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Issue Brief

Gaza's Environmental Challenge

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The Gaza Strip has been a theatre of conflict for the past many decades. Gaza is a narrow self-governing Palestinian territory on the eastern coast of the Mediterranean Sea, which borders Israel to the east and north and Egypt to the south. The strip has been a scene of deadliest violence between Israel and the Palestinians for decades.



Initially occupied by Israel till 2005, the control of Gaza was taken over by Hamas who won the elections there. However, the daily cycle of violence that has engulfed Gaza since the disengagement of Israel in 2005 has been repetitive, with an almost daily exchange of rockets, and at least three major military offensives by Israel since 2005 against this tiny isolated, extremely poor and densely populated Palestinian enclave. Gaza has also been termed as the largest virtual prison on earth.

The ongoing conflict in Gaza has led to significant political, social, and environmental challenges. The environmental situation particularly has been suffering for decades, due to under-investment in environmental systems, lack of progress on priority environmental projects, and the absence of law enforcement in a growing crisis. In the absence of sustained and effective remedial actions, coupled with the rapid increase of population, the challenges which confront the people of Gaza have now moved beyond damaged infrastructure to the hazardous effects of environmental pollution that will intensify over the coming years until 2020.

In addition to that, the recent military escalations, as well as the previous escalations like the "Cast Lead" (2008-2009) and the "Pillar of Clouds" (2012) caused additional damage and increased the pressure on environmental facilities and infrastructure. One of the most striking examples is the

significant volume of demolition debris generated due to heavy bombing. Approximately 600,000 tonnes of construction rubble were generated due to the "Cast Lead" alone.¹

Most public services are under stress due to the conflict, and increasing environmental problems have exacerbated due to the absence of basic facilities which are mainly due to closures and blockades. Waste management is greatly affected by the situation in Gaza and has been responsible for pollution and the spread of disease. The limitations in the solid waste management system in Gaza are the absence of consistent national and local waste management legislations, political and security instability, the Israeli control over all commercial borders with Gaza, limited fund for development projects, inefficient waste management structures and scarcity of land for waste management installations.

The lack of drinking water also poses a fatal threat to the residents of Gaza. Only an estimated 3 per cent of Gaza's water is suitable for drinking. The Palestinian Water Authority and the United Nations have warned that its underground water aquifer - upon which the territory is almost entirely reliant, apart from a small amount of water imported from Israel - may be completely contaminated by the end of 2017. Gaza's water contains a large concentration of chloride, while infiltration of untreated sewage has raised the levels of nitrates by two to eight times higher than the World Health Organization recommends.² It may be noted that at least 70 per cent of the materials needed to build and maintain Gaza's water and sanitation network - including pumps and chemicals for water purification - are subject to severe entry restrictions amid Israel's siege on Gaza.

Environmental issues like the lack of solid waste management and the lack of clean drinking water pose a grave threat to the residents of Gaza as more and more Gazans are now falling ill from their drinking water, highlighting the humanitarian issues facing the Palestinian enclave that the UN says could become uninhabitable by 2020. Almost all of the thin coastal Strip's two million people depend upon its

¹ Ramy Salamdeeb, "Gaza's Challenge: a review of solid waste management system in the Gaza Strip", https://www.researchgate.net/publication/260292772_Gaza%27s_Challenge_a_review_of_solid_waste_management_system_in_the_Gaza_Strip

² Ylenia Gostoli, 'Gaza headed for 'environmental catastrophe' August 19, 2016 <http://www.aljazeera.com/news/2016/07/gaza-headed-environmental-catastrophe-160712091948662.html>

water table for their private or commercial needs, reaching their taps through a decaying public system or pumped privately from the ground.³

Various environmental challenges, including the scarcity of clean water, as well as the lack of a system of solid waste disposal coupled with power failures have pushed the residents of the Gaza Strip to the precipice. If the international agencies, as well as the UN do not take effective steps to address the looming disaster in Gaza, it will become increasingly difficult for the residents to survive and the situation could worsen and lead to a grave humanitarian crises. As it is, for a people already under stress from the prolonged conflict, environmental difficulties may prove to be the last straw.

³ In war-scarred Gaza, water pollution behind health woes, March 23, 2017
<https://tribune.com.pk/story/1363755/war-scarred-gaza-water-pollution-behind-health-woes/>