
GAZA IN 2020

A liveable place?

A report by the United Nations Country Team in the occupied Palestinian territory
August 2012

ACRONYMS AND ABBREVIATIONS

CM	cubic metre
GDP	Gross Domestic Product
ILO	International Labour Organization
IMF	International Monetary Fund
km ²	square kilometre
MCM	million cubic metres
mg	milligram
MW	Megawatt
UN	United Nations
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency
US	United States (of America)
WHO	World Health Organization

Foreword

The United Nations Country Team (UNCT) in the occupied Palestinian territory (oPt), at its annual retreat in November 2011, discussed critical development and humanitarian challenges facing Palestinians in the oPt. As part of its programme of work, the UN initiated a study to see what the Gaza Strip might look like by the year 2020 as a place in which to live. Building on what is known now, the resulting study seeks to highlight the formidable developmental, humanitarian and social imperatives which need to be addressed and resolved, irrespective of the political context.

The document which follows thus provides an overview of current challenges and trends in Gaza, and through the lens of the UN family working in the oPt presents an extrapolation eight years forward to 2020. It is based on a wealth of existing literature both from within the UN and outside, and the wide range of sources used is reflected as Endnotes at Annex One. The reader who seeks more in-depth information and analysis is encouraged to explore the literature under References at Annex Two.

The broad objectives of this study are to: highlight the longer-term effects and implications of current developmental and social trends and challenges affecting the Gaza Strip; raise awareness of these both locally and internationally; and, inform the strategic programming of the United Nations in support of the Palestinian people of the oPt.

The document does not venture any opinion or forecast of the evolution of political events, nor does it offer prescriptive advice based on different political scenarios. The document does implicitly assume a peace process which leads ultimately to a solution of two sovereign states, Israel and Palestine, living side by side in peace and harmony.

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on behalf of the United Nations Country Team in the oPt

27 August 2012

Summary

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 which 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.

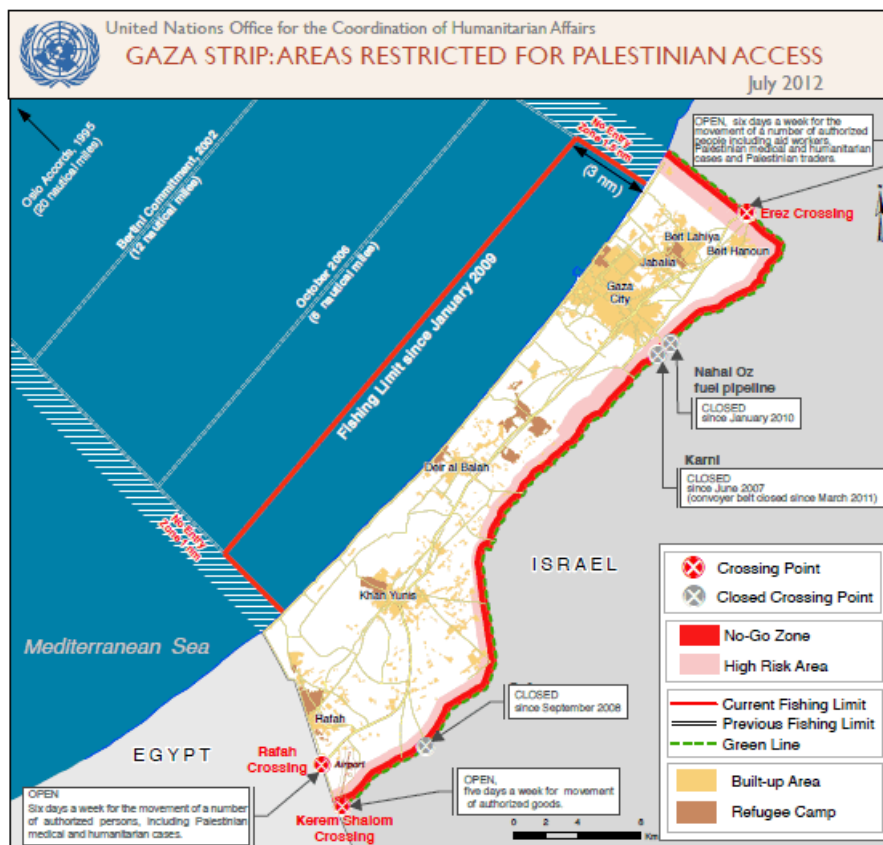
The people of Gaza remain worse off than they were in the 1990s, despite increases in real gross domestic product (GDP) *per capita* over the past three years. Unemployment is high and affects women and youth in particular. Gaza's GDP *per capita* is expected to grow only modestly in the coming years, making it ever more difficult for Gazans to secure a decent living.¹ 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.

This document focuses on a range of the most important issues affecting the daily lives of the people in Gaza, which will only intensify in the coming years – even more so should the political situation (the divide between Gaza and the West Bank, the occupation and closure, and continued violent conflict) not improve. These challenges are described in the six-monthly UN report to the *Ad hoc* Liaison Committee, and more routinely in the UN's monthly briefing to the Security Council. In short, an end to the blockade of the Gaza Strip in the context of Security Council resolution 1860,² and Gaza's recovery and long-term economic development remain fundamental objectives of the United Nations.

What the future holds for Gaza³

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



1. Economy

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

Despite recent economic growth, Gazans are now, on average, worse off than they were in the 1990s.⁹ The economy expanded substantially in 2011 with real GDP *per capita* increasing by 19% and GDP by 23%.¹⁰ This growth resulted primarily from an increase in construction (by 119% in 2011),¹¹ and not from growth in more productive sectors of the economy. Yet, in 2011, real GDP *per capita* (in 2004 US dollars) stood at US\$ 1,165,¹² only 88% of the level of 1994 and 61% of the GDP *per capita* of the West Bank.¹³ The low level of investment in the economy (only 9% of GDP, much of it in residential construction) cannot serve as a basis for future sustained economic growth.¹⁴ The expansion of the productive sectors, increased productive investment, and enabling exports to third countries, including Israel, and transfers to the West Bank will therefore be essential to secure longer-term economic growth.

In line with the decline in GDP *per capita*, unemployment is higher than in the late 1990s,¹⁵ despite improvements in recent years. Unemployment in Gaza stood at 29% in 2011 and has increased since.¹⁶ Women and youth are particularly affected: The unemployment rate for women was 47% during the first quarter of 2012,¹⁷ and it was 58% for people between 20 and 24 years of age.¹⁸

One of the main reasons for the economy's inability to recover to pre-2000 levels has been and is the blockade of the Gaza Strip.¹⁹ The Palestinian Ministry of National Economy estimates that this led to costs or unrealized growth worth US\$ 1.9 billion in 2010.²⁰

During Israel's Operation 'Cast Lead' in the Gaza Strip in December 2008 to January 2009, 6,268 homes were destroyed or severely damaged;²¹ 186 greenhouses were destroyed; 931 impact craters in roads and fields were counted;²² universities faced US\$ 25 million in damages;²³ 35,750 cattle, sheep and goats, and more than one million chicken and other birds were killed;²⁴ and 17% of the cultivated area was destroyed.²⁵ 'Cast Lead' caused a total of US\$ 181 million in direct and US\$ 88 million in longer-term costs for Gaza's agriculture;²⁶ generated about 600,000 tonnes of rubble and US\$ 44 million in environmental costs;²⁷ and water and sanitation infrastructure suffered almost US\$ 6 million in damages.²⁸

Imports have fallen since the start of the second intifada in 2000. Exports have nearly been brought to a halt due to restrictions.²⁹ Transfer of goods to the West Bank and exports to Israel, traditional markets for Gazan goods, remain banned, with a few exceptions, such as a transfer of date bars from Gaza to the West Bank in early 2012 as part of a UN project. Import and export restrictions increase uncertainty as well as production and transaction costs, eroding the competitiveness of Gazan products for transfers to the West Bank or exports to other countries,³⁰ thus making investment less attractive. Moreover, the longer occupation and closure are maintained, the harder it will be for businesses to restart.³¹

As a largely urban area, Gaza is dependent on trading goods and services, as it can hardly be self-sufficient. Due to the restrictions, Gaza's economy is largely dependent on external aid, the tunnel economy (discussed below) and remittances.³² Recent economic growth does not seem to be sustainable.

Agriculture plays an important but limited role in Gaza. Exports of small amounts of strawberries, flowers and cherry tomatoes, mostly to Europe, are too minor to have a substantial impact on the overall economic situation. The future of agriculture is intimately linked with access to water in sufficient quantity and quality.³³ It is equally linked with land access that is not only limited by the buffer zone and access-restricted areas but also by urban development. In this context, urban agriculture can help to grow crops and produce animals while saving water. To gain a clearer picture of the contribution that cash crops and urban agriculture could play in the medium term for the Gazan economy, a proper assessment is needed.

The Tunnel Economy

While the official economy continues to recover from a deep contraction, the shadow economy has blossomed.³⁴ Circumventing the closure of the Gaza Strip, goods are illegally smuggled from Egypt into Gaza through hundreds of tunnels. Estimates of the number of tunnels, the number of tunnel workers, and the amount of goods smuggled through the tunnels vary and no reliable data are available.³⁵ The tunnel economy benefits the *de facto* authorities in Gaza who, according to an ILO report, "receive a considerable share of the benefits" from it.³⁶

Goods are illegally smuggled into Gaza through hundreds of tunnels

Food Security and Livelihoods

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%)³⁷ even when taking into account UN food distributions to almost 1.1 million people. This is an improvement over previous years.³⁸ Households on average spend close to 50% of their cash on food.³⁹ Eighty per cent of households receive some form of assistance⁴⁰ and 39% of people live below the poverty line.⁴¹ 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.⁴² 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.⁴⁴ As a result, the fish catch has decreased dramatically over the years of closure.⁴⁵ Overall, land and sea restrictions affect 178,000 people, 12% of Gazans,⁴⁶ and result in annual estimated losses of US\$ 76.7 million from agricultural production and fishing.⁴⁷

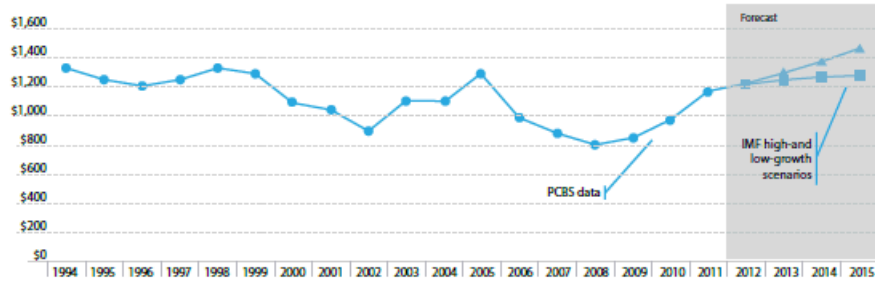
Should the three-mile limit on fishing be lifted, the fishing industry would likely grow in size. Inland fish farming could provide employment and a cheap source of protein in the medium term and would complement sea fishing. While ultimately large-scale growth will be based on sectors other than agriculture, in the short term and under continued closure, fishing has the potential to bring a ready source of protein to the diets of Gazans.⁴⁸

Food assistance: Gazans helping Gazans

Forecast

Gaza's economy is expected to grow only modestly in the coming years. The graph below shows the development of GDP *per capita* in Gaza in constant 2004 US dollars (it is adjusted for inflation), based on data from the Palestinian Central Bureau of Statistics, and high and low-growth scenarios from the International Monetary Fund for 2012-2015. The low-growth 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%.⁴⁹ 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.⁵⁰ 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.

Real GDP per capita in Gaza
Sources: PCBS 20 March 2012, IMF 2012



Fishing is restricted to an area reaching three miles from the coast

2. Population Growth and Urbanisation

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)

71,000 housing units are needed in Gaza

The Gaza Strip has a high population density, at 4,505 people per km², with 1.6 million people – half of them children and two-thirds of them refugees⁵² – living in an area of 365 km².⁵³

Gaza has become heavily urbanised and is facing a current shortfall of 71,000 housing units.⁵⁴ Already in 2000, the urbanisation rate was 94.6% with a projected increase to 95.5% by 2015.⁵⁵ This makes the Gaza Strip largely dependent on the world outside, while its own economy has to have a strong urban basis. It is also putting high demands on public infrastructure and services. The lack of land for expansion inflates land and housing prices, making houses less affordable and making it increasingly difficult, without strong public regulation, to extract land for public infrastructure and services. A proper connection with the West Bank will be essential for a viable Palestinian State so that people can move between the two areas. Scarcity of land, intensified by access restrictions, requires strong planning and regulations to ensure that despite the population density, Gaza will be a liveable place, avoiding unhealthy overcrowding, social tension and insecurity.

Based on current growth, the population (according to different projections) is expected to increase to 2.13 million by 2020⁵⁶ and 2.76 million by 2028,⁵⁷ which would result in a population density of 7,562 people per km². 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.⁵⁸ The population growth rate in Gaza is forecast to decline moderately to 2.99% by 2020.⁵⁹

The inevitable increase in the population will pose further strains on access to affordable housing and services including electricity, water and waste water treatment. Population growth and the high number of adolescents who will enter the labour force in coming years also mean that the economy will have to grow in line, just to keep pace with the expanding labour force.

Youth Bulge

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).⁶²

This has several implications: First, the dependency ratio in the Gaza Strip is very high,⁶³ further aggravated by the unemployment and low labour 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 labour, 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.

3. Basic Infrastructure

Electricity

Indicator	Value
Current capacity for electricity supply	242MW
Peak electricity demand in 2011	350MW
Peak electricity demand in 2020	550MW

Palestinians in Gaza face regular power cuts as provision of electricity remains well below demand. The cuts affect private businesses and homes, health services, waste water 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,⁶⁴ and 22MW are imported from Egypt.⁶⁵ Under ideal circumstances, this adds up to 242MW versus a peak demand of up to 350MW.⁶⁶

Between 1999 and 2005, electricity demand increased on average by 10% a year although the increase has been lower in recent years.⁶⁷ The Gaza Electricity Distribution Company (GEDCo) expects electricity demand to increase to 550MW by 2020, more than twice as much as is currently being provided.⁶⁸ Still, both short-term solutions to increase the amount of imported fuel and electricity, and longer-term solutions to increase power supply, improving the power distribution system to avoid loss, increasing collection rates for electricity fees, and building capacity for renewable energy, are required to supply Gaza with sufficient power. The Gaza Marine offshore gas field has the potential to supply all the energy needs of Gaza, as well as to provide substantial resources for development through the sale of surplus gas.⁶⁹ It is therefore essential that this resource be developed.

By 2020 electricity provision will need to double to meet demand

Water and Sanitation

Indicator	Value
Share of aquifer water that is safe for drinking	10%
Year when the aquifer may become unusable	2016
Amount of untreated or partially treated waste water that is dumped	90,000 CM per day or 33 MCM per year

As highlighted by reports of the World Bank and the United Nations Environment Programme (UNEP), 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,⁷⁰ 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 metres (MCM) annually.⁷¹

Current abstraction of water from the aquifer, at an estimated 160 MCM per year to meet current overall demand, is well beyond that.⁷² As groundwater levels subsequently decline, sea water infiltrates from the nearby Mediterranean Sea.⁷³ 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.⁷⁴

Today 90% of water from the aquifer is not safe for drinking without treatment.⁷⁵ Availability of clean water is thus limited for most Gazans with average consumption of 70 to 90 litres per person per day (depending on the season), below the global WHO standard of 100 litres per person per day.⁷⁶

The aquifer could become unusable as early as 2016,⁷⁷ with the damage irreversible by 2020.⁷⁸ UNEP recommends ceasing abstraction immediately as it would otherwise take centuries for the aquifer to recover.⁷⁹ 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 2020,⁸⁰ an increase of some 60% over current levels of abstraction from the aquifer.

90,000 cubic metres of sewage are dumped into the sea each day

The situation with regard to treatment of waste water 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 waste water, 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),⁸¹ creating pollution, public health hazards, and problems for the fishing industry.

Work is on-going on the construction of new and refurbished waste water treatment plants to cope with both present and future demand, but these efforts will need to be accelerated. Some 44 MCM of waste water is generated annually at present,⁸² a figure which could rise to 57 MCM annually by 2020.⁸³

In the short term, the Palestinian Water Authority recommends low-volume desalination of seawater and the reuse of treated wastewater, especially for agricultural use.⁸⁴ Longer-term solutions to the challenges of clean water and sanitation for the people of Gaza include large-scale seawater desalination plant(s),⁸⁵ completion of strategically placed treatment facilities,⁸⁶ construction and rehabilitation of water⁸⁷ and sewerage networks, the wholesale availability in homes, schools and health centres of water and sanitation systems, and a regime for the management of solid and medical waste that is able to cater for the needs of an urban population.⁸⁸

Huge investment in water and sanitation infrastructure is needed

4. Social Services

Health

Indicator	Value
Additional hospital beds needed by 2020 to maintain current levels of service	almost 800 (based on population projections)
Additional doctors needed by 2020	over 1,000
Additional nurses needed by 2020	over 2,000

While some health indicators in Gaza are comparable to middle and high-income countries, quality needs to be improved. In 2010, there were 25 hospitals in the Gaza Strip with 2,047 beds, or 1.3 beds per 1,000 people.⁸⁹ In addition, health clinics provide primary medical care. With 3,530 doctors in 2010 the rate of doctors per 1,000 people was 2.3 (similar to Cyprus),⁹⁰ and with 5,910 nurses, the rate was 3.9⁹¹ (similar to Georgia).⁹² Most health facilities are unable to provide safe and adequate services and need to be rehabilitated or upgraded.⁹³ The infant mortality rate stands at 23 per 1,000 live births⁹⁴ (similar to Nicaragua).⁹⁵ While Israeli authorities permit the access of medical supplies into Gaza, there are frequent breakdowns of medical equipment resulting from power interruptions and water impurities, among other factors. For this and other reasons, many patients are forced to seek treatment outside Gaza for a wide range of medical problems, which is difficult due to the closure.⁹⁶

Micronutrient deficiencies, especially iron deficiency anemia in pregnant women and children, remain at high levels in Gaza. A comprehensive causality study is currently being conducted, which will inform future action to reduce nutritional deficiencies.

Additional hospital beds, doctors and nurses will be needed in the coming years to serve a growing population. Based on population projections, maintaining the current ratio of 1.3 hospital beds per 1,000 people in the Gaza Strip would require almost 800 additional beds by 2020, for a total of about 2,800. Similarly, to maintain the current ratios of doctors and nurses per 1,000 people, the number of doctors would have to increase by more than 1,000 to 4,900, and the number of nurses by more than 2,000 to 8,200.

Education

Indicator	Value
Children of school age (6-18) in 2012	558,000 ⁹⁷
Children of school age (6-18) in 2020 (projected)	673,000 ⁹⁸
Shortage of schools in Gaza now	250 schools
Additional schools needed until 2020	190 schools for a total of 440 schools
Share of schools that run double shifts	85%

People in Gaza are comparatively well educated, with a literacy rate of 96% in 2011 (93% for women and 98% for men), according to official figures.⁹⁹ Yet, functional literacy may be lower, and further assessments are needed to identify gaps. Some 450,000 children, half of them girls, were attending schools during the 2010/2011 academic year.¹⁰¹ The enrolment rate declines to 79% in secondary schools (84% for girls, 74% for boys who appear to be more likely to leave school for work).¹⁰²

Despite these high rates of attendance, maintaining the quality of education remains a major challenge, partly due to a shortage of

schools: 85% of 677 schools run double shifts.¹⁰³ In consequence, school hours are often shorter than scheduled and an average of 36 students share a classroom. Only 30% of younger children attend licensed kindergartens.¹⁰⁴

Technical and Vocational Training

Currently, the technical and vocational education and training system has a low status in Gaza.¹⁰⁵ The system is fragmented and uncoordinated with little involvement of the private sector. Young people in Gaza should be trained and educated to international standards so that they can, in turn, raise standards in the local market. Access to technical and vocational training, as well as to universities, is also limited by restrictions on Gazan students traveling to the West Bank and further afield.

440 schools need to be built by 2020

Forecast

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 2020,¹⁰⁶ by an average of 14,000 per year. Currently, there is a shortage of up to 250 schools in Gaza.¹⁰⁷ 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.¹⁰⁸

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.

Culture and Cultural Heritage

Recognizing the importance of the preservation and promotion of Palestinian cultural heritage, both to present and future generations, the Palestinian Authority has prepared an inventory of 20 cultural and natural heritage sites, recently submitted to the UNESCO World Heritage Centre as a tentative list. Four sites are in the Gaza Strip: Tell Umm Amer/Monastery of Saint Hilarion, the Anthedon Harbour, ancient trade routes, and the Wadi Gaza coastal wetlands.¹⁰⁹

Social Protection

Indicator	Value
Social assistance as a share of total household expenditure – poorest households (2009)	31% ¹¹⁰
Share of households that benefitted from at least one form of social transfer (2009)	71% ¹¹¹

‘Social protection’ can be defined as public actions, including financial and other support, with the goal of increasing access to services such as health, education or nutrition for people that are often not only poor but also socially marginalized.¹¹²

To respond to high levels of vulnerability, poverty and food insecurity in Gaza, a large number of social protection initiatives have been put in place. As efforts continue to improve the targeting of social programmes, social transfers (both cash and in-kind) have become an important source of income for the majority of households, accounting for approximately 16% of total household consumption overall and 31% among the poorest households.¹¹³

The number of people who will require social assistance in 2020 will remain high if the economic situation does not improve. Simple extrapolation using a growth elasticity of poverty¹¹⁴ of 3% suggests that with the low growth scenario with a *per capita* GDP growth rate of 0.6% to 1.5% per year, the proportion of Gazans living in poverty is projected to decline only moderately in the coming years.¹¹⁵ This suggests that unless the current trade and other restrictions are eased,¹¹⁶ the proportion of Gazans in need of social protection will remain high over the coming decade.

Conclusion

In the absence of sustained and effective remedial action and an enabling political environment, the challenges which confront the people of Gaza now will only intensify over the coming years to 2020, a period in which another half a million people will be added to the present estimated population of 1.6 million.

Without such action, the daily lives of Gazans in 2020 will be worse than they are now. There will be virtually no reliable access to sources of safe drinking water, standards of healthcare and education will have continued to decline, and the vision of affordable and reliable electricity for all will have become a distant memory for most. The already high number of poor, marginalized and food-insecure people depending on assistance will not have changed, and in all likelihood will have increased.

To ensure that Gaza in 2020 will be “a liveable place,” on-going herculean efforts by Palestinians and partners in such sectors as energy, education, health, water and sanitation, need to be accelerated and intensified in the face of all difficulties.

It is essential that the inhabitants of Gaza are able to exercise and enjoy the full range of fundamental human rights to which they are entitled. They must be able to live safe and secure lives free of the various forms of violence which afflict them at present; benefit from proper health care, education and housing; elect and hold accountable representatives of government; be subject to fair and impartial

justice; and have ready access to the world beyond Gaza for religious, educational, medical, cultural, commercial and other purposes.

In short the Palestinian people of Gaza must be enabled to live dignified, healthy and productive lives in peace and security, both now and in the future.

ANNEX ONE - ENDNOTES

1. According to growth forecasts by the International Monetary Fund, 2012, page 18.
 2. The resolution, which was issued on 8 January 2009 in the context of operation 'Cast Lead', also calls for an end to all violence and terrorism and the unimpeded delivery of humanitarian aid, among other things.
 3. This table summarizes the data, projections and forecasts described below in this paper, where the sources for the figures are noted and the calculations are explained.
 4. www.pcbs.gov.ps
 5. Palestinian Central Bureau of Statistics, June 2012
 6. International Monetary Fund, 2012.
 7. Palestinian Central Bureau of Statistics, 22 February 2012, page 41, and May 2012, page 41.
 8. Palestinian Central Bureau of Statistics, Food and Agriculture Organization, United Nations Relief and Works Agency and World Food Programme, 2012, page 20.
 9. World Bank, 2012, page 4.
 10. Palestinian Central Bureau of Statistics, 18 April 2012 and 19 June 2012; www.pcbs.gov.ps
 11. Palestinian Central Bureau of Statistics, 18 April 2012.
 12. Palestinian Central Bureau of Statistics, 19 June 2012.
 13. Palestinian Central Bureau of Statistics, 19 June 2012, page 28; www.pcbs.gov.ps. The comparison with 1994 is based on constant 2004 US dollars, i.e. adjusted for inflation. In 1994, GDP per capita was US\$ 1,327.20 (constant 2004 US dollars); in 2011, it was US\$ 1,164.50.
 14. Office of the United Nations Special Coordinator for the Middle East Peace Process, 2012b. These numbers may be slightly distorted due to the shadow economy, although this does not affect the conclusion that investment is very low.
 15. The unemployment rate in Gaza was 20.9% in 1998 and 16.9% in 1999 (Palestinian Central Bureau of Statistics, 16 May 2012, page 41).
 16. Palestinian Central Bureau of Statistics, 22 February 2012 and 16 May 2012, page 38.
 17. Palestinian Central Bureau of Statistics, 16 May 2012, page 15.
 18. Palestinian Central Bureau of Statistics, 16 May 2012, page 18.
 19. According to the World Bank (2012, page 19) "Israeli restrictions remain the biggest constraint facing Palestinian private sector growth."
 20. Ministry of National Economy, 2011, page 4, in 2010 USD. This calculation is based on a counterfactual, assuming that GDP in Gaza would have steadily grown between 2006 and 2010 without the closure.
 21. United Nations Development Programme, 2010, page 9.
 22. United Nations Environmental Programme, 2009, page 16.
 23. United Nations Development Programme, 2010, page 26.
 24. United Nations Environmental Programme, 2009, page 31.
 25. United Nations Environmental Programme, 2009, page 32.
 26. United Nations Development Programme, 2010, page 67.
 27. United Nations Environmental Programme, 2009, pages 75, 83.
 28. United Nations Development Programme, 2010, page 46.
 29. Non-fuel imports in 2011, measured by the total number of truckloads, were less than half of the amount of 2000 and two thirds of the amount of 2001 (calculated based on data in the UNSCO socio-economic database). While imports have declined in the long run, there was an increase in imports to Gaza in 2011 compared to 2010. Exports have dropped to a monthly average of 25 truckloads in 2011, from a monthly average of 1,736 truckloads during the five years from 1996 to 2000 (before the start of the second intifada) and 857 truckloads monthly in 2001 to 2005 (UNSCO socio-economic database; the data originally come from the Palestinian Agricultural Relief Committees).
 30. Since the Gaza Strip and the West Bank form one territory, transfers of goods from Gaza to the West Bank or vice versa are not exports or imports.
 31. World Bank, 2012, page 20.
 32. See World Bank, April 2012, on the dependency of the oPt economy on external aid.
 33. The Palestinian Central Bureau of Statistics (21 March 2012) already foresees a reduction in water allocated to agriculture by 2016; see also Palestine Water Authority, 2012, page 65.
 34. Office of the United Nations Special Coordinator for the Middle East Peace Process, 2012a, page 12; Peace Research Institute Oslo, 2010, page 23.
 35. The Peres Center for Peace (2011, page 14) gives a number of between US\$ 50 million and US\$ 70 million worth of goods monthly – 80% of Gaza imports – being smuggled through more than 1,000 tunnels in early 2010, i.e. before the closure was loosened in June 2010. The Peace Research Institute Oslo (2010, page 24) reported 15,000 workers and 25,000 traders being involved in the tunnel economy. These numbers reduced following an Israeli
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- announcement in June 2010 to ease the closure. Still, according to one estimate for 2011, almost four times as much construction material (aggregate, steel bars and cement) reached Gaza through the tunnels than was officially imported through Israeli crossings (Office for the Coordination of Humanitarian Affairs, 2012d, page 30); according to another estimate, the overall volume of the tunnel trade is four times the volume of the officially registered trade (International Labour Office, 2012, page 5).
36. International Labour Office, 2012, page 5; see also Office of the United Nations Special Coordinator for the Middle East Peace Process 2012a, page 20. The smuggling of goods through the Rafah tunnels distorts some economic indicators, in particular those for imports and exports, which track only goods that are moved into or out of Gaza via the checkpoints. The official unemployment rate may not give a full picture of the situation if people work in the shadow economy without officially declaring their employment status. Other economic measures such as GDP, which is based on expenditure, or food security, are not directly affected.
 37. Palestinian Central Bureau of Statistics, Food and Agriculture Organization, United Nations Relief and Works Agency and World Food Programme, 2012, page 20.
 38. Palestinian Central Bureau of Statistics, Food and Agriculture Organization, United Nations Relief and Works Agency and World Food Programme, 2012. The percentage of food insecure households was 60% in 2009.
 39. Palestinian Central Bureau of Statistics, Food and Agriculture Organization, United Nations Relief and Works Agency and World Food Programme, 2012, page 26.
 40. Palestinian Central Bureau of Statistics, Food and Agriculture Organization, United Nations Relief and Works Agency and World Food Programme, 2012, page 30.
 41. Palestinian Central Bureau of Statistics, 11 June 2012, page 1.
 42. See World Bank, April 2012, page iv, on the importance of trade for the future development of the West Bank and Gaza.
 43. Office for the Coordination of Humanitarian Affairs and World Food Programme, 2010, page 10.
 44. Office for the Coordination of Humanitarian Affairs and World Food Programme, 2010, page 11.
 45. Office of the United Nations Special Coordinator for the Middle East Peace Process, 2012a, page 14.
 46. Office for the Coordination of Humanitarian Affairs and World Food Programme, 2010, page 12.
 47. Office for the Coordination of Humanitarian Affairs and World Food Programme, 2010, pages 5-6.
 48. The contribution of agriculture and fishing to Gaza's GDP was 9% in 2011 compared to 30% for services, according to the Palestinian Central Bureau of Statistics, 20 March 2012, page 17.
 49. International Monetary Fund, 2012, pages 18, 20.
 50. International Monetary Fund, 2012, page 20.
 51. This ratio is used globally as the most relevant indicator for a 'youth bulge.'
 52. Palestinian Central Bureau of Statistics, 20 June 2012, page 1.
 53. Calculations based on Palestinian Central Bureau of Statistics, 18 April 2012. According to the newspaper Haaretz, Gaza's population would be 10% higher today had Israel not revoked the residency rights of 100,000 Gaza residents between 1967 and 1994 (Haaretz, 12 June 2012).
 54. Office for the Coordination of Humanitarian Affairs, 2012e, page 1.
 55. United Nations Human Settlements Programme, 2006/2007.
 56. Palestinian Central Bureau of Statistics, May 2012.
 57. Program on Humanitarian Policy and Conflict Research at Harvard University, 2006, page 17.
 58. The Portland Trust, 2012, page 1. The fertility rate has declined over the past 15 years from 6.9 in 1997 (United Nations Population Fund 2010, page 6).
 59. Palestinian Central Bureau of Statistics, May 2012.
 60. Palestinian Central Bureau of Statistics, May 2012.
 61. www.nationmaster.com, out of 226 countries and territories.
 62. Palestinian Central Bureau of Statistics, May 2012.
 63. Program on Humanitarian Policy and Conflict Research at Harvard University, 2006, page 12.
 64. Office for the Coordination of Humanitarian Affairs, 2012c, reports a capacity of up to 80MW, and the capacity is reported to have increased temporarily to 110MW in July 2012 due to increased fuel imports.
 65. World Bank 2012, page 27. In early 2012, the World Bank estimated the production of the Gaza Power Plant at 30 to 60MW.
 66. Different sources give different estimations of peak demand. While the Office for the Coordination of Humanitarian Affairs (2012a, page 4) estimates peak demand at 350MW, the World Bank (2012, page 27)
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- estimates it to be around 280MW. The same is true for estimations of power supplied, which vary from 170MW to 200MW according to the World Bank (2012, page 27), 205MW according to the Israeli Coordination of Government Activities in the Territories (2011, page 33), and 242MW as the sum of the components listed in the text. These differences are largely due to fluctuations in the amount of electricity supplied, including as a result of fuel imports.
67. World Bank, 2012, page 26.
 68. Office for the Coordination of Humanitarian Affairs, email, 25 July 2012. This number excludes possible additional electricity demand for large-scale desalination.
 69. World Bank, 2012, page 27.
 70. Around 4.7 MCM of fresh water per year are imported from Israel, according to the Palestinian Water Authority, 2011, page 3.
 71. World Bank, 2012, page 24. This is an increase over earlier estimates of 45 MCM annually in United Nations Environment Programme, 2009, page 55.
 72. World Bank, 2012, page 24.
 73. Al-Yaqubi, 2006, page 3.
 74. United Nations Environmental Programme, 2009, pages 55-56, and Al-Yaqubi, 2006, page 6.
 75. Office for the Coordination of Humanitarian Affairs, 2012e, page 1.
 76. United Nations Children's Fund, 2011, page 31.
 77. Palestinian Water Authority, 2011, page 9; Oxfam, 2011, page 6; also see Al-Yaqubi, 2006, page 3.
 78. Oxfam, 2011, page 6.
 79. United Nations Environmental Programme, 2009, pages 70-71.
 80. Al-Yaqubi, 2006, page 8.
 81. Office for the Coordination of Humanitarian Affairs, 2012e, page 1; Emergency Water, Sanitation and Hygiene Cluster, 2012, page 9.
 82. Coastal Municipalities Water Utility (CMWU), verbal briefing, Gaza City, 7 August 2012.
 83. Based on projected population growth until 2020.
 84. Palestinian Water Authority, 2011, page 9.
 85. Palestinian Water Authority, 2011.
 86. E.g., United Nations Environmental Programme, 2009, page 71.
 87. United Nations Environmental Programme, 2009, page 71.
 88. United Nations Environmental Programme, 2009, page 71; World Bank, 2012, page 29; United Nations Development Programme; and ENFRA Consultants, 2012.
 89. Palestinian Central Bureau of Statistics 2012, page 77.
 90. World Health Organization statistics, www.who.int
 91. Palestinian Central Bureau of Statistics 2012. The rates for doctors and nurses are calculated with PCBS data.
 92. World Health Organization statistics, www.who.int
 93. Office of the United Nations Special Coordinator for the Middle East Peace Process 2012a, page 19.
 94. United Nations Children's Fund citing 2009 figures from the Ministry of Health.
 95. World Health Organization statistics, www.who.int
 96. Office of the United Nations Special Coordinator for the Middle East Peace Process, 2012a, page 21.
 97. Palestinian Central Bureau of Statistics, May 2012.
 98. Palestinian Central Bureau of Statistics, May 2012.
 99. Palestinian Central Bureau of Statistics, www.pcbs.gov.ps
 100. Calculations based on Palestinian Central Bureau of Statistics, May 2012.
 101. Palestinian Central Bureau of Statistics, 2012, page 82. There were 677 schools in Gaza, including 399 governmental schools, 238 UNRWA schools and 40 private schools.
 102. United Nations Children's Fund citing the Ministry of Education.
 103. Office for the Coordination of Humanitarian Affairs, 2011 and 2012e.
 104. United Nations Children's Fund citing the Ministry of Education.
 105. This paragraph is based on information received from the International Labour Organization.
 106. Palestinian Central Bureau of Statistics, May 2012.
 107. According to the NGO Gisha (Gisha 2012).
 108. Including public, UNRWA and private schools.
 109. United Nations Educational, Scientific and Cultural Organization, 2009.
 110. United Nations Children's Fund citing the World Bank.
 111. United Nations Children's Fund citing the World Bank.
 112. United Nations Children's Fund, www.unicef.org/socialpolicy/index_socialprotection.html
 113. United Nations Children's Fund.
 114. The growth elasticity of poverty reduction is the percent reduction in poverty rates associated with one percent increase in per capita income. Using a sample of developing countries, Ravallion and Chen (1997) found that on average, one percent increase in national income was associated with a three percent reduction in the proportion of people living under poverty.
 115. Calculations carried out by the United Nations Children's Fund.
 116. According to the IMF, easing of trade and other restrictions is a necessary condition for the high growth scenario of 5.5-6.6% per capita per annum.
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