

Spotlight Paper on Goal 6

FROM COMMODITY TO COMMON GOOD: A FEMINIST AGENDA TO TACKLE THE WORLD'S WATER CRISIS

Key messages

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1. Introduction

Women, water, and nature: A holistic approach to water use and water conservation

- **The extraction of water for profit, irrespective of the ecological and social cost, has irrevocably damaged humanity's relationship with nature**, and propelled climate change, a key driver of the global water crisis and a major threat to human well-being and the health of the planet.
 - Globally, water use has steadily risen by roughly 1 per cent annually over the last 40 years and is projected to grow another 20 to 30 percent by 2050, fueled primarily by increased industrial and domestic demand.ⁱ
 - Heightened demand for water continues to be driven by population growth, socioeconomic development, and increased adoption of resource-intensive consumption patterns.ⁱⁱ
 - The vast majority of water withdrawal occurs in agriculture, notably irrigated agriculture (72 per cent), followed by industrial activities (12 per cent). Only 16 per cent of all water is used by municipalities for services and households, the poorest of which know only too well the hardships associated with living without safe water and improved sanitation.ⁱⁱⁱ
 - Decades of misuse and poor management have exacerbated water stress and deteriorated aquatic and terrestrial ecosystems around the world. On its current trajectory, the world will undoubtedly fail to achieve SDG 6 by 2030.^{iv}
- **Women in communities with strong ties to the land and its resources have long advocated a radically new perspective on water and development**, one that recognizes, respects and defends the rights of water and of all living beings that depend on it.^v
 - Efforts to transform such perspectives into enforceable laws are growing, but remain limited in scope and reach.^{vi}
 - According to the latest assessment of SDG target 6.5, on integrated water management, national efforts to balance competing water demands with environmental sustainability remain largely inadequate.^{vii}
 - And despite a high-level commitment on paper to gender mainstreaming, in practice, gender perspectives are largely absent in planning, management and decision-making.^{viii}
- **A feminist approach to the water crisis recognizes the hugely important role women play in their communities** as the main collectors, protectors, and managers of water.
 - It demands their equal representation in leadership and decision-making and calls for engaging with women and their communities and incorporating their perspectives, including on the “rights of nature”, for ecologically responsible water governance.

¹ Please cite the forthcoming UN Women report when using these key messages: UN Women. 2023. *Spotlight on Goal 6, From Commodity to Common Good: A Feminist Agenda to Tackle the World's Water Crisis*. New York.

- Fundamentally, the approach draws a clear connection between social justice, ecological rights and women’s rights, and argues that to accelerate SDG 6 (access to safe water and sanitation), countries must accelerate SDG 5 (gender equality).^{ix}

2. Background

The right to water is the right to life

- **The right to water was recognized in 2010** by the United Nations General Assembly as a basic human right without which the “full enjoyment of life and all human rights” cannot be realized.^x
- **The 2015 United Nations General Assembly resolution on the rights to water and sanitation** called on States to “promote both women’s leadership and their full, effective and equal participation in decision-making on water and sanitation management” and ensure that a “gender-based approach is adopted in relation to water and sanitation programmes”.^{xi}
- Also adopted in 2015, **the 2030 Agenda for Sustainable Development** acknowledges the centrality of water resources to sustainable development and the links among improved drinking water, sanitation and hygiene, and health, education and poverty reduction.^{xii}
 - It includes a commitment to ensuring the “availability and sustainable management of water and sanitation for all”, but only target 6.2, however makes explicit reference to “the needs of women and girls and those in vulnerable situations”.^{xiii}
- **Recent elaborations of the human right to safe drinking water** have extended the focus from basic access to services to improved water sources that provide “sufficient, safe, acceptable, physically accessible and affordable” water.^{xiv}
 - Yet entrenched discrimination, subjugation and oppression make women and girls, especially those from poor and marginalized communities, least likely to see these principles fully realized.
- **In spaces of global discourse**, however, development practitioners working on issues related to planetary boundaries rarely engage with practitioners working on gender equality and human rights.
 - More efforts are needed at higher levels of decision making where the synergies between women’s rights and ecological rights remain obscured from view.

3. The roots of the global water crisis

Root cause 1: Climate change

- **Climate change is making natural and climate hazards more frequent, severe and ultimately more destructive.** Too much water due to cyclones, floods and hurricanes or too little in the face of severe and prolonged droughts can destroy life and expose women and girls to intense hardships, including greater food insecurity, poverty and violence. Globally:
 - 108 out of 191 countries and areas, home to 3.7 billion women and girls, or 94 per cent of the world’s female population, face a high or very high exposure to floods.^{xv}
 - 94 out of 191 countries and areas, home to 3 billion women and girls, or 76.6 per cent of the world’s female population, face a high or very high exposure to tsunamis.^{xvi}
 - 29 out of 191 countries and areas, home to 2.2 billion women and girls, or 55.3 per cent of the world’s female population, face a high or very high exposure to tropical cyclones.^{xvii}

- 53 out of 191 countries and areas, home to 1.5 billion women and girls, or 37.2 per cent of the world's female population, face a high or very high exposure to droughts.^{xviii} Prolonged droughts have worsened risks of child marriage and violence against women and girls. The 2022 drought in the Horn of Africa resulted in a nearly fourfold increase in child marriage in affected areas of Ethiopia. In Somalia, episodes of intimate partner violence and rape rose by 20 per cent.^{xix}

➤ **Loss and damages due to historic and current climate change, particularly in developing countries, requires significant investment in gender-responsive climate change mitigation and adaptation**

- Some progress is evident in addressing these dimensions in national planning, but it needs to accelerate, as gender-responsive climate change adaptation and mitigation plans are still far from the norm.
- In the first generation of nationally determined contributions (NDCs) in 2015, only 50 mentioned women or gender. As of 2023, this number has climbed to 101.
- However, a mention of women and/or gender equality is not enough. A recent review of the NDCs found that only 55 NDCs mention specific adaptation actions referring to gender equality and only 23 NDCs recognize women as agents of change in accelerating progress on climate commitments.^{xx}

Root cause 2: Unbridled increases in water demand

➤ **Changes in hydroclimate conditions, growing demand for water for agriculture, industry and personal uses, and water pollution and mismanagement have coalesced to produce a global water crisis.**

- In 2020, 18.2 per cent of all available renewable freshwater resources were being withdrawn.^{xxi} In 2023, an estimated 380 million women and girls, or 9.5 per cent of the world's female population, live in the 26 countries with high or critical water stress. This number is projected to increase to 471 million by 2030 and 674 million by 2050, representing 11.1 per cent and 13.9 per cent of the world's female population, respectively.^{xxii}
- Over 80 per cent of high and critically water-stressed countries are concentrated in Northern Africa and Western Asia (16 out of 26) and Central and Southern Asia (5 out of 26).^{xxiii}
- Water stress, mapped by major river basins, shows the extent to which transboundary water resources are being exploited. Globally, 10 of the 20 major river basins with the highest water stress are in China and India, including the Tarim Interior and the Sabarmati, where 242 per cent and 317 per cent of available freshwater resources are withdrawn per year, respectively.^{xxiv}
- Hot spots of critical water stress exist within and across countries, including the Indo-Gangetic Plain and the North China Plain, which cover parts of China, India, Nepal and Pakistan, and virtually all of Bangladesh. Rivers in both plains directly or indirectly support the lives and livelihoods of the 1.6 billion women in these five countries, that is, 40.3 per cent of the world's female population.^{xxv}

➤ **An analysis of changes in water scarcity over a 40-year period (1971 to 2010) points to increases in the demand for water as a greater contributor to the current water crisis than decreases in the supply of water.**^{xxvi}

- The growing demand for water, driven by a combination of population growth, development and changing consumption patterns, is expected to be concentrated in lower- and middle-income countries.^{xxvii}
- Women particularly those from poor and marginalized communities, typically lack equal representation and a voice in decision-making, and are most likely to lose out in high-pressure settings despite their concern about environmental risks.

Root cause 3: Pollution and mismanagement

- **Water and waste management refers to decision-making to sustainably meet the competing needs of water users.**
 - Without proper, effective, sustainable and equitable water, sanitation and waste management, water resources will become scarcer and/or polluted, and the needs of people, planet and industry will be met inequitably and unsustainably.
- **Women remain severely underrepresented in water management, increasing the chances that water management will ignore their priorities.**
 - In 2020, only 26 per cent of 170 countries had achieved high or very high levels of gender mainstreaming in water resources management and related laws and plans. While 24 per cent had made medium to high progress, 50 per cent had made very low, low or medium-low progress.^{xxviii}
 - In 2019, only 23.7 per cent of managers in large utility companies (with more than 200 employees) were women. In smaller utility companies, the share was even lower, 23.1 per cent.^{xxix}
 - Biased societal norms around women's ability to do technical jobs and lack of gender sensitive policies in the workplace are some of the barriers that inhibit the successful recruiting and retaining of women in the water sector.^{xxx}
 - These shortfalls have profound and lasting consequences, since sustainably and equitably managing water resources, particularly in the era of climate change, is essential for preserving life now and for generations to come.
 - Water projects that include women are six to seven times more effective than those that do not.^{xxxi}

4. Water justice for women and girls

- **Too many women still do not have access to safe water and safely managed sanitation, but there has been progress.**
 - As of 2022, more than one in every four women globally (27.1 per cent), or 1.07 billion, lack access to safely managed drinking water, down from over a third in 2000 (39.2 per cent). In 2023, coverage of safe drinking water services in Sub-Saharan Africa is just 31.3 percent.^{xxxii}
 - In contrast, between two thirds to three quarters of women in Central and Southern Asia (67.5 per cent), Latin America and the Caribbean (75.2 per cent) and Northern Africa and Western Asia (76.9 per cent) have access to safe drinking water. Coverage is nearly universal in Europe and Northern America (94.3 per cent).^{xxxiii}
 - Among the 1 billion women that lack access to safely managed drinking water globally in 2022, an estimated 205.1 million drink water from unimproved sources or surface water, down from 494.7 million in 2000, a 58.5 per cent decline. Projections indicate that 145.1 million women globally will rely on unimproved water sources or surface water by 2030 and 77.4 million by 2050. The share in sub-Saharan Africa is projected to account for around three fourths of the total by 2030 (107.3 million or 74 per cent) and close to 90 per cent in 2050 (68.5 million or 88.5 per cent).^{xxxiv}
 - As of 2022, more than four in every ten women globally (42.9 per cent) lack access to safely managed sanitation, down from almost seven in every ten in 2000 (67.7 per cent). During this 22-year period, the number of women lacking access to safely managed sanitation is estimated to have declined by 491 million, from 2.2 billion to 1.7 billion. In 2023, half or fewer than half of women in Sub-Saharan Africa (24.4 per cent), Latin American and the Caribbean (49.2 per cent), and Central and Southern Asia (50.8 per cent) enjoyed safely managed sanitation facilities, compared to over two thirds in Eastern and South-Eastern Asia (64.2 per cent), Northern Africa and Western Asia (64.5 per cent), Europe and Northern America (84.2 per cent), and Australia and New Zealand (95.8 per cent).^{xxxv}

- **Despite national-level improvements, sub-national access varies widely**, typically falling along the lines of much greater access in urban areas and among urban women, compared to rural areas and rural women, and among the richest compared to the poorest.
 - In Palau, for example, 96 per cent of urban residents had access to safely managed drinking water in 2020, compared to 70 per cent of rural counterparts.^{xxxvi}
 - In Mongolia, 47 per cent of Ulaanbaatar residents have access to piped water, compared to only 6 per cent of residents of Bayangovi.^{xxxvii}
 - In Brazil, 94 per cent of Sao Paulo residents have improved sanitation, compared to only 39 per cent of residents of Tocantins.^{xxxviii}
- **For women and girls from the poorest households, such disparities generally translate into more time collecting water.**
 - In Benin, 13 per cent of the population lives in households with water more than 30 minutes away (round trip). Among the poorest households, the share is higher; 23 per cent live half an hour or more away from the closest water sources compared to 3 per cent of the richest households.^{xxxix}
- **Women and girls at the intersection of compounding forms of socioeconomic inequality are among the most vulnerable to water poverty.**
 - Based on data from 93 low- and middle-income countries, income and location-based differentials in access to improved water sources range from less than 1 percentage point among women in Armenia, Belarus, Egypt, Jordan and Maldives, Montenegro, Serbia, Tonga, and Turkmenistan to 82 percentage points among women in the Democratic Republic of Congo, Madagascar and Sudan.^{xl}
 - In Kenya, 73.3 per cent of Kalenjin women from the poorest rural households lack access to improved water sources compared to less than 1 per cent of Kikuyu women from the richest urban households.
 - In Colombia, Guatemala and Mexico, access to piped water on premises is higher among non-Indigenous groups compared to Indigenous ones.^{xli}
- **Longitudinal data needed to assess change over time remains largely unavailable. Data that are available, however, point to divergent patterns.**
 - Based on a sample of 23 countries with data available from the early to the late 2000s, subnational disparities in access to improved water among the richest and the poorest decreased from 3.6 times to 1.6 times.^{xlii}
 - In South Africa, the gap between the rural poorest women and girls with the lowest access to improved water and sanitation and their richest urban counterparts with the highest access closed as access rates in rural areas caught up. But in five countries, including Benin, Ethiopia, Haiti, Malawi and Turkmenistan, access to improved sanitation among the poorest people remained barely unchanged.^{xliii}

5. Water gaps limit well-being, on many fronts

- **When safe drinking water is not available on premises, the burden of water collection and treatment largely falls on women and girls.**^{xliv}
 - A study of 24 countries in sub-Saharan Africa estimated that 3.4 million children (62 per cent female, 38 per cent male) and 13.5 million women spent more than 30 minutes a day fetching water.^{xlv}
 - In Iraq, which faces high water stress (79.5 per cent), and where 30 per cent of the rural population has no improved drinking water on premises, women spend up to three hours per day collecting water.^{xlvi}
 - Water collection heightens the risk of experiencing adverse physical and mental health outcomes such as musculoskeletal injury grows, particularly in the back and neck; accidental disability; and anxiety and stress from inadequate water access.^{xlvii}

- **The time spent collecting water hampers women and girls' ability to learn and, later in life, to equally access paid work.**
 - In rural Nepal, a one-hour increase in the time spent to collect water decreases girls' probability of completing primary school by about 17 percentage points.^{xlviii}
 - In Malawi, 62.3 per cent of women who must collect water outside their homes reported that they were not engaged in paid work, compared to 33.6 per cent of women with water available on premises.^{xlix}
- **The impact of the water crisis on women's livelihoods and economies is particularly acute in agriculture-dependent countries.**
 - Globally, roughly a quarter of employed women and men work in agriculture, forestry and fisheries in 2021 (25.4 per cent vs. 27.4 per cent, respectively). Women account for nearly 4 in 10 of those employed in these sectors (39.2 per cent), often working under precarious conditions.^l
 - Despite their significant contribution to agricultural production, women's access to land credit and essential inputs remains restricted. Available data show that rural women are less likely than rural men to report owning land alone or jointly in 37 out of 47 countries.^{li}
 - If women farmers had the same access to productive resources as men, they could increase yields by 20 to 30 per cent and total agricultural output by 2.5 to 4 per cent, lifting 100 million to 150 million people out of hunger.^{lii}
- **Since 2020, the impacts of climate change on the water cycle have converged with the COVID-19 pandemic and the ongoing war in Ukraine to exacerbate food insecurity.**
 - Moderate or severe food insecurity among women and girls aged 15 and above rose from 27.5 per cent in 2019 to 31.9 per cent in 2021. Among men, it increased from 25.7 per cent to 27.6 per cent during the same period, widening the gender gap from 1.8 to 4.3 percentage points.^{liii}
- **Globally, mortality and disease due to the lack of safe water disproportionately affects women.**^{liv}
 - Every year, an estimated 660,000 women lose their lives prematurely to unsafe water sources compared to 570,000 men. Over 9 in 10 female deaths due to lack of safe water occur in Central and Southern Asia (57.6 per cent) and sub-Saharan Africa (34.3 per cent).^{lv}
 - Contaminated water is associated with the transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio, all of which can be prevented with safely managed drinking water services.^{lvi} Moreover, drinking untreated or contaminated water can expose women to waterborne toxins, including heavy metals and chemicals.^{lvii}
- **A lack of improved water and sanitation facilities at home, school and work results in adverse health outcomes for women and girls, and also discourages adequate menstrual hygiene.**
 - According to a cross-national study covering 18 low- and middle-income countries, the percentage of women who lack handwashing facilities with soap and water on premises is above 80 per cent in Ethiopia, Mozambique, Nigeria and Uganda.^{lviii}
 - In 2021, 47 per cent of health facilities in the least developed countries lacked basic water services, including three in every four in Niger and Sierra Leone. 28 per cent of schools globally lacked improved, usable and single-sex sanitation services, and 42 per cent did not have handwashing facilities with water and soap. In the least developed countries, 51 per cent and 68 per cent of schools lacked such services, respectively.^{lix}
- **Intensifying competition for scarce water resources is leading to violence, conflict and other negative coping strategies.** Women in these settings face a higher probability of violence within and outside their households.^{lx}

- Case studies from East Africa suggest that when women are unable to provide water or do not complete other housework due to time spent fetching water, they are more likely to experience intimate partner violence.^{lxi}
- Survey data from eight countries in sub-Saharan Africa showed that people from households with internal conflicts over water walked on average 66 minutes to collect water, compared to 30 minutes for households without internal conflict.^{lxii}
- Destruction of water infrastructure increases travel times, exposing women to the threat of gender-based violence for longer periods and reducing time available for education, work and leisure.

6. Tracking progress on SDG 6 from a gender perspective

- **SDG 6 has 11 indicators, but none are gender-specific, making the goal, from a measurement perspective, gender-blind.**
 - The focus on access to water and sanitation at the household versus the individual level means that women and girls facing compounding forms of inequality in accessing water and sanitation, remain invisible.
 - Investments in data disaggregated by sex and other socioeconomic characteristics are essential.
- **Overall, large country-level data gaps remain in monitoring SDG indicators 6.1.1 and 6.2.1 and its components, particularly in low- and middle-income countries.**
 - In 2020, nearly 6 in 10 countries had data on access to safe drinking water services at the national level (59.1 per cent); a smaller share had such data available for rural (32.6 per cent) and urban residents (42.0 per cent).^{lxiii}
 - Data on components measured by censuses and household surveys, such as the use of an improved drinking water source and the accessibility of water on premises, are widely available at the national and subnational levels.
 - Data on components derived from administrative data, that is, from information collected by government or non-governmental organizations engaged in the delivery or oversight of services, are more limited.
- **The contextualization of existing SDG 6 data from a gender perspective, and the development of additional gender-relevant indicators for use at the national or regional levels, has been noted as both a challenge and an opportunity for a majority of the SDG 6 global indicators.**
 - Capturing the gender and water nexus for each SDG 6 global indicator can help in reducing gender inequalities and promote equal opportunities and benefits.
 - Initiatives such as the UN IMI-SDG 6 and UNESCO WWAP remain key to ensure a holistic and gender-sensitive monitoring of the water and sanitation agenda.

7. Conclusion

A way forward to achieve gender equality and sustainable water and sanitation for all

- **Our planet and its water resources are at breaking point, but it is not too late to secure a better and more sustainable future for all.**
 - A radically new approach is needed, one embodied by a feminist approach to the water crisis that links social justice with ecological and women's rights.
 - A shift is taking place with a growing number of countries across regions are adopting ecological rights and legal protections which recognize the right of nature and its resources to be protected from harm.^{lxiv}

- But unsustainable production and consumption patterns persist and the diverse voices of women needed to amplify this paradigm shift remain largely absent from the decision-making table.
- **To make matters worse, women are too commonly victimized and perceived as defenseless in the face of the global water crisis due to widespread gender-based discrimination.**
 - This inaccurate portrayal, however, ignores their power to drive collective action and transformational change.
- **Women, including those furthest behind, are turning their vulnerability into strength by rising up, organizing and demanding change, from the grassroots to the global levels, to push back on inequalities in access to drinking water and the destruction of water resources in their communities.**
 - Their efforts and those of feminist and women’s rights movements are paying off in the form of global and regional initiatives which have garnered widespread support and influence in seeking to advance gender equality and women’s empowerment in the water agenda.
- **Ultimately, however, women’s rights movements who have been instrumental in bringing these successful initiatives to life cannot singlehandedly shoulder all the responsibility for driving the required economic, social and environmental change.**
 - It is the duty of governments, in partnership with other stakeholders, to ensure that all women and men, girls and boys, and transgender and gender non-conforming persons can enjoy the right to safe drinking water and safely managed sanitation while protecting water ecosystems.

8. Recommendations

- **The set of evidence-based, action-oriented recommendations below seeks to ensure governments and other stakeholders drive transformative change at the national and local level for the wellbeing and prosperity of present and future generations:**
 1. Enact gender-responsive legal frameworks and institutions to protect and conserve water resources.
 2. Reverse unequal and unsustainable production and consumption patterns.
 3. Prioritize women and vulnerable populations in climate change adaptation and mitigation strategies.
 4. Tackle gender inequality and other forms of discrimination which exacerbate inequality in accessing safe drinking water and safely managed sanitation services.
 5. Promote women’s equal leadership in water governance and management.
 6. Bring the diverse perspectives of women activists in local, national and international decision-making into water governance, including those from marginalized communities.
 7. Prioritize safe drinking water and safely managed sanitation services in communities, schools and health centres.
 8. Accelerate partnership and cooperation, including through greater financial support.
 9. Invest in gender data to inform water and sanitation policy.

The report is live at the following SDG Spotlight Series link: <https://www.unwomen.org/en/digital-library/publications/2023/07/from-commodity-to-common-good-a-feminist-agenda-to-tackle-the-worlds-water-crisis>

Endnotes

ⁱ UNESCO and UN-Water, 2019.

ⁱⁱ *ibid*

ⁱⁱⁱ UN-Water, 2021a.

^{iv} UN, 2022.

^v Dennis and Bell, 2020.

^{vi} Kauffman, 2022.

^{vii} Target 6.5 tracks the implementation of integrated water resources management and calls for coordination and cooperation to balance competing water demands from across society and the economy, without compromising the sustainability of vital ecosystems (UN Water, 2021a).

^{viii} UN Water, 2021b.

^{ix} Because there is no international standard for collecting data on gender identity, the discrimination experienced by those who identify outside the gender binary is often invisible in available data; see UN Women, 2018. As discussed in the data section of this report, it is important to capture inequalities faced by diverse gender identities. Such analysis is beyond the scope of this paper, however, due to severe data gaps. Solidifying standards for measuring gender identity is an urgent and ongoing effort crucial to the proper monitoring of the SDGs.

^x UNGA, 2010.

^{xi} UNGA, 2015.

^{xii} In recent years, the global community has also recognized the need to focus on water availability in schools and health-care facilities and not households alone. Moreover, in addition to drinking water, there is greater recognition of water needs for others uses, including cooking, sanitation and basic hygiene. See General Comment No. 15: the Right of Water (Arts. 11 and 12 of the Covenant).

^{xiii} UN Women, 2018.

^{xiv} UN Committee on Economic, Social and Cultural Rights 2002.

^{xv} European Commission, 2023 and United Nations Population Division, 2022. Authors' calculations. Estimates are based on aggregate country-level assessments of physical exposure to floods. Flood risk however varies significantly within countries. The true number of women exposed to floods therefore may be lower than estimates shown here.

^{xvi} European Commission, 2023 and United Nations Population Division, 2022. Authors' calculations. Estimates are based on country-level assessments of physical exposure to tsunamis. Tsunami risk varies significantly within countries, therefore the number of women exposed to tsunamis may be lower than estimates shown here.

^{xvii} European Commission, 2023 and United Nations Population Division, 2022. Authors' calculations. Estimates are based on country-level assessments of physical exposure to tropical cyclones. Tropical cyclone risk varies significantly within countries, therefore the number of women exposed to tropical cyclones may be lower than estimates shown here.

^{xviii} European Commission, 2023 and United Nations Population Division, 2022. Authors' calculations. Estimates are based on country-level assessments of physical exposure to droughts. Drought risk varies significantly within countries; therefore, the number of women exposed to droughts may be lower than estimates shown here. Medium-variant population projections are used.

^{xix} OCHA, 2022; Davies, 2022.

^{xx} UNDP, n.d.

^{xxi} United Nations Global SDG Indicator Database, SDG indicator 6.4.2.

^{xxii} Authors' calculations using United Nations, 2022 and United Nations Population Division, 2022.

^{xxiii} Authors' calculations using the United Nations Global SDG Indicator Database, SDG indicator 6.4.2. Based on a sample of 240 countries and areas for the year 2019.

^{xxiv} FAO AQUASTAT, 2018.

^{xxv} UN Women calculations using UNDESA Population Division, 2022.

^{xxvi} Huang et al., 2021.

^{xxvii} UNESCO and UN-Water 2023.

^{xxviii} UN Women calculations from IWRM Data Portal for tracking SDG 6.5.1. Database on 2020 SDG 6.5.1 global assessment results.

^{xxix} UNCTAD, 2023.

- ^{xxx} World Bank, 2019.
- ^{xxxi} Deloitte, 2017.
- ^{xxxii} Authors' calculations using WHO and UNICEF, 2022 and United Nations Population Division, 2022.
- ^{xxxiii} Authors' calculations using WHO and UNICEF, 2022 and United Nations Population Division, 2022.
- ^{xxxiv} Authors' calculations using WHO and UNICEF, 2022 and United Nations Population Division, 2022.
- ^{xxxv} Authors' calculations using WHO and UNICEF, 2023 and United Nations Population Division, 2022. The Europe and Northern America regional aggregate is reflective of the diverse spread in average access to safely managed sanitation across countries, ranging from 61, 72 and 79 per cent of the population in the case of the Russian Federation, Ukraine, and Italy, respectively, to over 90 per cent in the case of the France, Spain, the United States and the United Kingdom.
- ^{xxxvi} WHO and UNICEF. 2022a. JMP Data Portal. Accessed 20 December 2022.
- ^{xxxvii} IHME n.d.
- ^{xxxviii} *ibid*
- ^{xxxix} Authors' calculations using Benin 2017 DHS. The DHS Program is funded by United States Agency for International Development (USAID). Based on data collected for women aged 15 to 49.
- ^{xl} Authors' calculations using DHS, 2011-2021 and Multiple Indicator Cluster Surveys, UNICEF 2012-2020
- ^{xli} Authors' calculations using DHS and MICS surveys for Colombia, Guatemala and Mexico, 2015-. Based on data collected for women aged 15 to 49.
- ^{xlii} ICF International various surveys (1997-2021). The DHS Program STATcompiler. The surveys for the first point in time range from 1997 to 2003 (early 2000s vintage) compared to a second point in ranging from 2015 to 2021 (late 2000s vintage).
- ^{xliii} ICF International various surveys (1997-2021). The DHS Program STATcompiler. The surveys for the first point in time range from 1997 to 2003 (early 2000s vintage) compared to a second point in ranging from 2015 to 2021 (late 2000s vintage)
- ^{xliv} UN Women, 2018.
- ^{xlv} Graham et al., 2016 cited in Dickin and Caretta 2022.
- ^{xlvi} Azcona et al., 2022.
- ^{xlvii} Geere et al., 2018. Geere, J.-A., Bartram, J., Bates, L., Danquah, L., Evans, B., Fisher, M. B., et al. (2018). Carrying water may be a major contributor to disability from musculoskeletal disorders in low income countries: a crosssectional survey in South Africa, Ghana and Vietnam.
- ^{xlviii} Dhital et al., 2022.
- ^{xlix} UN Women calculations from the DHS survey for Malawi 2015-16. Based on data collected for women aged 15 to 49.
- ^l UN Women calculations using ILO, 2023.
- ^{li} ICF International various surveys (2010 or later).
- ^{lii} WFP, 2021.
- ^{liii} UNDESA, 2022. Global SDG Indicators Database.
- ^{liv} IHME, 2020. [Global Burden of Disease 2019 Query Tool](#).[Global Burden of Disease 2019 Query Tool](#). Accessed 12 January 2023.
- ^{lv} IHME, 2020. Global Burden of Disease 2019 Query Tool.
- ^{lvi} WHO, 2022a.
- ^{lvii} Salam et al., 2021; Rehman et al. 2018.
- ^{lviii} Loughnan et al., 2016.
- ^{lix} WHO & UNICEF, 2022a.
- ^{lx} Abu et al., 2019.
- ^{lxi} Pommells, 2018.
- ^{lxii} Pearson et al., 2021.
- ^{lxiii} WHO and UNICEF, 2022.
- ^{lxiv} Chapron et al., 2019