

Gaza: The Human Dimension

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The new round of fighting over Gaza shows every sign of locking Israel and the Palestinians into hardline positions, make it impossible for Hamas to evolve into a movement that can accept Israel's right to exist, making life even harder for the Palestinians in Gaza, and ending in a strategic stalemate that reduce the prospects for any form of peaceful development even further.

It is hard to see how the new fighting can produce any more lasting strategic impact that will benefit either side rather than lead to another cycle of pauses, isolation of Gaza, and then a future round of fighting. At the same time, it seems pointless to try to put the blame on either side when progress can only take place if both side can resolve enough of their differences to cooperate in focusing on what is happening to the population in the Gaza.

Tragic as the casualties in the fighting are, they are only a small part of a much greater and more enduring tragedy that affects Gaza's entire population. Gaza is steadily becoming more and more of a giant urban slum that is dependent on outside aid for even minimal living conditions and where each new round of fighting makes things worse.

A US Census Bureau Estimate of Population Growth

Population pressure has been critical in an area with limited water and arable land, poor lines of communication and weak infrastructure, and many internal and external barriers. There are no precise figures on past and estimated growth, but the [US Census Bureau](#) seems broadly accurate in providing the estimate in **Figure One** – which indicates that the Gaza's population is 7.4 times what it was in 1950, and will nearly double again by 2050.

Figure One: The Gaza Midyear Population and Density - Custom Region - Gaza Strip

Year	Population	Area (sq. km.)	Density (persons per sq. km.)
1950	245,375	360	681.6
1960	308,158	360	856.0
1970	342,656	360	951.8

Figure One: The Gaza Midyear Population and Density - Custom Region - Gaza Strip

Year	Population	Area (sq. km.)	Density (persons per sq. km.)
1980	455,734	360	1,265.9
1990	645,840	360	1,794.0
2000	1,130,438	360	3,140.1
2010	1,604,238	360	4,456.2
2014	1,816,379	360	5,045.5
2025	2,350,255	360	6,528.5
2050	3,392,849	360	9,424.6

Source: [US Census Bureau IDB](#)

A CIA Estimate of Current Conditions

The realities in Gaza are sometimes blurred by statistics that combine data on Gaza and the West Bank; with the result that far better conditions on the West Bank create averages that understate the problems in Gaza. This is the case with most CIA data, which combine the West Bank and Gaza.

The CIA World Factbook does, however, provide the following summary of the economy before the new round of fighting,ⁱ

Israeli security controls imposed since the end of the second intifada have degraded economic conditions in the Gaza Strip, the smaller of the two areas comprising the Palestinian territories. Israeli-imposed border closures, which became more restrictive after HAMAS seized control of the territory in June 2007, have resulted in high unemployment, elevated poverty rates, and a sharp contraction of the private sector that had relied primarily on export markets.

Gazans increasingly turned to tunnels that ran under the Egyptian border to bring in fuel, construction materials, and consumer goods. In July 2013, Egyptian authorities began a serious crackdown on the tunnels, causing shortages in Gaza. The population depends on government spending - by both the Palestinian Authority and HAMAS's de facto government - and humanitarian assistance. Changes to Israeli restrictions on imports in 2010 resulted in a rebound in some economic activity, but regular exports from Gaza still are not permitted. Standard-of-living measures remain below levels seen in the mid-1990s.

The CIA also estimated unemployment at 22.5% in 2013, and the poverty rate at 38% in 2010. It estimated the total population as 1,816,379 as of July 2014, and rated it as extremely young.

- 0-14 years: 43.2% (male 402,848/female 381,155)
- 15-24 years: 20.6% (male 191,710/female 182,405)

- 25-54 years: 30.1% (male 280,551/female 266,756)
- 55-64 years: 3.5% (male 31,711/female 31,515)
- 65 years and over: 2.6% (male 19,617/female 28,111) (2014 est.)

Even if one included the West Bank, this produced extremely high dependency ratios: Total dependency ratio: 74.1 %, youth dependency ratio: 68.8 %, and elderly dependency ratio: 5.3 %.

IMF Data

Like the CIA, the IMF combines much of its data to cover both the West Bank and Gaza, but even the combined figure puts youth unemployment at critical levels. The IMF issued a statement earlier in July that, “Against the background of rising political uncertainty, the economy of the West Bank and Gaza is weakening, and unemployment, particularly youth unemployment, currently at 43 per cent, continues to rise from already high levels...”ⁱⁱ

An IMF staff report in September 2013 noted that,ⁱⁱⁱ

Growth in the West Bank declined from an average of 9.4 percent in 2010–11 to 5.6 percent in 2012 and in Gaza from 14.7 percent to 6.6 percent.... In the second quarter of 2013, the unemployment rate in the WBG stood at nearly 21 percent (17 percent in the West Bank and 28 percent in Gaza)... growth in Gaza has picked up in response to scaled up reconstruction efforts. But this source of growth is being disrupted as a result of political developments in

Egypt and the related closure of the tunnels that have been used to circumvent the blockade of Gaza.

The report severely understated the budget and financing problem in the Gaza because it only focused on the overall finances of Palestinian Authority – which affect the West Bank, but it is clear that “growth” actually consists in large part in terms of aid, and that much of the money covers budget deficits dealing with the immediate needs of the population with limited spending on development.^{iv}

The PA has long been a large recipient of official donor aid, but over time aid flows have become increasingly volatile and tilted towards budget support.

Since its establishment in 1994, the PA has received more than US\$15 billion in aid from bilateral and multilateral donors (15 percent of GDP per year), with annual per capita aid averaging US\$340. Official aid flows to the PA have also become more volatile and tilted towards budget support. Before 2001, roughly one third came in the form of budget support; after 2007 this was more than 80 percent. The boom in budget support came at the expense of development support.

... Since 2008, budget support has been used mainly to finance recurrent spending. This is despite ambitious public investment plans envisaged in the Palestinian Reform and Development Plan (PRDP, 2008–10) and the Palestinian National Development Plan (PNDP, 2011–13). Under these two development plans, recurrent budget deficits were to be financed by budget support from donors. The PA received a total of US\$6.5 billion for this purpose (including projections for 2013), about US\$0.5 billion more than programmed.

Actual recurrent deficits, however, were much larger and hence budget support fell US\$1.8 billion short of financing needs, which resulted in arrears accumulation and bank borrowing. Still, on average, budget support covered roughly one third of total recurrent spending. For private-sector development and the buildup of public

infrastructure, the PRDP and PNDP envisaged ambitious donor-financed investment plans, totaling US\$4.4 billion; however, only US\$1.2 billion in PA-implemented projects was covered by donors, resulting in more arrears accumulation and delays and sometimes cancellation of investment plans

It is striking that in the few cases where the IMF does break out the economic differences between Gaza and the West Bank, they clearly show that Gaza is far less well off. For example, **Figure Two** shows that Gaza's per capita income is closer to that of an extremely poor state like Afghanistan than a poor region like the West Bank, and its direct unemployment rate is nearly 50% higher.

A UN Estimate of the Future to 2020

A UN estimate of the Gaza's future though it does date back to 2012, and is controversial in its assessment of the impact of the fighting in Operation Cast Lead, but seems broadly correct in assessing the human conditions in Gaza and its prospects for 2020 -- *if no further fighting occurred*:^v

By the year 2020 the population of Gaza will increase to around 2.1 million, from an estimated 1.6 million people today. The substantial population growth rate will thus add some 500,000 people to a living area that is restricted and already heavily urbanized. Fundamental infrastructure in electricity, water and sanitation, municipal and social services, is struggling to keep pace with the needs of the growing population.

By 2020, electricity provision will need to double to meet demand, damage to the coastal aquifer will be irreversible without immediate remedial action, and hundreds of new schools and expanded health services will be needed for an overwhelmingly young population. Tens of thousands of housing units are needed today. Gaza is an urban economy, heavily reliant on intensive trade, communication and movement of people. The area has been essentially isolated since 2005, meaning that, in the longer term, its economy is fundamentally unviable under present circumstances.

Gaza is currently kept alive through external funding and the illegal tunnel economy. The people of Gaza remain worse off than they were in the 1990s, despite increases in real gross domestic product (GDP) per capita over the past three years. Unemployment is high and affects women and youth in particular. Gaza's GDP per capita is expected to grow only modestly in the coming years, making it ever more difficult for Gazans to secure a decent living.

The challenges will only become more acute, particularly if the current political status quo continues. Even if the political situation were to improve dramatically over the next years, the issues identified in this study would still need to be addressed as a matter of urgency. While recognizing recent progress, demographic pressure and the deterioration of Gazan infrastructure demand durable and broad-based economic growth based on trade of goods and services.

It will be essential to ensure the provision of basic infrastructure (particularly water/sanitation and electricity) and improved social services (particularly health and education). As a heavily urbanized environment with little room for further growth, Gaza needs to be open and accessible to the world. The viability of a future Palestinian state depends on a proper connection between the West Bank and Gaza, providing access to the Mediterranean for the entire occupied Palestinian territory.

The UN study also produced the grim estimates of the Gaza's prospects shown in **Figure Three**, and a series of data points that inevitably involve serious uncertainties, but do illustrate the human impact of continued fighting and isolation:

- The Gaza Strip has a high population density, at 4,505 people per square kilometer, with 1.6 million people – half of them children and two-thirds of them refugees – living in an area of 365 square kilometers. Gaza has become heavily urbanized and is facing a current shortfall of 71,000 housing units. Already in 2000, the urbanization rate was 94.6% with a projected increase to 95.5% by 2015. This makes the Gaza Strip largely dependent on the world outside.
- Based on current growth, the population (according to different projections) is expected to increase to 2.13 million by 2020 and 2.76 million by 2028, which would result in a population density of 7,562 people per square kilometer. The annual population growth rate for Gaza in 2011 stood at a high 3.37%, resulting from a fertility rate of 4.9 children per woman in 2010, compared to 3.8 in the West Bank. The population growth rate in Gaza is forecast to decline moderately to 2.99% by 2020.
- In addition to overall population growth, the fact that the Gaza Strip has one of the youngest populations worldwide will pose particular challenges. Some 51% of the population are younger than 18 years, projected to decrease only slightly to 48% by 2020.⁶⁰ The Gaza Strip has the second-highest share of people aged 0 to 14 years worldwide.⁶¹ Moreover, the 'youth bulge' – the ratio of youth (15-29) to the total over-15 population – is exceptionally high, at 53% (projected to decrease to 50% in 2020).
- This has several implications: First, the dependency ratio in the Gaza Strip is very high, further aggravated by the unemployment and low labor force participation rates (especially for women). Second, a youth bulge can have positive and negative consequences. When these young people reach working age, the economy can benefit from an increased supply of labor, yielding a demographic dividend. For this, skills training that is relevant and of good quality is needed. On the contrary, if the economy does not provide opportunities and emigration is blocked, the consequences can be negative: social tension, violence and extremism as possible outlets for lack of meaningful prospects. This is the scenario in Gaza, unless the political and economic situation changes substantially.
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- Additional schools are needed now to respond to an increasing number of children at school age in the coming years. The number of school-age children is projected to increase to 673,000 by 2020, by an average of 14,000 per year. Currently, there is a shortage of up to 250 schools in Gaza. Based on the number of schools needed now (677 existing plus 250 needed) and population projections for the number of children of school-age, a further 190 schools would be needed by 2020, for a total of 440 schools that need to be built. In the longer term, the quality of education and the learning environment need to respond to the shortage of classrooms and make the curricula (including textbooks) responsive to the needs of children in Gaza, providing them with life-skills based education. This requires a greater investment in teacher training and supervision. University education needs to be expanded and its quality improved.
- Many Gazans are food insecure, due primarily to a lack of economic means, rather than a shortage of food. More than half of the households in Gaza are either food insecure (44%) or vulnerable to food insecurity (16%) even when taking into account UN food distributions to almost 1.1 million people. This is an improvement over previous years. Households on average spend close to 50% of their cash on food. Eighty per cent of households receive some form of assistance and 39% of people live below the poverty line.
- This results from low levels of income per capita. As importantly, in a densely populated, largely urban territory, food self-sufficiency is not an option. Such a territory will always depend on trade, services and worker movement, all of which remain limited as a result of the closure. For as long as the closure continues, levels of food insecurity will remain high. Restrictions on access to agricultural land and the fishing limit of three miles from the coast remain challenges. Gazans cannot, or only with difficulty, access 17% of the enclave's land, including 35% of its agricultural land, because it is located in the 'buffer zone' or in the high-risk, access-restricted area near the fence separating it from Israel.⁴³ More than 3,000 fishermen do not have access to 85% of the maritime areas agreed in the 1995 Oslo Accords. As a result, the fish catch has decreased dramatically over the years of closure. Overall, land and sea restrictions affect 178,000 people, 12% of Gazans, and result in annual estimated losses of US\$ 76.7 million from agricultural production and fishing.
- Gaza's economy is expected to grow only modestly in the coming years. The low-growth (IMF) scenario assumes an annual growth rate of real GDP of 4% to 5%, the high-growth scenario, which is based on a "significant easing... of trade and other restrictions", 9% to 10%. Given the high annual population growth rate of 3.37%, real GDP per capita would only grow at between 0.6% and 1.5% annually in the low-growth scenario, and by 5.7% to 6.6% in the high-growth scenario. Forecasts for up to 2020 are currently not available. While the relative level of food insecurity may decline, overall increases in the population will likely mean an increase in the absolute number of people requiring assistance.
- Palestinians in Gaza face regular power cuts as provision of electricity remains well below demand. The cuts affect private businesses and homes, health services, wastewater treatment plants, and schools. Many of these rely on back-up generators. The Gaza Strip receives most of its power, 120MW, from Israel, while up to 100MW are produced at the only power plant in Gaza, and 22MW are imported from Egypt. Under ideal circumstances, this adds up to

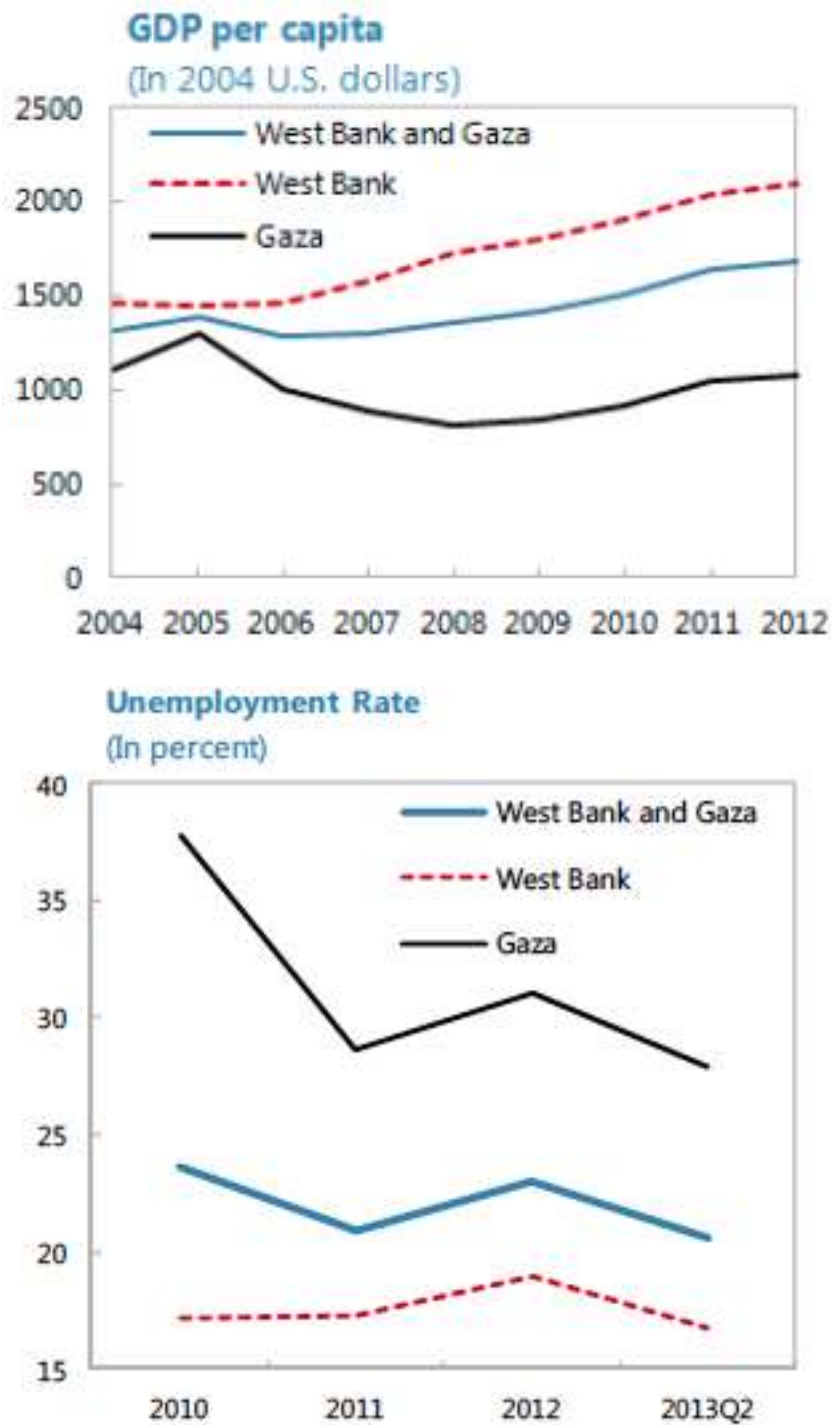
242MW versus a peak demand of up to 350MW. Peak demand is projected to rise to 550 MW by 2020.

- ...the situation in relation to water and sanitation for the Palestinians of Gaza is critical. With no perennial streams and low rainfall, Gaza relies almost completely on the underlying coastal aquifer, which is partly replenished by rainfall and runoff from the Hebron hills to the east, with the recharge estimated at 50 to 60 million cubic meters (MCM) annually.
- Current abstraction of water from the aquifer, at an estimated 160 MCM per year to meet current overall demand, is well beyond that. As groundwater levels subsequently decline, sea water infiltrates from the nearby Mediterranean Sea. Salinity levels have thus risen well beyond guidelines by the World Health Organization (WHO) for safe drinking water. This pollution is compounded by contamination of the aquifer by nitrates from uncontrolled sewage, and fertilizers from irrigation of farmlands.
- Today 90% of water from the aquifer is not safe for drinking without treatment. Availability of clean water is thus limited for most Gazans with average consumption of 70 to 90 liters per person per day (depending on the season), below the global WHO standard of 100 liters per person per day.

The aquifer could become unusable as early as 2016, with the damage irreversible by 2020. UNEP recommends ceasing abstraction immediately as it would otherwise take centuries for the aquifer to recover. Even with remedial action now to cease abstraction, the aquifer will take decades to recover. Meanwhile the Palestinian Water Authority (PWA) expects demand for fresh water to grow to 260 MCM per year by 2020, an increase of some 60% over current levels of abstraction from the aquifer.

- The situation with regard to treatment of wastewater or sewage is no less problematic, with huge investment in treatment facilities and associated infrastructure desperately needed to cope with the existing demand, let alone for the future. At present, only 25% of wastewater, or 30,000 CM per day, is able to be treated and re-infiltrated for use in green areas and some forms of agriculture. Some 90,000 CM of raw or partly treated sewage has to be released daily into the nearby Mediterranean Sea and environs (almost 33 MCM per year), creating pollution, public health hazards, and problems for the fishing industry.
- Work is ongoing on the construction of new and refurbished wastewater treatment plants to cope with both present and future demand, but these efforts will need to be accelerated. Some 44 MCM of wastewater is generated annually at present, a figure that could rise to 57 MCM annually by 2020.

Figure Two: Gaza vs. the West Bank



IMF, WEST BANK AND GAZA STAFF REPORT PREPARED FOR THE SEPTEMBER 2013 MEETING OF THE AD HOC LIAISON COMMITTEE, September 11, 2013, <http://www.imf.org/external/country/wbg/rr/2013/091113.pdf>, pp. 24 & 25.

Figure Three: World Bank Estimate of Future Prospects for the Gaza

Indicator	Value
GDP <i>per capita</i> in 1994	US\$ 1,327 (in 2004 constant USD) ⁴
GDP <i>per capita</i> in 2011	US\$ 1,165 (in 2004 constant USD) ⁵
GDP <i>per capita</i> in 2015 (based on IMF low-growth scenario)	US\$ 1,273 (in 2004 constant USD) ⁶
Unemployment rate in 2011	29% ⁷
Households that are food insecure or vulnerable to food insecurity in 2011	60% (including 44% food insecure households) ⁸

Indicator	Projection
Economy – Real GDP <i>per capita</i>	US\$ 1,273 in 2015, still less than in the 1990s
Population – Size	2.13 million people in 2020, about 500,000 more than today
Population – Density	5,835 people per km ² in 2020
Water – Aquifer	May become unusable by 2016 and damage to it irreversible by 2020
Water – Demand	260 million cubic metres in 2020, an increase of about 60% from today
Education – Schools	250 additional schools are needed now and another 190 by 2020
Health – Hospital beds	800 additional beds needed by 2020 to maintain current levels of service
Health – Personnel	Over 1,000 additional doctors and 2,000 nurses needed by 2020

Indicator	Value
Population in 2012	1.64 million people
Population projection for 2020	2.13 million
Population density in 2012	4,505 people per km ²
Projected population density in 2020	5,835 people per km ²
Children aged 0-17 in 2012	839,000 (51% of total population)
Children aged 0-17 in 2020 (projected)	1,029,000 (48% of total population)
Youth aged 15-29 in 2012	489,000 (30% of total population; 53% of population aged 15 and over) ¹¹
Youth aged 15-29 in 2020 (projected)	614,000 (29 % of total population; 50% of population aged 15 and over)

Source: GAZA IN 2020, A Livable Place? A report by the United Nations Country Team in the occupied Palestinian territory August 2012
<http://domino.un.org/UNISPAL.nsf/5ba47a5c6cef541b802563e000493b8c/a51d0bfda2ba835585257a680049b333?OpenDocument#sthash.35IZiXjV.dpuf>.

ⁱ CIA, world Factbook, “Gaza,” accessed August 10, 2014, <https://www.cia.gov/library/publications/the-world-factbook/geos/gz.html>.

ⁱⁱ *Dawn*, July 6th, 2014, <http://www.dawn.com/news/1117439/imf-urges-israel-to-lift-west-bank-gaza-restrictions>.

ⁱⁱⁱ IMF, WEST BANK AND GAZA STAFF REPORT PREPARED FOR THE SEPTEMBER 2013 MEETING OF THE AD HOC LIAISON COMMITTEE, September 11, 2013, <http://www.imf.org/external/country/wbg/rr/2013/091113.pdf>.

^{iv} IMF, WEST BANK AND GAZA STAFF REPORT PREPARED FOR THE SEPTEMBER 2013 MEETING OF THE AD HOC LIAISON COMMITTEE, September 11, 2013, <http://www.imf.org/external/country/wbg/rr/2013/091113.pdf>.

^v GAZA IN 2020: A Livable Place? A report by the United Nations Country Team in the occupied Palestinian territory August 2012
<http://domino.un.org/UNISPAL.nsf/5ba47a5c6cef541b802563e000493b8c/a51d0bfda2ba835585257a680049b333?OpenDocument#sthash.35IZiXjV.dpuf>.