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Human rights situation in Palestine and other occupied Arab territories

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

Report of the United Nations High Commissioner for Human Rights*

Summary

This report of the United Nations High Commissioner for Human Rights was mandated by Human Rights Council resolution 43/32 (2020) that 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 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. This report is submitted pursuant to Human Rights Council resolution 43/32 (2020). 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 the equitable access to safe drinking water to 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 Human Rights Council report A/HRC/43/71 in February 2020, the Government of Israel announced it would freeze its relations with the Office of the High Commissioner for Human Rights (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. This report should be read in conjunction with other relevant reports.[1] The report illustrates how the 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. Owing to space constraints, the report does not address all issues of concern nor all cases documented.

II. Mandate

5. Human Rights Council resolution 43/32 (2020) requested the United Nations High Commissioner for Human Rights 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.

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 comprised 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;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.101,114;A/HRC/34/38,para.10.

[3] Hague Regulations concerning the Laws and Customs of War on Land, 18 October 1907,(Hereafter: Hague Regulations 1907), 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 shall not 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 Conventions 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] with 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]

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, article 14, paragraph 2(h) of the Convention on the Elimination of all Forms of Discrimination against Women and 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 United Nations General Assembly, the rights to water and sanitation are "essential for the full enjoyment of life and all human rights".[16]

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[4] International Court of Justice, Armed Activities on the Territory of the Congo (DRC.v.Uganda), Judgment of 19 December 2005, para.178.

[5] Hague Regulations art.43,46; article 56 GCIV

[6] Hague Regulations, arts.46-47,52 and 55; GCIV,arts.33,53.

[7] Hague Regulations art.55. See also A/HRC/34/39;para.8.

[8] Hague Regulations art.47 and GCIV art.33; ICJ, Armed Activities on the Territory of the Congo (DRC v Uganda), Judgment, 19 December 2005,para.245.

[9] ICJ, Armed Activities on the Territory of the Congo (DRC v Uganda), Judgment, 19 December 2005, paras.246–248.

[10] Hague Regulations 1907 arts.46 and 52.

[11] GC IV,art.53. See also Rome Statute art.8.2.b.xiii.

[12] GCIV;art.147; Rome Statute arts.8.2.a.iv.

[13] GCIV;art.49(6).

[14] 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; https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule45.

[15] See Committee on Economic, Social and Cultural Rights, E/C.12/2002/11, General Comment No.15, paras.3-ff.

[16] General Assembly Resolution 70/169. Also-A/HRC/RES/18/1. In this regard, Human Rights Committee 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 without delay by

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

13. States are under an obligation to respect, protect and fulfil the right to water and sanitation, without discrimination.[18] That is, States must refrain from violating the right to water and sanitation and must take appropriate measures to prevent, stop and punish any abuse of the right to water and sanitation from non-State actors.[19] In addition, States parties are under an obligation to fulfil the right to water and sanitation, that is, to adopt the necessary measures directed towards the full realization of the right.[20] The Committee on Economic, Social and Cultural Rights (CESCR) has held that certain minimum core obligations exist under the Covenant to ensure the satisfaction of, at the very least, minimum essential levels of the right to water.[21] These include the obligation to ensure (1) access to the minimum essential amount of water; (2) the right of access to water and water facilities and services on a non-discriminatory basis; (3) physical access to water facilities or services that provide sufficient, safe and regular water; (4) personal security is not threatened when having to physically access to water; and (5) equitable distribution of all available water facilities and services.[22]

14. The right to self-determination is expressly affirmed in the United Nations Charter,[23] and in human rights treaties, such in articles 1 of the ICCPR and ICESCR respectively. As affirmed by the International Court of Justice (ICJ), 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 United Nations General Assembly affirmed that the human right to development also implies the 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 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

individuals to essential goods and services such as water", General Comment no.36(2018).para.26 and Committee on the Rights of the Child,CRC/C/GC/7/Rev.1, para.27. The CESCR recognised that the right to water is a "prerequisite for the realisation of other human rights"; CESCR, General Comment no.15(2003), para.1. See also Committee on the Rights of the Child,CRC/C/GC/7/Rev.1, para.27.

17 CESCR, General Comment no.15 (2003),paras.10–12.

18 A/HRC/RES/15/9,para.7.

19 See e.g. Human Rights Committee, General Comment no.31.(2004) paras.6 and 8; CESCR, General Comment no.15.(2003), paras.20–24.

20 CESCR, General Comment no.15 (2003), paras.25–29.; A/HRC/RES/18/1,para.5.

21 Ibid, para.37.

22 Ibid.

23 Article.1.(2).

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

25 ICESCR and ICCPR, common art.1(2).

26 General Assembly resolution 41/128 of 4 December 1986;art.1.

27 https://wedocs.unep.org/20.500.11822/32268;p.14.

28 Ibid.

estimated at 5.2 million and is expected to increase to 7.2 million by 2030.[29] The UN Environment Programme (UNEP) projects an annual domestic supply gap for Gaza and the West Bank of approximately 79 and 92 million cubic metres (MCM), 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 and 2015, the land area in the Occupied Palestinian Territory under artificial surfaces increased from 1.4 to 4.3 percent 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 increased from 8.25 percent (1982) to 25 percent (2010).[33]

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, 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 provides service instead to the Israeli settlements in the West Bank.

19. In accordance with the Oslo Accords (the Declaration of Principles on Interim Self-Government Arrangements of 1993 and the Interim Agreement on the West Bank and the Gaza Strip of 1995), 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 percent of the waters pumped from the aquifers were allocated for Israeli use, and the remaining 20 percent for Palestinian use.[39] he agreement provided 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 Interim Agreement on the West Bank and the Gaza Strip (known as Oslo II) remains 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 until today. Article 40 of the Accords established the Israeli-Palestinian Joint Water

[29] https://www.unfpa.org/data/world-population/PS.
[30] https://wedocs.unep.org/20.500.11822/32268;p.14.
[31] https://unhabitat.org/urban-issues-palestine.
[32] A/HRC/34/39 para.57.
[33] https://wedocs.unep.org/20.500.11822/32268;p.15.
[34] https://unispal.un.org/pdfs/47657-GZ.pdf, para. 32
[35] http://www.jmcc.org/documents/JMCCIsraeli_military_orders.pdf.
[36] A/HRC/22/63, para. 40.
[37] A/HRC/22/63, para. 83.
[38] The Accords were signed by Israel and the Palestine Liberation Organization in 1993 and 1995 respectively, https://www.mdpi.com/2073-4441/13/5/620/htm.
[39] https://content.ecf.org.il/files/M00261_TheIsraeli-PalestinianInterimAgreement-EnglishText.pdf, Appendix 1: Powers and Responsibilities of Civil Affairs, article 40; Schedule 10, data concerning aquifers.
[40] Ibid. Article.40, 1,5.

Committee (JWC), 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 (Oslo II signed in 1995), also divided the West Bank into Area A (where the Palestinian Authority would manage full security and civil affairs), Area B (where the Palestinian Authority would manage civil affairs and Israel security control), and Area C (where Israel would have exclusive control). In Areas A and B, Palestinian institutions manage civilian governance, including those relevant to the environment.[42] The Palestinian Authority has no access to Area C (60 percent of the West Bank), which contains the majority of the agricultural lands, water sources and underground reservoirs of the Occupied Palestinian Territory.[43]

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 MCM annually) was treated; while 25 MCM of untreated sewage from the West Bank is discharged into the environment annually. Almost none of the treated amount is reused due challenges in planning and developing 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 Sanitation (WASH) structures. In 2021,[48] 40 WASH 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. The following 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 Gaza), considering key criteria of availability, quality, accessibility, and affordability.

[41] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf. P. 101

[42] https://wedocs.unep.org/20.500.11822/32268; p.146.

[43] https://www.ochaopt.org/content/palestinians-strive-access-water-jordan-valley. 2.

[44] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p. xxxi.

[45] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p. xx.

[46] https://wedocs.unep.org/20.500.11822/32268, p.14.

[47] A/73/499; para. 22.

[48] As of 5 August 2021.

[49] The West Bank Protection Consortium, https://reliefweb.int/report/occupied-palestinian-territory/palestinian-access-water-attacks-wash-structures-area-c; https://www.ochaopt.org/data/demolition.

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 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 Accords were signed, but also because the practical implementation of the 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 percent of the mountain aquifer waters were used by Israelis and only 13 percent 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, that require Israeli-issued permits or that cross through Israeli-controlled Area C.[56] Coordination and approvals for such projects are handled through the JWC. Although the JWC was required to operate by consensus,[57] reports indicate that in practice, Israeli members of the JWC 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 JWC representatives 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 (ICA) in the West Bank reportedly has often blocked agreements reached in the JWC.[60]

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[50] https://reliefweb.int/sites/reliefweb.int/files/resources/WBPC%20article.%20Access%20to%20water.%20Apr%2021.%20FORMATTED%20.pdf.

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

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

[53] https://unispal.un.org/pdfs/47657-GZ.pdf, para.39.

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

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

[56] https://www.hrw.org/report/2021/04/27/threshold-crossed/israeli-authorities-and-crimes-apartheid-and-persecution; p.93.

[57] Oslo II, article 40, 14.

[58] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/775491468139782240/west-bank-and-gaza-assessment-of-restrictions-on-palestinian-water-sector-development; para.130, https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p. 101.

[59] Interview, Palestinian Authority, 20 May 2021; Interview, PWA, 26 May 2021

[60] Ibid.

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 both blocked maintenance and upgrades, and limited the ability to increase water availability by stalling the creation of desalination plants, advanced irrigation and wastewater recycling systems, the approval of deep well drilling, as well as the deployment of rain-harvesting cisterns.[62]

30. More than 80 percent of the annual water supply of the West Bank (91 MCM) 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 JWC, as well as Israeli policies restricting access to water in Area C,[64] the Palestinian Water Authority (PWA) is constrained in improving service delivery. Palestinians in the West Bank therefore suffer severe water shortages, 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 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 Palestinians in East Jerusalem and benefit from well-irrigated farmlands and water-intensive domestic infrastructure such as swimming pools.[71]

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

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61 https://www.btselem.org/water.

62 Interview, Palestinian Authority, 20 May 2021;Interview, PWA, 26 May 2021.

63 https://www.humanitarianresponse.info/en/operations/occupied-palestinian-territory/document/wash-contingency-plan-west-bank-2021;p.11.

64 A/HRC/22/63, para.82.

65 Interview, B'Tselem; 27 May 2021; https://www.btselem.org/firearms/20200527_soldiers_shoot_holes_in_water_tanks_at_kafr_qadum; https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p.xvii.

66 A/HRC/22/63;para.39.

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

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

69 https://www.humanitarianresponse.info/en/operations/occupied-palestinian-territory/document/wash-contingency-plan-west-bank-2021; p.11.

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

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

72 See Hague Regulations art.55.

34. Israeli authorities have confiscated and destroyed water infrastructure, including property provided as humanitarian assistance by States.[73] For example, in late 2020, the ICA reportedly cut a water pipe donated by humanitarian organizations servicing communities in Masafer Yatta (South Hebron Hills).[74] In April and May 2020, in the village of Kafr Qaddum (Qalqiliya governorate, Areas B and C), Israeli Security Forces (ISF) 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 on the part of 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 on the part of the occupying Power.[76]

35. Water is also unequally distributed within the West Bank by municipal water departments, through service providers.[77] As of 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 available to individuals and communities.[79] Related to this situation, a 2014 Water Law was enacted as part of a water governance reform process intended to clarify the responsibilities of the different ministries involved and 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 generally acceptable[81], many wells in the Jordan Valley demonstrated a high concentration of chloride exceeding the acceptable values as per 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 air and soil and water.[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 southeast Jerusalem, which was estimated as receiving over 13 MCM a year of sewage from Jerusalem and Palestinian communities.[85] In June 2020, Israel began construction of an 800 million

[73] A/73/499; para. 22.

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

[75] http://vprofile.arij.org/qalqiliya/pdfs/vprofile/kafqaddum-vp-en.pdf, https://www.btselem.org/firearms/20200527_soldiers_shoot_holes_in_water_tanks_at_kafr_qadum GCIV, art. 53. See also Rome Statute art.8.2.b.xiii.

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

[78] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p. xxi, 11, 59-60.

[79] Interview, Palestinian Civil Society representative, 24 May 2021.

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

[81] https://wedocs.unep.org/20.500.11822/32268; p. 3.

[82] Although some data exists on water quality in the West Bank, there are also significant data gaps; further information is needed to quantify the damage caused by over-abstraction and pollution in the mountain aquifer. https://wedocs.unep.org/20.500.11822/32268; p. 168.

[83] https://wedocs.unep.org/20.500.11822/32268, p. 13.

[84] Ibid. p.14.

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

shekel project establishing filtration and purification facilities to treat sewage in the Kidron Valley and make it suitable for agriculture and use by Palestinians and Israeli settlers.[86] However, the project has been criticised as intended primarily to benefit settlers by treating their wastewater, and provide 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 specialised industrial zones, have placed additional pressure on limited natural resources and have contributed to the pollution water, as well as 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 treatment facilities.[90] Although waste treatment is seen as preferable to waste disposal, it still results in substantial pollution. Waste treatment of hazardous waste, for example, could 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 Israel's obligations 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 Israel water authority; 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 living in East Jerusalem refugee camps (such as Shuafat) access water via UNRWA.[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 ISF of a total of 158 structures (including mobile water tankers, plastic water tanks and hygiene facilities) and forced evictions carried out in November 2020,[95] February and July 2021,[96] in the Bedouin community Humsa Al-Baqai'a, have had a detrimental impact on the community's access to water. According to reports in

[86] Ibid. and https://milkeninnovationcenter.org/news/60-m-deep-tunnel-and-a-joint-wastewater-treatment-facility-this-is-how-the-kidron-river-will-be-restored/.

[87] https://www.alhaq.org/advocacy/6723.html.

[88] Soil pollution comes from the discharge of raw and untreated wastewater into wadis and agricultural lands, the remains from stone quarries and the stone and marble industry in the form of dust or slurry, and the excessive use of pesticides and chemical fertilizers. https://wedocs.unep.org/20.500.11822/32268, p.14-15.

[89] Ibid. p.15.

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

[91] Ibid. p.5.

[92] A/HRC/74/356, para.7.

[93] A/HRC/40/24, para.7(b).

[94] Interview, B'Tselem, 27 May 2021.

[95] https://www.ochaopt.org/content/west-bank-witnesses-largest-demolition-years.

[96] https://www.ochaopt.org/content/humsa-al-bqaia-flash-update-7; https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=27300&LangID=E.

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 (1.5 USD) per cubic metre in Area C. In some Palestinian communities in Area C, water makes up 15 percent of household expenses. For herder communities, such as Bedouins, the cost of water undermines their ability to maintain their livelihood.[99] Roughly 10 percent 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 the network.[100] Water purchased from private tankers may be of variable quality in addition to its high price, as it is not monitored by any official body.[101]

The rights to water and sanitation during health emergencies

44. The rights to water and sanitation are particularly critical during health crises such as the COVID-19 pandemic. WHO has identified access to WASH 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, in particular where water and sanitation facilities were also demolished.[103]

45. The 2020 cut to water piping in Masafer Yatta impacted about 1,400 people, including children, from accessing water and adequate hygiene practices during the COVID-19 epidemic. Israel's actions 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. Israel's obligation, as the occupying Power, to ensure adequate and safe WASH services for Palestinian communities is particularly important for groups in vulnerable situations, including persons with disabilities; rural and nomadic groups; those living in communities in vulnerable situations (such as Gaza's Access Restricted Areas, the West Bank's Area C and Seam Zone, and the H2 area 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, Gaza's water supply has been "at crisis levels since 2005".[105] In 2020, UNICEF estimated that only 10 percent of the population in Gaza have

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

[98] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf, p.6, also table 3.3 page 42.

[99] https://reliefweb.int/report/occupied-palestinian-territory/palestinian-access-water-attacks-wash-structures-area-c.

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

[101] https://www.amnesty.org/download/Documents/48000/mde150272009en.pdf; p.19; https://www.amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/.

[102] https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-WASH-2020.4.

[103] 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] https://openknowledge.worldbank.org/handle/10986/30316, p.xvi.

direct access to clean and safe drinking water.[106] Overall, about one million people – half of the population – is estimated as being in need of water and sanitation interventions.[107]

48. Israel has restricted the import of materials and equipment categorised as "dual-use" (materials considered by Israel to be usable for both civil or military purposes), including those needed to maintain, repair and improve the water and sewage systems.[108] These include materials such as cement and iron, which are essential to repairing water and sanitation infrastructure.[109] Requests for import of dual-use items are submitted primarily through the Gaza Reconstruction Mechanism (GRM), 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 in a gap between approvals of dual-use materials and actually receiving materials and using them for WASH projects in Gaza.[110]

49. Although some materials have been able to enter Gaza through the GRM, its capacity to facilitate import of sufficient materials to meet the needs of Palestinians living in Gaza has been limited.[111] As a result of these challenges, Gaza's water pipeline system remains outdated, thus prone to a loss of water through leakage, and cannot meet the needs of population growth or respond to damage from recurring military escalations. The poor condition of infrastructure has also increased the risk for communities to be 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 impacted by challenges in operating the existing water management system in Gaza, due to the lack of consistent power supply. Gaza suffers from a chronic electricity deficit, severely affecting the availability of essential services, particularly health, water and sanitation services, and impacted 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 MCM of water per year locally in Gaza, desalination requires significant electricity and fuel; as such, acute power shortages and restrictions on import of materials limit their ability to function at capacity or improve sufficient and continuous access to water.[116]

52. Recurring escalations of hostilities[117] 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

[106] https://www.humanitarianresponse.info/en/operations/occupied-palestinian-territory/document/humanitarian-situation-report-no-2-april-june.
[107] OCHA OPT, Humanitarian Needs Overview, 2021,p.37.
[108] https://gisha.org/project/50shades-en/.
[109] A/75/199, para.30.
[110] https://reliefweb.int/sites/reliefweb.int/files/resources/bn-treading-water-gaza-reconstruction-mechanism-220321-en.pdf, pp.8-10.
[111] https://www.nrc.no/globalassets/pdf/briefing-notes/mb-gaza-israel-blockade-civilians-270818-en.pdf. p.4.
[112] https://www.ochaopt.org/content/humanitarian-needs-overview-2021,p.38.
[113] E/C.12/2002/11, para.32.
[114] https://www.ochaopt.org/page/gaza-strip-electricity-supply.
[115] https://reliefweb.int/sites/reliefweb.int/files/resources/hno_20_12_2017_final.pdf, p.8.
[116] 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 para 14-17, A/HRC/S-30/1.
[118] RAND Corporation, The Public Health Impacts of Gaza's Water Crisis. 2018.p.ix.

distinction and proportionality under international humanitarian law.[119] The United Nations Office for Coordination of Humanitarian Affairs (OCHA) has indicated that 290 WASH 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 Gaza WASH facilities, including water 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 have contributed to its reduced availability in Gaza.[122] Water and sanitation in Gaza are managed by several actors including the Palestinian Water Authority - responsible for water and sewage policy; the Coastal Municipalities Water Utility (CMWU) - 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 organisations must be managed by the Gaza Reconstruction Mechanism and every project requires Israel's approval.[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 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 against the digging of water wells in all Gaza governorates, in order to address the severe decline in groundwater levels and quality due to over-exploitation of the aquifer into which the wells are drilled. Those who had already dug wells were called to obtain a special license.[126]

55. The limited availability of water has a disastrous impact on Palestinians in Gaza as a whole, and a particular 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 preparation of tasks traditionally performed by them, such as cleaning and preparing food, as well as gender-specific needs notably menstrual hygiene.[127]

Water quality

[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] https://www.ochaopt.org/content/response-escalation-opt-situation-report-no-8-8-28-july-2021.

[121] https://www.ochaopt.org/content/escalation-gaza-strip-west-bank-and-israel-flash-update-4-1200-14-may-2021.

[122] https://www.ochaopt.org/content/humanitarian-needs-overview-2021, p.37.

[123] Ibid.

[124] Ibid. p.13.

[125] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf.

[126] https://www.al-monitor.com/originals/2021/08/gazans-fear-worst-after-hamas-bans-water-wells , 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] https://blogs.unicef.org/blog/searching-clean-water-gaza/; https://www.wclac.org/files/library/19/10/yekz3kqu2vf4q0o3xolozc.pdf.

56. The quality of water in Gaza is of low standards and generally considered unsafe for drinking. Israeli practices and policies outlined in this 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 percent 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 subject to overextraction at a rate of almost three times the rate of natural 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 percent 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 five MCM 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 of cooking, this water is reportedly used for other purposes.[133] In 2019, several reports indicated that work was underway 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, land, and the import of materials and technologies have also affected farming practices. As the ability to use irrigation is limited, farmers use excessive 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 percent of wells in Gaza meeting World Health Organization standards for nitrate concentrations and only 19.3 percent of wells meeting chloride concentrations standards, according to a 2015 study.[136] United Nations Special Procedures of the Human Rights Council have noted that children in Gaza are particularly susceptible to nitrates in water, which stunts growth and affects brain development, impacting health in ways that have life-long consequences. High levels of nitrates cause cyanosis, harm pregnant women and increase risks of cancer.[137] Water-associated diseases account for approximately 26 percent of childhood diseases in Gaza and are a primary cause of child morbidity.[138] Gaza's combination of poor clean water supply, limited hygiene practices, and insufficient sewage treatment risk further outbreaks of disease.[139]

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

[128] https://reliefweb.int/report/occupied-palestinian-territory/gaza-wash-sector-damage-assessment.

[129] "Investigation of the Influence of Excess Pumping on Groundwater Salinity in the Gaza Coastal Aquifer (Palestine) Using Three Predicted Future Scenarios", in Water, volume.12, issue 8, 20 April 2020.p.2.

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

[131] A/74/356;para.53.

[132] Gisha,"Hand on the Switch",2017, p.11-12; Israeli Palestinian Interim Agreement, signed in Washington, September 28, 1995, Annex III, Art. 40, http://bit.ly/2gX9nNB.

[133] Gisha,"Hand on the Switch",2017, p.11-12.

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

[135] https://wedocs.unep.org/20.500.11822/32268;p.13

[136] http://dx.doi.org/10.4236/jwarp.2013.51007; https://wedocs.unep.org/20.500.11822/32268, p.77.

[137] AL ISR 13/2020, https://spcommreports.ohchr.org/TMResultsBase/DownLoadPublicCommunicationFile?gId=25840.

[138] https://wedocs.unep.org/20.500.11822/32268;p.14.

[139] RAND Corporation, The Public Health Impacts of Gaza's Water Crisis. 2018; p.41.

conditions exposing them to significant health risks.[140] It is estimated that 97 percent 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. Their licensing is required, however monitoring is reportedly lax.[142]

Water accessibility

61. Despite Israel's access to alternative water resources, United Nations Special Procedures mandate holders have highlighted that Israel contributes to the inaccessibility of water in Gaza by using 75 percent 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 Jabalal-Khalil mountains in the southern West Bank, which had previously contributed to replenishing Gaza's groundwater.[144] The high population density in Gaza also poses an additional challenge in accessing water and sanitation services.[145]

Water affordability

62. Despite its low quality, drinking water has become virtually unaffordable in Gaza where approximately 64 percent 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 unsafe tap water, with high risk of waterborne diseases, particularly among children under five.[147]

63. While the General Assembly has recognized that affordable water costs should not exceed three percent 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 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 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. It has severely impacted on the enjoyment of Palestinians' rights to water and sanitation in the Occupied Palestinian Territory.**

[140] Ibid. p.33.

[141] https://documents1.worldbank.org/curated/en/684341535731512591/pdf/Toward-Water-Security-for-Palestinians.pdf,p.xvii.

[142] Gisha, "Hand on the Switch",2017, p.12.

[143] AL ISR 13/2020, https://spcommreports.ohchr.org/TMResultsBase/DownLoadPublicCommunicationFile?gId=25840.

[144] Ibid.

[145] Gaza has one of the highest population densities in the world, see ibid.

[146] https://www.un.org/unispal/in-facts-and-figures/.

[147] As of 2020. https://www.ochaopt.org/content/humanitarian-needs-overview-2021, p.38.

[148] https://www.un.org/en/global-issues/water.

[149] https://reliefweb.int/sites/reliefweb.int/files/resources/The%20imperative%20of%20mainstrea.ming%20gender%20in%20humanitarian%20action%20in%20Palestine%20%20six%20case%20studies%20from%20Gaza.pdf.

[150] Hague Regulations, arts.46-47, 52 and 55; GCIV, arts.33,53.

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 it occupies, has had significant impact on water resources. Israel/Mekorot's prioritization of permanent water supply for Israeli settlements, to the detriment of the Palestinian population, severely affects the enjoyment of human rights of Palestinians, including rights to water and sanitation. Palestinians face continuing discriminatory practices, resulting in preventing them from enjoying their rights to water and sanitation. This is further aggravated by harm caused to their environment by Israel's exploitation of natural resources in the Occupied Palestinian Territory.**

67. **Access to the rights 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 water, sewer, and electricity networks. Climate change will also continue to stress water availability in the Occupied Palestinian Territory and increase 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 incurred 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, Israel's announcement on 25 August 2021 that it would increase water supply to Gaza by five MCM and allow 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 Oslo Accords, the water governance clauses within them, which were intended as interim arrangements pending final status agreement, have proven inadequate and inequitable. Alongside doubling of the Palestinian population in size since the Accords, practical, technical and cooperation challenges in implementing the water governance clauses in the Accords. As 96 percent 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, humanitarian access and facilitate the rebuilding of its water infrastructure, ensuring respect for international humanitarian and 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 to repairing water and sanitation infrastructure as well as a sufficient and reliable electricity supply to the water and wastewater sector;**

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

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

[151] https://wedocs.unep.org/20.500.11822/32268, p.83.

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

(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 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 renegotiate prior agreements on administration and distribution of water resources with the Palestinian authorities, based on 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 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 regulation of groundwater extraction in Gaza in order to reduce overextraction of the coastal aquifer.**

(d) **Implement the 2014 Water Law, establishing a governmental water company, and enabling independency and bylaws 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 rights to water and sanitation.**

(b) **Support the Palestinian Water Authority in improving regulation of groundwater extraction in Gaza in order to reduce overextraction of 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 facilitating rainwater harvesting; reducing losses from the water distribution system; reducing pollution of fresh water courses, ground water and the Mediterranean Sea; increasing the reuse of wastewater; and enhancing wastewater treatment also in order to maximise benefits of investment in desalination.