A New Climate for Peace



Briefing Note No. 9

Egypt Country Risk Brief May 2015

This Country Risk Brief is based on desk-based research and consultations International Alert undertook in Egypt in 2014.

Egypt's population is over 83 million, making it the most heavily populated country in the Arab World and the third largest in Africa. Given that the country is almost entirely desert, 96 per cent of the population is concentrated within the confines of 4 per cent of the land along the Nile River valley and delta. Population growth, limited natural resources and strained urban systems present a number of interlinked challenges for Egypt. Climate change will put additional pressure on already limited natural resources, namely water and arable land, while rapid urbanisation and population growth will impair the prospects for sustainable resource management. Although climate projections for Egypt indicate significant adverse impacts, the topic of climate change is politically avoided. One reason for this is the incremental nature of impacts: Nile flows convey an "illusion of abundance" and there is little awareness of the need for water conservation and planning for the future.

Climate projections in Egypt

The Intergovernmental Panel on Climate Change (IPCC) listed the Nile Delta as one of the areas most vulnerable to climate change globally. Climate change will affect Egypt mainly in three ways: temperature rise, sea level rise and decreased water availability. These impacts will have an adverse effect on existing environmental and natural-resource stresses faced by Egypt, namely pressures on irrigable land for food production and for human habitation along the Nile Delta.

Compound risks: Links between climate change, fragility and security

1. Climate change, water and livelihoods insecurity

One of the major causes of the revolution in 2010/11 and the regime change in July 2014 was economic stress, which was compounded by pressures on natural resources such as food, water and energy.

Water insecurity and water mismanagement arouse population's grievances

Egypt is an arid country, where average per capita water consumption is less than 700 cubic metres of water a year. Freshwater resource needs are met almost entirely by the Nile River (95-98 per cent). Climate impacts on the availability of water from the Nile will present significant threats to food security, livelihoods and well-being of those directly and indirectly dependent on the Nile. Economic growth in Egypt threatens the quality and quantity of water resources, increasing the existing problem of contamination, and contributing to water insecurities. The problem is as much one of poor distribution and management as lack of supply. Heavy government subsidies encourage inefficiencies, and unequal distribution of water contributes to water insecurity. Water insecurity and particularly water shortages have already spurred popular protests in Egypt. In July 2010, 600 people from the southern governorate of Minya staged a sit-down protest outside the Irrigation Ministry in Cairo to protest the lack of water for their land.

Climate change and transboundary water issues

The Nile basin's richest and most powerful riparian, Egypt, is also its most important downstream country and is directly affected by dams upstream on the Nile, in particular in Uganda and by proposed new dams in Ethiopia. Current pressures on Nile water resources, ranging from increased water consumption regionally to the disruption caused by dam-building in upstream countries, will be exacerbated by climate change impacts such as greater variability in seasonal flows, and relatively less available water and increasing salinization. This will strain Egypt's already fragile food, water and energy security. Frequent power cuts in Egypt are also a political challenge which requires engaging with upstream Nile Basin states. Given rising internal pressure on the Egyptian regime to achieve these security objectives, there is a real risk that the Egyptian government may take refuge in nationalism and seek to prevent further upstream water infrastructure development by force, such as supporting rebel groups or fostering political destabilization, and fragility in the region (Rüttinger et al. 2015). Better Nile river management provides opportunities to adapt to climate change and build peace in the

region. Dialogue, common decision-making and cooperation serve as a catalyst for greater regional integration and peacebuilding.

2. Climate change, price volatility, food insecurity and politics of subsidies increase fragility

Food prices rises and volatility contributing to food insecurity and instability

Feeding Egypt's growing population presents a major challenge, especially given the pressure on arable land. The loss of agricultural land due to urban expansion is a serious issue. Climate impacts on the quality and quantity of global food production are contributing to rising food prices. For Egypt this is particularly problematic as it is highly dependent on food imports; it is the world's largest wheat importer. Whilst self-sufficiency is not a realistic goal, in view of the demographic and water pressures the country faces, the reliance on external sources to meet food requirements leaves Egypt vulnerable to food price shocks.

In 2008, average world wheat prices rose 130 per cent above their level a year earlier. This particularly affected poor Egyptians, who spend more than 40 percent of their income on food, and urban areas like Cairo, where the food riots broke out in 2008 around the price of bread. In 2010-2011, a severe winter drought in China reduced global wheat supply and contributed to global wheat shortages and skyrocketing bread prices in Egypt. The high cost of food crystalized economic and political dissatisfaction in Egypt, contributed to violent citizen protests, and indirectly led to regime change in Egypt in 2011 (Werrell and Femia 2013).

Food and the problem of subsidies

Egypt has a long-standing tradition of subsidizing food, especially wheat dating back to the Nasser Administration to counter recurrent shocks and maintain political stability. However, Egyptian food subsidies have been criticized for being costly and inefficient. In 2008/09, the fiscal cost of food subsidies accounted for 2 per cent of GDP. In addition, 28 percent of food subsidies did not reach the most vulnerable households. At the macro level, government subsidies widened the budget deficit and deepened Egypt's dependency on external investors. As food subsidies create expectations from the population, government removal of subsidies, it can spur protests and even violent riots contributing to the country instability, as illustrated the violent 1977 riots in Egypt caused by the sharp increase in bread prices in the wake of reduced subsidies urged by the IMF and World Bank. In turn, political instability in Egypt cut foreign investments and reduced tourism, expanding the finance gap, which made it difficult to implement the necessary reforms (IMF 2014).

3. Population, urbanisation and instability

Youth bulge and violence

Egypt's economy struggles to meet the employment and income needs of its population, half of whom live below the poverty line. The population is projected to grow to approximately 140 million by 2050. There is very high unemployment in Egypt, particularly among educated youth, where unemployment of college graduates is ten times higher than of non-graduates. Egypt's demographic make-up presents particular challenges given that over 54 per cent of the population are under twenty-four years. Youth populations experiencing a combination of lack of economic opportunities (especially when combined with educational attainment, and concomitant expectations), lack of political voice and a sense of relative deprivation, present a higher risk to political stability. This became evident during the 2010-2011 demonstrations on Tahrir Square, which brought Egypt's economy to a halt and pressured President Hosni Mubarak to resign. The majority of participants of the demonstrations were young, unemployed or underemployed and disaffected.

Part of the social unrest in 2010-11 was related with the erosion of the social contract and state capacity to meet the basic needs of the population. Gross human rights violations by the police and the lack of a functioning justice system have undermined the legitimacy of parts of the security sector, which also presents a major challenge to stability.

Cities at risk of conflict and violence

Pockets of fragility are likely to emerge in urban settings. Rapid urbanisation and urban encroachment around metropolitan areas of Cairo and Alexandria, as well as around the cities in the delta, are increasing burdens on urban infrastructure, basic service provision and agricultural productivity. As urban development reaches its physical limits, pressures on supply are likely to result in more young people without jobs and living in informal settlements and other marginalized areas that are highly vulnerable to climate change. If not adequately planned, urbanization could result in increased unem-

ployment, poverty and violence in urban areas. Urban violence has indeed been identified as a major risk pending on Egypt's growing cities. Daily incidences of urban violence are reported throughout Egypt, with hotspots in Northern Sinai. Cairo is at particular risk, as it is one of the most densely populated cities in the world and the overcrowded and under-serviced metropolitan area contributed to the demonstrations in Tahrir Square.

Recommendations

Presently, very little attention is given to climate change adaptation or mitigation in Egypt. Since the impacts of climate change in Egypt are not as directly felt as in countries such as Jordan, due to the current availability of water in the Nile, there is political avoidance and wilful blindness towards the issue. Efforts to address the country's energy challenges comprise non-renewables such as coal rather than investment in highly viable renewables such as wind and solar power. If Egypt invests in coal-fired power stations now, it will not only be locked into carbon emissions, but also into importing coal, which puts the country at risk of future energy insecurity if supply lines are limited by continued regional instability. Improving water use and reducing losses are essential for mitigating future risks to economic and political stability. Focusing on comparative advantage by promoting cash crops would also help balance costs of food imports. Equally pressing are steps to taper population growth through sexual and reproductive health measures.

Entry points:

- Economy and investment are national priorities and areas where the G7 have most space to work. Investment is the best way to encourage buy-in from the Government of Egypt. There is also a need to reduce the army's role in the economy (albeit the biggest land owner in Egypt, the army is exempt from paying taxes, such as the new land tax).
- **Population** growth stresses the capacity of the state to provide services and maintain legitimacy. Population momentum will maintain Egypt's youth bulge over the next two decades, so infrastructure and governance provision will need to cater for the increasing demands of a growing population. Addressing the unmet need for voluntary sexual and reproductive health measures is a priority in the face of increasing climate and resource pressures.
- Sustainable agricultural production systems and better water infrastructure are necessary priorities to cope with increased population, limited productive land and water.

These three factors need technical solutions that do not lead to maladaptation or inadvertently fuel conflict.

Written By:

Clémence Finaz, Research Associate with International Alert's Environment, Climate Change and Security Programme

References:

Central Agency for Public Mobilization and Statistics (2013): Population. Egypt Statistical Yearbook, 2013, 4. http://www.capmas.gov.eg (accessed 2 September 2014).

Climate Change Central Department and Egyptian Environmental Affairs Agency, Ministry of State for Environmental Affairs (2010): Egypt National Environmental, Economic and Development Study (NEEDS) for Climate Change Under the UNFCCC. Retrieved from https://unfccc.int/files/cooperation_and_support/finanical_mechamism/ application/pdf/egypt_final_report_needs.pdf.

El-Ramady et al. (2013): Sustainable Agriculture and Climate Change in Egypt, Sustainable Agriculture Reviews, 12. 41-95.

El-Sadek, A,(2010): Virtual Water Trade as a Solution for Water Scarcity in Egypt, Water Resource Management, 24, 2437-2448.

FAO (2007), cited in El-Agha, et al. (2010): Performance Assessment of Irrigation Water Management in Old Lands of the Nile Delta Egypt, Irrigation and Drainage Systems, 25, 215-236.

Gerfeslt, B. (2007): Allocating Irrigation Water in Egypt. Case Study 8-4 of the Program: Food Policy in Developing Countries: The Role of Government in the Global Food System. New York: Cornell University.

LaGraffe, D. (2012): The Youth Bulge in Egypt: An Intersection of Demographics, Security , and the Arab Spring. Journal of Strategic Security 5 (2), pp 65-80.

Merrill, John C., "Water management and decisionmaking in the Nile Basin: A case study of the Nile Basin Initiative" (2008). Graduate Theses and Dissertations. http://scholarcommons.usf.edu/etd/402.

United Nations Population Division (2010): World Population Prospects: 2010 Revision, available at https://esa.un.org/indp/wpp.

Urdal, Henrik (2011): A Clash of Generations? Youth Bulges and Political Violence, United Nations Expert Group Meeting on Adolescents, Youth and Development, Population Division, DESA, available at http://www.un.org/esa/population/meetings/egm-adolescents/p10_urdal.pdf.

Weber, P. and Harris, J. (2008): Egypt and Food Security, Al-Ahram Weekly Online, 23 October 2008. https://weekly.ahram.org.eg/2008/919/sc6.htm (Accessed 2 Sep 2014).

Werrell, C. E., and Femia, F. (eds.) (2013): The Arab Spring and Climate Change: A Climate and Security Correlations Series. Washington: Center for Climate and Security.