This summer has been one of the hottest on record, according to European climate researchers. Unprecedented temperatures were recorded across the globe accompanied by an increase in extreme weather events. These included the devastating Hurricane Dorian in the Bahamas and Cyclone Idai in southern Africa, which killed over a thousand people and displaced an estimated 617,000 people across Mozambique, Malawi, Zimbabwe and Madagascar. The UN Intergovernmental Panel on Climate Change (IPCC) also recently presented a report stating that we have twelve years to limit warming before certain global climate disaster, which would displace and kill millions. Faced with impending climate catastrophe, environmental issues have come to the fore in debate amongst politicians, activists, NGOs and scientists. Climate change is a political question, highlighting questions of social inequality, uneven resource distribution and economic exploitation.

Nowhere is this clearer than in Palestine. Palestine is in one of the hottest regions of the world and is on course to experience even greater warming over the coming years. Massively decreased precipitation is also predicted, which will place greater strain on already limited water supplies in the region. However, although Israelis and Palestinians inhabit the same geographical region, Palestinians will undoubtedly suffer the consequences more greatly due to the occupation. The restriction of free movement combined with settlement expansion, settler violence and the denial of access to water infrastructure all threaten Palestinian water and food security. The complex laws regarding permits, access rights and licensing imposed by the Israeli regime also obstruct the ability to carry out short- and long-term responses to climate change. These factors increase Palestinian climate vulnerability significantly. Furthermore, the Israeli occupation has contributed to biodiversity and habitat loss in the region, with several native species becoming endangered in recent years. The case of Palestine demonstrates how every political question we face is affected by climate change. Conversely, we cannot address climate change in Palestine without also addressing Israeli occupation. In the words of Palestinian climate activist and coordinator of the Palestinian Environmental NGO Network (PENGON), Abeer Butmeh, “climate change... is not just a natural phenomenon but a political one, exacerbating pre-existing injustice and inequality”.

In 2018, Israeli researchers published one of the first dedicated reports on climate change in the region, which forecast a 2.5-degree increase in average temperatures alongside a decrease in precipitation of up to 40% in the most arid regions. These results were dramatic. They paint a picture of increased desertification, wildfires, drought, food and water scarcity, and unbearable temperatures. Increased flooding would also be triggered in mountainous watershed areas such as Marj Sanour, endangering food supplies and liveable areas even further. This situation is exacerbated by the fragmented and volatile political situation in the region. The Israeli state has slowly begun to acknowledge the effects of climate change in the region, though the response remains incredibly limited and generally more focused on ‘military preparedness’. For instance, in 2018, the Ministry of Energy proposed a plan to shift from “polluting fuels” like coal and oil to natural gas. The target for this plan is minimal (a transition to 17% by 2030) and ignores the polluting qualities of natural gas. Nevertheless, these steps have gained international acclaim for Israel as the leader on green policy in the Middle East.
This reputation flies in the face of Israel’s ongoing ‘climate apartheid’. The Occupied Palestinian Territories (OPT) are subject to the international law of ‘belligerent occupation’. Both the Hague Convention (1907) and the Fourth Geneva Convention (1945) necessitate the occupying power’s protection of natural resources and unrestricted civilian access to agricultural areas, drinking water installations, and irrigation works. From a legal perspective, the Israeli state is in breach of international humanitarian law due to its destructive environmental policies inflicted on the occupied Palestinian population and the continuous theft of resources. The Palestinian Authority (PA) has little jurisdiction over the natural resources and territories under its auspices and wields no independent political ability to act on climate change. Therefore, the inclusion of the PA as a State Party to the UN Framework Convention on Climate Change (UNFCCC), the UN treaty body in charge of climate action, is largely insignificant. Furthermore, in examining the PA and the Israeli states’ policies on climate change through the same lens, the UNFCCC implicitly normalises the occupation. In describing climate change as an ‘apolitical’ issue, which transcends the issues of politics and brings both the PA and the Israeli State ‘together’, the international community decontextualises the realities of environmental degradation in the Occupied Palestinian Territories (OPT).

Access to water is the greatest threat facing the Palestinian people. Decreased rainfall and increased temperatures across the region will create greater demand for water. This will place even greater strain on the already limited water resources available for drinking, agriculture and human use. However, Israeli occupation has ensured that Palestinians will be affected more greatly by this change. At present, access to water is difficult and unreliable for most. With the changes predicted for the coming decades, it will become impossible. The Occupied Palestinian Territories (OPT) already has some of the world’s lowest per-capita water availability. Furthermore, Israeli water consumption is approximately four to five times higher than that of the Palestinian population within the OPT. There is a water crisis in Gaza as a result of the Israeli siege, where the local reliance on groundwater resources has depleted the
Coastal Aquifer, rendering the vast majority of water in the region unfit for human consumption. From day to day, an estimated 30% of houses in Gaza are connected to a water supply, which can be shut off at any time. This has had a severe impact on the overcrowded hospitals of Gaza, where sterilisation and cleaning facilities are reduced due to lack of water. Furthermore, 26% of all reported diseases in Gaza, and 12% of all child deaths are linked to contaminated water. This demonstrates how climate apartheid links with and creates other crises, including public health. The Joint Water Committee, a facet of the Oslo Accords, prevents Palestinians and the Palestinian Authority from making water-related decisions without Israeli approval. In both the OPT and Gaza, many Palestinian communities are unconnected from any water supplies and must travel or buy expensive water supplies to survive. Many Palestinians rely on collecting rainwater in cisterns for a daily water supply. Indeed, the saying goes that one can tell a Palestinian home from an Israeli settlement in the OPT by the rainwater vats on the roof. These water collection systems have been targeted by the Israeli military and settlers. Not only has Israel instated a complicated system of licensing, permits, and access rights designed to control Palestinian access to domestic water supplies, they are also the subject of much settler and military violence. It is common for rainwater tanks to be damaged and destroyed with impunity, thus making water supplies even more vulnerable. Asides from rainwater collection, an estimated 65% of the OPT population rely on water tankers for their water, which is three to six times more costly than piped water and often poor quality.\(^5\) Destruction of water supplies also extends to agricultural irrigation systems. Israeli restriction of Palestinian water access presents us with a vision of what may become the norm in years to come. As heatwaves deplete drinkable water sources, only the rich will be able to afford or access the water we all need to survive.

Israeli occupation has also contributed to biodiversity and species loss in the region. Settlement expansion, alongside the instalment of checkpoints, fences and walls and interruption of traditional agriculture have all seriously damaged the regional ecosystem. Since the 1970s, the region has seen an estimated 25% decrease in its woodland areas. Only 2,000 known Palestinian mountain gazelle exist in the wild currently, declining dramatically from its recorded level of 10,000 in 2008. The iconic gazelle has now been listed as endangered. The Koret school of veterinary medicine in Jerusalem published a paper which identified habitat loss as the main threat facing the gazelle population. Though the gazelle’s habitat is already threatened by drought-induced decline of shrubland and woodland areas, the process has been exponentially worsened by Israeli settler colonialism. The gazelle historically make their home in the hilly areas surrounding the West Bank, which is currently witnessing the rapid expansion of Israeli settlements. For instance, the Abu-ghnaim mountain forest was uprooted for the building of the Gilo settlement. The illegal construction of settlements, which further necessitates greater roadbuilding in the region, leaves few habitable zones for the gazelle and other indigenous mammals. The migration patterns of these animals are further disturbed by the numerous blockades and walls which cut across the OPT, especially the Annexation and Separation Wall. The construction of the Wall has led to the removal and clearing of the natural vegetation where the Wall passes. This has left the wild animals of the region with no sources for food or shelter.

Almost all amphibians in the region are endangered due to intensive farming and degradation of wetland habitats in the Dead Sea basin, Gaza Strip, and Wadi systems. The decline in amphibian populations has contributed to an increase in disease vector insects, such as mosquitos. Israeli conservationist groups, including the Society for Protection of Nature in Israel, have criticised “unnecessary development” of the region and called for “contiguous open areas and ecological corridors” to preserve species’ habitats. These statements do not address the fact that “development” of the OPT is the illegal expansion of settlements and the Annexation and Separation Wall. The Israeli state shows no signs of halting, or even slowing, the advance of settlements further into the West Bank. Indeed, it is only through the continued illegal settlement of the region that Israel can further break up Palestinian communities, access to services, and restrict freedom of movement. These factors are essential in making the region more unliveable for Palestinian people. Their natural heritage is another victim of this relentless expansion. Species across the globe are disappearing at an unprecedented rate due to climate change and habitat loss. In Palestine, this process has been accelerated by the Israeli state’s...
If conservation and protection groups are serious about halting biodiversity and species loss in the region, they must demand an end to Israeli settler colonialism.

The Israeli occupation significantly impedes Palestinian ‘climate adaptiveness’. This connects with the global issue of climate inequality. Not only is the developing world experiencing the effects of climate change more acutely and immediately, but it will be left behind as richer countries establish improved methods for managing these effects in the short-term. Of course, it is important to note that such methods will not reverse climate change, though they will have a significant impact on quality of life. Palestinians are already living this reality. As one ethno-religious group is given preferential and improved access to resources in the short-term, so too are they better equipped to deal with environmental changes in the long-term.

Israel is apparently well-positioned to manage the effects of climate change. According to the ND-GAIN Country Index, which measures a country’s vulnerability to climate change alongside its resilience, Israel is the 19th least vulnerable country and the 32nd most ready country to deal with climate change. The OPT was not included in this study, though we can see that the adaptive discrepancy between Israel and Palestine is by design. Though climate change may not have been considered in the creation of the Oslo Accords, disproportionate access to resources was included from the outset. For instance, Palestinians were given access to only 20% of water resources while Israelis in the OPT or ‘Israel proper’ were given access to a full 80%. This agreement was meant to last for five years - twenty-four years later and it is still the case. Furthermore, as has been outlined throughout this article, Palestinians are denied access to technologies and infrastructures which would help mitigate the effects of climate change, such as desalination equipment. In Gaza, where the depletion of the Coastal Aquifer has created great need for water treatment facilities, it is unaffordable for most. At approximately $1.5 per cubic metres of water, the people of Gaza are being effectively ‘priced out’ of access to water.

The PA’s climate adaptation plan, supported by the UN, becomes almost redundant when one considers its lack of jurisdiction over resources in the region. Its policies are primarily focused on water and agriculture which, in the words of U.S. Policy Fellow with Palestinian think tank Al-Shabaka, Zena Agha, “are implemented by the donor community and the humanitarian community writ large, which itself is not without ethical concerns particularly with as we witness in the ‘NGOization’ of Palestine.” The projects implemented by international groups are small-scale and do little to tackle climate change on a broader scale. If the international community effectively exerted pressure on the state of Israel to comply with international human rights laws, Palestinians would be better placed to implement climate adaptiveness and preventative measures themselves.

Palestinian and international activists are already undertaking research and conservation methods themselves in the face of Israeli climate apartheid. In August 2019, Professor Mazin Qumsiyeh (Palestinian Museum of Natural History) chaired a meeting with representatives from eighteen international environmental organisations to establish the Palestine Action for the Planet (PAP) network. Though still in its infancy, PAP intends to connect with global activist networks, such as Extinction Rebellion, to tackle climate change and Israeli apartheid as interconnected issues. Palestinian activists have also led the charge in preserving biodiversity and exploring new sustainable agricultural for the region. Vivien Sansour recently founded the roving Palestinian Heirloom Seed Library to promote cultural traditions and biodiversity, allowing local people to ‘borrow’ seeds to grow and consume themselves. Sansour considers her work to be deeply political and a challenge to occupation;

Farmers who can produce their own food and make their own seeds represent a threat to any hegemonic power that wants to control a population. If we are autonomous, we really have a lot more space to revel, to create our own systems, to be more subversive.

For activists such as Sansour, climate issues are not only now being politicised, but have always been intrinsically linked with the political situation in the region. There is a nascent environmental movement among Israelis. This year, a march in Tel Aviv on climate attracted thousands. Extinction Rebellion established a group in the city to join existing environmental groups, such
as the Green Course, in organising mass school walkouts on climate. These are promising signs, though we must be aware of Israeli “greenwashing”. Any progressive action or policy on climate in the region which does not address the ongoing Israeli occupation and human rights violations serves only to normalise the political situation in which Palestinians are most vulnerable to climate change.

Climate change increases any threats exponentially. Though its effects are already being felt across the globe, the fact it is being unequally experienced asks a political question. In Palestine, the conditions under occupation are magnified by the worsening climate situation daily. The restriction of access to natural resources and infrastructure already happening in Palestine is a glimpse of what we may all face soon. For solidarity activists, it is essential to realise that if we stand for climate justice, we are also including justice for Palestinians in that call. Climate change is not a secondary issue to the Palestinian cause but is integral to it. As Agha concludes in her seminal paper on climate change and the occupation, “climate change is neither an apolitical nor equalizing phenomenon but one exacerbated by their condition as an occupied people”.

**Endnotes**


6. Agha, Climate Change, the Occupation, and a Vulnerable Palestine.


9. Agha, Climate Change, the Occupation, and a Vulnerable Palestine.