



Water for All People

Equal Rights and Opportunities

The United Nations World Water Development Report 2026

Facts and figures

Increasing variability, declining water quality and unsustainable use are undermining freshwater availability.

Global surface and groundwater resources are under increasing stress from natural variability and anthropogenic pressures.

Renewable freshwater resources total approximately 43,000 km³/year, remaining broadly constant at the global scale (FAO, n.d.a).

Total global water withdrawals averaged around 4,000 km³/year (2010–2021), equivalent to about 10% of renewable freshwater resources (FAO, n.d.a).

Seasonal and inter-annual variability in water availability is increasing due to climate change (IPCC, 2022).

At least 50% of the world's population (or approximately 4 billion people) experience high water stress for at least one month per year (Kuzma et al., 2023).

Climate change impacts on water are most acute at local scales where storage and delivery infrastructure are insufficient (UNESCO/UN-Water, 2020).

Declining water quality is reducing effective freshwater availability and increasing treatment and delivery costs worldwide.

Only 56% of monitored water bodies globally have good ambient water quality (Sustainable Development Goal (SDG) Indicator 6.3.2; UN-Water, n.d.).

Agricultural runoff is the largest source of freshwater pollution globally, including in high-income countries (United Nations, 2023; 2024).

In low-income countries, poor water quality is strongly linked to inadequate or absent wastewater treatment (United Nations, 2023).

Overall water withdrawals have stabilized, but sectoral and regional demand patterns vary sharply across income levels and development pathways.

Agriculture accounts for 72% of withdrawals, followed by industry (15%) and municipal use (13%) (United Nations, 2025).

Agriculture accounts for about 90% of water use in low-income countries but only 44% in high-income countries, reflecting economic diversification (United Nations, 2025).

Urbanization in lower- and upper-middle-income countries is driving rising municipal water demand and competition with agriculture, especially in periurban areas (United Nations, 2023; 2024).

Industrial water demand has declined over the past two decades in middle- and high-income countries, suggesting efficiency gains (United Nations, 2025).

None of the SDG 6 targets are on track to be achieved by 2030.

As of 2024, 26% of the world's population lacked safely managed drinking water services and 41% lacked safely managed sanitation services (SDG Indicators 6.1.1 and 6.2.1a; UN-Water, n.d.).

Only 56% of domestic wastewater is safely treated worldwide (SDG Indicator 6.3.1; UN-Water, n.d.).

Integrated water resources management (IWRM) implementation stands at 57%, and only 59% of transboundary basin areas have operational co-operation arrangements (SDG Indicators 6.5.1 and 6.5.2; UN-Water, n.d.).

Access to drinking water, sanitation and hygiene (WASH) services is failing to keep pace with growing pressures, placing a disproportionate burden on women and girls.

Overall access to safely managed water and sanitation has improved, but significant gaps remain.

Between 2015 and 2024, 961 million people gained access to safely managed drinking water, increasing global coverage from 68% to 74%. Over the same period, 1.2 billion people gained access to safely managed sanitation, raising coverage from 48% to 58%. Despite this progress, as of 2024, 2.1 billion people still lacked safely managed drinking water, 3.4 billion lacked safely managed sanitation and 1.7 billion lacked basic hygiene services at home (WHO/UNICEF, 2025a).

Off-premises water access remains widespread and is primarily borne by women and girls.

An estimated 1.8 billion people live in households without water supplies on the premises, of whom around 700 million fetch water from improved or unimproved sources. In such households, women and girls are responsible for water collection in seven out of ten cases (UNICEF/WHO, 2023).

Gendered water collection burdens begin early and persist across the life course.

Girls aged under 15 years are more likely to fetch water than boys (7% versus 4%). In 2016, girls aged 5–9 years spent 30% more time on household chores than boys, equivalent to 40 million additional hours per day globally (UNICEF, 2016). Overall, women and girls spend about 250 million hours per day collecting water, reducing the time available for education, leisure and economic activities (UN Women, 2024a).

Household water management relies heavily on unpaid female labour.

Women disproportionately undertake unpaid or under-recognized labour, thus increasing their unpaid work burden (Cherukumilli et al., 2023).

Housing insecurity and affordability shape unequal access to water.

Women heads of household frequently face discriminatory practices, insecure tenure and limited financial resources, restricting access to housing and essential services (Chant and McIlwaine, 2015; SWA, 2021). People living in precarious housing and informal settlements consistently pay higher prices for water than people living in formal settlements (Hutton, 2012; Meehan et al., 2025).

WASH gaps in schools affect education and health outcomes.

Globally, 23% of schools lack basic drinking water services, 22% lack basic sanitation and 33% lack basic hygiene services. Achieving universal access by 2030 requires a twofold increase in water and sanitation coverage and a fourfold increase in the provision of hygiene services (UNICEF/WHO, 2024). Between 2016 and 2022, more than 10 million adolescent girls (15–19 years) across 41 countries reported missing school or activities during menstruation; only two out of five schools provide menstrual health education (UNICEF/WHO, 2024; UNICEF/UN Women/Plan International, 2025).

Inadequate WASH services affect health care quality and workers.

By 2018, 76% of births occurred in health care facilities, yet inadequate hygiene conditions continued to compromise care quality and utilization (Bouزيد et al., 2018). WASH services ranked among the top five maternal and reproductive health service demands of 1.2 million women in 2020 (WHO/UNICEF, 2020). Although women represent 70% of the total health workforce, only 78% of health care facilities in low- and middle-income countries (LMICs) have basic water services (ILO, 2017; UNICEF/WHO, 2024).

Water insecurity has physical and mental health impacts.

Water insecurity is associated with adverse physical and mental health outcomes, particularly in rural areas where women and girls are primary water collectors (UN Women, 2014; Jayaweera et al., 2022; United Nations, 2023). In 2020, 13% of households across 21 LMICs reported a water-fetching injury, with women more likely to be affected (Venkataraman et al., 2020). Water collection during pregnancy has been linked to reduced use of antenatal care (Geere et al., 2018).

Off-site access to water and sanitation is associated with increased safety risks.

Evidence has shown increased risks of sexual violence, harassment and rape when accessing water and sanitation, particularly in poorly lit or distant locations (Sorenson et al., 2011; Caruso et al., 2017; Gibbs et al., 2020). These risks have been under-reported due to stigma and fear of retaliation (Sommer et al., 2015; WHO, 2024). Documented cases of coerced sex for water services have been linked to unequal gender norms, insufficient infrastructure and high water prices (MacArthur et al., 2020; Merkle et al., 2023; WIN, 2024).

Displacement exacerbates WASH risks, with emerging institutional frameworks seeking to manage these risks more systematically.

Refugees and internally displaced people face severe and underdocumented WASH challenges, including exposure to waterborne diseases due to disrupted services (MSF, 2023).

Unequal access to water sources for productive uses constrains women's livelihoods and household food security.

Women play a central role in agrifood systems, but face persistent wage and power gaps.

As of 2019, agrifood systems employed 36% of working women and 38% of working men globally. Despite women's central role, women earned 18.4% less than men in wage employment in agriculture in 2023 (FAO, 2023).

Women's land and water rights remain weakly protected in many countries.

In 2018, fewer than 15% of agricultural landholders were women (FAO, 2018). Between 2009 and 2023, in 43 of 49 reporting countries, fewer women than men owned agricultural land, with men holding at least twice the ownership share in nearly half of those countries (FAO, 2025a).

Unequal access to water and services drives significant productivity gaps.

In 2023, the productivity gap between female- and male-managed farms of the same size was estimated at 24%, largely due to unequal access to water, technology, credit and extension services (FAO, 2023). Evidence shows women manage a smaller share of irrigated land and operate smaller irrigated holdings than men (FAO, n.d.b).

Women remain under-represented in agricultural water governance.

As of 2023, only 27% of 191 countries reported high levels of women's representation or regular consultation in water governance processes (UNEP-DHI/GWP/UN Women, 2025), including water user associations (WUAs), river basin organizations and irrigation committees.

Irrigation projects targeting women have delivered high returns.

For women receiving targeted support, improved access to water for irrigation has increased crop yields by up to 60% and strengthened economic independence (World Bank, 2024).

Women are widely represented in the global workforce but remain under-represented in water services sectors.

Women account for 40% of the global workforce, with 24% employed in industry (World Bank, n.d.). Despite this, women's participation in water-related industrial services remains limited: in 2018–2019, women represented only 17.7% of employees in water utilities worldwide (World Bank, 2019).

Across regions, water challenges vary, requiring context-specific, gender-responsive responses.

Water underpins Africa's economy, particularly through agriculture as the dominant water user, yet widespread water scarcity and limited WASH access remain.

In 2021, 79% of Africa's freshwater withdrawals were used by agriculture, a sector employing over 45% of the workforce and highly dependent on rainfall and groundwater (FAO, 2025b; n.d.c).

In 2024, the estimated rates of access to basic water services and basic sanitation were 58% and 47%, respectively (WHO/UNICEF, 2024). Poor sanitation, hygiene and contaminated water are linked to approximately 115 deaths per hour across Africa (WHO, n.d.).

Inadequate water access imposes a large time burden on women, especially in rural areas, which could save women the equivalent of 77 million working days per year (WaterAid, 2023). This burden is particularly acute in rural areas, where 80% of households were reported to rely on distant water sources in 2019 (UNICEF/WHO, 2019).

Policy commitments to gender-equitable water governance outpace implementation.

The Africa Water Vision 2025 identified gender equity as central to water security (African Union/ECA/AfDB, 2000). However, progress remains limited: in 2022, fewer than 30% of African countries had integrated gender targets into national water policies (AMCOW/African Union, 2022). Persistent gaps in legal and institutional frameworks, including the absence of gender-specific provisions in national laws, constrain progress (RRI/ELI, 2020).

Climate variability and ecosystem degradation intensify water insecurity with gendered impacts.

In Sub-Saharan Africa, erratic rainfall and prolonged droughts are increasing, thus exacerbating water scarcity. The degradation of wetlands and forests can undermine people's ability to secure household water and food, which disproportionately affects women as they have the main responsibility for these tasks (UN Women, 2023). Governance challenges and resource constraints, particularly in fragile states, further limit effective climate adaptation and water management.

Digital and skills gaps constrain women's participation in water and climate solutions in Africa.

Digital inclusion remains a major gender challenge in Africa: for every 100 men with spreadsheet skills, only 40–44 women demonstrate comparable proficiency, and less than one in three graduates in science, technology, engineering and mathematics (STEM) in Sub-Saharan Africa are women (UNESCO, 2024).

Financing shortfalls limit progress towards WASH and gender-responsive water outcomes.

Achieving WASH-related objectives in Sub-Saharan Africa requires an estimated US\$64 billion per year, yet actual annual investments range between US\$10 billion and US\$19 billion (African Union, 2023). Water tariffs remain below cost-recovery levels, with less than half of African countries recovering more than 80% of WASH operation and maintenance costs through tariffs. The sector attracts limited private finance, accounting for only 2% of private investment in Africa between 2012 and 2020 (Farnault and Sarr, 2024).

Asia and the Pacific region contains some of the world's most climate-vulnerable areas, with women disproportionately affected by water-related disasters.

Women's mortality was 61% of deaths during Cyclone *Nargis* in Myanmar (2008), 70–80% during the 2004 Indian Ocean tsunami in parts of India and Indonesia, and 91% during the 1991 cyclone in Bangladesh (UNDP, 2013).

Access to safe water has improved for women in much of Asia, but not in Pacific small island developing states (SIDS).

In Central Asia, the number of women and girls lacking access to improved surface water sources declined from 107 million in 2000 to 61 million in 2015 and to 31 million in 2022. In East and Southeast Asia, the number fell from 188 million in 2000 to 73 million in 2015 and 30 million in 2022. In contrast, in Pacific SIDS, the number remained at 2 million between 2000 and 2015 and increased to 3 million in 2022 (UN Women/DESA, 2023).

In Central, South and Southwest Asia, 24% of the population relies on off-premises water collection, and women and adolescent girls account for more than two-thirds of the time spent on water collection. Across several countries in the region, women and girls travel longer distances and spend more time collecting water than men (ESCAP/UN Women, 2024).

Access to adequate WASH services in schools remains a critical development challenge in Latin America and the Caribbean.

Inadequate WASH services in schools undermine the health, dignity and learning outcomes of millions of children in Latin America and the Caribbean: one in four schools lacks basic drinking water, and nearly two in five lack handwashing facilities, affecting up to 59 million students across the region (UNICEF, 2025).

Europe has near-universal water access, yet gender disparities persist within the water sector.

Despite near-universal access to water supply and sanitation in Europe, gender-based disparities remain embedded across governance, knowledge systems, financing and participation in the water sector (Crider and Ray, 2022; UNICEF/WHO, 2023).

Eastern and Southern Europe have experienced intensified drought cycles with impacts on smallholder agriculture. In the Mediterranean region, studies have shown that water-saving irrigation programmes disproportionately benefited male-led commercial farms, while women were excluded from consultations and financing mechanisms (Minoia, 2007).

The Arab region faces severe water scarcity and persistent gaps in WASH services that undermine education and daily life, yet women's participation in water resources management (WRM) and governance remains low.

The Arab region is one of the most water-scarce regions, with 19 of 22 Arab states meeting official definitions of water scarcity and 13 states meeting definitions of absolute water scarcity (ESCWA, 2024).

An estimated 15% of schools in the Arab region have limited or no access to water, while 18% lack basic sanitation services (WHO/UNICEF, n.d.), with implications for health, education and participation.

Between 2020 and 2024, women graduated at lower rates than men in STEM fields in Arab states – disciplines most relevant to water management and

WASH (UIS, n.d.). A 2021 study found that these education gaps are reflected in workplace representation within the water sector (Afailal et al., 2021).

One report covering 19 countries in the Arab region found that gender mainstreaming in IWRM was limited, with few of the countries systematically reviewing or revising gender-related activities and outcomes through accountability mechanisms (ESCWA/UNEP-DHI, 2025).

Persistent gaps in sex-disaggregated data and unequal access to relevant education and training continue to constrain evidence-based, gender-responsive water policies.

Sex-disaggregated water data remain scarce and fragmented.

Data on water access and water-related work are limited, and, when available, have often been collected at the household level, masking gender differences (Miletto et al., 2019; Caruso, 2023). Case studies from multiple countries show that disaggregating data by sex improves the targeting and effectiveness of WASH services (Nauges and Strand, 2017; Silva et al., 2020; Winter et al., 2021).

In water resources management (WRM), the largest data gaps concern women's agricultural labour and access to irrigation. A 2016 study that disaggregated agricultural yields by women's and men's plots estimated yield gaps of 20–30% in LMICs (FAO, 2016).

International tools for gender-responsive water data are increasingly available.

United Nations agencies have developed and tested multiple tools for sex-disaggregated water data collection. These include the Food and Agriculture Organization's AQUASTAT, the Department of Economic and Social Affairs' minimum set of gender-sensitive indicators, the *UNESCO WWAP Toolkit on Sex-Disaggregated Water Data* and UN-Water's SDG 6 gender indicators framework, piloted across Africa, Asia and Latin America (Miletto et al., 2019; DESA, 2020; UN-Water, 2023; FAO, n.d.d.).

Collecting sex-disaggregated data, delivering training and supporting professional development require targeted resources.

Meaningful progress has been made in basic schooling, creating a strong foundation for reducing remaining education gaps, including in STEM education.

While enrolment in primary and secondary education has improved globally, girls still lag behind boys in secondary school completion in low-income regions: 36% versus 41% in South Asia and 25% versus 31% in Sub-Saharan Africa in 2022 (Sosale et al., 2023; UNESCO GEM Report/UIS, 2024).

For 87% of countries reporting STEM enrolment data, gender gaps are already visible at the secondary education level (Straza, 2024). Women are less likely than men to enrol in engineering, manufacturing and construction, contributing to their low representation in water management and governance roles (UNESCO WWAP, 2021; Straza, 2024).

Institutionalized technical and vocational education and training and non-formal water-related training programmes provide alternative pathways for skills development. In one programme in Mexico, women accounted for 40% of participants in 2024 (9,675), indicating increasing women's participation in structured training.¹

¹ Informed by Asociación Nacional de Entidades de Agua y Saneamiento Director-General, July 2025, personal communication.

Despite being most affected, women remain under-represented in water management and governance, limiting their influence over key decisions.

The global water sector has a significant opportunity to advance inclusion and performance by expanding women's participation in technical and leadership roles.

Data from 64 utilities in 28 LMICs have highlighted significant opportunities to expand women's participation and leadership in the water workforce (World Bank, 2019). While women represented less than one in five water workers and a global gender pay gap of about 20% persisted as of 2019 (ILO, 2019), many utilities are recognizing the value of diverse teams. Notably, increasing the presence of women engineers and managers, who were absent in one-third and 12% of utilities, respectively (World Bank, 2019), offers a clear pathway to strengthen performance, innovation and gender equality across the sector.

There is growing recognition worldwide of the need to strengthen gender mainstreaming in water governance to build more inclusive and effective decision-making systems.

Under SDG Indicator 6.5.1, global average scores for gender mainstreaming in IWRM laws, policies and plans increased from 54% in 2020 to 58% in 2023. However, only 27% of countries reported achieving gender objectives, while 15% had no gender mainstreaming mechanisms, and 31% reported limited implementation, budgeting or monitoring (UNEP-DHI/GWP/UN Women, 2025).

Most national water policies explicitly aim to reach women and girls, and there is increasing momentum to strengthen these commitments, with countries progressively expanding monitoring mechanisms and dedicated financing to ensure services are effectively delivered (WHO, 2022).

In 2021–2022, women held less than half of WASH positions in government jobs in 79 of 109 countries and less than 10% in nearly one-quarter of countries (WHO, 2022). A survey of 173 water organizations in developing countries found women represented 36% of junior staff and 38% of mid-level staff, but only 26% of leadership positions (Oluwasanya et al., 2024).

Studies have shown that low levels of women's leadership in irrigation WUAs are associated with ineffective management, weak equity and lower sustainability (Imburgia et al., 2020).

Analysis of SDG Indicator 6.5.2 shows that only 19% of river basins include equality and inclusion objectives, and only 15% include gender-related tasks in joint bodies. Women's organizations hold observer status in 10% of river basins and advisory roles in 8%, indicating limited institutional inclusion (UNECE/UNESCO/UN-Water, 2024).

Gender quotas and leadership are delivering measurable gains in women's representation and governance outcomes.

The application of gender quotas in governance has been linked to improved equity and sustainability (ECOSOC, 2022; 2025). The proportion of women serving as heads of environmental ministries increased to 28% by January 2024, up from 15% in 2020 and 12% in 2015 (IUCN, 2021; UN Women, 2024b).

Addressing persistent underfunding through more efficient and gender-responsive water investments is essential to advancing gender equality.

There is substantial opportunity to increase global water investments to match rising needs and unlock wide-ranging social, economic and environmental benefits.

In 2022, global investment in water infrastructure and management was approximately US\$300 billion per year, against an estimated financing gap of US\$700 billion annually to achieve water security by 2030 (OECD, 2022). If investment rates do not increase, cumulative financing needs for water-related infrastructure are projected to reach US\$6.7 trillion by 2030 and US\$22.6 trillion by 2050 (Khemka et al., 2023; Voegele et al., 2024). The largest shortfalls are concentrated in Sub-Saharan Africa and South Asia, where access to safely managed water and sanitation remains lowest (UNICEF/WHO, 2023).

Strengthening traditional funding sources and improving utility efficiency offers significant potential to meet growing sector needs.

Tariffs, taxes and transfers remain the main funding sources for water services, but are generally insufficient to meet investment needs. Water utilities experience financial losses linked to inefficiencies, estimated at around 15% of total operating costs. Reductions in public budgets can increase unpaid water-related labour, which is disproportionately borne by women (Joseph et al., 2024).

Water investments generate high economic returns.

A 2014 global estimate found that every US\$1 invested in the water sector generated returns of approximately US\$4.3, through reduced health care costs, lower pollution levels and increased school attendance (WHO/UN-Water, 2014).

Official development assistance (ODA) for water has declined, but donor practices increasingly require the integration and reporting of gender objectives.

Commitments of ODA for water supply and sanitation declined by 9% between 2022 and 2023. However, the share of water and sanitation ODA marked as having a significant gender equality objective has increased steadily, to 35% in 2023 (WHO/UNICEF, 2025b).

Private finance plays a limited but growing role in water investment.

In response to fiscal pressures and declining ODA, attention has shifted towards mobilizing private capital. In 2017, 9% of water supply and sanitation infrastructure investment was financed through public-private partnerships (Joseph et al., 2024). For small-scale systems such as irrigation and community wastewater treatment, microfinance and retail banking have been identified as relevant financing channels (Khemka et al., 2023).

There is growing opportunity to integrate gender considerations into water financing frameworks, enhancing equity and investment effectiveness.

A review of national water resources plans found that in 2015, only 16% explicitly identified women as key stakeholders or primary participants in climate adaptation (Fletcher and Schonewille, 2015). Even in regions with relatively low financing gaps, such as Latin America, gendered WASH burdens remain high, indicating misalignment between investment levels and gender-targeted outcomes (UNICEF/WHO, 2023; Joseph et al., 2024).

There is increasing recognition that governance failures reduce the effectiveness of water financing.

Corruption and misallocation of funds have constrained the impact of WASH investments. Evidence shows that earmarked WASH funds have been embezzled or diverted in some contexts, contributing to persistent service gaps (Ohwo, 2019). These failures often increase unpaid compensation burdens at the household level.

Participatory and gender-responsive financing shows measurable performance gains.

In 2024, 90% of investors applying a gender-responsive investment strategy reported meeting or exceeding financial expectations, with 51% also reporting strong impact outcomes (Hand et al., 2024).

Gender-targeted microfinance has reached scale in water access.

Water.org's WaterCredit Initiative, implemented between 2004 and 2021, supported over 30 million people across 13 countries, with 87% of beneficiaries being women, through gender-targeted microloans for water and sanitation access (Damon and White, 2021).

Gender-responsive financing is becoming increasingly embedded in multilateral instruments.

The Green Climate Fund requires gender assessments for all adaptation projects. The Global Environment Facility has strengthened requirements for gender-responsive indicators and capacity development across project cycles (GCF, n.d.; GEF IW:LEARN/UNESCO WWAP, forthcoming). Results-based financing instruments, including those supported by the World Bank, increasingly embed gender-specific targets in water and sanitation projects.

References

- Afai, C., Brouma, A., Carmi, N., Al Sayegh, M., Sileet, T. M. and Zoubi, M. 2021. *Empowering Women in Water Diplomacy in the Middle East and North Africa: A Comparative Study of Egypt, Jordan, Lebanon, Morocco and Palestine*. Global Water Partnership – Mediterranean/Geneva Water Hub. www.genevawaterhub.org/resources/comparative-study-empowering-women-water-diplomacy-middle-east-and-north-africa-mena.
- African Union. 2023. *Africa's Rising Investment Tide: How to Mobilize USD30 Billion/Year to Achieve Water Security and Sustainable Sanitation in Africa*. South Africa, International High-Level Panel on Water Investments for Africa. <https://aipwater.org/wp-content/uploads/2024/03/Africas-Rising-Investment-Tide-2024.pdf>.
- African Union/ECA/AfDB (African Union/Economic Commission for Africa/African Development Bank). 2000. *The Africa Water Vision 2025: Equitable and Sustainable Use of Water for Socioeconomic Development*. Nairobi, ECA. <https://hdl.handle.net/10855/5488>.
- AMCOW/African Union (African Ministerial Council on Water/ African Union). 2022. *2022 Africa Water and Sanitation Report: Leveraging Partnerships for Assuring Sustainable Water Availability for All Purposes*. Abuja, AMCOW. <https://knowledgehub.amcow-online.org/library/download/2022-africa-water-and-sanitation-report-leveraging-partnerships-for-assuring-sustainable-water-availability-for-all-purposes>.
- Bouzi, M., Cumming, O. and Hunter, P. R. 2018. What is the impact of water sanitation and hygiene in healthcare facilities on care seeking behaviour and patient satisfaction? A systematic review of evidence from low-income and middle-income countries. *BMJ Global Health*, Vol. 3, No. 3, Article e000648. doi.org/10.1136/bmjgh-2017-000648.
- Caruso, B. A. 2023. Water is life, particularly for women. *Nature Water*, Vol. 1, No. 124. doi.org/10.1038/s44221-023-00035-2.
- Caruso, B. A., Clasen, T., Yount, K. M., Cooper, H. L., Hadley, C. and Haardörfer, R. 2017. Assessing women's negative sanitation experiences and concerns: The development of a novel sanitation insecurity measure. *International Journal of Environmental Research and Public Health*, Vol. 14, No. 7, Article 755. doi.org/10.3390/ijerph14070755.
- Chant, S. and McIlwaine, C. 2015. *Cities, Slums and Gender in the Global South: Towards a Feminised Urban Future*. First edition. London, Routledge. doi.org/10.4324/9781315862996.

- Cherukumilli, K., Ray, I. and Pickering, A. J. 2023. Evaluating the hidden costs of drinking water treatment technologies. *Nature Water*, Vol. 1, pp. 319–327. Oxford University Press. doi.org/10.1038/s44221-023-00055-y.
- Crider, Y. S. and Ray, I. 2022. *Water and Development: A Gender Perspective*. Oxford Research Encyclopedia of Environmental Science. doi.org/10.1093/acrefore/9780199389414.013.685.
- Damon, M. and White, G. 2021. Matt Damon and Gary White: Invest in Women to Solve the Water and Sanitation Crisis. Fortune website. <https://fortune.com/2021/04/27/matt-damon-women-water-sanitation-crisis/>. (Accessed on 14 August 2025.)
- DESA (United Nations Department of Economic and Social Affairs). 2020. *The World's Women 2020: Trends and Statistics*. DESA website. www.un.org/en/desa/world%E2%80%99s-women-2020.
- ECOSOC (United Nations Economic and Social Council). 2022. Achieving gender equality and the empowerment of all women and girls in the context of climate change, environmental and disaster risk reduction policies and programmes. Report of the Secretary-General. Sixty-sixth session, 14–25 March 2022, E/CN.6/2022/3. <https://docs.un.org/en/E/CN.6/2022/3>.
- . 2025. Review and appraisal of the implementation of the Beijing Declaration and Platform for Action and the outcomes of the twenty-third special session of the General Assembly. Report of the Secretary-General. Sixty-ninth session, 10–21 March 2025, E/CN.6/2025/3. <https://docs.un.org/en/E/CN.6/2025/3>.
- ESCAP/UN Women (Economic and Social Commission for Asia and the Pacific/United Nations Entity for Gender Equality and the Empowerment of Women). 2024. *Charting New Paths for Gender Equality and Empowerment: Asia-Pacific Regional Report on Beijing+ 30 Review*. United Nations. <https://asiapacific.unwomen.org/en/digital-library/publications/2024/11/charting-new-paths-for-gender-equality-and-empowerment-asia-pacific-regional-report-on-beijing30-review>.
- ESCWA (United Nations Economic and Social Commission for Western Asia). 2024. *The Water Action Decade (2018–2028): Midterm Review in the Arab Region*. ESCWA Water Development Report 10. Beirut, United Nations. www.unescwa.org/sites/default/files/pubs/pdf/escwa-water-development-report-10-english_0.pdf.
- ESCWA/UNEP-DHI (United Nations Economic and Social Commission for Western Asia/United Nations Environment Programme-Danish Hydraulic Institute Centre on Water and Environment). 2025. *2024 Progress Report on the Implementation of Integrated Water Resources Management in the Arab Region: Midterm Status of Sustainable Development Goal Indicator 6.5.1*. Beirut, United Nations. www.unescwa.org/sites/default/files/pubs/pdf/2024-progress-report-implementation-integrated-water-resources-management-arab-region-english.pdf.
- FAO (Food and Agriculture Organization of the United Nations). 2016. *How Can Women Control Water? Increase Agriculture Productivity and Strengthen Resource Management*. Rome, FAO. <https://openknowledge.fao.org/server/api/core/bitstreams/4c96a466-44ab-4513-a36b-5935237ac4e5/content>.
- . 2018. *The Gender Gap in Land Rights*. Policy Brief. Rome, FAO. www.fao.org/3/i8796en/I8796EN.pdf.
- . 2023. *The Status of Women in Agrifood Systems*. Rome, FAO. doi.org/10.4060/cc5343en.
- . 2025a. *Tracking Progress on Food and Agriculture-Related SDG Indicators 2025*. Rome, FAO. doi.org/10.4060/cd5832en.
- . 2025b. *Employment Indicators 2000–2023 – July 2025 Update*. FAOSTAT Analytical Briefs, No. 110. Rome, FAO. doi.org/10.4060/cd5821en.
- . n.d.a. AQUASTAT – FAO's Global Information System on Water and Agriculture. FAO website. <https://data.apps.fao.org/aquastat/?lang=en>. (Accessed on 2 December 2025.)
- . n.d.b. AQUASTAT – FAO's Global Information System on Water and Agriculture. National Data. FAO website. www.fao.org/aquastat/en/data-analysis/water-gender/national-data. (Accessed on 7 October 2025.)
- . n.d.c. Annual Freshwater Withdrawals, Agriculture (% of Total Freshwater Withdrawal) – Sub-Saharan Africa. AQUASTAT – FAO's Global Information System on Water and Agriculture. FAO website. <https://data.apps.fao.org/aquastat/?lang=en>. (Accessed on 7 November 2025.)
- . n.d.d. AQUASTAT – FAO's Global Information System on Water and Agriculture. Case Study. FAO website. www.fao.org/aquastat/en/data-analysis/water-gender/case-study.
- Farnault, A. and Sarr, K. 2024. *Diversifying Sources of Finance for Water in Africa*. Organisation for Economic Co-operation and Development (OECD) Environment Working Papers, No. 248. Paris, OECD Publishing. doi.org/10.1787/114791fd-en.
- Fletcher, A. and Schonewille, R. 2015. *Overview of Resources on Gender-Sensitive Data Related to Water*. Gender and Water Series. World Water Assessment Programme. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). <https://unesdoc.unesco.org/ark:/48223/pf0000235389>.

- GCF (Green Climate Fund). n.d. Gender. GCF website. www.greenclimate.fund/projects/sustainability-inclusion/gender.
- Geere, J. L., Cortobius, M., Geere, J. H., Hammer, C. C. and Hunter, P. R. 2018. Is water carriage associated with the water carrier's health? A systematic review of quantitative and qualitative evidence. *BMJ Global Health*, Vol. 3, Article e000764. doi.org/10.1136/bmjgh-2018-000764.
- GEF IW:LEARN/UNESCO WWAP (Global Environment Facility's International Waters Learning Exchange and Resource Network/United Nations Educational, Scientific and Cultural Organization World Water Assessment Programme). Forthcoming. *How to Integrate Gender Equality, Women's Empowerment and Inclusion in GEF IW Projects*.
- Gibbs, A., Reddy, T., Khanyile, D. and Cawood, C. 2020. Non-partner sexual violence experience and toilet type amongst young (18–24) women in South Africa: A population-based cross-sectional analysis. *Global Public Health*, Vol. 16, No. 4, pp. 590–596. doi.org/10.1080/17441692.2020.1813787.
- Hand, D., Sunderji, S., Ulanow, M., Remsberg, R. and Xiao, K. 2024. *In Focus: Gender and Impact Investing in 2024*. Global Impact Investing Network (GIIN). <https://thegiin.org/publication/research/in-focus-gender-and-impact-investing-in-2024>.
- Hutton, G. 2012. *Monitoring "Affordability" of Water and Sanitation Services After 2015: Review of Global Indicator Options*. A paper submitted to the United Nations Office of the High Commission for Human Rights. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. <https://washdata.org/sites/default/files/documents/reports/2017-07/Hutton-2012-monitoring-affordability-of-water-and-sanitation-services.pdf>.
- ILO (International Labour Organization). 2017. *Improving Employment and Working Conditions in Health Services*. Report for discussion at the Tripartite Meeting on Improving Employment and Working Conditions in Health Services, Geneva, 24–28 April 2017. Geneva, ILO. www.ilo.org/publications/improving-employment-and-working-conditions-health-services.
- . 2019. *A Quantum Leap for Gender Equality: For a Better Future of Work for All*. Geneva, ILO. www.ilo.org/publications/major-publications/quantum-leap-gender-equality-better-future-work-all.
- Imburgia, L., Osbahr, H., Cardey, S. and Momsen, J. 2020. Inclusive participation, self-governance, and sustainability: Current challenges and opportunities for women in leadership of communal irrigation systems. *Environment and Planning E: Nature and Space*, Vol. 4, No. 3, pp. 886–914. doi.org/10.1177/2514848620934717.
- IPCC (Intergovernmental Panel on Climate Change). 2022. *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK/New York, USA, Cambridge University Press. doi.org/10.1017/9781009325844.
- IUCN (International Union for the Conservation of Nature). 2021. *New Data Reveals Slow Progress in Achieving Gender Equality in Environmental Decision Making*. IUCN website, 1 March 2021. <https://iucn.org/news/gender/202103/new-data-reveals-slow-progress-achieving-gender-equality-environmental-decision-making>.
- Jayaweera, R. T., Goin, D., Twine, R., Neilands, T. B., Wagner, R. G., Lippman, S. A., Kahn, K., Pettifor, A. and Ahern, J. 2022. Associations between WASH-related violence and depressive symptoms in adolescent girls and young women in South Africa (HPTN 068): A cross-sectional analysis. *BMJ Open*, Vol. 12, No. 7. doi.org/10.1136/bmjopen-2022-061032.
- Joseph, G., Hoo, Y. R., Wang, Q., Bahuguna, A. and Andres, L. A. 2024. *Funding a Water-Secure Future: An Assessment of Global Public Spending*. Washington DC, World Bank. <https://documents1.worldbank.org/curated/en/099050624154572979/pdf/P172944-00adb1e8-ccd1-4542-88ab-d289e7f2f00b.pdf>.
- Khemka, R., Lopez, P. and Jensen, O. 2023. *Scaling Up Finance for Water: A WBG Strategic Framework and Roadmap for Action*. Washington DC, World Bank. doi.org/10.1596/40225.
- Kuzma, S., Saccoccia, L. and Chertock, M. 2023. 25 Countries, Housing One-Quarter of the Population, Face Extremely High Water Stress. World Resources Institute website. www.wri.org/insights/highest-water-stressed-countries.
- MacArthur, J., Carrard, N. and Willetts, J. 2020. WASH and gender: A critical review of the literature and implications for gender-transformative WASH research. *Journal of Water, Sanitation and Hygiene for Development*, Vol. 10, No. 4, pp. 818–827. doi.org/10.2166/washdev.2020.232.
- Meehan, K., Jurjevich, J. R., Everitt, L., Chun, N. M. J. W. and Sherrill, J. 2025. Urban inequality, the housing crisis and deteriorating water access in US cities. *Nature Cities*, Vol. 2, No. 1, pp. 93–103. doi.org/10.1038/s44284-024-00180-z.
- Merkle, O., Allakulov, U., Gonzalez, D., Sánchez, A. H., Rabbi, S. E. and Hasan, Z. 2023. When vulnerabilities are exploited—The role of sextortion in the WASH sector in Bangladesh. *Frontiers in Water*, Vol. 5, Article 1048594. doi.org/10.3389/frwa.2023.1048594.
- Miletto, M., Pangare, V. and Thuy, L. 2019. *Tool 1 – Gender-Responsive Indicators for Water Assessment, Monitoring and*

- Reporting. UNESCO WWAP Toolkit on Sex-Disaggregated Water Data. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). <https://unesdoc.unesco.org/ark:/48223/pf00000367971>.
- Minoia, G. 2007. Gender issue and water management in the Mediterranean basin, Middle East and North Africa. FEEM Working Paper No. 49. *SSRN Electronic Journal*, January. doi.org/10.2139/ssrn.984472.
- MSF (Médecins Sans Frontières). 2023. Kenya's Dadaab Refugee Camps are on the Brink of a Health Catastrophe. MSF website. www.doctorswithoutborders.org/latest/kenyas-dadaab-refugee-camps-brink-health-catastrophe.
- Nauges, C. and Strand, J. 2017. Water hauling and girls' school attendance: Some new evidence from Ghana. *Environmental and Resource Economics*, Vol. 66, pp. 65–88. doi.org/10.1007/s10640-015-9938-5.
- OECD (Organisation for Economic Co-operation and Development). 2022. *Financing a Water Secure Future*. OECD Studies on Water. Paris, OECD Publishing. doi.org/10.1787/a2ecb261-en.
- Ohwo, O. 2019. Dimensions of inequality in urban and rural water, sanitation and hygiene services in Sub-Saharan Africa. *European Scientific Journal*, Vol. 15, No. 8, pp. 144–162. doi.org/10.19044/esj.2019.v15n8p144.
- Oluwasanya, G., Omoniyi, A., Qadir, M. and Madani, K. 2024. Quantifying women in the water workforce. *Nature Water*, Vol. 2, pp. 805–806. doi.org/10.1038/s44221-024-00308-4.
- RRI/ELI (Rights and Resources Initiative/Environmental Law Institute). 2020. *Whose Water: A Comparative Analysis of National Laws and Regulations Recognizing Indigenous Peoples', Afro-Descendants', and Local Communities' Water Tenure*. Washington DC, RRI/ELI. <https://rightsandresources.org/wp-content/uploads/2020/02/WhoseWater.pdf>.
- Silva, B. B., Sales, B., Lanza, A. C., Heller, L. and Rezende, S. 2020. Water and sanitation are not gender-neutral: Human rights in rural Brazilian communities. *Water Policy*, Vol. 22, No. 1, pp. 102–120. doi.org/10.2166/wp.2020.126.
- Sommer, M., Ferron, S., Cavill, S. and House, S. 2015. Violence, gender and wash: Spurring action on a complex, under-documented and sensitive topic. *Environment & Urbanization*, Vol. 27, pp. 105–116. doi.org/10.1177/0956247814564528.
- Sorenson, S. B., Morssink, C. and Campos, P. A. 2011. Safe access to safe water in low income countries: Water fetching in current times. *Social Science & Medicine*, Vol. 72, No. 9, pp. 1522–1526. doi.org/10.1016/j.socscimed.2011.03.010.
- Sosale, S., Harrison, G. M., Tognatta, N., Nakata, S. and Gala, P. M. 2023. *Engendering Access to STEM Education and Careers in South Asia* [S. Brown and P. Holtz (eds)]. South Asia Development Forum. World Bank. <http://hdl.handle.net/10986/39486>.
- Straza, T. 2024. *Changing the Equation: Securing STEM Futures for Women*. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). <https://unesdoc.unesco.org/ark:/48223/pf00000391384>.
- SWA (Sanitation and Water for All). 2021. *Strengthening Gender Equality in Access to Water, Sanitation and Hygiene*. SWA Briefing Paper. www.sanitationandwaterforall.org/sites/default/files/2021-04/SWA%20Briefing%20Paper%20-%20WASH%20and%20gender_FINAL.pdf.
- UIS (United Nations Educational, Scientific and Cultural Organization Institute for Statistics). n.d. Percentage of Graduates from Science, Technology, Engineering, and Mathematics (STEM) Programs in Tertiary Education, by Sex [Dataset]. United Nations Educational, Scientific and Cultural Organization (UNESCO) website. <https://databrowser.uis.unesco.org/>. (Accessed on 20 May 2025.)
- UNDP (United Nations Development Programme). 2013. *Gender and Disaster Risk Reduction*. Policy Brief No. 3. New York, UNDP. www.undp.org/sites/g/files/zskgke326/files/publications/PB3-AP-Gender-and-disaster-risk-reduction.pdf.
- UNECE/UNESCO/UN-Water (United Nations Economic Commission for Europe/United Nations Educational, Scientific and Cultural Organization/UN-Water). 2024. *Progress on Transboundary Water Cooperation: Mid-term Status of SDG Indicator 6.5.2, with a Special Focus on Climate Change*. Paris, UNESCO. www.unwater.org/publications/progress-transboundary-water-cooperation-2024-update.
- UNEP-DHI/GWP/UN Women (United Nations Environment Programme – Danish Hydraulic Institute Centre on Water and Environment/Global Water Partnership/United Nations Entity for Gender Equality and the Empowerment of Women). 2025. *Mainstreaming Gender Equality in Water Resources Management: Global Status and 7 Pathways to Progress*. Policy Note. www.unwomen.org/sites/default/files/2025-03/policy-brief-mainstreaming-gender-equality-in-water-resources-management-en.pdf.
- UNESCO (United Nations Educational, Scientific and Cultural Organization). 2024. *Global Education Monitoring Report 2024, Gender Report: Technology on Her Terms*. Paris, UNESCO. doi.org/10.54676/WVCF2762.
- UNESCO GEM Report/UIS (United Nations Educational, Scientific and Cultural Organization Global Education Monitoring

- Report/United Nations Educational, Scientific and Cultural Organization Institute for Statistics). 2024. *Investing in Girls' and Women's Education: A Smart Investment to Accelerate Development*. #HerEducationOurFuture. Paris, UNESCO. doi.org/10.54676/WTPE4528.
- UNESCO/UN-Water (United Nations Educational, Scientific and Cultural Organization)/UN-Water). 2020. *The United Nations World Water Development Report 2020: Water and Climate Change*. Paris, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf00000372985>.
- UNESCO WWAP (United Nations Educational, Scientific and Cultural Organization World Water Assessment Programme). 2021. *Taking Stock of Progress Towards Gender Equality in the Water Domain: Where Do We Stand 25 Years after the Beijing Declaration?* Paris, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf00000377601>.
- UNICEF (United Nations Children's Fund). 2016. *Harnessing the Power of Data for Girls: Taking Stock and Looking Ahead to 2030*. New York, UNICEF. www.unicef.org/documents/harnessing-power-data-girls-taking-stock-and-looking-ahead-2030.
- . 2025. Agua, mujeres y niñas: Un legado para el mañana [Water, women and girls: A legacy for tomorrow]. Data presented at the webinar, organized by the Central American and Dominican Republic Forum on Drinking Water and Sanitation (Focard-APS) and the Central American Integration System (SICA). (In Spanish.)
- UNICEF/UN Women/Plan International (United Nations Children's Fund/United Nations Entity for Gender Equality and the Empowerment of Women/Plan International). 2025. *Girl Goals: What Has Changed for Girls? Adolescent Girls' Rights Over 30 Years*. New York, UNICEF. <https://data.unicef.org/resources/girl-goals-report>.
- UNICEF/WHO (United Nations Children's Fund/World Health Organization). 2019. *Progress on Household Drinking Water, Sanitation and Hygiene 2000-2017: Special Focus on Inequalities*. New York/Geneva, UNICEF/WHO. <https://iris.who.int/handle/10665/329370>.
- . 2023. *Progress on Household Drinking Water, Sanitation and Hygiene 2000-2022: Special Focus on Gender*. New York/Geneva, UNICEF/WHO. <https://iris.who.int/handle/10665/378150>.
- . 2024. *Progress on Drinking Water, Sanitation and Hygiene in Schools 2015-2023: Special Focus on Menstrual Health*. New York/Geneva, UNICEF/WHO. <https://iris.who.int/handle/10665/379530>.
- United Nations. 2023. *The United Nations World Water Development Report 2023 - Partnerships and Cooperation for Water*. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). <https://unesdoc.unesco.org/ark:/48223/pf00000384655>.
- . 2024. *The United Nations World Water Development Report 2024 - Water for Prosperity and Peace*. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). <https://unesdoc.unesco.org/ark:/48223/pf00000388948>.
- . 2025. *The United Nations World Water Development Report 2025 - Mountains and Glaciers: Water Towers*. Paris, United Nations Educational, Scientific and Cultural Organization (UNESCO). doi.org/10.54679/LHPJ5153.
- UN-Water. 2023. UN-Water Webinars for Promoting Gender Contextualization of the SDG 6 Global Indicators. UN-Water website, 9 November 2023. www.unwater.org/news/un-water-webinars-promoting-gender-contextualization-sdg-6-global-indicators.
- . n.d. Sustainable Development Goal 6 on Water and Sanitation (SDG 6). United Nations website. <https://www.sdg6data.org/en>. (Accessed on 4 December 2025.)
- UN Women (United Nations Entity for Gender Equality and the Empowerment of Women). 2014. Collecting and Carrying Water, Burdensome Reality for Women. UN Women website. www.unwomen.org/en/news/stories/2014/3/collecting-and-carrying-water-burdensome-reality-for-women.
- . 2023. *From Commodity to Common Good: A Feminist Agenda to Tackle the World's Water Crisis. Spotlight on Goal 6*. New York, UN Women. doi.org/10.18356/27092372-5.
- . 2024a. *Progress on the Sustainable Development Goals: The Gender Snapshot 2024*. New York, UN Women. www.unwomen.org/en/digital-library/publications/2024/09/progress-on-the-sustainable-development-goals-the-gender-snapshot-2024.
- . 2024b. *Women Political Leaders 2024*. New York, UN Women. www.unwomen.org/sites/default/files/2024-06/Poster-Women-political-leaders-2024-en.pdf.
- UN Women/DESA (United Nations Entity for Gender Equality and the Empowerment of Women/United Nations Department of Economic and Social Affairs). 2023. *Progress on the Sustainable Development Goals: The Gender Snapshot 2023*. New York, UN Women/DESA. www.unwomen.org/en/digital-library/publications/2023/09/progress-on-the-sustainable-development-goals-the-gender-snapshot-2023.
- Venkataramanan, V., Geere, J.-A. L., Thomae, B., Stoler, J., Hunter, P. R. and Young, S. L. 2020. In pursuit of 'safe' water: The burden of personal injury from water fetching in 21 low-income and middle-income countries. *BMJ Global Health*, Vol. 5, No. 10, Article e003328. doi.org/10.1136/bmjgh-2020-003328.

- Voegelé, J., Gouled, M. and Tafara, E. 2024. Scaling Up Finance to Ensure a Water-Secure Future for All. World Bank Blogs. <https://blogs.worldbank.org/en/voices/scaling-up-finance-to-ensure-a-water-secure-future-for-all>.
- WaterAid. 2023. *Mission-Critical: Invest in Water, Sanitation and Hygiene for a Healthy and Green Economic Recovery*. WaterAid. www.wateraid.org/us/sites/g/files/jkxoof291/files/mission-critical-invest-in-wash-for-a-healthy-green-recovery--en-digital.pdf.
- WHO (World Health Organization). 2022. *Strong Systems and Sound Investments: Evidence on and Key Insights into Accelerating Progress on Sanitation, Drinking-water and Hygiene. UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2022 Report*. Geneva, WHO. <https://iris.who.int/handle/10665/365297>.
- . 2024. Violence Against Women. WHO website. www.who.int/news-room/fact-sheets/detail/violence-against-women.
- . n.d. Overview (Water). WHO Africa Region website. www.afro.who.int/node/5707.
- WHO/UNICEF (World Health Organization/United Nations Children's Fund). 2020. *Global Progress Report on WASH in Health Care Facilities: Fundamentals First*. Geneva, WHO. <https://iris.who.int/handle/10665/337604>.
- . 2024. *Water, Sanitation, Hygiene, Environmental Cleaning and Waste Management in Health Care Facilities: 2023 Data Update and Special Focus on Primary Health Care*. Geneva/New York, WHO/UNICEF. <https://iris.who.int/handle/10665/380857>.
- . 2025a. *Progress on Household Drinking Water, Sanitation and Hygiene 2000–2024: Special Focus on Inequalities*. Geneva/New York, WHO/UNICEF. <https://iris.who.int/handle/10665/383246>.
- . 2025b. *State of Systems for Drinking-Water, Sanitation and Hygiene: Global Update 2025*. UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water. WHO/UNICEF. <https://iris.who.int/handle/10665/384783>.
- . n.d. WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene: Global WASH Dataset, 2017–2023. JMP website. <https://washdata.org/data/downloads>. (Accessed on 20 May 2025.)
- WHO/UN-Water (World Health Organization/UN-Water). 2014. *Investing in Water and Sanitation: Increasing Access, Reducing Inequalities. UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2014 Report*. Geneva, WHO. <https://iris.who.int/handle/10665/139735>.
- WIN (Water Integrity Network). 2024. *Gender Equality in the WASH Sector: A Concise Research Report*. Windesheim University of Applied Sciences. www.windesheim.com/get-media/e99e5b50-8ce9-4455-bcb8-6f7b1cd97b08/RICHTER_Mona_1138387_CRR_2nd-opp2-gecomprimeerd.pdf.
- Winter, J. C., Darmstadt, G. L. and Davis, J. 2021. The role of piped water supplies in advancing health, economic development, and gender equality in rural communities. *Social Science & Medicine*, Vol. 270, Article 113599. doi.org/10.1016/j.socscimed.2020.113599.
- World Bank. 2019. *Women in Water Utilities: Breaking Barriers*. Washington DC, World Bank. <https://hdl.handle.net/10986/32319>.
- . 2024. A New Dawn for Women in Irrigated Farming. Feature Story. World Bank website, 14 March 2024. www.worldbank.org/en/news/feature/2024/03/14/a-new-dawn-for-women-in-irrigated-farming.
- . n.d. World Bank Open Data. World Bank website. <https://data.worldbank.org/>. (Accessed on 18 April 2025.)

Published in 2026 by the United Nations Educational, Scientific and Cultural Organization
7, Place de Fontenoy, 75352 Paris 07 SP, France

WWAP/SC-2026/PI/1

<https://doi.org/10.54679/DPFF3005>



© UNESCO 2026

Prepared by UNESCO WWAP | Bhanu Neupane

This publication is produced by UNESCO WWAP on behalf of UN-Water.

Cover design by Anna Marie Manning Zylicz

Cover photo: © Anna Marie Manning Zylicz

Graphic design and layout by Marco Tonsini

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The ideas and opinions expressed in this publication are those of the authors; they are not necessarily those of UNESCO and do not commit the Organization.

For further information concerning copyrights and licensing, please refer to the full report available at www.unesco.org/en/wwap.

UNESCO World Water Assessment Programme
Programme Office for Global Water Assessment
Division of Water Sciences, UNESCO
06134 Colombella, Perugia, Italy

Email: wwap@unesco.org

www.unesco.org/en/wwap.



unesco

World Water
Assessment Programme

We acknowledge with gratitude the
financial support provided by the
Government of Italy and Regione Umbria.



Regione Umbria