Adaptation Under Occupation

Climate Change Vulnerability in the Occupied Palestinian Territory
Acknowledgements

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# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Abbreviations</td>
<td>6</td>
</tr>
<tr>
<td>Glossary</td>
<td>7</td>
</tr>
<tr>
<td>Abstract</td>
<td>8</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>9</td>
</tr>
<tr>
<td>2. Masafer Yatta – The South Hebron Hills</td>
<td>14</td>
</tr>
<tr>
<td>2.1 Population and Location</td>
<td>14</td>
</tr>
<tr>
<td>2.2 Restricted Access</td>
<td>18</td>
</tr>
<tr>
<td>3. Climate Change Adaptation Planning in the OPT</td>
<td>21</td>
</tr>
<tr>
<td>4. Climate Vulnerability, Sensitivity, and Adaptability</td>
<td>24</td>
</tr>
<tr>
<td>4.1 The Dual Strike</td>
<td>25</td>
</tr>
<tr>
<td>4.2 Climate Change and Geopolitical Vulnerabilities</td>
<td>26</td>
</tr>
<tr>
<td>4.3 Linking Indigenous Knowledge</td>
<td>29</td>
</tr>
<tr>
<td>4.4 Gender-Differentiated Vulnerability to Climate Change</td>
<td>31</td>
</tr>
<tr>
<td>4.5 Adaptability</td>
<td>32</td>
</tr>
<tr>
<td>5. Thwarting Adaptation Actions</td>
<td>33</td>
</tr>
<tr>
<td>5.1 Access to Water</td>
<td>33</td>
</tr>
<tr>
<td>5.2 Livestock Production</td>
<td>37</td>
</tr>
<tr>
<td>5.2.1 Access to Grazing Areas</td>
<td>37</td>
</tr>
<tr>
<td>5.2.2 Elevated Animal Feed Prices</td>
<td>41</td>
</tr>
<tr>
<td>5.2.3 Community-Led Responses</td>
<td>42</td>
</tr>
<tr>
<td>5.2.4 Restrictions on Construction and the Constant Threat of Demolitions</td>
<td>45</td>
</tr>
<tr>
<td>5.2.5 Settler Violence</td>
<td>48</td>
</tr>
<tr>
<td>5.3 Obstructing Alternative Means of Livelihood: The Example of Beekeeping</td>
<td>50</td>
</tr>
<tr>
<td>6. Applicable Legal Framework</td>
<td>52</td>
</tr>
<tr>
<td>6.1 International Humanitarian Law</td>
<td>52</td>
</tr>
<tr>
<td>6.2 International Human Rights Law</td>
<td>54</td>
</tr>
<tr>
<td>6.3 International Environmental Law: The Paris Agreement</td>
<td>56</td>
</tr>
<tr>
<td>7. Conclusions and Recommendations</td>
<td>59</td>
</tr>
</tbody>
</table>
Glossary

Climate change related terminology as defined by the Intergovernmental Panel on Climate Change (IPCC):  

**Adaptation:** “In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.”

**Adaptation options:** “The array of strategies and measures that are available and appropriate for addressing adaptation. They include a wide range of actions that can be categorized as structural, institutional, ecological or behavioural.”

**Adaptive Capacity:** “The ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences.”

**Impacts:** “The consequences of realized risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather and climate events), exposure, and vulnerability. Impacts generally refer to effects on lives; livelihoods; health and well-being; ecosystems and species; economic, social and cultural assets; services (including ecosystem services); and infrastructure. Impacts may be referred to as consequences or outcomes, and can be adverse or beneficial.”

**Resilience:** “The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.”

**Vulnerability:** “The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.”

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Abstract

The report, *Adaptation Under Occupation: Climate Change Vulnerability in the Occupied Palestinian Territory* examines the applicability of community-based climate change adaptation measures in the south Hebron hills region, including in Masafer Yatta in the Hebron Governorate, one of the most climatically vulnerable areas of the Occupied Palestinian Territory (OPT). The report assesses the ability of the occupied Palestinian population to adapt to climate change within the context of Israel’s prolonged occupation of the Palestinian territory since 1967. The report further highlights how Israel’s discriminatory policies and practices imposed on the occupied West Bank, particularly in Area C, impede the ability of Palestinians to effectively adapt to climate change. Examining the applicability of international law, including international environmental law to the context in the south Hebron hills and the Palestinian territory at large, the report concludes that Palestinians residing in climatically vulnerable areas, as exemplified in the Masafer Yatta and other surrounding villages, are precluded from applying basic community-based and small-scale climate change adaptation options, without the genuine realisation of the collective right of the Palestinian people to self-determination, including permanent sovereignty over their natural wealth and resources in the OPT.

1. Introduction

Within the context of Israel’s prolonged occupation of Palestinian territory (the West Bank, including East Jerusalem, and the Gaza Strip) beginning in 1967, Israel has caused extensive environmental degradation, further deepening and exacerbating environmental vulnerabilities amongst Palestinians, and in particular pastoral, herding, and other farming communities. Within the global general climate change framework, there is growing evidence and acknowledgment of the complex relationship between climate-related threats and armed conflict, often intersecting with socio-political and economic determinants. There is also increased realization that armed conflict, including situations of occupation, contributes to, and may result in, substantial environmental harm, furthering the already prevalent marginalization of communities who are primarily dependent on natural wealth and resources, particularly indigenous communities in regions marred by imperial and colonial powers. Simultaneously, the impact of climate change on the deterioration of natural resources, particularly when it leads to the deterioration of people’s livelihoods, has been examined as a major catalyst for conflict situations worldwide. In particular, climate change is increasingly recognized today as a concrete ‘threat multiplier’ to international peace and security.¹

In the Palestinian context, the linkages between armed conflict, prolonged occupation, and environmental justice, including climate change adaptation, have been articulated and addressed by various studies.² While global climate-

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¹ “Indigenous peoples are among the first to face the direct consequences of climate change, owing to their dependence upon, and close relationship with the environment and its resources. Climate change exacerbates the difficulties already faced by vulnerable indigenous communities, including political and economic marginalization, loss of land and resources, human rights violations, discrimination and unemployment”. United Nations Permanent Forum on Indigenous Issues, Climate Change and Indigenous Peoples, pg. 1, available at: https://www.un.org/en/events/indigenousday/pdf/Backgrounder_ClimateChange_FINAL.pdf.


³ Multiple academics, authors, and experts in the area of climate change and environmental rights have written extensively about the relationship between the Israeli occupation and environmental degradation in the Palestinian territory, as well as the environmental vulnerabilities of Palestinian communities caused, magnified, and exacerbated by the policies and practices of Israel’s occupation. These have included inter alia Ziad Mimi, Jan Selby, and Clemens Messerschmid.
conflict research has predominantly focused on the dynamics of violent conflicts, less attention has been given to the extent to which populations in situations of armed conflict, or in the case of the occupied Palestinian territory (OPT), prolonged military occupation, are able to adapt to climate change under the political status quo. This report builds on existing scholarly efforts attributing climate and environmental vulnerabilities to political vulnerabilities in such contexts. Thus, demonstrating the limitations facing the implementation of small-scale, community based climate change adaptation options by Palestinian pastoral, herding, and other farming communities in the OPT, as a result of the discriminatory measures imposed by Israel. Such measures are designed to facilitate annexation of occupied territory, the forcible transfer of the protected population, the expansion of illegal Israeli settlements and permanent control over Palestinian territory and resources. These measures deny Palestinians their fundamental human rights, and contribute to the creation of coercive environments, driving Palestinian displacement and dispossession.

Since 1967, the Israeli occupying authorities have systematically and unlawfully appropriated Palestinian public and privately owned land, exploiting Palestinian natural resources for the benefit of the Israeli national and settler economy. The systematic exploitation of Palestinian natural resources, including land, water, gas and oil reserves, Dead Sea minerals, and stone reserves is in violation of Israel’s obligations under international law, including Article 55 of the Hague Regulations, which prohibits Israel from damaging or destroying the OPT’s natural resources in a way that undermines their capital, or results in economic benefits for Israel’s own national economy. The provision holds the Occupying Power as the temporary administrator and usufructuary of natural resources in the occupied territory. The exploitation of Palestinian natural resources is also a component of Israel’s wider policy to forcibly displace and transfer the occupied Palestinian population, for the purpose of permanently annexing Palestinian territory and expanding and sustaining Israel’s illegal settlement enterprise, and the residential, industrial, and agricultural settlements it encompasses. As a result, Palestinians have been prevented from accessing, utilising, and benefitting from their own natural wealth, and have instead been relegated to a captive market.

Abundant in rich natural resources, Area C constitutes around 63 per cent of the occupied West Bank, as delineated under the Oslo accords, and remains under full Israeli military control. The vast majority of the land in Area C continues to be either heavily restricted or entirely inaccessible to Palestinian communities due to the various discriminatory measures imposed by the Israeli occupying authorities. These are exemplified in physical barriers and access restrictions that obstruct freedom of movement of Palestinians, as well as by Israel’s discriminatory planning and zoning regime in Area C. Ultimately designated for settlement construction and expansion, the Israeli occupying authorities have used varying pretexts to appropriate Palestinian land, including by re-categorising land as abandoned land, for legalisation of Palestinian settlement in Area C.

5 See the IPCC’s definition of Adaptation options in Glossary.
7 Coercive environments refer to the creation of uninhabitable living conditions, often resulting in direct or indirect forcible transfer. Such coercive environments created by Israel in the OPT undermine the rights of Palestinians to adequate housing, adequate food, and to water and sanitation, amongst numerous other rights. For more information, see Al-Haq, Unpacking Gender in Coercive Environments: The Case of the Jordan Valley, 2018, available at: http://www.alhaq.org/publications/8056.html. See also BADIL, Coercive Environments: Israel’s Forcible Transfer of Palestinians in the Occupied Territory, 2017, available at: https://badil.org/phocadownloadpap/badil-new/publications/research/working-papers/FT-Coercive-Environments.pdf.
13 According to the approach of the International Law Commission (ILC), Israel’s settlement enterprise comprises all public and private entities and actors involved in establishing and sustaining Israeli settlements in the OPT since 1967, including Israeli laws, policies, and practices as well as actors, entities, and activities attributable to Israel’s unlawful appropriation of Palestinian land and property, including appropriation adversely affecting Palestinian natural resources. A full legal definition of the Israeli settlement enterprise is provided in Al-Haq’s Legal Memorandum titled: State Responsibility in Connection with Israel’s Illegal Settlement Enterprise in the Occupied Palestinian Territory, 2012, available at: http://www.alhaq.org/advocacy/6854.html. A detailed explanation of Israel’s settlement enterprise is also provided in the Glossary of Al-Haq, Settling Area C: The Jordan Valley Exposed, 2018, available at: http://www.alhaq.org/publications/8057.html.
15 In 2018, Al-Haq published a detailed report on the discriminatory measures, policies, and practices imposed by Israel, the Occupying Power, in Area C of the occupied West Bank. The report presents the case of the Jordan Valley as a primary example, while similar measures and policies are imposed on all lands classified as Area C across the OPT, including Masafer Yatta in the south Hebron hills, particularly in relation to lands categorised as firing zones. See Al-Haq, Settlement Area C: the Jordan Valley Exposed, 2018, available at: http://www.alhaq.org/publications/8057.html.
‘State land’, closed military zones, firing zones, or so-called nature reserves.\textsuperscript{16}

In turn, the agricultural produce and exports of illegal Israeli settlements, as well as services and industrial products sold within Israel and around the world, continue to generate vital income and profit that further sustain the illegal presence and growth of Israel’s settler population in the OPT.\textsuperscript{17}

In relation to climate change and the vulnerabilities associated with its impacts, the struggle to survive in areas identified as the most vulnerable, is magnified by Israel’s strategic targeting of resources necessary for effective and positive adaptation. The compounded impacts of the Israeli occupation, coupled with climate change risks, increase the vulnerability of the Palestinian civilian population, notably communities experiencing long-term and systematic threats of forced displacement. This dual strike makes it extremely challenging, if not impossible, to build effective resilience for affected communities, particularly considering Israeli practices that are largely characterized by unlawful appropriation and exploitation of the occupied territory’s natural resources, which are vital sources of livelihood, sustainability, and resilience. Palestinian communities’ access to and self-determination over natural wealth and resources, including land and water, are prerequisites for the implementation of any climate change adaptation options.

In its 2011 Climate Change Adaptation Strategy and Programme of Action,\textsuperscript{18} the Palestinian Authority identifies the Masafer Yatta region of the Hebron Governorate, located in Area C in the southern West Bank, as one of the three areas most vulnerable to climate change in the OPT, alongside the Jordan Valley and the Gaza Strip. Taking Masafer Yatta as a primary case study, this report examines the adaptive capacities\textsuperscript{19} of Palestinian communities to climate change, taking into consideration the limitations imposed by the Israeli occupation. The scope of Israel’s obligations as the Occupying Power and primary duty bearer in ensuring the rights to health, well-being, and dignity of Palestinian communities in the OPT, will also be examined.

The field information presented in this report was collected during a series of field visits conducted by Al-Haq to Masafer Yatta and surrounding villages in the south Hebron hills, throughout 2018. The field visits sought to assess the population’s ability to implement small-scale and community-based climate change adaptation options in light of Israeli-imposed restrictions impacting the daily lives of Palestinians. The report adopts an environmental justice approach\textsuperscript{20} that draws attention to the linkages between climate change adaptation, the ramifications of prolonged occupation, and geopolitical injustices in the OPT.

\textsuperscript{16} Israeli practices such as settlement expansion around areas declared by Israel as ‘nature reserves’, as well as the declaration of ‘nature reserves’ as firing and closed military zones, are in contradiction of Israel’s proclaimed objective to preserve nature and protect wildlife. See, for example, UN OCHA, Settlement expansion around an Israeli-declared ‘nature reserve’, 31 October 2014, available at: https://www.ochaopt.org/content/settlement-expansion-around-israeli-declared-nature-reserve.


\textsuperscript{19} See the IPCC’s definition of Adaptive Capacity in Glossary.

Masafer Yatta is home to approximately 1,700 Palestinians, living in small, remote communities, some of whom are Palestinian Bedouin, who have traditionally and historically, since before the Nakba in 1948, relied on pastoral and agricultural practices, namely livestock breeding and livestock production, as their main sources of livelihood and traditions of life.

Masafer Yatta is comprised of 16 pastoralist communities, all of whom are at risk of direct and indirect forcible transfer due to the Israel’s policies and practices.

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2. Masafer Yatta – The South Hebron Hills

Masafer Yatta is located in the southern hills of the Hebron Governorate, in the south of the occupied West Bank, most of which is located within the Israeli-declared active ‘Firing Zone 918’, addressed in more detail later in this report. The area lies to the north of Al-Naqab Desert, located across the 1949 Armistice Agreement Line (or ‘Green Line’). The entire Masafer Yatta region is classified as Area C, which falls under Israel’s full civil and military control.

2.1 Population and Location

Masafer Yatta is comprised of 16 pastoralist communities, all of whom are at risk of direct and indirect forcible transfer due to the Israel’s policies and practices.

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21 See Section 2.2, this Report.
22 See also B’Tselem, Interactive Map, available at: https://www.btselem.org/map.

23 In 2013, OCHA’s statistics indicated that approximately 1,300 individuals resided in Masafer Yatta. The figure provided here was obtained by Al-Haq from the head of the Masafer Yatta Council, Mr. Nidal Younis. Figures by B’Tselem cover a larger geographic area within the south Hebron hills, suggesting a total of 4,000 residents distributed across 30 communities and villages, including two of the villages mentioned in this report (Um Al-Kheir and Al-Twaneh). See B’Tselem, The South Hebron Hills, 1 January 2013, available at: https://www.btselem.org/south_hebron_hills.
25 Field information obtained by Al-Haq, 2018.
26 These include: Israel’s declaration of land as closed military areas and firing zones; restrictions on building and discriminatory planning policies; road construction for the purpose of connecting illegal Israeli settlements, and resultant movement restrictions; and incidents of settler harassment and violence, amongst others. See also Al-Haq’s work on settlements, settler violence, and annexation, available at: https://www.alhaq.org/advocacy/settlements-and-annexation.
Climate Change Vulnerability in the Occupied Palestinian Territory

Adaptation Under Occupation

AL-HAQ

A view of Karmel settlement located to the east of the Palestinian Bedouin community of Um Al-Kheir in the south Hebron hills, outside the active ‘Firing Zone 918’ – Samuel Eder © 2019

Street sign indicating the road leading to Karmel settlement - Samuel Eder © 2019

Street sign indicating the road leading to Ma’on settlement - Samuel Eder © 2019

Street sign indicating the road leading to Susya settlement - Samuel Eder © 2019

Masafer Yatta is surrounded by illegal Israeli settlements, including the settlements of Karmel and Ma’on to the north, Susya settlement to the west, and Mezadot Yehuda settlement to the south. In addition, multiple settlement outposts further surround the area,27 including Hill 833, Avigayil, and Mitzpe Yair settlements. Israeli settlers surrounding Masafer Yatta who have been transferred in illegally by Israel and in violation of Article 49 of the Fourth Geneva Convention, operate thriving businesses and farms, exploiting and benefiting from natural resources owned by, and appropriated from, the occupied Palestinian population. For instance, Susya settlement hosts a private Israeli company operating a goat dairy farm and produces dairy products under the name ‘Halav Haaretz’ (or ‘milk of the land’ in Hebrew). Additionally, Israeli settlers have regular access to vast areas of rangelands within areas designated as firing zones and closed military areas. While Palestinians continue to be denied access to these rangelands, Israeli settlers enjoy unlimited access, often protected by and under the watchful eye of the Israeli occupying forces (IOF).

27 Israeli outposts are settlements constructed in the occupied West Bank without official authorization from the Israeli Government. Both outposts and settlements approved by the Israeli Government are illegal under international law, and are maintained with the support or silent acquiescence of the Israeli Government. In particular, Israeli settlements in the OPT violate Article 49 of the Geneva Convention Relative to the Protection of Civilian Persons in Time of War (adopted 12 August 1949) 75 UNTS 287 (hereinafter ‘Fourth Geneva Convention’). Notably, the UN Security Council reaffirmed the illegality of Israeli settlements in Resolution 2334 (2016), 23 December 2016, UN Doc. S/RES/2334 (2016).
2.2 Restricted Access

To the east of Masafer Yatta is a large area of land covering 35,000 dunums,\(^{28}\) which have been exclusively declared by the Israeli occupying authorities as a closed military area and an active firing zone since 1977. Consequently, the entirety of the Masafer Yatta region is either surrounded by Israeli settlers or by active Israeli military presence, putting the area and its residents at great personal risk and threat to life, critically affecting their everyday livelihood and subsistence due to their inability to access vast areas of their lands and other natural resources. Contributing to the geopolitical vulnerability of Masafer Yatta is its location within the Israeli-declared active firing zone referred to as ‘Firing Zone 918’.\(^{29}\)

Since its declaration as a closed military area and active firing zone, Palestinians have been systematically denied access to their land and natural resources therein. The firing zone encompasses lands on which 12 out of the 16 Palestinian communities of Masafer Yatta reside, comprising some 1,500 residents.\(^{30}\) The Israeli occupying authorities have also used the firing zone as a pretext, to carry...

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\(^{28}\) A dunum is a unit of land used to measure land areas in Palestine since the British Mandate. One dunum of land is equivalent to 1,000 square metres.

\(^{29}\) See, for example, B’Tselem, Firing Zone 918, 30 October 2017, available at: https://www.btselem.org/publications/fulltext/918.

\(^{30}\) Field information obtained by Al-Haq, 2018.
out systematic forcible transfer measures. In doing so, the military commander has issued military orders designating the area a no-go zone, whereupon the IOF have engaged in waves of forced evictions of Palestinian residents in the area. Most notably, in 1999, the IOF expelled over 700 Palestinians who had resided in so-called ‘Firing Zone 918’ since before the Nakba in 1948. Following the mass expulsion of Palestinians in the aftermath of the 1967 war, Palestinians in Masafer Yatta resorted to the Israeli High Court of Justice challenging the military orders for their expulsion from the ‘Firing Zone’. Although the petition resulted in an interim injunction issued by the Court, permitting Palestinians to return to their lands, a ruling is pending in the case to this day.

31 Direct and indirect forcible transfer measures violate international humanitarian law, in particular Article 49 of the Fourth Geneva Convention. Forced displacement, including forced evictions, violate a series of rights enshrined under international human rights law and applicable in the OPT, including residency rights, family rights, and the right to an adequate standard of living, including adequate housing, amongst other fundamental rights. See e.g., UN Guiding Principles on Internal Displacement, 1998, Principle 6.


33 Field information obtained by Al-Haq, 2018. See also B’Tselem, Masafer Yatta communities whose land has been declared a firing zone, 1 January 2013, updated 10 February 2016, available at: www.btselem.org/south_hebron_hills/masafer_yatta.

34 Ibid.

3. Climate Change Adaptation Planning in the Occupied Palestinian Territory

In 2016, the Environment Quality Authority (EQA) of the State of Palestine released its National Adaptation Plan (NAP) to Climate Change, following its accession to the United Nations (UN) Framework Convention on Climate Change (UNFCCC) on 18 December 2015. Since then, the Convention has become binding on the State of Palestine in the OPT. It is important to note that Israel, the Occupying Power, following its ratification of the Convention on 4 June 1996, has had extraterritorial duties and obligations in its application of the UNFCCC to the OPT. As stated under Article 2, the UNFCCC aims at “the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”

The process of developing country-driven NAPs was established under the Cancun Adaptation Framework in 2010. The process is intended to enable States to formulate and implement NAPs as a means of identifying climate change adaptation needs and developing adaptation strategies in accordance with those needs. In its NAP, the State of Palestine presented a vulnerability assessment for the OPT, building on the guidelines provided by the UNFCCC for least developed countries as well as the Climate Change Adaptation Strategy and Program of Action for the Palestinian Government developed in 2011.

According to the analysis presented by the NAP, much uncertainty surrounds
projected impacts of climate change. Multiple scenarios reflecting various levels of temperature increases suggest different effects in relation to impacts on rainfall and temperatures in the OPT. Uncertainty surrounding future climate scenarios is the result of a combination of factors, including unknown future concentrations of greenhouse gases as well as the levels of commitment to the implementation of mitigation measures by the international community. Uncertainty is also partly caused by the difficulties surrounding the establishment of future climate scenarios due to the uncertainties relevant to the identification of historical data and climate-related trends, especially in relation to parameters such as rainfall. With that in mind, the analysis of future climate change projections for the OPT, by the NAP, builds on reviews of existing peer-reviewed and grey literature, as well as reviews of official future climate change projections submitted by Israel and neighbouring countries, including Jordan, Lebanon, and Egypt, in their national communications to the UNFCCC.

While the NAP for the State of Palestine takes note of the uncertainty surrounding future climate change projections, it concludes: “[i]n general, the contention is that the overall water situation will deteriorate, with more potential for drought and floods, increased evaporation, [and] reduced river flow”. The Plan further concludes that despite these uncertainties, there is “unanimity that temperatures will increase, although there is some disagreement by how much”. In addition, Palestine’s NAP notes that “most analyses suggest future decreases in rainfall, although the amount of decreases is somewhat uncertain”. In light of such uncertainties, a precautionary approach must be adopted, by prioritizing the need to increase the adaptive capacity in particularly vulnerable areas in the OPT, even if the extent of the harm of long-term climate trends remains unclear.

The NAP ranks an array of sectors as “highly vulnerable” to climate change across the OPT, including, inter alia, agriculture, coastal and marine, energy, health, food, and water. In this report, the vulnerability of the agriculture sector, encompassing livestock production, irrigation water, and crop production, is explored in light of the impacts of Israel’s prolonged occupation on adaptation to climate change. The table below summarizes climate change adaptation options relevant to the scope of this report, as prioritized by the State of Palestine’s NAP.

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<tr>
<th>Theme/Sector</th>
<th>Highly Vulnerable Component</th>
<th>Adaptation Option</th>
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<tr>
<td>Agriculture</td>
<td>Rain-fed vegetables and field crops</td>
<td>- Water harvesting systems</td>
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<td>Irrigated vegetables</td>
<td>- Enhancing sustainable community-level irrigation schemes and infrastructure</td>
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<td>Grazing areas and soil erosion</td>
<td>- Land-use planning and management</td>
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<td>- Greening</td>
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<td>- Rangeland development</td>
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<td>Irrigation water</td>
<td>- Improving water-use efficiency and using alternative water resources</td>
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<td>Livestock production</td>
<td>- Improving livestock production pens</td>
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<td>- Increasing the availability of animal feed at an affordable price</td>
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<td>Water</td>
<td>Ground water supply</td>
<td>- Enhancing the use of additional and alternative water resources for non-domestic purposes</td>
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<td>- Equitable transboundary water resource allocation</td>
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<td></td>
<td>Flood management</td>
<td>- Developing and improving storm-water systems and drainage infrastructure</td>
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<td>Condition of infrastructure</td>
<td>- Rehabilitation of water sources: wells, canals, and springs</td>
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Table 1: Climate change adaptation options relevant to water and agriculture, as prioritized by the State of Palestine’s NAP.

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41 Mitigation of climate change refers to human interventions to reduce greenhouse gas emissions. In climate policy, mitigation measures refer to a variety of practices that contribute to the mitigation process. The first UNFCCC mitigation objective was introduced under Article 2 of the Convention was implemented under the 1997 Kyoto Protocol, which established commitments to mitigate global warming by reducing greenhouse concentrations in the atmosphere through reducing anthropogenic (human-made) greenhouse gases.
42 EQA, National Adaptation Plan to Climate Change, 2016, p. 15.
43 Ibid.
44 Ibid.
45 In the context of climate change, a precautionary approach refers to considering the precautionary principle in decision making. The precautionary principle implies the need to take precautionary actions to prevent adverse, and possibly catastrophic impacts of climate change, even in the presence of scientific uncertainty.
4. Climate Vulnerability, Sensitivity, and Adaptability

Sensitivity to climate change is relevant to the degree to which a region or in this case, a community, is affected by climate-related stimuli such as climate variability and frequency and intensity of extreme weather events and disasters. Adaptive capacity is the degree to which a community has the capacity to cope with, or adjust to, the consequences of climate change. Vulnerability is therefore portrayed as the degree to which a community is unable to cope with, or is susceptible to, the consequences of climate change. An analysis of the interrelations between vulnerability, sensitivity, and adaptive capacity is key to conducting a comprehensive vulnerability assessment, a tool used to identify and prioritize climate change vulnerabilities and adaptation options for a system or a region.46

4.1 The Dual Strike

During interviews conducted by the author in Masafer Yatta and surrounding villages in the south Hebron hills, Palestinian communities historically dependent on pastoralism and other agricultural activity, recalled experiencing recent signs of climatic changes, including increases in annual temperatures, rainfall fluctuation, and more frequent extreme weathers and temperatures, notably intensified summer droughts leading to the observation of signs of desertification.47 Combined with discriminatory Israeli measures imposed on Palestinians in the area, such changes have inevitably impacted and are expected to continue to adversely impact pastoral and other herding communities and agricultural activities in most parts of the south Hebron hills, particularly in Masafer Yatta.48

According to community members, including heads of village councils and agricultural communities in the area, Masafer Yatta, was once the breadbasket for the entire region, especially prior to the late 1970s, where most of the dairy products and seasonal crops were generated, produced, and sold in the market. Today, the environmental crisis in the south Hebron hills, attributable primarily to Israel’s prolonged occupation, has dramatically changed the demography and agricultural nature of the area, which once defined economic and social activity in the region. The greatest challenge facing communities’ ability to attempt to implement climate change adaptation options and to cope with climate change are at large caused by Israel’s discriminatory measures, in particular the targeting and exploitation of natural resources that are highly vulnerable to climate change. This is evidenced by Israel’s control over water and land resources, and the Israeli-imposed restrictions on Palestinians’ access to cultivable lands and grazing areas, destruction of property, including homes, animal sheds, and water infrastructure, as well as the confiscation of land and water infrastructure.49

46 See also the IPCC’s definitions in Glossary.
47 Drought and desertification are related phenomena; drought can be a natural phenomenon exacerbated by human activity such as exploitation of water resources, land degradation, and negative agricultural practices. In extreme cases, drought can be one of the factors contributing to the desertification of land, turning land that was once fertile into a desert-like land. While most individuals interviewed throughout the research process mentioned observing such changes, all of them attributed their magnified impacts to the Israeli occupying authorities’ practices in the region.
48 Field information obtained by Al-Haq, 2018.
49 See also B’Tselem, The South Hebron Hills, 1 January 2013, available at: https://www.btselem.org/south_hebron_hills.
4.2 Climate Change and Geopolitical Vulnerabilities

Across the OPT, particularly in vulnerable regions like Masafer Yatta, a number of climate change trends are expected to intensify and exacerbate in coming years. These include uneven rainfall distribution, a decrease in available natural grazing areas and vegetation cover, increased trends of droughts, and increased intensity and frequency of extreme weather events and extreme temperatures.\(^{50}\)

Palestine’s NAP, which provides a vulnerability assessment for the sectors most likely to be impacted by climate change in the OPT, takes into account vulnerabilities resulting from existing political inequalities caused by Israel’s prolonged occupation and the occupying authorities’ policies and practices in this regard. Two of the sectors identified as highly vulnerable to climate change, which are expected to be the most adversely impacted, are the water and agriculture sectors, including livestock production.\(^{51}\) The two sectors have further suffered degradation in the OPT, primarily as a result of Israel’s policies and practices, thus contributing to the creation of a climate-vulnerable population.

Considering the interrelations between climate change sensitivity and adaptive capacity, it can be concluded that restrictions on climate change adaptation in the OPT are not only limited to restricting the implementation of adaptation options, but also involve practices contributing to decreased resilience and adaptive capacity amongst the protected Palestinian population, thereby increasing their sensitivity and vulnerability to climate change.

In the south Hebron hills, the Israeli occupying authorities target main sources of Palestinian livelihood, namely crop and livestock production, as part of a wider policy to create coercive environments to forcibly transfer the protected Palestinian population outside of the occupied territory, in violation of international law. In particular, international humanitarian law prohibits “[i]ndividual or mass forcible transfers, as well as deportations of protected persons from occupied territory to the territory of the Occupying Power or to that of any other country, occupied or not… regardless of their motive”, in line with Article 49 of the Fourth Geneva Convention.\(^{52}\) At the same time, international human rights law prohibits arbitrary displacement, including displacement “based on policies of apartheid, “ethnic cleansing” or similar practices aimed at/or resulting in altering the ethnic, religious or racial composition of the affected population”, as recognised by the 1998 UN Guiding Principles on Internal Displacement.\(^{53}\)

Despite the forceful and repeated attempts by Israel, to force Palestinians to leave Masafer Yatta through the creation of coercive environments, Palestinian communities continue to demonstrate resilience and to affirm their persistent desire to remain on their lands. Palestinians have repeatedly rejected Israel’s attempts to forcibly ‘relocate’\(^{54}\) them to designated townships, in the absence of their genuine consent. In particular, Palestinians have stressed that by seeking other means of living by say, relocating to nearby areas, this will grant Israel the opportunity to expand its illegal settlement enterprise in the surroundings of Masafer Yatta and the south Hebron hills, and will eradicate the traditions of life

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\(^{50}\) For more information on possible scenarios and impacts relevant to the OPT, see EQA, National Adaptation Plan to Climate Change, 2016. The Plan also addresses discussions on uncertainties relevant to projected impacts and trends.

\(^{51}\) Palestine’s NAP states that “[t]he process for assessing vulnerabilities and identifying adaptation options… built on the UNFCCC’s guidelines for least developed countries and the Climate Change Adaptation Strategy and Program of Action for the Palestinian Government.” EQA, NAP, 2016, p. 11.

\(^{52}\) Article 49, Fourth Geneva Convention.


\(^{54}\) Field information obtained by Al-Haq, 2018.
for Palestinian Bedouin, pastoral, and other herding communities, which they have maintained for hundreds of years, including prior to the Nakba in 1948.

Accordingly, to remain on their lands, communities in Masafer Yatta are forced to live under the constant threat of house and property demolitions and forced displacement, while the Israeli Civil Administration (ICA), the authority discharging Israeli Government functions in the West Bank, has long prevented the development of Palestinian communities.

The wide range of restrictions imposed by the Israeli occupying authorities on Palestinians in Masafer Yatta, as elsewhere in the OPT, are exemplified in the experiences described to Al-Haq by community members in the preparation of this report, as well as hundreds of sworn affidavits collected by Al-Haq over the past decade, documenting eyewitness and victim testimonies of incidents relevant to restrictions that drastically hinder people’s ability to maintain the pastoralist livelihoods and traditions of life of the indigenous population.

4.3 Linking Indigenous Knowledge

For indigenous peoples around the world, resilience to climate change is rooted in traditional knowledge, given that communities’ capacity to adapt to environmental change is based on a deep understanding of the land, as well as traditional agricultural practices. As climate change increasingly impacts indigenous communities, responses seek to increase resilience, reduce vulnerability, and cope with inevitable existing and predicted changes. In a statement to the Conference of the Parties to the UNFCCC, the International Indigenous Peoples Forum on Climate Change (IIPFCC) reaffirmed the importance of recognizing traditional knowledge and practices as integral components of climate change adaptation and mitigation efforts. Indigenous Palestinians, who have resided in the south Hebron hills, well before the beginning of Israel’s occupation in 1967,
Climate Change Vulnerability in the Occupied Palestinian Territory

**Adaptation Under Occupation**

AL-HAQ

have historically been able to mobilize their deep knowledge of the territory and its sustainable agricultural and livestock production, which has constituted their main source of livelihood for generations.

Women in particular, have traditionally been the providers as livestock caregivers in Masafer Yatta, and have taken up the role of providing food for their families, the staple traditional food including meat and dairy products. Women carry most of the traditional indigenous knowledge affiliated with livestock production, and are therefore the key observers of the diminishing production rate and its consequences, as a result of the compounded impact of the Israeli occupation and climate change effects.

4.4 Gender-Differentiated Vulnerability to Climate Change

In adopting a gender-differentiated analysis on climate change vulnerability in the OPT, it is important to note that a gender analysis is not merely about women, rather it includes analysis of the designated roles and responsibilities, the intersectionality of relations between women and men, and other social determinants, including class and location. Vulnerability, therefore, is shaped by social determinants and hence varies across social positions and locations.

In every household visited in developing this report, the author found that women were responsible for the majority of the tasks associated with livestock production, including all areas of animal husbandry, from day-to-day care to the raising of livestock and the production of dairy products for both commercial and domestic use. Accordingly, Palestinian women play a key role in managing livestock production, and therefore in attaining and sustaining food security.

Due to its dire effect on the water and agriculture sectors, climate change has and will continue to have a direct and ominous impact on all aspects of food security, including food availability, accessibility, and stability. Within the threat of food insecurity as a result of the dual strike of climate change and Israel’s prolonged occupation of the OPT, the risk facing Palestinian women’s livelihoods is magnified, hence rendering them overburdened and more vulnerable to climate change. This vulnerability is largely due to the risks resulting from unavailability of traditional food sources and sources of income, as well as water resources for domestic use in the context of both politically and environmentally-induced scarcity.

57 Field information obtained by Al-Haq, 2018.

58 Gender analysis is the analysis of the different roles women and men play in order to understand the relationship between the resources to which women have access, their assigned roles within their communities, and accordingly, their specific needs as a societal group. See FAO, Invisible Guardians: Women manage livestock diversity, 2012, available at: http://www.fao.org/3/i3018e/i3018e00.pdf.

4.5 Adaptability

The impact of Israel’s prolonged occupation has hindered Palestinians’ ability to develop and implement adequate adaptation strategies and tools, necessary to positively cope with climate change. Adaptation options recommended by Palestine’s NAP for the agricultural sector in Palestine require access to and control over their natural resources.60 Deprived of access to water and land, in particular, Palestinians are unable to implement even the least demanding adaptation methods necessary for their survival and sustainability as agricultural, pastoral, and herding communities. These include, *inter alia*, sustainable grazing, small-scale water harvesting and soil erosion prevention.

As demonstrated in Table 1, Palestine’s NAP identifies adaptation options necessary for coping with the risks projected for the agriculture sector. The table further identifies high vulnerabilities associated with the proposed adaptation options, all of which correlate with resources controlled and exploited by Israel. To overcome vulnerabilities related to irrigation, crop production, and loss of vegetation cover, access to and self-determination over water and land resources are key. Similarly, reducing vulnerabilities associated with livestock production and soil erosion requires access to rangeland and water resources to sustain livestock production, as well as control over building and construction in order to implement options needed to prevent soil erosion. Palestinian communities are systematically denied these adaptation options as a result of Israeli administrative restrictions.

5. Thwarting Adaptation Actions

Consistent with the vulnerability assessment presented by the NAP of the State of Palestine, Al-Haq’s field research revealed that the most climatically and politically vulnerable adaptation actions, as underlined by local communities, included livestock and crop production, and building and construction.

5.1 Access to Water:

In order to sustain its illegal settlement enterprise in the West Bank, including the settlements’ agricultural activity, Israel has systematically controlled Palestinian water supply, limiting access to water for Palestinians. As of 2013, it was estimated that 180 Palestinian communities residing in all of Area C of the West Bank are entirely disconnected from the water network, while 122 communities who are connected to the water network do not have regular water supply.61 Today, it is estimated that nearly 50,000 Palestinians62 who reside in

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60 The right to permanent sovereignty over natural resources forms part of the right of peoples to self-determination, and is enshrined in international human rights law treaties applicable in the OPT, notably the two bedrock human rights covenants to which both Israel, as Occupying Power, and the State of Palestine are party. See Article 1, International Covenant on Civil and Political Rights (adopted 16 December 1966, entry into force 23 March 1976) 998 UNTS 171 (hereinafter ‘ICCPR’) and Article 1, International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entry into force 3 January 1976) 993 UNTS 3 (hereinafter ‘ICESCR’). The right to self-determination also gives rise to erga omnes obligations under international law, including with respect to the right of Palestinians to self-determination, as recognized by the International Court of Justice (ICJ). See, notably, *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, ICJ Reports 2004, p. 136, para. 155: “[t]he obligations erga omnes violated by Israel are the obligation to respect the right of the Palestinian people to self-determination, and certain of its obligations under international humanitarian law.” In particular, the ICJ has recognized the right to permanent sovereignty over natural resources as a principle of customary international law. See *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, ICJ Reports 2005, p. 168, para. 244.

61 See UN OCHA, Water tankering projects target the most vulnerable communities in Area C, available at: https://www.ochaopt.org/content/water-tankering-projects-target-most-vulnerable-communities-area-c. The statistics provided by OCHA are according to OCHA’s 2013 Vulnerability Profile Project (VPP). While the statistics specify the number of communities, they do not include the total number of Palestinian residents therein.

Area C, are disconnected from the water network. Meanwhile, approximately 413,400 Israeli settlers63 illegally residing in approximately 24564 settlements and outposts in the West Bank, excluding East Jerusalem, are fully connected to water networks and consume somewhere between three to eight times65 more water than the entire Palestinian population of the West Bank, who make up some 2.9 million Palestinians.66

Discriminatory water allocation and supply to Palestinian communities in Masafer Yatta and throughout Area C of the West Bank by Israel’s national water company, Mekorot, has resulted in insufficient amounts of water available for Palestinians,

inadequate quality, and physically inaccessible and unaffordable water, in violation of Palestinians’ right to an adequate standard of living, including adequate water and sanitation.67 In turn, Mekorot systematically discriminates against Palestinians, violating their right of access to water and their right to a system of water supply and management.68

In Masafer Yatta, Israeli settlers are exclusively connected to the water network through pipelines laid out by Mekorot, often passing near or underneath Palestinian communities to supply water for illegal settlements and outposts, meeting their domestic and agricultural water demand.69 Meanwhile, most Palestinian villages in Masafer Yatta are not connected to the water grid. Palestinians are therefore

67 Article 11, ICESCR.
forced to purchase water tankers at elevated prices, often purchased from the nearby city of Yatta. Water prices vary depending on the transportation distance from the water source to the community. Consequently, the more remote and less accessible the community is, the higher the price of water becomes.

Israel’s regular denial of access to water resources for Palestinians is also exemplified in the restrictions imposed on the construction and development of water-related structures, a practice recommended as an adaptation option by the NAP. Restrictions on the development of the water sector include the systematic demolitions of water-related structures, including wells and water pipelines. Between 2010 and 2019, Al-Haq documented the demolition of 23 water wells in Masafer Yatta. In 2013, Al-Haq collected an affidavit from a resident of Susiya village in the south Hebron hills, where he described the restrictions he faced in attempting to construct a water well for the purpose of collecting rain-water:

“Three and a half years ago, I built a well to collect rain water, which can fill up to 120 cubic metres of water. On Thursday, 27 June 2013, two vehicles belonging to the Israeli border police and a white jeep carrying two Israeli army officers arrived at our community in Susiya. The border police guards and the officers began roaming around the tents set up in the community and handing over stop-work orders for residents who were in the process of setting up residential tents and other structures. The stop-work orders targeted residential tents, animal sheds, and water harvesting wells... my well included.”


Due to Israel’s systematic denial of access to water, most Palestinians in the south Hebron hills, including in Masafer Yatta, reported the inability to sustain livestock flocks that they had inherited and raised for generations, because the water supply is not sufficient to meet their basic domestic consumption needs. Communities are therefore no longer able to afford to provide drinking water for their flocks, particularly during the summer months, forcing them to abandon their traditions of life and undermining their livelihoods.

5.2 Livestock Production

5.2.1 Access to Grazing Areas

While climate change poses a threat to livestock production, it has not yet prompted the disappearance of the majority of rich grazing areas in the south Hebron hills area, including Masafer Yatta. Instead, and due to the restrictions on accessibility to available grazing lands for Palestinians, by both the IOF and Israeli settlers illegally residing there, Palestinians have lost most of the vegetation cover in the limited areas of land they are able to access. While the decrease in precipitation has partly contributed to the decline in vegetation cover, the main source of stress causing the degradation of grazing lands remains political and a direct result of the occupation, and Israel’s policies and practices.

71 Climate change is a global threat to livestock production as it impacts water availability, biodiversity, animal reproduction, heat stress, and the transmission of livestock diseases. For the OPT, livestock production is identified as one of the most vulnerable sectors to the impacts of climate changes, coupled with the impacts of the Israeli occupation of the territory.

72 See also Conflict and Environment Observatory, Country brief: Occupied Palestinian Territories, 26 March 2018, available at: https://ceobs.org/country-brief-occupied-palestinian-territories/.
Palestinians in Masafer Yatta identified the inability to access grazing areas as the primary obstacle to adapting to changes in the vegetation cover of accessible lands, attributable to the overgrazing of the limited area of rangelands available for Palestinians. Restrictions on access are largely due to Israel’s declarations of various areas of the land as so-called nature reserves, closed military areas, and firing zones, where the IOF routinely conduct military trainings, particularly in areas where Palestinian herders are most likely to graze. Palestinians in the area have stated that military trainings are more frequent during the spring and during productive grazing seasons. During Israeli military trainings, vast areas of agricultural lands are closed off entirely to Palestinian access and use, while nearby areas that are not closed off become extremely dangerous for Palestinians to reach due to the possibility of being injured by live bullets or grenades used during the trainings.

Restrictions associated with military trainings are not only limited to military training periods. The explosive remnants left behind by the IOF on Palestinian lands has made it generally dangerous for Palestinians to even attempt to reach grazing areas. In 2012, Al-Haq documented the case of two Palestinian children who were grazing their flock in Jinba, located in southern Masafer Yatta, who were injured following the explosion of remnants left by the IOF, only one kilometre away from the residential community:

“On Friday morning, I went to herd my sheep. I was riding our family horse, while my two uncles, Fadel and Khalil, my 12-year-old cousin Louay, and my 13-year-old brother Islam accompanied the sheep on foot. We left by 9:00 am and headed east to graze about one kilometre away from Jinba. We stayed with the sheep in the area until about 1:30 pm and then started walking back towards our house... Suddenly, I heard the sound of a loud explosion... I looked behind me and saw blue smoke coming out of the ground... I then saw my brother, Islam, and he was injured in his foot. He tried to stand up but kept falling to the ground. I saw Louay lying on the ground and bleeding from his back...”


Israel’s discriminatory policies are also exemplified in severe restrictions on freedom of movement. Widad (last name redacted), a Palestinian woman from Khirbet Al-Markaz community in southern Masafer Yatta, was riding her donkey while her flock of sheep were feeding in a rangeland. Suddenly, members of the IOF approached her and proceeded to detain her on the pretext that she was ‘patrolling’ the activity of Israeli army members, while they were conducting military trainings in the area. Leaving her flock of sheep and her donkey behind, Widad was taken for interrogation at A’tsyoun Interrogation Centre. She told Al-Haq:

“They forced me to get off the donkey... I lost my shoes in the process and they did not allow me to retrieve them. They know I was not patrolling, but they always do this... If we roam around with our flock during the day we are accused of patrolling, if we graze during the night, the risk of having our herds confiscated is even greater...”

Al-Haq interview with Widad, resident of Khirbet Al-Markaz in Masafer Yatta, 2018. (Last name redacted).
In a separate incident, Naima Al-Hosha, went looking for her donkey when she noticed it was missing. She found it at the top of the hill standing in one of the old caves, seemingly shielding itself from the sun. Knowing the danger of unattended cattle roaming around a closed military zone, Naima rushed to bring back her donkey. Before she was able to get to it, the IOF captured and arrested her.  

The consensus amongst all Palestinian communities in Masafer Yatta is that the region has historically depended on livestock production as a primary source of living, citing hundreds of years of local self-sufficiency and food independence. Traditionally, Palestinian families used to claim communal ownership over livestock. Since the beginning of the Israeli occupation in 1967, however, Palestinians witnessed a sharp decline in the numbers of livestock belonging to each family. This decline was a result of the communities’ inability to maintain large numbers of livestock herds due to a variety of politically-induced factors, namely the inability to access grazing areas with sufficient vegetation cover.

The degradation of grazing lands available to Palestinians is partly due to stress induced by the overgrazing of small areas of land available for Palestinians. Palestinians therefore have no choice but to engage in negative coping actions, such as overgrazing. When the grazing area is too limited in a region where the primary source of income is livestock production, the land is not given sufficient periods to recover. Overgrazing degrades the land, exhausts its vegetation cover, and reduces green cover biomass and grazing capacity, further enhancing desertification, and making the land more liable to erosion, given that the growth of vegetation cover that is native to the region is key to avoiding soil runoff and to building soil stability. The exhaustion of the vegetation cover has also caused a sharp increase in the prices of fodder and other types of animal feed, which has rendered Palestinian communities unable to sustainably maintain their livestock flocks, forcing many communities to abandon their traditions of life, which would otherwise have ensured their long-term self-sufficiency, food security, and community-managed adaptation to climate change.

5.2.2 Elevated Animal Feed Prices

Despite being an alternative source of income to which many Palestinians resort in the absence of genuine choice, Naima from Khirbet Al-Markaz in Masafer Yatta also indicated to Al-Haq that none of her family members work in nearby Israeli settlements, and that they are struggling to maintain what remains of their agricultural and herding traditions of life. Naima told Al-Haq that her family can no longer afford to keep their flock of sheep as they rely solely on access to natural grazing areas. All Palestinians from the community interviewed indicated that in order to maintain livestock at any number, purchasing overpriced fodder to feed livestock, is inevitable. Many families have accumulated large amounts of debt merely due to elevated fodder prices, which has placed substantial financial stress on Palestinian families.

"Just seven years ago we were able to solely rely on herding to meet our basic needs... We are no longer able to do that because there are no grazing areas, and fodder prices are very high... Twenty years ago, my father and I would spend most of our time roaming around green grazing areas and feeding the 200 sheep that we had. I would then spend most of the following morning milking and preparing the sheep for the feeding ritual. Today, there are no grazing areas anymore. We feed them fodder, which is very expensive, and the milk we produce and sell, barely covers the cost of the fodder itself."

5.2.3 Community-Led Responses

The natural community-led response to the decrease in available rangelands should be to expand the grazing areas and diversify grazing spatial patterns to avoid the over-exhaustion of the vegetation cover in one region, along with creating a balance between the grazing practice and fodder-feeding that would ensure environmental and economic sustainability. Yet, for Palestinians in the south Hebron hills, including in Masafer Yatta, community-based responses, practiced formerly for generations, are not achievable due to Israeli-imposed restrictions on access to grazing areas resulting from the declaration of lands as military and firing zones, in addition to military trainings regularly conducted in the area, and incidents of settler violence and harassment against Palestinian herders. According to the Palestinian people in the south Hebron hills, community-based resource management was practiced by their ancestors for generations, illustrating their deep understanding of the land and the sustainability of traditional agricultural practices.

"Before 1948, [Masafer Yatta] was known as the breadbasket of the region... Today's generation have been removed from the traditional agricultural practices our ancestors used to know... They knew exactly where to lay out stone terraces to prevent soil erosion... They knew what to plant and when to plant it... They knew so much about agricultural methods that would not harm the land... Our generations today have lost this knowledge because of restrictions on access to our land..."

Al-Haq interview in Khallat Al-Dabe’ in Masafer Yatta, 2018. (Name Redacted).

Overgrazing, a form of negative coping practice to climatic threat, which coupled with politically induced environmental degradation, will reduce resilience, while fostering and increasing vulnerability. Such methods are referred to as ‘maladaptive actions’ or ‘maladaptation’. In the context of the OPT, maladaptation may be caused by the implementation of large-scale projects that may result in more environmental harm than benefit, further increasing the occupied Palestinian populations vulnerability to climate change. In this case, maladaptation could refer to the practices that Palestinians are forced to adopt due to restrictions arising from the Israeli occupation, lack of political will to change the status quo, and the absence of genuine choice.

"Had you come to me 20 years ago and told me there would be no more natural grazing areas around me, I would have fed [the livestock] in different places. Today, I am forced to stay in this location as it is impossible for me to take my livestock somewhere else. If I take them elsewhere even for one day, they [IOF] would take over our mountain."

Al-Haq interview in Khallat Al-Dabe’ in Masafer Yatta, 2018. (Name Redacted).

In response to the limited availability of grazing areas within the active ‘Firing Zone 918’, Palestinians, particularly in the far southern region of Masafer Yatta, have reported to Al-Haq that they sometimes attempt to reach grazing areas across the ‘Green Line’, especially within Al-Naqab Desert. It is important here to emphasize that there is no well-defined geographical border between Masafer Yatta to the south of the West Bank, and Al-Naqab Desert, located across the ‘Green Line’. As a result, communities in the south Hebron hills are often morphed and intertwined with the Bedouin population in Al-Nakab, as communities in both areas reside within a porous area, separated only by a few hundred meters. Consequently, and as repeatedly reported by community members, Palestinian herders living in isolated and remote areas in the south Hebron hills are deliberately targeted, and often captured and prosecuted while grazing across the ‘Green Line’.79

The deliberate targeting of livelihoods, exemplified in the systematic obstruction of the development of livestock production in the south Hebron hills has long been driven by Israeli State policy and endorsed by Israeli legislation. One of the obstacles facing the development of livestock production, as repeatedly raised by Palestinians residing in the remote, porous area in the far south of Masafer Yatta, is Israeli’s Plant Protection (Damage by Goats) Law of 1950.80 This piece of legislation, more commonly referred to as the ‘Black Goat Law’, prohibits the breeding of black goats (also known as ‘Syrian goats’), which are well adapted to the Mediterranean climate, on grounds that their feeding habits are allegedly harmful to Mediterranean lands. According to the Palestinian people in Masafer Yatta, although the law was introduced in the 1950s, the Israeli occupying

78 Maladaptive actions, also known as maladaptation, refer to actions that may cause unintended increase in climate risks and vulnerability to climate change. In the case of the OPT, Palestinians’ engagement in maladaptive actions are largely caused by restrictions imposed by the Israeli occupation. See also IPCC, Global Warming of 1.5°C, Annex I: Glossary, available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Annex_I_Glossary.pdf.
79 Field information obtained by Al-Haq, 2018.
authorities began to strictly enforce it in the late 1970s, coinciding with the declaration of vast areas of Palestinian land as ‘Firing Zone 918’. Palestinians also observed that the law is disproportionately enforced against Palestinian herders captured grazing across the ‘Green Line’, while Israeli herders, including settlers, often get away with keeping and breeding their black goats, suggesting that the protection of Mediterranean lands is only a pretext driving this piece of legislation.

"Any Palestinian caught grazing black goats would immediately be fined by the Israeli Civil Administration... Palestinians would also be fined if their sheep are found eating off of trees... Sheep prefer to feed on green grazing land than to eat from trees. If they eat from trees it is because the land is dry..."

Al-Haq interview in Khallat Al-Dabe’ in Masafer Yatta, 2018. (Name Redacted).

In 2017, the Israeli Parliament (the Knesset) adopted a bill proposed by Palestinian Member of Knesset, Jamal Zahalka, to repeal the aforementioned piece of legislation. In his proposal to the Knesset, Zahalka argued:

"The Plant Protection Act of 1950... claims that the breeding of goats should be restricted because they are harmful to Mediterranean lands. We believe that the law is a racist law that was legislated for political reasons and aims to eliminate one of the main sources of livelihood for a large section of the Bedouin Arabs [of the Palestinian people] in the Naqab..."

The second and third reading of the proposed bill were finally approved by the General Assembly of the Knesset on 8 May 2018, not in response to Zahalka’s concerns, but on the grounds that new evidence reveals that black goats’ grazing of undergrowth may help in preventing the rapidly growing wild fires in the age of climate change.82

As Occupying Power, Israel bears responsibilities for the rights and well-being of the protected Palestinian population. Contrary to its legal obligations, however, Israel continues to further its own interests, through control over Palestinians’ natural resources, in an effort to drive Palestinian displacement from their most fertile lands. This systematic tactic was further affirmed by the UN-mandated Independent International Fact-Finding Mission on the Implications of Israeli Settlements on the Civil, Political, Economic, Social and Cultural Rights of the Palestinian People throughout the OPT, including East Jerusalem, which concluded in February 2013 that “[t]he denial of water is used to trigger displacement, particularly in areas slated for settlement expansion, especially since these [Palestinian] communities are mostly farmers and herders who depend on water for their livelihoods.”83

In Masafer Yatta, as is the case in the rest of Area C, constituting over 60 percent


of land in the West Bank, the Israeli Civil Administration has long engaged in the practice of denying Palestinians permits for the construction or rehabilitation of any type of structures, including water infrastructure, animal sheds, public clay ovens (taboun), and road construction. Consequently, any structure built by Palestinians without a permit from the Israeli occupying authorities may be at risk of demolition by the Israeli authorities. Discriminatory planning and construction policies in the south Hebron hills also apply to all types of constructions on roads and agricultural lands.

Palestinians in Masafer Yatta have highlighted challenges linked to such policies and practices in relation to their inability to cope with climate change impacts, such as soil erosion, which is addressed in the NAP of the State of Palestine. Soil erosion could be prevented by the construction of stone terraces (also known as retaining walls), an agricultural method practiced by the Palestinian people on their ancestral lands for generations.

"Even the stone terraces have been demolished... What kind of security threat might they pose?... They [IOF] are just trying to make us leave... They know these [stone terraces] help us prevent soil run off, but they do not want us to practice any type of agriculture that would allow our grazing areas to grow... Only stone terraces constructed before 1948 are allowed to stay and they need to be reconstructed... But if we try to renovate them, they would immediately be demolished...".

Al-Haq interview in Halaweh in Masafer Yatta, 2018. (Name Redacted).

Stone terraces are also used as a form of small-scale water harvesting tool to be used for rain-fed agriculture, on which the Palestinian people have long relied as a source of livelihood and a means of subsistence. Water harvesting is one of the oldest and most used adaptation tools that communities rely on in situations where water scarcity has drastic impacts.

Restrictions on building further obstruct adaptation to extreme weather events in relation to livestock production, including the implementation of small-scale adaptation measures to heat waves and extremely cold weathers, such as strengthening the structure of animal sheds, including adding material to shield from hail, rainfall, winds and sun exposure. Like all other structures, animal sheds are at risk of being subjected to demolitions and stop-work orders, and remain under constant threat of destruction by the Israeli occupying authorities in all areas of the south Hebron hills and Masafer Yatta. Between 2011 and 2019, Al-Haq documented the demolition of 185 structures in Masafer Yatta, including 28 animal sheds and poultry farms. The destruction of animal sheds not only eliminates shelter for livestock, but also puts new-born livestock at risk, particularly in extreme weather conditions.

"I live in Sadat Al-Tha'la community, to the south of the Palestinian village of Um Al-Kheir, located to the south of Karmel settlement. I work as a farmer and a livestock breeder... In 2001... I built [a] house out of cement and tin, with an area of about 125 square metres. In the same year, I built an animal shed with an area of about 100 square meters. I also developed one of the caves in the area by building cement walls and a ceiling... and later developed it into a cow barn. A few years later, I dug into the same cave and used it as a water well, which cost me 19,000 New Israeli Shekels (NIS). In 2004, my cousin, Issa, dug another cave and used it as a water well, with an estimated capacity of 450 cubic metres. Soon thereafter, members of the Israel Civil Administration approached the location and served us five stop work orders for my animal shed, my well, my cousin's well, and an animal shed and a barn belonging to Issa's father... The stop work orders were later followed by demolition orders... At that time, Rabbis for Human Rights [organization] helped us hire a lawyer...

In 2005, the lawyer was able to obtain a decision to stop the demolitions... As a result, I proceeded with expanding my barn and added an area of about 150 square metres. The lawyer continued with following up on the case, and we did not receive any other stop work or demolition orders... On Wednesday, 15 February 2012, I went to Yatta city for medical treatment. At about 10:30 am..."

85 See also B’Tselem, Israeli military tightens travel restrictions on Masafer Yatta in attempt to drive Palestinians out, 2018, available at: https://www.btselem.org/communities_facing_expulsion/20171127_military_tightens_restrictions_in_masafer_yatta.
86 Al-Haq, Monitoring and Documentation Department (MDD), 2019.
our lawyer called me and said that she heard that a number of [Israeli] bulldozers are on their way to Sadat Al-Tha’la… I called my cousin, Yousef, who is a resident of Sadat Al-Tha’la, and he told me that there were two bulldozers, an [Israeli] military vehicle, and other cars belonging to the Israel Civil Administration approaching the community… When I got back to the community, at about 12:30 pm, I found that they [IOF] had demolished my animal shed, my water well, my cow barn, and my house where my wife and six children live, all of whom are under the age of 14. They also demolished my cousin’s water well and his animal shed… I used to raise 300 sheep in one of the sheds and five cows in the other. During the demolition, four young sheep were killed and four others were injured. I also had a number of doves in the barns, some of which flew away, while others, mainly the young ones, were killed in the process.”

Al-Haq Affidavit No. 7081/2012, given by Jamil Ahmad Awad, 55, resident of Sadat Al-Tha’la (2012).

5.2.5 Settler Violence

For Israeli settlers residing in illegal Israeli settlements surrounding the south Hebron hills, larger areas of grazing land with sufficient vegetation cover are available for small-scale Israeli farmers who, with the protection of the Israeli occupying forces, have been able to illegally settle on the land for years. As such, Israeli settlers are able to enjoy access to lands that have been sustainably grazed by the indigenous Palestinian population for generations.

Coercion created by the Israeli occupation is also facilitated by the violence and harassment to which Palestinian farmers and herders are exposed at the hands of Israeli settlers, residing in illegal settlements and outposts nearby. These include acts of intimidation and physical violence not adequately prevented or punished by the Israeli occupying authorities in the absence of a legal mechanism that would grant Palestinians protection and hold perpetrators to account.87

“I live in Khirbet Al-Markaz in Masafer Yatta. I raise 170 sheep that belong to my family… I usually herd the sheep in grazing lands surrounding our home, which have been used as grazing areas for generations. On Sunday, 14 July 2013, at about 6:30 pm, I was herding the sheep on land about one kilometre to the east of Mitzpe Yair settlement, when three masked men, one of whom was wearing payot, attacked me and started to beat me in different parts of my body. One of them took a big rock and hit me in the head with it… They continued beating me for about five minutes then they ran away when they saw Israeli soldiers coming towards us. I tried to stand up after they [the settlers] left but I was not able to. The [Israeli] soldiers did not try to catch them although they saw what they did… They asked me if I knew the attackers. I said I think they are settlers but I have never met them… My relatives called an ambulance. The ambulance arrived at 2:30 am and transferred me to Hebron Governmental Hospital, where I was told that I was injured in the right side of my head and had bruises around my mouth, in the right jaw, and in my right hand. I stayed [at the hospital] overnight. Until now, I still feel pain in different parts of my body and suffer from regular headaches. I cannot properly do my work as a result.”


“I am a resident of Qawawees community to the east of Yatta, where I live with my family of nine. I work in agriculture and livestock breeding… I own and raise 20 sheep. On Thursday, 19 February 2015, at around 11:30 am, I was herding my sheep in an area near Jinba in Masafer Yatta… I was approached by [an Israeli] settler whose face looked familiar… I recognized that he lives in the nearby settlement of Mitzpe Yair. He was driving a civilian blue car and was accompanied by a woman… He [the settler] stepped out of the car and approached me while the woman in the car began videotaping… He [the settler] began throwing rocks at the sheep… I then picked up my phone and pretended to be calling the Israeli police before he pushed me down to the ground. I got back up and he returned to beat me on the chest and threw me to the ground one more time, causing injury to my right leg. He then hit me with a rock on my back and proceeded with throwing rocks at the sheep…”

Al-Haq Affidavit No. 10470/2015, given by Jibreen Musa Abu A’ram, 55, resident of Qawawees near Yatta city (2015).

87 See also B’Tselem, The South Hebron Hills, 1 January 2013, available at: https://www.btselem.org/south_hebron_hills.
5.3 Obstructing Alternative Means of Livelihood: The Example of Beekeeping

A Palestinian farmer in Halaweh, south of Masafer Yatta, told Al-Haq that younger generations of Palestinians tend to lose interest in maintaining traditional agricultural practices because of the limited prospects for the agricultural sector caused by the prolonged Israeli occupation. As such, he told Al-Haq that the younger generation tend to either work in Israeli settlements or, if they adopt practices within the agricultural field, they would do so outside of the scope of livestock and crop production. The farmer’s son had decided to work in beekeeping, given that it is less likely to be impacted by environmental stresses coupled with politically-induced restrictions. He has been working as a beekeeper for six years, and has developed a wealth of over one hundred beehives, selling honey in Yatta city. However, restrictions on freedom of movement limit his opportunity to maintain a steady commercial flow. Even with improved access to the market, he continues to face restrictions and coercion to abandon his attempt to successfully adopt alternative agricultural practices:

“We plan to start seasonal farming in March [of every year], but military trainings intensify during harvesting and cultivation seasons… People move away because they cannot cope and maintain their livelihoods through agriculture… I chose beekeeping because it is less risky, but in 2017, my beehives were attacked by settlers accompanied by the Israeli police, claiming that I stole them from the nearby settlement of Ma'on and that they belonged to a settler living there… They accused me of stealing one hundred beehives. How can anyone steal that many beehives without getting caught?.... the majority of my beehives were confiscated by the IOF… Even after they were confiscated, I continued with my line of work …I have been building my beehives for six years now”.

Al-Haq interview in Halaweh in Masafer Yatta, 2018. (Name Redacted).

The same farmer from Halaweh also told Al-Haq that due to the obstruction of any source of livelihood by the IOF, more people are tending to transfer away from their lands in Masafer Yatta, particularly those living within the active ‘Firing Zone 918’. The farmer told Al-Haq that his former neighbour did not want to abandon his traditional means of livelihood, and found no choice but to move to Al-Jiftlik. Al-Jiftlik is a Palestinian village located in the Jordan Valley in the West Bank. Similar to Masafer Yatta, the Jordan Valley is one of the most environmentally and politically vulnerable areas in the OPT. Al-Haq’s research revealed a growing trend whereby families wishing to preserve and maintain their agricultural and traditional livelihoods and means of subsistence, relocated from Masafer Yatta to the Jordan Valley area in Area C of the West Bank. However these areas are also highly vulnerable to Israeli policies and practices of colonisation and resulting environmental degradation.

88 Al-Haq interview in Halaweh in Masafer Yatta, 2018. (Name Redacted).
6. Applicable Legal Framework

Natural resources and the environment are protected under international law, including in situations of armed conflict and military occupation. In particular, such protection is found under international humanitarian law, international human rights law, international environmental law and customary international law, which are applicable to Israel’s occupation of the Palestinian territory.

6.1 International Humanitarian Law

Israel, the Occupying Power, is responsible for administering the OPT, under the law of belligerent occupation, as reflected in the Hague Regulations of 1907, constitutive of customary international humanitarian law, and the Fourth Geneva Convention of 1949. As a temporary occupying authority, Israel acquires no sovereign rights over any parts of the OPT, while the Palestinian people retain rights of self-determination and permanent sovereignty therein.

Since 1967, Israel has appropriated large swathes of public and private Palestinian lands, for precious natural resources, which are then commercially exploited for private gain. However, as a temporary Occupying Power, Israel is prohibited from assuming the role of the sovereign in the OPT, including over the natural resources therein, and may only act as temporary administrator and usufructuary of the territory’s natural wealth and resources. Notably, Article 55 of the Hague Regulations provides that the Occupying Power:

“shall be regarded only as administrator and usufructuary of public buildings, real estate, forests, and agricultural estates belonging to the hostile State, and situated in the occupied country. It must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct.”91

According to the rules of usufruct, Israel, may only use the natural resources within the OPT to the extent that it does not exploit these resources in a way that would undermine their capital, and lead to their depletion.92 Nevertheless, this report has highlighted how Israel manipulates the use of water resources in the OPT, to supply settler and Israeli populations and as a coercive factor to force the transfer of indigenous Palestinian populations.

In addition, the destruction of “real or personal property belonging individually or collectively to private persons, or to the State, or to other public authorities,”93 including natural resources, further violates Articles 53 of the Fourth Geneva Convention, which explicitly prohibits such destruction, unless rendered absolutely necessary for military operations. Amounting to a grave breach of the Fourth Geneva Convention under Article 147, such conduct may amount to a war crime under the Rome Statute of the International Criminal Court (ICC) and entails individual criminal responsibility of the perpetrator.94 Meanwhile, the occupied population’s public property, including its natural resources, must not be administered or utilised for the sole benefit and economic gain of the Occupying Power’s own population, and must be used for the benefit of the occupied population, otherwise constituting the crime of pillage, prohibited under international humanitarian law,95 and amounting to a war crime under the Rome Statute.96

Furthermore, the protection of natural resources and the environment in occupied territory are provided for under Articles 35(3) and 55 of Additional Protocol I to the Geneva Conventions of 1977. Article 35(3) prohibits Israel, the Occupying Power, and other parties to conflict, from “employ[ing] methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.” Notably, Article 55 of Additional Protocol I further provides that “attacks against the natural environment by way of reprisals are prohibited.”98

As demonstrated throughout this report, there is a tight correlation between the implementation of climate change adaptation options and access to natural resources. As such, the protection of natural resources afforded under international humanitarian law is a key legal framework relevant to environmental rights and climate change vulnerability.

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90 Hague Convention (IV) Respecting the Laws and Customs of War on Land and Its Annex: Regulations Concerning the Laws and Customs of War on Land (adopted 18 October 1907, entry into force 26 January 1910), The Hague, (hereinafter ‘Hague Regulations’).
91 Article 55, Hague Regulations.
92 For more detailed analysis, refer to: Al-Haq, Annexing Energy, pp. 94-95.
93 Article 53, Fourth Geneva Convention.
95 Article 33, Fourth Geneva Convention; Articles 28 and 47, Hague Regulations. Pillage, as a prohibited act, is also reflected in customary international humanitarian law. See, e.g., ICRC, Customary IHL Database, Pillage, available at: https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule52.
96 Article 8(2)(b)(vii), Rome Statute.
97 The 1977 Additional Protocol I to the Geneva Conventions of 1949, which Israel, the Occupying Power, has not ratified, is applicable to the OPT, to the extent that it reflects customary international humanitarian law.
6.2 International Human Rights Law

The right to self-determination of the Palestinian people encompassing the right to exercise permanent sovereignty over natural wealth and resources, is a peremptory norm of international law (jus cogens), and gives rise to an *erga omnes* obligation on all States to respect, protect, and fulfil. As recognized by the UN Human Rights Committee, third States have an obligation to ensure the realisation of the right to self-determination, as enshrined in Article 1 of the International Covenant on Civil and Political Rights (ICCPR), with respect of all peoples who have been deprived of the possibility of exercising their right to self-determination, including the Palestinian people.99 The right to self-determination is applicable at all times in both peace time and in situations of armed conflict, including prolonged occupation, and is recognised as a fundamental right of peoples to freely determine their status and destiny, including their own economic, cultural, and social development.100 Under international human rights law applicable to the situation in Palestine, the Palestinian people are entitled to “freely dispose of their natural wealth and resources”, including land and water, and in no case may they be deprived of their own means of subsistence.101

The right of the Palestinian people to self-determination, including to permanent sovereignty over natural wealth and resources,102 is widely recognized by the international community and has been reaffirmed in countless UN General Assembly103 and Security Council resolutions,104 and by the International Court of Justice.105 Accordingly, Israel’s continued deprivation of the right of the Palestinian people to self-determination, through restrictions on Palestinians’ access to and use of their own land and natural resources amounts to a violation of Israel’s obligations under international human rights law to respect, protect, and fulfil the rights of all Palestinians subject to their effective control. In addition, Israel has obligations to ensure Palestinians’ rights to adequate food, adequate housing, water, the highest attainable standard of physical and mental health, and an adequate standard of living, amongst numerous other fundamental rights owed to the Palestinian people and necessary for their full development.

The examples provided in this report are emblematic of Israel’s systematic denial of the right of the Palestinian people to self-determination and intentional deprivation of Palestinians’ means of subsistence as an indigenous people. In particular, the UN Declaration on the Rights of Indigenous Peoples, some provisions of which reflect customary international law, recognizes “the urgent need to respect and promote the inherent rights of indigenous peoples... especially their rights to their lands, territories and resources,”106 and enshrines in Article 8(1) the right of indigenous peoples “not to be subjected to forced assimilation or destruction of their culture.”107 In addition, Article 8(2)(b) enshrines an obligation of States to provide effective mechanisms for the prevention of and the provision of redress for “[a]ny action which has the aim or effect of disposessing [indigenous peoples] of their lands, territories or resources.”108 Critically, the Declaration stipulates that “[i]ndigenous peoples shall not be forcibly removed from their lands or territories” and that “[n]o relocation shall take place without the free, prior and informed consent of the indigenous peoples... with the option of return.”109

Notably, the UN Declaration on the Rights of Indigenous Peoples provides explicit recognition of indigenous peoples’ right “to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired”110 and enshrines the right of indigenous peoples, including the Palestinian people, “to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.”111 Finally, the Declaration also recognizes, in Article 29(1), that “[i]ndigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources.”112 The examples provided in this report show that Israel has systematically deprived the indigenous Palestinian people of their means of subsistence, including the right to protection of the environment and to adapt to climate change.

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99 Human Rights Committee, General Comment No. 12, Article 1 (Right to Self-determination), 13 March 1984, para. 6.
100 Article 1, Charter of the United Nations (adopted 26 June 1945, entry into force 24 October 1945), hereinafter ‘UN Charter’; Article 1(1), ICCPR and ICESCR.
101 Article 1(2), ICCPR.
102 The right to permanent sovereignty over natural wealth and resources is constitutive of customary international law. See Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda), Judgment, ICJ Reports 2005, p. 168, para. 244.
103 See, for example, UN General Assembly, Right of Palestinian People to Self-Determination (23 March 2014) UN Doc. A/HRC/29/L.36; and UN General Assembly Resolution 58/22 of 22 December 2003.
105 See Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, ICJ Reports 2004, p. 136, para. 122.
107 Article 8(1), UN DRIP.
108 Article 8(2)(b), UN DRIP.
109 Article 10, UN DRIP.
110 Article 26(1), UN DRIP.
111 Article 26(2), UN DRIP.
112 Article 29(1), UN DRIP.
6.3 International Environmental Law: The Paris Agreement

Although non-binding, the Rio Declaration on Environment and Development affirms in its Principle 24:

“[W]arfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary”.

Since community-based adaptation methods are closely tied to access to and sovereignty over natural resources, this report presents evidence that Palestinians are unable to adapt to climate change without Israel’s respect for international law governing the use of natural resources and natural wealth.

The protection of the environment during armed conflicts is also enshrined in multiple Multilateral Environmental Agreements, which give rise to State responsibility if breached. The State of Palestine has acceded to several Multilateral Environmental Agreements in recent years, including the Paris Agreement on Climate Change, reached in December 2015 at the 21st Conference of the Parties (COP 21) to the UNFCCC. Both, Palestine and Israel are States signatories to the Paris Agreement. The Paris Agreement entered into force on 4 November 2016, and is universally legally binding to all signatory parties, while no reservations can be made as stipulated in Article 27 of the Agreement.

Although the Paris Agreement makes no specific references to situations of armed conflict or belligerent occupation, it does include multiple references to States Parties’ responsibilities to reduce climate change vulnerability and strengthen resilience to the impacts of climate change in climatically vulnerable areas, and as such clearly applies to situations of armed conflict and occupation, including in the OPT.

In particular, Article 2(b) of the Paris Agreement calls for the enhancement of adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response.

The Paris Agreement contains several provisions that make reference to climate vulnerabilities. These references can be interpreted to cover situations where persons are vulnerable because the effect of climate change may have a magnifying impact on other factors that could lead to climate-related migration, or in the context of Palestine, the indirect displacement of protected persons, already prohibited under various provisions of international humanitarian law and international human rights law, in addition to the law relating to internal displacement. References to vulnerability in the Paris Agreement include Article 7(1), which provides the following:

“Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response”.

In addition, Article 7(9) of the Agreement stipulates that:

“[e]ach Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions, which may include… (c) [t]he assessment of climate change impacts and vulnerability, with a view to formulating nationally determined prioritized actions, taking implementation of the UNFCCC including the objective to strengthen global responses to climate change threats by “increasing the ability to adapt to the adverse impacts of climate change and to foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production”.”
into account vulnerable people, places and ecosystems.”\textsuperscript{122}

It is worth noting that within the scope of international law, there is wide scepticism around the effectiveness of international environmental law due to the absence of adequate enforcement mechanisms relevant to state parties’ obligations, particularly obligations relevant to the reduction of greenhouse gas emissions.\textsuperscript{123} Consequently, international environmental law may seem inherently weak in general, but the Paris Agreement in particular is perceived to have ‘carried this weakness further’\textsuperscript{124}, as it lacks the components necessary to identify clear party obligations. The Paris Agreement offers vague obligatory responsibilities to ensure parties’ compliance with pledged emission reductions, rendering mitigation obligations seemingly ‘voluntary’.\textsuperscript{125} Nevertheless, The Paris agreement re-emphasizes obligations that are binding under existing international law provisions, including international human rights law, international humanitarian law and international environmental law, in light of the needs and the rights associated with climate change adaptation. The Paris agreement can therefore be perceived as an instrument for interpreting the obligations of States under several legal frameworks.

\textbf{7. Conclusions and Recommendations}

Communities in the OPT, particularly in Area C of the West Bank, experience the magnified impacts of climate change due to Israel’s discriminatory policies and practices. While adapting to climate change, Palestinians living in environmentally and politically vulnerable areas, simultaneously endure coercive environments created by Israel to drive Palestinian displacement and forcible transfer. Future climate change projections for the OPT entail an increase in annual temperatures and a decline in rainfall. Consequently, the urgent need for proper climate change adaptation will continue to rise.

Israel’s practices of displacement and dispossession of the occupied Palestinian population is demonstrated by its practice of systematically targeting the resources necessary to maintain the livelihood of Palestinians in general, and herding and farming communities, in particular. Exploitation of, and control over, natural resources has been central to build, sustain and develop Israel’s illegal settlement enterprise. These resources include those that are relevant to climate change adaptation, namely land and water. The targeting of natural resources includes Israel’s obstruction of the development of the water and agricultural sectors, livestock production included.

Water and agriculture are two of the sectors with high vulnerability to climate change, and adaptation options associated with them require access to and the exercise of rights of self-determination over these resources. Israel’s prolonged occupation of the Palestinian territory therefore constitutes the major cause for the exacerbation of climate change impacts on the OPT, as well as the deterioration of the standard of living for Palestinian communities relying on land and natural resources for their subsistence. As such, adaptation to climate change will not be possible for Palestinians, without the genuine realisation of the collective right to self-determination and permanent sovereignty over natural resources.

As previously established, natural resources and the environment are protected under international law, including international humanitarian law, international human rights law, and international environmental law. Accordingly, Israel, as Occupying Power, is prohibited from causing damage to the environment and to natural resources in the OPT. In addition, Israel, as a developed country,
also responsible for reducing climate vulnerabilities of vulnerable populations, as stipulated under the Paris Agreement on climate change, namely under Article 7 of the Paris Agreement.

Additionally, third States must respect and ensure respect for the Geneva Conventions, including both negative obligations on third States to “neither encourage, nor aid or assist in violations of the Conventions by Parties to a conflict” and positive obligations, to do “everything reasonably in their power to prevent and bring such violations to an end”.126 In addition, States’ obligations not to cause environmental harm is a basic principle of international environmental law, which gives rise to individual civil and criminal liability domestically127 and State responsibility internationally for environmental damage. Notably, the ILC Draft Principles on the Protection of the Environment in Relation to Armed Conflicts (PERAC), provide a series of principles for the respect and protection of the environment before, during or after an armed conflict and belligerent occupation.128 Critically, the Draft Principles on the PERAC provide both for State responsibility and corporate liability, requiring that States implement legislative and other measures to ensure that corporations exercise due diligence with respect to the protection of the environment during armed conflict. 129 As stated in the Draft Articles on State Responsibility130 developed by the International Law Commission in 2001, the conduct of a private entity such as a corporate actor, may be attributed to the State where the entity “is in fact acting on the instructions of, or under the direction or control of, that State in carrying out the conduct”.131 In this respect the State will bear responsibility for the illegal acts or the adverse consequences of their lawful acts, should the requisite effective control be established. These may include for example, States’ support of the Israeli settlement enterprise, trade with Israeli settlements, and other corporate activities serving to prolong the Israeli occupation.

Accordingly,

The Government of Israel, as the Occupying Power and primary duty-bearer in the OPT, must:

• Uphold its responsibility towards the protection of the environment within the occupied territory, refrain from exploiting and appropriating its natural resources, and act in accordance with its conservationist role as administrator and usufructuary only of natural resources.

• Act in accordance with its obligations to reduce climate vulnerabilities of vulnerable populations in the OPT, and to respect, promote and consider its human rights obligations when taking action to address climate change, as stipulated under the Paris Agreement. Thereto, Israel must:
  ▪ Immediately cease its discriminatory policies and practices that deprive the Palestinian population in the OPT from implementing climate change adaptation measures, particularly in areas highly vulnerable to climate change;
  ▪ Immediately cease its systematic implementation of policies that force Palestinians to relocate, namely measures and policies that deprive Palestinians of any substantial means of livelihood;
  ▪ Immediately lift restrictions on Palestinian access to natural resources in Area C, in particular in the south Hebron hills, and to guarantee Palestinians the full exercise of their right to self-determination, including the right to permanent sovereignty over natural resources;
  ▪ Immediately bring to an end the illegal construction and expansion of the settlement enterprise;
  ▪ Transfer planning authority over the occupied territory to the local Palestinian population, allowing them to effectively develop and implement National Adaptation Plans, as established under the Cancun Adaptation Framework, and building on the guidelines provided by the UNFCCC.

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127 Silke Marie Christiansen, Climate Conflicts - A Case of International Environmental and Humanitarian Law (Springer 2015) 43-45.


Third-Party States, including the High Contracting Parties to the Geneva Conventions, must:

- Comply with their obligation to respect and ensure respect for the Geneva Conventions, by immediately adopting effective measures to pressure Israel to abide by its obligations under international humanitarian law.
- Support the adoption of the Draft Principles on the Protection of the Environment in Relation to Armed Conflicts.
- Uphold their responsibilities under international law in the face of Israel’s breaches of international law, including the violation and denial of the Palestinian population’s right to self-determination and permanent sovereignty over natural resources.
- Adopt restrictive measures on the import of products, goods and services originating from illegal Israeli settlements in the occupied territory, namely by imposing restrictions on settlement trade.
- Exercise jurisdiction under the Geneva Conventions to hold perpetrators of grave breaches, including unlawful transfer of a protected person and extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly, to account domestically.
- Support the Office of the Prosecutor and the preliminary examination into the Situation of Palestine to full investigation at the International Criminal Court.

The State of Palestine must:

- Enhance its active role in supporting the steadfastness and continued presence of the occupied Palestinian population in Area C of the OPT, in particular in the south Hebron hills, including by enhancing their standard of living. Thereto, the State of Palestine must:
  - Refrain from engaging in negotiations of any agreement on the status of the OPT, which could undermine the rights of the Palestinian population, protected under the law of belligerent occupation;
  - Take into consideration that reaching any agreement that could undermine the protection of the occupied Palestinian population afforded under international humanitarian law is illegal and, as such, is null and void.
About AL-HAQ

Al-Haq is an independent Palestinian non-governmental human rights organisation based in Ramallah, West Bank. Established in 1979 to protect and promote human rights and the rule of law in the Occupied Palestinian Territory (OPT), the organisation has special consultative status with the United Nations Economic and Social Council.

Al-Haq documents violations of the individual and collective rights of Palestinians in the OPT, irrespective of the identity of the perpetrator, and seeks to end such breaches by way of advocacy before national and international mechanisms and by holding the violators accountable. Al-Haq conducts research; prepares reports, studies and interventions on the breaches of international human rights and humanitarian law in the OPT; and undertakes advocacy before local, regional and international bodies. Al-Haq also cooperates with Palestinian civil society organisations and governmental institutions in order to ensure that international human rights standards are reflected in Palestinian law and policies. Al-Haq has a specialised international law library for the use of its staff and the local community.

Al-Haq is the West Bank affiliate of the International Commission of Jurists - Geneva, and is a member of the Euro-Mediterranean Human Rights Network (EMHRN), the World Organisation Against Torture (OMCT), the International Federation for Human Rights (FIDH), Habitat International Coalition (HIC), the Palestinian Human Rights Organizations Council (PHROC), and the Palestinian NGO Network (PNGO). In 2018, Al-Haq was a co-recipient of the French Republic Human Rights Award.