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Annual report of the United Nations High Commissioner for Human Rights and reports of the Office of the High Commissioner and the Secretary-General

Human rights situation in Palestine and other occupied Arab territories

Allocation of water resources in the Occupied Palestinian Territory, including East Jerusalem

Report of the United Nations High Commissioner for Human Rights*

Summary

The present report of the United Nations High Commissioner for Human Rights was mandated by Human Rights Council resolution 43/32, in which the High Commissioner was requested to prepare a report on the allocation of water resources in the Occupied Palestinian Territory, including East Jerusalem, and to recommend measures to ensure the implementation of equitable access to safe drinking water in the Occupied Palestinian Territory, including East Jerusalem, in accordance with international law.

* The present report was submitted after the deadline so as to include the most recent information.



I. Introduction

1. The present report is submitted pursuant to Human Rights Council resolution 43/32. It draws on human rights monitoring activities conducted by the Office of the United Nations High Commissioner for Human Rights (OHCHR), governmental sources, and information from United Nations entities and non-governmental organizations.

2. OHCHR requested Israel and the State of Palestine to provide information on any action taken or envisaged concerning ensuring equitable access to safe drinking water in the Occupied Palestinian Territory, including East Jerusalem. The State of Palestine responded with multiple submissions in May and June 2021, while Israel has not responded. Following publication of the High Commissioner's report A/HRC/43/71 to the Human Rights Council in February 2020, the Government of Israel announced that it would freeze its relations with OHCHR. As a consequence, international staff working with the OHCHR office in the Occupied Palestinian Territory have been obliged to work outside the territory, complicating the critical mandated work on human rights by the United Nations.

3. The present report should be read in conjunction with other relevant reports.¹ The present report illustrates how Israeli occupation policies and practices negatively affect the enjoyment of human rights of the Palestinian people in terms of rights to safe drinking water and sanitation in the Occupied Palestinian Territory, including East Jerusalem. The report also assesses the Palestinian authorities' policies in the West Bank and Gaza to ensure the same rights in accordance with their obligations under international law.

4. The report assesses various aspects of the allocation of water resources, including measures to ensure the implementation of equitable access to safe drinking water in the Occupied Palestinian Territory, including East Jerusalem. Owing to space constraints, the report does not address all issues of concern nor all cases documented.

II. Mandate

5. In its resolution 43/32, the Human Rights Council requested the High Commissioner to prepare a report on the allocation of water resources in the Occupied Palestinian Territory, including East Jerusalem, and to recommend measures to ensure the implementation of equitable access to safe drinking water in accordance with international law.

III. Legal framework

6. International human rights law and international humanitarian law are concurrently applicable in the Occupied Palestinian Territory, namely Gaza and the West Bank, including East Jerusalem. This includes the application of the Geneva Convention relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention), which is binding upon Israel as the occupying Power.

1. International humanitarian law

7. International humanitarian law regulates situations of occupation and is thus applicable in the Occupied Palestinian Territory.² The occupying Power has an obligation to take all the measures in its power to restore, and ensure, as far as possible, public order and civil life in the occupied area, while respecting, unless absolutely prevented, the laws in force in the country.³ This obligation comprises the duty to secure respect for the applicable rules

¹ A/HRC/46/22, A/HRC/46/65, A/HRC/46/63, A/HRC/40/73 and A/75/199.

² *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, *I.C.J. Reports 2004*, p. 136, paras. 101 and 114; and A/HRC/34/38, para. 10.

³ Regulations respecting the Laws and Customs of War on Land, 18 October 1907 (hereinafter referred to as the Hague Regulations), art. 43.

of international human rights law and international humanitarian law.⁴ The occupying Power must maintain public health and hygiene in the occupied territory.⁵

8. The protection of property in international humanitarian law covers private property, as well as movable and immovable public property.⁶ Natural resources such as groundwater constitute immovable public property, and the occupying Power must safeguard the capital of these properties, and administer and usufruct them in accordance with the applicable rules of international humanitarian law.⁷ Water and sanitation infrastructure may also, depending on the circumstances, be regarded as public and/or private property. The occupying Power is prohibited from looting, plundering and exploiting any of the resources and property of the occupied territory,⁸ and must take appropriate measures to prevent such acts carried out by non-State actors.⁹ International humanitarian law further prohibits the confiscation of private property, and provides that requisitions are not to be demanded from municipalities or inhabitants except for the needs of the army of occupation.¹⁰ Destruction by the occupying Power of real or personal property is prohibited, except where such destruction is rendered absolutely necessary by military operations.¹¹ Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully, may constitute a grave breach of the Fourth Geneva Convention and thus amount to a war crime.¹²

9. The transfer of parts of the civilian population of the occupying Power into the occupied territory is prohibited,¹³ as is the additional consequence of such transfers in terms of use of the territory's natural resources, including water, to sustain this civilian population.

10. Where applicable, the law relating to the conduct of hostilities places limits on means and methods of warfare used by the parties to the armed conflict, including specific protections for objects indispensable to the survival of the civilian population, and for the natural environment.¹⁴

2. International human rights law

11. The rights to water and sanitation are contained in article 11 of the International Covenant on Economic, Social and Cultural Rights, in article 14, paragraph 2 (h), of the Convention on the Elimination of All Forms of Discrimination against Women, and in article 28, paragraph 2 (a), of the Convention on the Rights of Persons with Disabilities,¹⁵ to which Israel and the State of Palestine are parties. As affirmed by the General Assembly, the rights to water and sanitation are “essential for the full enjoyment of life and all human rights”.¹⁶

⁴ *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, I.C.J. Reports 2005, p. 168, para. 178.

⁵ Hague Regulations, arts. 43 and 46; and Geneva Convention relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention), art. 56.

⁶ Hague Regulations, arts. 46–47, 52 and 55; and Fourth Geneva Convention, arts. 33 and 53.

⁷ Hague Regulations, art. 55. See also A/HRC/34/39, para. 8.

⁸ Hague Regulations, art. 47; Fourth Geneva Convention, art. 33; and *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, I.C.J. Reports 2005, p. 168, para. 245.

⁹ *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgment, I.C.J. Reports 2005, p. 168, paras. 246–248.

¹⁰ Hague Regulations, arts. 46 and 52.

¹¹ Fourth Geneva Convention, art. 53. See also the Rome Statute of the International Criminal Court, art. 8 (2) (b) (xiii).

¹² Fourth Geneva Convention, art. 147; and Rome Statute, art. 8 (2) (a) (iv).

¹³ Fourth Geneva Convention, art. 49 (6).

¹⁴ See https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule54, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule43, https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule44 and https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule45.

¹⁵ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), paras. 3 ff.

¹⁶ General Assembly resolution 70/169. See also Human Rights Council resolution 18/1. In this regard, the Human Rights Committee has noted that “the duty to protect life also implies that States parties should take appropriate measures to address the general conditions in society that may give rise to direct threats to life or prevent individuals from enjoying their life with dignity ... The measures called for addressing adequate conditions for protecting the right to life include ... to ensure access

12. The right to water entails the water being adequate for human dignity, life and health, and the determination of its adequacy depends on its availability, quality and accessibility.¹⁷

13. States are under an obligation to respect, protect and fulfil the rights to water and sanitation, without discrimination.¹⁸ That is, States must refrain from violating the rights to water and sanitation and must take appropriate measures to prevent, stop and punish any abuse of the rights to water and sanitation by non-State actors.¹⁹ In addition, States parties are under an obligation to fulfil the rights to water and sanitation, that is, to adopt the necessary measures for full realization of those rights.²⁰ The Committee on Economic, Social and Cultural Rights has held that certain minimum core obligations exist under the International Covenant on Economic, Social and Cultural Rights to ensure the satisfaction of, at the very least, minimum essential levels of the right to water.²¹ These include the obligation to ensure: (a) access to the minimum essential amount of water; (b) the right of access to water and water facilities and services on a non-discriminatory basis; (c) physical access to water facilities or services that provide sufficient, safe and regular water; (d) that personal security is not threatened when physically accessing water; and (e) equitable distribution of all available water facilities and services.²²

14. The right to self-determination is expressly affirmed in the Charter of the United Nations,²³ and in human rights treaties, such as in article 1 of the International Covenant on Civil and Political Rights and article 1 of the International Covenant on Economic, Social and Cultural Rights. As affirmed by the International Court of Justice, it is one of the essential principles of contemporary international law.²⁴ The right includes the ability for people to “for their own ends, freely dispose of their natural wealth and resources”,²⁵ including water. In its Declaration on the Right to Development, the General Assembly affirmed that the human right to development also implies full realization of the right of peoples to self-determination.²⁶

IV. Local water resources

15. The Occupied Palestinian Territory is situated in a generally hot, arid and water-scarce region that has experienced an increase in average temperatures over the past fifty years. Climate change has also modified the water cycle, altering precipitation patterns and seasons. Average monthly precipitation may fall by 8–10 mm by the end of the century and seasonal rainfall patterns may also change, leading to greater aridity. Half of the Palestinian wells in the West Bank have dried up over the last 20 years.²⁷ Climate-related hazards are projected

without delay by individuals to essential goods and services such as ... water”; see that Committee’s general comment No. 36 (2018), para. 26, as well as the Committee on the Rights of the Child, general comment No. 7, para. 27. The Committee on Economic, Social and Cultural Rights recognized that the right to water was a “prerequisite for the realization of other human rights”; see that Committee’s general comment No. 15 (2002), para. 1. See also Committee on the Rights of the Child, general comment No. 7 (2005), para. 27.

¹⁷ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), paras. 10–12.

¹⁸ Human Rights Council resolution 15/9, para. 7.

¹⁹ See, for example, Human Rights Committee, general comment No. 31 (2004), paras. 6 and 8; and Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), paras. 20–24.

²⁰ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), paras. 25–29; and Human Rights Council resolution 18/1, para. 5.

²¹ Committee on Economic, Social and Cultural Rights, general comment No. 15 (2002), para. 37.

²² *Ibid.*

²³ Article 1 (2).

²⁴ *East Timor (Portugal v. Australia), Judgment, I.C.J. Reports 1995*, p. 90, para. 29.

²⁵ Art. 1 (2) common to the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights.

²⁶ General Assembly resolution 41/128; art. 1.

²⁷ See

<https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 14.

to occur more frequently and be more severe, straining already-constrained water management structures.²⁸

16. Demand for water in the Occupied Palestinian Territory is increasing primarily due to population growth. The population of the Occupied Palestinian Territory is currently estimated at 5.2 million and is expected to increase to 7.2 million by 2030.²⁹ The United Nations Environment Programme projects an annual domestic supply gap for Gaza and the West Bank of approximately 79 and 92 million cubic metres respectively by 2030 unless supply and service options are expanded.³⁰

17. The Israeli occupation of the Palestinian territory has increased land scarcity, territorial fragmentation, and urbanization.³¹ The occupation has also imposed restrictions on access to and control over natural resources, including water.³² Urban populations in the Occupied Palestinian Territory have nearly tripled in the past 25 years, contributing to a reduction of local groundwater recharge. From 1992 to 2015, the land area in the Occupied Palestinian Territory under artificial surfaces increased from 1.4 to 4.3 per cent, while areas under vegetation cover decreased, increasing vulnerability to extreme weather events. In Gaza this phenomenon has also reduced groundwater recharge, where built-up areas have increased from 8.25 per cent (in 1982) to 25 per cent (in 2010).³³

1. Water governance

18. There are three primary sources of natural fresh water in the Occupied Palestinian Territory: the Jordan River, the coastal aquifer and the mountain aquifer.³⁴ Following the beginning of the occupation in 1967, Israel placed all water resources in the Occupied Palestinian Territory under its military control (Military Order No. 92, of 1967),³⁵ and prohibited Palestinians from constructing new water installations or maintaining existing installations without a military permit. These orders still remain in force and apply only to Palestinians, and not to Israeli settlers, who are governed by Israeli law.³⁶ Mekorot, the government company operating under the Israeli Ministry of Energy and the Water Authority, assumed ownership of all West Bank water supply systems in 1982.³⁷ According to information provided by the State of Palestine, the company continues to operate dozens of wells, trunk lines and reservoirs in Area C that abstract water inside Palestinian territory and provide service instead to the Israeli settlements in the West Bank.

19. In accordance with the Declaration of Principles on Interim Self-Government Arrangements, of 1993 (the Oslo I Accord), and the Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip, of 1995 (the Oslo II Accords), some water governance powers were devolved to the Palestinian Authority.³⁸ However, Israel did not relinquish its primary control over the waters of the West Bank. In accordance with article 40 of the environmental provisions in the Oslo II Accords, entitled “water and sewage”, approximately 80 per cent of the waters pumped from the aquifers were allocated for Israeli use, and the

²⁸ Ibid.

²⁹ See <https://www.unfpa.org/data/world-population/PS>.

³⁰ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 14.

³¹ See <https://unhabitat.org/urban-issues-palestine>.

³² A/HRC/34/39, para. 57.

³³ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 15.

³⁴ See <https://unispal.un.org/pdfs/47657-GZ.pdf>, at para. 32.

³⁵ See http://www.jmcc.org/documents/JMCCIIsraeli_military_orders.pdf.

³⁶ A/HRC/22/63, para. 40.

³⁷ A/HRC/22/63, para. 83.

³⁸ The Oslo Accords were signed by Israel and the Palestine Liberation Organization in 1993 and 1995 respectively; see <https://www.mdpi.com/2073-4441/13/5/620/htm>.

remaining 20 per cent for Palestinian use.³⁹ The agreement provided that Israel would recognize “Palestinian water rights” in the West Bank, however the issue of ownership of water- and sewage-related infrastructure was to be addressed in permanent status negotiations.⁴⁰

20. The Oslo II Accords remain the key agreement on regulating water use in the West Bank. Although they were intended to be a five-year interim agreement when concluded in 1995, they remain in place today. The Oslo II Accords established the Joint Water Committee, to regulate water and sanitation in the West Bank. The Committee has an equal number of water officials from Israel and the Palestinian Authority.⁴¹

21. The Oslo Accords – including the Oslo interim agreement (the Oslo II Accords, signed in 1995) – also divided the West Bank into Area A (where the Palestinian Authority would fully manage security and civil affairs), Area B (where the Palestinian Authority would manage civil affairs and Israel would manage security) and Area C (where Israel would have exclusive control). In Areas A and B, Palestinian institutions manage civilian governance, including that relevant to the environment.⁴² The Palestinian Authority has no access to Area C (60 per cent of the West Bank), which contains the majority of the agricultural lands, water sources and underground reservoirs of the Occupied Palestinian Territory.⁴³

2. Water and sanitation infrastructure

22. Functioning, adequate and reliable infrastructure is a necessity and a pre-requisite for the ability to supply water and remove waste. Electricity is a requirement in order to operate this infrastructure – notably wastewater processing, water stations and desalination plants. In Gaza, severe electricity shortages have significantly affected the functionality of the existing infrastructure and the population’s access to clean water. In the West Bank, the already restricted access to water in many locations, including in Area C, has been compounded by an aging water infrastructure and limited physical space to develop water resources or construct new infrastructure.⁴⁴

23. There is also a shortage of infrastructure allowing for the reuse of treated wastewater, with serious environmental consequences. In 2018, it was reported that only one quarter of wastewater generated was collected in sewage networks, and of that, only two thirds (approximately 13 million cubic metres annually) was treated; while 25 million cubic metres of untreated sewage from the West Bank are discharged into the environment annually. Almost none of the treated amount is reused, due to challenges in planning as well as constraints on developing the necessary infrastructure.⁴⁵ This has direct consequences for Palestinians’ health and environment, as water left untreated can enter into waterways and have a detrimental impact on the health of the population.⁴⁶

24. Water-related infrastructure is also subject to confiscation and demolition by Israel.⁴⁷ In 2020, 84 of the 849 structures destroyed in the West Bank by Israel were water and

³⁹ See https://content.ecf.org.il/files/M00261_TheIsraeli-PalestinianInterimAgreement-EnglishText.pdf, appendix 1 entitled “Powers and responsibilities for civil affairs”, art. 40, schedule 10 entitled “Data concerning aquifers”.

⁴⁰ *Ibid.*, appendix 1 entitled “Powers and responsibilities for civil affairs”, art. 40, paras. 1 and 5.

⁴¹ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. 101.

⁴² See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 146.

⁴³ See <https://www.ochaopt.org/content/palestinians-strive-access-water-jordan-valley>.

⁴⁴ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. xxxi.

⁴⁵ *Ibid.*, at p. xx.

⁴⁶ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 14.

⁴⁷ A/73/499, para. 22.

sanitation structures. In 2021,⁴⁸ 40 water and sanitation structures had been demolished in the West Bank by Israel.⁴⁹

V. Allocation of water resources and equitable access to safe drinking water in the Occupied Palestinian Territory

25. This section assesses the allocation of water resources and equitable access to water and sanitation in the Occupied Palestinian Territory (in the West Bank, including East Jerusalem, and in Gaza), taking into consideration the key criteria of availability, quality, accessibility and affordability.

A. West Bank, including East Jerusalem

Water availability

26. Water in the West Bank is unavailable in a sufficient and continuous manner. It is estimated that nearly 660,000 Palestinians have limited access to water,⁵⁰ with 420,000 persons consuming less than 50 litres on average daily per capita,⁵¹ which is well below the 100 litres recommended by the World Health Organization (WHO). Water shortage is a feature of life for all Palestinians, in both urban and rural areas, and is directly linked to a lack of appropriate water infrastructure. Roughly 14,000 Palestinians in approximately 180 communities in Area C have no connection to a water network, are without water infrastructure, and are considered at high risk for water scarcity.⁵²

27. The water arrangements in the Oslo Accords have proven inequitable. This is partially because the Palestinian population has doubled in size since the Oslo Accords were signed, but also because the practical implementation of the Oslo Accords in relation to water presented additional challenges in coordination and collaboration between the two parties.⁵³ Key reported constraints have included Israeli reluctance to agree to projects proposed by Palestinians, technical challenges on the Palestinian side in seeking to exploit the extra resources allocated from the eastern aquifer, movement and access restrictions imposed by Israel, and the Palestinian Authority's withdrawal from the Joint Water Committee for nearly a decade.⁵⁴ These constraints have led to an extremely inequitable distribution of water, whereby, as estimated in 2014, 87 per cent of the mountain aquifer waters were used by Israelis and only 13 per cent by Palestinians.⁵⁵

28. Despite the Palestinian Authority maintaining a degree of autonomy within Areas A and B, it relies on infrastructure projects, including water and sewage pipes, which require

⁴⁸ As at 5 August 2021.

⁴⁹ See <https://reliefweb.int/report/occupied-palestinian-territory/palestinian-access-water-attacks-wash-structures-area-c> and <https://www.ochaopt.org/data/demolition>.

⁵⁰ See <https://reliefweb.int/sites/reliefweb.int/files/resources/WBPC%20article.%20Access%20to%20water.%20Apr%202021.%20FORMATTED%20.pdf>.

⁵¹ As of 2020. See <https://reliefweb.int/report/occupied-palestinian-territory/challenges-accessing-water-west-bank>.

⁵² See <https://www.ochaopt.org/content/how-dispossession-happens-takeover-palestinian-water-springs-israeli-settlers-march-2012>, at p. 14; and A/HRC/40/73, para. 52.

⁵³ See <https://unispal.un.org/pdfs/47657-GZ.pdf>, at para. 39.

⁵⁴ The Palestinian Authority reportedly withdrew on the grounds that the Committee was not facilitating development of the Palestinian water sector as well as on the grounds that Israel held inequitable powers in the Committee. Reportedly, only in 2017 did it agree to reconvening of the Committee. See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. 101.

⁵⁵ See <https://reliefweb.int/report/occupied-palestinian-territory/palestinian-access-water-attacks-wash-structures-area-c>; and <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. 101.

Israeli-issued permits or which cross through Israeli-controlled Area C.⁵⁶ Coordination and approvals for such projects are handled through the Joint Water Committee. Although the Joint Water Committee was required to operate by consensus,⁵⁷ reports indicate that in practice, Israeli members of the Committee vetoed projects proposed by the Palestinian Authority, resulting in the effective blocking of Palestinian projects relating to developing and maintaining water infrastructure.⁵⁸ According to the Palestinian Authority, as a result of this imbalance of power in the Committee, its representatives on the Committee have had to sign off on water infrastructure projects for Israeli settlements in order to receive support for their projects.⁵⁹ Additionally, the Israeli Civil Administration in the West Bank reportedly has often blocked agreements reached in the Joint Water Committee.⁶⁰

29. Beyond the challenges noted above, it is estimated that one third of all water supplied to the Palestinian Authority is lost to leakage due to the poor condition of pipelines and water grids linking Palestinian communities in the West Bank.⁶¹ According to the Palestinian Authority, Israel has blocked both maintenance and upgrades, and has also limited the ability to increase water availability by stalling the creation of desalination plants and of advanced irrigation and wastewater recycling systems, as well as approval for deep well drilling, and the deployment of rain-harvesting cisterns.⁶²

30. More than 80 per cent of the annual water supply of the West Bank (91 million cubic metres) is purchased from Mekorot, much of which has been extracted from the mountain aquifer within the West Bank.⁶³ As a result of aforementioned issues with the Joint Water Committee, as well as Israeli policies restricting access to water in Area C,⁶⁴ the Palestinian Water Authority is constrained in improving service delivery. Palestinians in the West Bank therefore suffer severe water shortages, and irregular supply, and often need to place water tanks on their roofs to stock water when there is no running water.⁶⁵

31. In addition, Israeli authorities treat the nearly 450,000 Israeli settlers and 2.7 million Palestinians residing in the West Bank (excluding East Jerusalem) under two distinct bodies of law, resulting in unequal treatment on a range of issues, including access to water.⁶⁶ Israeli settlements have had a significant impact on Palestinians' access to their natural resources, especially as a result of the diversion of water resources, including the seizure of water wells by Israeli settlers. Israeli settlements have taken over, destroyed or blocked Palestinian access to natural water resources.⁶⁷ Israeli settlements have also appropriated dozens of Palestinian water springs, assisted by the Israeli military. Palestinians who have lost access to their

⁵⁶ See [https://www.hrw.org/report/2021/04/27/threshold-crossed/israeli-authorities-and-crimes-
apartheid-and-persecution](https://www.hrw.org/report/2021/04/27/threshold-crossed/israeli-authorities-and-crimes-apartheid-and-persecution).

⁵⁷ As per the Oslo II Accords.

⁵⁸ See

[https://documents1.worldbank.org/curated/en/775491468139782240/pdf/476570SR0P11511nsReport
18Apr2009111.pdf](https://documents1.worldbank.org/curated/en/775491468139782240/pdf/476570SR0P11511nsReport18Apr2009111.pdf), at para. 130; and

[https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-
Palestinians.pdf](https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf), at p. 101.

⁵⁹ Interviews with the Palestinian Authority on 20 May 2021 and with the Palestinian Water Authority on 26 May 2021.

⁶⁰ Ibid.

⁶¹ See <https://www.btselem.org/water>.

⁶² Interviews with the Palestinian Authority on 20 May 2021 and with the Palestinian Water Authority on 26 May 2021.

⁶³ See

[https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/th
e_wash_contingency_plan_for_the_west_bank_2021.pdf](https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/the_wash_contingency_plan_for_the_west_bank_2021.pdf), at p. 11.

⁶⁴ A/HRC/22/63, para. 82.

⁶⁵ Interview with B'Tselem on 27 May 2021; and see

https://www.btselem.org/firearms/20200527_soldiers_shoot_holes_in_water_tanks_at_kafr_qadum;
and [https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-
for-Palestinians.pdf](https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf), at p. 36.

⁶⁶ A/HRC/22/63, para. 39.

⁶⁷ See <https://www.btselem.org/water>; and A/HRC/22/63, paras. 36, 67 and 82.

springs often have no connection to water networks and had relied upon the springs as their main or only source of drinking water and for agricultural requirements.⁶⁸

32. Mekorot prioritizes Israeli settlements to ensure their permanent water supply, in particular during summer droughts.⁶⁹ Palestinian communities connected to the Mekorot network often suffer lengthy water outages, while neighbouring settlements are largely spared any significant water reduction.⁷⁰ In the settlement of Ma'ale Adumim, for example, Israeli settlers have access to a water supply roughly four times greater than that of Palestinians in East Jerusalem and benefit from well-irrigated farmlands and from water-intensive domestic infrastructure such as swimming pools.⁷¹

33. Aid or assistance on the part of the occupying Power in appropriating water springs and wells, its failure to prevent the destruction of or the blocking of access to water resources and its failure to react to the diversion of water resources by Israeli settlers raise concerns regarding the obligation under international humanitarian law for the occupying power to safeguard the capital of public properties and administer them in accordance with the rules of usufruct, as well as under international human rights law.⁷²

34. Israeli authorities have confiscated and destroyed water infrastructure, including property provided as humanitarian assistance by States.⁷³ For example, in late 2020, the Israeli Civil Administration reportedly cut a water pipe donated by humanitarian organizations which was servicing communities in Masafer Yatta (South Hebron Hills).⁷⁴ In April and May 2020, in the village of Kafr Qaddum (Qalqilyah Governorate, Areas B and C), Israeli security forces reportedly deliberately shot at water tanks on the roofs of Palestinian homes, damaging 24 of them.⁷⁵ Unlawful physical destruction of water tanks and water infrastructure by the occupying Power is contrary to its duty to restore and maintain public order and civil life in the occupied territories, and to respect the rights to water and property.⁷⁶

35. Water is also unequally distributed within the West Bank by municipal water departments, through service providers.⁷⁷ In 2015, the average quantity delivered by West Bank service providers was as little as 26 litres per capita per day in areas such as Dura and Yatta in Hebron Governorate and as high as 242 litres per capita per day in Jericho.⁷⁸ Reportedly, inadequate regulation has led to the industrial and agricultural sectors using water resources at the expense of water being available to individuals and communities.⁷⁹ Related to this situation, a Water Law was enacted in 2014, as part of a water governance reform process intended to clarify the responsibilities of the different ministries involved and

⁶⁸ See <https://www.ochaopt.org/content/how-dispossession-happens-takeover-palestinian-water-springs-israeli-settlers-march-2012>, at p. 1; and A/HRC/22/63, para. 52.

⁶⁹ See https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/the_wash_contingency_plan_for_the_west_bank_2021.pdf, at p. 11.

⁷⁰ See www.haaretz.com/israel-news/.premium-palestinian-city-parched-after-israel-cuts-water-supply-1.5401178.

⁷¹ See <https://www.amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/>.

⁷² Hague Regulations, art. 55.

⁷³ A/73/499, para. 22.

⁷⁴ See https://www.btselem.org/facing_expulsion_blog?nid=213516.

⁷⁵ See <http://vprofile.arij.org/qalqiliya/pdfs/vprofile/kafqaddum-vp-en.pdf> and https://www.btselem.org/firearms/20200527_soldiers_shoot_holes_in_water_tanks_at_kafir_qadam.

⁷⁶ Fourth Geneva Convention, art. 53. See also the Rome Statute, art. 8 (2) (b) (xiii).

⁷⁷ Municipal water departments operate under the Local Authorities Law of 1997 and report to the Ministry of Local Government. About three quarters of water services are provided by municipal water departments under the Local Authorities Law of 1977. See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. 59.

⁷⁸ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at pp. xxi, 11 and 59–60.

⁷⁹ Interview with a Palestinian civil society representative, on 24 May 2021.

to define legal issues related to water. According to the Palestinian Authority, the law has not been fully implemented to date.⁸⁰

Water quality

36. While groundwater quality in the West Bank was reported in 2016 as being generally acceptable,⁸¹ many wells in the Jordan Valley demonstrated a high concentration of chloride, exceeding the acceptable values in the WHO guideline (250 mg/l).⁸²

37. Israeli settlements and their expansion in the West Bank and East Jerusalem place additional pressure on limited natural resources, further contributing to the pollution of water, as well as of air and soil.⁸³ Freshwater courses and groundwater are being polluted by waste from Palestinian towns and villages as well as from Israeli settlements; untreated wastewater infiltrates into the groundwater of the mountain aquifer, affecting its quality.⁸⁴ One of the most polluted places in the West Bank is Wadi al-Nar (Kidron Valley), in south-east Jerusalem, which has been estimated as receiving over 13 million cubic metres per year of sewage from Jerusalem and Palestinian communities.⁸⁵ In June 2020, Israel began construction of an 800 million shekel project to set up filtration and purification facilities to treat sewage in this area and make it suitable for agriculture and use by Palestinians and Israeli settlers.⁸⁶ However, the project has been criticized as intended primarily to benefit settlers by treating their wastewater and providing them with treated water for irrigation.⁸⁷ As the occupying Power, Israel has an obligation to carry out its responsibilities for the benefit of the occupied population.

38. Industrial and commercial activities located in and around Israeli settlements, as well as specialized industrial zones, have placed additional pressure on limited natural resources and have contributed to the pollution of water, as well as of air and soil.⁸⁸ Israeli companies own at least eight quarries in the West Bank and 11 Israeli industrial complexes are located in the West Bank. In several cases, nearby towns and villages are affected by chemical and wastewater runoff, odours and dust, from industries and quarries.⁸⁹

39. Israel transfers various types of waste – including sewage sludge, infectious medical waste, used oils, solvents, metals, electronic waste and batteries – to West Bank waste

⁸⁰ See https://www.gwp.org/contentassets/7a0a956a3e8147a486a83672f3793c36/govfin_pal_final-report_softcopy.pdf, at pp. 17–18; <http://www.pwa.ps/userfiles/server/law/Water%20Law%20new%202014.pdf>; and <https://documents1.worldbank.org/curated/en/736571530044615402/Securing-water-for-development-in-West-Bank-and-Gaza-sector-note.pdf>, at p. 6.

⁸¹ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>; p. 76.

⁸² *Ibid.*, p. 168. Although some data exist on water quality in the West Bank, there are also significant data gaps; further information is needed to quantify the damage caused by overabstraction and pollution in the mountain aquifer.

⁸³ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 13.

⁸⁴ *Ibid.*, p. 14.

⁸⁵ See <https://www.haaretz.com/israel-news/.premium-israeli-palestinian-cooperation-is-necessary-to-tackle-israel-s-worst-sewage-hazard-1.8965141>.

⁸⁶ *Ibid.*; see also <https://milkeninnovationcenter.org/news/60-m-deep-tunnel-and-a-joint-wastewater-treatment-facility-this-is-how-the-kidron-river-will-be-restored/>.

⁸⁷ See <https://www.alhaq.org/advocacy/6723.html>.

⁸⁸ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at pp. 14–15. Soil pollution comes from the discharge of raw and untreated wastewater into wadis and agricultural lands, from the remains from stone quarries and the stone and marble industry in the form of dust or slurry, and from the excessive use of pesticides and chemical fertilizers.

⁸⁹ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 15.

treatment facilities.⁹⁰ Although waste treatment is seen as preferable to waste disposal, it still results in substantial pollution. Waste treatment of hazardous waste could, for example, result in health hazards and pollution, including water, air and ground pollution.⁹¹ The creation of such waste disposal facilities in the West Bank, and the transfer of waste from Israel to these facilities, may amount to a violation of the obligations of Israel as an occupying Power and breach its human rights obligations to ensure the right to safe drinking water and public health and hygiene services for everyone within its jurisdiction.

Water accessibility

40. The high pace of Israeli settlement expansion in the West Bank, including East Jerusalem, with the consequent confiscation of land and property and the appropriation of essential natural resources, such as water, has impacted the accessibility of water.⁹² Israel, as the occupying Power, has adopted practices and policies creating a coercive environment and unbearable living conditions, including by placing restrictions on access to water in the West Bank.⁹³

41. Palestinians in East Jerusalem face specific constraints in accessing water, since they are linked to several different water systems. Parts of East Jerusalem city are connected to the Water Authority of Israel, while older East Jerusalem houses and structures are not connected to any water grid. Areas where Palestinians live, beyond the separation wall, are connected to a separate water grid, while Palestinians who live in East Jerusalem refugee camps (such as Shuafat) access water through the United Nations Relief and Works Agency for Palestine Refugees in the Near East.⁹⁴

42. Demolitions, confiscation of property and forced evictions have created additional challenges for vulnerable Palestinian communities in accessing water. For example, demolitions and confiscations by Israeli security forces of a total of 158 structures (including mobile water tankers, plastic water tanks and hygiene facilities) and forced evictions carried out in November 2020⁹⁵ and February and July 2021⁹⁶ in the Bedouin community of Humsah al-Buqay'ah have had a detrimental impact on the community's access to water. According to reports in July 2021, 70 people, including 35 children, were displaced.⁹⁷ The destruction of water facilities in this context may violate obligations of the occupying Power to restore and maintain civil life and to respect and ensure the right to water under international human rights law.

Water affordability

43. The scarcity of safe drinking water in the West Bank, including East Jerusalem, has led Palestinians to purchase water at extremely high prices through official providers and to a lesser extent from private entities.⁹⁸ The cost of purchased network water can be six times higher than the national price (i.e. \$1.50) per cubic metre in Area C. In some Palestinian communities in Area C, water makes up 15 per cent of household expenses. For herder communities, such as Bedouins, the cost of water undermines their ability to maintain their livelihood.⁹⁹ Roughly 10 per cent of Palestinians in the West Bank rely on water purchased from water tankers, and pay up to 400 per cent more per litre than communities connected to

⁹⁰ See https://www.btselem.org/sites/default/files/publications/201712_made_in_israel_eng.pdf, at p. 6.

⁹¹ *Ibid.*, p. 5.

⁹² A/74/356, para. 7.

⁹³ See A/HRC/43/67.

⁹⁴ Interview with B'Tselem on 27 May 2021.

⁹⁵ See <https://www.ochaopt.org/content/west-bank-witnesses-largest-demolition-years>.

⁹⁶ See <https://www.ochaopt.org/content/humsa-al-bqaiia-flash-update-7> and <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=27300&LangID=E>.

⁹⁷ See <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=27300&LangID=E>.

⁹⁸ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. 6, as well as table 3.3, p. 42.

⁹⁹ See <https://reliefweb.int/report/occupied-palestinian-territory/palestinian-access-water-attacks-wash-structures-area-c>.

the network.¹⁰⁰ Water purchased from private tankers may be of variable quality in addition to being expensive, as it is not monitored by any official body.¹⁰¹

Rights to water and sanitation during health emergencies

44. The rights to water and sanitation are particularly critical during health crises such as the coronavirus disease (COVID-19) pandemic. WHO has identified access to water and sanitation infrastructures and facilities as a critical priority to prevent COVID-19 transmission.¹⁰² Access to water and sanitation is important for hydration, personal hygiene and reducing the risk of infection. Palestinians who have been displaced as a result of Israeli demolitions in Area C have been particularly vulnerable to the pandemic, particularly where water and sanitation facilities were also demolished.¹⁰³

45. The 2020 cut to water piping in Masafer Yatta prevented about 1,400 people, including children, from accessing water and practising adequate hygiene during the COVID-19 epidemic. The actions of Israel in depriving these communities of water significantly worsened the pre-existing coercive environment in the area and could have particularly grave health consequences during the pandemic.¹⁰⁴

46. The obligation of Israel, as the occupying Power, to ensure adequate and safe water and sanitation services for Palestinian communities is particularly important for groups in vulnerable situations, including persons with disabilities, rural and nomadic groups, and those living in communities in vulnerable situations (such as the access-restricted areas, in Gaza; Area C and the seam zone, in the West Bank; and the H2 zone, in Hebron), as well as people in detention.

B. Gaza

Water availability

47. The available water in Gaza does not meet the basic needs of the population. According to the World Bank Group, the water supply in Gaza has been “at crisis levels since 2005”.¹⁰⁵ In 2020, the United Nations Children’s Fund (UNICEF) estimated that only 10 per cent of the population in Gaza had direct access to clean and safe drinking water.¹⁰⁶ Overall, about 1 million people – half of the population – are estimated as being in need of water and sanitation interventions.¹⁰⁷

48. Israel has restricted the import of materials and equipment categorized as “dual-use” (materials considered by Israel to be usable both for civil or for military purposes), which include the materials needed to maintain, repair and improve the water and sewage systems.¹⁰⁸ These include materials such as cement and iron, which are essential for repairing water and sanitation infrastructure.¹⁰⁹ Requests for the importation of dual-use items are submitted primarily through the Gaza Reconstruction Mechanism, which receives Israeli approval for a period of one year to import the specific item. Since approvals are only valid for one year, on many occasions approved materials are delayed or held by Israel, resulting

¹⁰⁰ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 78.

¹⁰¹ See <https://www.amnesty.org/en/wp-content/uploads/2021/06/mde150272009en.pdf>, at p. 19; and <https://www.amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/>.

¹⁰² See <https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-WASH-2020.4>.

¹⁰³ See https://reliefweb.int/sites/reliefweb.int/files/resources/critical_access_to_water-the_case_of_masafer_yatta_.pdf.

¹⁰⁴ A/HRC/46/65, para. 36.

¹⁰⁵ See <https://openknowledge.worldbank.org/handle/10986/30316>, at p. xvi.

¹⁰⁶ See <https://www.humanitarianresponse.info/en/operations/occupied-palestinian-territory/document/humanitarian-situation-report-no-2-april-june>.

¹⁰⁷ See <https://www.ochaopt.org/content/humanitarian-needs-overview-2021>, at p. 37.

¹⁰⁸ See <https://gisha.org/project/50shades-en/>.

¹⁰⁹ A/75/199, para. 30.

in a gap between approvals for dual-use materials and actually receiving the materials and using them for water and sanitation projects in Gaza.¹¹⁰

49. Although some materials have been able to enter Gaza via the Gaza Reconstruction Mechanism, its capacity to facilitate the import of sufficient materials to meet the needs of Palestinians living in Gaza has been limited.¹¹¹ As a result of these challenges, the water pipeline system in Gaza remains outdated, is thus prone to losses of water through leakage, and cannot meet the needs of population growth or respond to damage from recurring military escalations. The poor condition of the infrastructure has also increased the risk of communities being affected by the overflow of stormwater facilities and sewage pumping stations.¹¹²

50. The Committee on Economic, Social and Cultural Rights has noted that “States parties should refrain at all times from imposing embargoes or similar measures, that prevent the supply of water, as well as goods and services essential for securing the right to water. Water should never be used as an instrument of political and economic pressure.”¹¹³

51. Water availability is also negatively affected by challenges in operating the existing water management system in Gaza, due to the lack of a consistent power supply. Gaza suffers from a chronic electricity deficit, which has a severe impact on the availability of essential services, particularly health, water and sanitation services, and affects the agricultural and industrial sectors. In 2021, power was available for 13 hours a day on average.¹¹⁴ Electricity shortages have impacted the functioning of local water systems, as well as the operation of approximately 130 critical, local water and sanitation facilities resulting in the continued contamination of the coastal aquifer and the wider environment.¹¹⁵ While three desalination plants supported by the international community produce about 13 million cubic metres of water per year locally in Gaza, desalination requires significant electricity and fuel; as such, acute power shortages and restrictions on the import of materials limit their the plants’ ability to function at capacity or to provide sufficient and continuous access to water.¹¹⁶

52. Recurring escalations of hostilities¹¹⁷ have severely damaged the infrastructure for water, sanitation and hygiene in Gaza.¹¹⁸ The most recent escalation, in May 2021, caused widespread destruction of civilian infrastructure, including water and sanitation facilities, raising serious concerns as to whether these attacks by Israel complied with the principles of distinction and proportionality under international humanitarian law.¹¹⁹ The Office for the Coordination of Humanitarian Affairs has indicated that 290 water and sanitation facilities were damaged or destroyed during this escalation.¹²⁰ In addition, the North Gaza Seawater Desalination Plant stopped operating due to the risk to workers and a damaged electrical supply line, affecting the access of about 250,000 people to drinking water. Approximately 160,000 people from Gaza City had limited access to piped water, due to increased power cuts. The electricity shortage affected water and sanitation facilities in Gaza, including water

¹¹⁰ See <https://reliefweb.int/sites/reliefweb.int/files/resources/bn-treading-water-gaza-reconstruction-mechanism-220321-en.pdf>, at pp.8–10.

¹¹¹ See <https://www.nrc.no/globalassets/pdf/briefing-notes/mb-gaza-israel-blockade-civilians-270818-en.pdf>, at p. 4.

¹¹² See <https://www.ochaopt.org/content/humanitarian-needs-overview-2021>, p. 38.

¹¹³ General comment No. 15 (2002), para. 32.

¹¹⁴ See <https://www.ochaopt.org/page/gaza-strip-electricity-supply>.

¹¹⁵ See https://reliefweb.int/sites/reliefweb.int/files/resources/hno_20_12_2017_final.pdf, p. 8.

¹¹⁶ See <https://gisha.org/en/hand-on-the-switch-whos-responsible-for-gazas-infrastructure-crisis/>.

¹¹⁷ See A/HRC/12/48; A/HRC/22/35/Add.1; A/HRC/29/52; A/HRC/29/CRP.4; A/HRC/40/39, paras. 14–17; and A/HRC/S-30/1.

¹¹⁸ See https://www.rand.org/content/dam/rand/pubs/research_reports/RR2500/RR2515/RAND_RR2515.pdf, at p. ix.

¹¹⁹ See <https://www.un.org/unispal/document/un-high-commissioner-for-human-rights-bachelet-addresses-human-rights-council-special-session-on-the-deteriorating-human-rights-situation-in-opt-statement/>.

¹²⁰ See <https://www.ochaopt.org/content/response-escalation-opt-situation-report-no-8-8-28-july-2021>.

wells and reservoirs and wastewater treatment plants. Water pipelines were damaged in the Gaza City, Tall al-Hawa and Muntar areas.¹²¹

53. The political division between the Palestinian Authority and the de facto authorities in Gaza has negatively affected the governance of water resources and has contributed to reduced availability of water in Gaza.¹²² Water and sanitation in Gaza are managed by several actors – including the Palestinian Water Authority, responsible for water and sewage policy; and the Coastal Municipalities Water Utility, responsible for pumping and distributing water, maintaining and developing infrastructure and rainwater treatment; as well as private entities.¹²³ Additionally, and as noted above, since 2015, all water-related reconstruction projects by international organizations must be managed by the Gaza Reconstruction Mechanism and every project requires the approval of Israel.¹²⁴ Internal political tensions, together with mismanagement and corruption, have reportedly contributed to impeding improvement of the water and sanitation systems through these mechanisms, impacting the ability to improve water availability and the sanitation infrastructure.¹²⁵

54. Strict regulations and penalties on the digging of private wells also contribute to reduced availability of water. In August 2021, the de facto authorities announced a ban on the digging of water wells in all Gaza governorates, in order to address the severe decline in groundwater levels and quality due to overexploitation of the aquifer into which the wells are drilled. Those who had already dug wells were called upon to obtain a special licence.¹²⁶

55. The limited availability of water has a disastrous impact on Palestinians in Gaza as a whole, and a particularly harmful impact on the living conditions of women and girls, who are traditionally responsible for ensuring the basic needs of their families, including water. The gendered impact of a lack of access to clean water and sanitation has a particularly marked effect on women and girls in Gaza, where the lack of access to clean water affects tasks traditionally performed by them, such as cleaning, and preparing food, as well as gender-specific needs, notably menstrual hygiene.¹²⁷

Water quality

56. The quality of water in Gaza is of a low standard and it is generally considered unsafe for drinking. Israeli practices and policies outlined in the present report affecting water infrastructure, its destruction during military escalations, the impact of closures, power shortages, and challenges in water governance, have all contributed to a situation where 96 per cent of households receive water that does not meet drinking water quality standards.¹²⁸

57. Given that water is insufficiently available in Gaza, water from the coastal aquifer has been subjected to overextraction at a rate of almost three times the rate of natural

¹²¹ See <https://www.ochaopt.org/content/escalation-west-bank-gaza-strip-and-israel-flash-update-3-1200-13-may-2021>.

¹²² See <https://www.ochaopt.org/content/humanitarian-needs-overview-2021>, at p. 37.

¹²³ Ibid.

¹²⁴ See <https://reliefweb.int/sites/reliefweb.int/files/resources/bn-treading-water-gaza-reconstruction-mechanism-220321-en.pdf>, at p. 6.

¹²⁵ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>.

¹²⁶ See <https://www.al-monitor.com/originals/2021/08/gazans-fear-worst-after-hamas-bans-water-wells> and <http://www.pwa.gov.ps/post/75/%D8%A8%D9%8A%D8%A7%D9%86-%D8%B5%D8%A7%D8%AF%D8%B1-%D8%B9%D9%86-%D8%B3%D9%84%D8%B7%D8%A9-%D8%A7%D9%84%D9%85%D9%8A%D8%A7%D9%87-%D9%88%D8%AC%D9%88%D8%AF%D8%A9-%D8%A7%D9%84%D8%A8%D9%8A%D8%A6%D8%A9-%D8%A8%D8%B4%D8%A3%D9%86-%D8%AD%D9%81%D8%B1-%D8%A2%D8%A8%D8%A7%D8%B1-%D8%A7%D9%84%D9%85%D9%8A%D8%A7%D9%87>.

¹²⁷ See <https://blogs.unicef.org/blog/searching-clean-water-gaza/> and <https://www.wclac.org/files/library/19/10/yekz3kqu2vf4q0o3xolozc.pdf>.

¹²⁸ See <https://reliefweb.int/report/occupied-palestinian-territory/gaza-wash-sector-damage-assessment>.

replenishment by rainfall, leading to increasing seawater intrusion.¹²⁹ The continuous damage to water infrastructure incurred through hostilities as well as the ongoing electricity crisis have led to increased pollution of the sea and groundwater, as the sewage treatment plant cannot operate fully and raw sewage is consistently dumped directly into the Mediterranean Sea.¹³⁰ The sea also flushes large amounts of untreated or insufficiently treated sewage back to the shores of Gaza. According to assessments published by the Palestinian Environmental Quality Authority, 75 per cent of the water along the shores of Gaza is contaminated.¹³¹

58. Water quality is also reduced to some degree due to the method of its supply by Israel. Under the Oslo Accords, Israel must supply Gaza with at least 5 million cubic metres per year.¹³² The Palestinian Authority purchases this water from Mekorot, which streams it through the existing network, where it is then mixed with groundwater, resulting in water that is not fit for human consumption. Although it cannot be used for drinking or cooking, this water is reportedly used for other purposes.¹³³ In 2019, several reports indicated that work was under way to establish a fourth pipeline that would help double the amount of water supplied by Israel to Gaza.¹³⁴

59. Restrictions on the use of water and land and on the importation of materials and technologies have also affected farming practices. As the ability to use irrigation is limited, farmers use excessive amounts of chemical fertilizers and pesticides to increase crop yields.¹³⁵ The intensive use of agricultural pesticides, and the inflow of sewage into the aquifer, has resulted in only 12.4 per cent of wells in Gaza meeting WHO standards for nitrate concentrations and only 19.3 per cent of wells meeting chloride concentration standards, according to a 2015 study.¹³⁶ Special procedures of the Human Rights Council have noted that children in Gaza are particularly susceptible to nitrates in water, which stunt growth and affect brain development, impacting health in ways that have lifelong consequences. High levels of nitrates cause cyanosis, harm pregnant women and increase risks of cancer.¹³⁷ Water-associated diseases account for approximately 26 per cent of childhood diseases in Gaza and are a primary cause of child morbidity.¹³⁸ The combination of poor clean water supplies, limited hygiene practices and insufficient sewage treatment risks further outbreaks of disease.¹³⁹

60. The lack of water and sanitation infrastructure in Gaza has forced individuals increasingly to purchase water from private vendors through tanker trucks in unhygienic

¹²⁹ Mohammed Seyam and others, "Investigation of the influence of excess pumping on groundwater salinity in the Gaza coastal aquifer (Palestine) using three predicted future scenarios", *Water*, vol. 12, issue 8 (April 2020), p. 2.

¹³⁰ See <https://www.ochaopt.org/content/seawater-pollution-raises-concerns-waterborne-diseases-and-environmental-hazards-gaza-strip>.

¹³¹ A/74/356, para. 53.

¹³² See https://gisha.org/UserFiles/File/publications/infrastructure/Hand_on_the_Switch-EN.pdf, at pp. 11–12; and the Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip, annex III, art. 40, available at <https://www.mfa.gov.il/MFA/ForeignPolicy/Peace/Guide/Pages/THE%20ISRAELI-PALESTINIAN%20INTERIM%20AGREEMENT%20-%20Annex%20III.aspx#app-40>.

¹³³ See https://gisha.org/UserFiles/File/publications/infrastructure/Hand_on_the_Switch-EN.pdf, at pp. 11–12.

¹³⁴ See <https://www.al-monitor.com/originals/2019/07/water-pipeline-israel-gaza-pollution-palestinian-authority.html>.

¹³⁵ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 13.

¹³⁶ *Ibid.*, at p. 77; and see <http://dx.doi.org/10.4236/jwarp.2013.51007>.

¹³⁷ See AL ISR 13/2020, available at <https://spcommreports.ohchr.org/TMResultsBase/DownloadPublicCommunicationFile?gId=25840>.

¹³⁸ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 14.

¹³⁹ See https://www.rand.org/content/dam/rand/pubs/research_reports/RR2500/RR2515/RAND_RR2515.pdf, at p. 41.

conditions, exposing them to significant health risks.¹⁴⁰ It is estimated that 97 per cent of the population rely on informal and unregulated private water tankers and small-scale informal desalination plants for drinking water.¹⁴¹ As aquifer water must be purified in order to be used, dozens of such plants operate. They are required to be licensed, however monitoring is reportedly lax.¹⁴²

Water accessibility

61. Despite the access that Israel has to alternative water resources, special procedure mandate holders have noted that Israel contributes to the inaccessibility of water in Gaza by using 75 per cent of the sustainable groundwater amount each year from the coastal aquifer, leaving little of it available for Gaza.¹⁴³ The water scarcity in Gaza is also augmented by the diversion carried out by Israel of an aquifer from the Jabal al-Khalil mountains in the southern West Bank, which had previously contributed to replenishing groundwater in Gaza.¹⁴⁴ The high population density in Gaza poses an additional challenge as regards access to water and sanitation services.¹⁴⁵

Water affordability

62. Despite its low quality, drinking water has become virtually unaffordable in Gaza, where approximately 64 per cent of the population lives in poverty.¹⁴⁶ An estimated 20,200 families cannot afford to buy safe drinking water and rely on water from public filling points or on unsafe tap water, with a high risk of waterborne diseases, particularly among children under 5 years of age.¹⁴⁷

63. While the General Assembly has recognized that affordable water costs should not exceed 3 per cent of household income,¹⁴⁸ according to surveys, families in Gaza spend up to a third or even half of their income on water.¹⁴⁹

VI. Conclusions and recommendations

64. **The occupying Power has an obligation to take all measures in its power to restore, and ensure, as far as possible, public order and civil life in the occupied area, while respecting, unless absolutely prevented, the laws in force in the country. It also has an obligation to respect and ensure international human rights law, including the rights to water and sanitation.¹⁵⁰ Natural resources, such as groundwater, constitute immovable public property, and the occupying power must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct, further to the applicable rules of international humanitarian law.**

65. **Israel, as the occupying Power, is likely to have acted contrary to these obligations in relation to the allocation and administration of water resources in the Occupied Palestinian Territory, including East Jerusalem. This has had a severe impact**

¹⁴⁰ Ibid., p. 33.

¹⁴¹ See <https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf>, at p. xvii.

¹⁴² See https://gisha.org/UserFiles/File/publications/infrastructure/Hand_on_the_Switch-EN.pdf, at p. 11.

¹⁴³ See AL ISR 13/2020, available at <https://spcommreports.ohchr.org/TMResultsBase/DownloadPublicCommunicationFile?gId=25840>.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid. Gaza has one of the highest population densities in the world.

¹⁴⁶ See <https://www.un.org/unispal/in-facts-and-figures/>.

¹⁴⁷ As of 2020. See <https://www.ochaopt.org/content/humanitarian-needs-overview-2021>, at p. 38.

¹⁴⁸ See <https://www.un.org/en/global-issues/water>.

¹⁴⁹ See

<https://reliefweb.int/sites/reliefweb.int/files/resources/The%20imperative%20of%20mainstreaming%20gender%20in%20humanitarian%20action%20in%20Palestine%20-%20six%20case%20studies%20from%20Gaza.pdf>.

¹⁵⁰ Hague Regulations, arts. 46–47, 52 and 55; and Fourth Geneva Convention, arts. 33 and 53.

on the enjoyment of Palestinians' rights to water and sanitation in the Occupied Palestinian Territory.

66. The establishment and expansion of Israeli settlements in the Occupied Palestinian Territory amounts to the transfer by Israel of its own civilian population into the territory that it occupies, and has had significant impact on water resources. The prioritization by Israel/Mekorot of permanent water supply for Israeli settlements, to the detriment of the Palestinian population, severely affects the enjoyment of human rights of Palestinians, including the rights to water and sanitation. Palestinians face continuing discriminatory practices, which result in them being prevented from enjoying their rights to water and sanitation. This is further aggravated by harm caused to their environment by the exploitation by Israel of natural resources in the Occupied Palestinian Territory.

67. Access to water and sanitation must be addressed urgently to reduce the impact on vulnerable Palestinian communities and to prevent irreversible damage to ecosystems and human health. Recurrent hostilities, and public health emergencies such as the COVID-19 pandemic, have put further stress on the condition of public infrastructure, including the water, sewerage and electricity networks. Climate change will also continue to stress water availability in the Occupied Palestinian Territory and increase the costs of water services. The existing situation, in which the transboundary water systems are interdependent, must be managed in a coordinated manner to ensure that these shared resources are sustainable.¹⁵¹

68. In Gaza, Israeli restrictions on the import of equipment needed to maintain, repair and improve the water and sewage systems, combined with harm caused to these systems by recurring escalations of hostilities between the de facto authorities in Gaza and Israel, have had a disastrous effect on the availability of water. In this regard, the announcement by Israel on 25 August 2021 that it would increase the water supply to Gaza by 5 million cubic metres and allow the entry of construction materials and non-humanitarian goods is a welcome step.¹⁵²

69. The Oslo Accords, which contain clauses regarding water, were designed to be an interim agreement leading to a final status agreement. In the period since adoption of the Accords, the water governance clauses within them, which were intended as interim arrangements pending a final status agreement, have proven inadequate and inequitable. Alongside a doubling of the size of the Palestinian population since the Accords, there have been substantial practical, technical and cooperation challenges in implementing the water governance clauses in the Accords. As 96 per cent of the water in Gaza is currently unsafe for human consumption and Palestinians are unable to access most of their water sources in the West Bank, access to water has become a major impediment to the enjoyment of human rights in the Occupied Palestinian Territory.

70. The High Commissioner recommends that the Government of Israel:

(a) End the blockade and closure of Gaza, lift all restrictions on imports, exports and humanitarian access, and facilitate the rebuilding of its water infrastructure, ensuring respect for international humanitarian law and international human rights law;

(b) Immediately address the humanitarian crisis in Gaza, which has been made acute by, inter alia, lack of access to materials essential for repairing water and sanitation infrastructure as well as the lack of a sufficient and reliable electricity supply for the water and wastewater sector;

(c) Establish a functioning and transparent water monitoring arrangement with the Palestinians to manage the shared aquifer systems in order to address the deficiencies in the existing mechanisms, including in the Joint Water Committee;

¹⁵¹ See <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>, at p. 83.

¹⁵² See <https://www.haaretz.com/israel-news/israel-allows-construction-materials-into-gaza-loosening-postwar-blockade-1.10170010>.

(d) **Halt the extraction of natural resources, including water, undertaken for the benefit of Israel, the occupying Power, which is inconsistent with international humanitarian law; and address the lack of sufficient access for Palestinians to important natural resources, notably water resources;**

(e) **Reduce water exploitation and environmental degradation in the Occupied Palestinian Territory caused by settlement activity, by ceasing such activity in compliance with Security Council resolution 2334 (2016);**

(f) **Immediately end the practice of demolitions, including administrative and punitive demolitions, which include the destruction of water tanks and of water infrastructure, which may negatively affect the enjoyment of the right to water;**

(g) **Ensure that hazardous waste is disposed of in compliance with international standards, with such disposal not infringing upon the human rights of the protected population to safe and clean water;**

(h) **Take steps with a view to renegotiating prior agreements on the administration and distribution of water resources with the Palestinian authorities, on the basis of equity and cooperation in the ownership, exploration, distribution and use of water sources in the Occupied Palestinian Territory, particularly given the impact of climate change as well as of demographic growth.**

71. The High Commissioner recommends that the Government of the State of Palestine:

(a) **Address unequal distribution of water in parts of Area A of the West Bank, given the existing scarcity in water resources;**

(b) **Better regulate water distribution and use of water for industrial purposes, in order to increase water availability for personal and domestic use;**

(c) **Improve the regulation of groundwater extraction in Gaza, in order to reduce overextraction of the coastal aquifer;**

(d) **Implement the Water Law of 2014, establishing a governmental water company, and enable the independence and the by-laws of the water sector regulatory council.**

72. The High Commissioner recommends that the de facto authorities in Gaza:

(a) **Comply, and ensure compliance by armed groups in Gaza, with international human rights law and international humanitarian law in relation to the rights to water and sanitation;**

(b) **Support the Palestinian Water Authority in improving the regulation of groundwater extraction in Gaza in order to reduce overextraction from the coastal aquifer.**

73. The High Commissioner recommends that the Government of Israel, the Government of the State of Palestine and the de facto authorities in Gaza increase efforts to harvest, preserve, treat and reuse water in the Occupied Palestinian Territory – including by facilitating rainwater harvesting; reducing losses from the water distribution system; reducing pollution of freshwater watercourses, groundwater and the Mediterranean Sea; increasing the reuse of wastewater; and enhancing wastewater treatment, also in order to maximize the benefits of investment in desalination.