁾ Ministry of Housing, Utilities and Urban Development, 2015

*The identified quantitative target is temporary until it is declared by the responsible authority (Ministry of Water Resources and Irrigation, Ministry of Housing, Utilities and Urban Development, and Ministry of Environment)

Suggested New Indicators

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1	Outputs	Environmental deterioration cost	This indicator has been introduced to reveal the economic cost incurred by the State as a result of environment deterioration and irrational use of resources	This indicator will be measured in cooperation with the Ministry of Environment and the Ministry of Planning, Monitoring and Administrative Reform using the method of calculating the cost of alternative opportunity

Challenges of Environment

Challenges facing the environment are divided into **three main groups**.

The first group of challenges has great impact and is easily controlled. Therefore, it will have the biggest share of attention due to the ability to face and overcome it quickly and easily more than the other challenges. This group includes the following:

- Failure to adopt an integrated and participatory approach that ensures integration of social and environmental dimensions into the economic dimension. There is no integration of the policies and strategies of the various ministries, neither is there participation of stakeholders in the development of policies, plans, and programs.
- **Water loss.** The failure to rationalize water consumption in all consuming sectors, particularly the agricultural, industrial, and housing sectors, represents a high risk for the State's water resources and a threat to its water security. On the other hand, due to the expected increase in the rates of water usage demands resulting from overpopulation and the probable impact of climate change along with the fixed share of Egypt in the water of the Nile River, the efforts to rationalize water consumption and searching for other non-traditional resources have become a national necessity.
- **Poor retributive policies and economic incentives** for encouraging the private sector to reconcile its environmental conditions. This leads to increasing non-sustainable production and consumption patterns. However, if the necessary policies package is available, the private sector can be included as an essential partner in preserving the environment and natural resources.
- **Climate change.** Climate change represents an obvious risk to water resources in Egypt. This impact covers two sections: the first section is related to coastal areas that are vulnerable to sea level rise and economic and social damages at the coastal areas. The

second section is the River Nile water flow on which the scientific research differs as to whether it is preferable to increase or decrease the flow percentage. In both cases, an intervention is necessary to get adapted to any of the two cases, if occurred.

- **Deterioration of watercourses and drainages.** Watercourses and drainages require renewal and a greater attention as they have been greatly violated whether through opening illegal irrigation channels or disposing of wastewater and industrial wastes into them that resulted in pollution of water and shortage of water at the ends of watercourses that generally affects the efficiency of the use of water resources.
- **Overuse of groundwater.** Overuse of groundwater represents a threat to water security due to the pressure placed on non-renewable water resources without restoring them, taking into consideration that groundwater has a great importance as a strategic reserve.
- **Lack of trained technicians in the area of waste recycling.** This leads to poor efficiency of the recycling system, resulting in failure to achieve the ultimate benefits from available natural resources.
- **Poor incentive policies for encouraging green production.** Poor inventive policies in the private sector for adopting eco-friendly green production methods that are efficient to manage natural resources in addition to rationalization of energy consumption resulted in the private sector's refraining from adopting such production patterns and Egypt's setback in this area compared with developed countries.
- **Open-air burning of different kinds of wastes (municipal or agricultural).** Open-air burning of wastes, whether municipal or agricultural, is one of the main reasons for air-polluting emissions that result in negative environmental and health impacts. This challenge is due to the deficiency in waste collection, recycling, and disposal systems in addition to the low level of society's awareness of the risks of such practices.

The second group of challenges has relative low impact and is relatively controlled. It includes the following:

- **Poor participation of the private sector in the collection and recycling of solid wastes.** With the lack of encouraging and participation mechanisms, this has resulted in increasing the financial burden on the State for managing solid waste systems whether through collection or recycling, leading to aggravating the problem of solid wastes accumulation in different districts and cities and the attempt to dispose of such wastes in unsafe manners that will negatively affect the environment and citizens' health.
- **Increasing the cost required for introducing and using modern technologies for desalination and treatment of water.** This represents a challenge to the achievement of the utmost benefit from non-traditional water resources, which should be relied upon to elevate the pressure on fresh water resources and to face the increasing demand.
- **Overhunting practices.** The failure to implement the law on the prevention of infringements of natural reserves and coastal environments and the increasing

overhunting has led to a negative impact on biodiversity and natural habitats and fish wealth in Egypt, particularly in the recent period, which was marked by security chaos.

- **Increasing the cost of collecting and transporting solid wastes.** This affects the efficiency of collecting solid wastes, especially municipal wastes, where the efficiency of collection reaches less than **60%** of the total generated wastes, which necessitates searching for variation of financing sources to ensure the sustainability of waste management systems.
- **Fragmentation of the work of institutions in the water sector.** The roles and powers of the agencies governing the water resources sector in Egypt are overlapping and not clear. This includes the Ministry of Water Resources and Irrigation and the Ministry of Housing, Utilities and Urban Development, which results in deficiency of water resources management due to inconsistencies along with the lack of coordination between them.
- **Lack of necessary funding for the pollutants and emissions monitoring stations.** Also, lack of funding for the implementation of the plans to reduce the rates of air-pollution has led to the increase of their financial burden on the State, threatening their sustainability and resulting in a decline of the progress of these programs and an increase in air pollutants along with the negative impacts on the environment and public health. In addition, the lack of financing resources for expanding the establishment of pollutant monitoring stations decreases the ability of measuring and following up pollution levels in order to support taking the necessary reformative decisions and procedures, in addition to increasing the efficiency of personnel of monitoring stations to ensure the production of correct and accurate reports.
- **Lack of funding for monitoring biological diversity and reserves management.** This has led to the deficiency of the efforts of biological diversity and Egypt's setback in this area compared with other countries.
- **Lack of incentive policies encouraging individuals to use natural gas-operating vehicles.** Traditional transportation means depending on petroleum materials are one of the elements of air pollution and greenhouse gases emissions that contribute to global warming. The failure of the State to adopt policies that encourage citizens and institutions to use natural gas as an alternative, which has a less damaging impact on environment. The use of eco-friendly vehicles such as bicycles constitutes a challenge that results in increasing the use of traditional transportation means including the abovementioned harmful effects.
- **Poor information system in the areas of wastes.** The lack of comprehensiveness and accuracy of data related to waste management systems has a negative impact on the efficiency of systems' management and taking the proper procedures and decisions.
- **Lack of integration of civil society into the efforts of protecting biological diversity.** The failure to expand the scope of beneficiaries from the efforts of protecting

biological diversity and those interested in them to include civil society results in increased protection pressure on the State that affects the efficiency of such efforts.

- **Failure to include the price of water cost in the different products.** This is one of the factors that encouraged not to achieve the utmost efficiency in the use of water resources and resulted in poor expansions in infrastructure to ensure the sustainability of water systems.
- **Deterioration of the current water transmission pipelines.** This results in loss of treated fresh water, leading to the increase of the demands for water resources more than actual needs due to the amount of lost water during transmission.
- **Lack of an independent budget for managing solid wastes.** According to the priorities of governmental expenditure, this lack has led to the deficiency of the operation of this sector.
- **Irregular increases in the rates of coastal areas development.** The Red Sea in particular witnesses an irregular increase in development rates and many activities including diving, boats fees, spread of moorages and marinas, drilling, mining, petroleum excavations, and other activities that directly affect biological diversity in the Red Sea, natural resources, and environmental systems such as coral reefs and mangrove forests.
- **Poor coastal areas protection procedures.** These areas are subject to environmental threats such as a disappearing beaches phenomenon that may result in losing lands and expected sea level rise because of climate change, which may have disastrous consequences on the country's economy.
- **Poor mechanisms for monitoring and measuring the rate of emissions of ozone-depleting materials.** This results in poor efficiency of managing the plans to decrease these materials and taking the required reformative decisions and procedures. It should be noted that the efforts made for decreasing the rates of ozone-depleting materials are among the main international obligations.

The **third set of challenges** includes lower priority challenges. However, this does not mean that they are less important and they must be faced.

- **Adopt non-sustainable industrial production modes polluting the environment.** The failure to consider the environmental dimensions during planning and managing industrial facilities results in a non-sustainable industrial system contributing to the pollution of natural resources and decreasing the efficiency of their use. This includes generating hazardous wastes that are not treated, non-rationalization of water resources usage, and the use of non-renewable energy resources that cause air pollution.
- **Increased number of informal waste dumps.** This reduces the State's ability to efficiently manage the waste systems, including the calculation and collection of the generated amounts of waste and dealing with the wastes through recycling or final disposal.

- **Poor support for the scientific research system to achieve environmental sustainability.** There is no clear policy and effective mechanisms for directing scientific research to the areas of preserving natural resources and protecting the environment in order to support achieving sustainable development in Egypt.
- **Lack of a community motivation to facilitate the operation of the waste management systems.** Whether facilitating the recycling process through isolation from source or by following more sustainable consumption methods for reducing the rates of generated wastes.
- **Inability to keep trained personnel in biological diversity and reserves areas.** Economic incentives provided for trained personnel in the area of preserving biological diversity do not encourage personnel to continue work and develop the sector, in addition to the lack of qualifying and training programs provided for them.
- **Poor community participation in preserving the environment and inadequate environmental awareness.** This results in poor utilization of natural resources and deterioration of that environment's condition and their impact on economy and social and environmental conditions.
- **Multiple agencies responsible for the implementation of plans.** Several agencies are responsible for implementing plans to reduce the rates of air-pollution and poor coordination ability results in the lack of integration of the projects and lack of ability to evaluate their results within a unified framework reflecting the progress of implementation.

Environment Programs to 2030

Based on these challenges, and in addition to the policies, programs, and projects of environment included in the 2016-2018 government program, the following are the key programs and projects of the strategy during 2016-2030.

Programs for Implementation Mechanisms

Strengthen the institutional and legislative structure of the water resources management system:

- **Program Description:** The program intends to reform the institutional and legislative defects in the water resources management system by re-identifying the roles of the sector's governing agencies and enhancing their administrative efficiency in addition to drafting the necessary legislation. This program is expected to be complete by 2020. This is a low-cost program.

- **Key Elements:**

- Clearly identify the institutional and organizational roles of the Ministry of Water Resources and Irrigation and the Ministry of Housing to avoid overlap of authorities and powers.
- Implement a program for providing water from non-traditional resources, renewing the ecological water systems, activating the management role of providing water from non-traditional resources to alleviate the growing pressure on traditional water resources.
- Draft legislation and laws supporting the optimal use of water resources.
- Develop a legislative framework and new criteria for wastewater treatment and water treatment.
- Include penalties for water pollution in relevant laws, introduce laws and criteria requiring the installation of water saving equipment and methods in facilities and enact legislation and mechanisms for implementing the law to reduce the overuse of underground reservoirs.
- Implement an institutional capacity building program to enhance the administrative and technical aspects of personnel in the agencies entrusted with water resources management.

Expand the establishment and development of required infrastructure for achieving a sustainable water system:

- **Program Description:** This program intends to develop the existing infrastructure and expand in major projects for the future infrastructure to increase the use of non-traditional water resources and reduce water loss in the current systems. This program is targeted to complete by 2025. This is a high-cost program.

- **Key Elements:**

- Implement a program for developing, maintaining, and expanding the establishment of waterways and drainages.
- Expand the establishment of infrastructure to make the best use of rain and torrential water.
- Implement a program for establishing new wastewater treatment and seawater desalination plants to increase the capacity and alleviate the pressure on traditional water resources.
- Develop the existing water treatment plants and water transmission networks to reduce water loss and enhance the efficient use of water resources.

- Set policies encouraging the private sector to invest in water resources management, whether with regard to treatment, recycling, or infrastructure reforms along with designing the legislative framework to organize its participation.
- Provide the required funding to prevent drainage, of all forms, in the watercourses, particularly the River Nile.

Implement financial policy reforms and use of economic instruments to move toward more sustainable consumption patterns of water and natural resources:

- **Program Description:** This program intends to bridge the gap in water demand through developing policies that support the practices of water conservation and reviewing virtual water policies of the international trade. This program is intended to commence in 2020 and complete by 2025. This is an average-cost program.
- **Key Elements:**
 - Implement a program for water rationalization in various sectors, particularly industry and agriculture, with reliance on modern technology in irrigation and crops that require less water.
 - Adopt policies that support cost recovery of water transmission and treatment for various sectors.
 - Develop motivating policies, such as tax reduction, for the private sector to encourage water rationalization and reuse.
 - Facilitate access to modern and innovative water-saving equipment and technologies through decreasing customs tariffs.
 - Develop commercial policies that increase water resources through international trade (virtual water).

Increase awareness of the need to preserve the environment and natural resources, motivating required alternatives and technologies for water rationalization, and protecting natural resources.

- **Program Description:** This program intends to consolidate community efforts for environmental resources rationalization and conservation through awareness programs and training services or integrating environmental concepts in education, while focusing on the role of women in these programs. Implementation of this program is targeted to complete by 2020. This is an average-cost program.
- **Key Elements:**
 - Implement geographical awareness programs about the importance of water conservation according to the demands and nature of each community.

- Provide guidelines and training services on the means of water conservation used for agriculture in rural communities.
- Integrate the concepts of comprehensive and sustainable management of solid wastes into the educational system.
- Implement awareness programs on the need to shift to more sustainable consumption and production patterns, including rational consumption of energy and natural resources and protecting the environment from pollution.
- Implement awareness programs on the development of industrial sector awareness, particularly small and medium enterprises, of the importance of environment protection and resources rationalization.
- Develop awareness and educational programs on biodiversity through social awareness programs intending to spread the social and economic values of biodiversity and including the elements of biodiversity protection in the educational curriculum.

Enhance the efficiency of solid waste management systems and support its sustainability:

- **Program Description:** The program intends to establish an institutional, legislative, and executive system for the management of solid wastes of all forms. This system would be characterized by integrity, efficiency, and financial sustainability. Implementation of this program is targeted to complete by 2020. This is a high-cost program.
- **Key Elements:**
 - Develop an integrated system at the institutional and legislative level for the management of the wastes sector by identifying the sector governing entities and issuing the required laws for setting forth their roles and powers as well as allocating financial resources required for operations.
 - Develop the administrative and technical capability of solid waste management organizations.
 - Implement a plan that intends to achieve financial sustainability for solid waste management by developing the policies that create encouraging the environment to increase the private sector's involvement in solid waste management to alleviate funding pressure on the State.
 - Develop a mechanism for integrating the informal sector into the solid waste management system and legalizing its conditions to take advantage of its capabilities and enabling the State to regulate its activities.
 - Develop operational and commercial models that are in line with management service providers.

- Develop and put in place environmental and health criteria for solid waste management to ensure the consistency of sector activities with international safety standards.
- Develop a mechanism for controlling and monitoring the performance of local bodies with regard to solid waste management to ensure the efficiency of collection and recycling or disposal systems.

Develop the necessary policies to reduce air pollution, combat climate change, and protect the environment:

- **Program Description:** This program intends to adopt and develop necessary strategies and policies to reduce air pollution and greenhouse gas emissions through three major sectors: energy, industry, and transportation. Implementation of this program is intended to complete by 2018. This is a high-cost program.
- **Key Elements:**
 - Implement a program for diversifying sources of funding for air pollution reduction plans by promoting international partnerships programs in this area to alleviate the funding pressure on the State and involve all beneficiaries in these programs.
 - Develop economic incentives for encouraging the industry sector to reconcile its environmental conditions regarding the reduction of air pollution and greenhouse gas emissions.
 - Develop economic policies for supporting the efforts aimed at energy conservation in all sectors.
 - Develop motivating policies for the production and consumption of new and renewable energy sources, particularly wind and solar power.
 - Develop policies intending to increase the use of mass and eco-friendly means of transportation (such as electric trains).

Develop the infrastructure to enhance the efforts aimed at reducing air pollution and combating climate change:

- **Program Description:** This program intends to enhance the measurement and management of the effectiveness of the efforts aiming at reducing air pollution and greenhouse gas emissions, in addition to strengthening the coordination ability to supervise multiple reduction plans. Implementation of this program is intended to complete by 2020. This is an average-cost program.

- **Key Elements:**

- Expand the provision of infrastructure to monitor and measure the rates of air pollution, including monitoring stations and technological equipment that increase the State's ability to monitor pollution levels and take the appropriate procedures.
- Establish a climate change database to serve as the core of establishing a research and studies center, in addition to introducing a new department in the competent ministries of climate change for emissions inventory.
- Increase the powers of the Ministry of Environment to lead the supervision and coordination among the different agencies implementing the reduction plans in order to avoid the existing contradictions resulting from the lack of coordination among implementing agencies.

Enhance the efficiency of the administrative structure and infrastructure required for developing the efforts of biodiversity protection:

- **Program Description:** This program intends to strengthen the efforts of maintaining ecosystems and biodiversity by developing the infrastructure and its administrative framework. This program is intended to commence in 2020 and complete by 2025. This is a high-cost program.

- **Key Elements:**

- Increase the numbers and efficiency of reform and rehabilitation programs for environmentally disadvantaged areas.
- Improve the communication network and develop information systems for the management of natural reserves and various environments to enhance the efficiency of monitoring the environment's current situation.
- Implement training programs for developing government employees (in the competent bodies for environment protection) and civil agencies (local communities in the environment protection areas) in the areas of biodiversity preservation and protection.
- Introduce and develop financially sustainable management frameworks to maximize the economic aspects for the management of natural reserves.
- Provide the stakeholders entrusted with implementing the law on prohibiting illegal hunting practices with new methods of security control and training the required human cadres to enhance the efficiency of prohibiting illegal hunting practices, which threaten the balance of ecosystems.

Increase the involvement of private and non-governmental sectors in the efforts of preserving and protecting biodiversity:

- **Program Description:** This program intends to alleviate the financial and administrative costs incurred for implementing the programs of biodiversity preservation by involving the private sector and strengthening social partnership frameworks. Implementation of this program is intended to commence in 2025 and complete by 2027. This is an average-cost program.
- **Key Elements:**
 - Establish integrated frameworks for partnerships with local and civil societies in the efforts of protecting the environment and biodiversity.
 - Develop mechanisms to encourage voluntary activities and involvement of civil society organizations in environment protection and biodiversity preservation.
 - Develop policies to encourage the private sector to invest in biodiversity, natural reserves, and environmental tourism, while raising the value added of environmental products.
 - Create job opportunities for local societies in the environmental protection areas through:
 - Developing qualifying and training programs to work in the area of environmental products and preserving biodiversity.
 - Developing economic policies to increase the competitiveness of environmental and local products such as medicinal and aromatic plants and local crafts.

Enhance the efficiency of protecting coastal and marine areas:

- **Program Description:** This program intends to enhance the State's ability to protect coastal areas from the challenges resulting from various activities, whether naval, such as fishing and oil exploration or industrial, such as urban, industrial, agricultural, and touristic development. Implementation of this program is intended to commence in 2020 and complete by 2025. This is an average-cost program.
- **Key Elements:**
 - Develop a program for enhancing Egypt's capability to attract sustainable and environmental tourism and implement a comprehensive marketing plan to ensure the attraction of this type of tourism and, accordingly promote its contribution to the GDP.
 - Develop more strict management and monitoring systems with regard to marine environment violation in order to ensure that these activities are consistent with international environmental standards.

- Develop the required policies and legislation to motivate the private sector to comply with efficient and sustainable practices for the marine ecosystem, while applying the “Polluter pays” principle by the individuals and economic sectors.
- Promote sustainable practices for fisheries to support ecosystems and marine biodiversity.
- Implement programs for developing the technical capabilities (research and studies, advanced information systems) and administrative capabilities of personnel carrying out coastal and marine environment management.
- Develop sustainable economic policies for encouraging civil society organizations that are working in the field of coastal and marine environment preservation, and creating partnership frameworks to develop these initiatives.
- Implement a program intended to adapt with the risks of climate changes on coastal areas, particularly high-density areas located along the coastline of the Mediterranean Sea, through developing scientific research to issue accurate studies on the expected risks and the best scientific methods to deal with them, in consideration of sustainability.

Monitoring the implementation of international conventions on environment:

- **Program Description:** This program intends to enhance the State’s ability to comply with its international conventions on environment by enhancing the efficiency of its administrative frameworks and activating their integration into the executive strategies of the State in the competent ministries. Implementation of this program is intended to complete by 2018. This is an average-cost program.
- **Key Elements:**
 - Develop a mechanism for integrating the international conventions into the national strategies and legislation of various ministries to enable the State to comply with these conventions.
 - Develop a mechanism for enhancing the efficiency of managing and monitoring financial resources allocated to the program aiming at compliance with international conventions on environment.
 - Activate the role of national committee supervising the implementation of each convention to ensure the compliance of the State to such convention.
 - Develop a mechanism to link the program outputs aiming at achieving international obligations and conventions clauses on environment to ensure the progress of projects in the right direction and take appropriate corrective procedures, when necessary.

- Develop a comprehensive, periodically updated, database, including the number of signed conventions, number of conventions in force, submitted national reports, implemented programs within the context of the convention and their progress, to monitor the State's compliance with its international conventions on the environment.

Programs Relating to Certain Topics

Develop a system for disposal of hazardous waste and raising management efficiency:

- **Program Description:** This program intends to reduce the production of hazardous wastes and treat them appropriately in order to avoid their harmful environmental and health impacts. Implementation of this program is intended to commence in 2020 and complete by 2030. This is an average-cost program.
- **Key Elements:**
 - Develop economic policies to encourage the private sector to reconcile its environmental conditions with regard to hazardous wastes.
 - Impose harsher penalties on the agencies generating hazardous wastes if they are not treated and disposed of safely and appropriately.
 - Expand the establishment of infrastructure for methods of hazardous waste disposal.
 - Develop a list of the most hazardous chemicals on health and the environment, including the appropriate methods for disposal.

Establish a higher council for sustainable development:

- **Program Description:** This program intends to establish a higher council for sustainable development, reporting to the Cabinet, aiming at ensuring the implementation and monitoring of the State's environmental policies and achieving sustainable management of the State's natural resources. Implementation of this program is intended to complete by 2018. This is a low-cost program.
- **Key Elements:**
 - The higher council for sustainable development will undertake the following tasks:
 - Continuous coordination among all governmental authorities to ensure the integration of sustainable development criteria into the strategies of various ministries in order to raise the efficiency of natural resources utilization and protection of the environment.
 - Develop various economic policies aiming at achieving good and sustainable management of natural resources and supervise achievement by the different implementation authorities.

- Develop market policies and mechanisms that promote the shift to more sustainable production and consumption patterns, while enhancing the control systems on the environmental impacts of economic activities.
- Develop efficient, transparent, and accountable monitoring and environmental performance assessment systems for the various ministries.

It is targeted that the period starting from 2020 to 2025 will witness the implementation of urban development policies that consider all sustainable development principles and promote the alternatives and technologies required for consumption rationalization and natural resources protection.

Tenth Pillar: Urban Development

Overview of Current Situation

In light of the current increase in urban expansion and the increase in the rate of rural to urban migration, the current inhabited areas have reached its vital capacity and population saturation. This is clear through the increase of population and urban densities. The lack of-provision of new areas to accommodate the population's growth has resulted in the deterioration of the urban environment quality due to environmental pollution, traffic congestion, decrease of green spaces, as well as the spread of random construction on the most fertile agricultural lands. The housing system in Egypt has suffered from poor distribution that resulted in an overflow in middle- and high-income housing and deficiency in low-income housing with an amount estimated at **2.5 million** residential units¹. The State's efforts during the past years resulted in significant progress in covering drinking water services, in both urban and rural areas, in which the percentage of coverage has reached **90%** of citizens.² There is, however, a geographical misdistribution of such services, as coverage in rural areas is less than urban areas with approximately **10%**. Safe sanitation services still need development, as the percentage of sanitation service coverage did not exceed **50%** of total population and there is a great gap between the coverage in urban areas, which reached approximately **79%**, compared with the coverage in rural areas, which reached only **12%.**³ Following traditional solutions in sanitation service coverage constitutes a massive financial burden on the State's general budget.

The percentage of users of public transportation modes in Egypt decreased compared with those in more developed countries, which resulted in harmful environmental effects represented in air pollution, increased carbon dioxide emissions, and traffic congestion in urban centers. The lack of a comprehensive developmental plan that guides the usages of land resulted in conflict among different authorities governing State land as well as the lack of optimal utilization of land resources.

The central system followed currently to manage housing system is unsuitable for the aimed urban expansion. Despite articles of the 2014 Constitution encouraging decentralization, Egypt must exert more efforts to activate the roles of local bodies in a way that achieves the desired decentralization.

The State has started taking the necessary procedures for the expansion of new communities since the State is planning on building new cities as the New Alamein City, New Al Galala City, New Ismailia City, and more other cities that are being built. This is aligned with new development pillars that the government is currently working on. The next phase will be to address the needed renovations to encourage the construction of new housing communities in those new cities.

¹ Central Agency for Public Mobilization and Statistics (CAPMAS), 2014

² Ministry of Housing, Utilities and Urban Communities, The Current Situation of Water and Wastewater Sector, 2014

³ Ministry of Housing, Utilities and Urban Communities, The Current Situation of Water and Wastewater Sector, 2014

The legislative framework related to urban development in Egypt is not aligned with the desired development and needs to be reconsidered, especially that which is related to the Unified Construction Law No. 119 for the year 2008, Planning Law No. 70 for the year 1973, Local Administration Law No. 43 for year 1979 and the Mortgage Law.

Urban development requires allocation of a large amount of financial resources that can reach to hundreds of billions. This can be allocated by new mechanisms of financing from the local and regional private sector to support such projects that have a high profitability. In addition, the State encourages international financial institutions and development partners to participate in achieving urban development goals to expand inhabited areas. The urban development pillar is aligned with the United Nations Sustainable Development Goals in general, and with Goal No (11) that is related to Sustainable Cities and Communities. The following is an illustration of the urban development strategic vision and objectives, key performance indicators, challenges, and the priority programs to overcome those challenges.

Strategic Vision for Urban Development to 2030

A balanced spatial development management of land and resources to accommodate population and improve the quality of their lives

Strategic Objectives for Urban Development to 2030

The strategic objectives for urban development are to approach the critical issues regarding how to accommodate the inhabited areas for future anticipated population growth, priority urban issues, and the role of urban development in achieving Egypt's leadership at the international level.

The strategic vision of urban development focuses on achieving THREE main objectives during the upcoming FIFTEEN years as follows:

Objective	Definition
Increase inhabited areas in a way that is suitable for the accessibility of resources, size, and distribution of population	This objective approaches on determining the scope of spatial development that can accommodate the anticipated population growth in the upcoming years. This objective is divided into TWO parts: First Part: achieve balance in population distribution in current and future inhabited areas; Second Part: maximize impact of development in new areas to ensure their capability of attracting and including population growth
Improve the quality of the urban environment	This objective focuses on improving the quality of current and future inhabited areas, in addition to the treatment of aggravating and critical housing issues
Maximize utilization of the strategic location of Egypt,	This objective focuses on achieving the optimal benefit from Egypt's distinguished geographical location, as compared with other countries worldwide, through increasing Egypt's

regionally and internationally	communication with foreign countries and the expansion of strategic projects that attract local and foreign investment
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Key Performance Indicators for Urban Development to 2030

Quantitative Indicators

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
1	Strategic Results	The percentage of population settled in new urban communities compared with the targeted (%)	It measures the extent of the State's success in localizing the targeted population in new urban communities outside the scope of the Valley and Delta, which is overpopulated.	-	100%	100%
2		Housing gap indicator	It measures the gap between supply and demand in the housing sector as a percentage of the total along with non-inclusion of the units exceeding the need in different income classes.	2.5 million units – 12% ⁽¹⁾	less than 8%	less than 5%
3		Passengers using public transportation growth rate	It measures the extent of citizens' dependence on public transportation instead of private vehicles.	1.9 billion passengers ⁽²⁾	+30%	+50%
4		Per capita green landscapes in cities	It measures green landscapes in cities including gardens and parks proportional to the population in cities and the quality of urban environment in such cities.	0.85 m ² / per capita ⁽³⁾	1 m ²	3 m ²
5		Rate of reduction of agricultural land infringement	It measures the ability to prevent the phenomenon of infringement on agricultural lands and urban expansion on them.	30,000 acres ⁽⁴⁾	100%	100%

**10th Pillar
Urban Development**

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
6		Egypt's rank in global connectedness index	It measures the extent of Egypt's communication with foreign countries through cross-border flows of trade, capital, information, and people.	99/140 ⁽⁵⁾	65	50
7		Number of Egyptian cities in Globalization and World Cities index (GaWC)	It measures number of Egyptian cities that increase their communication with foreign countries through localizing of multinational service companies	1 (Cairo) ⁽⁶⁾	5	9
8		Growth rate of urban area (thousand additional acres)	It measures urban area growth rate that reflects inclusion of population growth along with spatial expansion	-	300,000 feddan added	700,000 feddan added
9		Land added to the inhabited areas	It reflects the expansion of the land added to the inhabited Egyptian areas and measures the land exploitation degree by the population	7%	1% added	3% added
10	Output	Rate of reduction of population in insecure areas	It measures the rate of reduction in number of population in insecure areas according to the definition of Informal Settlements Development Fund (ISDF)	1 million inhabitants	30%	100%
11		Percentage of slums	It measures the percentage of informal settlements in urban or rural areas. An informally built house does not include the following: access to basic water, access to basic sanitation, security of tenure, durability of housing and sufficient living	Urban 38% ⁽⁷⁾	Less than 20%	Less than 5%

S.N	Indicator Category	Indicator	Definition	Current Status	2020 Target	2030 Target
			area.			
12		Percentage of population with access to sanitation	It measures the extent to which citizens have access to safe sewerage services according to quality standards determined by the Ministry of Housing, Utilities and Urban Communities.	50% ⁽⁹⁾	70%	100%
13		Percentage of population with access to safe drinking water	It measures the extent to which citizens have access to safe drinking water services according to quality standards determined by the Ministry of Housing, Utilities and Urban Communities.	>90% ⁽⁹⁾	>95%	100%

Suggested New Indicators:

S.N	Indicator Category	Indicator	Definition	Measurement Mechanism
1	Strategic results	Population settlement average in new urban communities proportional to population growth.	It measures the extent to which new urban communities accommodate population growth in urban areas	CAPMAS calculates the number of population at the level of new urban communities instead of governorates and establishes a database annually through classifying number of population in governorates according to residence; then, the following equation is estimated: $\frac{(\text{change of population size in city} / \text{change of total population size in urban areas})}{\text{(number of}}$

				population in city at the end of measurement period/ total number of population in urban areas at the end of measurement period) × 100
2	Output	The percentage of workers settled in new urban communities	It measures the extent of connection between work opportunities in new urban communities and residence, and the extent of actual settlement at such communities	<p>Ministry of Planning, Monitoring and Administrative Reform in coordination with Ministry of Social Solidarity will calculate geographically the number of workers in new urban communities that have social insurance in public and private sectors. A database will be established and updated annually containing the number of workers in new urban communities according to address, then this equation will be estimated:</p> <p>Number of located workers /total workers in new urban communities × 100</p>
3		The percentage of population having access to public modes of transportation every 20 minutes at most within a spatial scope of 500 meters	It measures the extent of access to public modes of transportation for population. Such modes will include not only governmental public transportation but also any mode of transportation available for the public.	<p>The governors in cooperation with Ministry of Transportation and CAPMAS prepare regular field surveys at different areas to determine housing places deprived of public means of transportation:</p> <p>(Number of population having access to public means of transportation every 20 minutes at most within a spatial scope of 500 meters/total number of population) × 100</p>

Basic Challenges of Urban Development

Challenges related to urban development are divided into **THREE** main sets:

The first set of challenges is known for its high impact and being relatively easy to control. Thus, it will receive the greatest attention in order to be able to face and overcome it in a quick and easier manner than the other challenges. This set includes the following:

- **Conflict among authorities governing State land.** This arises because of the conflict among the laws and competences and the diversity of authorities that have the right to allocate lands for different usages and lack of clarity of the scope of competences for each authority.
- **Centralization of governmental services.** Centralization of governmental services necessary for the citizens in urban centers resulted in connecting the population of new urban communities to their original urban centers, which results in difficulty of procedures and encourages population to concentrate near the urban center.
- **Lack of motivating policies to encourage settlement of population in new development areas.** Lack of adequate motivating policies, especially economic policies, to encourage population to move from current inhabited areas to new inhabited areas, especially at the first executive phases, which are known for low occupation rates.
- **Lack of options available in housing support programs provided by the State.** Housing support programs provided by the State lack the variety of options suitable for the qualification of lower income classes (e.g. subsidized rental and renting until owning).
- **Lack of the private sector and civil society participating in providing facilities.** The State plans and executes different facility networks exclusively, and the lack of the participation of the private sector and civil society results in increasing the financial burden on the State which hinders quick progress in development.

The second set of challenges comes in the second rank of priorities due to having relatively lower impact or the ability to control them:

- **Lack of planning and administrative efficiency of local authorities.** Deficiency of human abilities capable of planning and managing communities at the local level in local bodies along with non-availability of technological infrastructure in them, results in non-connection between urban plans at the national level along with the local level, and deficiency of execution.
- **Lack of accuracy and conflict in data of urban communities.** Lack of a unified mechanism and clear standards for measuring information related to urban communities from concerned bodies results in conflict in official numbers from different authorities, which makes decision making difficult.
- **Lack of technological capabilities and efficiency in management in external communication gateways.** Where there is lack in the technological infrastructure,

which is necessary in order for Egypt to become a global service center in addition to deficiency of management systems at such areas.

- **Lack of efficiency in planning housing projects for low-income classes.** The State distributes social housing projects according to population distribution and not according to the actual gap in geographical demand, which results in inconsistency between implementation and real needs.
- Lack of a political interest or incentives for green or sustainable construction. This increases the spread of traditional and non-sustainable methods.
- **Scarcity of green spaces in urban areas.** Lack of designing and activating sustainable management systems for green spaces ensuring their existence in good condition.
- **Unsuitability of urban planning of new urban communities for its special environment nature.** The planning of new urban communities lacks consideration of the special environment nature of such areas such as their desert climate, spread of dust, and their distance from urban centers, which reduces population movement to them.
- **Deficiency in private sector and civil society participation in planning new cities development.** Lack of social participation by the private sector and civil society in the planning process results in a development not suitable for the needs of society or the market.
- **Unification of tenure security policies.** In all new areas, without taking into consideration the differences in the nature of the developed area, unified policies of possession and ownership of lands of all areas are not suitable for developmental expansions aimed at, as non-provision of facilities in possession of lands for some areas results in reduction of number of population moving to them.
- **Weak incentive programs for developers and investors.** Motivating programs and policies are inadequate for attracting investments from the private sector to new development areas, which results in increasing investments and thus the population in aggregated urban centers.
- **Non-integration of social, cultural, and economic services that aim at building an integrated and sustainable community.** Non-integration of such services result in production of relatively vacant buildings along with the lack of spread of population in new urban communities due to the lack of the fundamentals of an economically, socially, and culturally integrated community.
- **Deficiency of the State's role in preventing the emergence of new informal settlements.** The State's non-adoption of deterrent procedures to prevent emergence of new informal settlements increases aggregation of the phenomenon, which makes it difficult to find comprehensive solutions for it.

- **Weak legislation and executive mechanisms.** These oblige the private sector to apply technical specifications in urban planning. Penalties would oblige the private and public sectors to adhere to technical urban planning specifications, but since they are currently lacking, the private sector ignores such standards in order to achieve more profitability.
- **Non-efficiency of mechanisms of executing punitive monitoring systems against violations.** Inefficiency of the State's mechanisms to monitor violations and execute laws against violators such as unplanned constructions and encroachment on agricultural lands.
- **Dependence on traditional technologies for provision of main facilities.** The State's follow up of traditional means to cover facilities instead of modern technologies or dependence on local resources results in unnecessary increases in the expenses of covering the facilities.
- **Quality deterioration in public transportation.** Current quality of mass transportation is not suitable for all classes of society and does not fulfill the needs of all citizens, especially with non-activation of coherent quality specifications for modes of public transportation for private and public sectors that limit the demand for using them.
- **Weak public transportation capacity.** The capacity of the current modes of public transportation is weak proportional to the demand on such modes, which results in overcrowding in them and thus deterioration of their quality.
- **Weak planning framework for managing transportation systems.** Deficiency of the framework for managing mass transportation systems including lack of previous planning for different modes of transportation, lack of an activated mechanism for controlling transportation tariffs, and not taking unplanned development areas into consideration.

The **third set of challenges** includes those of less priority, but this does not mean ignoring them as all mentioned challenges are important and it is necessary to search for how to face them:

- **The gap between capital capacity and the remaining cities in attracting investments.** The readiness of Cairo and centralization of governmental and private services in it resulted in a great gap between its capability of attracting investments and the capability of the other cities in which the strategy aims at expanding investment.
- **Lack of stability in building materials prices.** Lack of stability in the prices of building materials constitutes a main problem as it results in increase of residential units and their non-decrease along with lack of a mechanism followed by the State to control prices.
- **Uncertainty of the ability to utilize resources at new areas.** There has been a decrease in the number of studies that provide information on the size, location, and economic qualifications for utilization of natural resources in new development areas

resulting in uncertainty of dependence on such resources in developmental and urban expansions aimed at.

- **Weak local construction and execution capacity.** Deficiency of construction capacity including equipment, building materials, and trained labor locally hinders achievement of the desired development at the local level, which results in increase of development expense due to the increase on the dependence on non-local services and materials.
- **High construction expenses in new areas.** Construction expenses constitute a massive burden on the price of construction in new development areas, which makes investors refrain from directing their projects to such areas.
- **High cost of living in new urban communities.** Increased prices of commodities, services, and transportation in new areas results in increasing the expense of living in them, which does not encourage population to move to them, and prevents population's movement from a limited social class, which results in non-construction of an integrated community.
- **Public culture is towards internal immigration to urban centers and not to new urban communities.** The currently prevailing trend of citizens is to emigrate from rural areas and regions to urban centers overcrowded with population and this trend needs to be changed in order to achieve spread of population in new urban communities.
- **Unavailability of sufficient lands for educational and health services in the current inhabited area.** Scarcity of lands allocated for establishment of educational and health services in the established communities hinders the State's ability to fulfill citizen services and increase the quality of urban environment in them.
- **Inadequate finance for developing informal settlements.** Deficiency of financial resources available for the State to develop informal settlements results in aggregation of social and cultural conditions within such areas along with continuous deterioration of the quality of the urban environment in them.
- **Non-maintenance of the current main facilities networks.** This results in the necessity of investment in maintenance and renewal of the existing networks in a way that integrates supplying new development areas with the necessary facilities.

Urban Development Programs to 2030

In addition to what is mentioned in the government's program for policies, programs, and projects related to urban development during the period 2016-2018, we offer the following as some of the most important programs and projects that focus on the strategy during the period 2016-2030.

Programs to Develop Legislative Frameworks and Governance

Reform of institutional structures and governance of urban development planning and management systems:

- **Program Description:** The program aims at addressing responsibilities that are unclear for authorities governing planning and management of development, and the conflict among the mandates of various authorities governing State lands. It is aimed to complete this program by the year 2020. This program is considered as a middle-cost program.
- **Key Elements:**
 - Issue a unified planning law that ensures coordination among authorities mandated with planning at the national, sectoral, and spatial levels and for all generations.
 - Adjust the role of the Supreme Council for Planning and Development to set the policy for managing the development of State land to determine the basic rules for land allocation, set land valuation and monitor land usage. This will help avoid the current conflicts resulting from land allocation without planning its usage. The National Center for Planning State Land Uses executes such policies.
 - Issue a unified law for land similar to the unified construction law in order to demonstrate the suggested institutional system in accordance with the decided policies for managing State land, while determining the responsibilities and mandates of various institutions.
 - Execute a comprehensive program to develop technical and administrative capacities of those planning and managing urban development in various institutions in order to improve the quality of the final product of developmental plans and ensure the capacity of the governmental body to be able to manage such plans.
 - Set a mechanism for connection between the State's urban plans at the national, regional (governorates), and local levels in order to ensure compliance of executed projects with the national urban vision.
 - Develop an integrated database for urban communities to ensure measurement mechanisms are unified, promote transparency of exchanging such information in order to avoid the existing conflicts and increase efficiency in the decision-making process related to planning and managing urban communities.

Link between a comprehensive investment plan and the national urban plan 2052:

- **Program Description:** This program aims at adopting the mechanism of integrating investment plans into urban plans in order to ensure success and execution of the anticipated urban expansion and overcome the State's limited financial resources. The aim is to complete such a program by 2020. This program is considered one of the middle-cost programs.

- **Key Elements:**

- Set a unified and comprehensive spatial investment map for all investment types (industrial, agricultural, and commercial). It will be connected with the national strategic plan 2052 in order to be able to execute the plan.
- Execute a comprehensive marketing program for attracting the required types and levels of investments according to the investment plan specified for executing the projects of the national strategic plan.
- Develop a unified database including all investment projects with all their types and levels in order to facilitate a follow-up system and ensure the compliance of projects with the national plan and investment map.
- Execute a training program for staff at the Ministry of Investment in order to enhance their abilities to develop marketing studies and activities for investment projects and how to attract and deal with investors.

Activation of municipalities' role in execution and management of urban plans:

- **Program Description:** This program aims at ensuring the connection between urban plans at the national level and executing them at the local level through activating municipalities' role and supporting their administrative and technical capacities. The aim is to complete this program by 2025. This program is considered one of middle-cost programs.

- **Key Elements:**

- Set legislation and executive mechanisms to expand the competences of local management and achieve economic and administrative decentralization as stipulated in the 2014 Constitution.
- Redefine the tasks and responsibilities of local councils, urban community authorities, and new city bodies in order to avoid the existing overlapping in their current roles.
- Activate the role of the Supreme Authorities for Regional Planning and the revision of their roles and responsibilities to avoid overlapping and repetition of tasks among them, as a mechanism to connect between State's urban plans (national level) and those of the municipalities (local level).
- Set a program for developing the technical and administrative capacity of local bodies.
- Qualify programs in order to raise the technological capacities of personnel.
- Set a system for follow-up and evaluation, and an effective incentives system for workers in municipalities.
- Support the technological infrastructure including the required equipment and tools.

- Prepare guidelines demonstrating how to prepare general and detailed strategic plans and execute training programs that raise planning capacity of staff.

Encourage population settlement in the new development areas:

- **Program Description:** This program addresses overpopulation in current residential areas through the provision of the necessary policies and mechanisms for encouraging settlement of population and investments in the new urban areas instead of the existing ones. The aim is to execute the program within the period 2020-2025. This program is considered one of the middle-cost programs.
- **Key Elements:**
 - Adopting policies in order to make new development areas more attractive to population and economic investments to ensure achievement of the desired rates of settlement.
 - Providing the necessary governmental services in new urban communities to achieve decentralization and support population settlement, inhabitants of new urban communities will not need to be connected with their original urban centers to obtain the governmental services that they need. This will help in facilitating population settlement in such communities.
 - Expanding the execution of media awareness programs to encourage migration from the current inhabited areas to the new development areas and the economic incentives accompanying such migration.
 - Adjusting policies and laws related to the possession of lands and residential units in order to ensure their suitability for the nature of each new development area.
 - Preparing qualifying programs to help in inhabitants' adaptation to the nature of new urban communities through establishment of offices for this purpose in local bodies.
 - Setting policies for connection of job opportunities in new urban communities to residence in such communities to ensure achieving the concept of settlement.
 - Setting policies for making overpopulated urban centers less attractive to population and investments.

Achieve a balance between supply and demand in the housing sector:

- **Program Description:** The program aims at repairing the instability in the housing system, which is known for abundance of units allocated for high- and middle-income classes and a significant gap in units allocated for low-income classes of the population. The aim is to execute such program during the period 2020-2025. This program is considered one of the high-cost programs.
- **Key Elements:**

- Develop an integrated information system for managing supply and demand of residential units that includes number of residential units available for all income classes, housing demand according to such classes, along with the geographical distribution of demand, and available units. This information system is used as a mechanism to plan State housing projects according to the needs of different income classes.
- Set policies and legislation for motivating the merging of vacant units within the housing market through increasing the incentives for renting in order to contribute to filling the gap between supply and demand.
- Set policies to motivate the participation of the private sector in housing projects for low-income classes in order to lighten the financial burden on the State because it solely executes such projects.
- Increase numbers of housing supporting programs and their diversity in order to accommodate different needs and income classes (programs of participation with the citizen such as the Ebni Betak Project) and projects for encouraging renting a house instead of owning it.
- Set a legislative framework and executive mechanisms for increasing the State's ability to direct the land and real estate markets in order to achieve a balance in housing systems while taking different levels of supply and demand into consideration.
- Set a mechanism for activating the role of non-governmental housing cooperatives and providing economic incentives to support their projects while directing such projects to new development areas in addition to applying control systems to their activities, aiming at increasing the participation of the non-governmental sector in the housing sector in order to shorten the gap between supply and demand.
- Revise the policies of allocating and transferring ownership of residential units as a mechanism to adjust supply and demand system in the housing sector.

Control informal settlement phenomenon and insecure areas:

- **Program Description:** The program aims to achieve social equity, raise the standard of living and eliminate the negative phenomena resulting from informal settlements. The aim is to execute the program by 2030. This is considered one of the high-cost programs.
- **Key Elements:**
 - Set an economically and socially integrated framework to develop informal settlements and provide job opportunities for their inhabitants, whether at their residential areas after being developed or alternative areas, while taking execution of programs for qualifying and developing the cultural and social skills of the inhabitants to adapt to developed areas and preserve them into consideration, thus,

raising the quality of their lives and ensuring the sustainability of replacement and development projects.

- Diversify resources for financing projects related to the development of informal settlements through setting policies (economic stimulants and direction of social responsibility programs) aiming to increase the participation of the private sector in replacing and developing informal settlements and insecure areas in order to decrease the financial burden on the State's general budget.
- Set a national mechanism for managing and following up foreign aid and international partnership programs in the field of eliminating informal settlements to ensure the efficiency of directing financial resources to vulnerable beneficiaries.
- Develop a unified and comprehensive national database for informal settlements and insecure areas, including all informal settlements whether in the rural or urban areas, while calculating their population, their social characteristics such as the educational standard, economic characteristics such as income standards, number of residential units, their classes, and their current value, in addition to all the required information that support the efficiency of setting an integrated framework to solve the problem of informal settlements and prevent their expansion.
- Increase the efficiency of executing laws related to preventing emergence of new informal settlements through supplying authorities concerned with executing the law with the technical, technological, and security means necessary to face the increase of illegal and informal buildings and settlements in the future.

Substitution and modernizing of the main infrastructure networks and expansion in providing facilities in new development areas:

- **Program Description:** The program is divided into TWO parts: First Part is related to enabling the urban expansions aimed at providing the main facilities required by such expansions. The Second Part is related to replacement of the main facilities in the current inhabited areas to ensure the provision of the minimum degree of urban environment quality. The aim is to execute the program by 2025. This is considered one of the high-cost programs.
- **Key Elements:**
 - Execute a program for renewing and replacing the current main facilities in order to achieve the minimum standard of living in the current urban centers and expansion in establishment of main facilities in new areas to enable execution of different projects directed to them. During execution of the program, expansion in depending on non-traditional solutions in providing the facilities should be taken into consideration to lighten the financial burden resulting from following traditional means, which are unnecessary for the nature of many communities.

- Set a mechanism for connecting between the programs and projects of the main facilities so that infrastructure projects do not delay provision of other planned projects.
- Develop systems for controlling the quality of executing residential facilities projects in order to ensure contractor adherence to execution of projects according to the required standards through assigning the task of supervising execution of facilities projects to independent central technical offices that are not affiliated to local bodies.
- Diversify sources of financing projects for replacing, renewing, and providing main facilities through setting policies such as economic stimulants, partnership projects between the government and the private sector, and non-governmental partnership programs that aim at increasing the partnership between the private and non-governmental sectors to replace, renew, and provide the main facilities to lighten the financial burden on the State's general budget and develop institutional and legislative frameworks that serve such purposes according to the decided policies.

Encourage the spread of green and sustainable building methods:

- **Program Description:** This program aims at merging preservation of the environment with urban development through following green building methods that are considered one of the most important sustainable development pillars. The aim is to execute this program within the period 2025-2030. This program is considered one of the middle-cost programs.
- **Key Elements:**
 - Develop comparative studies to determine the optimal method for green building suitable for different new development areas, whether on the architectural or constructive aspects or used raw materials.
 - Develop construction codes and legislative frameworks to codify and execute the non-traditional green and sustainable practices.
 - Set certain mechanisms and standards to evaluate the comprehensive environmental effects of establishments, executing a program to develop technical skills of human personnel competent in revising architectural and constructive plans and supervising execution to evaluate the environmental effect of the establishment.
 - Issue a law that includes binding standards for the companies to ensure that establishments will be sustainable and eco-friendly.
 - Set motivating policies to direct the private sector to invest in green and sustainable building such as supporting programs and lightening the tax burden.

Programs Related to Certain Subjects

Elimination of infringement and violations in existing urban communities:

- **Program Description:** This program aims to maintain the minimum quality of living standard required in the existing urban communities through developing a package of policies and legislation in order to eliminate violations of the urban specifications and encroachments on agricultural and State lands and enable governmental bodies to activate execution of such policies. The aim is to execute this program by 2020. This program is considered one of the low-cost programs.
- **Key Elements:**
 - Revise the unified construction law to amend the articles related to violations in construction, aiming at setting a framework for reconciliation with some violators in order to codify their situations to include such class in the official sector, conditional on non-threat of citizens' lives such as buildings violating constructive safety or interests such as height restrictions imposed by the Civil Aviation Authority.
 - Revise legislation related to encroachment on agricultural and State lands and archeological sites in order to impose more strict punishment on violators and prevent provision of facilities for violators by any means as the case may be, aiming at eliminating the informal usage of State lands and achieving the optimal utilization of their special resources.
 - Increase the efficiency of executing laws related to construction violations and encroachments on agricultural or State lands through providing authorities concerned with executing law with technical support such as establishment of an engineering unit outside the local bodies to evaluate the condition of violating buildings, technological equipment needed for demolition, and security such as security campaigns accompanying prevention of dealing with citizens necessary to face the increasing rate of such violations.
 - Develop a unified database including all construction encroachments and violations of all kinds and updating it in order to identify technical, technological, and financial resources necessary for dealing with encroachments and violations in different governorates, aiming at raising the efficiency of developing a provisional comprehensive national plan to activate laws in relation to such encroachments and violations.

Increase the capacity and quality of means of public transportation in cities:

- **Program Description:** This program aims to improve the quality of the urban environment in governorates through increasing citizen dependence on modes of public transportation, which helps in decreasing traffic congestion in cities, in addition to the positive environmental and health effects. The aim is to execute such program by 2022. This program is considered one of the middle-cost programs.

- **Key Elements:**

- Execute a project for increasing numbers of means of mass transportation in cities while increasing dependence on the private and non-governmental sector in provision of such services so that the State's role is focused on motivating and organizing the public transportation market in order to lighten the administrative and financial burden on the State's general budget.
- Execute a qualifying and training project to raise planning skills of staff in the governorate bodies in order to plan sets, sites, and numbers of means of public transportation suitable for the nature of each governorate in order for the State to be able to efficiently direct investments of the private and non-governmental sectors.
- Support roads with modern technological tools to monitor roads and traffic flow in order to enable responsible authorities to raise planning efficiency and manage traffic congestion in a better way.
- Adjust regulations and laws for increasing the quality requirements of means of mass transportation for private and non-governmental sectors in order to motivate inhabitants to use them and increase their suitability for all income classes.
- Develop a national database to calculate numbers of users of modes of public transportation whether public, private, or non-governmental, and their economic and social characteristics such as income classes and social status in order to control the efficiency of the public transportation system and observe the gaps between supply and demand to increase planning efficiency.

Increase the construction capacities in new urban communities:

- **Program Description:** This program aims at increasing the targeted constructive capacities in the urban communities plan, ensuring speed and good quality of execution, adjusting mechanisms for monitoring contractors and providing materials necessary for the construction and building process. The aim is to execute this program by 2025. This program is considered one of the low-cost programs.

- **Key Elements:**

- Execute incentives programs for contractors to increase the quality and speed of construction such as financial incentives for early delivery of projects or points systems for evaluating the performance of contractors that affects the potential of concluding a contract with them in other projects, especially in strategic projects such as facilities and road networks and power plants that directly affect citizens or are depended on for progress of other development projects, in addition to merging the legislative framework of such programs with the related laws.

- Develop the role of the contractors' union for executing programs for supporting the constructive capacity of contracting companies, aiming at increasing the capacity of the local market to accommodate the size of planned development projects.
- Setting economic policies for supporting the increase of the constructive capacity of the local market including raw materials, building equipment and others ideas such as decreasing customs duties imposed on importing building equipment and supporting small- and medium-sized contracting companies, aiming at enabling execution of planned development projects.
- Set a mechanism for controlling the market of raw materials used in construction and building works in order to prevent monopolization practices and increase competition among different companies to ensure availability of raw materials with competitive pricing.
- Improve monitoring systems for contracting works to ensure adherence to quality standards and eliminate practices of corruption in assigning contracting works and supervising its execution.

ANNEX

Table of Contents

Economic Development Pillar	279
Energy Pillar.....	300
Knowledge, Innovation & Scientific Research Pillar	306
Transparency and Efficiency of Government Institutions Pillar.....	315
Social Justice Pillar	320
Health Pillar	326
Education and Training Pillar.....	331
Culture Pillar.....	344
Environment Pillar.....	353
Urban Development Pillar.....	359

Economic Development Pillar

Strategic Objectives for Economic Development to 2030

	Strategic Objectives
1	Stability of macroeconomic environment
2	Achievement of sustainable inclusive growth
3	Increasing competitiveness, diversification, and knowledge
4	Maximizing the value added
5	An active player in the global economy capable of adjusting to international developments
6	Creating decent and productive job opportunities
7	Increasing GDP per capita to reach the level of the high-middle income countries' GDP per capita
8	Integration of informal sector in the economy

Key Performance Indicators for Economic Development to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Real GDP growth rate (%)	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> All ministries and agencies Private sector 	
2	GDP per capita (USD)	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Private sector 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Ministry of Health & Population Central bank of Egypt Ministry of Finance
3	Share of real GDP in real world GDP (%)	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Sectorial ministries 	<ul style="list-style-type: none"> Ministry of Investment Ministry of Finance Ministry of Planning, Monitoring & Administrative Reform Central bank of Egypt Private sector Ministry of Trade and Industry
4	Poverty headcount ratio at national poverty lines (%)	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Ministry of Finance Service Ministries
5	Percentage of population below the extreme poverty line (%)	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Ministry of Finance Service Ministries
6	Public debt to GDP ratio (%)	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Central Bank Of Egypt

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
7	Budget deficit as percentage of GDP (%)	• Ministry of Finance	• Ministry of Finance	• Ministry of Planning, Monitoring & Administrative Reform
8	Total reserves in months of good imports (months)	• Central Bank Of Egypt	• Ministry of Trade and Industry	• Ministry of Trade and Industry • Private Sector
9	Inflation rate (%)	• Central Agency for Public Mobilization and Statistics	• Central Bank Of Egypt	• Ministry of Finance • Ministry of Supply and internal Trade • Ministry of Trade and Industry
10	Unemployment rate (%)	• Central Agency for Public Mobilization and Statistics	• Private Sector	• Ministry of Investment • Ministry of Finance • Ministry of Manpower • Ministry of Trade and Industry
11	Female labor force participation (%)	• Central Agency for Public Mobilization and Statistics	• Private Sector	• Ministry of Investment • Ministry of Trade and Industry • Ministry of Manpower
12	Total fertility Rate (children per women)	• Central Agency for Public Mobilization and Statistics	• Ministry of Health and Population	• All Ministries • Civil Society
13	Macroeconomic environment indicator (Rank)	• World Economic Forum	• Ministry of Finance	• Ministry of Finance • Central Bank of Egypt • Sectorial Ministries • Private Sector • Ministry of Trade and Industry
14	Ease of doing business index (Rank)	• World Bank	• Ministry of Investment	• Ministry of Trade and Industry • Ministry of Investment • Ministry of Finance • Central Bank of Egypt

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
15	Global competitiveness index (Rank)	• World Economic Forum	• Ministry of Investment • Ministry of Trade and Industry	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Higher Education & Scientific Research • Ministry of Training, Education & Technical Education • Sectorial Ministries
16	Manufacturing growth rate (%)	• Ministry of Planning, Monitoring & Administrative Reform	• Ministry of Trade and Industry	• Federation of Egyptian Industries • Private Sector
17	Manufacturing value added as percentage of GDP (%)	• Ministry of Planning, Monitoring & Administrative Reform • Central Agency for Public Mobilization and Statistics	• Private Sector	• Ministry of Trade and Industry • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance • Ministry of Investment
18	Total trade (goods and services) as percentage of GDP (%)	• Ministry of Planning, Monitoring & Administrative Reform • Central Agency for Public Mobilization and Statistics	• Private Sector	• Ministry of Trade and Industry • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance • Ministry of Investment
19	Current balance as percentage of GDP (%)	• Central Bank of Egypt	• Ministry of Trade and Industry	•
20	Services share in GDP (%)	• Ministry of Planning, Monitoring & Administrative Reform	• Service Ministries • Private Sector	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance • Ministry of Investment
21	High-technology exports as percentage of Egyptian	• Ministry of Trade and Industry	• Exporters • Ministry of Trade and Industry	• Ministry of Finance • Ministry of Investment

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	manufactured exports (%)			
22	Net foreign direct investment (Billion USD)	<ul style="list-style-type: none"> Central Bank of Egypt 	<ul style="list-style-type: none"> Private Sector 	<ul style="list-style-type: none"> Ministry of Investment
23	Ratio of private sector contribution to GDP (%)	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Trade and Industry Ministry of Finance Ministry of Investment 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Private Sector
24	Value of outsourcing services revenues	<ul style="list-style-type: none"> Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> Private Sector 	<ul style="list-style-type: none"> Ministry of Communication & Information Technology Ministry of Investment
25	Income taxes (%)	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Private Sector
26	Value added tax (VAT) (%)	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Private Sector
27	Public investment at the local level (%)	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Local Development Municipalities
28	Investment rate (%)	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Private Sector
29	Efficiency of public investment management PIM	<ul style="list-style-type: none"> International Monetary Fund 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Finance
30	Value of Exports subsidies	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Trade and Industry

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Ratio of informal sector contribution in the economy	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Central Agency for Public Mobilization and Statistics
2	Regional economic Growth	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> All Ministries and Agencies Private Sector 	<ul style="list-style-type: none"> Ministry of Local Development Municipalities

Economic Development Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
First: Public Projects and Programs			
1	Suez Canal Development Project	<ul style="list-style-type: none"> General Economic Authority for the Development Suez Canal Zone 	<ul style="list-style-type: none"> Suez Canal Authority Private Sector Concerned Ministries
2	The construction of the new administrative capital	<ul style="list-style-type: none"> Ministry of Housing, Utilities & Urban Development 	<ul style="list-style-type: none"> Private Sector
3	Four million acre development project	<ul style="list-style-type: none"> Ministry of Agriculture & and Reclamation Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform. Ministry of Housing, Utilities & Urban Development Private Sector
4	Sinai Company for Investment and Development	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform. 	<ul style="list-style-type: none"> Private Sector
5	North West Coast Development Project	<ul style="list-style-type: none"> Ministry of Housing, Utilities & Urban Development 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Private Sector
6	"Golden Triangle" project for mineral resources in southern Egypt	<ul style="list-style-type: none"> Ministry of Trade & Industry 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Private Sector
7	New Development Pillars	<ul style="list-style-type: none"> Suez Canal Authority 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform Ministry of Trade & Industry General Authority for Import & Export Control Foreign Trade Sector General Authority for Industrial Development Ministry of Communication & Information Technology

No.	Index	Responsible Authority	Supporting Authority
			<ul style="list-style-type: none"> • Ministry of Finance • Social Development Fund
8	30th of June Axis and the new Glalala City	<ul style="list-style-type: none"> • Ministry of Housing, Utilities & Urban Development 	<ul style="list-style-type: none"> • Ministry of Transportation
9	Completion of underground phases (IV & V) project	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform
10	Building one million housing units project within the framework of the social housing program	<ul style="list-style-type: none"> • Ministry of Housing, Utilities & Urban Development 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform
11	Legislative reform program to improve the investment climate	<ul style="list-style-type: none"> • Ministry of Investment • General Authority for Investment 	<ul style="list-style-type: none"> • Ministry of Justice • Central Bank of Egypt • Ministry of Finance • Ministry of Manpower
12	Curbing inflationary pressures for macroeconomic stability	<ul style="list-style-type: none"> • Ministry of Supply & Internal Trade • Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> • Ministry of Trade & Industry • Central Bank of Egypt • Ministry of Finance • Private Sector
13	Sovereign wealth fund "Amlak"	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> • All concerned Ministries and Authorities
14	Decent Work Program	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Manpower 	<ul style="list-style-type: none"> • International Labor Organization • Industrial Council for Training-Ministry of Training, Education & Technical Education. • National Council for Disability Affairs • Ministry of Social Solidarity • Ministry of Justice • Ministry of Youth & Sports
15	Regional economic development program	<ul style="list-style-type: none"> • Ministry of Local Development • Ministry of Planning, 	<ul style="list-style-type: none"> • Sectorial Ministries • Private Sector

No.	Index	Responsible Authority	Supporting Authority
		Monitoring & Administrative Reform	<ul style="list-style-type: none"> • Governors • Ministry of Trade & Industry • Social Development Fund
16	"Irada" program	<ul style="list-style-type: none"> • Ministry of Trade & Industry • Ministry of Investment 	<ul style="list-style-type: none"> • General Authority for Investment • Financial Supervisory Authority • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance • Ministry of Tourism • Ministry of Housing • Ministry of Transportation • Ministry of Agriculture & Land Reclamation • Ministry of Health & Population
17	Programs and projects to formalize the informal sector	<ul style="list-style-type: none"> • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Finance • Private Sector • Civil society • Municipalities

Second: Programs and Projects at the Sectorial Level

Industry Sector			
18	Industrial clusters for small and medium industries	<ul style="list-style-type: none"> • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Trade & Industry • General Authority for Industrial Development • Industry Modernization Centre • Social Development Fund • Ministry of Finance • Ministry of Housing, Utilities & Urban Development

No.	Index	Responsible Authority	Supporting Authority
			<ul style="list-style-type: none"> • Private Sector
19	Leather City Project in "Al-Robeiky"	<ul style="list-style-type: none"> • Ministry of Trade & Industry (General Authority for Industrial Development) 	<ul style="list-style-type: none"> • Ministry of Finance • Private Sector
20	Establishment of the Furniture City in Damietta	<ul style="list-style-type: none"> • Ministry of Trade & Industry (General Authority for Industrial Development) 	<ul style="list-style-type: none"> • Ministry of Finance • Private Sector
21	Supporting the heavy industries	<ul style="list-style-type: none"> • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • General Authority for Industrial Development • Social Development Fund • Ministry of Finance • Ministry of Housing, Utilities & Urban Development • Private Sector
22	The improvement and development of the industrial zones of the Suez Canal project	<ul style="list-style-type: none"> • Suez Canal Authority • Ministry of Trade & Industry (General Authority for Industrial Development) 	<ul style="list-style-type: none"> • Ministry of Finance • Private Sector
23	Industrial map project	<ul style="list-style-type: none"> • Ministry of Trade & Industry (General Authority for Industrial Development) 	<ul style="list-style-type: none"> • Sectorial Ministries
24	Establishing small projects in the field of mobile retail outlets	<ul style="list-style-type: none"> • Ministry of Supply & Internal Trade 	<ul style="list-style-type: none"> • Banking Sector • Social Fund for Development • Ministry of Trade & Industry • Industry Modernization center • Social Fund for Development
25	The ships-manufacturing strategy	<ul style="list-style-type: none"> • Ministry of Trade & Industry (General Authority for Industrial Development) • Suez Canal Authority • Ministry of Investment 	<ul style="list-style-type: none"> • Sectorial Ministries
26	Create clusters of agro-industries	<ul style="list-style-type: none"> • Ministry of Trade & Industry • Ministry of Agriculture & 	<ul style="list-style-type: none"> • Ministry of Water Resources & Irrigation

No.	Index	Responsible Authority	Supporting Authority
		Land Reclamation	<ul style="list-style-type: none"> • Ministry of Investment • Private sector
27	Development of golden triangle project	<ul style="list-style-type: none"> • Ministry of Trade and Industry (Industrial Development Agency) 	<ul style="list-style-type: none"> • Ministry of Petroleum • Competent governorates
28	Achieve transformation in the mining industry sector to support the development and competitiveness of the private sector and promote job creation in Egypt	<ul style="list-style-type: none"> • Industry Council for Technology & Innovation 	<ul style="list-style-type: none"> • African Development Bank
29	The green economy program	<ul style="list-style-type: none"> • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Industry Modernization Center
Foreign Trade Sector			
30	The construction of the Egyptian Trade Network (Egytrader)	<ul style="list-style-type: none"> • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Finance • Ministry of Transportation • Central Bank of Egypt • Ministry of Communication & Information Technology • Ministry of Planning, Monitoring & Administrative Reform • Private Sector
31	The green economy project as a tool to achieve sustainable development in Egypt	<ul style="list-style-type: none"> • Foreign Trade & International Agreements Sectors 	<ul style="list-style-type: none"> • Ministry of International Cooperation • Ministry of Environment • New & Renewable Energy Authority • Private Sector
32	Trade and Domestic Market (TDMEP) Program	<ul style="list-style-type: none"> • General Authority for Import & Export Control 	<ul style="list-style-type: none"> • Egyptian Organization for Standards and Quality Control • Foreign Trade Sector • International Agreements Sector
ICT Sector			
33	Transformation of Egypt	<ul style="list-style-type: none"> • Ministry of Communication & 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative

No.	Index	Responsible Authority	Supporting Authority
	into a global digital hub	Information Technology	Reform <ul style="list-style-type: none"> • Ministry of Finance • Private Sector
34	National project of high-speed Internet	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Private Sector
35	Build a digital society to support and enhance the efficiency and transparency of all institutions	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Trade & Industry • CAPMAS • Federation Of Egyptian Industries, Federation of Egyptian Chambers of Commerce • Private Sector • Ministry of Investment • Ministry of Finance • Ministry of Supply & Internal Trade • Ministry of Transportation • Central Bank of Egypt • National Council for Disability Affairs
36	The establishment of technological areas	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Ministry of Investment • Private Sector • Ministry of Trade & Industry (Industrial Council for Technology & Innovation)
37	The development of cloud computing	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform
38	Development of information and communication technology industry	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Private Sector
39	Electronic designing and manufacturing	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Private Sector • Ministry of Trade & Industry (Industrial Council for Technology & Innovation)

No.	Index	Responsible Authority	Supporting Authority
			<ul style="list-style-type: none"> • Social development Fund • Ministry of Higher Education & Scientific Research
40	Entrepreneurship development	<ul style="list-style-type: none"> • Ministry of Communication & Information Technology 	<ul style="list-style-type: none"> • Private Sector • Ministry of Higher Education & Scientific Research • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Training & Education & Technical Education

Agriculture Sector

41	Increase the agricultural area and support the agro-industrialization	<ul style="list-style-type: none"> • Ministry of Agriculture & Land Reclamation • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Water Resources & Irrigation • Private sector • Ministry of Trade & Industry • General Authority for Industrial Development • Industry Modernization Centre • Social Development Fund •
42	Create assembling points and storage facilities for the strategic goods	<ul style="list-style-type: none"> • Ministry of Agriculture & Land Reclamation • Ministry of Trade & Industry 	<ul style="list-style-type: none"> • Ministry of Finance • Private Sector • Ministry of Trade and Industry • Ministry of Finance • Ministry of Housing, utilities and Urban Communities • Governors and the Private Sector
43	Development of aquaculture projects	<ul style="list-style-type: none"> • Ministry of Agriculture & Land Reclamation 	<ul style="list-style-type: none"> • Farmers undertaking Fish Farming • Ministry of Agriculture & Land Reclamation • Ministry of Water Resources & Irrigation

No.	Index	Responsible Authority	Supporting Authority
44	Establishing a “center for modernization of agriculture”	<ul style="list-style-type: none"> Ministry of Agriculture & Land Reclamation 	<ul style="list-style-type: none"> Private Sector Ministry of Finance
45	National Program for the Development of livestock, poultry and fish resources	<ul style="list-style-type: none"> Ministry of Agriculture & Land Reclamation 	<ul style="list-style-type: none"> Private Sector Ministry of Finance

Water and Irrigation Sector

46	Establishment of new communities to achieve inclusive development	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Housing, Utilities & Urban Development Ministry of Planning, Monitoring & Administrative Reform Private Sector
47	Rationalization of water use	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> All Ministries Ministry of Planning, Monitoring & Administrative Reform Private Sector Civil Society
478	Strengthening and rehabilitation of main enterprises and lift stations	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Housing, Utilities & Urban Development Ministry of Planning, Monitoring & Administrative Reform Municipalities
49	Addressing climate change and coast and facilities protection	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Environment Ministry of Planning, Monitoring & Administrative Reform
50	Water resources development	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Agriculture & Land Reclamation Ministry of Environment Ministry of Planning, Monitoring & Administrative Reform
51	Improving water quality	<ul style="list-style-type: none"> Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> Ministry of Environment Ministry of Planning, Monitoring & Administrative Reform

No.	Index	Responsible Authority	Supporting Authority
			Reform <ul style="list-style-type: none"> • Civil Society • Municipalities
52	Expansion of the sustainable development programs for the Nubian sandstone and brackish water reservoir	<ul style="list-style-type: none"> • Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities & Urban Development • Ministry of Planning, Monitoring & Administrative Reform
53	Development of groundwater and combating violations	<ul style="list-style-type: none"> • Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform
54	Covered drainage networks development program	<ul style="list-style-type: none"> • Ministry of Water Resources & Irrigation 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities & Urban Development • Ministry of Planning, Monitoring & Administrative Reform

Tourism Sector

55	Development of the Pyramids area	<ul style="list-style-type: none"> • Ministry of Tourism 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Giza Governorate • Ministry of Housing, Utilities & Urban Development • Ministry of Transportation • Private Sector • National Council for Disability Affairs
56	Create Resorts taking into account the environmental quality in Western Desert	<ul style="list-style-type: none"> • Ministry of Tourism 	<ul style="list-style-type: none"> • Ministry of Transportation • Ministry of Civil Aviation • Ministry of Local Development • Ministry of Environment • Private Sector
57	The establishment of archaeological museums in the cities of Sharm el-Sheikh and Hurghada	<ul style="list-style-type: none"> • Ministry of Tourism 	<ul style="list-style-type: none"> • Ministry of Antiques • Ministry of Culture • Ministry of Communication &

No.	Index	Responsible Authority	Supporting Authority
			Information Technology • Private Sector
58	Creation of healthy eco-friendly resorts	• Ministry of Tourism (Green Tourism Unit)	• Ministry of Transportation • Ministry of Environment • Private Sector
59	Encouraging the transformation of the tourism sector to a green economy program	• Ministry of Tourism (Green Tourism Unit)	• Ministry of Transportation • Ministry of Environment • Private Sector
60	Create racetrack and Yards for sporting Championships	• Ministry of Tourism	• Ministry of Housing, Utilities & Urban Development • Ministry of Youth & Sport • Private Sector
61	Review and application of sustainable regulations	• Ministry of Tourism (Green Tourism Unit)	• Ministry of Interior Affairs • Ministry of Environment • Private Sector
62	Establish tourist and residential clusters in the North Coast	• Ministry of Tourism • Tourism Development Agency	• Ministry of Transportation • Ministry of Housing, Utilities & Urban Development • Private Sector
63	Application of the refund value-added tax system to increase expenditure on shopping	• Tax Authority	• Ministry of Finance • Ministry of Tourism • Chambers of Commerce
64	Adopt open sky policy	• Ministry of Civil Aviation	• Ministry of Tourism • Ministry of Finance • Private Sector
65	The establishment of training centers according to the international standards	• Ministry of Tourism	• Ministry of Higher Education & Scientific Research • Ministry of Training & Education & Technical Education • Private Sector • Junior Business Associations

No.	Index	Responsible Authority	Supporting Authority
66	Legislative and legal development	• Ministry of Tourism	• Ministry of Investment • Ministry of Justice
Supply and Internal Trade Sector			
67	Establishment of global logistics center for trading and manufacturing grain and foodstuffs in Damietta project	• Ministry of Supply & Internal Trade	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Defense
68	Development of the holding company for food industries subsidiaries	• Ministry of Supply & Internal Trade	• Ministry of Trade & Industry • Ministry of Planning, Monitoring & Administrative Reform
69	Developed garner projects	• Ministry of Supply & Internal Trade	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Agriculture & Land Reclamation
70	Silos Projects	• Ministry of Supply & Internal Trade	• Ministry of Planning, Monitoring & Administrative Reform
71	Building network for markets monitoring and early warning	• Ministry of Supply & Internal Trade	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Training & Education & Technical Education
72	Development of partnership between the public and private sectors in the internal trade sector	• Internal Trade Development Agency (Ministry of Supply & Internal Trade)	• Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance • Ministry of Housing, Utilities & Urban Development • Private Sector
Housing, Utilities and Urban Communities			
73	Reforming the institutional environment in the housing sector	• Ministry of Housing, Utilities & Urban Development	• New Urban Communities Authority • Ministry of Investment

No.	Index	Responsible Authority	Supporting Authority
			<ul style="list-style-type: none"> • Private Sector • National Council for Disabilities Affairs
74	Create a new generation of new cities on the developmental national roads	<ul style="list-style-type: none"> • Ministry of Housing, Utilities & Urban Development 	<ul style="list-style-type: none"> • New Urban Communities Authority • Ministry of Investment • Private Sector
Transportation Sector			
75	Development and extension of the road network for development purposes	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance
76	Egypt railway development	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance
77	Development of maritime transport sector	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance
78	River transport sector development	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Finance

Execution Phases of the Economic Development Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Suez Canal Development Project• The construction of the new administrative capital• Four million acre development project• Sinai Company for Investment and Development• North West Coast Development Project• "Golden Triangle" project for mineral resources in southern Egypt• 30th of June Axis and the new Glalala City• Completion of underground phases (IV & V) project• Building one million housing units project within the framework of the social housing program• Regional economic development program• Industrial clusters for small and medium industries• Leather City Project in "Al-Robeiky"• Supporting the heavy industries• The improvement and development of the industrial zones of the Suez Canal project• Establishing small projects in the field of mobile retail outlets• The green economy project as a tool to achieve sustainable development in Egypt• Transformation of Egypt into a global digital hub• The development of cloud computing• Development of information and communication technology industry• Electronic designing and manufacturing• Entrepreneurship development• Increase the agricultural area and support the agro-industrialization• Development of aquaculture projects• National Program for the Development of livestock, poultry and fish resources• Establishment of new communities to achieve inclusive development• Rationalization of water use• Addressing climate change and coast and facilities protection• Water resources development
Second Phase 2021–2025	

**Third Phase
2026–2030**

- Improving water quality
 - Development of groundwater and combating violations
 - Encouraging the transformation of the tourism sector to a green economy program
 - Adopt open sky policy
 - Establishment of global logistics center for trading and manufacturing grain and foodstuffs in Damietta project
 - Development of partnership between the public and private sectors in the internal trade sector
 - Create a new generation of new cities on the developmental national roads
 - Development and extension of the road network for development purposes
 - Egypt railway development
 - Development of maritime transport sector
 - River transport sector development
-
- Suez Canal Development Project
 - The construction of the new administrative capital
 - Four million acre development project
 - North West Coast Development Project
 - Industrial clusters for small and medium industries
 - Establishing small projects in the field of mobile retail outlets
 - The green economy project as a tool to achieve sustainable development in Egypt
 - Development of information and communication technology industry
 - Electronic designing and manufacturing
 - Entrepreneurship development
 - Increase the agricultural area and support the agro-industrialization
 - Development of aquaculture projects
 - National Program for the Development of livestock, poultry and fish resources
 - Establishment of new communities to achieve inclusive development
 - Rationalization of water use
 - Addressing climate change and coast and facilities protection
 - Water resources development
 - Improving water quality
 - Development of groundwater and combating violations
 - Encouraging the transformation of the tourism sector to a green

economy program

- Create a new generation of new cities on the developmental national roads
- Development and extension of the road network for development purposes
- Egypt railway development
- Development of maritime transport sector
- River transport sector development

Energy Pillar

Strategic Objectives for Energy to 2030

	Strategic Objectives
1	Ensuring energy security
2	Increasing the contribution of energy sector to the GDP
3	Maximizing utilization of domestic energy resources
4	Enhancing rational and sustainable management of the sector
5	Reducing the intensity of energy consumption
6	Limiting the environmental impact of the sector's emissions

Key Performance Indicators for Energy to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Ratio of primary energy supply to the total planned energy consumption	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth Ministry of Electricity and Renewable Energy 	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy
2	Average duration of outages	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy 	<ul style="list-style-type: none"> Holding Company for Electricity 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. Electricity Regulation and Consumer Protection Authority.
3	Percentage change in energy intensity	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Energy Planning Authority 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy. Ministry of Petroleum and Mineral Wealth. Ministry of Trade and Industry. Demand Sectors.
4	Contribution of energy sector to GDP	<ul style="list-style-type: none"> Energy Planning Authority, Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> Electricity Regulation and Consumer Protection Authority.
5	Percentage decline in greenhouse gas emissions from the energy sector Emissions from the Energy Sector	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> Ministry of Environment. Ministry of Trade and Industry.
6	Crude oil reserves	<ul style="list-style-type: none"> Supreme Committee of Petroleum Wealth 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth 	<ul style="list-style-type: none"> General Petroleum Corporation. Holding Company for Natural Gas – EGAS. Holding Company for

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				South Valley Petroleum – GANOPE.
7	Natural gas reserves	<ul style="list-style-type: none"> Supreme Committee of Petroleum Wealth 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth 	<ul style="list-style-type: none"> Holding Company for Natural Gas – EGAS
8	Efficiency of electricity production	<ul style="list-style-type: none"> Electricity Regulation and Consumer Protection Authority 	<ul style="list-style-type: none"> Holding Company for Electricity 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy
9	Efficiency of electricity transmission and distribution	<ul style="list-style-type: none"> Electricity Regulation and Consumer Protection Authority 	<ul style="list-style-type: none"> Holding Company for Electricity 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy. * Electricity Regulation and Consumer Protection Authority.
10	Percentage of residential, commercial and industrial buildings connected to electricity	<ul style="list-style-type: none"> Electricity Regulation and Consumer Protection Authority 	<ul style="list-style-type: none"> Transport Companies. Holding Company for Electricity. 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy. Ministry of Trade and Industry.
11	Percentage of primary fuel mix	<ul style="list-style-type: none"> Energy Planning Authority 	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy.
12	Percentage of fuel mix for electricity production	<ul style="list-style-type: none"> Supreme Council of Energy. Energy Planning Authority. 	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy.
13	Value of fuel subsidy	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Internal Trade and Supply.

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Efficiency of transportation and distribution of petroleum products	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. 	<ul style="list-style-type: none"> Holding Company for Natural Gas – EGAS.

Energy Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Developing an integrated medium and long-term energy strategy	<ul style="list-style-type: none"> Supreme Council of Energy. Energy Planning Authority. 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. Ministry of Trade and Industry. The Concerned Authorities in the Sector: (General Petroleum Corporation, Holding Company for Electricity, etc.).
2	Restructuring of the energy sector	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. EGAS, EGPC, EEHC.
3	Reforming the current legislative framework	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> Energy Planning Authority. Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. Energy Information Centre. New and Renewable Energy Authority. Ministry of Justice. Ministries of Education, Technical Education Ministry of Higher Education & Scientific Research.

No.	Index	Responsible Authority	Supporting Authority
4	Management of energy subsidy	<ul style="list-style-type: none"> Supreme Council of Energy 	<ul style="list-style-type: none"> General Petroleum Corporation. Holding Company for Electricity Ministry of Finance. EGAS, ECHEM, GANOPE.
5	Developing the energy sector's infrastructure	<ul style="list-style-type: none"> Energy Planning Authority 	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy.
6	Promoting innovation in energy sector	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research. Ministry of Environment Ministry of Trade & Industry
7	Applying environmental standards and accurate measurements	<ul style="list-style-type: none"> Unified Regulatory Facility 	<ul style="list-style-type: none"> Ministry of Environment Ministry of Trade & Industry
8	Skills development	<ul style="list-style-type: none"> Ministry of Petroleum and Mineral Wealth. Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> New and Renewable Energy Authority. Atomic Energy Commission. Ministry of Justice. Ministry of Higher Education and Scientific Research. Ministry of Education and Technical Education.
9	Establishing the nuclear station in Dab'aa	<ul style="list-style-type: none"> Ministry of Electricity and Renewable Energy 	<ul style="list-style-type: none"> New and Renewable Energy Authority. Atomic Energy Commission

Execution Phases of the Energy Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Developing an integrated medium and long-term energy strategy• Restructuring of the energy sector• Reforming the current legislative framework• Management of energy subsidy• Developing the energy sector's infrastructure• Promoting innovation in energy sector• Skills development• Establishing the nuclear station in Dab'aa
Second Phase 2021–2025	<ul style="list-style-type: none">• Restructuring of the energy sector• Developing the energy sector's infrastructure• Promoting innovation in energy sector• Applying environmental standards and accurate measurements• Skills development• Establishing the nuclear station in Dab'aa
Third Phase 2026–2030	<ul style="list-style-type: none">• Restructuring of the energy sector• Developing the energy sector's infrastructure• Establishing the nuclear station in Dab'aa

Knowledge, Innovation and Scientific Research Pillar

Strategic Objectives for Knowledge, Innovation and Scientific Research to 2030

SN	Strategic Objectives
1	Creation of a stimulating environment for the localization and production of knowledge
2	Activation and development of an integrated national innovation system
3	Linking the knowledge applications and the innovation outputs with priorities

Key Performance Indicators for Knowledge, Innovation and Scientific Research to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Global innovation index (rank)	<ul style="list-style-type: none"> World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> The Cabinet 	<ul style="list-style-type: none"> All Ministries. The Civil Society. The Private Sector.
2	Innovation efficiency ratio	<ul style="list-style-type: none"> World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> The Cabinet 	<ul style="list-style-type: none"> All Ministries. The Private Sector.
3	Companies innovation capacity index (rank)	<ul style="list-style-type: none"> World Economic Forum (WEF) 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Investment. The Private Sector.
4	Knowledge impact sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Communications and Information Technology Ministry of Social Solidarity. Ministry of Investment. The Private Sector.
5	Knowledge transfer sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research. Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Communications and Information Technology Ministry of Investment The Private Sector
6	Innovative products and services sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> Ministry of Culture. Radio and Television Union. Ministry of Investment. The Private Channels. 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Trade and Industry Ministry of Foreign Affairs. Ministry of International

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				Cooperation. <ul style="list-style-type: none"> • The Private Sector.
7	Information and communications technology sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Communications and Information Technology 	<ul style="list-style-type: none"> • The Private Sector.
8	Public infrastructure sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • The Cabinet 	<ul style="list-style-type: none"> • All Ministries. • The Parliament.
9	Environmental sustainability sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Trade and Industry • Ministry of Environment. • Ministry of Electricity and Renewable Energy. 	<ul style="list-style-type: none"> • Ministry of Social Solidarity. • Ministry of Investment. • The Civil Society. • The Private Sector.
10	Knowledge contribution sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research 	<ul style="list-style-type: none"> • Ministry of Trade and Industry • Ministry of Investment. • The Private Sector.
11	Intangible assets sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research. • Ministry of Trade and Industry. 	<ul style="list-style-type: none"> • Ministry of Communications and Information Technology. • Ministry of Social Solidarity. • The Private Sector.
12	Digital creativity sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Communications and Information Technology 	<ul style="list-style-type: none"> • Ministry of Education and Technical Education. • Ministry of Higher Education and Scientific Research. • Ministry of Social Solidarity. • Ministry of Trade and Industry

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				<ul style="list-style-type: none"> • Ministry of Investment. • The Private Sector.
13	Innovation linkages sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research. • Ministry of Trade and Industry 	<ul style="list-style-type: none"> • Ministry of Investment. • The Private Sector.
14	Quality of scientific research institutions index (rank)	<ul style="list-style-type: none"> • World Economic Forum (WEF) 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research 	<ul style="list-style-type: none"> • The Universities. • The Civil society.
15	Credit facilities sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Investment 	<ul style="list-style-type: none"> • Ministry of Social Solidarity. • Ministry of Trade and Industry • Private Sector.
16	Investment sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Investment 	<ul style="list-style-type: none"> • Ministry of Trade and Industry • The Private Sector.
17	Trade and competition sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Investment 	<ul style="list-style-type: none"> • Ministry of Trade and Industry • Private Sector.
18	Legislative environment sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Planning, monitoring and Administrative Reform 	<ul style="list-style-type: none"> • All Ministries. • The Parliament.
19	Business environment sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Investment 	<ul style="list-style-type: none"> • All Ministries. • The Parliament.
20	Education sub-index of the global innovation index (rank)	<ul style="list-style-type: none"> • World Intellectual Property Organization (WIPO) 	<ul style="list-style-type: none"> • Ministry of Education and Technical Education 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research • The Civil society

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
21	Higher education sub-index of the global innovation index (rank)	• World Intellectual Property Organization (WIPO)	• Ministry of Higher Education and Scientific Research	• The Universities. • The Civil society. • The Private sector.
22	Research and development sub-index of the global innovation index (rank)	• World Intellectual Property Organization (WIPO)	• Ministry of Higher Education and Scientific Research	• The Civil society. • The Universities.
23	Knowledge absorption sub-index of the global innovation index (rank)	• World Intellectual Property Organization (WIPO)	• Ministry of Trade and Industry	• Ministry of Social Solidarity. • Ministry of Investment. • Ministry of Foreign Affairs. • Ministry of International Cooperation. • The Private Sector.
24	Knowledge workers sub-index of the global innovation index (rank)	• World Intellectual Property Organization (WIPO)	• Ministry of Trade and Industry	• Ministry of Social Solidarity. • Ministry of Education and Technical Education. • Ministry of Higher Education and Scientific Research. • Ministry of Investment. • The Private Sector.

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Ratio of knowledge economy contribution to GDP	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> The cabinet 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Trade and Industry. Ministry of Investment. The Civil Society. The Private Sector.
2	Social return on investment in innovation	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> The cabinet 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Trade and Industry. Ministry of Investment. The Private Sector.
3	Ratio of local content to gross national manufacturing	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Investment. The Private Sector.
4	Sectorial Ratio for local component to gross national manufacturing	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Investment.
5	Number of small and medium companies contracting with government	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Investment. The Private Sector.
6	Number of international awards in the innovation field	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry. Ministry of Higher Education and Scientific Research. 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Investment. The Private Sector.
7	Number of newly founded companies in each sector	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Investment

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
8	Ratio of Companies Practicing Innovation and R&D for Each Sector	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research
9	Number of patents per sector	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research
10	Ratio of sectorial budgets expenditure on innovation, research and development	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Investment
11	Ratio of companies contribution to total sectorial expenditure on innovation and R&D	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry 	<ul style="list-style-type: none"> Ministry of Investment
12	Ratio of international funding for innovation, research and development to the total funding	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Investment 	<ul style="list-style-type: none"> Ministry of Trade and Industry. Ministry of Higher Education and Scientific Research. Ministry of International Cooperation
13	Ratio of foreign funding to small and medium companies	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Trade and Industry. Ministry of Investment 	<ul style="list-style-type: none"> Ministry of Social Solidarity. Ministry of Foreign Affairs. Ministry of International Cooperation. The Private Sector.

Innovation, Knowledge and Scientific Research Programs and Projects to 2030

No.	Program	Responsible Authority	Supporting Authority
1	Carrying out legal reform related to knowledge and innovation.	<ul style="list-style-type: none"> The cabinet 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research. Ministry of Trade and Industry. Ministry of Investment. Ministry of Finance. Ministry of Planning, monitoring and Administrative Reform. Ministry of Local Development. Ministry of Communications and Information Technology. Ministry of Justice. Federation of Egyptian Industries. Industrial Modernization Center.
2	Developing and Restructuring the Knowledge and Innovation System	<ul style="list-style-type: none"> Ministry of Planning, monitoring and Administrative Reform 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research. Ministry of Education and Technical Education. Ministry of Local Development. Ministry of Trade and Industry. Ministry of Investment. Ministry of Communications and Information Technology. Ministry of Finance. Ministry of Justice.
3	Adopting a comprehensive program to promote innovation and knowledge culture.	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research. Ministry of Education and Technical Education. Ministry of Investment (private channels). Radio and Television Union. 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research. Ministry of Trade and Industry. Ministry of Youth and Sport. Ministry of Local Development.

No.	Program	Responsible Authority	Supporting Authority
4	Developing a comprehensive program to stimulate innovation activities by SMEs	<ul style="list-style-type: none"> Ministry of Trade and Industry. Ministry of Investment. 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform. Ministry of Finance. Ministry of Local Development. Federation of Egyptian Industries. Industrial Modernization Center.
5	Activating public private partnership to support and stimulate innovation.	<ul style="list-style-type: none"> Ministry of Trade and Industry. Ministry of Investment. Ministry of Higher Education and Scientific Research. 	<ul style="list-style-type: none"> Ministry of Finance. Federation of Egyptian Industries. Industrial Modernization Center.

Execution Phases of Innovation, Knowledge and Scientific Research Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none"> Carrying out legal reform related to knowledge and innovation. Developing and restructuring the knowledge and Innovation system. Adopting a comprehensive program to promote innovation and knowledge culture. Activating public private partnership to support and stimulate innovation.
Second Phase 2021–2025	<ul style="list-style-type: none"> Developing and Restructuring the Knowledge and Innovation System. Adopting a comprehensive program to promote innovation and knowledge culture. Developing a comprehensive program to stimulate innovation activities by SMEs.
Third Phase 2026–2030	<ul style="list-style-type: none"> Developing and Restructuring the Knowledge and Innovation System. Adopting a comprehensive program to promote innovation and knowledge culture.

Transparency and Efficiency of Government Institutions Pillar

Strategic Objectives for Transparency and Efficiency of Government Institutions to 2030

Strategic Objectives	
1	Establish an administrative body that is efficient, effective and in alignment with local and global changes
2	Provide high-quality services that apply modern techniques
3	Transparent system that interacts with citizens, responds to their demands, and is subject to social accountability

Key Performance Indicators for Transparency and Efficiency of Government Institutions to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Government efficiency	• World Bank	• Ministry of Planning, Monitoring & Administrative Reform	<ul style="list-style-type: none"> • Parliament • Presidency of the Council of Ministers. • Central Auditing Organization • Local Councils
2	The number of citizens per government employee (score) (0 worst-100 best)	• Central Agency for Organization and Management	• Ministry of Planning, Monitoring & Administrative Reform	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform
3	Share of funds allocated to training of government employees as a percentage of wage bill	• Ministry of Planning, Monitoring & Administrative Reform	• Ministry of Finance	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
4	Ease of doing business	• World Bank	• Ministry of Investment	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Ministry of Trade and Industry • Federation of Egyptian Industries • Federation of Chambers of Commerce
5	Open government	• The World Justice Project	• Presidency of the Council of Ministers.	• Ministry of Planning, Monitoring & Administrative Reform
6	Regulatory enforcement	• The World Justice Project	• Presidency of the Council of Ministers.	• Ministry of Planning, Monitoring & Administrative Reform
7	Transparency in policy-making (score) (0 worst-100 best)	• World Economic Forum	• Presidency of the Council of Ministers.	• Ministry of Planning, Monitoring & Administrative Reform
8	Anti-corruption	• World Bank	• National Coordinating committee for combating Corruption	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Central Auditing Organization • Administrative Control Authority
9	Favoritism in government decision making process	• World Economic Forum	• National Coordinating committee for combating Corruption	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Central Auditing Organization • Administrative Control Authority
10	Irregular payments and bribes	• World Economic Forum	• National Coordinating committee for combating Corruption	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring & Administrative Reform • Central Auditing Organization • Administrative Control Authority

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Percentage of government services provided electronically from total government services	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform CAPMAS 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Communication & Information Technology. Ministry of Finance.
2	Percentage of Electronic transactions from total transactions	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform CAPMAS 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Ministry of Communication & Information Technology. Ministry of Finance
3	The level of citizens' satisfaction towards the government services	<ul style="list-style-type: none"> Egyptian Government Service Portal CAPMAS 	<ul style="list-style-type: none"> Presidency of the Council of Ministers 	<ul style="list-style-type: none"> All service Ministries

Transparency and Efficiency of Government Institution Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Improving the public management system	<ul style="list-style-type: none"> Presidency of the Council of Ministers. 	<ul style="list-style-type: none"> Presidency of the Republic Ministry of Electricity and Renewable Energy. Ministry of Planning, Monitoring & Administrative Reform
2	Improving the Planning and monitoring System	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Presidency of the Council of Ministers. Ministry of Finance
3	Developing the communication mechanisms between the government and citizens	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> All Ministries
4	Improving the Human Resources Management System	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> All Ministries

No.	Index	Responsible Authority	Supporting Authority
5	Updating the legislative structure.	<ul style="list-style-type: none"> Ministry of Justice 	<ul style="list-style-type: none"> Presidency of the Council of Ministers. Ministry of Finance
6	Improving the basic infrastructure of public administration	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Presidency of the Council of Ministers. Ministry of Finance
7	Updating the information database of public administration	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> Presidency of the Republic Ministry of Communication & Information Technology
8	Developing the human resources of public administration	<ul style="list-style-type: none"> Ministry of Planning, Monitoring & Administrative Reform 	<ul style="list-style-type: none"> All Ministries
9	Improving government services provided to citizens	<ul style="list-style-type: none"> Presidency of the Council of Ministers. 	<ul style="list-style-type: none"> All Ministries
10	Combating corruption in agencies	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Presidency of the Council of Ministers.

Execution Phases of the Transparency and Efficiency of Government Institutions Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none"> Improving the public management system Improving the planning and monitoring system Developing communication mechanisms between the government and citizens Improving the Human Resources Management System Updating the legislative structure Improving the basic infrastructure of public administration Updating the information database of public administration Developing the human resources of public administration Improving government services provided to citizens Combating corruption in agencies
Second Phase 2021–2025	<ul style="list-style-type: none"> Improving the planning and monitoring system Improving the Human Resources Management System

	<ul style="list-style-type: none">• Combating corruption in agencies
Third Phase 2026–2030	<ul style="list-style-type: none">• Improving the planning and monitoring system

Social Justice Pillar

Strategic Objectives for Social Justice to 2030

	Strategic Objectives
1	Enhancing social inclusion and limiting negative exclusion
2	Achieving equal rights and opportunities
3	Providing protection for the neediest groups

Key Performance Indicators for Social Justice to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Geographical gap in human development index	<ul style="list-style-type: none">Central Agency for Public Mobilization and Statistics	<ul style="list-style-type: none">Ministry of Health and Population	<ul style="list-style-type: none">Ministry of Social Solidarity.Ministry of Local Development.The Civil society.
2	GDP per capita (USD)	<ul style="list-style-type: none">Central Agency for Public Mobilization and Statistics	<ul style="list-style-type: none">The cabinet	<ul style="list-style-type: none">All ministries.
3	Income and consumption distribution index	<ul style="list-style-type: none">Central Agency for Public Mobilization and Statistics	<ul style="list-style-type: none">The cabinet	<ul style="list-style-type: none">All ministries
4	International rank of the gender gap index	<ul style="list-style-type: none">World Economic Forum	<ul style="list-style-type: none">Ministry of Social Solidarity	<ul style="list-style-type: none">Ministry of Local DevelopmentMinistry of Education and Technical EducationMinistry of Health and Population.Ministry of Manpower

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				<ul style="list-style-type: none"> The Civil society
5	Confidence in government indicator	<ul style="list-style-type: none"> UNDP 	<ul style="list-style-type: none"> The cabinet 	<ul style="list-style-type: none"> All ministries
6	Geographical gap in completing primary education index	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Education and Technical Education 	<ul style="list-style-type: none"> Ministry of Local Development Ministry of Social Solidarity The Civil society
7	Geographical gap in child mortality rate	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Health and Population 	<ul style="list-style-type: none"> Ministry of Local Development Ministry of Social Solidarity The civil society
8	Geographical gap in the percentage of population under poverty line	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> The Cabinet 	<ul style="list-style-type: none"> Ministry of Local Development Ministry of Social Solidarity The Civil society
9	Percentage of female headed households living under poverty line	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Local Development The Civil Society
10	Percentage of population under extreme poverty line	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Local Development The Civil society

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Axial positive values indicator	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Education and Technical Education Ministry of Culture 	<ul style="list-style-type: none"> Ministry of Education and Technical Education Ministry of Higher Education & Scientific

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				Research <ul style="list-style-type: none"> • Ministry of Youth and Sports
2	Human rights indicator	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • The Cabinet 	<ul style="list-style-type: none"> • All ministries
3	The unemployment rate among people with special needs	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • The civil society
4	The percentage of elderly persons under the poverty line	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • The civil society
5	The percentage of population in unsecure slum areas	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Local Development 	<ul style="list-style-type: none"> • The Civil society • Ministry of Social Solidarity
6	Homeless children	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • Ministry of Local Development • The civil society
7	Political and civil participation of women	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • The civil society
8	Indicator of ease of the civil work	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • The civil society • The Parliament
9	Indicator of social responsibility for the firms	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Social Solidarity 	<ul style="list-style-type: none"> • All ministries
10	Geographical gap in the education quality	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Education and Technical Education 	<ul style="list-style-type: none"> • The civil society • Ministry of Social Solidarity • Ministry of Local Development

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
11	Geographical gap in the health service quality	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Health and Population 	<ul style="list-style-type: none"> The civil society Ministry of Social Solidarity Ministry of Local Development
12	Geographical gap in getting decent job	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Manpower 	<ul style="list-style-type: none"> The civil society Ministry of Social Solidarity Ministry of Local Development
13	Geographical gap in the percentage of employees with health insurance	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Health and Population 	<ul style="list-style-type: none"> Ministry of Social Solidarity Ministry of Local Development
14	Geographical gap in the percentage of the employees with social insurance	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Health and Population Ministry of Local Development
15	Subsidy efficiency Indicator	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> The cabinet 	<ul style="list-style-type: none"> The civil society Ministry of Social Solidarity
16	Beneficiaries of the micro- loans	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> The civil society Ministry of Social Solidarity Ministry of Trade and Industry
17	Beneficiaries of the social welfare programs	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> The civil society

(*) these indicators are measures according to gender and age brackets

Social Justice Programs and Projects to 2030

No.	Program	Responsible Authority	Supporting Authority
1	Developing and expanding the role of state authorities concerned with transparency and protection	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform 	<ul style="list-style-type: none"> Ministry of Trade & Industry Ministry of Manpower
2	Improving the social protection and subsidy systems and expanding their coverage	<ul style="list-style-type: none"> Ministry of Social Solidarity Ministry of Trade & Industry 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Supply and Home Trade Ministry of Education and Vocational Training Ministry of Health Ministry of Manpower Ministry of Local Development Civil Society
3	Reducing the social intergeneration and gender gaps	<ul style="list-style-type: none"> Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Youth And Sports Ministry of Manpower Ministry of Trade & Industry The Parliament Civil society
4	Achieving a balanced geographical distribution of services	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Social Solidarity 	<ul style="list-style-type: none"> Ministry of Endowments and Religious Affairs Civil society
5	Review and develop legislations and laws related to achievement of social justice and community including	<ul style="list-style-type: none"> The Cabinet 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Supply and Internal Trade Ministry of Education and Technical Education Ministry of Health and Population Ministry of Labor Force Ministry of Local Development Ministry of Social Solidarity Ministry of Awqaf (Endowments)

No.	Program	Responsible Authority	Supporting Authority
6	Raise the institutions level of partnership between the Government and the civil society	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform 	<ul style="list-style-type: none"> Civil Society The General Federation of Associations Ministry of Social Solidarity

Execution Phases of Social Justice Programs and Projects to 2030

First Phase 2016–2020	<ul style="list-style-type: none"> Reviewing and developing laws and legislations related to social justice and integration Improving the social protection and subsidy systems and expanding their coverage Developing and expanding the role of state authorities concerned with transparency and protection Reducing the social intergeneration and gender gaps Achieving a balanced geographical distribution of services
Second Phase 2021–2025	<ul style="list-style-type: none"> Improving the social protection and subsidy systems and expanding their coverage Reducing the social intergeneration and gender gaps Achieving a balanced geographical distribution of services
Third Phase 2026–2030	<ul style="list-style-type: none"> Improving the social protection and subsidy systems and expanding their coverage Reducing the social intergeneration and gender gaps

Health Pillar

Strategic Objectives for Health to 2030

	Strategic Objectives
No.	
1	The improvement of the health of citizens within a framework of justice and equity
2	Achieving universal healthcare coverage for all Egyptians and ensuring high quality services
3	Improving health sector governance

Key Performance Indicators for Health to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Life expectancy at birth (years)	• CAPMAS	• Ministry of Health & Population	<ul style="list-style-type: none"> • National Population Council • National Council of women • National council for Motherhood and childhood • WHO
2	Maternal mortality rate	• Ministry of Health & Population Information Center	• Ministry of Health & Population	<ul style="list-style-type: none"> • National Population Council • National Council of women • National council for Motherhood and childhood • WHO
3	Children mortality rate, below 5 years old (%)	• Ministry of Health & Population Information Center	• Ministry of Health & Population	<ul style="list-style-type: none"> • National Population Council • National Council of women • National council for

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				Motherhood and childhood • WHO
4	Compound index on nutrition status among children	• Ministry of Health & Population Information Center	• Ministry of Health & Population	• National Population Council • National Council of women • National council for Motherhood and childhood • WHO
5	Mortality rate due to uncommon diseases among persons between 30 and 70 years	• Ministry of Health & Population Information Center	• Ministry of Health & Population	• Private sector • Civil Society
6	The spread of hepatitis C and infected cases	• Ministry of Health & Population Information Center	• Ministry of Health & Population	• Private sector • Civil Society
7	Per capita health expenditure	• CAPMAS	• Ministry of Finance	• Ministry of Health & Population
8	Out of pocket health spending	• World Bank	• Ministry of Health & Population	• Private sector • Civil Society
9	The number of deaths from road accidents per 100,000	• Egyptian Ambulance Organization (EAO)	• Ministry of Health & Population	• Ministry of transportation • Civil Society
10	Tobacco use among persons over 15 years and above	• Demographic Health Surveys, and Familial Surveys	• Ministry of Health & Population	• Civil Society
12	The trade deficit for pharmaceuticals and bio-medicines manufacturing	• Egyptian Customs Authority	• Ministry of Trade & Industry	• Ministry of Health & Population
13	The ratio of citizens fully covered by	• CAPMAS	• General Authority	• Ministry of Social

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	social health insurance (%)		of Health Insurance	<ul style="list-style-type: none"> Solidarity • Ministry of Finance • Civil Society • Private Sector
14	Response to International Health Regulations (%)	<ul style="list-style-type: none"> • World Health Organization 	<ul style="list-style-type: none"> • Ministry of Health & Population 	<ul style="list-style-type: none"> • Civil Society • WHO
15	Compound Index of social services	<ul style="list-style-type: none"> • WHO • Holding Company for Water and Wastewater 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Civil Society • Ministry of Health & Population • Municipalities • WHO
16	Number of hospital beds	<ul style="list-style-type: none"> • Ministry of Health & Population Information Center 	<ul style="list-style-type: none"> • Ministry of Health & Population 	<ul style="list-style-type: none"> • Civil society • Private sector
17	Compound index for number of employees in health sector	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Higher Education and Scientific Research 	<ul style="list-style-type: none"> • Ministry of Health & Population

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	The proportion of health institutions that contains in their stores medicines, supplies and basic life-saving equipment on the visit day and the average of their availability	<ul style="list-style-type: none"> • Central Accreditation Committee 	<ul style="list-style-type: none"> • Ministry of Health and Population 	<ul style="list-style-type: none"> • Civil society • Private sector
2	The percentage of infections acquired	<ul style="list-style-type: none"> • Ministry of Health and Population Information center 	<ul style="list-style-type: none"> • Ministry of Health and Population 	<ul style="list-style-type: none"> • University hospitals • Health sector within

	from hospitals		Service Ministries
3	The accurate registration of births, deaths, and causes of death in the vital registration reports	<ul style="list-style-type: none"> Central Accreditation Committee 	<ul style="list-style-type: none"> Ministry of Health and Population Ministry of Communication and Information Technology Ministry of Planning, Monitoring and Administrative Reform.

Health Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	The application of universal health coverage	<ul style="list-style-type: none"> Health Insurance Authority 	<ul style="list-style-type: none"> Ministry of Health & Population
2	Improving the quality of healthcare service provision:	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Private sector and community hospitals
3	Enhancing preventive and health programs	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Communities
4	Improve health sector governance including developing policies and follow up its implementation	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Higher Health Council Council of Ministers
5	Enable municipalities to provide health services within a decentralized framework	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Ministry of Local Development Governorates
6	Developing IT infrastructure, the mechanisms and methods of correct health data input, collection and availability	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Private sector and community hospitals
7	Developing human resource management in the health sector	<ul style="list-style-type: none"> Ministry of Health and Population 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research
8	Developing the pharmaceutical sector	<ul style="list-style-type: none"> Ministry of Health & Population 	<ul style="list-style-type: none"> Ministry of Trade and Industry Ministry of Higher Education & Scientific Research

Execution Phases of Health Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• The application of universal health coverage• Improving quality of healthcare service provision• Enhancing preventive and health programs• Improve health sector governance• Enable municipalities to provide health services within a decentralized framework• Developing IT infrastructure, the mechanisms and methods of correct health data input, collection and availability• Developing human resource management in the health sector• Developing the pharmaceuticals sector
Second Phase 2021–2025	<ul style="list-style-type: none">• The application of universal health coverage• Improving quality of healthcare service provision• Enhancing preventive programs and health• Enable municipalities to provide health services within a decentralized framework• Developing the pharmaceuticals sector
Third Phase 2026–2030	<ul style="list-style-type: none">• The application of universal health coverage• Enhancing preventive programs and health

Education and Training Pillar

Strategic Objectives for Education and Training to 2030

SN	Strategic Objectives
Strategic Objectives for Pre-University Education	
1	Improving Educational System Quality to Conform with International Systems
2	Availing Education for All without Discrimination
3	Enhancing Competitiveness of the Educational Systems and its Outputs
Strategic objectives for technical education and training until 2030	
1	Improving Technical Education and Training System Quality to Conform with International Systems
2	Availing Education for All without Discrimination
3	Enhancing Competitiveness of the Technical Education and Training Systems and its Outputs
Strategic objectives for Higher Education until 2030	
1	Improving Educational System Quality to Conform with International Systems
2	Availing Education for All without Discrimination
3	Enhancing Competitiveness of the Educational Systems and their Outputs

Public Elementary Education

Key Performance Indicators for Public Elementary Education to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Percentage of accredited pre-university educational institutions	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Civil Society All State Institutions
2	Illiteracy rate (15-35 years old)	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
3	Egypt's rank in primary education quality index	<ul style="list-style-type: none"> World Economic Forum 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
4	Egypt's rank in TIMSS test results	<ul style="list-style-type: none"> National Center for Education Statistics (NCES) 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
5	Egypt's rank in PIRLS studies	<ul style="list-style-type: none"> National Center for Education Statistics (NCES) 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
6	Percentage of school drop-out under 18 years old	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Municipalities
7	Average number of students per classroom (Student/Classroom)	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Finance
8	Number of equipped schools for talented and outstanding students	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Finance

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
9	Public spending on pre-university education per student	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Education & Technical Education Ministry of Higher Education & Scientific Research
10	Pre-school enrollment rate (%)	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Finance
11	Share of spending on pre-university education in GDP	<ul style="list-style-type: none"> Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Education & Technical Education Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Finance

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Percentage of teachers with practicing license	<ul style="list-style-type: none"> Professional Academy For Teachers 	<ul style="list-style-type: none"> Professional Academy For Teachers 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
2	Percentage of students passing national examinations in Science, Mathematics, Arabic Language and English as a Second Language.	<ul style="list-style-type: none"> Evaluation and Examinations Committee 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Evaluation and Examinations Committee
3	Percentage of schools with proper educational technology	<ul style="list-style-type: none"> Devised 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
4	Percentage of schools with integration	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector

	requirements			
5	Percentage of curricula that conform with global standards	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector

Public Elementary Education (pre-university) Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Adopting an investment strategy in education and developing new financing schemes at Ministry and schools level	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Finance
2	Developing teachers' professional and technical skills	<ul style="list-style-type: none"> Professional Academy for Teachers 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
3	Developing a system for equipping schools for accreditation	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
4	Application of comprehensive curricula reform system	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Curricula Supervisory Authority Curricula Development Center
5	Developing pre-schooling system (Increasing enrollment at nursery stage)	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> The Cabinet Ministry of Social Solidarity
6	Integrating students with minor disabilities in schools	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society
7	Distinguished and talented students support program	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
8	Elimination illiteracy and school drop out	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society
9	Developing a subsidy system for poor families	<ul style="list-style-type: none"> Ministry of Social Solidarity Ministry of Finance 	<ul style="list-style-type: none"> Ministry of Education & Technical Education Ministry of Planning, Monitoring and Administrative

No.	Index	Responsible Authority	Supporting Authority
			Reform
10	Periodic assessment system for students in accordance with international standards	<ul style="list-style-type: none"> • Ministry of Education & Technical Education • National Center for Education Statistics 	<ul style="list-style-type: none"> • Civil Society • Private Sector

Execution Phases of Public Elementary Education (pre-university) Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none"> • Adopting an investment strategy in education and developing new financing schemes at Ministry and schools level • Application of comprehensive curricula reform system • Developing teachers' professional and technical skills • Developing a system for equipping schools for accreditation • Developing pre-schooling system (Increasing enrollment at nursery stage) • Integrating students with minor disabilities in schools • Developing a subsidy system for poor families
Second Phase 2021–2025	<ul style="list-style-type: none"> • Developing a system for equipping schools for accreditation • Developing teachers' professional and technical skills • Distinguished and talented students support program • Periodic assessment system for students in accordance with international standards

Technical Education and Training

Key Performance Indicators for Technical Education and Training to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Percentage of students with outstanding performance enrolled in technical education (scored more than 85% at preparatory stage)	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training Center
2	Percentage of technical education graduates working in their fields of specialization	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training Center
3	Egypt's rank in the World Bank's index for Technical Education	<ul style="list-style-type: none"> World Bank 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training Center
4	Percentage of enrolled students in vocational training to the total enrolled students in technical education	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training Center
5	Number of technical education schools according to demographics and economic activities	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training Center
6	Percentage of technical and vocational institutions based on partnerships with	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector Industrial Training

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	civil society			Center
7	Average number of students per classroom	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and Administrative Reform Ministry of Finance Civil Society Private Sector

Suggested New Indicators

No.	Indicator	Liable Authority	Participant Authority
1	Average training hours per employee in each sector of the labor market	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
2	Percentage of technical and vocational education graduates with professional licenses	<ul style="list-style-type: none"> An Authority to be established 	<ul style="list-style-type: none"> Evaluation and Examinations Committee
3	Private institutions and employers' level of satisfaction regarding the technical and vocational education graduates	<ul style="list-style-type: none"> Via Survey 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
4	Percentage of developed <u>educational</u> curricula and programs in line with the National Qualifications Framework of each sector	<ul style="list-style-type: none"> National Authority for Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
5	Percentage of <u>training</u> curricula and programs in line with the National Qualifications Framework of each sector	<ul style="list-style-type: none"> National Authority for Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
6	Percentage of technical education institutions accredited by the National Authority for Education Quality Assurance and Accreditation	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
7	Percentage of training centers accredited by competent authorities	<ul style="list-style-type: none"> National Authority for Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
8	Percentage of teachers achieving more than 90% in teacher's comprehensive	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education

assessment			
9	Rate of availing Equipment and tools per student	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education
10	Rate of transition from one stage to another in technical and vocational education	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Ministry of Education & Technical Education

Technical Education and Training Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Develop a mechanism for encouraging private sector's contribution to technical education development	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Private Sector
2	Enhancing the quality of educational and training facilities	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation
3	Adopting professional development program for teachers and trainers	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Professional Academy for Teachers
4	Attractive school project	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
5	Raising awareness and enhancing social perception	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
6	An efficient and integrated labor market information system	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> FEI
7	Developing and activating the "Egyptian national qualifications framework" for technical education and vocational training.	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> FEI
8	Establishing an academy to graduate teachers qualified for technical education and vocational training	<ul style="list-style-type: none"> Ministry of Education & Technical Education 	<ul style="list-style-type: none"> FEI Civil Society Private Sector

No.	Index	Responsible Authority	Supporting Authority
	(specialized faculties).		
9	Professional practicing license program for vocational and technical education graduates	<ul style="list-style-type: none"> • Ministry of Education & Technical Education 	<ul style="list-style-type: none"> • Professional Academy for Teachers

Execution Phases of the Technical Education and Training Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none"> • Raising awareness and enhancing social perception • An efficient and integrated labor market information system • Developing and activating the “Egyptian national qualifications framework” for technical education and vocational training • Adopting professional development program for teachers and trainers • Develop a mechanism for encouraging private sector’s contribution to technical education development • Enhancing the quality of educational and training facilities
Second Phase 2021–2025	<ul style="list-style-type: none"> • Raising awareness and enhancing social perception • Establishing an academy to graduate teachers qualified for technical education and vocational training (specialized faculties) • Attractive school project • Professional practicing license program for vocational and technical education graduates

Higher Education

Key Performance Indicators for Higher Education to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Global competitiveness index (higher education and training)	<ul style="list-style-type: none"> World Economic Forum (WEF) 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research Ministry of Education & Technical Education 	<ul style="list-style-type: none"> Civil Society Private Sector
2	Unemployment rate among university graduates to total unemployed according to specialization (%)	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Civil Society Private Sector
3	Number of Egyptian universities listed among top 500 universities in the world (Shanghai Index)	<ul style="list-style-type: none"> Shanghai Index – Times - Webometrics 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Supreme Council for Universities (SCU)
4	Growth rate of published scientific research in internationally reviewed scientific journals	<ul style="list-style-type: none"> SCOPUS 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Private Universities
5	Percentage of higher education institutions accredited by the “National Authority for Quality Assurance and Accreditation”	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> National Authority for Education Quality Assurance and Accreditation
6	Higher education enrollment rate (18-22 years old)	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	
7	Percentage of faculty members with research scholarships from international	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of International Cooperation

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	universities			<ul style="list-style-type: none"> • Supreme Council for Universities (SCU)
8	Percentage of foreign students to total students enrolled at Egyptian universities according to specialization	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Foreign Affairs • Ministry International Cooperation
9	Public spending per student in higher education (per specialization)	<ul style="list-style-type: none"> • Ministry of Finance 	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Finance
10	Number of students per faculty member according to specialization	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	
11	Number of higher education institutions according to the density, specialization and geographical distribution	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Private Sector

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Number of scholarships from international universities according to specialization.	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> • Ministry of Foreign Affairs • Ministry International Cooperation • Universities

Higher Education Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Establishing higher Education institutions in partnership with the civil society and the private sector	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Civil Society Private Sector
2	Building distinctive teaching cadres at higher education institutions	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of International Cooperation
3	Activating the role of research centers at higher education institutions	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of International Cooperation
4	Linking graduates to employment institutions on the local, regional and international Levels	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Manpower
5	Adopting the “Egyptian Diplomas Equivalence System” and the recognition of higher education certificates	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Ministry of Foreign Affairs Ministry International Cooperation
6	Developing curricula based on the National Qualifications Framework	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Civil Society Private Sector
7	Updating the admission systems at higher education institutions	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research 	<ul style="list-style-type: none"> Civil Society Private Sector
8	Improving quality of higher education institutions	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research National Authority for Education Quality Assurance and Accreditation 	<ul style="list-style-type: none"> Ministry of Higher Education & Scientific Research Civil Society Private Sector

Execution Phases of Higher Education Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Establishing higher Education institutions in partnership with the civil society and the private sector• Activating the role of research centers at higher education institutions• Linking graduates to employment institutions on the local, regional and international Levels• Applying quality of higher education institutions• Improving quality of higher education institutions
Second Phase 2021–2025	<ul style="list-style-type: none">• Applying quality of higher education institutions• Building distinctive teaching cadres at higher education institutions• Establishing higher Education institutions in partnership with the civil society and the private sector• Adopting the “Egyptian Diplomas Equivalence System” and the recognition of higher education certificates• Developing curricula based on the National Qualifications Framework• Updating the admission systems at higher education institutions
Third Phase 2026–2030	<ul style="list-style-type: none">• Developing curricula based on the National Qualifications Framework• Establishing higher Education institutions in partnership with the civil society and the private sector

Culture Pillar

Strategic Objectives for Culture to 2030

SN	Strategic Objectives
1	Supporting cultural industries as a source of strength for the economy.
2	Improving the efficiency of cultural institutions and workers
3	Protecting and promoting all forms of heritage

Key Performance Indicators for Culture to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Geographical gap of the ratio of the number of public libraries / 100,000 people	• CAPMAS	<ul style="list-style-type: none"> Ministry of Culture (Egyptian National Library and Archives - Culture Palaces Authority - Egypt's public libraries - Cultural Development Fund) 	<ul style="list-style-type: none"> Alexandria Library Ministry of Education and Technical Education (school libraries) Municipalities Ministry of Youth and Sports Ministry of Social Solidarity NGOs
2	Geographical gap of the ratio of the number of cultural centers / 100,000 people	• CAPMAS	<ul style="list-style-type: none"> Ministry of Culture (Culture Palaces Authority - Cultural Development Fund / Creativity Centers – Opera House – Plastic Arts Sector) 	<ul style="list-style-type: none"> Civil and private cultural centers Ministry of Youth and Sports
3	Tourism and travel competitiveness	• World Economic Forum (WEF)	<ul style="list-style-type: none"> Ministry of Tourism 	<ul style="list-style-type: none"> Ministry of Culture Ministry of Antiquities Ministry of Interior

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				Affairs
4	Number of foreign visitors to museums and heritage sites (million visitors)	• CAPMAS	<ul style="list-style-type: none"> Ministry of Antiquities (Museums and archaeological areas) Ministry of Culture (Historical, artistic and national museums) Ministry of Environment (natural reserves) 	<ul style="list-style-type: none"> Ministry of Tourism Ministry of Interior Affairs National Media Council Alexandria Library
5	Number of Egyptian visitors to museums and heritage sites (million visitors)	• CAPMAS	<ul style="list-style-type: none"> Ministry of Antiquities (Museums and archaeological areas) Ministry of Culture (Historical, artistic and national museums) Ministry of Environment (natural reserves) 	<ul style="list-style-type: none"> Ministry of interior Affairs Ministry of Education and Technical Education, Ministry of Higher Education and Scientific Research Ministry of Youth and Sports Ministry of Tourism National Media Council Alexandria Library

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Indicator of main positive values	• CAPMAS	• Ministry of Culture	<ul style="list-style-type: none"> Ministry of Education and Technical Education Ministry of Higher Education and Scientific Research Ministry of Youth and Sports
2	Cultural industries contribution to	• CAPMAS	• Ministry of Culture	<ul style="list-style-type: none"> Ministry of Antiquities Ministry of Commerce

	gross domestic product			and Industry • Media and Art Institutions
3	Indicator of cultural product exports	• CAPMAS	• Ministry of Culture	• Ministry of Commerce and Industry • Ministry of Finance • Ministry of Investment • Cultural Industries Chambers • Artistic Syndicates
4	International awards, and certificates of excellence for Egyptian intellectuals or cultural works	• CAPMAS	• Ministry of Culture	• Cultural Industries Chambers • Artistic Syndicates • Academy of Arts • Creative departments in the universities
5	Cinema indicator	• CAPMAS	• Ministry of Culture (National Centre for Cinema - Artistic Censorship - Licensing Department - Cultural Development Fund - Film Commission at the Supreme Council of Culture)	• Chamber of Cinema Industry • Radio and Television Union • Filmmakers and Actors Syndicates • Alexandria Library
6	Theatre indicator	• CAPMAS	• Ministry of Culture (National Center for Theater - Art House Theater – Folk Show Art House - Opera House - Creative Centers - Culture Palaces Authority - Artistic Censorship - Licensing Department - Cultural Development Fund – Theatre Committee of Supreme Council for Culture)	• Screen Actors Syndicate • Radio and Television Union • Private groups • Theaters of Schools and Universities • Alexandria Library
7	Publishing and Literature	• CAPMAS	• Ministry of Culture (General Book	• Cultural Industries Chambers

	Indicator		Organization - General Authority for Books and National Documents - National Center for Translation - Supreme Council of Culture - Culture Palaces Authority - Cultural Development Fund - Committee for book and publishing at Supreme Council of Culture)	• Writers and Publishers Unions
8	Music and singing indicator	• CAPMAS	• Ministry of Culture (Opera House - National Center for theater, music and folklore - Folk Show Arts House - Culture Palaces Authority - Artistic Censorship – Licensing Department - Cultural Development Fund - Music Committee of the Supreme Council for Culture)	• Musicians Syndicate • Authors and Composers Association • Radio and Television Union • Cassette Producers Association • Art Production Companies • Alexandria Library
9	Plastic arts indicator	• CAPMAS	• Ministry of Culture (Plastic Arts Sector - Culture Palaces Authority - Cultural Development Fund - Visual Arts Committee at the Supreme Council for Culture)	• Syndicate Of Plastic Arts • Private Galleries • Alexandria Library
10	Cultural radio and television production indicator	• CAPMAS	• Radio and Television Union	• Ministry of Culture (National Center for Cinema - Cultural Development Fund). • Ministry of Investment (private channels) • Supreme Council of Antiquities • Alexandria Library • Production Companies

11	Traditional crafts indicator	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Culture (Plastic Arts Sector – Cultural Development Fund - Culture Palaces Authority - Folk Arts Committee of the Supreme Council for Culture) 	<ul style="list-style-type: none"> Ministry of Commerce and Industry Ministry of Investment Ministry of Local Development Ministry of Social Solidarity Social Fund for Development Civil society
12	Intellectual property protection	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Culture (Copyright Management - Permanent Bureau of Copyright Protection - Artistic Censorship) Radio and Television Union 	<ul style="list-style-type: none"> Ministry of Communications and Information Technology Ministry of Interior Affairs
13	Geographical gap in the indicator of main positive values (*)	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Culture 	<ul style="list-style-type: none"> Ministry of Education and Technical Education Ministry of Higher Education and Scientific Research Ministry of Youth and Sports
14	Geographical gap in expenditure on cultural activity per capita	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Culture 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Planning, Monitoring and administrative reform
15	Cultural activity at schools (acting – singing – arts)	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Education and Technical Education 	<ul style="list-style-type: none"> Ministry of Culture Ministry of Youth and Sports
16	Cultural activity at university (acting – singing – arts)	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Higher Education and Scientific Research Public and Private universities 	<ul style="list-style-type: none"> Ministry of Culture Ministry of Youth and Sports
17	Ratio of expenditure on national cultural activity to the total State's	<ul style="list-style-type: none"> CAPMAS 	<ul style="list-style-type: none"> Ministry of Culture (Associations Department at Supreme Council of Culture – 	<ul style="list-style-type: none"> Ministry of Social Solidarity

	cultural budget		Associations Department at Culture Palaces Authority – Cultural Development Fund)	
18	Ratio of the State's cultural budget to its total budget.	• CAPMAS	• Ministry of Finance • The Cabinet	• Ministry of Culture • Ministry of Antiquities
19	Indicator of monuments condition	• CAPMAS	• Ministry of Antiquities	• Antiquities Committee at the Supreme Council of Culture • Ministry of religious Endowments • Coptic Orthodox Patriarchate
20	Number of foreign visitors to official heritage websites	• CAPMAS	• Ministry of Antiquities • Ministry of Culture • Alexandria Library	• Ministry of Communications and Information Technology • National Media Council (electronic media)
21	Number of Egyptians visitors to official heritage websites	• CAPMAS	• Ministry of Antiquities • Ministry of Culture • Alexandria Library	• Ministry of Communications and Information Technology • National Media Council (electronic media)
22	Restoration efficiency	• CAPMAS	• Ministry of Antiquities	• International Organizations
23	Ratio of expenditure on restoration and maintenance of monuments from international grants to total expenditure	• CAPMAS	• Ministry of Antiquities	• Ministry of International Cooperation
24	Number of heritage sites registered in UNESCO	• CAPMAS	• Ministry of Antiquities • Ministry of Environment	• Ministry of Interior • Ministry of Religious Endowments • Ministry of Foreign Affairs • Ministry of Higher Education and Scientific Research

Culture Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Reviewing laws and legislations related to cultural industries and heritage protection	<ul style="list-style-type: none"> The Cabinet 	<ul style="list-style-type: none"> Ministry of Culture Ministry of Antiquities Ministry of Investment Ministry of Commerce and Industry Ministry of Planning, Monitoring and administrative reform Ministry of Finance Ministry of Justice
2	Developing and restructuring the cultural system	<ul style="list-style-type: none"> Ministry of Planning, Monitoring and administrative reform 	<ul style="list-style-type: none"> Ministry of Culture Ministry of Antiquities Ministry of Religious Endowments Cultural syndicates, chambers and unions
3	Adopting a set of programs to raise historic and cultural awareness of the society	<ul style="list-style-type: none"> Ministry of Culture Ministry of Antiquities Ministry of Education and Technical Education Ministry of Higher Education and Scientific Research Ministry of Youth and Sports 	<ul style="list-style-type: none"> Radio and Television Union Ministry of Tourism Ministry of Investment Ministry of Local Development Alexandria Library Production Companies
4	Establishing an integrated database for cultural products and activities in Egypt	<ul style="list-style-type: none"> Ministry of Culture Ministry of Antiquities Ministry of Tourism 	<ul style="list-style-type: none"> Ministry of Communications and Information Technology
5	Increasing the efficiency of cultural services infrastructure and expanding its scope	<ul style="list-style-type: none"> Ministry of Culture 	<ul style="list-style-type: none"> Ministry of Finance Ministry of Interior Ministry of Local Development Ministry of Higher Education and Scientific Research Ministry of Local Development

No.	Index	Responsible Authority	Supporting Authority
6	Protection and development of heritage crafts	<ul style="list-style-type: none"> • Ministry of Culture • Ministry of Education and Technical Education • Ministry of Tourism • Ministry of Investment • Ministry of Commerce and Industry 	<ul style="list-style-type: none"> • Ministry of Finance • Ministry of Local Development • Federation of Egyptian Industries • Industrial Modernization Center (IMC)
7	Supporting and empowering cultural industries	<ul style="list-style-type: none"> • Ministry of Culture 	<ul style="list-style-type: none"> • Ministry of Finance • Ministry of Social Solidarity • Ministry of Interior affairs • Ministry of Investment • Ministry of Commerce and Industry • Ministry of Local Development • Federation of Egyptian Industries • Industrial Modernization Center (IMC)
8	Protecting and maintaining heritage	<ul style="list-style-type: none"> • Ministry of Antiquities • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Religious Endowments • Ministry of Local Development • Ministry of Finance • Ministry of International Cooperation • Ministry of Interior Affairs

Execution Phases of the Culture Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Reviewing laws and legislations related to cultural industries and heritage protection• Developing and restructuring the cultural system• Adopting a set of programs to raise historic and cultural awareness of the society• Establishing an integrated database for cultural products and activities in Egypt• Increasing the efficiency of cultural services infrastructure and expanding its scope• Protection and development of heritage crafts• Supporting and empowering cultural industries• Protecting and maintaining heritage
Second Phase 2021–2025	<ul style="list-style-type: none">• Developing and restructuring the cultural system• Adopting a set of programs to raise historic and cultural awareness of the society• Increasing the efficiency of cultural services infrastructure and expanding its scope• Protecting and maintaining heritage
Third Phase 2026–2030	<ul style="list-style-type: none">• Developing and restructuring the cultural system• Adopting a set of programs to raise historic and cultural awareness of the society• Increasing the efficiency of cultural services infrastructure and expanding its scope• Protecting and maintaining heritage

Environment Pillar

Strategic Objectives to 2030

SN	Strategic Objectives
1	Rational and sustainable management of the assets of natural resources to support economy, increase competitiveness and provide new job opportunities
2	Reduction of pollution and integrated management of wastes
3	Maintaining the balance of ecological systems, biological diversity and the rational and sustainable management of these systems
4	Egypt meets its international and regional obligations for environmental conventions and develops the necessary mechanisms, while ensuring their consistency with the local policies

Key Performance Indicators for Environment to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Ratio of total water consumption (%)	<ul style="list-style-type: none"> • Ministry of Water Resources and Irrigation 	<ul style="list-style-type: none"> • Ministry of Water Resources and Irrigation 	<ul style="list-style-type: none"> • Ministry of Agriculture and Land Reclamation • Ministry of Commerce and Industry • Ministry of Housing, Utilities and Urban Communities
2	Fresh water resources per capita (renewable)	<ul style="list-style-type: none"> • Ministry of Water Resources and Irrigation 	<ul style="list-style-type: none"> • Ministry of Water Resources and Irrigation 	
3	Percentage of decreased pollution caused by fine airborne dust (%)	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Agriculture and Land Reclamation • Ministry of Commerce and Industry • Ministry of Transportation • Ministry of Petroleum

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
				and Mineral Resources • Ministry of Housing, Utilities and Urban Communities
4	Percentage of municipal solid waste regularly collected and managed in a suitable manner (%)	• Ministry of Environment	• Ministry of Environment	• Governorates' bodies
5	Percentage of hazardous wastes, safely disposed (treatment, recycling, final disposal) (%)	• Ministry of Environment	• Ministry of Environment	• Ministry of Health and Population • Ministry of Commerce and Industry
6	Indicator of Biological diversity and environments	• Ministry of Environment	• Ministry of Environment	• International Organizations
7	Rate of reduction of Ozone-depleting materials	• Ministry of Environment	• Ministry of Environment	• Ministry of Commerce and Industry
8	Rate of reduction of the expected increasing rates of greenhouse gas emissions	• Ministry of Environment	• Ministry of Environment	• Ministry of Commerce and Industry • Ministry of Transportation • Ministry of Petroleum and Mineral Resources • Ministry of Electricity and Renewable Energy
9	Ratio of non-traditional water resources to total water resources usage	• Ministry of Water Resources and Irrigation	• Ministry of Water Resources and Irrigation	• Ministry of Housing, Utilities and Urban Communities
10	Sanitation as percentage of the total sewage	• Ministry of Housing, Utilities and Urban Communities	• Ministry of Housing, Utilities and Urban Communities	• Local units
11	Illegal industrial sewage into the Nile River as a percentage of the total industrial	• Ministry of Environment	• Ministry of Environment	• Ministry of Commerce and Industry

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	sewage			
12	Sanitation percentage according to the national standards, disposed in the Nile River	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities
13	Number of natural reserves, with an approved and activated management plan (reserves)	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Local units
14	Percentage of progress in the commitment to ratified conventions	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry
15	Percentage of loss in water transfer networks	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Local units
16	Percentage of loss in water treatment plants	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> • Local units
17	Number of national monitoring air pollutants plants	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Local units
18	Number of monitoring sites at the national network of monitoring industrial emissions	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Environmental Deterioration Cost	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> All ministries, agencies and organizations 	<ul style="list-style-type: none"> Private sector Family sector Civil society sector

Environment Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Strengthen the institutional and legislative structure of water resources management system	<ul style="list-style-type: none"> Ministry of Water Resources and Irrigation 	<ul style="list-style-type: none"> Parliament
2	Expand the establishment and development of required infrastructure for achieving a sustainable water system	<ul style="list-style-type: none"> Ministry of Water Resources and Irrigation Ministry of Housing, Utilities and Urban Communities 	<ul style="list-style-type: none"> Parliament Ministry of Commerce and Industry
3	Implement financial policy reforms and use of economic instruments to move toward more sustainable consumption patterns of water and natural resources	<ul style="list-style-type: none"> Ministry of Water Resources and Irrigation 	<ul style="list-style-type: none"> Ministry of Commerce and Industry Cabinet Parliament
4	Increase the awareness of the need to reserving environment and natural resources, motivating required alternatives and technologies for water rationalization and protecting natural resources	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> Ministry of Water Resources and Irrigation Ministry of Commerce and Industry Ministry of Culture Ministry of Education and Technical Education National Council for Women
5	Enhance the efficiency of solid wastes management system and supporting its sustainability	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> Local government agencies Ministry of Housing, Utilities and Urban Communities
6	Develop the necessary policies to reduce air	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> Ministry of Commerce and

No.	Index	Responsible Authority	Supporting Authority
	pollution, combat climate changes and protect the environment		<p>Industry</p> <ul style="list-style-type: none"> • Ministry of Electricity and Renewable Energy • Ministry of Petroleum and Mineral Resources • Ministry of Transportation
7	Develop the infrastructure to enhance the efforts aimed at reducing air pollution and combating climate changes	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry
8	Enhance the efficiency of the administrative structure and infrastructure required for developing the efforts of biodiversity protection	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring and Administrative Reform • Ministry of Finance
9	Monitor the implementation of international conventions on environment	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry
10	Increase the involvement of the private and non-governmental sectors into the efforts of preserving and protecting biodiversity	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry
11	Enhance the efficiency of protecting coastal and marine areas	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Tourism • Parliament
12	Develop a system for disposal of hazardous wastes and raising the management efficiency	<ul style="list-style-type: none"> • Ministry of Environment 	<ul style="list-style-type: none"> • Ministry of Commerce and Industry
13	Establish a higher council for sustainable development:	<ul style="list-style-type: none"> • Cabinet 	<ul style="list-style-type: none"> • The Ministry of Planning and Monitoring and Administrative Reform • Ministry of the Environment

Execution Phases of the Environment Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Establish a higher council for sustainable development.• Strengthen the institutional and legislative structure of water resources management system• Expand the establishment and development of required infrastructure for achieving a sustainable water system• Increase the awareness of the need to reserving environment and natural resources, motivating required alternatives and technologies for water rationalization and protecting natural resources• Enhance the efficiency of solid wastes management system and supporting its sustainability• Develop the necessary policies to reduce air pollution, combat climate changes and protect the environment• Develop the infrastructure to enhance the efforts aimed at reducing air pollution and combating climate changes• Monitor the implementation of international conventions on environment• Implement financial policy reforms and use of economic instruments to move toward more sustainable consumption patterns of water and natural resources
Second Phase 2021–2025	<ul style="list-style-type: none">• Expand the establishment and development of required infrastructure for achieving a sustainable water system• Enhance the efficiency of the administrative structure and infrastructure required for developing the efforts of biodiversity protection• Enhance the efficiency of protecting coastal and marine areas• Implement financial policy reforms and use of economic instruments to move toward more sustainable consumption patterns of water and natural resources
Third Phase 2026–2030	<ul style="list-style-type: none">• Increase the awareness of the need to reserving environment and natural resources, motivating required alternatives and technologies for water rationalization and protecting natural resources• Develop a system for disposal of hazardous wastes and raising the management efficiency• Increase the involvement of the private and non-governmental sectors into the efforts of preserving and protecting biodiversity

Urban Development Pillar

Strategic Objectives for Urban Development to 2030

SN	Strategic Objectives
1	Expansion of inhabited area in proportion to the availability of resources and size and distribution of population
2	Improvement urban environment quality
3	Maximize the utilization of Egypt's strategic location regionally and internationally

Key Performance Indicators for Urban Development to 2030

Quantitative Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Rate of population settlement as compared to what is aimed at in new urban communities	<ul style="list-style-type: none"> • New Urban Communities Authority 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Industrial Development Authority • General Authority for Reconstruction and land reclamation • Tourism Development Authority
2	Housing gap indicator	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Private sector • Municipalities
3	Increase the rate of those using modes of public transportation	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, monitoring and administrative reform • Ministry of Finance
4	Individual's share in green landscapes in cities	<ul style="list-style-type: none"> • Ministry of Local Development, • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Local Development • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Environment • Municipalities

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
5	Rate of reducing encroachments on agricultural lands	<ul style="list-style-type: none"> Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> Ministry of Agriculture and Land Reclamation
6	Egypt's rank in Global Connectedness Index Report (DHL)	<ul style="list-style-type: none"> DHL 	<ul style="list-style-type: none"> Cabinet 	<ul style="list-style-type: none"> Ministry of Transportation Ministry of Tourism Ministry of Trade and Industry Ministry of Communications and Information Technology Ministry of Investment Ministry of Housing, Utilities and Urban Development
7	Number of Egyptian citizens in Globalization and World Cities (GaWC) Index	<ul style="list-style-type: none"> GaWC 	<ul style="list-style-type: none"> Cabinet 	<ul style="list-style-type: none"> Ministry of Transportation Ministry of Tourism Ministry of Trade and Industry Ministry of Communications and Information Technology Ministry of Investment Ministry of Housing, Utilities and Urban Development
8	Urban area growth rate	<ul style="list-style-type: none"> National Authority for planning to use states' territories 	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> Municipalities
9	Area of lands added to Egyptian inhabited areas	<ul style="list-style-type: none"> National Authority for planning the usage of states' territories 	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> Industrial Development Authority General Authority for Reconstruction and land reclamation General Authority for Tourism Development
10	Rate of reduction in	<ul style="list-style-type: none"> Fund of informal settlements 	<ul style="list-style-type: none"> Fund of informal settlements 	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
	number of population in insecure areas	development	development	Development
11	Percentage of informal settlements area	<ul style="list-style-type: none"> • Fund of informal settlements development 	<ul style="list-style-type: none"> • Fund of informal settlements development 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development
12	The Percentage of population for which sanitation system is provided.	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Health and Population • United Nations agencies • Different provinces and municipals
13	The percentage of population for which a safe drinking water system has been provided.	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Health and Population • United Nations agencies • Different provinces and municipal

Suggested New Indicators

No.	Indicator	Measurement Authority	Liable Authority	Participant Authority
1	Average localization of population in new urban communities proportional to population increase.	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Industrial Development Authority • General Authority for Reconstruction and land reclamation • General Authority for Tourism Development
2	The percentage of workers localized in new urban communities	<ul style="list-style-type: none"> • Central Agency for Public Mobilization and Statistics 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Industrial Development Authority • General Authority for Reconstruction and land reclamation • General Authority for Tourism Development
3	The percentage of population having access to public means of	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Transportation 	<ul style="list-style-type: none"> • Ministry of Planning, monitoring and administrative reform

	transportation every 20 minutes at most within a spatial scope of 500 meters		<ul style="list-style-type: none"> • Ministry of Finance • Municipalities
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Urban Development Programs to 2030

No.	Index	Responsible Authority	Supporting Authority
1	Reformation of institutional structure and governance of urban development planning and management system	<ul style="list-style-type: none"> • Cabinet 	<ul style="list-style-type: none"> • Parliament
2	Connection of a comprehensive investment plan to the national plan 2052	<ul style="list-style-type: none"> • Ministry of Planning Monitoring and administrative reform 	<ul style="list-style-type: none"> • Ministry of Investment • Ministry of Finance • Ministry of Commerce and Industry • Ministry of Tourism • Ministry of Agriculture and land reclamation
3	Activation of municipalities' role in execution and management of urban plans	<ul style="list-style-type: none"> • Ministry of Local Development 	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Communities • Parliament
4	Motivation of population localization in the new development areas	<ul style="list-style-type: none"> • Cabinet 	<ul style="list-style-type: none"> • Supreme Council for Urban Development
5	Achievement of balance between supply and demand in housing sector	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Private sector • Ministry of Planning, Monitoring and Administrative Reform
6	Controlling informal settlements phenomenon and insecure areas	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Municipalities • International Organizations • Ministry of International Cooperation
7	Replacement and renewal of main facilities networks and expansion in providing facilities in new development areas	<ul style="list-style-type: none"> • Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> • Ministry of Planning, Monitoring and Administrative Reform • Ministry of Finance

No.	Index	Responsible Authority	Supporting Authority
8	Achievement of spread of green and sustainable building methods	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> Parliament Local Government Bodies
9	Elimination of encroachments and violations in existing urban communities	<ul style="list-style-type: none"> Cabinet 	<ul style="list-style-type: none"> Parliament
10	Increasing the capacity and quality of means of mass communication in cities	<ul style="list-style-type: none"> Ministry of Transportation 	<ul style="list-style-type: none"> New Urban Communities Authority Ministry of Local Development Ministry of Housing, Utilities and Urban Development
11	Increase of the constructive capacity in new urban communities	<ul style="list-style-type: none"> Ministry of Housing, Utilities and Urban Development 	<ul style="list-style-type: none"> Consolidated Contractors Engineers Syndicate Private sector contractors

Execution Phases of Urban Development Programs to 2030

First Phase 2016–2020	<ul style="list-style-type: none">• Reformation of the institutional infrastructure and enhance governance of the urban development planning and management system• Align a comprehensive investment plan with the urban national plan 2052• Activation of municipalities' role in execution and management of urban plans• Renovation and replacement of basic infrastructure networks and expanding utilities to new development areas• Combating Violations and infringements on the existing urban developments• Combat the informal settlements phenomenon and insecure areas• Achieve a balance between supply and demand in the housing sector• Maximize construction capacities in new urban communities
Second Phase 2021–2025	<ul style="list-style-type: none">• Activation of municipalities' role in execution and management of urban plans• Combat the informal settlements phenomenon and insecure areas• Achieve a balance between supply and demand in the housing sector• Maximize construction capacities in new urban communities• Encourage settlement in new urban areas• Enhance and increase the capacities of public transportation in cities
Third Phase 2026–2030	<ul style="list-style-type: none">• Combat the informal settlements phenomenon and insecure areas• Achieve a balance between supply and demand in the housing sector