

COUNTRY PROFILE
EGYPT

METRICS	TRENDS & LIMITATIONS
INTERVENTIONS & PLANS	MAIN RESULT AREAS
WHAT NL ACTORS DO	COLOFON

Egypt

This country profile, commissioned by The Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth), gives a snapshot of what is happening in the closely interrelated themes Food & Nutrition Security, Water, Climate (including Renewable Energy) in Egypt. It provides basic statistics on Egypt's performance on key indicators and indexes, but also analyses relevant national policies, current donor interventions, and the main trends on the abovementioned themes. Combined with an overview of Dutch support to Egypt, this profile concludes by suggesting potential priority result areas for The Netherlands.

In total, 12 countries profiles have been made, plus one regional profile for the Sahel.



BURKINA FASO	CHAD	IRAQ
JORDAN	LEBANON	NIGER
NIGERIA	SENEGAL	SOMALIA
SUDAN	TUNESIA	SAHEL REGION

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Metrics



EGYPT, FACTS

<p>Government Unitary semi-presidential republic President: Abdel Fattah el-Sisi Official language: Arabic Religion: Islam, Christianity, Judaism Area: Total 1,010,408 km² (29th)</p>	<p>Population</p> <ul style="list-style-type: none"> • 2018 estimate 99,375,741 • Prospect 2050 153,433,000 • Density 96/km² (118th) • GDP (PPP) 2017 estimate • Total \$ 1,201.188 billion (21st) • GDP (nominal) 2017 estimate • Total \$ 237,073 billion • Per capita \$ 2,500
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GENERAL INDICATORS

<p>UN Human Development Index 188 countries: 1st = best opportunities for development</p> <p>#111</p>	<p>Anti-corruption and Accountability 100 = strongest policies and practices</p> <p>#34</p>	<p>World Bank ESMAP Electrification Index population with access to electricity</p> <p>100%</p>
<p>World Bank Doing Business Index 100 = most conducive environment for business</p> <p>42.23</p>	<p>Gender Inequality Index 188 countries: 1st = smallest gender divide</p> <p>#135</p>	<p>ND GAIN Index 181 countries: 1st = least climate change vulnerable, and best ready to improve resilience</p> <p>#98</p>

FOOD NUTRITION SECURITY INDEXES

<p>Global Hunger Index (IFPRI) Range 0 – 100: 0 = no hunger</p> <p>23</p>	<p>Global Food Security Index (Economist) 113 countries: 1st = best food security</p> <p>#58</p>	<p>Land Management Index (UNCCD) 180 countries: 1st = most sustainable land governance</p> <p>#127</p>
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WATER INDEXES

<p>FAO AquaStat Variation per capita internal renewable water resources</p> <p>22%</p>	<p>World Bank Drinking Water Index population using at least basic drinking water services</p> <p>98%</p>	<p>JMP Sanitation Index population with access to improved sanitation facilities</p> <p>60.6%</p>
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Donor interventions and plans



Government policies

There is no explicit policy for Food Security and Nutrition in Egypt. There is an overarching agricultural policy.

The Ministry of Water Resources and Irrigation has developed the National Water Resources Plan, in close cooperation, and with funding, of the Dutch government. This policy is a very detailed and useful document for planning and was recently updated.

Egypt's National Strategy for Adaptation to Climate Change and Disaster Risk Management from 2011 defines an overarching goal to increase Egypt's flexibility in dealing with climate change risks and disasters as well as the Egyptian Community's "ability to absorb, contain, and reduce such risks and disasters" across different sectors.

Top 3 donors (based on 2017 IATI data¹)

DONOR	AMOUNT (IN \$)
World Bank Group	1,658,620,000
African Development Bank	551,604,000
EU Institutions	140,676,000

In the table the three largest donors in Egypt are listed with their respective portfolio in 2017.

Most donors are active in the fields of energy generation and supply, government and civil society, health and infrastructure. The donors most active in the field of food security, water and climate/REN are GiZ, KfW and the EU.



Top 3 Sectors attracting development funding in 2017

SECTOR	AMOUNT (IN \$)
Energy generation and supply	686,350,000
Other multisector	521,843,000
Government and civil society, general	372,161,000

¹ This data originates from self-reported data in IATI by major donors. It should be noted that not all aid flows and financial sources are captured.

What NL actors already do

Major commitments from the Netherlands (based on IATI)

BUDGET SPENT BY NETHERLANDS MINISTRY OF FOREIGN AFFAIRS (IN 2017)	AMOUNT (IN \$)
Health, general	2,369,300
Government and civil society, general	1,108,140
Population policies / programmes and reproductive health	817,439
BUDGET SPENT BY NETHERLANDS ENTERPRISE AGENCY (IN 2017)	AMOUNT (IN \$)
Agriculture	117,176
Water and sanitation	28,657
General environmental protection	28,657

Top largest programmes supported by the Netherlands (active as of 2017)

THEME	ORGANISATION	PROGRAMME TITLE	COMMITTED (IN \$)
Health policy and administrative management	Netherlands - Ministry of Foreign Affairs	Egypt Health Care UNHCR	2,369,300
Agriculture	Oxfam / Netherlands	From Farm To Fork	1,676,462
Multi-sector education and training	Enterprise Agency Netherlands	Country Programme Egypt	768,205
Family planning	Enterprise Agency Netherlands - Ministry of Foreign Affairs	Egy-Family Planning UNFPA	735,374

The Netherlands is active in Egypt in the following sectors:

- Social infrastructure and services;
- Health, population policies, SRHR;
- Government and civil society;
- Agriculture (RVO)
- Water and Sanitation (RVO);
- General Environmental Protection.

Several knowledge institutes such as IDE and Wageningen UR have been active in Egypt. Topics range from agriculture-aquaculture integration in brackish water, agro logistics, market studies, hydrology.

One FDOV project is being implemented in Egypt: From Farm to Fork: improving food security for both small scale farmers and consumers in three governorates in Egypt². This PPP, lead by OxfamNovib with private sector partners Spice Kingdom and Egyptian Farmers and NGO CEOSS, is supporting 15,000 smallholder farmers with production and marketing of crops, with a total budget of €3.4 million.

Trends and limitations



Food security

With a population of 92.2 million, Egypt is the most populous country in North Africa and the Arab world. Despite being classified as a middle-income country, it faces a set of long-standing development challenges. About 16% of the total population have poor access to food –21.3% in rural areas and 8.8% in urban areas. Food insecurity is highest in rural Upper Egypt where 38.7% of the population are estimated to have poor access to food. As the country remains highly dependent on food imports, currency fluctuations have a direct impact on food prices and families' access to food. As the world's largest importer of wheat, Egypt is also highly vulnerable to fluctuations in global commodity prices.

While food is generally available in markets and production has seen an upward trend over the last ten years, a few staple food commodities have seen market shortages during 2016, including rice, sugar and cooking oil. In spite of recent shortages in food markets, food insecurity in Egypt is mainly seen as an outcome of increasing poverty and the diminishing purchasing power of the most vulnerable sections of the population³.

Finally, while food availability (namely domestic agricultural output, net food imports and national stocks), is generally secure, recent macroeconomic challenges and low foreign currency reserves pose a risk to the regular supply of key food commodities, such as wheat. This is compounded by Egypt's position as a net food-importer, including over half of its wheat requirements. The policy emphasis on increasing domestic wheat production and storage capacity will need to be complemented by other measures to reduce supply chain losses and efforts to secure foreign reserves⁴. The policy on increasing domestic wheat production is also at odds with ever decreasing water availability.

Water

Water resources in Egypt are limited to the Nile River, deep groundwater in the deserts and Sinai, as well as potential desalination of sea and brackish water. The share of water per capita in Egypt is currently estimated at 750 m³/year, which places it below the "water poverty level" of 1000 m³/year. Furthermore, the country's water demands are in excess of available supplies - the deficit is currently met by reusing drainage water. Therefore, Egypt is facing a potential water scarcity due to increasing demands against a fixed supply of resources that in turn could limit the country's ability to implement its overall economic development plans.

Egypt has a traditional allocation of 55.5 billion m³ of water from the Nile at the Aswan Dam. However actual use has been higher for decades. The current increase in the population, coupled with attempts to increase domestic supplies of wheat and other commodities, have reduced water availability by 60% since the 1970s. Groundwater in Egypt is mainly found in the deep fossil water aquifers in the Western Desert (the Nubian Sandstone Aquifer) and the Eastern Desert. These water reserves are non-replenishable, and require careful and calculated use. This has not always been the case.

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Trends and limitations

Access to safe drinking water in Egypt is currently estimated at 98%, whereas sanitation coverage is estimated at 60.61%.

Currently fears of further water shortages as a consequence of the construction of the Grand Ethiopian Renaissance Dam (GERD) and other developments in the Nile Basin have brought home the need for water conservation to a country that until 20 years ago considered water plentiful. After a thorough re-organisation of the institutional set-up of the drinking water and sanitation sector some 20 years ago, much work has been done by the Holding Company for Water and Waste Water to disseminate information on water use and water saving. On the other hand the water regulator (the Egyptian Water Regulatory Authority) has been side-tracked, limiting the potential of more commercial approaches to water supply and efficiency measures for non-revenue water.

With the assistance of Dutch financing the Egyptian government has developed and implemented the National Water Resources Plan, which details use, allocations, projections and trade-offs of water. Together with the Egyptian Dutch Panel on Water Management (the Drainage Panel as it was referred to in the past), these projects are strong

illustrations of close and long term cooperation between The Netherlands and Egypt on water related issues.

Climate/Renewable Energy

Climate change will likely further exacerbate the challenges in the water and agricultural sector, as temperatures will continue to increase significantly, likely enhancing water losses from evapotranspiration – particularly given the arid climate over Egypt and Sudan – leading to a reduction in stream flows and stored water.

Over the last two decades, Egypt has enjoyed economic growth and an increased standard of living. Consequently, the demand for energy has drastically risen and serious concerns are being raised on Egypt's fuel mix for power generation, industrial production and domestic consumption. In terms of the total primary energy mix, Egypt depends up to 49% on petroleum-based products and 46% on natural gas. Egypt is rich in renewable energy sources, and it is investing significantly in appraisals of wind potential. Currently energy efficiency contributions are insignificant to reduce the demand on primary energy sources. However, in light of the looming energy shortage the government has recently supported plans to address energy efficiency

more aggressively. Electricity prices are gradually being increased by 5% per year till production cost parity has been reached⁵.

Egypt possesses an abundance of land, sunny weather and high wind speeds, making it a prime location for renewable energy sources. The renewable equipment market is potentially worth billions of dollars. Egypt intends to supply 20 percent of generated electricity from renewable sources by 2022, with wind providing 12 percent, Hydro power 5.8 percent, and Solar 2.2 percent. The solar energy plan aims to install 3.5 GW by 2027; including 2.8 GW of PV (photovoltaic) and 700 MW of CSP (concentrated solar power). The strategy also plans to generate 7.2 GW (12 percent of generated electricity) from wind by 2022. The plan envisions significant private sector involvement, noting that the private sector will take the lead on 67 percent of the plan. Over the next three to five years, the Ministry of Electricity and Renewable Energy plans to add 51.3 GW to current installed capacity.

The New & Renewable Energy Authority (NREA) plays a strategic role in the government's renewable energy plans. It currently has about 500 MW of wind power plants in operation and 1340 MW under implementation and development and is expected to

contribute substantially to the rapid expansion of wind power capacity. There are also three privately owned independent power producers (IPPs) with total generation capacity of about 2.5 GW, which started operations in 2002-2003 under 20-year long power purchase agreements with EEHC. The Egyptian government renewable energy plans for 2015-2023 include 3.2 GW of government projects; 1.25 GW under BOO mechanisms, and 920 MW as IPPs. In January 2017, Egypt selected 67 companies to take part in developing 4.3 GW of renewable energy projects; currently, pre-qualified companies are in the land-allocation process. Egypt submitted its First NDC to the UNFCCC in 2017, which focuses on both climate change adaptation and mitigation measures. Priority themes for adaptation are water, agriculture/ food security and coastal zones. For mitigation, the priority is to provide appropriate foundations for the development of low carbon energy systems⁶.

Nexus

In light of the increasing shortages of water and energy and the growing population of Egypt, compounded by issues such as land degradation, climate change, regional developments, water and energy losses, governance and finance shortcomings and political instability in Egypt, a more integrated and encompassing approach to policy and implementation is thought to be required. This integrated and encompassing approach can be attained through a nexus approach, whereby the linkages between water security and energy security and food security in a context of climate change are detailed. The way that changes in water management, food policy or industrial policies influence energy requirements and vice versa, and the way that these various elements feed into each other also taking into account the expected effects of climate change allows an analysis and formulation of interventions at a more effective level than sectoral policies do. Egypt has made some serious strides towards improving its energy mix, and to improve energy supply. However there is still a disconnect between planning for agricultural development and ensuring food security, planning for water use, and planning for energy supply. This in terms of locations, volumes and availability⁷.

5] Study on the water-energy-food Security nexus in Egypt – A challenge for sustainable development, May 2014, GiZ/Eurconsult – MMDonald.

6] For more detailed information please consult <http://www4.unfccc.int/ndcregistry/PublishedDocuments/Egypt%20First/Egyptian%20INDC.pdf>

7] Study on the water-energy-food Security nexus in Egypt – A challenge for sustainable development, May 2014, GiZ/Eurconsult – MMDonald

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Ranking of main result areas

Based on the above analysis, the following result areas can be considered to be most promising for intervention. This ranking is indicative only. It is based on the country needs, complementarity to interventions by other donors, and match with The Netherlands' development policy, knowledge and experience.

Many donors are working on the various IGG related topics in Egypt. What is missing is coordination and integration of the various measures. As in Tunisia, an integrator/coordinator role of The Netherlands would provide additional impetus to the work being done and add value.

The table below is split into the various IGG sectors. However support to Egypt from the perspective of The Netherlands should not focus on a sectoral approach, but on an integrated/nexus approach.

The recommendation in the table below affects all three areas, and should be seen as a proposal to link up with the EU and the EBRD in Egypt to work on a more integrated management of water, and increasing the understanding of decision makers on the value of water for the various sectors.

FOOD AND NUTRITION SECURITY	SUGGESTED DIRECTION	DESCRIPTION
Malnutrition		
Agricultural growth		
Sustainable food systems		
Enabling environment		
WATER	SUGGESTED DIRECTION	DESCRIPTION
Water resources management	Communication on water use efficiency and the value of water in a water scarce environment, how to allocate water to the various sectors.	Egypt is actively working on improving water use efficiency, both in terms of household water use, as well as in terms of agricultural use. Support to assist the Egyptian government in broadly applying these measures and the related communication activities is important.
Transboundary river basin management		
Increased water productivity	See above	See above
CLIMATE*/RENEWABLE ENERGY	SUGGESTED DIRECTION	DESCRIPTION
Access to renewable energy	Energy efficiency	Reduce emissions through effective use of building and isolation materials, solar pumps and solar water heating systems, etc. This should be done in cooperation with the private sector.

* The result areas under climate are partly integrated in the resilience components under the Water and Food and Nutrition Security results areas.

Colofon

Country profile: This country profile is part of a series of 12 countries in the Sahel, Horn of Africa, and MENA regions, covering per country the themes of Food & Nutrition Security, Water, Climate and Renewable Energy. Commissioned by the Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth, IGG), and implemented by Wageningen Centre for Development Innovation (WCDI), as part of the Support Facility of Food & Nutrition Security.

Authors

Ele Jan Saaf (SaafConsult); Herman Brouwer, Bram Peters and Lavinia Plataroti (all WCDI). May 2018. © 2018 Wageningen Centre for Development Innovation
info.cdi@wur.nl | www.wur.eu/cdi

Photo's: Givaga, www.nl123rf.com
Leonid Andronov, www.nl123rf.com
Ele Jan Saaf (SaafConsult)
Design: <http://rco.design>

Methodology

These country profiles are considered a first reconnaissance for IGG in countries that currently do not have bilateral programmes on food, water, climate or energy. As a consequence, the design of these profiles is light and pragmatic. The consultants based these country profiles primarily on focus group discussions and interviews with staff of the Ministry of Foreign Affairs, Ministry of Agriculture, and RVO.

This data was augmented by interviews with country experts, databases from UN and World Bank Group, and IATI (a voluntary, multi-stakeholder initiative aiming to improve the transparency of aid and development resources. The Netherlands is committed to sharing data on its programmes and target areas in IATI).

Based on this data, the consultants offer for each country several result areas for consideration. These should be seen as general directions towards possible actions

which (1) are needed and requested by the country, (2) are complementary to what others are doing already, and (3) present an opportunity to cooperate on areas of Dutch expertise and interest. These possible result areas are not recommendations for specific programmes to be developed.

Thank you

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Documents consulted

Besides internal Ministry of Foreign Affairs documentation and public documents from other agencies (such as WBG, EC, FAO, WFP, USAID, DFID), specific references are footnoted in the text.

Sources for metrics

General country statistics: sourced from CIA World Factbook, UNFPA, UNDESA, IMF, and Wikipedia.

Human Development: UN Human Development Index (2016)
www.hdr.undp.org/en/countries

Anti-corruption and Accountability: Africa Integrity Indicators http://aii.globalintegrity.org/scores-map?stringId=access_information_openness&year=2017

Doing Business: WBG Doing Business Index <http://www.doingbusiness.org/>

Gender Inequality: Gender Inequality Index <http://hdr.undp.org/en/content/gender-inequality-index-gii>

Population 2018 estimate <http://worldpopulationreview.com/countries/>
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Hunger: Global Hunger Index (IFPRI) <https://www.ifpri.org/publication/2017-global-hunger-index-data>

Food security: Global Food Security Index (Economist) <http://foodsecurityindex.eiu.com>

Land management: Land Management Index (UNCCD) https://global-land-outlook.squarespace.com/s/Preliminary-draft-scoping-paper-fro-LMI_May-2017.pdf

Renewable water resources: FAO AquaStat <http://www.fao.org/nr/water/aquastat/main/index.stm>. We calculated the Variation in per capita internal renewable water resources, by comparing the total internal renewable water resources per capita in 2014 (m³/inhabitant/year) with same values in 2007.

Drinking water: World Bank Drinking Water Index <https://data.worldbank.org/indicator/SH.H2O.SMDW.ZS>

Electrification: World Bank ESMAP Electrification Index <http://rise.esmap.org/>
Climate change vulnerability and readiness: ND GAIN Index <https://gain.nd.edu/our-work/country-index/>

IATI: <http://d-portal.org/> and <https://www.iatiregistry.org/>