Chapter 1

# Investment in human capital:
## Towards a modern system of education, health and adequate housing

Investment in human capital is one of the basic components for development and one of the fundamental rights enjoyed by human beings. It is considered the core of the sustainable development process. This investment is linked to a set of direct and indirect personal and social gains that make it essential in achieving all three dimensions of sustainable development: economic, social and environmental. Healthy people and people who have access to quality education are better able to contribute to their communities, as they are more able to work, produce, innovate, tackle crises, or solve or adapt to problems compared to people who are less healthy and have not had access to quality education. In addition, they are more aware of and more like to follow the sustainable production and consumption patterns that are needed to address environmental and climate challenges. They are also able to achieve higher levels of income, enabling them to break out of the cycle of poverty and achieve an acceptable standard of living. Investment in human capital has therefore been a key focus for decision makers around the world, and likewise is among the spending priorities for governments in developed countries.[1]

The right to adequate housing is fundamental to human rights and human dignity. Accordingly, work to realize this right affects the whole development process and is one of the main entry points for investment in human capital. According to the United Nations Committee on Economic, Social and Cultural Rights (CESCR), the right to adequate housing should be viewed holistically as "the right to live somewhere in security, peace and dignity."[2]

The global interest in development of human capital and investment in health, education and adequate housing was realized in the 2030 Agenda for Sustainable Development launched by the United Nations in September 2015. Two of the associated Sustainable Development Goals (SDGs) are devoted to tackling the various dimensions related to health and education: Goal 3 is to "ensure healthy lives and promote well-being for all at all ages," and Goal 4 is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."[3] In addition, one of the targets of Goal 11, to "make cities and human settlements inclusive, safe, resilient and sustainable", is to ensure universal access to adequate, safe and affordable housing and basic services, and to upgrade informal settlements by 2030.[4]

The agenda of investing in human capital has received consistent attention from decision makers in Egypt, focused on the introduction of various reforms and improvements to the education and health systems, aimed primarily at expanding the provision of services to citizens. Moreover, the past few years have seen clear commitment and efforts on the part of Egypt to introduce reforms focusing on the dimensions of quality and competitiveness. This path was realized in the 2014 Constitution of Egypt, which clearly established the role of the State in providing education services, fostering scientific research, and providing health and adequate housing as a right for all citizens, at a level of quality consistent with international standards. In addition, the national sustainable development strategy, Egypt Vision 2030, included three main themes outlining the strategic vision of the government with regard to investment in human capital until 2030. Two themes covered within the social dimension, namely health, and education and training, and a theme within the economic dimension, knowledge, innovation and scientific research, as well as a theme within the environmental dimension of the strategy, urban development.[5] It is understood that successful implementation of the 2030 Agenda and the achievement of the goals of Egypt Vision 2030 will only be possible through focusing on investment in human capital, and as a result, more attention and resources have been directed towards achieving reforms in the sectors of health, education and the provision of adequate housing, aimed primarily at building and developing a

qualified human force capable of leading the development process.

This chapter focuses primarily on Egypt's investments in human capital in the fields of education, scientific research, health and adequate housing and consists of a number of sections covering these issues. Section 1.1 provides a brief overview on the importance of investing in human capital and the personal and social gains associated with doing so. Section 1.2 is sheds light on Egypt's performance with regards to human development and human capital related indicators. Section 1.3 is concerned with reviewing the development of the most important indicators related to the availability, quality and competitiveness of education and health systems over the past 10 years. Section 1.4 discusses Egypt's efforts in the area of adequate housing provision through investment in social housing, solving informal settlements issues and provision of water and sanitation facilities. Section 1.5 focuses on Egypt's efforts to develop its education and health systems, and covers the relevant sectoral strategies and the most relevant policies, initiatives and procedures that have been launched or are being implemented. Section 1.6 provides an analysis of the evolution of government spending on the education, health and housing sectors during the period between fiscal years 2010/2011 and 2019/2020. Section 1.7 looks at the response of Egypt's education and health sectors to the COVID-19 pandemic. Section 1.8 discusses the general challenges and future government policies needed in order to move forward with reform and development.

## 1.1 The importance of investment in human capital

Human capital can be summarized as the skills, knowledge and abilities possessed by individuals within a population and is the result of planned investment. Its distinguishing feature is that it is part of, and inseparable from, human beings themselves. It is considered a kind of capital or wealth because it can be used as a source of gains or to accomplish goals in the future. It was this idea of human capital that economist Theodore Schultz discussed in terms of investing in people's education, health, and skills.[6]

Investing in human capital brings about a set of personal and social benefits or gains. Personal returns are the set of benefits that individuals achieve from higher levels of education and health in terms of their higher level of productivity in the labour market and their income level. Social returns are related to the ability of societies that prioritize investment in human capital to achieve high and sustainable economic growth and equitable distribution of income, contributing to reducing poverty and achieving the economic, social and environmental goals of the sustainable development process. Since the benefits of investing in human capital are realized only in the future, working on the acquisition of human capabilities is a form of investment.[7]

### 1.1.1 Personal returns from investment in human capital

Economists have sought to estimate the personal economic returns on investment in education by investigating the relationship between education on one hand and the productivity of the individual in the labour market and the rate of growth in their personal income on the other. During the last three decades of the 20th century, many studies were conducted worldwide that show a significant positive correlation between levels of education and levels of personal income.[8] These include studies in Arab countries, Egypt among them.[9] Estimates of the rate of return on education in Egypt are in alignment with the findings within other Arab countries in general, especially findings that show a direct relationship between the rate of return on education and the level of education (or educational stage) reached, as well as the high rate of return on education for women compared to men. For example, one study[10] estimated the rates of return on primary education in Egypt between 2.3 percent (the lowest rate for men in the private sector) and

8 percent (the highest rate for women in the public sector). The study also showed that these rates ranged between 6.2 percent and 7.8 percent for secondary education, and 8.2 percent and 20.6 percent for university education. A different study[11] suggests the rates of return on education in Egypt are relatively low in general, with the exception of university education, and that the return on education is directly related to the number of years of experience and the social status of the worker. Another recent study[12] showed that the rate of return on education in Egypt among men aged 20–45 ranged between 2 percent and 5.7 percent. This rate is lower than the estimated rates in other developing countries with the exception of Turkey, which also has relatively low rates of return on education.

Studies did not only focus on estimating the personal return on the "number of years of education", but also focused on measuring the return on education quality. Regardless of their methodologies and the data used therein, the findings of these studies indicate that quality of education (which is expressed in the results achieved by students on standardized tests or the amount of resources and inputs available for education) is significantly correlated with the level of students' productivity and the wages they earn upon entry into the labour market.[13] In addition, one of the studies that looked at Egypt showed that quality of education affects not only the level of wages or returns that an individual gains, but is also positively correlated with rates of return on education; quality of education is one of the determinants that affects individuals' demand for education, as well as the number of years of education and the different level of abilities.[14]

An individual's health status is closely related to their level of productivity and consequently their wages in the labour market and chances of obtaining decent work. Individuals who suffer from health problems, whether physical or psychological, are more likely to be unemployed, and the work opportunities available to them are often inappropriate or in poor conditions. Moreover, the productivity of these individuals is lower and their absenteeism rates are higher, limiting their ability to make a living at all ages compared to their healthy counterparts.[15]

### 1.1.2 Social returns from investment in human capital

Social return on investment in human capital refers to the benefits that society accrues as a result of increasing its value of human capital. These benefits include direct economic gains, such as an increase in the level of productivity and in the size of the economy, as well as non-monetary returns, such a reduction in crime rates and an improvement in individuals' capacity for political participation, in addition to positive effects on individuals' health, on family structure and on birth rates.[16]

A large number of studies have shown the existence of a positive and significant correlation between both the quantitative level of education or educational attainment (the number of years of education) and the quality of education (cognitive skills and abilities, which are reflected in students' performance on standardized tests) on one hand, and economic growth on the other.[17] Accordingly, a society with a more educated population (especially in science-related subjects) will show higher rates of innovation and invention, and its population will be more productive and create better and more modern production methods, alongside the introduction of modern technology that leads to economic growth.[18] Accordingly, one study applied to a cross-sectional sample of low- and middle-income countries showed that the quantity of education, expressed in enrolment rates, is directly related to the rate of economic growth, and that the level of spending on education indirectly affects economic growth through its role in improving the quality of education.[19] In addition, another study indicated that improving the quality of education (which is measured by the productivity of education - the amount of increase in human capital that an individual possesses as a result of each additional unit of time devoted to education) in Egypt by 20 percent would lead to a dou-

bling of the country's economic growth rate.[20]

Some studies have focused on employment, the mechanism through which education is translated into economic growth. This research has indicated that, in Arab countries, individuals with medium levels of education have higher levels of unemployment than those with either low or high levels of education.[21] This result is consistent with the findings of studies on the relationship between education and unemployment in Egypt, indicating that the shortage of skilled labour and the scarcity of qualified administrators are among the main obstacles facing the private sector.[22]

The World Economic Forum has described the wide-ranging technical and economic changes the world is experiencing in the current period as the Fourth Industrial Revolution. This process has major repercussions for the global labour market, and as a result the importance of investing in human capital is greater than ever. It is expected that the needs of the labour market will change as technological progress causes some professions to disappear and other to emerge. There will also be an increase in the competitiveness of products worldwide, with the possibility of a negative impact on industry in developing countries.[23] In addition, some studies indicate that education quality has an important impact on both the fairness of income distribution among countries[24] and the wage gap between individuals within a single country.[25]

In the field of health, studies show the importance of investing in public health and providing health services fairly for all as a key driver for achieving the Sustainable Development Goals, and as an important contributor to achieving prosperity and security at the national level. Investment in health is associated with an improvement in life expectancy at birth, an improvement in quality of life, an increase in economic productivity and rates of participation in the labour market, increased provision of decent work opportunities, and, ultimately, the achievement of social justice and political stability.[26] For example, one study showed that total factor productivity is one of the most important mechanisms through which the positive impact of health on economic growth in developing countries is transmitted.[27] This study found that poor health (expressed through three main indicators, namely; malnutrition, malaria, and waterborne diseases) is associated with a decline in total factor productivity.

Investing in human capital not only increases the ability of governments to achieve the third and fourth Sustainable Development Goals, which are directly related to health and education, but also helps in achieving other development goals which have economic, environmental and social dimensions. Providing adequate and affordable housing (and access to clean drinking water and sanitation services) is one of the necessary factors to ensuring effective investment in health and education systems. Availability of adequate housing is linked to individuals' health, well-being and ability to learn, which is reflected in their level of productivity and wages in the labour market and economic performance in general.[28]

## 1.2 Egypt's performance in human development and human capital indicators

It may be useful to refer to Egypt's rankings in comparison with similar countries, in terms of global indicators related to human capital. These include the Human Development Index issued by the United Nations Development Programme (UNDP), the Human Capital Index issued by the World Bank, and the Health and Primary Education Pillar Index within the Global Competitiveness Index, issued by the World Economic Forum.

In the 2020 Human Development Report (HDR) issued by UNDP, Egypt ranked 116th out of 189 countries, coming ahead of middle-income countries such as Viet Nam (117th), Morocco (121st), El Salvador (124th), India (131st), and Pakistan (154th). By contrast, some other countries in the same income group came ahead of Egypt, including South Africa (114th),

Indonesia (107th), the Philippines (107th), Jordan (102nd), Lebanon (92nd), and Tunisia (95th).[29] According to the same report (HDR 2020), for the first time ever, Egypt's Human Development Index (HDI) was higher than the Arab world's average. Egypt ranked 102nd out of 189 countries, according to its gross national income per capita. Although Egypt maintained the same ranking (116th) among countries in the Human Development Index between 2019 and 2020, to remain in the category of countries with high human development, the value of the index has improved between the two years, rising to 0.707 in the 2020 HDR report compared to a value of 0.700 in the 2019 report. The values of the sub-indices for that index also improved between the two years.[30]

Of the 10 countries that precede Egypt on the index's rankings, there are six countries that are lower than Egypt in terms of per capita income and life expectancy at birth (Table 1.1).[31]

**Table 1.1**

**Indicators of human development and sustainable development in Egypt and selected countries**

| Country | Ranking | HDI value | Life expectancy at birth (years) SDG3 | Expected years of schooling SDG 4.3 | Average years of schooling SDG 4.6 | Average GNI per capita (2017 PPP $) SG 8.5 |
|---|---|---|---|---|---|---|
| Uzbekistan | 106 | 0.720 | 71.7 | 12.1 | 11.8 | 7,142 |
| Bolivia | 107 | 0.718 | 71.5 | 14.2 | 9 | 8,554 |
| Indonesia | 107 | 0.718 | 71.7 | 13.6 | 8.2 | 11,459 |
| Philippines | 107 | 0.718 | 71.2 | 13.1 | 9.4 | 9,778 |
| Belize | 110 | 0.716 | 74.6 | 13.1 | 9.9 | 6,382 |
| Samoa | 111 | 0.715 | 73.3 | 12.7 | 10.8 | 6,309 |
| Turkmenistan | 111 | 0.715 | 68.2 | 11.2 | 10.3 | 14,909 |
| Venezuela | 113 | 0.711 | 72.1 | 12.8 | 10.3 | 7,045 |
| South Africa | 114 | 0.709 | 64.1 | 13.8 | 10.2 | 12,129 |
| Palestine, State of | 115 | 0.708 | 74.1 | 13.4 | 9.2 | 6,417 |
| Egypt | 116 | 0.707 | 72.0 | 13.3 | 7.4 | 11,466 |

Source: UNDP (2020). Human Development Report

One of the key declining indicators in the composite index for Egypt is the average number of years of schooling. This figure for Egypt is less than the 10 countries that precede it in the index, although Egypt is ahead of all countries in the table in terms of the expected number of years of schooling, except for Bolivia, Indonesia, South Africa and Palestine.

These figures indicate the need to focus on improving the quality of education in Egypt.

In terms of the 11 non-oil-exporting countries in the Middle East and North Africa, Egypt ranks roughly in the middle, preceded by six countries: Israel, Malta, Lebanon, Tunisia, Jordan and the State of Palestine. The countries that rank lower than Egypt are Djibouti, Syria, Morocco and Yemen (Table 1.2).[32]

**Table 1.2**

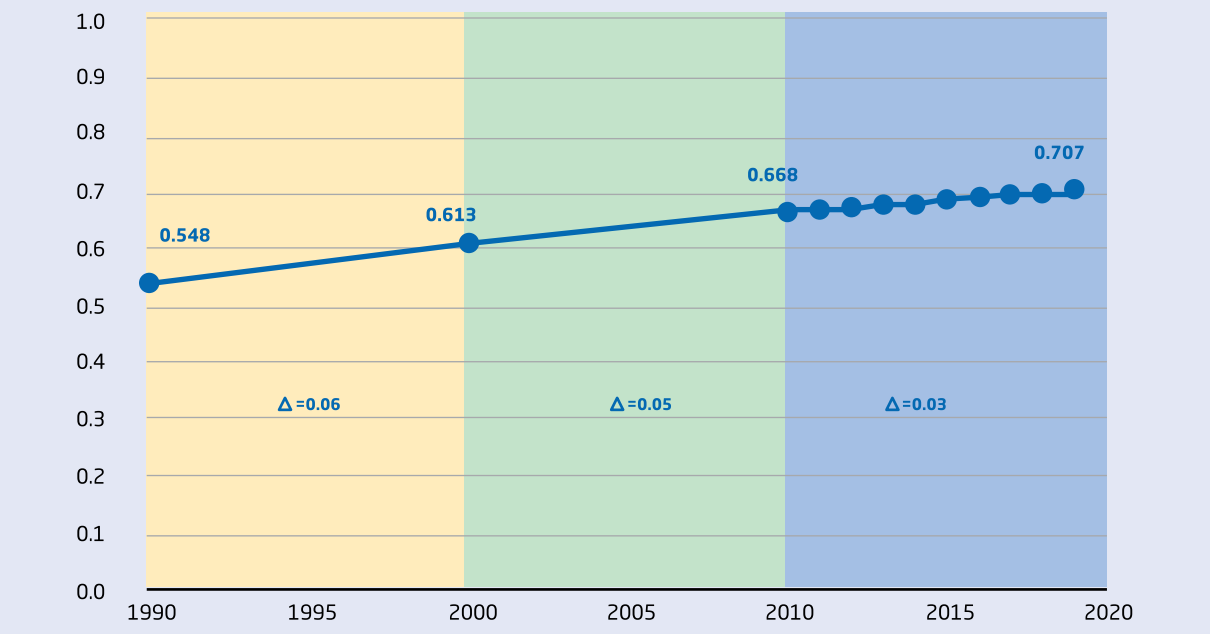
**Indicators of human development and sustainable development in non-oil-exporting MENA countries**

| Country | Ranking | HDI value | Life expectancy at birth (years) SDG 3 | Expected years of schooling SDG 4.3 | Average years of schooling SDG 4.6 | Average GNI per capita (2017 PPP $) SDG 8.5 |
|---|---|---|---|---|---|---|
| Israel | 19 | 0.919 | 83.0 | 16.2 | 13.0 | 40,187 |
| Malta | 28 | 0.895 | 82.5 | 16.1 | 11.3 | 39,555 |
| Lebanon | 92 | 0.744 | 78.9 | 11.3 | 8.7 | 14,655 |
| Tunisia | 95 | 0.740 | 76.7 | 15.1 | 7.2 | 10,414 |
| Jordan | 102 | 0.729 | 74.5 | 11.4 | 10.5 | 9,858 |
| Palestine, State of | 115 | 0.708 | 74.1 | 13.4 | 9.2 | 6,417 |
| Egypt | 116 | 0.707 | 72.0 | 13.3 | 7.4 | 11,466 |
| Morocco | 121 | 0.686 | 76.7 | 13.7 | 5.6 | 7,368 |
| Syria | 151 | 0.567 | 72.7 | 8.9 | 5.1 | 3,613 |
| Djibouti | 166 | 0.524 | 67.1 | 6.8 | 4.1 | 5,689 |
| Yemen | 179 | 0.470 | 66.1 | 8.8 | 3.2 | 1,594 |

Source: UNDP (2020b), Human Development Report

Figure 1.1 shows the development of Egypt's human development index from 1990 to 2020, and Figure 1.2 summarizes key features of human development in Egypt according to the indicators included in the 2020 Human Development Report.

**Figure 1.1 Trends in Egypt's HDI (1990-2020)**




Source: Figure based on UNDP, Human Development Reports, various issues.

**Figure 1.2 Egypt's position on human development indices 2020**


Source: based on: UNDP (2020b)

As in its previous editions, the 2020 Human Development Report goes beyond focusing on the HDI and looks at other dimensions such as social inequalities, gender and the environmental performance of countries. When inequalities are taken into account using the "Inequality Adjusted Human Development Index", the Human Development Index in Egypt loses 29.7% of its value, and Egypt's ranking drops by 9 positions compared to its ranking in the Human Development Index (Table 1.3).

**Table 1.3**
**Overall loss in HDI due to inequality**

| | Inequality-adjusted HDI value | Inequality coefficient (%) | Percentage lost due to inequality (%) | Inequality in Life expectancy at birth (%) | Inequality in education (%) | Income Inequality (%) |
|---|---|---|---|---|---|---|
| Egypt | 0.497 | 28.7 | 29.7 | 11.6 | 38.1 | 36.5 |
| Arab countries | 0.531 | 24.3 | 24.7 | 15.0 | 32.5 | 25.5 |
| Countries with high human development | 0.618 | 17.6 | 17.9 | 10.1 | 14.5 | 28.0 |

Source: Table based on UNDP (2020b)

In the 2018 Human Capital Index issued by the World Bank,[33] Egypt ranked 104th out of 157 countries. The middle-income countries that preceded Egypt in the rankings were the Philippines (84th), Lebanon (86th), Indonesia (87th), Tunisia (96th), and Morocco (98th). Egypt came ahead of Bangladesh (106th), South Africa (126th), India (115th), and Pakistan (134th).[34] In addition, Egypt's value on the Human Capital Index improved from 0.48 in 2010 to 0.49 in both 2018 and 2020.[35]

Table 1.4 shows the development of Egypt's ranking globally under the Health and Primary Education pillar within the Global Competitiveness Index during the period from 2010/2011 to 2017/2018. As shown in the table, Egypt ranked 87th out of 137 countries in 2017/2018.[36] Egypt ranked ahead of some middle-income countries, including South Africa (121st), Moldova (97th) and Indonesia (94th), despite the fact that these countries precede Egypt in the Human Development Index rankings. In contrast, the countries that ranked ahead of Egypt according to this index include the Philippines (82nd), Morocco (81st), Jordan (80th), Lebanon (72nd) and Tunisia (58th).

**Table 1.4**

**Egypt's ranking on the health and primary education pillar of the Global Competitiveness Index**

| Year | Total number of participating countries | Egypt's ranking on the health and primary education pillar* |
|---|---|---|
| 2010/2011 | 139 | 91 |
| 2011/2012 | 142 | 96 |
| 2012/2013 | 144 | 94 |
| 2013/2014 | 148 | 100 |
| 2014/2015 | 144 | 97 |
| 2015/2016 | 140 | 96 |
| 2016/2017 | 138 | 89 |
| 2017/2018 | 137 | 87 |

Source: This table is based on the Global Competitiveness Index reports issued by the World Economic Forum.
It should be noted that the methodology used for calculating the Global Competitiveness Index until 2017/2018 was based on allocating one pillar jointly to health and primary education and another, separate, pillar to higher education and training. Starting in 2018, a new methodology was applied based on the separation of the health and education indices. The fifth pillar now covers health and the sixth pillar covers skills, which includes indices for pre-university education and higher education.

## 1.3 Review of the performance of the education and health sectors in Egypt

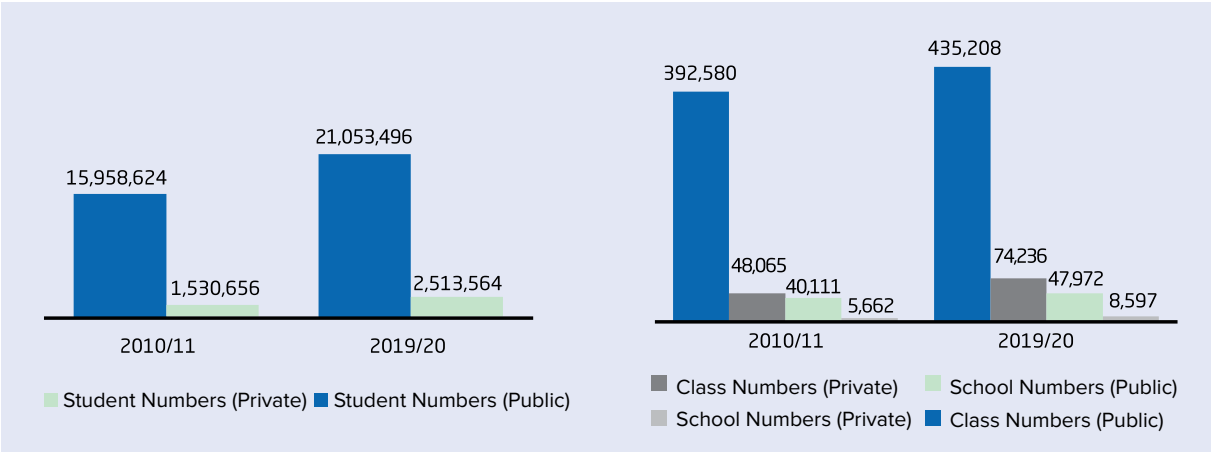
This part provides a review of the development of the most important indicators related to the performance of the education and health sectors in Egypt, especially with regard to accessibility, quality and competitiveness of services provided. The review covers the period from 2010 to last available data to date, which enables an assessment of the current situation and identification of areas in which performance has improved significantly and areas where more efforts are needed.

### 1.3.1 Development of Education sector indicators

The pre-university education system in Egypt is one of the largest globally in terms of student and teacher numbers. In 2019/2020, the number of students enrolled in this system amounted to about 23.6 million (i.e. nearly

a quarter of the Egyptian population). They were distributed in different stages (pre-primary education, primary education, community education,[37] lower secondary education, secondary education consisting of both general and technical education, and special education).[38] The total number of schools is around 56,600 and the number of classes is around 509,500 (Figure 1.3). The system employs about 1,019,000 teachers.[39]

**Figure 1.3 Numbers of students, schools and classes in Egypt's pre-university education system, 2010/2011 to 2019/2020**




Source: The figure is based on the data of the Statistical Yearbook, various issues, Ministry of Education Information Center (www.moe.gov.eg).

Both the public and private sectors contribute to the provision of pre-university education services in Egypt. However, the public sector has the greatest importance within the system. During the period between 2010/2011 and 2019/2020, public education accounted for about 90 percent of total pre-university education students in Egypt, as well as around 86 percent of all schools and 87 percent of all classes.[40]

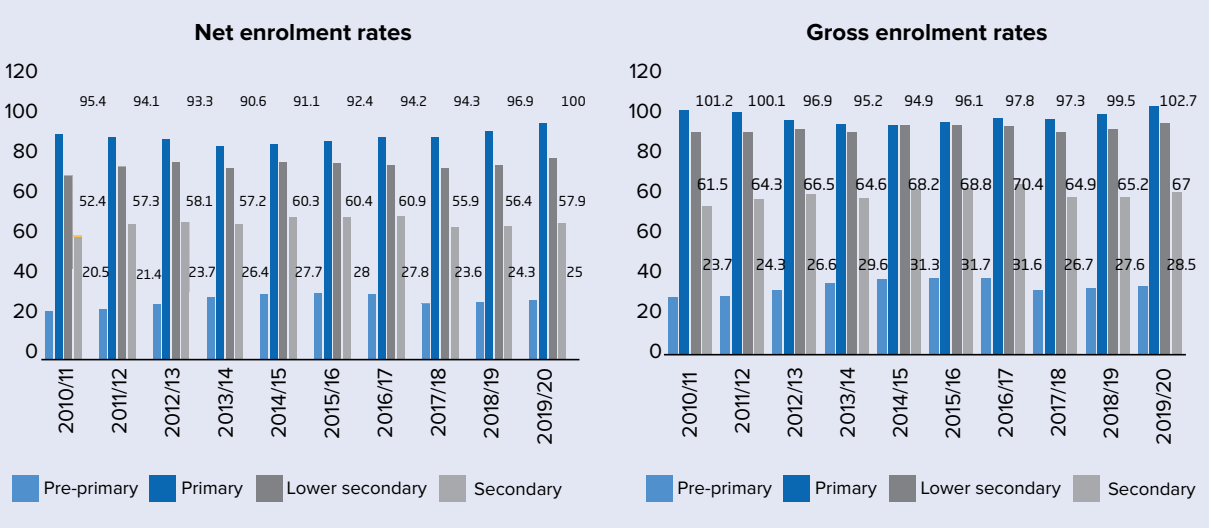
The total number of students enrolled in public and private higher education institutions (universities, higher institutes, academies, and top tier technical institutes) reached about 3 million in 2019/2020, of whom approximately 73 percent are enrolled in public universities and the Al-Azhar University educational system. The number of teaching staff and assistant teaching staff was 126,000[41] (of whom about 80 percent are at public universities).[42] In the following section, the most important indices related to accessibility, quality and competitiveness of the education sector are reviewed.

## Indicators on access to education

The performance of the pre-university education sector in Egypt has improved during the past 10 years, according to the indicators, with the net and gross enrolment rates increasing at all educational levels (Figure 1.4). Egypt seeks to increase the enrolment rates at the lower secondary and secondary education levels to adequately reflect the principle of compulsory education until the end of secondary school found in Article 19 of the Constitution. The relatively low enrolment ratios at lower secondary and secondary education levels in Egypt can be explained by several factors that are related to the demand side. Some are related to the economic and social situation of poor families and their cultural preference, which may encourage parents to be content with only primary education for their children so that they can engage in work at an early age. There are also supply side factors such as the lack of availability of educational services in some remote areas of the country. In addition, the low gross enrolment rate in pre-primary education (about

28.5 percent in 2019/2020) means that more than two thirds of children aged 4–5 do not enjoy their right to early education. This right is recognized in Article 80 of the Constitution, which requires societal awareness of the importance of the kindergarten stage and the expansion of the availability of classes and schools at this stage, especially in areas with low enrolment rates.

**Figure 1.4 Gross and net enrolment rates according to educational stage (%)**




Source: The figure is based on Statistical Yearbook data, various issues, Ministry of Education Information Center (www.moe.gov.eg).

Data on enrolment rates for boys and girls show that the gender gap has diminished between 2010/2011 and 2019/2020. The net enrolment rates for girls exceeded those for boys at all levels of pre-university education by this later date, and as a result, the gender gap index for 2019/2020 has a negative value. In addition, the geographical divide in enrolment rates (between rural and urban areas) has improved significantly during the past 10 years. However, enrolment rates for all levels of pre-university education in the governorates of Upper Egypt remain lower than the corresponding rates in the rest of the country.

The Egyptian education system provides children with special educational needs with access to school as a basic principle of parity. Educational services are available to children with disabilities and to children who are gifted in sports and academics through schools and classes dedicated to their needs. However, the educational services provided to these groups are still limited in quantity, quality and geographical distribution, compared to other groups.[43] The current government action programme (2018/2019 to 2021/2022) includes the opening of 1,600 classrooms for people with visual and hearing impairments and aims to increase the number of schools designated for high performing students from 12 in 2018 to 27 by the end of 2022.[44]

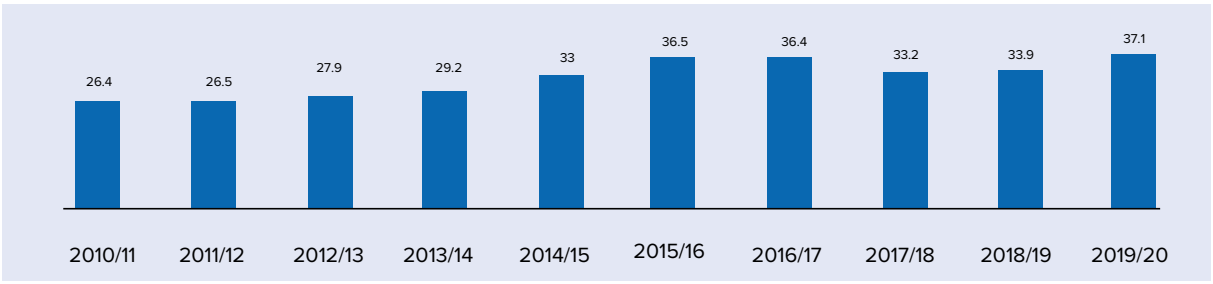
The higher education sector has witnessed an increase in the number of public and private universities, with a continuous diversification of educational programmes and pathways and an increase in geographical coverage. According to 2020 statistics, the number of public universities has reached 27 (of which four were established in the last four years: in Arish, Al-Wadi Al-Jadid, Matrouh, and Luxor) comprising about 494 colleges. The number of private and community universities now totals approximately 33, including 168 colleges, in addition to four community (non-profit) universities of international standards comprising 62 colleges, as well as 172 private higher and middle institutes, three technology universities and eight colleges for technology com-

prising 45 below-higher technical institutes. The number of new programmes for public universities reached about 188 in disciplines that serve the needs of the labour market and the development process, 10 universities have signed protocols and agreements with sister countries and regional and international organizations, and three branches of foreign universities. Within the scope of scientific research, there are 24 research centres, institutes and bodies (11 affiliated with the Ministry of Higher Education and Scientific Research and 13 affiliated with other ministries but under the academic supervision of the former).[45]

The data also indicate an increase in the number of students enrolled in higher education institutions (public and private) in Egypt from about 2.2 million in 2010/2011 to nearly 3 million in 2019/2020 (about 73 percent of whom are enrolled in public universities and Al-Azhar). These institutions provide about 500,000 graduates annually. The number of students enrolled in postgraduate studies in these institutions in 2019/2020 reached about 430,000, and the number of foreign students enrolled in higher education institutions reached about 86,000 (in both undergraduate and postgraduate studies).[46]

In addition, Figure 1.5 shows an increase in the gross enrolment rate in higher education institutions (public and private) from about 26.4 percent in 2010/2011 to about 37.1 percent in 2019/2020 (36.9 percent for men and 37.3 percent for women). In general, the enrolment rate in higher education in Egypt is higher than the average prevailing in the group of lower-middle-income countries (which amounted to about 24.2 percent in 2019), while it is lower than its equivalents in the group of upper-middle-income countries (which reached about 53.2 percent in 2019).[47]

**Figure 1.5 Gross enrolment rate at higher education institutions in Egypt (%)**

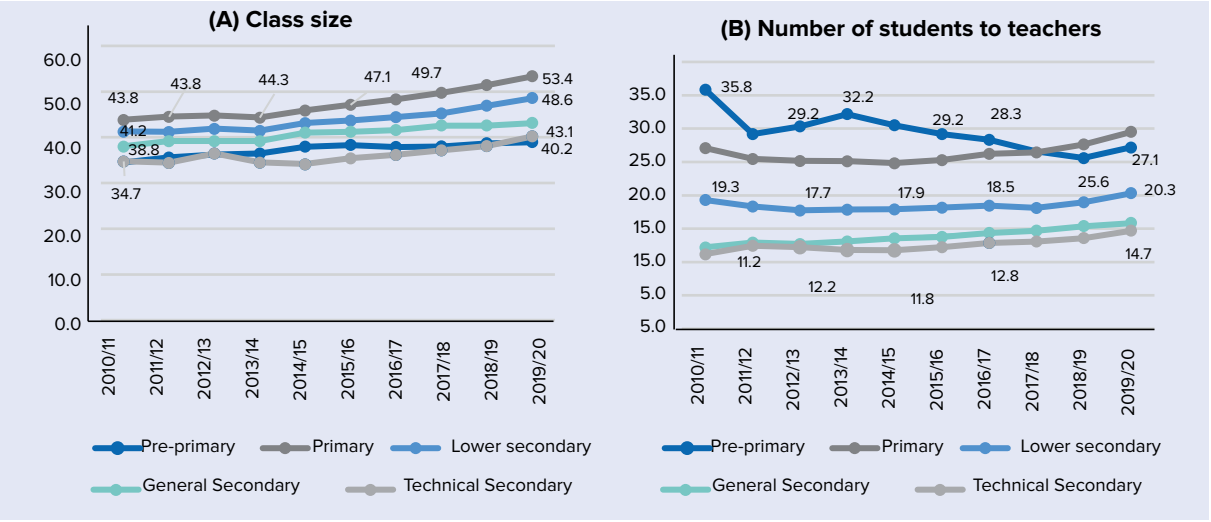



Source: Central Agency for Public Mobilization and Statistics, (Registered Students - Higher Education Faculty) Bulletin, various issues; Ministry of Planning and Economic Development (2021), unpublished data.

## Indicators of quality and competitiveness of education

The average class size and the number of students per teacher are among the most important indicators of the quality of inputs into the educational process, given that a high number of students per class undermines the ability to participate and interact, whether among students themselves or with teachers. A higher student-teacher ratio limits teachers' ability to focus with students and apply teaching methods that aim to develop their skills and stimulate creativity, critical thinking and problem solving. The average densities of classes at all levels increased between 2010/2011 and 2019/2020 to reach their maximum in the primary (53 students) and lower secondary (49 students) stages, while the student-teacher ratios for all educational levels remained stable except for the pre-primary stage, which witnessed a marked decrease between the two indicated years, a promising indication (Figure 1.6).

**Figure 1.6 Average class size and student-teacher ratio in pre-university public education, by educational level**




Source: The figure is based on Statistical Yearbook data, various issues, Ministry of Education Information Center (www.moe.gov.eg).

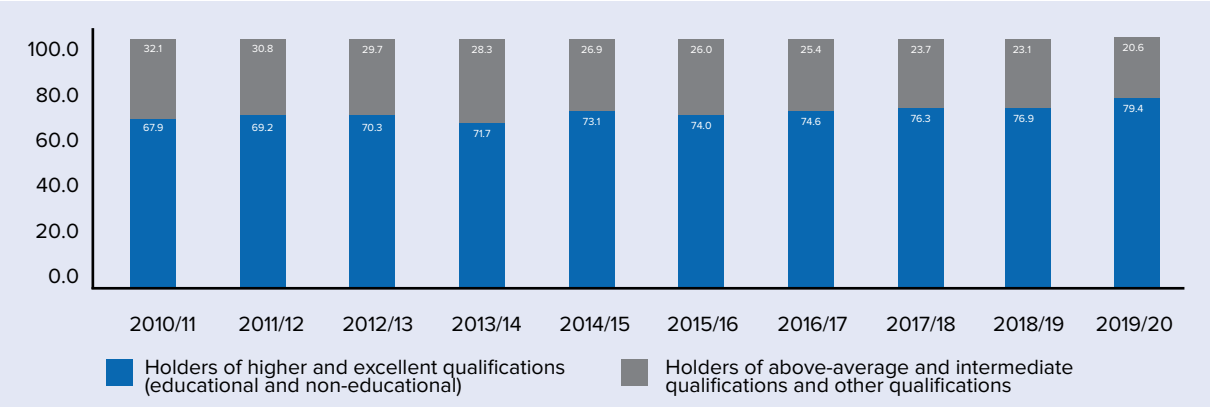
The average class size at the primary level in Egypt is significantly higher than in a number of middle-income countries such as India, Brazil, and Argentina (24 students), Indonesia (27 students), and China (37 students).[48] This may partially be related to the age structure of the population in Egypt; the ratio of the population of primary school age to the total population in Egypt is higher compared to other countries. Moreover, the inflated cost of private education puts pressure on public education, in a way that may devour the continuous efforts of the State to deal with this challenge through expansion of new classes.

However, the overall indicators of class size should be treated with some caution, in light of the growing populace of school age children eligible for basic education in Egypt, which is much higher than other countries. These indicators also conceal the disparity between different geographical areas [49] and do not reflect some of the infrastructure problems that students and teachers may face in schools, which varies from one place to another. The research shows the positive effects of reducing class sizes are more pronounced in kindergarten and the third grade of primary school, in classes made up of students from low-income families, and in those taught by less qualified and trained teachers. In this context, Egypt's government has announced an ambitious plan to establish around 27,000 new classrooms at a cost of more than EGP 6.8 billion, with the aim of reducing the class size.[50]

With regard to human resources in the pre-university education system, the number of teachers in public education in 2019/2020 was around 923,000 (representing about 91 percent of the total number of teachers in the system). According to the data, there is an increase in the total of teachers with degrees or postgraduate qualifications (whether educational or non-educational) as a proportion to the total number of teachers affiliated with public pre-university education, from about 67.9 percent in 2010/2011 to about 79.4 percent in 2019/2020 (Figure 1.7). This is supposed to be linked to an improvement in the quality of the educational service in general, given that teachers that hold higher qualifications are able to transfer knowledge and apply modern learning methods and systems.

As for higher education, the number of faculty members and their assistants in higher education institutions increased from about 93,600 in 2011/2012 to approximately 126,000 in 2019/2020[51] (of whom about 80 percent were at public universities).[52] In the academic year 2016/2017, the number of students to faculty members was around 33 to 1, while the number of faculty members' assistants to faculty members was about 0.87.[53]

**Figure 1.7 Distribution of teachers according to qualifications in public pre-university education (%)**

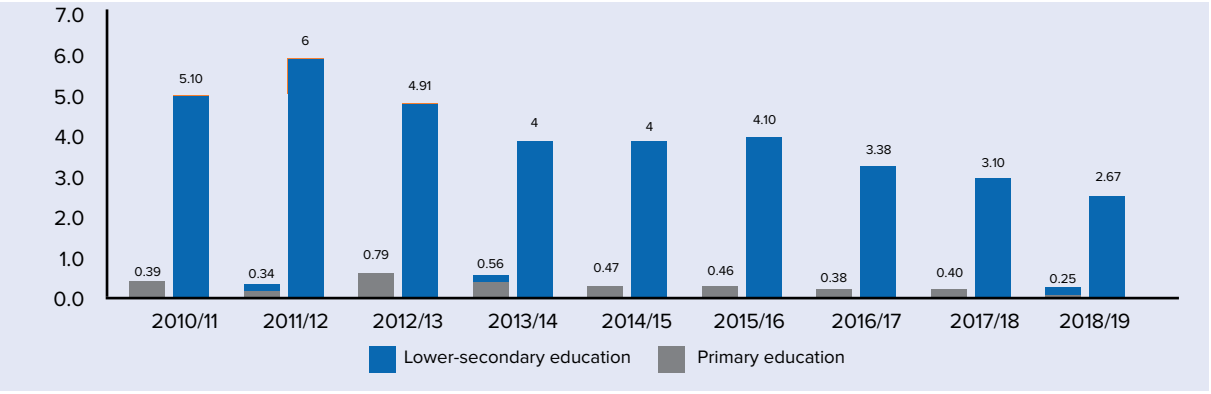



Source: The figure is based on Statistical Yearbook data, various issues, Ministry of Education Information Center (www.moe.gov.eg)

In terms of educational outcomes, the pre-university education system in Egypt has made progress in a number of indicators. Dropout rates in Egypt decreased between 2010/2011 and 2018/2019 (Figure 1.8), especially at the lower secondary education stage. Dropouts at this stage decreased from 5.5 percent for boys and 4.7 percent for girls in 2010/2011 to 2.8 percent for boys and 2.6 percent for girls in 2018/2019. Moreover, the transition rates from the primary stage to the lower secondary stage increased from 88.1 percent to 99.7 percent between 2012/2013 and 2019/2020, while transition rates from the lower secondary stage to the secondary stage (both general and technical) increased from 77.9 percent to 84.3 percent over the same period.[54] In terms of gender, primary-to-lower secondary transition rates increased from 84.9 percent for boys and 91.6 percent for girls in 2012/2013 to 99.2 percent for boys and 100 percent for girls in 2019/2020.[55]

In addition, the number of primary school students achieving a pass rate and thus receiving an elementary education certificate increased from 90.4 percent to 97.4 percent between 2010/2011 and 2018/2019, while the lower secondary school pass rate increased from 92.2 percent to 96 percent over the same period. Although there is no noticeable gender disparity in the educational outcome indicators, there is a degree of disparity between governorates in favour of urban and Lower Egypt. Addressing this requires a package of interventions based on geographical targeting, including, for example, expanding the provision of cash transfers to families in governorates with high dropout rates.[56]

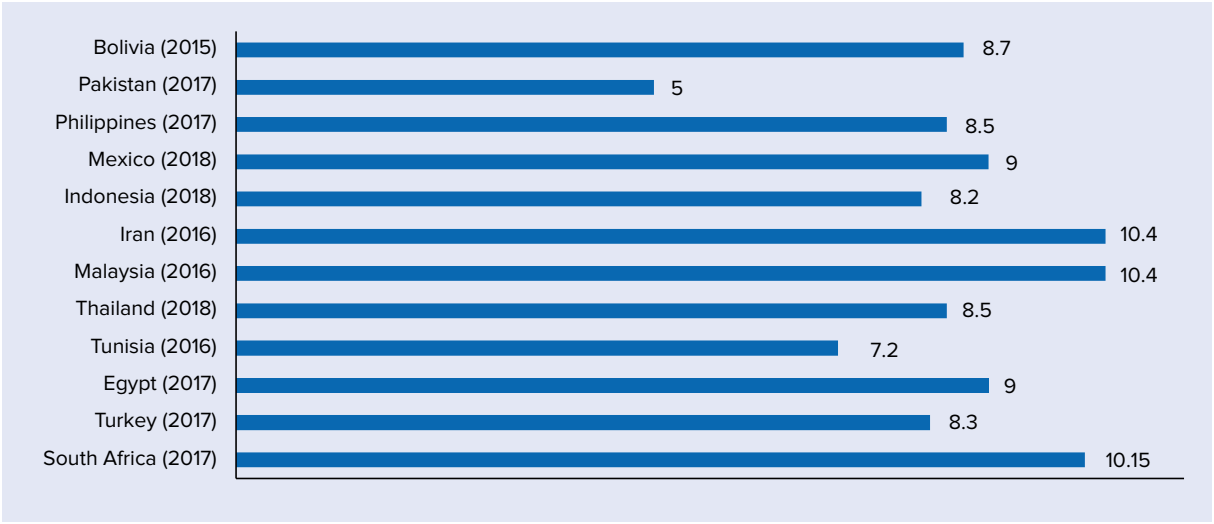
**Figure 1.8 Dropout rates in primary and lower secondary education (%)**




Source: The figure is based on Statistical Yearbook data, various issues, Ministry of Education Information Center (www.moe.gov.eg).

In general, the average number of years of education for the population aged 25 years and above in Egypt is higher than that in a number of comparable middle-income countries, including the Philippines, Indonesia and Bolivia, which are among the 10 countries directly ahead of Egypt in the Human Development Index according to the 2020 HDR, as shown in Figure 1.9.

**Figure 1.9 Mean years of schooling (for 25 years and above) in Egypt and selected middle-income countries**

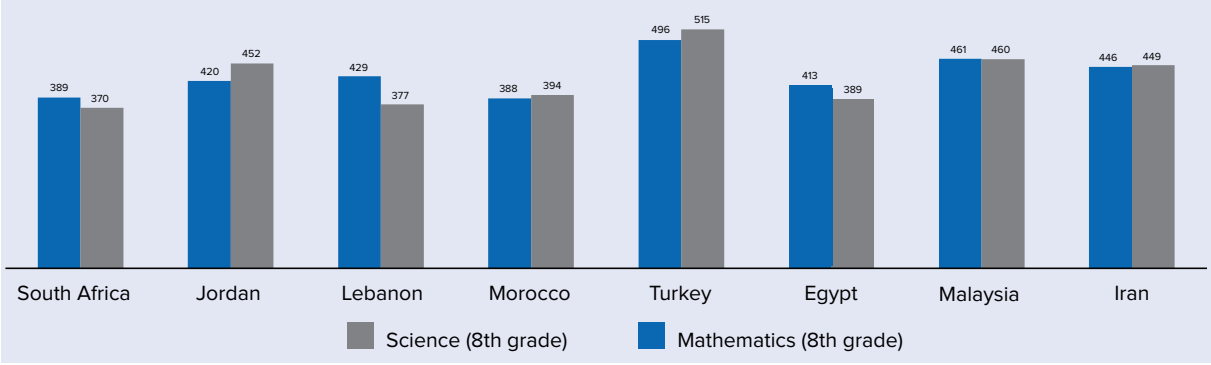



Source: This figure relies on UNESCO Institute for Statistics (http://data.uis.unesco.org)

The literacy rate of the population aged 15 years and over in Egypt is about 71 percent (according to 2017 data), compared to a rate of about 87 percent in South Africa (2017), 96 percent in Indonesia (in 2018), and 98 percent in the Philippines (2015),[57] all of which are among the 10 countries directly ahead of Egypt in the Human Development Index rankings according to the 2020 HDR.

The performance of eighth grade students on the Trends in International Mathematics and Science Study (TIMSS) in 2019, in which 39 countries participated, including Egypt, indicates the modest level of performance by Egyptian students in science in particular, as shown in Figure 1.10. In mathematics, Egyptian students outperformed those from Morocco and South Africa, despite the fact that the latter country is ahead of Egypt in the Human Development Index rankings for the 2020 HDR. Comparing the results of that competition for 2019 with those achieved in 2015 reveals remarkable progress in the average scores achieved by Egyptian students (in absolute terms) between the two years, especially in mathematics: the average score in mathematics increased from 392 to 413 between 2015 and 2019, and from 371 to 389 in science.[58] In general, ongoing reforms undertaken by the State to develop educational curricula, modernize teaching , learning, and assessment methods, and diversify sources of knowledge - as detailed later in this chapter, are expected to contribute to improving the performance of Egyptian students in these standardized tests.

**Figure 1.10 Results of students' performance in the 2019 Trends in International Mathematics and Science Study (TIMSS) in Egypt and selected middle-income countries**




Source: TIMSS 2019 International Trends in Science and Mathematics competition results, available at: https://timss2019.org/reports/achievement

Table 1.5 shows Egypt's ranking in the sub-index on the quality of primary education (which is one of the indicators in the fourth pillar, "Health and Primary Education," of the Global Competitiveness Index). Egypt ranked 100th out of 137 countries in the fifth pillar of the Global Competitiveness Index, Higher Education and Training, in 2017/2018. The sixth pillar, Skills, replaced both the sub-index of Quality of Primary Education and the pillar of Higher Education and Training starting from 2018, and in 2019 Egypt ranked 99th out of 141 countries in that pillar. In terms of the countries directly ahead of Egypt in the Human Development Index of the 2020 HDR, Indonesia ranked 47th on the Primary Education Quality Index in 2017/2018, the Philippines 66th, and South Africa 116th. However, the methodology of this indicator – it is based mainly on a survey of a limited sample of business owners in each country – raises questions about its objectivity and therefore its utility for measuring the quality of education.

**Table 1.5**

**Egypt's ranking in the pillars and sub-indicators of the Global Competitiveness Index related to education**

| Year | Total number of countries in the report | Egypt's ranking in the sub-index "Quality of Primary Education"* | Egypt's ranking in the fifth pillar "Higher Education and Training"** |
|---|---|---|---|
| 2010/2011 | 139 | 126 | 97 |
| 2011/2012 | 142 | 131 | 107 |
| 2012/2013 | 144 | 137 | 109 |
| 2013/2014 | 148 | 148 | 118 |
| 2014/2015 | 144 | 141 | 111 |
| 2015/2016 | 140 | 139 | 111 |
| 2016/2017 | 138 | 134 | 112 |
| 2017/2018 | 137 | 133 | 100 |
| 2018 | 140 | Egypt's ranking in the sixth pillar "Skills"*** | |
| | | 2019 | |
| 2019 | 141 | 99 | |

Source: The table is based on the Global Competitiveness Index reports issued by the World Economic Forum www.weforum.org
*This indicator is one of the sub-indicators in the fourth pillar of the Global Competitiveness Index related to Health and Primary Education.
** Includes secondary and higher education.
*** This pillar was created in 2018 to reflect all sub-indicators related to education, regardless of level, and replaces the sub-indicator on quality of primary education and the pillar on higher education and training on which the indicator calculation methodology was based before 2018. The sub-indicators for this pillar include: average number of years of schooling, level of staff training, quality of technical education, graduate skills, digital skills in the population, accessibility to skilled personnel, life expectancy of schooling, critical thinking in teaching, student-teacher ratios in basic education.

According to another global education ranking, issued by US News & World Report, Egypt ranked 42nd out of 73 countries in the world (and third in the Arab world after the United Arab Emirates and Qatar) in 2020, compared to 51st in 2019.[59] The index is composed of three sub-indicators, namely the presence of a developed public education system, individual thinking about enrolling at a university, and whether the country provides high-quality education.

In addition, the number of Egyptian universities listed in some international rankings has increased, as shown in Table 1.6. Also, the number of colleges and programmes that obtained academic accreditation from the National Authority for Quality Assurance and Accreditation increased to 186 colleges and programmes (including accreditation and renewal of accreditation) by the end of 2020, including 11 colleges and programmes in 2020, 56 in 2019, 40 in 2018, 48 in 2017, and 31 in 2016.[60] The number of schools that obtained accreditation increased from six schools before 2014 to 30 schools by the end of 2018.[61] The government's action plan (2018/2019-2021/2022) aims to increase the percentage of educational institutions that have obtained accreditation from the authority to 50 percent within the four years of the plan.[62]

**Table 1.6**

**Egyptian universities in international rankings**

| Ranking | Egyptian universities' ranking |
|---|---|
| Shanghai Chinese Ranking | The number of Egyptian universities listed in the ranking increased from one university in 2017 to three universities in 2018, then to five universities in 2019, and finally to 17 universities in 2020. |
| British Times Higher Education Rating | The number of Egyptian universities listed in the ranking increased from three in 2016 to 19 in 2019. |
| QS Rating | - Inclusion of Cairo University among the top 200 universities in the field of architecture and construction in 2018 out of 959 universities worldwide included in the ranking.<br>- Inclusion of three Egyptian universities (Cairo, Ain Shams and Alexandria) among the top 400 universities in the field of medicine in 2018.<br>- Inclusion of Cairo and Alexandria universities among the top 200 universities in the field of pharmaceutical sciences in 2018. |

**Source: The table depends on: The Ministry of Higher Education and Scientific Research (2019-c) and the Ministry of Higher Education and Scientific Research (2019-a).**

The analysis above shows that the improvement in the indicators on accessibility to education in Egypt has outpaced the improvement in the indicators on the quality and competitiveness of education, especially in the pre-university education stages. Accordingly, Egypt is seeking to prioritize this in the reform programmes that are underway. This was already demonstrated in the Government Action Programme (2018/2019-2021/2022) under "improving the competitiveness of education systems and outcomes" and "developing the pre-university education system," which are among the sub-programmes of the main programme, "Confirmation of Scientific Identity," within the second strategic objective concerned with developing Egyptian citizens.[63] However, these indicators have not yet garnered the level of attention within the government's action plan allotted to the issues of quality and competitiveness of education.

## 1.3.2 Development of indicators associated with the health sector

This section looks at the performance of the health sector in Egypt according to a number of indicators on the availability of health services, the quality and competitiveness of the health work environment, and health outcomes.

## Indicators of access to health services

Table 1.7 shows the total number of hospitals and beds in the Egyptian health system according to statistics from 2018, as well as their distribution between the government (public) and private sectors. Although hospitals affiliated with the private sector make up about two thirds of the total number of hospitals in Egypt, they have only about 27 percent of the total number of beds. This means that the average number of beds at a government hospital is higher than the average at a private hospital, indicating the higher capacity of government hospitals compared to private hospitals.

**Table 1.7**

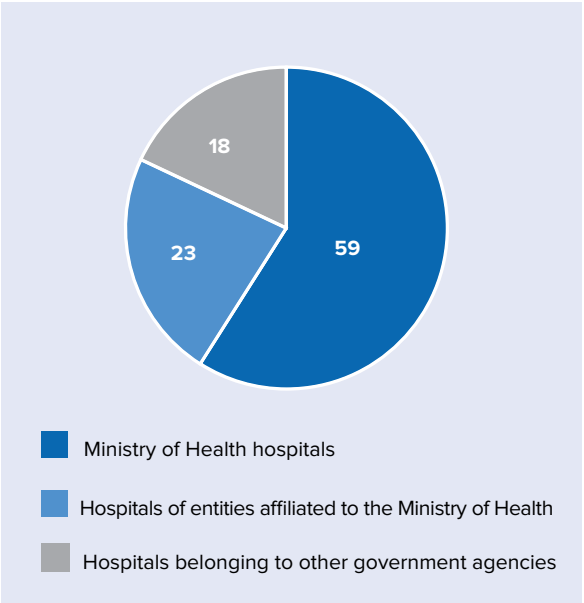
**Number of hospitals and beds in the health system in Egypt and their distribution between the public and private sectors in 2018**

| | Hospitals | | Beds | |
|---|---|---|---|---|
| | Total number | Share (%) | Number | Share (%) |
| Public | 691 | 37 | 95,683 | 73 |
| Private | 1,157 | 63 | 35,320 | 27 |
| Total | 1,848 | | 131,003 | |

Source: The table depends on: Central Agency for Public Mobilization and Statistics (2019a), "Annual Bulletin of the Health Services Statistics 2018".

Figures on the distribution of public sector hospitals by affiliation in 2019 show that the hospitals of the Ministry of Health and Population (general, central and specialized) and the hospitals of its affiliates (such as mental health hospitals, the General Authority for Health Insurance's hospitals, specialized centres, treatment institutions, and educational hospitals and institutes) make up about 82 percent of the total number of public hospitals. The readiness of these hospitals is therefore a major focus when assessing the readiness of the health system as a whole.[64] Hospitals affiliated with other government agencies and bodies, such as hospitals affiliated with the Ministry of Interior (run by the police or prison authorities), those with the railways authorities, and university hospitals, make up 18 percent of the total number of public hospitals (Figure 1.11).

**Figure 1.11 Distribution of public hospitals according to their affiliation in 2019 (%)**




Source: The figure depends on: Ministry of Health (2021), unpublished data.

Between 2010 and 2018 the number of public hospitals increased from 660 to 691, but this expansion was very limited compared to the rate of increase in the total number of inpatient and outpatients, which was reflected in the average number of visitors to each hospital, rising from about 86,000 visitors to about 136,000. There was also a decline in the bed capacity of government hospitals, as shown in Table 1.8. This threatens the ability of the public health system to provide health services to those who need them. Government investments in building new hospitals and treatment institutions are therefore needed, and in equipping them to keep pace with the increase in demand for government health services resulting from the increase in the population on one hand and the rise in the costs of health services provided by the private sector to the majority of citizens on the other.

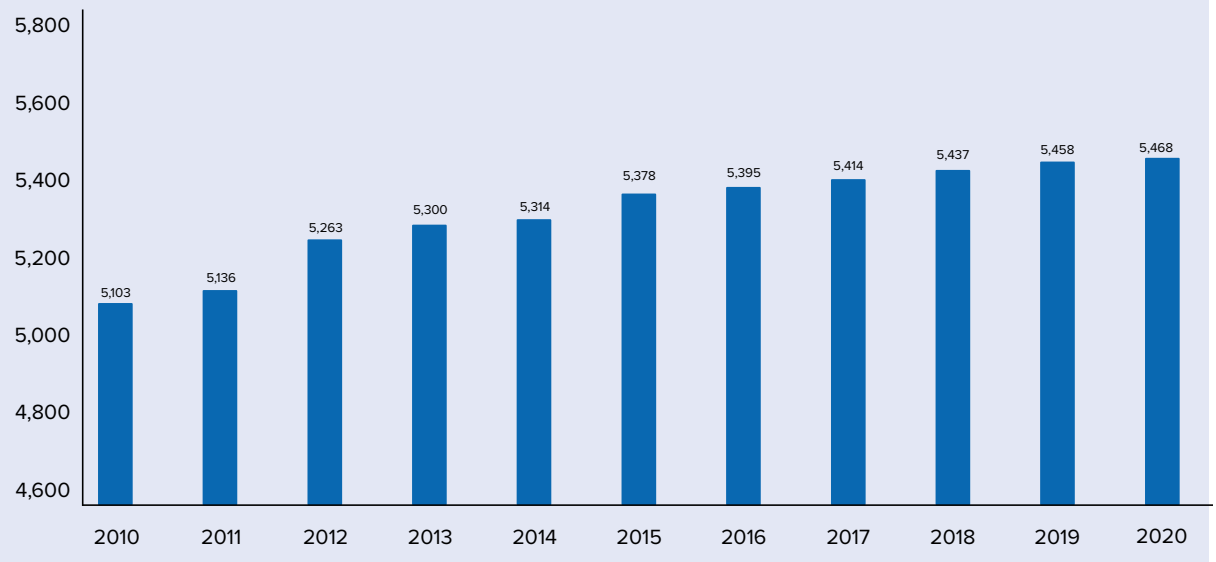
**Table 1.8**

**Number of Hospitals, Beds and Visitors (Governmental)**

| Year / Item | Number of Government Hospitals | Number of Government Hospital Beds | Number of Visitors to Government Hospitals | Number of Beds per Government Hospital | Number of Visitors to each Government Hospital |
|---|---|---|---|---|---|
| 2010 | 660 | 99,270 | 57,081,420 | 150 | 86,487 |
| 2011 | 643 | 98,319 | 57,368,460 | 153 | 89,220 |
| 2012 | 646 | 96,820 | 50,471,980 | 150 | 78,130 |
| 2013 | 657 | 98,291 | 62,428,797 | 150 | 95,021 |
| 2014 | 659 | 97,826 | 65,557,979 | 148 | 99,481 |
| 2015 | 660 | 93,267 | 74,560,200 | 141 | 112,970 |
| 2016 | 662 | 93,897 | 80,937,444 | 142 | 122,262 |
| 2017 | 676 | 96,111 | 87,094,488 | 142 | 128,838 |
| 2018 | 691 | 95,683 | 93,698,218 | 138 | 135,598 |

Source: The table depends on: Central Agency for Public Mobilization and Statistics (2019a), "Annual Bulletin of the Health Services Statistics 2018".

**Figure 1.12 Number of primary health care units during the period (2010-2020)**




Source: The figure depends on: Central Agency for Public Mobilization and Statistics. Multiple health related sources.

The number of primary health care units increased by about 365 units between 2010 and 2020, as shown in Figure 1.12. These units mainly include health offices, clinics, maternal and child health centres, urban health centres, family health centres and units, and rural primary care units. However, this increase in the number of health care units did not keep pace with the increase in the population, and a result there was a decline in the number of health care units per 100,000 population from 6.2 in 2010 to 5.6 in 2017.[65]

## Indicators of quality and competitiveness of health services

### Human Resources and Working Environment in the Governmental Health Sector

The numbers of doctors and nursing staff in the governmental system increased between 2010 and 2018: the number of doctors rose from 73,000 to 91,000 and the number of nursing staff from 162,000 to 197,000. However, this increase was not sufficient to keep pace with the increase in demand for health services reflected in the increase in the number of people visiting government hospitals, and as a result, the average number of patients per doctor and nurse increased, as shown in Table 1.9. This is expected to have an adverse effect on the ability of government health services to provide care of appropriate quality.[66]

**Table 1.9**

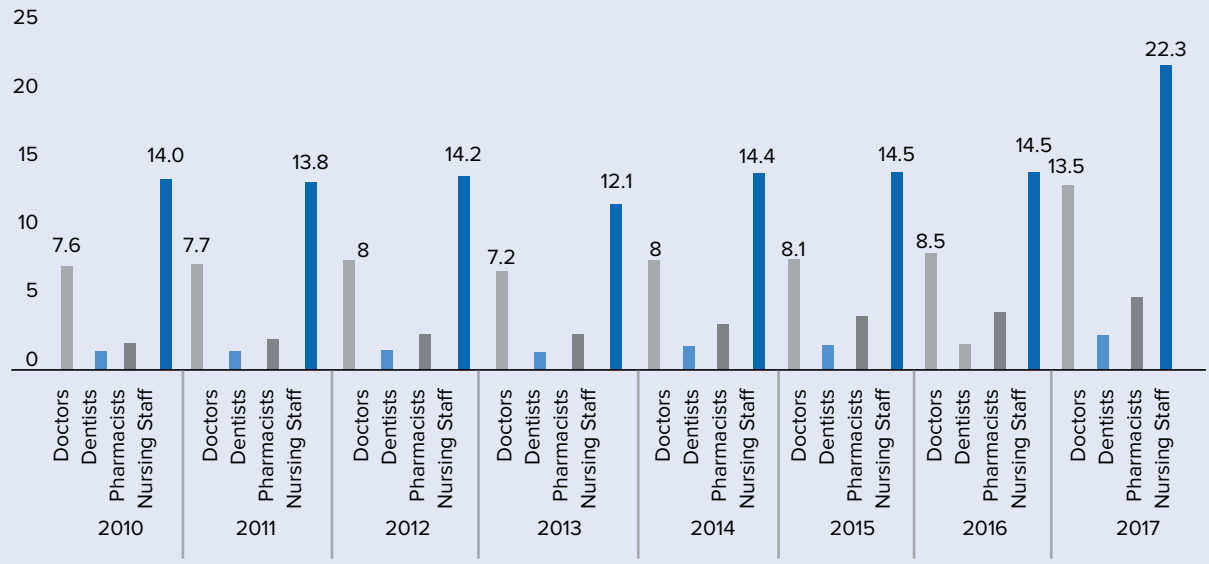
**Numbers of Doctors and Nursing Staff in Government Hospitals**

| Year | Number of doctors | Number of nursing staff | Number of patients per doctor | Number of patients per nursing staff member |
|---|---|---|---|---|
| 2010 | 73,329 | 161,716 | 778 | 353 |
| 2011 | 77,255 | 161,717 | 743 | 355 |
| 2012 | 82,542 | 171,104 | 611 | 295 |
| 2013 | 87,908 | 173,142 | 710 | 361 |
| 2014 | 96,122 | 179,155 | 682 | 366 |
| 2015 | 97,707 | 183,746 | 763 | 406 |
| 2016 | 103,337 | 187,090 | 783 | 433 |
| 2017 | 102,773 | 191,351 | 847 | 455 |
| 2018 | 91,316 | 196,686 | 1026 | 476 |

Source: The table depends on: Central Agency for Public Mobilization and Statistics (2019-a), "Annual Bulletin of the Health Services Statistics 2018".

Despite the increase in numbers of doctors and pharmacists working for the Ministry of Health and Population (per 10,000 people) during the period from 2010 to 2017, these numbers remain low, especially for dentists (2.5 per 10,000 people) and pharmacists (5.3 per 10,000 people) according to 2017 statistics (Figure 1.13).

**Figure 1.13 Medical professionals and practitioners at the Ministry of Health and Population (per 10,000 population)**

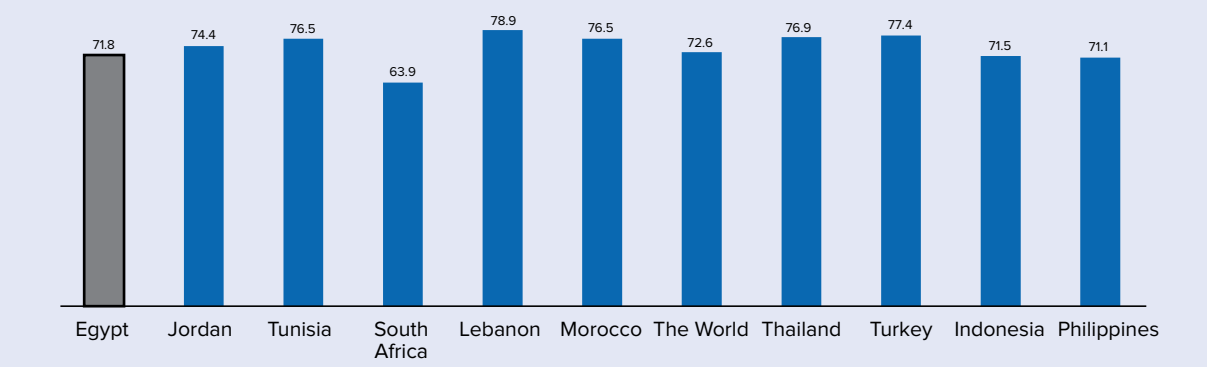



Source: The figure depends on: Central Agency for Public Mobilization and Statistics, (2019-b), "Statistical Yearbook – Health Chapter".

## Indicators of health outcomes (life expectancy at birth and under-five mortality rate)

Life expectancy at birth in Egypt rose from 70.3 years in 2010 (68.2 for men and 72.6 for women) to 71.8 years in 2018 (69.6 for men and 74.2 for women).[67] Although the average life expectancy at birth in Egypt is low compared to the global average of 72.6 years, and is lower than in comparable countries such as Jordan, Tunisia, Lebanon, Morocco, Turkey and Thailand, it is higher than in the Philippines, Indonesia and South Africa, which are among the 10 countries directly ahead of Egypt in the Human Development Index according to the 2020 HDR, as shown in Figure 1.14.

**Figure 1.14 Life expectancy at birth in Egypt and selected middle-income countries in 2018**




Source: The figure is based on the World Bank database (https://data.worldbank.org/indicator).

In addition, the under-five mortality rate in Egypt has fallen from 28.8 deaths per 1,000 live births in 2010 (30.3 among boys and 27.2 among girls) to 20.3 deaths (21.5 among boys and 19 among girls) in 2019.[68] The current under-five mortality rate in Egypt is lower than the maximum targeted by the Sustainable Development Goals (25 deaths per 1,000 live births) and is lower than in comparable countries such as South Africa (34.5 deaths), the Philippines (27.3 deaths) and Indonesia (23.9 deaths), although they are ranked ahead of Egypt on the Human Development Index according to the 2020 HDR. Consequently, this represents significant progress towards achieving the SDGs.

As a result, Egypt came 104th out of 141 countries on the fifth pillar, Health, of the World Economic Forum's 2019 Global Competitiveness Index, which is calculated mainly from the number of years a child is expected to live a healthy life at birth. Egypt was therefore ahead of countries such as South Africa (118th), Botswana (111th) and India (110th).[69] It should be noted that this pillar replaced a set of sub-indices related to the competitiveness of the health sector, which was included in the fourth pillar, Health and Primary Education, till the 2017/2018 report. These sub-indices included the prevalence of certain diseases such as tuberculosis, malaria and HIV and their impact on business; the infant mortality rate; and life expectancy at birth.

## 1.4 Investing in people: Promoting the right to adequate housing in Egypt

Egypt's 2014 Constitution enshrines a right to housing: Article 78 stipulates that the State shall ensure citizens' right to decent, safe and healthy housing in a manner which preserves human dignity and achieves social justice. The same Article stipulates that the State shall devise a full national housing plan and a comprehensive national plan to address the problem of informal settlements, which includes re-planning, provision of infrastructure and utilities, and improvement of the quality of life and public health, in addition to the provision of resources necessary for implementation of this plan within a specified period of time. In a report on her visit to Egypt in 2019, the Special Rapporteur on the right to adequate housing noted that the Constitution is in alignment with international human rights law and the first target of Sustainable Development Goal 11, which is to ensure that everyone has access to decent, safe and affordable basic housing and services through a specific strategy.[70]

This constitutional commitment is reflected in the sustainable development strategy, Egypt Vision 2030, which devotes a full pillar to urban development and dedicates an independent programme to combatting the phenomenon of informal settlements and unsafe areas by developing an integrated framework for their development and the provision of employment opportunities for their populations. It also takes into account the rehabilitation and development of the cultural and social capacities of the population to adapt to and maintain developed areas, in addition to working to strengthen the enforcement of laws that prevent the emergence of unplanned informal settlements.[71]

Egypt has made great efforts to promote the right to adequate housing over past years and the issue has received considerable political support. This has led to the upgrading of many informal settlements, as well as the launch of an ambitious social housing programme that accounts for low- and middle-income groups. In March 2020, the Special Rapporteur on adequate housing submitted a report on the guidelines for the implementation of the right to adequate housing to the United Nations Human Rights Council.[72] Egypt complies with most of the 16 guidelines outlined; for example, "guarantee the right to housing as a fundamental human right linked to dignity and the right to life [...]" is in accordance with Article 78 of Egypt's Constitution.

### 1.4.1 Upgrading of unplanned and unsafe informal settlements

The Informal Settlements Development Fund (ISDF) plays an important role in upgrading informal settlements and limiting their expansion. According to presidential decree number 305 of 2008, the Fund aims to map and upgrade informal settlements and develop a plan for urban planning.[73] The Informal Settlements Development Fund divides informal settlements into unplanned settlements, unsafe settlements and informal markets.[74] Unplanned settlements are those established in violation of building laws and regulations, while unsafe settlements are those in which 50 percent of the buildings are classified at one of four levels reflecting their gravity. The first level accounts for "life-threatening settlements" such as those in areas exposed to natural hazards; the second level includes "inadequate housing settlements" such as damaged buildings; the third level includes "health-threatening settlements" that lack clean drinking water or adequate sanitation; and the fourth level are "settlements without secure tenure" such as lack of legal tenure.[75] The Informal Settlements Development Fund carries out the upgrading of these settlements, while the Ministry of Housing, Utilities and Urban Communities (MOHUUC), as part of its strategy, upgrades all informal settlements that are unsafe and threaten the lives of citizens, in addition to supporting social housing programmes for low-income people.[76]

Over recent decades, unplanned and unsafe informal settlements have represented a major challenge in Egypt, prompting considerable attention from decision makers. The number of unsafe settlements developed between 2014 and 2020 amounted to about 296 out of a total of 357 settlements. Table 1.10 shows the percentages of unsafe settlements in several governorates, and the percentage that have been upgraded in each.[77]

**Table 1.10**
**Share of unsafe settlements redeveloped in selected governorates (%)**

| Governorate | Share of unsafe settlements in governorate | Share of upgraded unsafe settlements |
|---|---|---|
| Cairo | 29 | 46 |
| Ismailia | 18 | 72 |
| Alexandria | 15 | 55 |
| Sharqia | 0.2 | 55 |
| Assiut | 0.1 | 86 |
| Marsa Matrouh | 0.1 | 72 |

Source: Ministry of Housing, Utilities and Urban Communities (2020). Ministry Report.

As a result of these efforts, the number of people in Egypt living in unsafe settlements had decreased by 35 percent in 2019.[78] Egypt's sustainable development strategy aims to reduce the population of unsafe settlements by 100 percent by 2030.[79] During the development of unsafe informal settlements, the basic services needed by citizens, such as schools, places of worship, youth centres, health centres and others, were taken into account in order to ensure a safe environment.[80] This approach conforms to the Special Rapporteur's guideline on "implementing comprehensive strategies for the realization of the right to housing."

As part of the practical framework on providing adequate and appropriate housing for citizens, the national project Housing for all Egyptians was launched. It aims to construct 500,000 housing units in major cities and governorate capitals nationwide.[81]

The total area of unplanned informal settlements was around 152,000 feddans in 2014 (1 feddan is approximately 1.038 acres). Fifty-three settlements with a total area of 4,616 feddans have been upgraded since and have had their infrastructure improved. An additional 79 settlements with a combined area

of 6,941 feddans are currently being upgraded. The total cost of upgrading unplanned settlements was EGP 318 billion. Egypt has also upgraded informal markets, developing nearly 20 out of a total of 1,105.[82] The national sustainable development strategy aims to reduce informal settlements in urban areas to less than 20 percent in 2020, and less than 5 percent in 2030.[83]

Egypt follows specific rules and procedures regarding the relocation or evacuation of residents of unsafe or unplanned settlements, in line with the Special Rapporteur's guidelines for implementing the right to adequate housing, which include the guideline "prohibit forced evictions and preventing evictions whenever possible." Under Egypt's rules, residents must be relocated in areas far from their current ones only if they want this, and no methods of forced eviction shall be taken. Three options should be given to residents who are being relocated: immediate relocation to a housing unit in a newly developed area in the same city; financial compensation to find alternative housing during the upgrading of their area, with the allocation of a similar unit; or financial compensation through negotiation.[84] Nevertheless, the informal working patterns of residents of informal settlements have sometimes been a source of resistance to leaving their units. Hence, Egypt has had to make decisions that avoid hindering development plans, while also taking into account the social and economic dimensions, as shown in government interventions in various settlements.

The issue of the development of informal settlements was shown to be one of the government's most important priorities at the national level through the launch of the Strategic Plan 2030 for the Development of Informal Settlements, and the opening of a number of new housing developments such as the three-phase Bashayer Al-Khair in Alexandria governorate, Asmarat in Cairo, and Al-Mahrosa 1 in Ennahda City in Al-Salam. In addition, Egypt is working on a huge urban expansion plan nationwide that involves smart cities and social housing projects, for which subsidies worth EGP 3.9 billion were allocated in the 2019/2020 budget.[85]

**Box 1.1 *Asmarat* Neighborhood Project**

As part of the State's interest in groups living in dangerous and unqualified areas, in 2016 through Cairo Governorate, in cooperation with the Informal Settlements Development Fund, the Ministry of Local Development and *Tahya Misr Fund*, the Government established the first and second phases of *Asmarat* Neighborhood, to be allocated to residents of unsafe informal settlements represented in *Doweiqa, Ezbet Khairallah and Istabl Antar.*

The first phase is located on 65 *feddan* and includes 6,258 housing units, in addition to the establishment of a basic education school, while the second phase is located on an area of 61 *feddan* and includes 4,722 housing units and a basic education school. The cost was EGP 1.582 billion for the first and second phases.

In 2020, the third phase of the project, which consisted of the construction of 7,298 housing units at a cost of EGP 1.75 billion, was opened to provide safe housing for about 31,000 citizens. The third phase of the project is located on an area of 65 *feddans*. The third phase also aims to accommodate residents of unsafe informal settlements such as *Al Hataba, Al Sahilah, Bani Hilal* and other settlements.

In its three phases, the project provides many services, including youth city, places of worship, schools, social solidarity services, health units and commercial services.

**Source: Official website of the Presidency of the Republic**

## 1.4.2 Provision of social housing

Egypt has also made efforts on social housing with a view to empowering low- and middle-income groups. In 2014, it was announced that 1 million housing units would be established to support low- and middle-income people.[86] In addition, a presidential decree (number 33 of 2014) on social housing, amended by a subsequent law (*Law No. 93 of 2018*) on social housing and mortgage finance support, allowed for the establishment of social housing projects aimed at providing adequate housing for low-income people, as well as small family plots for middle-income people. It also provided for the establishment of the Social Housing and Mortgage Finance Fund (SHMFF) to finance, manage and build housing units as part of the Social Housing Program, as well as to provide commercial and professional services to the units. The number of beneficiaries of the Social Housing Programme by 30 June 2020 had reached around 312,000, with monetary support of up to EGP 4.9 billion distributed. Moreover, mortgage financing of about EGP 30.8 billion was provided by banks and mortgage companies.[87] The total number of the people who received support from the Fund had reached around 248,000 by June 2019, of whom about 20 percent were women,[88] as per Table 1.11. During fiscal year 2019/2020, there were nearly 64,000 beneficiaries (of whom about 25 percent were women), who received estimated monetary support of EGP 907 million and mortgage financing of EGP 6.9 billion.[89]

**Table 1.11**

**Total Beneficiaries of SHMFF's Support (Cumulative - until 30 June 2019) by Gender**

| Gender | Number of beneficiaries | % |
|---|---|---|
| Male | 198,185 | 80 |
| Female | 49,844 | 20 |
| TOTAL | 248,029 | 100 |

Source: Social Housing and Real Estate Finance Support Fund (2019).

It should be noted that Egypt imposes certain rules regarding social housing programmes: social housing units must be located within an urban area and the soil must be suitable for construction work. Moreover, dangerous and unsafe areas must be avoided and priority should be given to the areas most in need of new housing, according to the strategic planning of each governorate. The expansion of infrastructure and basic services should also be feasible, basic services should be accessible, and the areas should be easily connected to public roads.[90]

## 1.4.3 Expanded coverage of water and sanitation facilities

In the past few years, Egypt has made major efforts to provide drinking water and sanitation services. In 2019, it launched the *Hayah Karima* "Decent Life" Initiative, which put the development of drinking water and the sanitation sector at the top of its priorities. The initiative mainly aimed at expanding networks and water stations and coordinating with the Ministry of Social Solidarity, NGOs and other concerned parties to connect houses to the system for those who could not afford to do so. Moreover, Egypt has adopted the National Rural Sanitation Services Program.[91]

Table 1.12 shows that, through these efforts, national drinking water coverage increased to about 98.7 percent in 2020 (100 percent in urban areas and 97.4 percent in rural areas), compared to 97 percent in 2014. Sanitation coverage increased to about 65 percent in 2020 (96 percent in urban areas and 37.5 percent in rural areas) compared to about 50 percent in 2014 (79 percent in urban areas and 12 percent in rural areas). Between 2014 and July 2020, about 1,131 drinking water and sanitation programmes were executed at an estimated cost of about EGP 124 billion. In

addition, 5,792 restoration and renewal programmes are also executed at a cost of about EGP 9 billion, with about 176,400 house connections being made at a cost of EGP 600 million, and 200 extension and reinforcement projects in all governorates being executed at a cost of EGP 455 million. In addition, water and sanitation programmes were carried out in new cities at a cost of EGP 40 billion, bringing the total amount spent on the water and sanitation sector in this period to about EGP 174 billion. Egypt is working to achieve four key themes in the drinking water sector: reducing waste, increasing water pressures, renovating and renewing networks, increasing the efficiency of services, and using different technologies to provide sanitation services to rural areas.[92]

Egypt's current policy is the safe reuse of wastewater after dual and triple treatment, rather than to dispose of it, as was the case before, is an attempt to maximize the use of water resources. In addition, the country has launched a strategic plan for the expansion of seawater desalination plants to meet drinking water needs for 2020-2050, which was prepared by the Holding Company for Water & Wastewater (HCWW), the New Urban Communities Authority (NUCA) and the General Organization for Physical Planning (GOPP). The plan is based on a set of themes related to the provision of water needs required for urban development and for meeting the coming increase in population.[93]

**Table 1.12**

**Coverage of Sanitation and Drinking Water Services (%)**

| Year | Sanitation | | | Drinking Water | | |
|---|---|---|---|---|---|---|
| | Rural | Urban | Total | Rural | Urban | Total |
| 2014 | 12 | 79 | 50 | 95 | 99 | 97 |
| 2020 | 37.5 | 96 | 65 | 97.4 | 100 | 98.7 |
| **2022 (Targeted)** | **65** | **98** | **81.5** | **98.5** | **100** | **99.25** |

Source: Ministry of Housing, Utilities and Urban Communities

## 1.5 Investing in people: Development of Egypt's education and health sectors

Egypt's 2014 Constitution affirms the state's orientation towards investing in human capital as a driver for comprehensive development in all its dimensions. It establishes the State's commitment to providing high-quality and cutting edge educational and health care services in accordance with international standards as a right of every citizen. It also specifies minimums for government spending on health, education and scientific research as percentages of Gross National Product (GNP), which must be reflected in the state budget. These commitments are laid out in 11 constitutional articles (10 articles on education and scientific research and one on health) of the total 246.

Egypt's strategic vision on investment in human capital is clearly reflected in the sustainable development strategy, Egypt Vision 2030, which was released in 2016. Under the strategy's social dimension, there are themes for "health" and "education and training," (the sixth and seventh themes). In addition, the strategy's economic dimension includes the third theme of "knowledge, innovation and scientific research." The strategy accordingly lays out the path to identifying the reforms required to improve education, scientific research and health care in Egypt.

Since 2014, Egypt has taken a number of steps to improve the performance and outputs of the education and health systems. A number of sectoral strategies have been launched and their associated policies, programmes and initiatives have been executed or are being executed in order to achieve the country's strategic objectives of investment in human capital. The government's action plan (2018/2019-2021/2022) reflects the priority of "developing the people of Egypt" as a key strategic objective, the realization of which depends on a set of programmes related to investing in people.[94]

### 1.5.1 Pre-university education reform strategies, policies and programmes (2014-2020)

The Strategic Plan for Pre-University Education 2014-2030, which was issued in 2014, is based on a set of policies, the most important of which are: 1) to provide equal education opportunities to all school-aged children and to target poor areas and provide out-of-education children with a second chance; 2) to improve quality of education by providing developed curricula in line with international standards and qualified teachers who are able to use modern teaching methods and provide learners with the ability to learn continuously; 3) to strengthen the institutional structure through decentralization to ensure good governance; and 4) to make use of international agreements and partnerships with the local community and the private sector. It is also based on a set of main programmes (related to the different stages of education, as well as the decentralization and administration programme) and a number of sub-programmes, the most important of which are the ICT, school feeding, and comprehensive curriculum reform programmes.[95]

ICT plays a critical role in educational reform programmes in Egypt due to the educational system's long-standing deficiency in technological infrastructure. Therefore, the Strategic Plan for Pre-University Education includes a sub-programme on educational technology with the aim of expanding and optimizing the ICT structure and applications to improve the performance of the education system in terms of both education outcomes and institution efficiency.[96]

In July 2018, Egypt's national Education Reform Programme was launched, introducing a new education system that was implemented starting September 2018.[97] The main pillars of this programme include reforming curricula, modernizing and developing teaching and learning methods, diversifying learning sources and moving towards research and self-learning methods, developing assessment methods, and examinations, and providing professional development to teachers.

Egypt has also strengthened schools' information infrastructure to ensure accessible information services in all rural and remote areas and to expand the use of computers at all levels within educational institutions.[98] From July 2014 to May 2020, about 9,000 school laboratories and 27,000 modern classrooms were equipped. Egypt has also provided students with millions of tablets for free and introduced internal network connections at secondary schools with information servers and high-speed Internet networks. In addition, it has made available about 11,000 interactive screens to enhance in-class learning,[99] and has provided access to such networks outside school for free through youth centres and the Ministry of Culture's cultural houses.

### Box 1.2 The Egyptian Knowledge Bank

The Egyptian Knowledge Bank (EKB) was launched in January 2016 as one of the most important and largest national knowledge programs in education and scientific research in the modern history of Egypt. In addition, it is one of the world's largest digital libraries and electronic knowledge centers, providing unlimited resources to only Egyptians in various fields of basic, applied, administrative, and humanitarian sciences, which can be accessed for free by computers, smart cell phones and tablets throughout the country. This was a part of the "Towards Building an Egyptian Society that Learns, Thinks and Innovates" Initiative launched on the 2014 Science Day in support of efforts to develop education and scientific research and promote the Egyptian knowledge society. EKB provides free access to a very wide variety of knowledge, educational and research information sources in both Arabic and English (specialised books, documentary sources, scientific periodicals, theses and other various educational materials) issued by the most famous and largest regional and international publishers, such sources are accessible for all Egyptians of different age groups, regardless of their different knowledge needs, including researchers, academics, students, children and the public readership.

**Source: The website of EKB, www.ekb.eg**

The new system serves all aspects of the educational process. On the one hand, technology can be used to reform traditional examinations and assessments, especially in secondary schools (where the cost of exam administration and security at the national level was typically around EGP 1.3 billion). The new system develops "digital question banks" via a cloud-based system. These questions aim to measure students' comprehension skills and are sent by the competent authority at the Ministry of Education and Technical Education directly to the student's tablet, which helps reduce the possible leaking of exam papers and will reduce demand for private tuition. Tablet technology also helps develop learning methods by diversifying learning sources and developing scientific research skills and self-learning. In addition, it serves the purposes of achieving social justice by providing education for all without discrimination.[100]

Emanating from Egypt's realization of the importance of technical education and the role it plays in meeting the needs of the labour market, special attention is being given to the development of the technical education system and serious steps are being taken to modernize its existing structure in terms of specializations. These efforts aim to enhance the quality of technical education, to adapt its outputs to the requirements of the labour market, to serve the priorities and needs of local industries, and to compete in regional and global markets.[101] The current development of the technical education system (in line with the technical education development strategy) is based on a number of pillars, the most important of which are: establishing an independent quality assurance body, developing curricula according to the needs of the labour market, improving teachers' skills, engaging with business owners, and changing the stereotype of technical education. Moreover, systemic developments include changing admission requirements and developing curricula for all disciplines in line with the requirements of the labour market, tailored to local needs and in accordance with approved international standards. Other developments include making available equipment and educational technology, and developing existing technical education schools through the establishment of training centres and workshops to serve the community. Furthermore, some technical education schools should be qualified to transform into "applied technology schools," which work or coordinate with

colleges of technology to grant an Egyptian certificate of international quality, focusing primarily on the priority sectors of the national economy in the fields of energy, ICT, and the Fourth Industrial Revolution.[102] Between 2018/2019 and 2019/2020, 11 applied technology schools were established in Egypt.[103]

### Box 1.3 Japanese Schools in Egypt

As a part of Egypt-Japan Education Partnership (EJEP) Initiative announced during the visit of the President of the Arab Republic of Egypt to Japan in 2016, MoE announced the establishment of Egyptian-Japanese schools pursuant to the Minister of Education and Technical Education Resolution No. 159/2017.

The Project Management Unit of the Egyptian Japanese Schools was established under the Minister of Education and Technical Education Resolution No. 13/2017 to manage the Egyptian Japanese Schools Project. The Unit was responsible for selecting schools where the Project could be executed, providing technical supervision and controlling the execution of the Project, nominating workers for this type of schools, and continuously evaluating and promoting the Project.

The Egyptian-Japanese Schools (EJSs) aim to teach moral values and positive behaviors to students, reinforce students' belonging to the homeland, develop a culture of cooperation, teamwork, the ability to solve problems and create a good learning environment. EJSs apply the Egyptian curricula in conjunction with the Japanese Tokkatsu education system at all stages of education. Tokkatsu develops children's skills and improves their behavior through dialogue, discussion, problem solving, innovation, respect and discipline.

These schools were applied as an initial experiment to 12 schools in 2015/2016 and 2016/2017 academic years. In 2017/2018, The Egyptian-Japanese schools were applied to 28 schools, provided that by the end of the project, the number of schools will be 212 all over Egypt.

Some trainers and teachers have been trained on the systems at these schools, and a group of teachers and trainers have traveled to Japan to learn how to implement the work system.

**Source: Egypt's SIS, MoETE Minister Decision No. 159/2017**

Technical education programmes attract more than half of Egyptian students enrolled in public secondary-stage education. Within the technical education sector, industrial education attracts the most students (53 percent), followed by commercial secondary education (35 percent). In the 2019/2020 academic year, 36.1 percent of the total number of students in industrial secondary education were girls, as were 14.2 percent of those in agricultural secondary education, 58.5 percent of those in commercial secondary education, and 32.2 percent of those in hotel secondary education.[104]

Developing and improving technical education provision is a key priority in Egypt, as shown by Article 20 of the Constitution. The Strategic Plan for Pre-University Education 2014-2030 includes a programme for technical secondary education which aims to expand opportunities for technical education, modernize its disciplines, develop curricula in light of the labour market requirements, make educational technology available to students, develop teachers' professional skills, and foster local and global partnerships.[105]

The real test for these strategies will be their impact on quality and competitiveness indicators in the pre-university education sector in the coming years and the extent to which the relationship between the outcomes of the educational process and the real needs of the labour market can be developed.

### 1.5.2 Strategies, policies and programmes for the development of higher education and scientific research (2014-2020)

The development of the higher education and scientific research sector has been an area of priority for Egypt in recent years, with the aim of building up the state, dealing with contemporary challenges, and achieving the Sustainable Development Goals. Egypt aims to facilitate a qualitative leap forward in the quality of higher education, scientific research and community service, which will contribute to the development of the human capital of young people in the country, fostering their ability to build a modern, knowledge-based country able to compete regionally and internationally.[106]

In 2019, the government launched the Higher Education and Scientific Research Strategy 2030, which is consistent with both the national sustainable development strategy and the Sustainable Development Goals (SDGs). The strategy sought to address the contemporary global challenges posed by the Fourth Industrial Revolution and the repercussions for industry and the global labour market.[107] It is based on developing the capacity of Egyptians and aims to improve the skills of university graduates to allow them better engagement with the labour market. It also works on achieving the SDGs and supporting innovation and creativity, with a focus on the interlocking relationships between higher education, scientific research, pre-university education, and other relevant areas such as young people and investment.[108]

In 2019, the Ministry of Higher Education and Scientific Research launched the National Strategy for Science, Technology and Innovation 2030, which aims to prepare an effective scientific and technological base that produces knowledge, is capable of innovation and addressing societal challenges, has an international standing, helps increase the competitiveness of national industry, and drives the economy to achieve sustainable development.[109]

The government's policy between 2014 and 2020 was based on expanding the number of national non-profit universities (Box 1.4). In implementation of a presidential decree to establish an Egyptian TVET Quality Assurance and Accreditation National Authority, a joint committee was formed made up of officials from the Ministry of Higher Education and Scientific Research (MOHESR), and the Ministry of Education and Technical Education to develop the necessary vision for the establishment of the proposed body. It was agreed to specialize in issuing accreditation and quality certificates for vocational educational programmes at all stages, for teachers and trainers, and for conducting work permit tests, in accordance with international standards.

With regard to the development of higher education curricula and programmes, a number of existing programmes have been updated and new programmes have been launched (in the sectors of medicine, engineering, science, media and education) that anticipate coming changes in the local and global labour market, that seek to meet the needs that technological development imposes, and that provide students with the knowledge and skills necessary for the 21st century. They also encourage interdisciplinary and dual programmes with universities abroad. This is in line with a decision of the country's Supreme Council of Universities that new higher educational institutions should have modern majors and be linked to the labour market.

The Higher Education and Scientific Research Strategy mandates the establishment of eight technology universities, of which three have already been completed (in New Cairo, Quesna and Beni Suef) and which became open to students in 2019/2020. Egypt has also taken steps to establish branches of foreign universities in the country. In this regard, *Law No. 162 of 2018* was issued on the establishment and organization of branches of foreign universities within Egypt, as were

the law's executive regulations. A number of memoranda of understanding were signed on the Canadian Universities Complex, the European Universities Complex, and the Swedish Academic Knowledge Complex. However, there are obstacles to establishing such educational and research partnerships with major universities around the world, the foremost of which are the high material and educational requirements stipulated by these universities to open branches in developing countries, including Egypt.

### Box 1.4 National non-profit universities

In belief of the role of education in promoting societies, building states and nations, and overcoming future challenges, a republican decree was issued to establish four national non-profit universities, namely, "KSIU" with three headquarters in the cities of Al-Tur, Sharm El-Sheikh, Ras Sidr, in South Sinai Governorate, and "AIU", with its headquarters in New Alamein City, Matrouh Governorate, and "GU", with its headquarters in El Galala Plateau in Suez Governorate, and "NMU", with its headquarters in New Mansoura City, in Dakahlia Governorate.

National non-profit universities aim to achieve balance between the graduate's skills and knowledge, and to link the education process and its outputs with the priorities of labour market. National non-profit universities are non-profit, and contribute to providing quality education through advanced educational programs that keep pace with time, accompanied by a developed infrastructure that allows conducting modern scientific research in priority areas for Egypt, the Arab and African region, and aims to have such national non-profit universities be distinguished based on Egyptian and international quality standards. Also, national non-profit universities seek to serve community and develop the environment in Egypt in general, and the environment surrounding the said universities in particular.

National non-profit universities contribute to achieving the goals of the strategic plan for Higher Education until 2030, by providing a high level of academic and applied education that contributes to increasing opportunities for Higher Education, with high quality in many branches of cultural, scientific and applied sciences, qualifying graduates to be able to compete in local, regional and global labour markets, participating in building a generation characterised by high skills, cultural awareness and ability to assume responsibility, in addition to preparing an appropriate structure for scientific research and technology that contributes to solving problems facing economic development plans nationally.

The boards of trustees of these universities are selected from an elite group of businessmen and intellectuals who are able to market the universities, increase their resources, and monitor administration work, while selecting university leaders, from among specialists who have the ability to lead and strive for global excellence. It was decided to allocate 100 free scholarships for the first high school diplomas and the first technical secondary certificates to enroll and study in national non-profit universities, provided that the Long Live Egypt Fund (LLEF) will bear the financing of the costs of those scholarships. EGP30 billion has been allocated to expand the establishment of these universities.

**Source: Presidency of the Council of Ministers (P.C.M.)**

The government has also taken a set of steps to achieve the goals of the National Strategy for Science, Technology and Innovation 2030, including developing the laws around scientific research. In this regard, *Law No. 23 of 2018* was issued regarding incentives for science, technology and innovation,[110] *Law No. 150 of 2019* was issued regarding the establishment of the Science, Technology and Innovation Funding Authority (previously STIFA; now STDF),[111] and *Law No. 1 of 2019* was issued regarding the establishment of an

Innovators Support Fund (ISF).[112] The Innovators Support Fund has been established in accordance with the aforementioned law. It is a public body with a distinct individual legal personality that reports to the Minister of Scientific Research. It aims to support and sponsor researchers and innovators, fund science, technology and innovation projects, and find new mechanisms for financing them by encouraging individuals and the private and civil sectors to do so.[113] In addition, *Law No. 3 of 2018* was issued regarding the establishment of the Egyptian Space Agency (EgSA), which aims to create, transfer, localize and develop space science and technology and to have the capacity to build and launch satellites, in order to serve Egypt's strategy in the areas of development and national security. [114]

The government, through the Academy of Scientific Research and Technology (ASRT), launched the National Technology Incubators Programme (Intilaq) in 2015. It is the largest umbrella for establishing and managing technology incubators in the entrepreneurship and innovation system, covering all regions of Egypt and with the ability to transform ideas and research outputs into competitive technology companies by providing technical, material and logistical support to entrepreneurs. Intilaq's first phase included the establishment of 19 technology incubators throughout Egypt and the incubation of 93 start-ups.[115]

Likewise, the Egyptian Innovation Bank (EIB) was established in 2018 as a government platform for innovation in Egypt and in the region. It aims to transform current technological challenges into investment opportunities using innovative solutions and ideas, to present the most important and marketable Egyptian patents; to introduce available funding opportunities; and to foster networking, incubation, marketing and participatory financing.[116] It also aims to encourage innovations and inventions that lead to the generation of national technology, and contribute to coordinating national efforts to develop innovative capabilities by providing a marketing outlet for innovations and supporting innovators, inventors and civil society organizations. The EIB had established 15 business incubators and participated in 40 graduation projects by the end of 2020.[117]

The number of Egyptian scientific research papers published in internationally indexed journals increased from 14,100 in 2014 to 21,961 in 2018, and Egypt's ranking in the Global Innovation Index (GII) advanced from 107th place (out of 128 countries) in 2016 to 95th in 2018 (out of 126 countries).[118]

It is still too early to assess the policies implemented by Egypt in this area, although it seems clear that Egypt has invested heavily in preparing the legislative and institutional structure necessary to bring about a renaissance in the field of higher education. The steps taken by Egypt can be characterized by two important features: the first is opening up to the outside world, and the second is focusing on creativity and innovation. To translate these efforts into tangible achievements, these policies must be promoted locally, regionally and internationally, and crystallized in the form of real investment opportunities and competitiveness.

### 1.5.3 Health development strategies, policies and programmes (2014-2020)

Egypt has developed a National Population Strategy and its five-year operational plan for 2015 to 2020. It is based on a set of pillars related to family planning and reproductive health, including providing family planning services with health insurance and at all government hospitals and treatment institutions, and providing an adequate balance of family planning methods, as well as working on integrating population issues into the national education programmes and awareness campaign.[119] Between 2014 and 2020, Egypt adopted a set of policies and launched a number of health programmes and initiatives aimed at achieving the strategic objectives of the health sector, which are related to the

advancement of the public health of Egyptians within a framework of justice and equity, achieving universal health coverage, and improving health sector governance.

### Programmes and initiatives for treatment and control of disease

Disease treatment and control programmes have focused on diseases that have the greatest impact on Egyptians, in order to reduce their prevalence and mortality rates. They include non-communicable chronic diseases such as heart disease, diabetes, kidney disease, cancer and respiratory diseases, and infectious diseases such as viral hepatitis, schistosomiasis and tuberculosis.[120] These initiatives come under the framework of Egypt's efforts to target individuals with chronic and infectious diseases in the short term, while the health insurance system is being enhanced by the issuance of the new *Comprehensive Health Insurance Law*, which will be detailed further in Chapter 3 of this report.

- **Towards hepatitis C elimination: The Egyptian experience**

Egypt was previously considered one of the countries in the world with the highest rates of hepatitis C. A random sample survey conducted in 2008 showed that the prevalence of the disease in Egypt was estimated at 9.8 percent of the total population. A second survey from 2015 showed a decrease in the rate to about 4.4 percent.[121]

The Egyptian experience in dealing with hepatitis C is one of the leading models worldwide: a national campaign to eradicate the virus was launched in 2014, new drugs were imported at reduced prices, and a new treatment system was implemented based on online applications. In 2015, a real breakthrough occurred in the control and treatment of the disease through the development of a new treatment system based on the production of similar medicines manufactured in Egypt at lowcost.[122]

The cost of treating a single patient decreased from about $900 in 2014 to less than $200 in 2016,[123] and this contributed to achieving financial savings in the cost of treatment estimated at EGP 8 billion.

The use of modern medicines has also allowed a breakthrough by shortening the treatment period from a year to 3 months and bringing recovery rates from about 50 percent to more than 98 percent.[124]

The Ministry of Health and Population's (MOHP) plan to eradicate and combat the disease relied on three pillars: eliminating patient waiting lists by providing them with treatment, whether at public expense or through health insurance, and increasing the number of public treatment units and centres nationwide from 35 in 2014 to about 164 units and centres in 2019, and the number of centres treating hepatitis C under the health insurance system increased from 15 to 84 centre. The second axis was represented in the National Plan for Comprehensive Medical Survey, which included a survey of all patients in government hospitals, all government sector workers, new university students and frequent visitors to central laboratories and blood banks, and others, in addition to a field survey at the level of governorates. The third axis was controlling infection and reducing infection rates to limit the spread of the disease.[125] The total number of hepatitis C patients treated during 2014 to 2018 reached about 1.5 million.[126]

- **The 100 Million Healthy Lives Initiative for Early Detection of Hepatitis C and Non-Communicable Diseases**

In 2018, Egypt launched a national initiative called "100 Million Health Lives for Early Detection of Hepatitis C and Non-Communicable Diseases." It took place in all governorates and cost an estimated EGP 7 billion. It aimed to provide early detection of these diseases for more than 50 million Egyptians above 18 years of age, and to provide the necessary

treatment free of charge, with the aim of completely eliminating hepatitis C by 2020 and reducing deaths caused by non-communicable diseases, which make up a high proportion of total deaths in Egypt.[127] Between October 2018 and April 2019, this campaign resulted in the examination of about 47 million Egyptians nationwide, of whom about 628,000 received treatment. The campaign also provided its services to non-Egyptians, with about 24,000 foreign citizens receiving treatment under the scheme.[128]

- **The 100 Million Healthy Lives Initiative For Supporting Egyptian Women's Health**

This initiative was launched in 2019 and aimed to screen 30 million Egyptian women aged over 18 for breast cancer and other non-communicable diseases (diabetes, hypertension, obesity, heart disease, and osteoporosis), and to provide family planning services. The initiative was implemented in three phases: the first phase, which began on 1 July 2019, included nine governorates; the second phase started on 1 September 2019 and included 11 governorates; the third phase began on 1 November 2019, and included seven governorates.[129] As of 2021, about 13 million women had benefited from this initiative.[130]

- **The 100 Million Healthy Lives Initiative for Early Detection of Obesity, Stunting and Anaemia Among School Children**

This initiative was launched in 2019 and aims to screen about 11.5 million students in more than 22,000 schools with the aim of early detection of obesity, stunting and anaemia. It was implemented in three phases. The first phase, from 16 February to 11 March, included 11 governorates. The second phase, from 6 March, included 11 governorates. The third phase, from 21 March, included five governorates.[131] About 10.7 million students had been assessed as part of the initiative by the end of 2020.[132]

- **Presidential Initiative to Put an End to Patient Waiting Lists**

This initiative aims to put an end to waiting lists for critical interventions and operations, and was implemented in two phases, at a total cost of EGP 1.4 billion. The first phase was from 6 July to 31 December 2018, while the second phase began on 1 January 2019 and will last for three years.[133]

In addition to the above initiatives, the government launched a number of other initiatives covering early detection of kidney disease, early detection of hearing impairments in newborns, and detection of diseases in pregnant mothers that could be transmitted to the foetus.[134] The planned appropriations in fiscal year 2020/2021 for the kidney disease initiative and for the detection of hearing impairments in newborns amounted to about EGP 9.6 million and EGP 32 million respectively.[135]

In addition, Egypt has recently paid special attention to the issue of combating and treating addiction and drug abuse, as shown in the qualitative and quantitative leap forward in the activities of the Fund for Drug Control and Treatment of Addiction (FDCTA) in a number of areas, including awareness and preventive programmes, availability and promotion of treatment and rehabilitation services, early detection, and research. These efforts have resulted in a reduction in the proportion of number cases of drug use among the workers test in the private sector and in the public sector, among school bus drivers, and as among motorists on highways, between 2015 and 2020.[136]

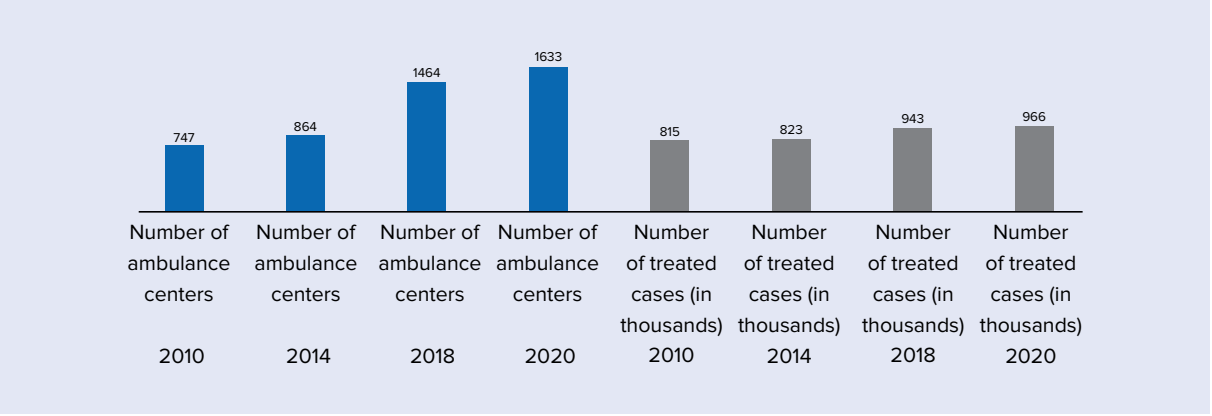
### Expanding the availability and equipment of hospitals and fast ambulance dispatch centres and initiating health system automation

Between 2015 and 2018, 67 hospitals and 44 specialized centres for obstetrics, gynaecology and paediatrics were established and developed in all Ministry of Health and Population sectors and bodies, at a total cost of about EGP 9.2 billion. In the same period,

the number of intensive care beds increased from 1,968 to 5,144, and the number of neonatal intensive care units increased from 2,269 to 5,046. Eight new emergency centres were also established.[137] Also, 122 treatment hospitals, 17 psychiatric hospitals, 35 centres affiliated with the Secretariat of Specialized Medical Centers, eight one-day surgery clinics and five fever hospitals were developed during the period from 2014 to 2020.[138] In the fiscal year 2020/2021, EGP 4.8 billion was allocated for hospitals in the first phase of the *Comprehensive Health Insurance Law*, about EGP 800 million for the development of critical and urgent care departments in hospitals, and about EGP 222 million for model hospitals.[139]

With regard to ambulance services, the data show a doubling in the number of fast ambulance dispatch centres (all of which are government-run) nationwide between 2010 and 2020, and an increase in the number of cases treated by these centres during the same years, as shown in Figure 1.15. Between 2014 and 2017, about 1,315 ambulances were equipped with satellite tracking devices. In addition, the number of equipped ambulances increased from 2,058 in 2014 to 3,007 in 2020. The total number of ambulance staff in 2018 reached nearly 17,000, including doctors, staff, paramedics and drivers.[140]

**Figure 1.15 The number of ambulance centers and number of treated cases during the period (2010-2020)**




**Source: Central Agency for Public Mobilization and Statistics (www.capmas.gov.eg), and Public Authority for Ambulance (2021), unpublished data.**

Egypt has also focused on improving the management of the health sector by providing accurate and updated health data to support the decision-making system. It has aimed to build a unified and integrated database linking all health facilities, in order to facilitate circulation of information and automation of health services.[141] In this regard, a health map of Egypt was developed, the dispensing system for baby formula was automated, and about 4,571 health offices were connected all over Egypt. The bodies providing treatment services at the state's expense were automated and linked electronically to the specialized medical centres, and around 165 hospitals were automated through the ADT application, as were 202 blood banks and critical care departments at 77 hospitals, using tablets as a first stage.[142] The birth and death data systems were also automated; a database was created for this purpose and made available to the various relevant authorities.

## Regulation and development of pharmaceutical industry

A new law *(Law No. 151 of 2019)* was issued to establish the Egyptian Authority for Unified Procurement, Medical Supply and Technol-

ogy Management (AUPP), and the Egyptian Drug Authority (EDA).[143] The AUPP is an economic public authority with a distinct legal personality which reports to the Prime Minister. Its competencies include activating plans and policies for medicines and medical technology, following up on their implementation in accordance with the applicable laws and local and international health systems, setting specifications and guiding standards for the requesting authorities in preparing their needs for medical preparations and supplies subject to the provisions of this law, and coordinating with pharmaceutical companies and medical suppliers in order to enhance the strategic medical stocks of the state. The AUPP can enter into contracts with all private medical companies, agencies and institutions inside and outside Egypt to purchase medical preparations and supplies, for the benefit of the requesting parties. It establishes a system for evaluating medical technology in accordance with the latest global systems, to benefit from modern technology of effective value, in coordination with the requesting parties. The AUPP is also responsible for developing programmes and systems for electronic registration of local or foreign companies working in the field of medical preparations, for establishing an integrated database for medical technology in centres, hospitals, warehouses and all public health facilities to follow up on needs, use, maintenance and training, managing the storage, transportation and distribution system for medical preparations and supplies, and managing the unified maintenance system for medical devices to improve after-salesservices.[144]

In accordance with the provisions of the same law, the Egyptian Drug Authority was established as a public service authority with a legal personality which reports to the Prime Minister and replaces the National Organization for Drug Control and Research (NODCAR), the National Organization for Research and Control of Biologicals (NORCB), and other administrative bodies and entities with competence in the field of control of medical preparations and supplies. The EDA replaces the Ministry of Health and Population in the competencies stipulated in *Law No. 127 of 1955* regarding pharmacists and related to the registration, circulation and control of preparations and supplies. The EDA is responsible for the registration, circulation and control of the preparations defined in Article 1 of this law. The EDA's competencies include putting in place policies, rules and regulations for everything related to regulating, implementing and controlling the production and circulation of medical preparations, supplies and raw materials in Egypt; developing and ensuring the quality, efficacy and safety of these preparations; setting up accurate and up-to-date databases; drug awareness and education for the community; and cooperation and coordination with national and international organizations concerned with cosmetics and public health.[145]

On the other hand, the Egyptian city of medicine was opened in April 2021, located on an area of 180,000 square meters, with the aim of manufacturing pharmaceutical raw materials in Egypt becoming a leading city on this front in the Middle East. In addition, the Egyptian state is making efforts towards developing Covid-19 vaccines as part of a strategy to strengthen pharmaceutical manufacturing in Egypt.

In general, health programmes and initiatives have helped to increase the performance rates of the components of the health system in Egypt, including hospitals and health centres, as they have been provided with more medical staff and supplies to achieve the goals of these programmes and initiatives, which are usually implemented by political leadership at the level of the Cabinet and the President. These initiatives have led to coping with a number of modest indicators of the quality and outputs of health services in Egypt. At the same time, the reorganization of the pharmaceutical industry, starting from 2019, and especially in light of COVID-19 and the need for a developed local industry, is a step on the right path, although more time is needed to assess and evaluate the results of the creation of the AUPP and the EDA and the issuance of *Law No. 151 of 2019*.

## 1.6 Government spending on education, health and housing in Egypt

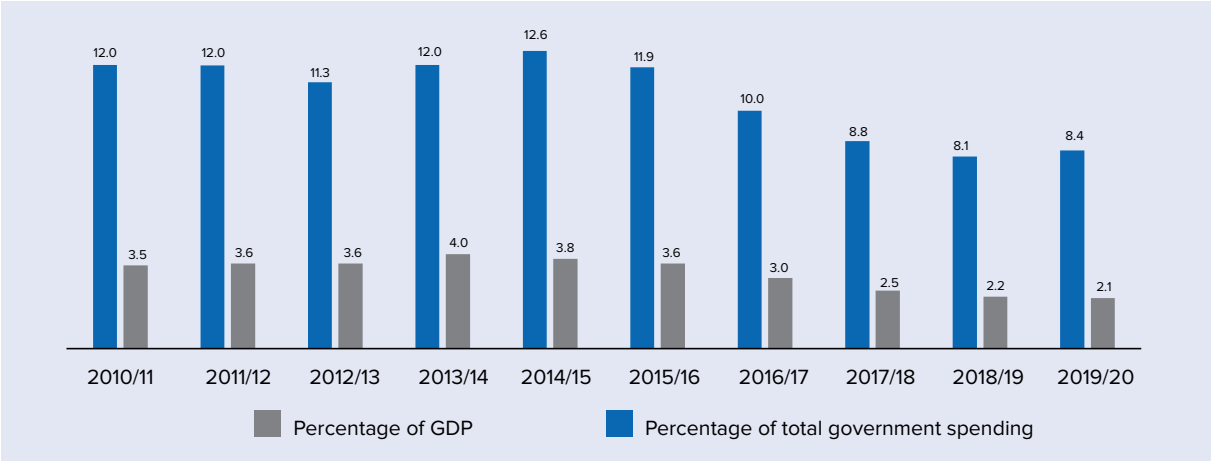
This part analyses the financial aspects related to the development of spending on the education, health and housing sectors in Egypt from 2010/2011 to 2019/2020.

### 1.6.1 Government spending on education

Government (functional) spending on education (pre-university and higher education) in Egypt amounted to about EGP 132 billion in the approved budget for fiscal year 2019/2020, while government spending on education constituted 10.7 percent of overall government spending, and about 3.2 percent of GDP on average during 2010/2011 to 2019/2020. During this period, government spending on education increased from EGP 92 billion in 2014/2015 to EGP 109 billion in 2017/2018 and EGP 132 billion in 2019/2020.

Despite the increase in government (functional) spending on education in Egypt, as an absolute value and at current prices, from about EGP 48 billion in 2010/2011 to EGP 132 billion in 2019/2020, there was a decline in education spending as a percentage of overall government spending in this period, from 12 percent to 8.4 percent, and as a percentage of GDP, from 3.5 percent to 2.1 percent, which is illustrated by Figure 1.16.

**Figure 1.16 Government (functional) spending on education in Egypt as a share of total government spending and GDP (%)**




**Source: The figure is based on the state's general budget final accounts for the period (2010/11-2017/18) and the approved budget estimates for the fiscal years (2018/19 and 2019/20), published in the documents of the analytical statement and the financial statement of the budget (different years) on the website of the Ministry of Finance (www.mof.gov.eg)**

The rates of government (functional) spending on education in Egypt are lower than global standards (an average of 14.3 percent of overall government spending and 4.5 percent of GDP), the average of middle-income countries, and in a number of countries with similar economic conditions to Egypt, including Indonesia and South Africa, as shown in Table 1.13. Both of these countries are also among the 10 countries that directly precede Egypt in the Human Development Index according to the 2020 HDR.

| Table 1.13<br>Government spending on education in selected middle-income countries | | | |
|---|---|---|---|
| Country | as a percentage of GDP | as a percentage of overall government spending | Year |
| Tunisia | 6.6 | 22.6 | 2015 |
| Malaysia | 4.2 | 17.9 | 2019 |
| Jordan | 3.1 | 10 | 2019 |
| South Africa | 6.5 | 19.5 | 2019 |
| Mauritania | 1.9 | 9.5 | 2019 |
| Lebanon | 2.4 | 8.6 | 2013 |
| Thailand | 4.1 | 19.1 | 2013 |
| Indonesia | 3.6 | 20.5 | 2015 |
| Middle-income countries | 4.4 | 15.7 | 2017 |
| Upper-middle-income countries | 4.1 | 13.5 | 2017 |
| Lower-middle income countries | 4 | 16.2 | 2018 |
| Global | 4.5 | 14.3 | 2017 |

Source: The table is based on World Bank database available on: https://data.worldbank.org/indicator

According to the 2014 Egyptian constitution, the State commits to allocating at least 4 percent, 2 percent and 1 percent of the gross national product on pre-university education, higher education, and scientific research, respectively. This constitutional mandate includes the amounts spent by "general government" entities according to the international definition contained in the "Government Finance Statistics 2001" manual issued by the International Monetary Fund. "General government" includes expenditures by ministries and departments affiliated with them, and public bodies whether they are service or economic, or any other governmental scientific and research centers, or allocated amounts within the general reserves, in addition to the spending of public sector companies and the public business sector, given that all of this is included in the concept of general government spending. According to this expanded definition of general government spending, Egypt has met its constitutional obligation to spend on the three previously mentioned sectors, as shown in Table 1.14.

| Table 1.14<br>General government spending on pre-university education, higher education and scientific research, in EGP million and as a % of GDP, during the period 2017/2018 – 2019/2020 | | | |
|---|---|---|---|
| Expenditure Allocations (EGP million) | Fiscal Year | | |
| | 2017/2018 | 2018/2019 | 2019/2020 |
| **Pre-university Education Sector** | | | |
| Budget allocations to the functional sector | 80,988 | 88,774 | 99,040 |
| Budget allocations to relevant items other than the functional sector (*) | 58,970 | 85,006 | 111,865 |
| Total budget allocations to "pre-university education" sector | 139,958 | 173,780 | 210,905 |
| % of GDP (**) | 4.1 | 4.2 | 4 |
| **Higher Education Sector** | | | |
| Budget allocations to the functional sector | 26,088 | 26,894 | 32,647 |
| Budget allocations to relevant items other than the functional sector (*) | 42,163 | 55,252 | 72,694 |
| Total budget allocations to "higher education" sector | 68,251 | 82,146 | 105,341 |
| % of GDP (**) | 2 | 2 | 2 |
| **Scientific Research Sector** | | | |
| Budget allocations to the functional sector | 6,190 | 6,577 | 8,432 |
| Budget allocations to relevant items other than the functional sector (*) | 30,904 | 39,127 | 44,516 |
| Total budget allocations to "scientific research" sector | 37,094 | 45,704 | 52,948 |
| % of GDP (**) | 1.1 | 1.1 | 1 |

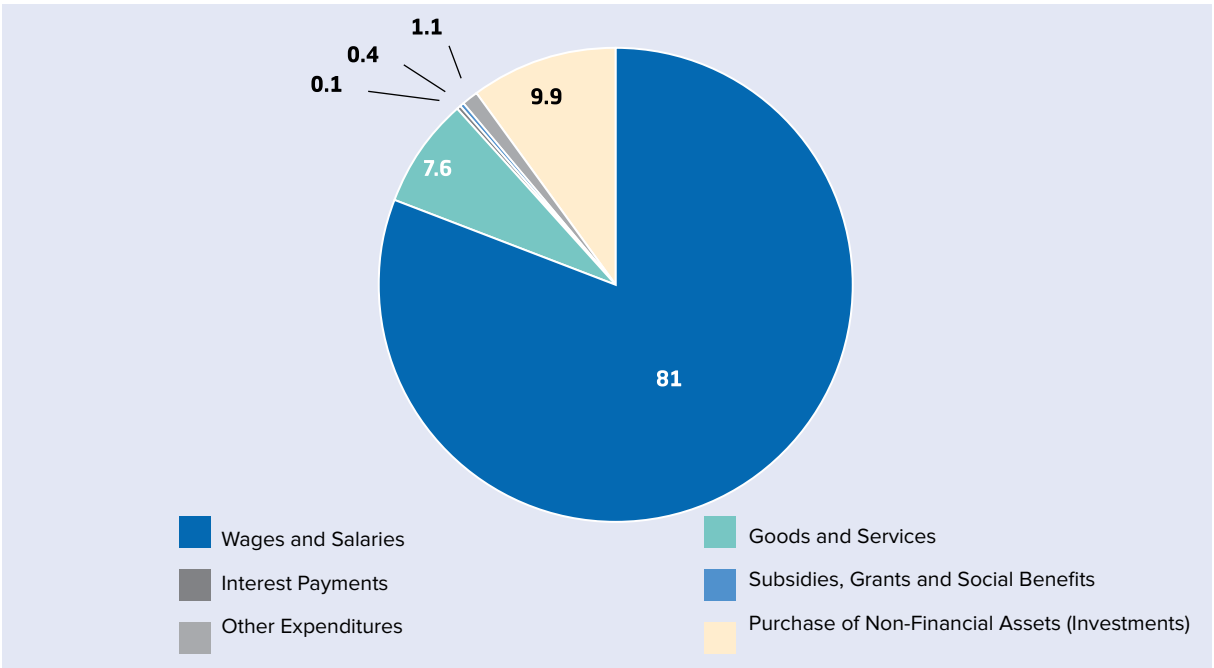
**Source: MoF (unpublished data).**
**(*) Including the functional sector's share in total interest payments on public debt.**
**(**) GDP of the preceding year is used to calculate this ratio for each fiscal year.**

By looking at the distribution of government expenditure on education according to the budget chapters, it is clear that current expenditures represent around 90 percent of expenditure during the period 2010/2011 – 2019/2020, compared to around 10 percent of investment expenditure, on average (Figure 1.17).

Spending on wages and salaries is the largest component of current spending and the total budget of the education sector in general, which is mainly due to the large size of the human resources in the public education system in general and the pre-university public education system in particular. However, the data indicate a trend in favour of investment spending, the proportion of which increased from about 6.2 percent in 2013/2014 to 16.4 percent in 2019/2020, at the expense of the decline in the relative proportion of current spending, especially wages. This trend is confirmed by the fact that the reforms proposed by the government for the education system since 2014 have focused mainly on restructuring the education sector budget and improving spending efficiency, rather than expanding the size of budget allocations directed to the sector.

Ministry of Planning and Economic Development data shows that total investments (public and private) implemented in the educational services sector amounted to around EGP 14.5 billion during the period (2010/2011-2018/2019) on average, which represents about 3.4% of the total investments across sectors. The structure of investments implemented in the educational services sector shows that the contribution of the public sector amounted to about 64,% compared to about 36% for the private sector on average.

**Figure 1.17 Structure of government spending on education according to budget chapters: Average shares during the period (2010/2011 - 2019/2020 ). (%)**



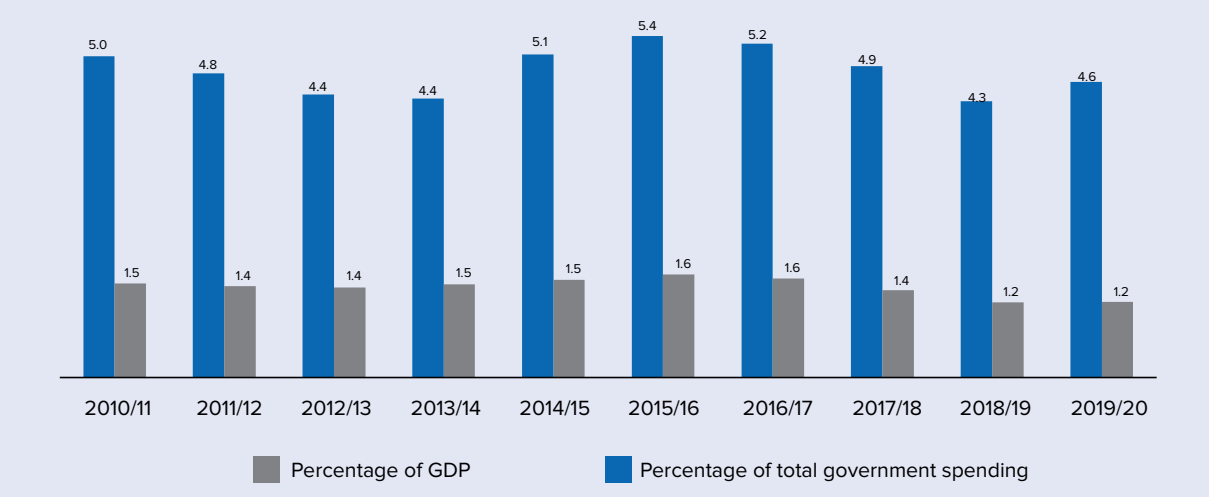

Source: The figure is based on the final accounts of Egypt's State Budget of fiscal years from 2012/2013 to 2017/2018 and the approved budget figures of fiscal years 2010/2011, 2011/2012, 2018/2019, and 2019/2020, available on MoF website (www.mof.gov.eg).

## 1.6.2 Government spending on health

Government (functional) spending on health in Egypt amounted to about EGP 73 billon in the approved budget for the fiscal year 2019/2020, up from nearly EGP 20 billion in the final account of the state's general budget for 2010/2011. During the period between these two fiscal years, government spending on health averaged about 4.8 percent of overall government spending and 1.4 percent of GDP. Government expenditure on health, according to the data from the final accounts of the budget, increased during 2014/2015 to 2017/2018 compared to the rates prevailing during 2010/2011 to 2013/2014. During the first period, government spending on health accounted for 5.1 percent of overall government spending and 1.5 percent of GDP, while

in the second period, rates reached 4.7 percent and 1.4 percent respectively (Figure 1.18). In the draft budget for 2020/2021, the share of government spending on health as a percentage of overall government spending increased to 5.5 percent and as a percentage of GDP to 1.4 percent.[146]

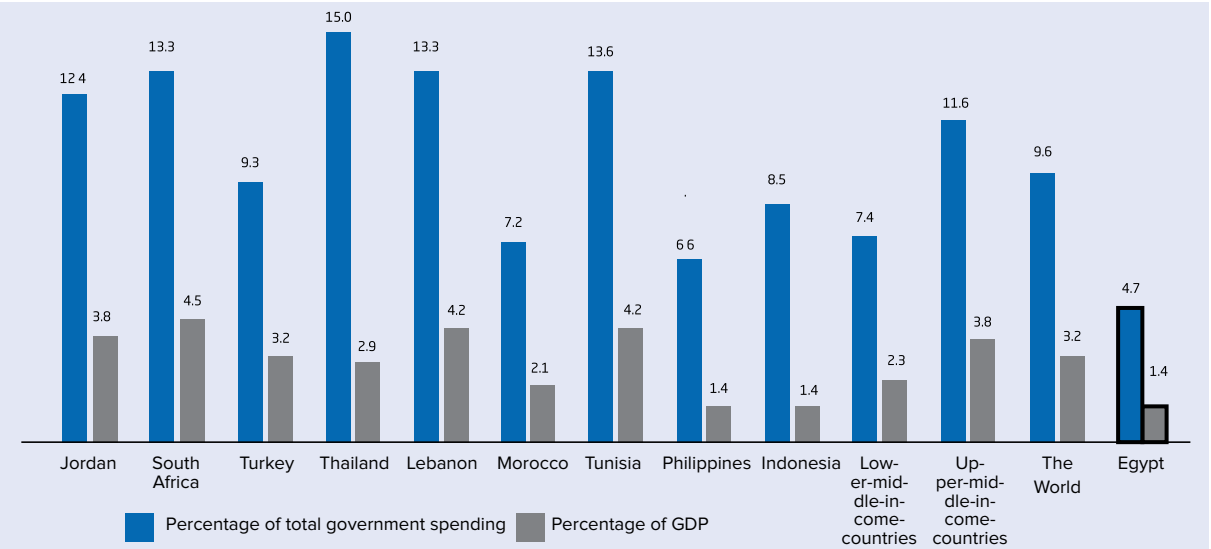
**Figure 1.18 Government (functional) spending on health in Egypt as a share of total government spending and GDP (%)**




Source: The figure is based on the final accounts of the state's general budget for the period (2010/11-2017/18) and the approved budget estimates for the fiscal years (2018/19 and 2019/20), published in the documents of the analytical statement and the financial statement of the budget (different years) on the website of the Ministry of Finance (www.mof.gov.eg)

Government (functional) spending on health in Egypt is lower than the global average, the average prevailing in middle-income countries, and that of some middle-income countries that can be compared with Egypt. However, according to 2018 statistics, the share of government spending on health to GDP in Egypt was in par with that of the Philippines and Indonesia, which are among the ten countries that directly precede Egypt in the ranking of the HDI according to the 2020 HDR, as indicated in Figure 1.19.

**Figure 1.19 Government (functional) spending on health as a share of GDP and total government spending in Egypt compared to selected middle-income countries , 2018 (%)**




Source: Figure is based on data from the Global Health Observatory (GHO).

According to the 2014 Constitution, the State commits to allocating at least 3 percent of its gross national product to spending on health. The expanded definition of general government spending includes the amounts spent by general government agencies from ministries and departments affiliated to them, public bodies whether they are service or economic, any amounts allocated within the public reserves, and public sector and business sector expenditure. Moreover, expenditure on health services includes spending on provision of drinking water and sanitation services as essential elements in achieving good health and avoiding health risks for citizens, all in line with international standards of the World Health Organization and the United Nations Office for Human Rights. Considering this definition of government (functional) spending on health, Egypt has met its constitutional commitment to spending on the health sector, as shown in Table 1.15.

**Table 1.15**

**General government expenditure on health in EGP million and its share to GDP during the period 2017/2018 – 2019/2020**

| Expenditure Allocations (EGP million) | Fiscal Year | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019/2020 |
| Budget allocations to the functional sector | 54,922 | 61,809 | 72,812 |
| Budget allocations to relevant items other than the functional sector (*) | 52,371 | 79,200 | 102,449 |
| Total budget allocations to "health" sector | 107,293 | 141,009 | 175,261 |
| % of GDP (**) | 3.1 | 3.4 | 3.3 |

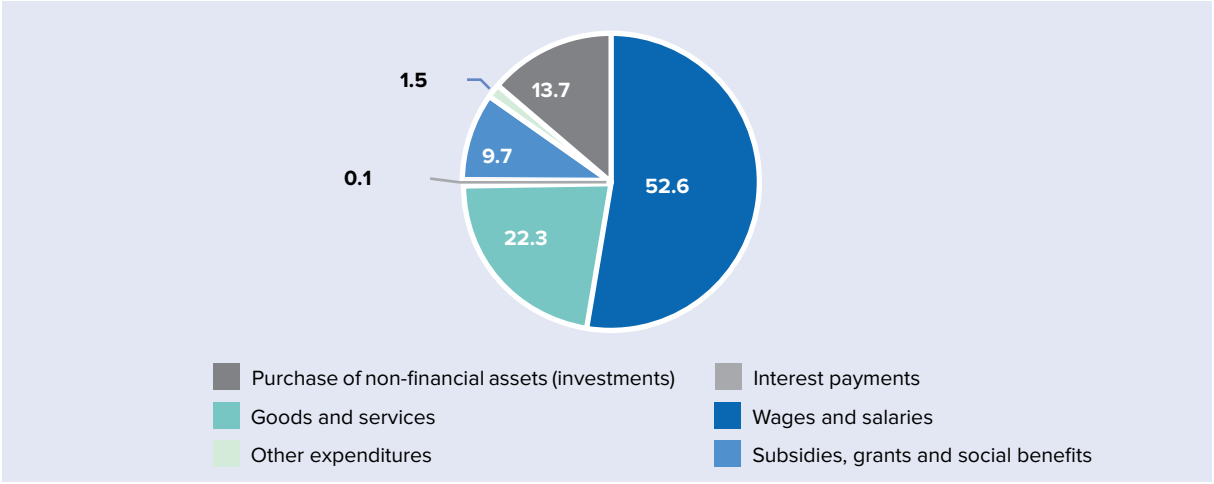
**Source: MoF (unpublished data).**
**(*) Including the functional sector's share in total interest payments on public debt.**
**(**) GDP of the preceding year is used to calculate this ratio for each fiscal year.**

With regard to the distribution of government spending on health according to the budget chapters, Figure 1.20 shows that about half of the health sector budget is directed to spending on chapter one of the budget, "Wages and salaries," on average. Chapter two, "Goods and Services" represents nearly a quarter of the health sector budget (about 22.3 percent on average), and the "Goods" group constitutes the vast majority of spending on this chapter, specifically the "Raw Materials" item, which includes spending on medicines, raw materials, and serums necessary to provide health services. Chapter six, "Investments," represents an average of 13.7 percent of the health sector's budget. Chapter four, "Subsidies, Grants, and Social Benefits" accounts for 9.7 percent of the total health sector budget on average, and the "Social Benefits" group constitutes the vast majority of spending on this chapter, especially the "Service Expenses for Non-Employees" item, which includes the costs of treating citizens at the state's expense, and other expenditures for health services for non-employees. The data show an increase in the cost of treating citizens at the state's expense inside and outside Egypt between 2010 and 2018, from about EGP 2 billion to nearly EGP 8.4 billion (Figure 1.21).

Analysis of the development of actual spending on the health sector during the period between 2014/2015 and 2017/2018 indicates a decline in the share of the Wages chapter (from 60.8 percent to 50.5 percent) in favour of both the Goods and Services chapter and the Investments chapter, as the share of each increased from 20.2 percent to 25.1 percent, and from 10.6 percent to 12.4 percent respectively. This was a result of the government's efforts to develop the infrastructure of the health sector and to implement a set of initiatives and programmes aimed at expanding the availability of health services, as outlined in this chapter.

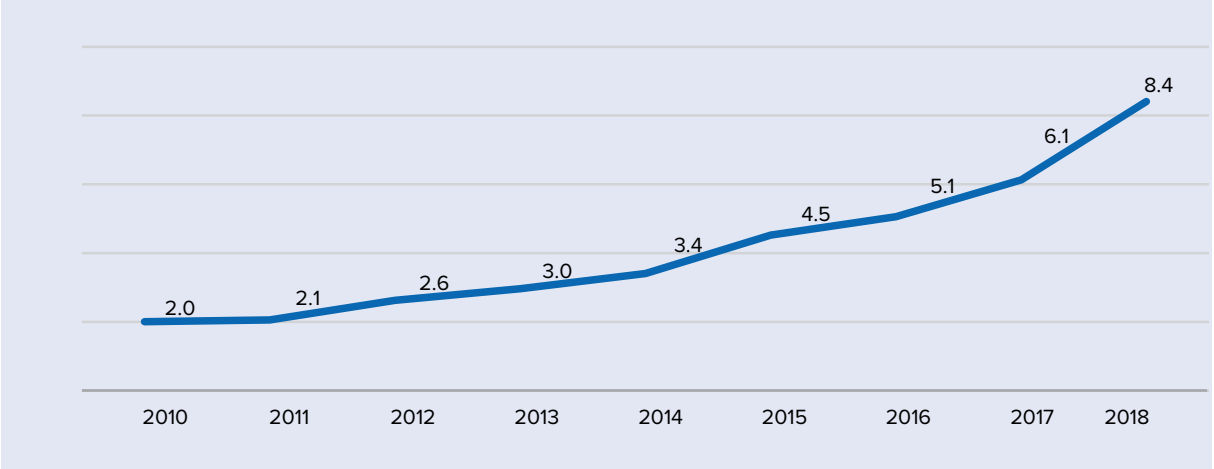
The private sector bears the largest burden

**Figure 1.20 The structure of government spending on the health sector according to the budget chapters : Average shares during the period (2010/2011-2019/2020) (%)**




Source: The figure is based on the data of the final accounts of the State's general budget for the fiscal years 2012/2013 to 2017/2018 and the approved budget estimates for the fiscal years 2010/2011, 2011/2012, 2018/2019, and 2019/2020, which are published on the Ministry of Finance website (www.mof. gov.eg).

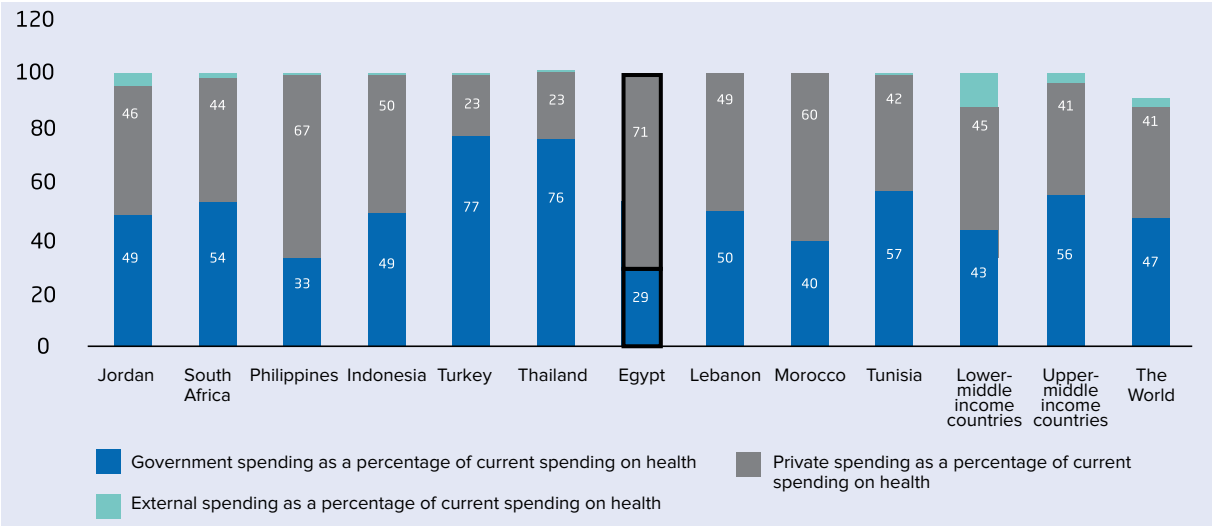
**Figure 1.21 Cost of treating citizens (within the State and abroad) at the expense of the State (EGP billion)**




Source: The figure is based on the Central Agency for Public Mobilization and Statistics, (2019-a), "Annual Bulletin of Health Services Statistics for the Year 2018".

of financing current spending on health in Egypt; data from the World Health Organization (WHO) shows that private spending represents about 71 percent of the total current spending on health in Egypt, according to estimates in 2018, compared to 29 percent which comes from government funds. The share of the private sector in financing current spending on health in Egypt is clearly higher than the world average, which is about 41 percent, and is also higher than that of a number of middle-income countries that can be compared to Egypt, including South Africa, Indonesia and the Philippines, which are among the 10 countries that directly precede Egypt in the Human Development Index according to the 2020 HDR, as shown in Figure 1.22.

**Figure 1.22 The financing structure of current spending on health in Egypt and selected middle-income countries, 2018 (%)**

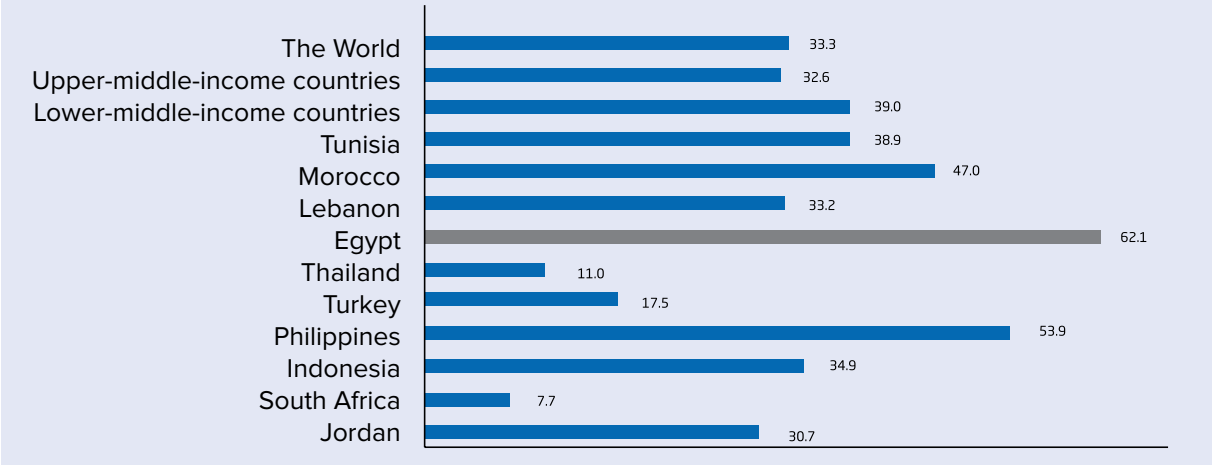



Source: Figure is based on data from the Global Health Observatory (GHO) and database of the World Bank

Out of pocket payments borne by individuals and families represent the largest proportion of private spending on health in most countries in general, but Egypt is one of the highest countries in terms of the contribution of direct payments by individuals in the total current spending on health, amounting to nearly 62 percent in 2018. This percentage is close to twice the global average and more than the rates prevailing in a number of middle-income countries, including South Africa, the Philippines and Indonesia, which are among the 10 countries that directly precede Egypt in the Human Development Index according to the 2020 HDR, as shown in Figure 1.23.

According to data from the Central Agency for Public Mobilization and Statistics' (CAMPAS) household income, expenditure and consumption survey of 2017/2018, spending on health at the household level is in third place after spending on food and housing, and makes up 9.9 percent of total household expenditure. More than half of this health expenditure is directed to medicines, medical products and devices,[147] meaning that the poorest Egyptian families may find it difficult to obtain adequate health services, and the spending of those families on health services will deepen the cycle of poverty and further lower their standard of living.

**Figure 1.23 Share of out of pocket payments borne by individuals out of the total current spending on health in Egypt and selected middle-income countries, 2018 (%)**



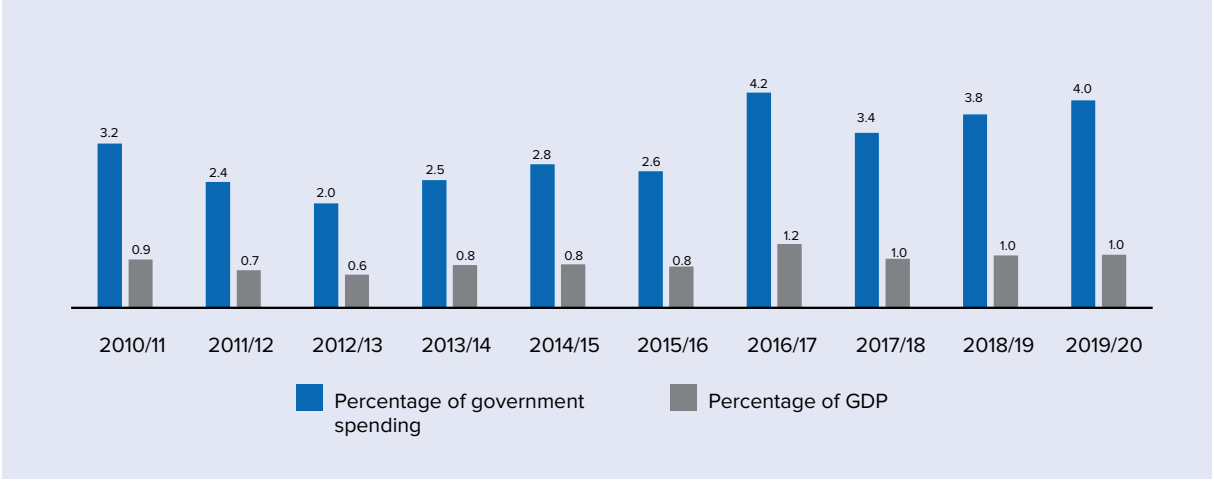

Source: Figure is based on data from the Global Health Observatory (GHO)

Data of the Ministry of Planning and Economic Development indicates that the total investments (public and private) implemented in the health sector amounted to about 9.7 billion pounds on average during the period (2010/2011 and 2018/2019), representing about 2.3 percent of the total investments implemented across sectors. As for the structure of those investments, public investments accounted for about 53 percent on average, compared to about 47 percent for private investments.

### 1.6.3 Government spending on housing and public utilities

According to the approved budget data for the fiscal year 2019/2020, government (functional) spending on housing and public utilities is about EGP 63.4 billion, which constitutes about 4 percent of overall government spending and 1 percent of GDP. The final accounts data on government spending on the housing sector between the periods 2010/2011 to 2013/2014 and 2014/2015 to 2017/2018, shown in Figure 1.24, shows an increase in spending from 2.5 percent to 3.5 percent of overall government spending on average, and from 0.8 percent to 1 percent of GDP on average, which indicates the attention paid to this sector since 2014.

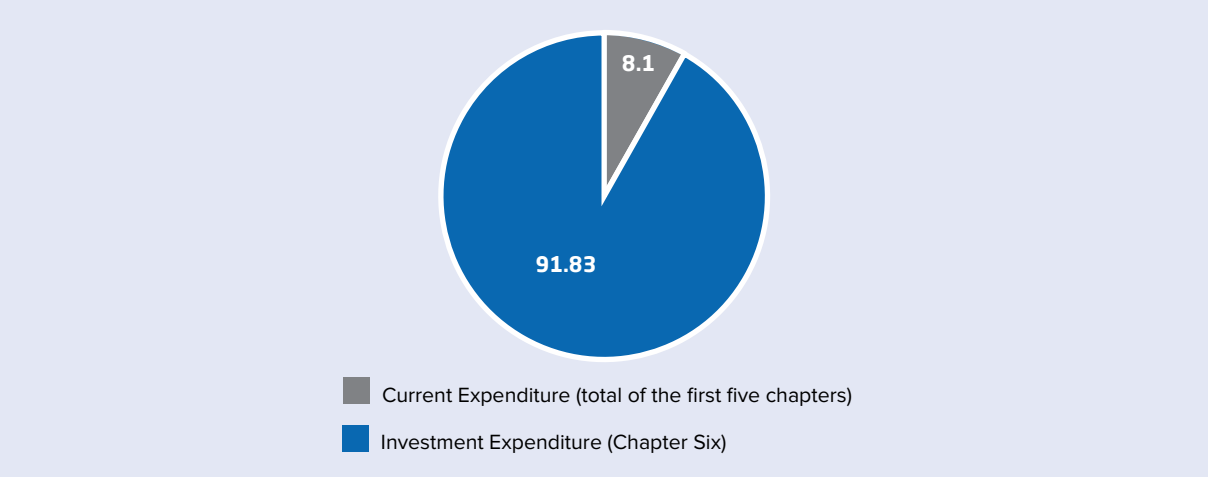
**Figure 1.24 Government (functional) spending on housing and public utilities in Egypt as a share of total government spending and GDP (%)**




**Source: The figure is based on the data of the final accounts of the state's general budget for the fiscal years 2012/2013 to 2017/2018 and the approved budget estimates for the fiscal years 2010/2011, 2011/2012, 2018/2019, and 2019/2020, which are published on the Ministry of Finance website (www.mof. gov.eg)**

The structure of government spending on the housing sector according to economic classification indicates that chapter six of the budget (investments) accounts for the vast majority of spending on this sector, constituting about 92 percent on average between 2010/2011 and 2019/2020, compared to an average of about 8 percent for current spending (including wages) (Figure 1.25). This spending structure is generally consistent with the nature of the sector, which depends primarily on huge investments directed to the construction of housing buildings and public utilities.

**Figure 1.25 The structure of government spending on the housing and public utilities sector according to the budget chapters (%): Average shares during the period (2010/2011-2019/2020)**




**Source: The figure is based on the data of the final accounts of the state's general budget for the fiscal years 2012/2013 to 2017/2018 and the approved budget estimates for the fiscal years 2010/2011, 2011/2012, 2018/2019, and 2019/2020, which are published on the Ministry of Finance website (www.mof. gov.eg)**

On the other hand, data from the Ministry of Planning and Economic Development (MPED) show that the total investments implemented in the construction sector amounted to about EGP 14.4 billion on average during 2010/2011 to 2018/2019,[148] which represents about 2.5 percent of the total investments implemented in all sectors, on average. Public investments in this sector average about 39.1 percent, compared to about 60.9 percent for private investments. An analysis of the development of the value of the investments implemented in the construction sector reveals an increase in the proportion of these investments in the total implemented investments from about 1.4 percent during 2010/2011 to 2013/2014 to 3.4 percent during 2014/2015 to 2018/2019 on average. The proportion of public investments implemented in this sector of the total public investments implemented all over Egypt also increased from 0.9 percent to about 3.7 percent between the same two periods. This reflects Egypt's tendency since 2014 to give greater priority to this important sector, not only in the overall investment map but in the public investment map as well.

Investments in the water and sanitation sectors (which are all public investments) amounted to about EGP 14.2 billion on average during 2010/2011 to 2018/2019,[149] and these investments constituted about 8.6 percent on average of the total public investments implemented in Egypt. In contrast to the construction sector, the relative size of the annual average investments implemented in the water and sanitation sector decreased between 2010/2011-2013/2014 and 2014/2015-2018/2019, from 4.4 percent of the total implemented investments to 3.3 percent, and also of the total public investments implemented all over Egypt, from 11.3 percent to 6.5 percent.

## 1.7 The education and health sectors' responses to COVID-19 in Egypt

Egypt has directed considerable efforts and resources to invest in human capital in recent years, developing health, education and adequate housing systems with the aim of expanding the availability of services to all citizens and improving their quality, and increasing their competitiveness, as outlined above. The government's implementation of the economic reform programme in 2016 helped to enhance these efforts, one of the most important features of which was reforms to the subsidy system. The gradual abolition of subsidies for energy and petroleum products is aimed at increasing the fiscal space

available for Egypt to expand spending on the areas that are of top priority and related to the needs of citizens – especially the lower-income groups – such as health, education, and adequate housing.

With the outbreak of COVID-19 and the resulting shocks to the demand and supply sides of the health and education systems, the development of these systems is no longer an option, but rather an absolute necessity and key priority for all governments around the world.

In the health sector, the demand-side shock is represented in the sharp increase in the demand for health services as a result of the pandemic, while the supply shock is related to the ability of the health system to confront the crisis. The COVID-19 pandemic has challenged the capacities of health systems of nearly all countries worldwide. Most countries' health systems have responded by focusing on two main goals at the same time: slowing the spread of cases, and increasing preparedness to tackle the crisis as it develops. In general, the success of countries in achieving these two goals has depended on the availability of four basic components: decisive, rapid and sound management of the crisis by the state, the ability of health systems to provide services, the level of progress in the ICT sector and its role in all stages of the crisis, and the population structure in terms of age groups.[150]

In the education sector, the COVID-19 pandemic has posed a threat to the progress made by education systems worldwide through two major shocks: the closures of schools and universities in most countries around the world, and the economic stagnation caused by anti-pandemic measures. These two shocks have resulted in learning losses, an increase in dropout rates, an increase in inequality in access to educational opportunities and a decline in the demand and supply sides in the field of education due to the economic crisis. There is a resulting decrease in the ability of families to spend and invest in education on the one hand and a decrease in both government and private spending on education on the other, leading to a decline in the quality of the education provided. These effects ultimately harm the development of human capital and countries' long-term development prospects. To combat this, education systems must respond with a range of policies based on adaptation, continuity management, and improving and accelerating learning, thus limiting the damage done by the pandemic and seizing the opportunity to make education more inclusive, effective and resilient.[151]

### 1.7.1 Education sector's response to COVID-19

The performance of the education sector in Egypt during the COVID-19 pandemic reflects an acceptable and appropriate level of preparedness to deal with the crisis, especially with regard to the use of distance education mechanisms in schools and in higher education institutions. In general, the preparedness of international schools and universities in Egypt to implement distance learning was higher than that of private and public schools and universities. Within public schools, preparedness was higher for those already implementing the new education system.[152]

The Ministry of Education and Technical Education (MoETE) took a series of steps to activate distance education systems during the period when schools were closed, including preparing tablets for first and second grade secondary students to access education platforms with different connections (data SIM or home WIFI network). Distance learning activities for technical education students were made available through educational channels (Egypt's Educational Channel, available via Nilesat satellite) and the Technical Education channel on YouTube, while all visual study and educational materials for pre-final years in technical education schools were made available online on technical education sector forums. In addition, a website for communication between students at applied technology schools and teachers during the school suspension period was created. The Ministry of Education and Technical Education has also provided an electronic library (separate from the Egyptian Knowledge Bank) that students

can access using mobile phones or computers that includes all curricula for all educational levels from kindergarten to secondary school in both Arabic and English, and large amounts of digital scientific content (including videos, photos, and documentaries) to explain the lessons, in addition to providing an electronic platform for communication between students and teachers. The Ministry has issued a set of decisions and controls to determine the method of evaluating students at all educational levels, and to organize the process of preparing electronic exams for students in the first and second grades of secondary school, as well as taking the necessary precautionary measures to secure high school exam proctoring committees and to safeguard students' health.[153]

Similar measures have been taken to activate the distance education system at the university level, within the limits of the capacity of each university's technological infrastructure. In June 2020, the Cabinet approved the amendment of some provisions of the executive regulations of the *Organizing Universities Law, Law No. 49 of 1972*, regarding the approval of teaching curricula electronically in the distance education system, as well as conducting exams electronically according to the nature of study in different colleges and institutes, whenever the college or institute has the infrastructure and technological capabilities to do so.

In addition, Egypt has supported the general office of the Ministry of Higher Education and Scientific Research's plan for fiscal year 2019/2020 with funds of EGP 200 million to equip university hospitals to confront COVID-19.[154]

### 1.7.2 Health sector's response to COVID-19

Egypt has adopted a phased plan for the health sector to deal with the crisis, focusing its efforts during the first phase (before any cases appeared in Egypt) on expanding awareness campaigns on ways to prevent the virus arriving and on sound community practices, as well as conducting tests for returnees from countries abroad with COVID-19 cases. During the following stages, after the emergence of cases in Egypt, preventive health measures included suspending studies in schools and universities, suspending international air traffic, closing places for public gatherings, and imposing a partial curfew. The Ministry of Health and Population announced the allocation of around 12 hospitals equipped for isolation in a number of governorates, and the preparation of 27 university hospitals for isolation, as well as the allocation of 47 fever hospitals and 35 chest hospitals to examine and transfer suspected COVID-19 cases. University dormitories were equipped as medical areas to isolate simple cases in stages, with a total capacity of about 19,800 beds.[155] In addition, MOHP has adopted a set of initiatives to support digital health in light of COVID-19, including the launch of the Sehet Misr (Egypt's Health) mobile application in April 2020, which can be accessed by smart phones, and which includes educational guidelines and an interactive service to report suspected cases. The General Authority for Healthcare (GAH) has developed various applications and electronic platforms for reservation and diagnosis services, home delivery of medicines, remote medical consultations and health instructions.[156]

Egypt has also strengthened the investment plan of the Ministry of Health and Population's general office for fiscal year 2019/2020 with an additional appropriation of EGP 350 million to increase the capacity of hospitals to deal with COVID-19.[157] Egypt's efforts in dealing with COVID-19 include working to provide all medical and health services and capabilities necessary to deal with cases by increasing the number of hospitals dealing with cases. This includes allocating many public and central hospitals to treat COVID-19 cases and developing a number of fever and chest hospitals in different governorates to do so, as well as preparing and distributing treatments through treatment convoys and units and preparing and distributing treatments for home isolation cases and their close contacts. Central operating rooms were also established for each governorate, specializing in assessing positive

cases and distributing them within the governorate's hospitals, following up and operating the governorate's ambulance operations room, and following up on patients in home isolation and dispensing medication to them.[158] In response to the risk to the lives of medical workers, Egypt's parliament in July 2020 approved a draft law submitted by the government to amend some provisions of an existing law regulating the affairs of the medical professions that work in entities affiliated with the Ministry of Health and Population (other than those covered by special laws or regulations) issued by *Law No. 14 of 2014*, to increase allowances for medical professions, extend services to members of the medical professions, and to establish a compensation fund for medical professionals who face risks.

## 1.7.3 Egypt's preparedness to respond to COVID-19

UNDP produced a dashboard to assess the extent of different countries' preparedness to respond to COVID-19 via three basic components: human development, the health system, and connectivity. Table 1.16 shows the results for several countries.

In general, Egypt is assessed to be at a medium level of preparedness, and ranks medium-to-low on equality indicators. Of the indicators of preparedness within the health system, the numbers of doctors and beds in hospitals are at a high/average level, while the numbers of nurses and the amount of health spending are at a medium/low level. Egypt scores better on the connectivity component, with a high level of mobile phone subscriptions, and a high level, close to average, of broadband subscriptions.[159]

**Table 1.16**

**Countries' Preparedness to Respond to COVID-19***

| Country | Human development | | | Health system | | | | Connectivity | |
|---|---|---|---|---|---|---|---|---|---|
| | HDI (value, (2018 | Inequality adjusted HDI (value, (2018 | Inequality index - HDI (percentage - (2018 | Doctors per 10,000 people (2018-2010) | Nurses and midwives per 10,000 people (2018-2010) | Hospital beds per 10,000 people (2018-2010) | Health expenditure percentage) of GDP - (2016 | Mobile phone subscriptions per 100 people (2018-2017) | Fixed broadband subscriptions per 100 people (2018-2017) |
| Algeria | 0.759 | 0.604 | 20.4 | 18.3 | 22 | 19 | 6.6 | 121.9 | 7.3 |
| Tunisia | 0.739 | 0.585 | 20.8 | 12.7 | 26 | 23 | 7.0 | 127.7 | 8.8 |
| Lebanon | 0.730 | - | - | 22.7 | 26 | 29 | 8.0 | 64.5 | 0.1 |
| Jordan | 0.723 | 0.617 | 14.7 | 23.4 | 34 | 14 | 5.5 | 87.6 | 4 |
| Philippines | 0.712 | 0.582 | 18.2 | 12.8 | 2 | 10 | 4.4 | 110.1 | 3.7 |
| Moldova | 0.711 | 0.638 | 10.4 | 32 | 45 | 58 | 9.0 | 88 | 15.4 |
| Turkmeni -stan | 0.710 | 0.578 | 18.5 | 22.2 | 46 | 74 | 6.6 | 162.9 | 0.1 |
| Uzbekistan | 0.710 | - | - | 23.7 | 121 | 40 | 6.3 | 75.9 | 12.7 |
| Libya | 0.708 | - | - | 21.6 | 67 | 37 | - | 91.5 | 4.8 |
| Indonesia | 0.707 | 0.583 | 17.5 | 3.8 | 21 | 12 | 3.1 | 119.8 | 3.3 |
| Samoa | 0.707 | - | - | 3.4 | 19 | - | 5.5 | 63.6 | 0.9 |
| South Africa | 0.705 | 0.463 | 34.4 | 9.1 | 35 | - | 8.1 | 153.2 | 1.9 |
| Bolivia | 0.703 | 0.533 | 24.2 | 16.1 | 7 | 11 | 6.9 | 100.8 | 4.4 |
| Gabon | 0.702 | 0.544 | 22.5 | 3.6 | 26 | 63 | 3.1 | 138.3 | 1.4 |
| Egypt | 0.700 | 0.492 | 29.7 | 7.9 | 14 | 16 | 4.6 | 95.3 | 6.7 |
| Morocco | 0.676 | - | - | 7.3 | 11 | 11 | 5.8 | 124.2 | 4.3 |
| India | 0.647 | 0.538 | 16.9 | 7.8 | 21 | 7 | 3.7 | 86.9 | 1.3 |
| Kenya | 0.579 | 0.426 | 26.3 | 2 | 15 | 14 | 4.5 | 96.3 | 0.7 |
| Pakistan | 0.560 | 0.386 | 31.1 | 9.8 | 5 | 6 | 2.8 | 72.6 | 0.9 |
| Readiness Level | | | | Low | | Medium | | | High |

Source: UNDP (2020a). COVID-19 and Human Development. Global Preparedness and Vulnerabilities Dashboard

*The countries in this table have been selected from the 10 that precede Egypt in the Human Development Report 2020, as well as some non-oil-exporting Middle Eastern and North African countries, and other middle-income countries.

## 1.8 Future policies for the education, health and housing sectors in Egypt

The analysis above highlights a set of challenges facing the education, health and housing sectors which Egypt has been seeking to deal with and aims to focus on in the coming period, with the goal of ensuring the effectiveness of the reform measures that have been taken so far and maximizing their positive effects related to improving the productivity of human capital, to foster sustainable development in all its dimensions.

### 1.8.1 Financing policies and the widening gap between demand and supply

Financing constraints are one of the most important challenges facing the education, health and housing sectors in Egypt, as they pose a threat to the quality of services provided by these sectors. Specifically, the rates of (functional) government spending on education and health in Egypt are lower than global averages, which makes development of these services more challenging. In addition, the relatively high cost of building housing units is another major challenge facing the housing sector specifically. The problems of inadequate funding are deepened by the widening gap between the demand for education, health and housing services and the available supply of those services. This is closely related to the pressure caused by the continuous increase in the population on the one hand, and the high cost of health, education and housing services provided by the private sector for the broad sector of Egyptians and middle-income families on the other, especially in light of the limited incomes of public sector workers in general.[160]

At the same time, the contribution of the private sector in the financing, implementation and management of infrastructure projects, services and public utilities, in terms of public-private partnerships (PPPs), is relatively modest, due to the low financial returns or lack of economic feasibility, which increases the burden on the public sector.[161] Despite this, PPPs are expected to assume a growing role in the future in spending on health, education and public utilities, to relieve the pressure on the state budget in this regard. This is especially possible due to the already existing legal framework *(Law No. 67 for the year 2010* and its executive regulations), and an enabling institutional mechanism whereby PPP units have been set up in both the Ministry of Finance and the Ministry of Planning and Economic Development. These units provide technical assistance to relevant ministries with regards to PPP project proposals, and puts in place the standards needed for implementation of such projects. Previous successful experiences of PPPs in the water and sanitation sector and in the construction sector (building of new cities) in Egypt indicate potential for similar initiatives in establishing and managing schools and hospitals.

The challenges related to financing health, education and housing services, the widening gap between demand and supply, and the high out of pocket (families' contributions) to financing these services, are not limited to the Egyptian economy alone, but constitute global challenges facing a large number of countries, according to reports issued by international institutions.

For example, the 2019 Human Development Report indicates that in many developing countries, the amount of payments made by the middle classes is not commensurate with the quality of the state services they receive, which pushes individuals to move towards services provided by the private sector. This is shown by the increases in the proportion of students enrolled in private schools at the primary grade level in a number of countries from about 12 percent in 1990 to about to 19 percent in 2014.[162] This trend is consistent with the prevailing pattern in Egypt, where the proportion of students enrolled in private schools increased from 8.8 percent of the total num-

ber in pre-university education in 2010/2011 to about 10.7 percent in 2019/2020, and the share of the number of private schools in the total number of schools increased in Egypt between the same two years, from 12.4 percent to 15.2 percent. [163]

In addition, a Global Education Monitoring Report by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2018 indicates that the high cost of education is one of the main obstacles to the participation of low- and middle-income families in schools. Accordingly, estimating household spending on education is one of the necessary tools for planning educational policies and monitoring their effectiveness and fairness.[164] International experience indicates that cash transfers conditional on school attendance encourage poor families to assume their responsibilities related to providing education to their children, and may (if properly used) contribute to overcoming obstacles caused by low family income or poor parental education, as these transfers provide an incentive that helps to cover school expenses that burden poor families.[165]

On the other hand, the lack of school infrastructure (due to lack of funding) is one of the most important obstacles to learning in countries at all income levels, especially in disadvantaged areas.[166] Estimates show that low-income and lower-middle-income countries face an annual financing gap in the education sector of about $39 billion during 2015 to 2030, which in low-income countries is equivalent to 42 percent of the total cost of education needed to achieve the SDGs' key targets. Meeting this gap requires donor aid for education in low- and lower-middle-income countries be six times higher than 2012 levels.[167]

Among the proposed solutions is the imposition of a progressive tax on the revenues and profits of private companies in order to direct the resulting resources to deal with the most prominent challenges in the sector, such as providing textbooks, electricity, water and sanitation services in schools with low resources.[168]

The World Health Organization issued a report at the beginning of 2020 listing the most urgent challenges that the world would face over the next decade in the field of health. The report suggested that problems associated with poor financing of health systems worldwide are largely responsible for most of these challenges, including poor access to medicines and health products, lack of effectiveness in preventing the spread of infectious diseases, lack of effectiveness in preparing for or preventing epidemics, and a lack of investment in education and training of health workers.[169] Specifically, the report states that nearly a third of the world's population does not have access to medicines, vaccines, diagnostic tools and other essential health products, which threatens the health and lives of individuals. According to that report, medicines and other health products represent the second largest expenditure for most health systems (after human resources) and the largest component of private spending on health in low- and middle-income countries. Also, countries worldwide spend far more money on responding to disease outbreaks, natural disasters, and other health emergencies than they do on preparing for and preventing them.[170]

In addition, the chronic underinvestment in the education and training of health workers, as well as a failure to ensure decent wages, has led to a shortage of health workers worldwide, jeopardizing sustainable health and social care services and health systems. It is estimated that the world will need an additional 18 million health workers by 2023 in low- and middle-income countries, which requires new investments in education, training, upskilling and decent wages for health workers.[171] On the other hand, funding constraints hamper the ability to provide water, sanitation and hygiene services to health care facilities, which negatively affects health system performance and quality of care, and increases the risk of contracting disease.[172]

With regard to the housing sector, one of the most important challenges facing cities in both developing and developed economies alike is the ability to provide adequate housing and affordable housing service to poor and middle-income citizens. The gap between the actual cost of global housing units and affordable housing costs is estimated at $650 billion annually, or 1 percent of global GDP, and for some poorer cities that gap may exceed 10 percent of GDP.[173] Global estimates indicate that, by 2025, there will be approximately 440 million urban families globally (at least 1.6 billion individuals) living in inadequate, substandard or unsafe housing or facing financial stress due to poor housing affordability, compared to about 330 million households in 2014 estimates.[174]

It is estimated that replacing housing units below the current standard and building additional units through 2025 requires an investment of between about $9 trillion and $11 trillion for construction only. If the cost of the land is included, the total cost may reach about $16 trillion, of which about $13 trillion must be financed by the public sector.[175] Among the potential solutions that could help reduce the cost of providing housing are providing land in the right locations, reducing construction costs through value engineering and industrial methods, increasing the efficiency of operations and maintenance, and reducing the cost of financing for buyers and developers.[176] In this context, it is worth noting the initiative of the Central Bank of Egypt for real estate finance, which was launched in July 2021, with an allocation of 100 billion Egyptian pounds, through banks or mortgage companies, and aims to support low and middle income segments of society to acquire adequate housing with low interest rates of 3% for a maximum period of 30 years.[177]

Although "public" government spending on pre-university education, higher education, scientific research, and health in Egypt (as a percentage of GDP) meets the constitutional obligation, there is a need to increase "functional" government spending on these sectors in order to safeguard that the needed financial resources to develop the services provided in terms of quantity and quality are made available, and to ensure that competitiveness of these services are enhanced in line with international standards (as referred to in the previous analysis).

### 1.8.2 Institutional policies

The development of organizational structures and administrative and institutional capacities, and the consequent clarification of roles, responsibilities and mandates (both within entities within the same sector, and within those of different sectors) is considered by Egypt to be one of the most important policies to bring about changes in the performance of the country's education, health and housing sectors. For example, within the health sector, boundaries are put in place between the service provider and the financing source. It is also expected that the implementation of the new *Universal Health Insurance Law* in Egypt will contribute to overcoming issues of overlapping mandates, since it will involve the separation of the General Authority for Healthcare (GAH) and the General Authority for Health Insurance (GAHI), in addition to the establishment of an independent public authority for health accreditation and control that will ensure the quality and accreditation of health services. The government will also continue to strengthen mechanisms to prevent illegal construction and encroachment on agricultural land.[178]

Egypt aims to reduce the overlapping mandates between the Ministry of Higher Education and Scientific Research and other state bodies in fields related to scientific research, and to establish a unified system to evaluate the performance of universities and research centres at the ministerial level and to follow up on the efficient and effective implementation of their plans and policies.[179] Egypt will also work to reduce the conflict between different state authorities around public land that result from conflicting laws and powers,

will simplify the procedures for obtaining permits from the competent authorities, and will increase the incentives for renting out unused housing units.[180]

It is also necessary to strengthen communication and coordination mechanisms between the authorities concerned with providing health and education services and other relevant government agencies. In addition, mutual coordination between the health, education and housing sectors and development partners from the private and civil sectors is a key issue that requires strengthening the information exchange system between the relevant authorities.[181]

The government plans to develop the technical and administrative capabilities of human resources in the education and health systems by increasing training allocations[182] and achieving efficiency in distributing human resources in the education and health systems fairly and according to the needs of different geographical areas. In addition, the brain drain, or the loss of skilled human capital to emigration abroad, is one of the most important challenges facing the education and health sectors in Egypt, and one which is negatively reflected in the quality of services provided.[183] A comprehensive programme of work is required to address this issue.

The lack or inaccuracy of data and related information is one of the main institutional challenges facing the education, health and housing systems in Egypt, limiting decision makers' abilities to carry out their planning and executive roles with the required efficiency and effectiveness.[184] In addition, there is potential to benefitting from modern technology (such as big data) in data analysis to serve the formulation of sound policies in the sectors of health, education and housing.[185]

UNESCO dedicated its 2018 Global Education Monitoring Report to addressing issues related to accountability and its role in building inclusive, equitable and quality education systems, emphasizing that accountability is a means to an end rather than an end in itself, that it is inclusive of all educational actors (government, schools, teachers, parents, students, NGOs, the private sector), and that it should be applied with caution to avoid introducing quick and superficial reforms that have potentially negative consequences.[186] Creating a credible education plan with clear goals is the core of the accountability process in Egypt's education sector, along with allocating resources through transparent and trackable budgets, establishing credible, efficient and effective regulations and monitoring mechanisms, and adhering to follow-up procedures. In addition, the success of any accountability approach depends on an enabling environment that provides actors with the resources, capabilities, incentives and information needed to fulfil their obligations.[187]

Given that access to information is one of the main pillars of accountability mechanisms in education, health and housing systems, the 2019 Global Human Development Report focused on the essential role that the expansion of data and information availability can play in building objective measurement indicators and developing powerful tools for analysis based on combining data sources, enabling the formulation of policies capable of reducing the disparity in the distribution of human development in general, whether between or within countries.[188]

### 1.8.3 Social affairs policies

Overpopulation is a major challenge that negatively affects the education, health and housing reform programmes in Egypt. The facilities and services provided by the government sector are not sufficient to absorb the growing demand of an expanding population, especially with the particularly high pressure on the capital, Cairo, and other major cities.[189] The population issue in Egypt is one of the main obstacles to sustainable development as it negatively affects the returns of development, the quality of life of Egyptians, and the quality of services provided. It is also both a cause and a consequence of poverty.

The population of Egypt exceeds 100 million people as of 2021, up from around 80 million in 2011, making it the 14th most populous country in the world. The latest edition of the United Nations Population Division estimates that the population of Egypt will reach 120.8 million by 2030 and 160 million by 2050.[190] Despite the decline in the population growth rate in Egypt from 2.4 percent in 2014/2015 to 1.8 percent in 2018/2019, the change in the population pyramid, or population distribution, portends a population boom during the period from 2030 to 2042. This is due to the fact that the most numerous age group according to the 2017 population census are those aged between 0 and 9 years old. Together, this cohort makes up about a quarter of the population, and they will be at the age for marriage and childrearing between 2030 and 2042. Accordingly, the executive plan of the National Project for Family Development 2021-2023 aims to control population growth and improve population distribution by reducing the reproductive rate from the 3.4 children per woman in the 2017 census data to 2.4 children by 2030 and 1.9 children by 2052.[191]

In future reform programmes, Egypt intends to focus more attention on the equitable distribution of health, education and housing services between the different categories of beneficiaries, according to their economic and social conditions, and between different regions and geographical areas. This is due to the fact that the disparity in the distribution of these services, to the disadvantage of poorer people, deepens the cycle of poverty and unemployment and exacerbates the social problems associated with inequality.[192] The phenomenon of squalid overcrowded districts, especially in informal settlements, is one of the most important challenges facing the housing sector in Egypt, and in essence reflects dimensions related to social justice.[193]

The 2019 Arab Human Development Report *Leaving No One Behind: Towards Inclusive Citizenship in Arab Countries* showed that disparities between individuals based on economic and social status is one of the most important areas of injustice in the Arab world, including in Egypt. Specifically, the inability of some groups (whether for reasons related to income, gender or geographic location) to obtain good education opportunities, enjoy healthy lifestyles and obtain adequate housing will undoubtedly reflect on the productivity of these groups, the employment opportunities available to them, and their ability to compete in the labour market, and hence their income level. This increases the poverty of these disadvantaged groups and entrenches inequality and justice, undermines confidence in government effectiveness in providing health and education services, and results in a low level of satisfaction with the services provided among members of these demographics.[194]According to WHO, one of the best ways to reduce health inequalities is to provide primary health care that meets the majority of an individual's health needs. As a result, WHO is calling on all countries to allocate an additional 1 percent of their GDP to primary health care, so that more people have access to the quality basic services they need close to home. [195]

The overlap or correlation between inequality in the distribution of income and inequality in the distribution of human development opportunities is discussed in detail in the 2019 Human Development Report. The report focuses on issues related to justice in the distribution of human development, whether within or among countries, noting that inequality in the level of human development results in undesirable effects on societies and social cohesion, and on individuals' trust in governments and institutions. It also limits individuals' ability to reach their maximum potential, both within work and outside. Issues related to injustice or inequality in general should therefore be understood and addressed via a new, people-centred approach, and in a framework that goes beyond focusing on income dimensions or superficial measures of inequality based on averages. This perspective should also bear in mind the global chal-

lenges and transformations associated with climate change and technological progress.[196]

Since inequalities in the distribution of human development opportunities, which accumulate throughout life, usually reflect deep imbalances within society, the economy and political structures, addressing such inequalities necessarily requires dealing with those structural factors. For example, social and cultural norms and customs are largely responsible for behaviour that perpetuates gender inequality globally.[197] This issue is of particular importance in the Egyptian context, as the pre-eminence of traditional cultural views around the role of women and women in the workplace negatively affects girls' schooling and their ability to actively participate in various aspects of life and engage with different sectors, including the health, education, scientific research and housing sectors.[198] While the gender gap in net enrolment rates in pre-university education in Egypt has almost disappeared, gender inequality in employment and employment opportunities still exists and comprises a major challenge for the country's development plans. The 2019 Human Development Report proposes explicit policies to address stereotypes and stigma around disadvantaged groups as one of the tools required to tackle gender inequality.[199]

In addition, there is a need to give priority in educational reforms to expanding the provision of quality education opportunities for people with disabilities that suit their specific requirements. This is one of the points emphasized in the 2019 Arab Human Development Report (AHDR) Leaving No One Behind: Towards Inclusive Citizenship in Arab Countries as a key human development challenge for the region, and is further complicated by inconsistency in definitions of who can be considered people with disabilities, and by the poor availability of relevant data.[200]

Although Egypt has made important strides in this field through the concept of special education schools, there is a need to expand the services provided to these groups by adopting policies more responsive to their needs. These may include more suitable curricula, educational materials or methods of teaching or adapting classrooms and equipment, in line with the concept of inclusive education, which seeks to remove obstacles that prevent access to education.

The national initiative *Hayah Karima*, which was launched in 2019, is a serious step towards investing in the development of Egyptians and distributing development gains in a fair manner. This initiative aims to achieve comprehensive development for rural communities most in need, with the aim of eliminating multi-dimensional poverty and improving living conditions in Egyptian villages. The initiative focuses on a set of interventions that target most vulnerable families in rural communities, the elderly, people of determination, women heads of households, and children. Specifically, this initiative focuses - with regard to providing decent and adequate housing - on building housing complexes in the villages most in need, and extending water, sewage, gas and electricity connections inside homes. In terms of medical services, the initiative aims to build hospitals and health units, provide equipment and medical staff, and launch medical convoys to provide health services. As for educational services, the initiative focuses on building schools and nurseries, raising their efficiency and equipping them, and providing educational cadres, as well as establishing literacy classes.[201]

Government policies aim to take advantage of the available opportunities to enhance investment in human capital. There is a strong political will for development and change in education, health and housing. On education, there is a clear move to change existing educational methods, both pre-university or higher, in favour of more innovative methods, and to develop the skills of students, and to link educational outcomes with the labour market, especially in terms of the skills required to keep up with technological developments. There is also a strong propensity to support the health sector, especially in light of the

COVID-19 pandemic, with a view to improving the working conditions of doctors and to considering the institutional structures of this sector to serve the development process. One of the opportunities available is Egypt's approach of covering all citizens comprehensively, which helps to change health policies and procedures to ensure they are comprehensive and take into account those most in need. The same approach prevails in promoting adequate housing, as there is considerable political will to safeguard human dignity by ending the crisis of informal settlements and unsafe areas and by providing social housing for middle-income groups.

The existence of the constitutional commitment to increase spending on pre-university education, higher education, scientific research, and health, represents an important opportunity for human development. Egypt has a strong commitment to fulfil this obligation without prejudice to other state obligations. In addition, the clear interest in women and people with disabilities, as reflected in several health initiatives, is an important opportunity to provide a foundation whereby these groups are taken into account when formulating policy on education and health. This is important as these groups represent a large part of Egyptian society and contribute to its productivity and development. Moreover, Egypt has also paid special attention to population growth, believing in its impacts on development goals and returns. Accordingly, it has released several population policies during the last five decades, the most recent of which, the National Population Strategy 2015-2030, aims to improve the quality of life of Egyptians by reducing population growth.[202] This strategy adopted a number of following principles. First, it considered population to be one of the elements that make up the comprehensive strength of the country, provided that population growth does not exceed the State's ability to provide basic services of appropriate quality. Second, it acknowledged the right of each family to determine their number of children, while securing their right to obtain family planning supplies. Third, it is the State's responsibility to educate members of society about the risks associated with high fertility rates, and it commits to integrating the population component into economic and social development plans. Fourth, it foresees a stimulating environment for the participation of NGOs and the private sector and should decentralize the management of its population programme.[203]

The executive plan of the National Project for Family Development 2021-2023 is based on a set of pillars, namely economic empowerment; service intervention; cultural, media and educational intervention; digital transformation; and legislative intervention. The plan targets women aged 18-45, university students and school students, rural children, rural communities, and religious leaders, at a total cost estimated at EGP 8.6 billion over the three years of the plan.[204] Investing in family planning programmes is an economically viable investment, with the average return on each EGP 1 spent on these programmes estimated at EGP 151.70.[205]

In view of the above analysis, it is clear Egypt has taken major steps forward in terms of investments in human capital, looking to promote human development and achieve sustainable development, and reflecting the belief that people are the real wealth of nations. The path forward nonetheless requires further efforts and more reform.