OECD Green Growth Policy Review

Egypt

HIGHLIGHTS

2024

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BETTER POLICIES FOR BETTER LIVES

OECD Environmental Performance Reviews

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The Organisation for Economic Co-operation and Development (OECD) provides its 38 member countries with a forum to work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to help governments respond to new developments and concerns. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

WHAT ARE GGPRs?

The OECD Green Growth Policy Reviews (GGPRs), performed under the aegis of the Environmental Performance Reviews (EPRs), are an integral part of a family of systematic peer reviews at the OECD, together with Economic Surveys and Development Co-operation Reviews. GGPRs provide an independent, evidence-based and country-tailored assessment of countries' green growth strategies and policies. They promote peer learning, enhance government accountability, and provide targeted recommendations to help non-member countries improve their environmental performance and accelerate their green transition. They are supported by a broad range of economic and environmental data and include an in-depth chapter responding to a priority policy issue of the reviewed country. Previous reviews of non-member countries include Brazil, the People's Republic of China, Indonesia, Peru and South Africa.

All reports are available at: http://oe.cd/epr

EGYPT'S REVIEW

Egypt's GGPR was conducted by the OECD Environment Directorate within the Egypt-OECD country programme. It examines progress towards green growth over the past decade, with an in-depth chapter on building climate-smart, resilient and inclusive cities. The process involved a constructive and mutually beneficial policy dialogue between Egypt and the countries participating in the OECD Working Party on Environmental Performance (WPEP). The OECD is grateful to the two examining countries: France and Germany. The WPEP approved the report's 40 recommendations at its special session on 28 May 2024. They aim to help Egypt improve its environmental performance and accelerate its green transition.

KEY ENVIRONMENTAL INDICATORS 2022 (or latest available year)

Energy intensity – Total energy supply per capita
0.9 toe per capita (OECD average is 3.8)

Renewables (% of total energy supply)
6% (OECD average is 12)

GHG intensity – GHG emissions per capita
2.7 t CO_2-eq. per capita (OECD average is 10.8)

Mean population exposure to $PM_{2.5}$
35 µg/m^3 (OECD average is 14)

Municipal waste per capita
251kg per capita (OECD average is 534)

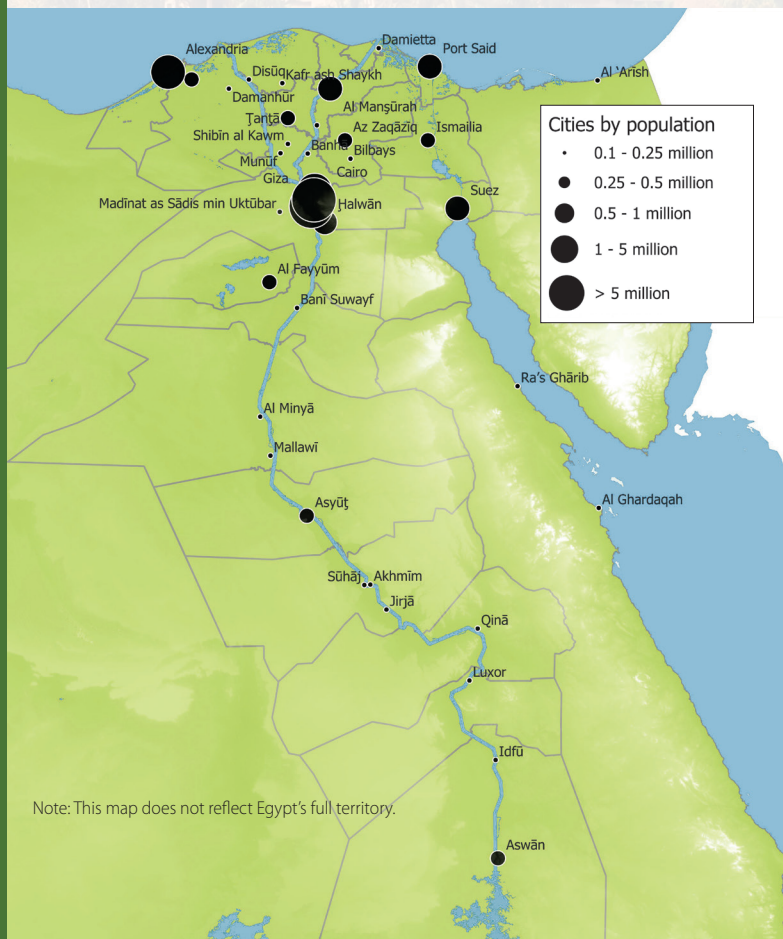
Material productivity (USD, 2015 PPPs/ Domestic material consumption, kg)
USD 1.6/kg (OECD average is 2.5)

Access to safely managed drinking water services
98%

Access to safely managed sanitation services
67%

Passenger cars stock
5 vehicles/100 inhabitants (OECD average 49)

*Note: rounded figures.



Overview

The Arab Republic of Egypt is a rapidly growing emerging economy and a demographic heavyweight on the African continent. High population growth, land-use change, pollution and climate change are increasingly putting pressure on the natural environment, including on its rich biodiversity.

Egypt has achieved relative decoupling of greenhouse gas emissions from economic growth since 2017, though it needs to further mainstream climate action across sectors and progressively raise ambition. As one of the world's most water-stressed countries, more robust allocation and greater use of economic instruments would help address scarcity and improve water quality.

As part of Egypt's Vision 2030, the government is committed to turning environmental challenges into opportunities. It has taken steps to move towards more sustainable waste management and to address air pollution, which remains a health concern. Egypt has significant potential to accelerate its clean energy transition. While environmental information and data have improved overall, public participation in environmental decision making needs to be further enhanced.

EGYPT 2022
(or latest available year)

Population: 111 million

GDP per capita: USD 15 000 (current purchasing power parities) (OECD average is 54 000)

Income inequality (Gini coefficient): 0.32

Total land area: 1 million km^2

Population density: 938 inhabitants/km^2

Currency: USD 1 = EGP 19.16

*Note rounded figures.

Key recommendations

CLIMATE, AIR QUALITY AND WASTE POLICIES

- Work progressively towards setting more ambitious emissions reduction targets across various sectors.
- Improve GHG monitoring and reporting capacity and develop a consolidated nationwide environmental and climate monitoring system.
- Develop localised climate risk assessments and consider adaptation priorities in local planning systems and development plans; promote capacity building to increase implementation capacity at subnational level and strengthen local ownership.
- Mainstream adaptation in sectoral strategies and action plans, including dedicated budgets for adaptation priorities; build administrative capacity to better tap into international climate and development finance.
- Formulate an integrated nationwide air pollution reduction strategy, including timebound targets for major air pollutants across governorates.
- Pursue efforts to establish a nationwide waste collection system, including waste sorting at source; close unmanaged open dumps; upgrade waste management infrastructure through a stronger use of economic instruments such as pay-as-you-throw and deposit-refund schemes.

NATURAL RESOURCE MANAGEMENT

- Better target support to farmers, including economic incentives for investment in climate-smart and nature-based solutions; reconsider input subsidies and rationalise use of fertilisers and pesticides.
- Set clear principles for water allocation to ensure sustainable use of available water resources and encourage water is allocated to higher value uses; pursue efforts to modernise irrigation systems in old lands.
- Expand coverage of terrestrial and marine protected areas to reflect the more ambitious targets in the Kunming-Montreal Global Biodiversity Framework.

REGULATION AND COMPLIANCE ASSURANCE

- Pursue efforts to enhance administrative capacity and technical expertise of the permitting authorities; strengthen capacity of the Egyptian Environmental Affairs Agency and of competent administrative authorities in the Environmental Impact Assessment (EIA) process; require meaningful public participation in all EIAs.
- Make the use of Strategic Environment Assessment (SEA) mandatory to integrate environmental considerations into policies, plans and programmes, evaluate the interlinkages with economic and social considerations, and analyse cumulative environmental impacts.
- Strengthen Egypt's Environmental-Economic Accounting using international standards; consolidate public sources of environmental information and data; make access to data more user-friendly; engage citizens more actively in environmental decisions at local levels.

ECONOMIC INSTRUMENTS AND INVESTMENT FOR GREEN GROWTH

- Advance the just transition from fossil fuels in energy systems through robust and transparent automatic fuel price adjustment mechanisms for petroleum products and pursue efforts to reach full cost recovery of energy production and supply; continue to pursue the expansion, and increase the efficiency, of social protection programmes.
- Consider the introduction of pollution taxes and charges; conduct a comprehensive reform of the transport-related tax system to make it environmentally and fiscally sustainable; introduce a climate component in vehicle taxation; increase the use of road pricing.
- Monitor information on the share of green investment in public investment plans to track progress towards national targets; set climate-specific objectives and align investment of state-owned enterprises with Egypt's climate agenda.

ENHANCING URBAN GOVERNANCE

- Reconsider Egypt's administrative divisions to better reflect the actual size of cities and related infrastructure needs.
- Develop tailor-placed policies and promote participatory approaches to better align urban policies with local development needs; strengthen competences, capacities and financial autonomy of subnational governments; consider integrating new urban communities (NUCs) under respective governorates to facilitate coherent regional strategies; enhance the role of local councils and citizen engagement.
- Mainstream environmental considerations in local development plans; introduce SEA for major urban development projects; promote stronger co-operation between environmental and urban authorities and the National Council for Climate Change.
- Simplify the current land-use planning and registration system; pursue development of an integrated information system to streamline the land allocation process and improve transparency.

PROMOTING CLIMATE-SMART, RESILIENT AND INCLUSIVE CITIES

- Define smart cities as climate-smart cities based on common sustainability standards and develop and implement city-level climate mitigation and adaptation plans for all NUCs; assess the viability and environmental footprint of the first three generations of NUCs to guide policy making.
- Encourage the building of cities that guarantee easy access to a network of safe walking and cycling routes and public transport; pursue efforts to develop inter-city connections and public spaces.
- Upgrade the building code and the Building Law and strengthen enforcement mechanisms; apply the Green Pyramid Rating System certification systematically on social housing programmes; encourage retrofitting of informal housing through reduced reconciliation fees.
- Downscale climate risk assessments at subnational level; prevent construction of new buildings in high-risk flood zones through tighter provisions in the building code and local development plans; develop city-level early warning systems and targeted protection measures for vulnerable populations.
- Promote stronger use of nature-based solutions to protect citizens from floods and the consequences of sea level rise; increase green spaces by setting green cover targets for cities; ensure proximity to accessible green public spaces within social housing programmes.
- Increase capacity and funding of the Urban Development Fund to support urgent infrastructure upgrades in informal settlements; scale up social housing programmes complying with minimum environmental standards.

Progress towards green growth

Green growth and sustainable development are high on Egypt's political agenda. Egypt's Vision 2030 promotes an integrated approach towards sustainable development. The government is committed to promoting an investment-friendly climate to turn environmental challenges into opportunities. Over the past decade, Egypt has made progress towards achieving the Sustainable Development Goals, but challenges remain. The country is among the best economic performers in the Middle East and North Africa region. However, 29.7% of the population were living below the national poverty line in 2020. High population growth, land-use change, pollution and climate change are increasing pressure on the country's natural environment. Further progress will require stronger transformative efforts to advance towards a greener economy.

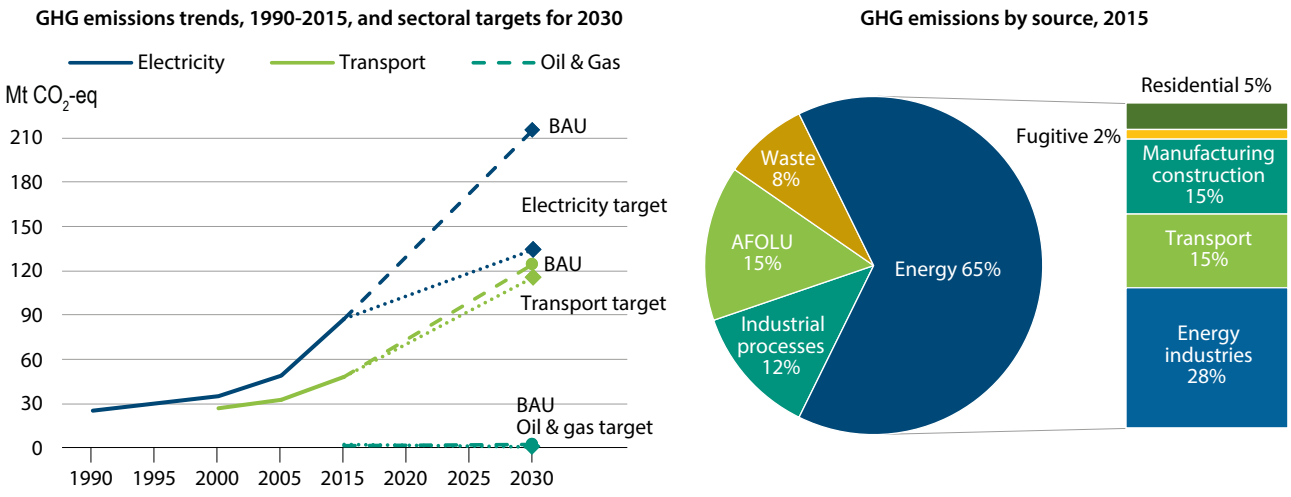
Egypt has stepped up climate action but needs to further strengthen institutional capacity. While Egypt's per capita emissions are low in international comparison, its total greenhouse gas (GHG) emissions increased at a much faster rate than the world average and are projected to grow over the next decades. The government has set three sector-specific targets to reduce emissions: -37% for electricity, -7% for transport and -65% for oil and gas by 2030 compared to business-as-usual, conditional on more international financial support (Figure 1). It has started operationalising the National Climate Change Strategy 2050. However, it is facing implementation challenges related to financial resources to expand capacity at all levels. More regular GHG emissions updates are needed to help analyse the impacts of mitigation measures. The adverse effects of climate change increasingly affect all economic sectors. The government is planning to complete its National Adaptation Plan in 2025.

100% of public investment would be allocated to green projects by 2030.

Egypt has significant potential to accelerate its clean energy transition. The government aims to increase the contribution of renewables to 42% of the electricity production mix by 2030 compared to 12% in 2022. It plans to close 5 GW of inefficient oil and gas power generation capacity and facilitate private investment to create 10 GW of new renewable energy capacity. In parallel, Egypt is continuing to upgrade transmission and distribution networks, and invest in digital technology and storage infrastructure. It aims to become one of the largest exporters of low-carbon hydrogen. It also plans to complete its first nuclear power plant in 2030, aimed at providing about 3% of projected power production.

In 2020, Egypt became the first Middle East and North African country to issue a sovereign green bond.

Figure 1. Egypt has set three sector-specific targets to reduce emissions



Note: AFOLU: agriculture, forestry and other land use; BAU: business-as-usual; GHG emissions and targets for electricity, oil and gas, and transport sectors are provided in Egypt's first and second updated Nationally Determined Contributions (NDC). Official data are available up to 2015 from Egypt's UNFCCC Biennial Update Report. Oil and gas data are available for 2015 only. Data are shown in solid lines, while linear projections are represented by dotted lines.

Sources: Government of Egypt (2023), Egypt's second updated NDC; Government of Egypt (2019), Egypt Biennial Update Report.

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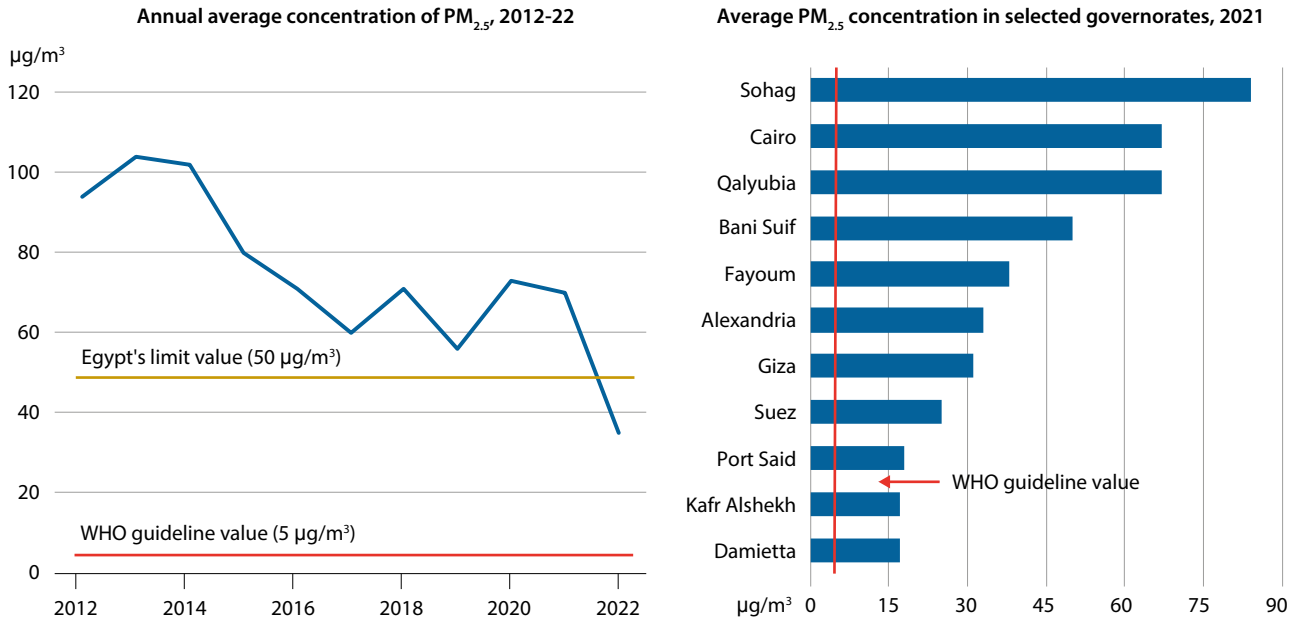
Plans for a 2 000 km high-speed rail network linking 60 cities are underway.

There are significant opportunities to leapfrog towards a low-carbon transport system and limit car dependency. New urban communicates (NUCs) could be more compact to facilitate access to transport links. The electric public transport system is expanding (e.g. Cairo Monorail). Egypt has taken steps to accelerate its fleet renewal, but electric mobility is in its infancy.

Air pollution is a serious health concern. However, air quality has been improving with concentration of $PM_{2.5}$ dropping below the national limit value in 2022 (Figure 2). Egypt met its 2020 target of reducing PM_{10} emissions by 15% compared to 2015. The Greater Cairo area remains an air pollution hotspot, which the government aims to tackle through a dedicated six-year programme launched in 2021. Over the past decade, the government has taken several measures to improve air quality by regulating industrial emissions, improving solid waste management, upscaling public transport and, more recently, introducing electric buses. It also helped establish a collection system for rice straws, preventing the burning of agricultural waste that leads to toxic emissions (black clouds). Developing an integrated air pollution reduction strategy, including timebound and more stringent targets for major air pollutants, would be an important next step.

Figure 2. Air quality is moderate overall, but Egyptians are unevenly exposed to air pollution



Source: Left panel: data provided by the Government of Egypt (2024); right panel: CAPMAS Annual Bulletin of Environment Statistics (2021).

The share of treated wastewater grew from 50% to 74% between 2015-22.

Egypt intends to declare the coral reef habitat of the Red Sea stretching over 1 800 km as protected areas in 2024.

Waste infrastructure and services need to be strengthened to address rising waste flows. The waste sector contributed to 8% of total GHG emissions in 2015, above the OECD average of 3%. As in many emerging economies, significant portions of waste are not yet properly managed. Collection rates vary widely across governorates from less than 40% to nearly 100%. The government achieved an important milestone with the ratification of the Waste Management Law in 2020. The law introduces measures to reduce single-use plastic bags, a "Green Label" certification to reduce industrial waste and extended responsibility for producers. The government has set ambitious goals to upgrade solid waste management infrastructure. It will need to further enforce implementation. This requires better information and waste data to monitor progress towards targets.

Stronger use of economic instruments could help address water scarcity. Egypt is moving towards absolute water scarcity with less than 500 m^3 per capita of annual water supply. Economic incentives are needed to rationalise water use in agriculture. The 2021 Water Resources and Irrigation Law is a major step forward to unify attempts to improve water use and protect the quality of water bodies. It includes provisions for water user associations and climate change adaptation. Egypt achieved nearly universal access to safe drinking water over a decade ago and is on track to achieve universal basic sanitation by 2030. Tariffs for water and sanitation services need to better reflect the full financial cost. Raising citizens' awareness of the value of water must remain a priority.

Egypt produced 251 kg of municipal waste per capita in 2021.

Egypt has been committed to protecting biodiversity, but better implementation is needed across all sectors. While pressures on biodiversity are growing, knowledge about the health of species and ecosystems has improved overall. The government has started an update of its National Biodiversity Strategy and Action Plan to reflect the new commitments under the Kunming-Montreal Global Biodiversity Framework. However, implementation of commitments still faces challenges in many areas due to limited financial and human resources. Local expertise also needs to be strengthened. The government revised the fee system for protected areas to raise additional revenues.

Environmental governance and management

Egypt is upgrading its long-standing environmental policy and legal framework. Environmental considerations are increasingly integrated into many sectoral policies. A proposed new Environment Law provides an excellent opportunity to set a unifying legal framework for environmental protection and climate action. The effectiveness of environmental impact assessment (EIA) is constrained by weak technical and financial capacity, limited consideration of cumulative effects or alternatives, insufficient enforcement and lack of public participation. Environmental expertise needs to be enhanced through training and capacity building at all levels. In 2024, the government started publishing online executive summaries of EIA reports for highly polluting projects.

Environmental information and data have improved, but major gaps remain. The monitoring capacity for air, water and soil has expanded but still requires efforts to align with international standards. Implementing the System of Environmental-Economic Accounting would provide a robust basis to inform the plans for greening national accounts. Environmental data and information remain scattered across various ministries. It is critical to improve data sharing between national entities, as well as between Egypt and stakeholders. Beyond awareness-raising campaigns, public participation in environmental decision making needs to be further enhanced.

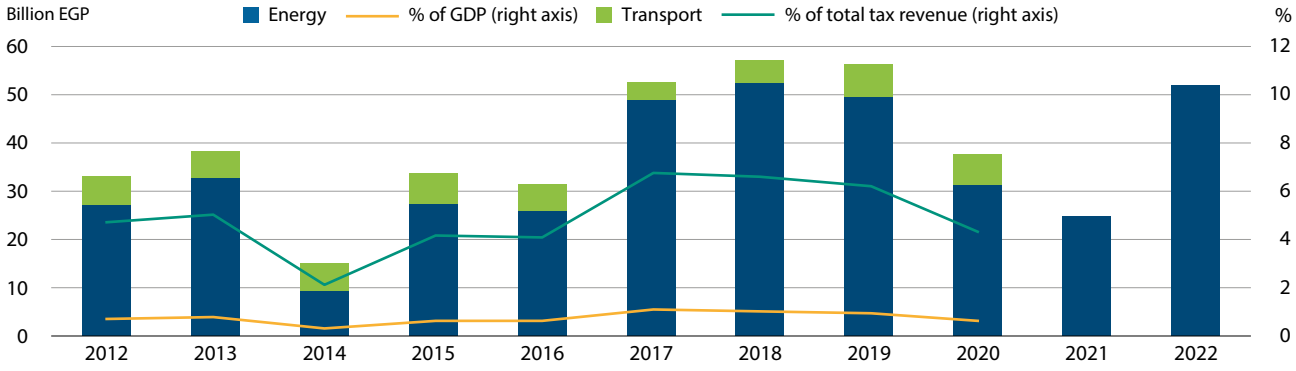
Greening taxation

A comprehensive green fiscal reform should be prioritised. Environmentally related tax revenue has increased, but its share in gross domestic product remains low (Figure 3). The bulk of this tax revenue comes from energy products, mainly excises on petroleum products used for transport. Egypt has neither taxes on pollution and resources nor an explicit carbon tax to directly address GHG emissions. Emissions from electricity production and industry sectors remain largely unpriced.

There is considerable scope for reforming and expanding environmental taxes. The government could consider introducing a climate component in vehicle taxation and increase the use of road pricing. Gas prices for different industrial activities need to be adjusted more regularly. Despite increases in electricity prices, Egypt did not meet its target of full cost recovery by 2023. Adopting a more cost-reflective pricing model would help address wasteful consumption, reduce fiscal costs and foster energy security.

Green investment could be better prioritised when providing corporate income tax incentives. In 2022, the Special Incentive was expanded to include projects of strategic interest, namely green hydrogen and green ammonia, waste management, e-mobility and alternatives to single-use plastic. However, it is also available for non-green projects, which may weaken incentives for green investment. By mid-2023, Egypt had signed 8 framework agreements and nearly 30 memoranda of understanding for a project pipeline of low-carbon hydrogen projects estimated at USD 83 billion.

Figure 3. Environmentally related tax revenue has increased in Egypt, but its share in GDP remains low



Note: Billion EGP (2021, real prices). For 2021 and 2022, information on transport-related tax revenue was not available as of April 2024; data points for energy-related tax revenue stem from Egypt's Ministry of Finance.

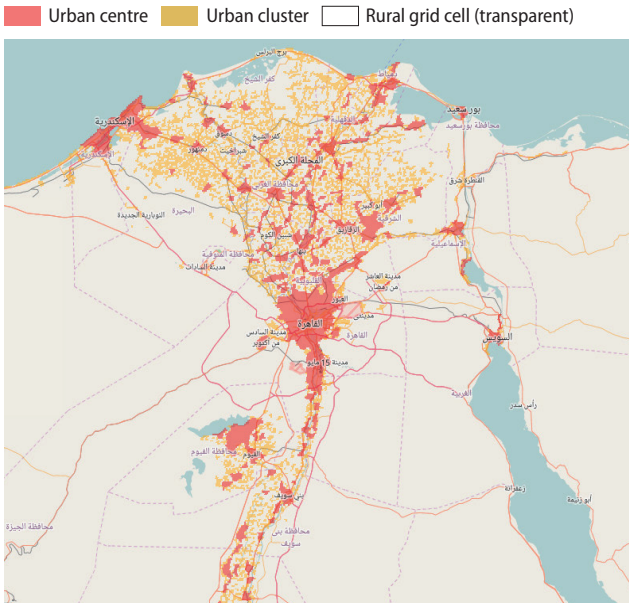
Sources: OECD (2022), Environmentally related tax revenue, OECD Environmental Statistics (database), Egyptian Ministry of Finance.

Building climate-smart, resilient and inclusive cities

Cities play a pivotal role in supporting the green transition but face multiple challenges. Cities are the engines of Egypt's growth and can support its green transition by stimulating urban economic activity, green innovation, jobs, skills and more inclusive development. At the same time, cities are major sources of pollution and are also exposed to multiple climate-related hazards, especially heatwaves, flash floods, dust storms and rising sea levels for coastal cities. Current urban policies have been unable to keep pace with population pressures, which has led to uncontrolled urban expansion, environmental degradation and precarious living conditions. Meanwhile, many NUCs built on desert land adjacent to existing cities struggle to attract new residents. In 2023, the government adopted a National Urban Policy to promote positive transformative change in cities.

Administrative reforms are needed to better consider the rural-urban continuum. The binary categories of urban and rural areas no longer reflect Egypt's urban realities with its dense settlement patterns (Figure 4). The 2026 national population census is an opportunity to reconsider administrative divisions and review the definition of urban areas to ensure that policies and funding address the specific needs of its populations, as well as challenges associated with urban sprawl. Egypt needs to simplify the current land-use planning and registration system and pursue development of an integrated information system to streamline the land allocation process and improve transparency.

Figure 4. Over 93% of Egyptians live in urban centres or urban clusters



Note: This map focuses on densely populated areas and does not reflect Egypt's full territory. An urban centre consists of 1 km^2 with a density of at least 1 500 inhabitants per km^2 and a minimum total population of 50 000 people. An urban cluster consists of 1 km^2 with a density of at least 300 inhabitants per km^2 and a minimum total population of 5 000 people.

Source: European Commission, Copernicus (2024). Testing the degree of urbanisation at the global level, Egypt Country Summary.

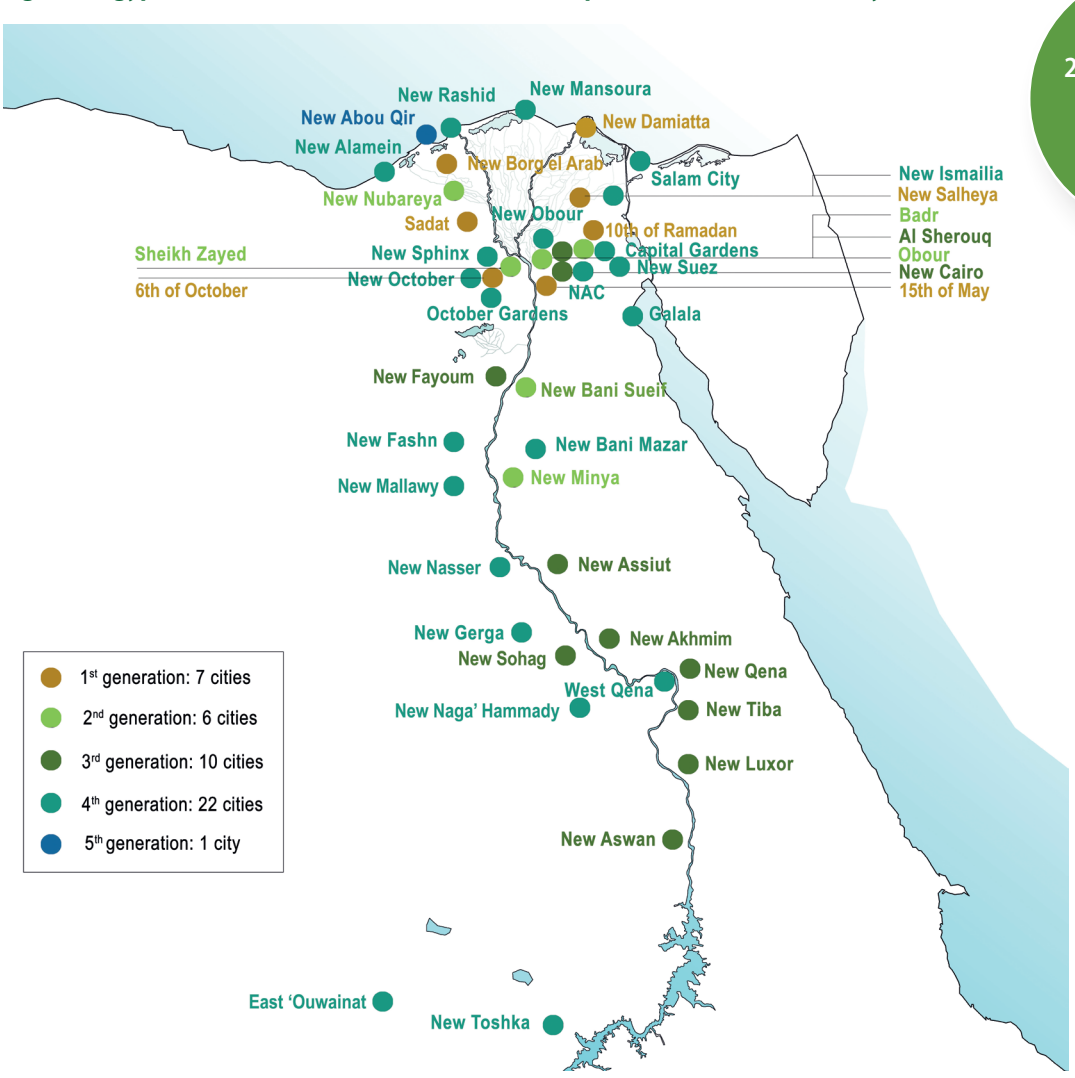
Tailored place-based policies would support sustainable urban development. The institutional framework for urban planning faces several challenges: a disconnect between national plans, the planning of local infrastructure and local development needs; weak horizontal co-ordination between different government entities; bureaucratic complexities; and limited local capacity and financial resources. Fragmented sectoral investment planning impedes an integrated development vision at subnational level. Environmental considerations need to be systematically mainstreamed into all urban development plans and land-use planning tools. Despite many guidelines, a substantial gap between strategic plans and green measures persists in local development plans. In line with the National Climate Change Strategy 2050, governorates should develop their own subnational climate change strategies. Moving to more participatory approaches would help better align urban policies with local development needs. This will require strengthening competences, capacities and financial autonomy of subnational governments.

Egypt needs to pursue efforts to promote climate-smart, resilient and inclusive cities. Since the 1970s, the government has built new urban communities to relieve pressure from saturated urban areas (Figure 5). New cities have become greener over time, larger areas are dedicated to green spaces and gardens. Many of them make stronger use of renewable energy sources. However, despite stated green and inclusive principles, new cities continue to be constructed in an expansive manner.

The building code requires important updates to support climate and environmental goals. This could include the definition of national standards for low-carbon construction material, minimum energy efficiency standards, provisions for use of renewable energy sources and minimum requirements for green public spaces in residential areas. The government can further green its own public buildings and social housing programmes and develop a holistic approach to cooling policy.

The central government needs to pursue efforts to downscale climate risk assessments at subnational level and develop appropriate city-level early warning systems. Egypt upscaled nature-based coastal protection solutions in the Nile Delta. Cities have much scope to increase their green spaces. The government has made major strides in addressing unsafe areas. However, few efforts have been directed towards establishing mitigation and adaptation plans for existing urban areas, where most Egyptians live.

Figure 5. Egypt counts 23 new urban communities and plans to build another 23 by 2030



Egypt's Vision 2030 sets a target of creating 3 m² of greenery per person.

Notes:
New Urban Communities are developed by the New Urban Communities Authority, which is affiliated to the Ministry of Housing, Utilities and Urban Communities.

This map focuses on New Urban Communities and does not reflect Egypt's full territory.

Source: Country submission (2024).

OECD Green Growth Policy Review of Egypt 2024

MORE INFORMATION

OECD Green Growth Policy Review of Egypt 2024
The report and all data are available on
http://oe.cd/ggpr-egypt

Environmental Performance Review programme
http://oe.cd/epr

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