

WHO water, sanitation, hygiene and waste strategy 2026–2035



World Health
Organization

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2026–2035

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Contents

Acknowledgements	v
Acronyms and abbreviations.....	vi
1 Why this matters now.....	1
1.1 Our vision	3
1.1.1 Development of the strategy	3
1.1.2 The water, sanitation and hygiene sector, the role of the World Health Organization, and collaboration with partners	4
1.1.3 Special relationship with the United Nations Children’s Fund.....	5
1.2 Operating context: why transformation and consolidation are necessary	6
1.2.1 The World Health Organization’s organization-wide approach on climate and health: what it means for water, sanitation, hygiene, waste and health	7
1.2.2 From Sustainable Development Goal 6 to the post-2030 agenda: water, sanitation and hygiene as a health and climate systems lever	8
1.2.3 Strengthening intersectoral and cross-programme collaboration.....	10
2 The World Health Organization water, sanitation, hygiene and waste strategy....	12
2.1 Strategic plan: 2026–2035	12
2.1.1 Strategic results areas and approaches	13
2.1.2 How this strategy is different.....	14
2.1.3 Water, sanitation and hygiene within the World Health Organization Global Programme of Work 2025–2028	15
2.2 Delivering through this strategy.....	16
2.2.1 How the World Health Organization will work to deliver more for the money	16
2.2.2 What changed since 2024–25 and what the World Health Organization needs from donors...17	
2.2.3 Resourcing and investment case	18
2.2.4 Working with water, sanitation, hygiene, waste and health at all three levels of the World Health Organization	19
2.2.5 Monitoring and measuring progress	20
3 Strategic results areas.....	21
3.1 Scientific evidence and practical experience to shape policy, build capacity and guide implementation	21
3.1.1 Drinking-water quality.....	21
3.1.2 Safe sanitation and wastewater	23
3.1.3 Hand hygiene in community settings	25
3.2 Strengthening global monitoring and national data systems to track water, sanitation and hygiene inputs, status and health outcomes	27
3.2.1 Water, sanitation and hygiene systems monitoring.....	27
3.2.2 The WHO/UNICEF Joint Monitoring Programme	28
3.2.3 Estimation of burden of disease from inadequate water, sanitation and hygiene.....	29
3.3 Integration of water, sanitation and hygiene within health programmes and health systems	31
3.3.1 Water, sanitation and hygiene in health care facilities	31
3.3.2 Water, sanitation and hygiene in public health emergency preparedness and response	33
3.3.3 Water, sanitation and hygiene in disease prevention and control	34
3.4 Cross-cutting priorities across strategic results areas	36

4 Water, sanitation and hygiene in the regions	38
References	40
Annex 1: Theory of change for water, sanitation, hygiene, waste and health	44
Annex 2: Programmatic risks and mitigation	45

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Acronyms and abbreviations

A2A	Align to Accelerate
ADERASA	Asociación de Entes Reguladores de Agua Potable y Saneamiento de las Américas
AMR	antimicrobial resistance
ATACH	Alliance for Transformative Action on Climate and Health
BoD	burden of disease
CCA	Common Country Analysis
CIP	collaborative implementation plan
CRSC	Climate-Resilient Sanitation Coalition
DALY	disability-adjusted life year
ERF	emergency response framework (WHO)
ESAWAS	Eastern and Southern Africa Water and Sanitation Regulators Association
ESPEN	Expanded Special Project for Elimination of Neglected Tropical Diseases
EU	European Union
GDWQ	Guidelines for drinking-water quality
GEDSI	gender equality, disability and social inclusion
GLAAS	UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water
GPW 14	WHO Fourteenth General Programme of Work (2025–2028)
GTFCC	Global Task Force on Cholera Control
HAI	health care-associated infections
HCF	health care facility
HH4A	Hand Hygiene for All
HMIS	health management information system
HNAP	Health National Adaptation Plan
HWT	household water treatment
ICTC	International Coalition for Trachoma Control
IMI-SDG6	UN-Water Integrated Monitoring Initiative for SDG 6
IPCC	Intergovernmental Panel on Climate Change
IPC	infection prevention and control
JMP	WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and
Hygiene	
KPI	key performance indicator
MHM	menstrual health/management
MNCAH	maternal, newborn, child and adolescent health
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution (climate)
NGO	non-governmental organization
NNN	NTD NGO Network
NTD	neglected tropical disease
ODA	official development assistance
PFAS	per- and polyfluoroalkyl substances
PHC	primary health care
RC	(UN) Resident Coordinator
RegNet	WHO International Network of Drinking-water and Sanitation Regulators
ROI	return on investment
SDG	Sustainable Development Goal
SMOSS	safely managed on-site sanitation
SSP	sanitation safety plan
SRA	strategic results area
SWA	Sanitation and Water for All

SWS	United Nations system-wide strategy for water and sanitation
WASH accounts	methodology for tracking financing to WASH
UHC	universal health coverage
UN	United Nations
UN-Water	United Nations Inter-agency water coordination mechanism
UNEP	United Nations Environment Programme
UNICEF	United Nations Children’s Fund
WASH	water, sanitation and hygiene
WASH FIT	water and sanitation for health facility improvement tool
WES	wastewater and environmental surveillance
WHA	World Health Assembly
WHO	World Health Organization
WSP	water safety plan

1 Why this matters now

Unsafe water, sanitation and hygiene (WASH) still drive at least 1.4 million preventable deaths each year [\(1\)](#), while climate shocks, outbreaks, migration and aging infrastructure present additional challenges. Despite gains since 2015, 1 in 4 – or 2.1 billion people globally – still lack access to safely managed drinking water, including 106 million who drink directly from untreated surface sources; 3.4 billion people still lack safely managed sanitation, including 354 million who practice open defecation [\(8\)](#).

While climate shocks, outbreaks, migration and ageing infrastructure present additional challenges. Climate change is a risk multiplier for water, sanitation and hygiene: the Intergovernmental Panel on Climate Change (IPCC) sixth assessment report [\(2\)](#) concludes that the global water cycle is intensifying, increasing variability and the severity of wet and dry events, and elevating health risks from floods, droughts and heat. Accordingly, the World Health Organization (WHO) has adopted an organization-wide climate-and-health approach – for WASH this means embedding climate risk management in norms, monitoring and country support through the WHO-led Alliance for Transformative Action on Climate and Health (ATACH) [\(3\)](#), adding climate-resilient indicators and hydrometeorological alert linkages, and integrating WASH into National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs) to build resilient, low-carbon services.

The global resurgence of cholera [\(4\)](#) over the last five years, which as of this writing affected 33 countries, has prompted WHO to declare a Grade 3 public health emergency, call for greater investment in WASH and intensify the Organization’s work on WASH.

Beyond emergencies, the centrality of WASH to health-system quality is underscored by the fact that many health care facilities worldwide lack necessary, life-saving WASH services. In 2023, an estimated 1.1 billion people were served by health care facilities lacking basic water services, 3 billion lacked basic sanitation services, 1.7 billion lacked basic hygiene services and 2.8 billion were served by facilities without basic waste services [\(5\)](#).

Inadequate WASH contributes to hundreds of millions of health care-associated infections each year – globally, approximately 136 million cases of antibiotic-resistant health care-associated infections (HAIs) occur annually, and in low- and middle-income settings, 15% of hospital patients acquire one or more infections during their stay – highlighting the urgent need for investment in safe water, sanitation and hygiene as foundational to quality care. Investments in WASH have significant economic returns and unlock resilience across health systems.

The critical role of WASH in preventing vector-borne diseases is starkly illustrated by the dramatic expansion of malaria and dengue. Malaria causes an estimated 249 million cases and over 608,000 deaths annually, while dengue threatens nearly 4 billion people at risk with up to 400 million infections each year, underscoring how unsafe water storage, uncontrolled waste and poor sanitation amplify mosquito breeding and transmission risks.

WASH is critical to achieving neglected tropical disease (NTD) elimination targets, as safe water, sanitation and hygiene interrupt transmission pathways for diseases such as trachoma, schistosomiasis and soil-transmitted helminths, without which drug-based and case management interventions (for example, mass drug administration) alone cannot sustain elimination [\(6\)](#).

Effective WASH can prevent exposure to 50 water- and sanitation-related pathogens and more than a hundred chemical contaminants, and in doing so tremendously reduce the strain on health systems, especially in the context of public health emergencies [\(7\)](#). Safe WASH within health care

facilities (HCFs) is a prerequisite for quality of care, enabling the safety and well-being of patients and health care workers.

Accelerating access to WASH in advance of economic development is possible, with the results demonstrating substantive gains to health and well-being. For example, diarrhoeal disease mortality has declined by approximately 80% since 1990. Over the same period, more than 2 billion people have gained access to safely managed drinking-water services and nearly 3 billion to safely managed sanitation, reflecting substantial global progress [\(8\)](#).

Effective WASH interventions are well documented and increasingly embedded in national policies. In India, WHO modelling of the Swachh Bharat Mission estimated that increased sanitation coverage between 2014 and 2019 could avert more than 300 000 deaths and 14 million disability-adjusted life years (DALYs) from diarrhoea and protein–energy malnutrition, while analysis of the Jal Jeevan Mission suggested that achieving universal safely managed drinking-water by 2024 could cut diarrhoeal deaths from unsafe drinking-water by 45.4%, saving almost 400 000 lives and averting a further 14 million DALYs [\(1\)](#). Many other countries and communities have implemented regulations to protect drinking-water sources, ensure the treatment of water and wastewater and strengthen surveillance of water quality and water-related diseases.

Furthermore, wastewater and environmental surveillance (WES) is emerging as a powerful public health intelligence tool, providing insights alongside clinical data for a variety of endemic and pandemic-potential diseases, including and beyond waterborne pathogens.

Gaps, however, within WASH systems – for example, in financing, implementation and maintenance of infrastructure, human capacity and regulation – have left whole populations behind with substantial disease burdens [\(9\)](#).

Addressing these persistent gaps requires coordinated global action, and WHO’s leadership on WASH is a critical part of that effort. By setting evidence-based norms and standards, strengthening regulatory and monitoring systems, and supporting countries to embed WASH into health policies and service delivery, WHO helps translate proven interventions into sustained impact. But WHO cannot act alone: sustained progress depends on a broader sector effort – governments, development partners, civil society and communities – working together to close inequities, protect health systems from shocks and secure the benefits of safe water, sanitation and hygiene for all.

WHO converts health risk science into the rules, data and partnerships that make WASH safe at scale – through norms and regulation, trusted global monitoring and health sector convening. We do not build pipes; we build the systems that keep people safe.

1.1 Our vision

The WHO vision for WASH is:

“To substantially improve health through the safe management of water, sanitation and hygiene services in all settings.”

The WHO water, sanitation, hygiene and waste strategy 2026–2035 offers an opportunity to strengthen WHO’s contribution to improving health through WASH actions within and beyond WHO, to reinforce WHO’s influence within WASH partnerships, to mobilize investment, to strengthen alignment with the Sustainable Development Goals (SDGs) and relevant regional policy frameworks, and to build on synergies between the SDGs, health and WASH.

The strategy is underpinned by the following principles:

- Prioritize actions with the highest public-health benefit in areas where WHO has, or can build, comparative advantages;
- Strengthen health-sector capacities in promoting safe WASH and taking up its public-health oversight role in WASH, including effective surveillance and outbreak response systems;
- Strengthen the use of WASH data to inform WASH-sector and health-sector planning and investment, as well as disease surveillance and response;
- Employ the highest-quality science, including through collection, review and use of evidence about WASH impacts on health, and the full range of practical experiences, when developing norms and good practice procedures;
- Promote a contextual, incremental-improvement approach when supporting countries to set national WASH standards and ambitious but achievable national targets;
- Align with the SDGs, specifically targets relating to WASH, health, climate change and nutrition, as well as human rights principles;
- Mainstream gender equality, disability and social inclusion (GEDSI) across all outputs and explicitly integrate menstrual health (MHM) in norms, regulation, monitoring and service delivery – so that WASH advances safety, dignity and equitable health outcomes for women, girls and adolescents in homes, schools, workplaces and health-care facilities;
- Capitalize on existing regional policy frameworks that promote WASH and stipulate national target-setting;
- Stimulate sustainable change by strengthening government institutions and systems charged with implementation, oversight and regulation of WASH service delivery; and
- Engage with partners and positively influence partnerships to ensure that health issues are considered and addressed by the WASH sector, and that WASH issues – notably in health-care facilities – are addressed by the health sector as prerequisites for providing quality care.

1.1.1 Development of the strategy

The 2026–2035 strategy builds on the previous strategy [\(10\)](#), offering continuity in many areas but also emphasizing new issues (for example, waste management, wastewater and environmental surveillance, and monitoring of climate-resilient WASH, gender and core WASH systems indicators, among others) and new ways of working to enable greater efficiencies.

Member States originally called on WHO to develop a WASH strategy through World Health Assembly (WHA) resolution 64.4 [\(11\)](#), resulting in the 2018–2025 strategy. That strategy was based on an Organization-wide discussion on WASH priorities and challenges, including experiences and

reflections from both regional and country office levels, and it also incorporated inputs from WHO's partners. The 2025 end date of the strategy was proposed to allow for the introduction of lessons and course corrections to maximize WHO's contribution to the final five-year push to attain the WASH- and health-related 2030 SDG targets, including both SDG 6 on water and sanitation and SDG 3 on health, including associated targets.

The drivers that influenced the 2026–2035 strategy are the following:

- Experience since 2018;
- The evaluation [\(12\)](#) of the implementation of WHO's 2018–2025 WASH strategy;
- The positioning of WASH within WHO's Fourteenth General Programme of Work (GPW 14) [\(13\)](#) and priority health sector strategies and treaties of relevance for WASH;
- The practical considerations associated with WHO partners adapting to unprecedented global budget cuts in 2025, including staffing reductions and structural changes across the three levels of the Organization and in partner organizations;
- The emergence of the United Nations (UN) system-wide strategy for water and sanitation (SWS) [\(14\)](#), the associated collaborative implementation plan and WHO's contributions amid UN reform;
- Consideration of a changing WASH landscape; and
- Insights drawn from partner evaluations, such as the mid-term evaluation of UNICEF's WASH strategy 2015–2030 [\(15\)](#) and the evaluation of the Global Task Force on Cholera Control (GTFFC) [\(16\)](#).

1.1.2 The water, sanitation and hygiene sector, the role of the World Health Organization, and collaboration with partners

Since 1948, hygiene and sanitation have been core to the mandate of WHO. The World Health Organization does not fund or build infrastructure; it sets health-based norms and standards and provides technical guidance on drinking-water quality, sanitation, wastewater, hygiene and related regulation. These norms inform national standards, risk management and surveillance, and are paired with trusted global monitoring via the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) and the United Nations Inter-Agency water coordination mechanism (UN-Water) Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS). As a neutral convener, WHO aligns health, water and environment ministries, regulators, providers and partners around standards, indicators and financing so that systems deliver regulated, reliable services. Inclusion of waste reflects long-standing concerns (solid and health care waste, emerging contaminants) and promotes risk-proportionate management.

Through regional and country offices, WHO supports adoption and implementation of health-based targets; regulatory and surveillance capacity (including for small supplies and on-site sanitation); water safety planning; and water, sanitation and hygiene in health care facilities for infection prevention and control (IPC), quality of care and universal health coverage (UHC), alongside cross-cutting priorities such as hand hygiene, climate-resilient WASH and wastewater and environmental surveillance.

Delivering safe and sustainable WASH requires collective action, and WHO's role is to help knit these efforts together across the health and development landscape. WHO's work on WASH acts as a systems integrator, assessing the vital signs of the enablers that support service delivery; by convening ministries of health, water and environment, regulators, service providers, local

authorities and development partners, it helps countries move from fragmented projects to integrated, multi-sector strategies that reduce health risks and build lasting systems.

In practice, WHO works with Member States to set policy, regulation and budgets; supports practitioners with norms on water safety, sanitation, hygiene and infection prevention and control (IPC); co-produces evidence with research institutions and WHO Collaborating Centres; uses regional platforms to harmonize standards and data; aligns with WASH and health sector partners to mainstream WASH; and links policy dialogue to financing with external support agencies. Increasingly, WASH is embedded across WHO's broader programmes – essential to tackling antimicrobial resistance (AMR), achieving maternal, newborn, child and adolescent health (MNCAH) goals, using WES to enhance disease surveillance and advancing climate adaptation and UHC – and WHO's WASH teams work closely with climate colleagues to position climate-resilient water and sanitation as a shared health and development priority.

Figure 1. World Health Organization in the international water, sanitation and hygiene institutional architecture



1.1.3 Special relationship with the United Nations Children's Fund

WHO and the United Nations Children's Fund (UNICEF) work as close, complementary partners across the WASH agenda. WHO sets health-based norms and standards, provides technical guidance and supports regulatory and surveillance functions, while UNICEF focuses on supporting governments to expand and improve services, particularly for children, adolescents and vulnerable populations. Together, the agencies help countries turn guidance into regulated, reliable services that support public health, resilience and equity.

The partnership anchors three pillars. First, normative guidance – WHO and UNICEF co-develop or align guidance on WASH in households, schools and health care facilities, and promote consistent standards and messaging. Second, monitoring – the agencies jointly lead global WASH monitoring,

helping to track progress, identify inequalities and target support where it is most needed. Third, country support – WHO and UNICEF work together with governments and partners to translate norms and data into programmes that strengthen systems, institutions and local service providers.

For 35 years, the WHO/UNICEF JMP has provided authoritative global data on WASH services in households, schools and health care facilities, underpinned by harmonized methods and shared service ladders. GLAAS, now jointly implemented by WHO and UNICEF, complements this by tracking the enabling environment for WASH – policies, institutions, finance and human resources – and together these monitoring efforts support cross-sector planning, risk management and accountability.

In emergencies, WHO's technical guidance and infection prevention and control (IPC) expertise combine with UNICEF's operational footprint and supply capacity to deliver rapid WASH responses and protect public health. This partnership helps ensure that immediate measures to control outbreaks and protect communities are linked to longer-term investments in safe services and stronger systems, so that evidence and norms translate into durable results.

Like WHO, UNICEF has also had to adapt institutionally in response to climate change, growing inequities, urbanization and protracted crises. The agencies increasingly work together to align WASH with health, education, nutrition and climate programmes – positioning safe WASH services as a foundation for child survival, learning, equity and climate resilience, and as a shared priority for the health, equity and climate challenges of the coming decade.

1.2 Operating context: why transformation and consolidation are necessary

Rapid changes in the global environment are reshaping WASH and the way WHO must work. Climate change is amplifying health risks and driving outbreaks, protracted emergencies and migration – raising demand for resilient, contextual and incremental improvements in water and sanitation systems. In response, WHO is prioritizing actions with the highest public-health benefit, aligning effort with the Sustainable Development Goals (SDGs) and national target-setting frameworks, and embedding climate resilience across guidance and monitoring, for example through climate-aware risk management updates and strengthened climate-resilient WASH indicators with UNICEF and partners [\(17\)](#). Despite progress, unmet need remains large: billions still lack safely managed services, with preventable disease burdens and persistent inequities.

UN Member States have mandated a UN system-wide strategy for water and sanitation to bring coherence and stronger country-level delivery. WHO supports implementation and co-leads elements of its collaborative plan, ensuring alignment with the SDGs, national targets and existing policy frameworks. Working through UN Country Teams under Resident Coordinators (RC), WHO will integrate WASH priorities into Country Cooperation Agreements (CCAs)/Cooperation Frameworks, climate adaptation plans and health security agendas – engaging partners to stimulate sustainable change while sequencing reforms in context-appropriate, incremental steps.

A leaner Organization also requires sharper focus. With a smaller workforce and a tighter programme budget under consideration, the WHO Water, Sanitation, Hygiene and Health programme will concentrate on high-leverage norms and tools, surveillance and risk management, and joint delivery models that capitalize on existing policy frameworks and unlock larger investments through coordinated partner action.

External aid is tightening and more earmarked, with reduced flexibility within the water and sanitation portfolio. The implication is to pivot further to domestic resources and climate finance, while aligning external support to national plans and results frameworks – so that each dollar advances high-impact, SDG-aligned priorities, builds health system capacity and sustains progress through strong partnerships and incremental implementation.

1.2.1 The World Health Organization's organization-wide approach on climate and health: what it means for water, sanitation, hygiene, waste and health

WHO is adopting an organization-wide approach to climate and health that embeds climate risk management across norms, monitoring and country support. For water, sanitation and hygiene (WASH), this means aligning guidance and delivery with ATACH [\(18\)](#) and the draft global action plan on climate change and health [\(19\)](#), while keeping the focus on health protection and equity. Recent WHO analyses of health care waste generated during COVID-19 show how emergency responses can dramatically increase waste volumes and emissions when WASH and waste systems are not climate- and environment-aware, underscoring the need to integrate health care waste management into climate and health strategies. Within this strategy, climate is both a stand-alone cross-cutting priority and a mainstreamed risk lens applied to every priority area and linkage, including gender-responsive planning and MHM-sensitive service continuity. Key approaches are:

- Climate risk management will be routine in water safety plans (WSPs), sanitation safety plans (SSPs) and the Water and sanitation for health facility improvement tool (WASH FIT), and reflected in regulation and supervision.
- A concise core of climate-resilient WASH indicators (for example, service continuity, event impacts and the enabling environment) will be integrated into the WHO/UNICEF JMP and GLAAS, health management information systems (HMIS) and regulatory reviews to inform timely decisions.
- Design and operations will prioritize resilience and safe reuse where appropriate, with methane mitigation (for example, biogas and energy recovery) that does not compromise public health protection.
- Resilient WASH will be a flagship of climate-resilient, low-carbon health systems – supporting IPC, continuity of essential services and “net zero health” pathways.
- WASH will be systematically included in NAPs, including health NAPs, NDCs and health sector resilience and decarbonization plans, with model regulations and data pipelines to access and align climate and health finance.
- Climate finance for WASH will be increased by strengthening WHO's engagement as an accredited partner and working in partnership with the Sanitation and Water for All (SWA) climate task force and the Climate Resilient Sanitation Coalition (CRSC), of which WHO is a founding member, to increase the number and quality of submissions.
- Coordination of WASH- and climate-related action across the United Nations system will be strengthened through the United Nations system-wide strategy for water and sanitation, in particular its entry point on aligning United Nations system support for the integration of water and sanitation issues across sectors and mainstreaming into intergovernmental processes, including those related to climate change, biodiversity and desertification.

1.2.2 From Sustainable Development Goal 6 to the post-2030 agenda: water, sanitation and hygiene as a health and climate systems lever

The SDGs reframed WASH as both an outcome and a driver of health, equity and climate resilience – linking safely managed services [\(20\)](#) as the highest desired level of service for water and sanitation to achieve disease prevention. Over the SDG period, WHO's comparative value has been to translate that ambition into practice: setting the health bar, supporting proportionate regulation and surveillance, and helping countries use evidence to guide policy and investment.

What the SDG period revealed:

- Health is intrinsic to safely managed water and sanitation services. Safety and reliability – not just access – require risk-based regulation, independent surveillance and progressive realization of the human right to water and sanitation across all settings – at school, in homes, health care facilities, public spaces, workplaces, prisons and elsewhere – with special attention to small and rural systems and vulnerable populations.
- Country leadership reshaped demand for WHO support. As target-setting and financing became more country-driven, the need grew for implementation-ready standards, regulatory practice and routine quality improvement – delivered through regional platforms and country cooperation.
- Credible monitoring and expenditure tracking are essential to prioritize underserved populations, align finance with national plans and demonstrate results.

Preparing for a post-2030 world

The next decade will be defined by intensifying climate risks, fragility, demographic pressure and tighter development finance. WHO will keep WASH central to health security, climate adaptation and equity – not as a project line but as a systems lever. This means moving from fragmented, short-term interventions to professionalized, regulated and climate-resilient services that withstand shocks and consistently protect people, while elevating the role of WASH across primary health care (PHC), epidemic prevention and One Health, which emphasizes the interconnection between human, animal and environmental health [\(21\)](#). A recent WHO review on solid waste and health also brought together evidence on the health effects of open dumping, uncontrolled burning and poorly regulated landfills, underscoring that waste management is a major environment–health interface that WASH and health programmes must address over the next decade.

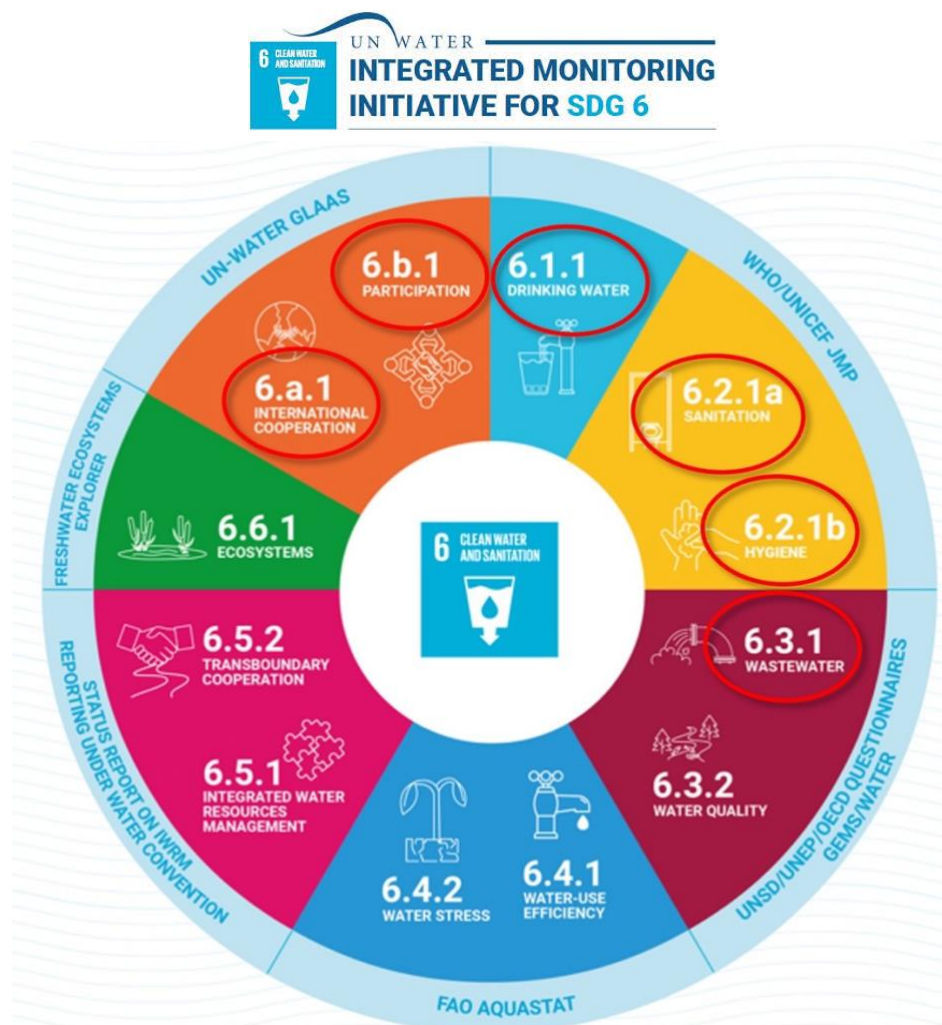
The World Health Organization's contribution to the post-2030 architecture

As with the SDG planning period, when WHO contributed to the drafting of goals, targets and indicators, WHO for a post-2030 agenda will help codify a leaner, systems-first model that sharpens targeting, strengthens accountability and unlocks finance – consolidating core systems indicators, embedding climate and gender responsiveness, and anchoring success in whether services are safe, resilient and equitable. Drawing on work on the means of implementation for water and sanitation and its co-chairing, with the United Nations Environment Programme, of the Water beyond 2030 expert group (Priority Collaborative Action 1.2), WHO will help shape options for post-2030 targets, Means of Implementation and implementation pathways [\(54\)](#). WHO will also advocate for and help countries access climate and health finance, and promote circular-economy opportunities that deliver health protection with climate co-benefits.

WHO will drive the post-2030 WASH agenda by setting norms, strengthening systems and mobilizing partners to embed water, sanitation and hygiene as essential public-health infrastructure.

- Set authoritative norms and regulation – keep guidance implementation-ready; support risk-based, proportionate oversight for small supplies and on-site sanitation; strengthen independent surveillance.
- Strengthen country systems – focus cooperation on institutional capacity, regulatory practice and continuous improvement, with priority to fragile, rural and peri-urban settings.
- Advance measurement and accountability – refine a concise indicator set, institutionalize expenditure tracking and link sector data to health outcomes and budgeting.
- Integrate WASH across health – embed WASH in primary health care, infection prevention and control, maternal, newborn, child and adolescent health, emergencies, antimicrobial resistance and One Health so it is financed and managed as core public-health infrastructure.
- Provide tools to assist in mobilizing finance and investment – use burden-of-disease, return on investment and systems indicators, and further develop Means of Implementation analysis and guidance to drive domestic budgets, leverage climate and health funds, and pivot partners from projects to long-term service performance.
- Convene and align partnerships – bring together standards, data and financing through UN-Water, regional platforms and WHO/UNICEF collaboration to translate country strategies into multisector delivery.

Figure 2. The World Health Organization's role in water, sanitation and hygiene-related monitoring



WHO's monitoring role across SDG 6 targets, showing coordination through the UN-Water Integrated Monitoring Initiative for SDG 6 (IMI-SDG6), including JMP, GLAAS and partner UN agencies.

1.2.3 Strengthening intersectoral and cross-programme collaboration

Increasing integration of WASH across sectors, programmes and levels is central to WHO's approach and the transformations needed to achieve the nearing SDGs deadline. This responds to today's interlinked health, climate and development challenges, which require coordinated action that extends well beyond traditional sectoral boundaries.

While the health sector remains WHO's primary anchor for WASH, achieving universal access to safely managed services will increasingly rely on whole-of-government and whole-of-society approaches. WHO will work more intentionally with ministries of environment, education, finance and planning to advocate for shared responsibilities and demonstrate how investments in WASH yield wider development benefits – from climate resilience to poverty reduction and equity. By participating in and supporting multi-sector partnerships and platforms, WHO will help target both the “leave no one behind” agenda of expanding basic services and more intensive “safely managed” interventions that require robust regulatory and institutional systems.

WHO is also taking a prominent role within the UN SWS, leading efforts to help countries advance safe, equitable and resilient WASH services through evidence-based guidance, capacity-building and global monitoring. WHO's contributions span all four strategic entry points of this collective UN framework:

- Under “lead and inspire collective action”, WHO drives coordinated health sector initiatives including Hand Hygiene for All (HH4A), WASH in emergencies, cholera prevention, antimicrobial resistance efforts and expanding WES.
- To “engage better for countries”, WHO strengthens national capacities through training and technical tools for safe drinking water, sanitation and climate-resilient services, offering practical frameworks and direct support to governments and service providers.
- In “aligning UN system support for integration”, WHO provides global norms, standards and tools – such as water quality guidelines, sanitation safety planning, recreational water standards and household water treatment approaches – to embed WASH across health and development programmes.
- To “accelerate progress and transformational change”, WHO leads global monitoring through the WHO/UNICEF JMP, GLAAS, burden of disease (BoD) analyses and WASH accounts, and convenes the International Network of Drinking-water and Sanitation Regulators (RegNet), a global network advancing regulatory capacity for water and sanitation.

These efforts are further anchored through the collaborative implementation plan (CIP) [\(22\)](#), which guides how UN agencies align support under the leadership of UN RCs and integrate WASH priorities in common country analyses (CCA) and cooperation frameworks. By working through RCs and UN country teams, WHO will ensure WASH is embedded in national climate adaptation, IPC, health system resilience and SDG acceleration plans – transforming fragmented project efforts into joined-up country strategies.

1.2.4 Increasing the World Health Organization's impact: success areas and growth opportunities

Over the last two years, WHO's work has both consolidated and deepened areas that have proven essential, while also responding to new challenges and lessons that have emerged across countries and regions. This new strategy will carry these advances forward – anchoring them in equity,

systems strengthening and climate resilience, and positioning WASH as a core pillar of resilient health systems and UHC.

Key areas of WHO's longstanding leadership, such as promoting safely managed drinking-water and sanitation through risk-based approaches like water safety plans [\(23\)](#) and sanitation safety plans [\(24\)](#) and driving progress on WASH in health care facilities, remain fundamental. These areas have been reinforced through expanded technical tools tailored regulators and to small systems and non-sewered sanitation and also by embedding WASH FIT into national quality improvement agendas, now adopted in more than 70 countries. Likewise, WHO's global monitoring through JMP and GLAAS has been strengthened, incorporating new dimensions on gender, climate and WASH systems and driving smarter investment decisions.

At the same time, recent experience has underscored the urgency of intensifying work where vulnerabilities are greatest. The resurgence of cholera and continued stark WASH inequalities demand more targeted, incremental approaches that prioritize hotspots and fragile settings, moving beyond static infrastructure models towards dynamic system improvements. WHO's leadership in developing climate-resilient indicators and guidance reflects a critical lesson: climate risks are no longer future threats but present realities that must shape how WASH services are planned, financed and delivered. New efforts on wastewater and environmental surveillance (WES), emerging contaminants and hand hygiene as normative areas demonstrate how WHO is expanding its scope to address evolving risks and opportunities across the health sector – providing countries with the evidence, frameworks and regulatory tools needed to safeguard health.

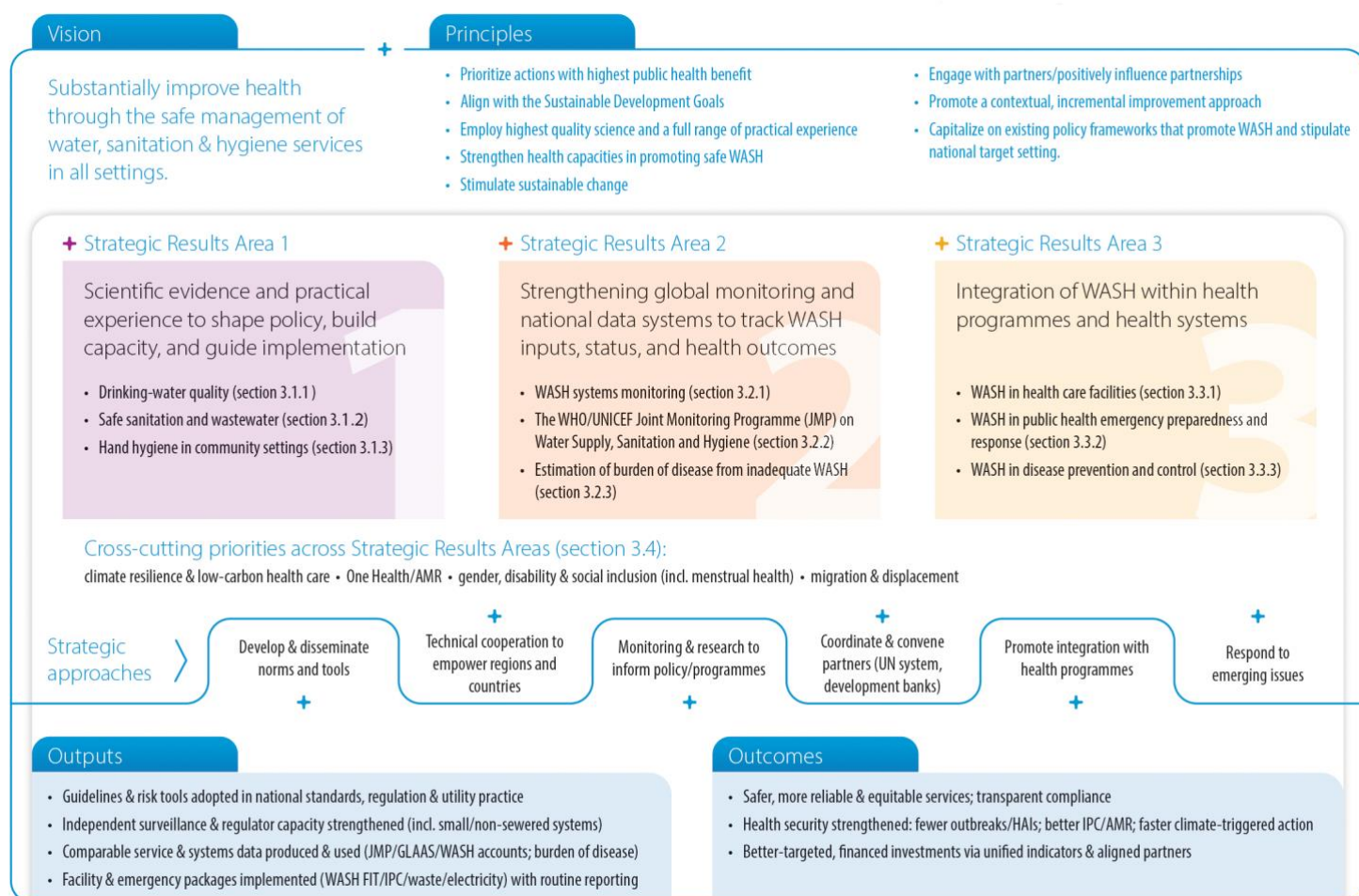
The strategy will also build on WHO's strengthened role in global governance and multi-sector collaboration. Internally, lessons from recent evaluations highlight the value of embedding WASH across WHO's disease, IPC, AMR, nutrition, NTD and climate programmes, maximizing returns on health and economic outcomes while helping countries transition from vertical interventions to holistic health system strategies.

2 The World Health Organization water, sanitation, hygiene and waste strategy

2.1 Strategic plan: 2026–2035

The WHO water, sanitation, hygiene and waste strategy 2026–2035 seeks to substantially improve health through the safe management of water, sanitation and hygiene services in all settings. The WHO Water, Sanitation, Hygiene and Health programme leverages core principles, result areas and strategic approaches to produce outputs and achieve outcomes that enable this vision (see Figure 3).

Figure 3. The World Health Organization strategic framework on water, sanitation, hygiene, waste and health 2026-2035



2.1.1 Strategic results areas and approaches

The strategy's vision is straightforward: substantially improve health by ensuring water, sanitation and hygiene are safely managed in every setting. To get there, WHO works from a set of principles that keep the programme health-first (prioritizing the biggest public-health gains), SDG-aligned, science-based and practical, while strengthening health sector capacity, shaping partnerships, advancing contextual and incremental improvements, and leveraging existing policy frameworks and national target-setting.

Those principles funnel into three strategic results areas (SRA) that organize everything WHO does:

- **SRA 1: Norms, risk management & regulation**
WHO converts evidence into authoritative guidance and proportionate, risk-based tools (for example, guidelines for drinking-water quality, sanitation and wastewater guidance, recreational water, WSP/SSP/WASH FIT) and supports countries to adopt and enforce these through regulation and independent surveillance – including for small and rural supplies. The point is safe practice “from source to tap” and “along the sanitation chain”, not just more infrastructure.
- **SRA 2: Monitoring & evidence for decisions**
Global and national monitoring create the “data spine” that guides policy and investment: JMP (service levels in homes, schools and health care facilities), GLAAS (systems and finance), WASH burden of disease estimates, WASH accounts, and emerging climate-resilient and gender-responsive indicators. The aim is comparable, decision-ready evidence that targets underserved groups and tracks results credibly.
- **SRA 3: Integration with health programmes**
WASH is embedded where health outcomes are decided – primary care and health care facilities (quality of care, IPC/AMR), emergency preparedness and response, and priority disease programmes (for example, cholera, NTDs, One Health). This treats WASH as essential public-health infrastructure within health systems, not a stand-alone project.

Across all three, cross-cutting priorities are mainstreamed: climate resilience and low-carbon health systems; One Health/AMR; GEDSI, including MHM; and migration and displacement. These ensure solutions are equitable, feasible to finance and resilient to shocks.

To translate this vision and the three strategic results areas into practice, WHO uses six strategic approaches:

1. Develop and disseminate global norms, standards, tools and guidance;
2. Provide technical cooperation to empower countries (policy, regulation, surveillance, capacity);
3. Conduct monitoring and research to inform policy and financing (JMP/GLAAS/WASH accounts, BoD);
4. Coordinate and convene partners (UN-Water, RegNet, HH4A, banks, non-governmental organizations (NGOs));
5. Promote health integration (IPC/AMR, PHC, emergencies, NTDs, nutrition); and
6. Respond to emerging issues (climate impacts, novel contaminants, wastewater and environmental surveillance).

These approaches translate into outputs (for example, updated guidelines and standards adopted nationally; strengthened risk-based practice; WASH in health care facilities packages; climate-aware indicators in routine systems; regulator networks and tools; integrated monitoring that links

services, systems and finance) and, ultimately, outcomes that ministries and partners care about: safer and more equitable services, transparent compliance, better outbreak readiness and IPC, stronger regulation and financing aligned to national plans, and sustained improvements through capable institutions and well-used data.

To deliver these approaches, WHO's results pathway moves from what it directly controls to what it can influence and ultimately seeks to achieve. In its sphere of control, WHO produces and updates global, evidence-based guidance; coordinates regional and global partners; supports countries with policy, regulation, surveillance and capacity-building; and strengthens the evidence base (service levels, systems and finance, disease burden, and country and regional progress data). In its sphere of influence, governments and partners are enabled to adopt WHO risk-based guidelines in service delivery, use accessible WASH evidence for decisions, identify and close data and systems gaps, and build the enabling environment – leading to empowered institutions. Over time, in the sphere of interest, this translates into healthier WASH programming, stronger integration of WASH within health programmes and reinforced national monitoring systems, contributing to universal, safely managed services and to commitments to GEDSI, climate resilience, integration with health and emergency readiness.

Progress depends on explicit assumptions – political will and partner alignment, WHO's normative leadership remaining the reference point, adequate national capacity and financing, and effective collaboration across WHO's three levels – while recognizing external risks (for example, climate shocks, pandemics, conflict and migration) that the strategy addresses through risk-informed, resilient WASH systems.

Section 3 provides more detail on each of the strategic results areas and approaches.

2.1.2 How this strategy is different

WHO's last strategy was published in 2018. Much remains relevant from that strategy, but much has also been learned and can be built upon. The table below shows how this strategy changes gear: what will continue because it works, what will be done differently or at larger scale to meet today's risks and financing realities, and how these moves integrate across programmes for greater impact. Read each row as a through-line – from guidance to adoption and enforcement, from data to decisions and financing, and from stand-alone projects to health-system integration – so that norms translate into budgeted, regulated, climate-resilient and equitable WASH services.

Table 1. How this strategy is different

Keep doing (core strengths)	Go further (what changes)	How it connects (bigger impact)
Climate-resilient WASH.	Build on existing climate-resilient practice within WSP/SSP and programme guidance.	Make climate the organizing risk lens – adopt a core climate-resilience indicator set (service continuity, event impacts, enabling environment); link WASH dashboards to hydrometeorological alerts with clear action thresholds; integrate WASH into (HNAPs) and NDCs; and pursue methane-mitigating sanitation without compromising health protection – aligned with WHO's organization-wide climate-and-health approach (see Section 1.2.1), ATACH and the UN-Water system-wide strategy.
Apply WHO norms, risk-based WSP/SSP and climate-resilient practice.	Close the worst gaps (cholera hotspots and places still lacking basics) with targeted, climate-smart packages.	Progress from basic to safely managed using JMP inequality insights; pair WSP/SSP with SMOSS to cover the full sanitation chain.
Treat WASH as essential for quality of care; scale WASH FIT.	Make facilities climate-ready and emergency-ready (power loss, heat and flood, safe waste).	Facility systems first: WASH is non-negotiable for IPC/AMR and surge readiness; align with national standards and budgets.
Sustain JMP (access) and GLAAS (systems and finance).	Adopt lean common metrics, including climate resilience, and expand safely managed on-site sanitation (SMOSS).	One data spine: combine JMP, GLAAS and WASH accounts to guide financing and accountability; dashboards that turn early warning into early action.
Lead across UN-Water by actively coordinating and contributing to the United Nations System-wide Strategy for Water and Sanitation, and by promoting systematic use of WASH accounts to link policies, plans and finance in countries.	Strengthen means of implementation by expanding the use of WASH accounts and other diagnostics, helping countries access climate and health finance, and updating regulation for risk-based, climate-resilient service obligations.	Drive integrated implementation from policy to financing to delivery with health, water, environment, climate and finance actors, anchoring WASH commitments in NDCs, NAPs and national results frameworks.
Advance WES.	Focused cholera push using climate-sensitive triggers.	Early warning leading to early action by combining WES, clinical surveillance and hydrometeorological signals to target pre-positioning and surge WASH.

2.1.3 Water, sanitation and hygiene within the World Health Organization Global Programme of Work 2025–2028

The Fourteenth General Programme of Work, covering the period 2025–2028, sets out WHO's strategic direction for accelerating progress towards the health-related SDGs while promoting health equity and system resilience in a complex global environment. Anchored in a threefold mission to promote, provide and protect health, GPW 14 includes six strategic objectives and 15 joint outcomes, supported by four corporate outcomes that define WHO's unique contributions.

WASH is recognized as foundational to achieving health outcomes across GPW 14. WHO's work on WASH is directly reflected in several joint outcome indicators and outputs, contributing not only to improved population health but also to climate resilience, AMR mitigation and health emergency preparedness

Under GPW 14, WASH is linked to three core strategic objectives:

- Promote health: by reducing WASH-related disease burdens through multisectoral approaches;
- Provide health: by strengthening the delivery of primary health care and ensuring service readiness, including basic WASH infrastructure;
- Protect health: by improving preparedness for health emergencies and ensuring IPC in health care facilities.

This includes:

Outcome indicators

- *2.2: Priority risk factors for noncommunicable and communicable diseases, violence and injury, and poor nutrition, reduced through multisectoral approaches*
 - SDG 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All [WASH] services)
 - SDG 6.1.1 Proportion of population using safely managed drinking water services
 - SDG 6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand washing facility with soap and water
- *3.1 The primary health care approach renewed and strengthened to accelerate universal health coverage*
 - SDG 3.8.1 Coverage of essential health services (includes basic sanitation as one of 14 tracer indicators)
 - Service availability and readiness index (% facilities with service availability, capacities and readiness (WASH, infection prevention and control, availability of medicines, vaccines, diagnostics, priority medical devices, priority assistive products) to deliver universal health care package)
 - Includes: Availability of basic water and sanitation (WASH), which the metadata clarifies to includes hygiene, environmental cleaning and health care waste management
- *5.2 Preparedness, readiness and resilience for health emergencies enhanced*
 - Coverage of WASH in health care facilities

Output indicators

- 2.2.1: Number of countries integrating WHO guidance on WASH in policies, plans, regulations or in monitoring systems
- 5.2.3: Number of countries having standards available for IPC, WASH and waste in health care facilities

The inclusion of these indicators across outcome and output levels in GPW 14 anchors WASH in WHO's core results chain – making it a corporate accountability priority – and signals sustained organizational investment to embed safe WASH as essential to public health and as a core component of disease prevention.

2.2 Delivering through this strategy

2.2.1 How the World Health Organization will work to deliver more for the money

Delivering this strategy requires political will, adequate financing and specialized WASH expertise across HQ, regions and countries. The funding landscape is tighter and more volatile, with WHO's WASH work largely dependent on voluntary, specified contributions and, in recent years, fewer donors than ever before. The Organization itself is operating with fewer people and a smaller envelope: the proposed programme budget for 2026–2027 is US\$ 4.2 billion (–21% from the original proposal). Within the water sector, official development assistance (ODA) pressures persist [\(25\)](#). In this environment, choices must be disciplined.

WHO will maintain a compact headquarters team focused on global norms, tools and system enablers: risk-based guidance and standards; monitoring and accountability; regulation; climate-resilient WASH; WASH in health care facilities; and targeted health linkages (for example, IPC/PHC, AMR, cholera). In 2024, this was delivered on US\$ 7.3 million with one senior focal point per major area, complemented by short-term expertise – keeping fixed costs low while protecting technical quality and surge capacity.

Since 2025, the Department of Environment, Climate Change, One Health & Migration (ECO) – based in Geneva and reporting within WHO’s health promotion, disease prevention & control cluster – has grouped four technical pillars and a cross-cutting initiative: Climate Change, Air Quality, Energy & Health; Chemicals, Radiation & Health; Water, Sanitation, Hygiene & Health; and Health & Migration, alongside the One Health Initiative.

More human and financial resourcing should flow to Regional and Country Offices, where WHO supports translation of standards into regulation and practice; strengthens surveillance and accountability; and integrates WASH into PHC, climate adaptation and health security – prioritizing high-burden, high-risk settings and moving from fragmented projects to long-term system strengthening backed by JMP/GLAAS and WASH accounts.

2.2.2 What changed since 2024–25 and what the World Health Organization needs from donors

Overall ODA declined by 7.1% in 2024, and several major donors have announced further reductions for 2025–2027. Within water and sanitation, ODA commitments fell by 9% and disbursements by 2% from 2022 to 2023, tightening fiscal space even as needs rise. In this context, WASH HQ runs on approximately US\$ 7.3 million under a lean “secretariat and single-focal-point” model – one senior lead per area who leverages consultants and partnerships to surge where necessary. To protect health impact, WHO is de-prioritizing one-off global events without country follow-through, isolated pilots that cannot scale through national systems, niche normative updates with limited health yield, duplicative tools outside the core portfolio and stand-alone advocacy not tied to PHC/IPC/AMR/climate/security outcomes.

Country-level impact remains non-negotiable, even as funding and staffing are at historic lows; accordingly, delivery of this strategy hinges on a defined minimum capacity across WHO’s three levels, with a bare minimum in-country requirement (a WHO Representative with basic WASH awareness and a focal point function). The modus operandi for work at scale is to deliver through partners, while targeted, high-value tasks may still require limited WHO country capacity. A practical approach for low-capacity countries is needed, recognizing that WHO Representatives may prioritize activities tied to budgets that WHO can no longer provide; partnership models and tailored technical support should therefore be calibrated to context, with global normative work enabling – but not replacing – country-level results.

Given these shifts, WHO needs predictable, multi-year, systems-oriented funding programmed through Regional and Country Offices, including support for core positions as well as activities. Donor windows should back regulation and risk management, monitoring and analytics (JMP, GLAAS and WASH accounts), and the implementation of climate-resilient WASH, with flexibility to align to the UN system-wide strategy’s collaborative country plans. Finally, WHO seeks more pooled and aligned support and less fragmentation; while GLAAS indicates some improvement in alignment with national plans, performance remains mixed and requires deliberate correction.

2.2.3 Resourcing and investment case

The investment case for WASH has never been clearer. WHO’s updated analyses, supported by new data on intervention costs and benefits, show that scaling up WASH globally could save over 9 million lives by 2075, deliver a net economic benefit of US\$ 32.7 trillion and return more than US\$ 19 for every US\$ 1 invested. This robust return on investment builds on modelling inputs from WHO burden-of-disease estimates and the latest evidence on intervention impacts. Specific interventions demonstrate striking benefit–cost ratios, ranging from around 11:1 for improved drinking water to 17.6:1 for improved sanitation and as high as 86:1 for hand hygiene under some scenarios [\(26\)](#).

Investing in WASH also underpins wider health and development goals, including antimicrobial resistance containment, climate adaptation and equitable economic opportunity. Integrating WASH into these broader programmes multiplies returns, positioning it as an essential investment in resilient health systems, climate security and long-term poverty reduction.

In a constrained aid environment, catalytic philanthropic funds can protect and scale these global norms, tools and system enablers that unlock much larger domestic and partner budgets. The opportunities below are tightly coupled to this strategy and specify where relatively small, time-bound grants have outsized, system-level leverage. Each item links back to the relevant sections.

Table 2. Investment areas

Investment area	What philanthropy enables (impact)
JMP, GLAAS, WASH accounts	Keep the world’s WASH “data spine” running and improving: fund GLAAS cycles and data portal, regular JMP updates (households, schools, HCFs) and institutionalization of WASH accounts – adding a practical core of climate-resilient and gender indicators to protect accountability and direct scarce resources to the highest-need geographies.
Regulatory capacity for small and rural supplies	Enable regulator-to-regulator learning and rapid field packages (sanitary inspection kits, simple laboratory and field tests, digital reporting templates, audit guides) so authorities apply risk-proportionate oversight in small and non-sewered systems and publish compliance transparently.
HCF quality and IPC bundles (WASH FIT digital + waste + reliable electricity)	Digitize WASH FIT, train national mentors and co-finance bundled upgrades for waste management (including pharmaceutical waste) and reliable power in maternity, newborn and outpatient areas – so hand hygiene, safe water, sanitation and waste are sustained and measured in routine HMIS and quality systems.
Climate-resilient WASH indicators (global core)	Co-fund country pilots to test and operationalize a simple, comparable global core of climate-resilient WASH indicators, and support subsequent HMIS integration to mainstream resilience tracking without overburdening systems.

2.2.4 Working with water, sanitation, hygiene, waste and health at all three levels of the World Health Organization

WHO will deliver this strategy through coordinated action across headquarters, regional and country offices – embedding WASH in health systems, strengthening collaboration with partners and tailoring support to national contexts, insofar as the constrained capacity and resourcing situation allows. Headquarters maintains health-based standards and tools (such as the Guidelines for drinking-water quality [\(27\)](#), the Guidelines on sanitation and health [\(28\)](#) and WASH FIT [\(29\)](#)) and convenes regulators through RegNet [\(30\)](#). Regions translate these into practical, proportionate approaches for small and rural supplies, while country offices help embed risk-based methods (WSP/SSP) in laws, standards and utility practice. Recent experience shows the pathway: Ghana’s national drinking-water quality framework made WSPs a utility KPI; Morocco updated regulations to include service continuity; and RegNet exchanges with ESAWAS/ADERASA showcased technology-enabled monitoring that peers can adapt.

Global monitoring and systems and finance evidence – through the JMP, GLAAS and WASH accounts – provide the sector’s data spine. Regions broker training and peer learning; countries use the evidence to steer policy and budgets. Nigeria’s review of JMP data catalysed a national WASH state of emergency and financing reforms; Botswana drew on GLAAS and WHO sanitation guidance to close policy gaps; and Ghana integrated WASH accounts and GLAAS indicators into its sector plan, strengthening routine financial and WASH systems tracking.

WHO packages WASH, IPC and waste solutions for health care facilities and outbreak-prone settings, aligned with PHC and health security. Countries are now implementing the Global framework for action on universal WASH, waste and electricity in HCFs. Kenya adapted WASH FIT for hospitals (WASH FAST) to drive accountability in referral facilities, while Zambia used sanitation safety planning within cholera prevention. In crises, joint WHO/UNICEF guidance has supported integrated IPC–WASH measures in facilities and shelters.

Who does what

- Headquarters: set and update norms and tools; steward JMP, GLAAS and WASH accounts; convene global partners; and provide technical assistance and targeted funding.
- Regional Offices: adapt guidance; run multi-country trainings; broker regulator and programme peer learning; and support regional monitoring.
- Country Offices: embed risk-based approaches in policy and regulation; implement WASH/IPC packages in facilities; and align financing and accountability with national plans.

WHO equips practitioners and authorities to apply WHO norms through modular, online training delivered via the WHO Academy [\(31\)](#) and targeted technical support to WASH focal points in country offices. Priority courses cover risk-based drinking-water and sanitation management (WSP/SSP), WASH in health care facilities (WASH FIT/IPC), GEDSI, monitoring of safely managed on-site sanitation, AMR and the environment, WASH and NTDs, and advanced health care waste management. Academy modules are designed for flexible, self-paced learning and can be paired with regional webinars, mentor networks and on-the-job coaching. To date, more than 50 000 professionals of all types around the world have enrolled in these courses. WHO WASH country focal points receive implementation guides, templates and case materials to embed standards in policy, regulation, supervision and routine monitoring. This combined approach strengthens institutional capacity where it matters most – close to service delivery – while keeping training aligned with the strategy’s results and indicators.

2.2.5 Monitoring and measuring progress

This strategy links activities to clear outputs and outcomes, with a simple results framework used across country offices, regional offices and headquarters. A monitoring logframe will set out indicators, baselines and targets, means of verification, and key risks and assumptions. Progress will be tracked with comparable, decision-ready data drawing on WHO/UNICEF monitoring and country systems, including service access, systems and financing, and WASH accounts, with climate- and gender-responsive measures where feasible.

WHO will routinely review performance and use findings to adjust delivery. In practical terms, this means:

- regular monitoring and reporting on agreed outputs and outcomes, using a concise indicator set aligned with country and partner systems;
- periodic synthesis of results (for example, an annual results brief and a mid-term stocktake) showing contribution to national plans and global goals, with lessons for course correction; and
- country–regional–HQ collaboration to ensure data quality, strengthen national monitoring where needed, and link evidence to planning, financing and accountability.

Where appropriate, dashboards and early-warning analytics will be used to signal risks (for example, climate- and outbreak-related service disruptions) and to inform timely action.

3 Strategic results areas

Each strategic results area follows a common, concise template so readers know what to expect. It begins with the *aim* (what we are trying to achieve), followed by *targets* that align with GPW 14 and the SDGs. A short *problem statement* frames the health and systems gaps, and the *response* summarizes the core instruments and approaches. WHO's *role* clarifies comparative advantage and partnerships, while *future directions (2026–2035)* sets the forward agenda and shifts in emphasis. Where relevant, a closing list of *specific deliverables/milestones* translates the strategy into implementable outputs and indicators for monitoring.

3.1 Scientific evidence and practical experience to shape policy, build capacity and guide implementation

3.1.1 Drinking-water quality

Aim: use the latest scientific evidence, practical experience and partnerships to accelerate progress towards universal access to safe, resilient drinking-water systems.

Targets

- WHO recommendations on drinking-water quality, including emerging issues, influence actions by health authorities and researchers.
- Water service providers and regulators have strengthened capacity to assess and manage water-related disease risks, including those exacerbated by climate change, through water safety planning and surveillance, respectively.
- Safe management of small water supplies is strengthened through integration of WHO guidelines into national frameworks, enabling evidence-based risk assessment and management, and surveillance practices.

Problem

In 2024, 2.1 billion people still lacked access to safely managed drinking-water, with water quality being the most common limiting factor in both urban and rural settings. Moreover, the progress made is increasingly at risk due to climate change, which threatens both the quality and availability of source water. These challenges are further compounded by evolving concerns over drinking-water contaminants, driven by new scientific findings, heightened media attention and advances in detection technologies.

Response

WHO's Guidelines for drinking-water quality are the global normative reference on issues of drinking-water quality and health, informing the development of national drinking-water quality regulations and standards worldwide. The GDWQ and their supporting resources cover chemical, microbial and radiological aspects of drinking-water safety, including emerging contaminants such as endocrine disruptors, microplastics and chemical mixtures. They also cover risk management, including water treatment, regulatory aspects and surveillance.

The GDWQ are applicable for all types of water supplies – from professionally managed piped supplies to household-managed supplies – covering a broad range of water sources, from surface water and groundwater to wastewater reuse. The breadth of the GDWQ warrants development of

complementary background resources underpinning the recommendations, guidance tailored to specific settings (such as households) and practical “how-to” guides.

In support of guidance for specific settings, WHO stewards the International Scheme to Evaluate Household Water Treatment Technologies to ensure health-protective performance of household water treatment (HWT) products where needed [\(32\)](#). The evaluation results are important for informing product selection. WHO has also provided direct support to countries through training and technical assistance to develop or revise regulations and to support the development, implementation and auditing of water safety planning. More than 60 countries have policies or regulations in place that promote or require water safety plans [\(33\)](#).

Role of the World Health Organization

WHO provides normative leadership through updated guidelines and tools grounded in the best available scientific evidence and will continue to promote adoption of such normative guidance into national water policies, regulations and programmes. To scale implementation, enhance surveillance and build capacity at national and local levels, WHO will intensify collaboration with strategic partners, including implementing partners, regulators’ associations and development banks.

Support to countries has included advice to revise drinking-water quality regulations and standards, including for small water supplies, and technical assistance for sanitary inspections and water safety plan development, implementation and auditing. Light-touch peer learning – including through RegNet – complements direct country support.

Future directions (2026–2035)

Looking to 2026–2035, WHO will comprehensively update the GDWQ with a fifth edition, noting that the last full update was in 2011. The focus will be to address priority technical issues and better support implementation. WHO will continue disseminating the GDWQ, including the tailored guideline for small water supplies, focusing on sensitization of global partners to maximize impact with limited resources.

With the recognition that WHO has tested most of the major HWT products, WHO will sunset direct evaluation of products under the Scheme and focus on disseminating evaluation criteria and their application in local product evaluations and regulation, and on promoting strengthened policy and regulation of HWT products in countries where they are widely used.

Specifically, WHO will:

- Produce new or updated risk assessments on priority issues, including per- and polyfluoroalkyl substances (PFAS), fluoride and disinfection by-products.
- Update pathogen performance targets based on the latest pathogen data (for example, disease burden, dose–response data and occurrence).
- Ensure climate change is systematically addressed throughout the GDWQ and that recommendations are considered within the wider context of WASH systems.
- Reduce direct training and implementation support and focus on dissemination to implementation partners and peer learning through RegNet and regional networks.
- Support GDWQ uptake by presenting recommendations in a clear and accessible format, following best practices for guideline development and developing an accompanying training package.
- Support national evaluation and regulation of HWT products by disseminating a “how-to” guide for applying HWT performance criteria.
- Advocate for, and strengthen collaboration with, partners to improve oversight and regulation of water supplies, including small systems.

3.1.2 Safe sanitation and wastewater

Aim: use scientific evidence and partnerships to accelerate progress towards universal access to safe, resilient sanitation systems, with wastewater managed to support safe reuse, recreational water quality and public health intelligence.

Targets

- Sanitation service providers and regulators are guided by up-to-date evidence on sanitation-related disease risks and capacity for risk assessment and management, incorporating climate hazards through climate-resilient sanitation safety planning (CR-SSP), to target sanitation investments to disease hotspots.
- Evidence and approaches for climate adaptation and mitigation are integrated into sanitation programming globally, and the sanitation share in climate NDCs, NAPs and climate finance is significantly increased.
- Safe reuse of wastewater and sludge is significantly increased globally, guided by the best available evidence on safety and risk management for public health and experience on effective policy and regulation.
- WES methods, implementation and data use are investigated and integrated into disease surveillance strategies for all pathogens where WES has proven utility and cost-effectiveness.
- Recreational water quality is improved through widespread adoption and implementation of WHO guidelines.

Problem

Despite significant global progress towards eliminating open defecation, major challenges persist in ensuring universal access: about 1.5 billion people still lack at least basic sanitation, and a further 3.4 billion lack safely managed sanitation. Recent reporting also flags major data gaps on wastewater treatment: several regions have less than 50% data coverage for “wastewater treated”, and none has adequate data on faecal sludge emptied and treated off site. This underscores the scale of the remaining service gap among populations most at risk of recurrent diarrhoeal disease, including cholera.

These gaps create additional health risks through contamination of drinking water, food crops and recreational waters, while also limiting opportunities for safe reuse and resource recovery (for example, nutrient recycling and methane capture) that can support climate resilience and broader sustainability goals.

Recent pandemics have also exposed the limits of relying on clinical disease surveillance alone. Innovative approaches are needed to enable earlier detection and more targeted responses to outbreaks and emerging threats. WES has proven and potential value as a source of population-level public health intelligence for a wide range of pathogens, including many not primarily transmitted through wastewater. Advances in evidence, methods and integration of data for decision-making are needed for at-scale, integrated WES implementation.

Gaps in proportionate oversight – permits, inspections, incident reporting and transparent data – are largest in small and non-sewered systems, limiting safe containment, transport, treatment and reuse.

Response

WHO will continue its longstanding role in providing the highest-quality normative guidance and supporting capacity-building for implementation with external partners – in particular UNICEF,

WaterAid, the United Nations Environment Programme (UNEP), the International Water Association (IWA), development banks and regulators – and with teams across WHO where sanitation access and wastewater data are critical for sustained disease prevention and control.

WHO will continue to support the implementation of the WHO Guidelines on sanitation and health primarily through implementation of the WHO/UNICEF Steps to achieve safely managed sanitation, A roadmap for advancing sanitation regulation, and scaling up training, implementation and learning on climate-resilient SSP, as well as demand-responsive technical support for recreational water quality.

WHO will continue to play a leading role in convening and guiding the CRSC to advance evidence, implementation and climate finance for the sanitation and wastewater sector.

Priority areas for updated or new normative guidance are: establishing a technical advisory group and global capacity for multi-pathogen WES (in coordination with relevant disease leads, laboratory teams and collaborative surveillance teams); and updating the Guidelines for the safe use of wastewater, excreta and greywater in agriculture and aquaculture, in response to stronger drivers towards a circular economy and climate resilience.

Other priority health programmes for sustained sanitation collaboration – namely AMR, NTDs and cholera – are outlined in later sections.

Role of the World Health Organization

WHO plays a unique role at the intersection of health, sanitation and wastewater management by providing authoritative health-based guidance and strengthening capacity to ensure that investments in sanitation and wastewater are targeted to deliver better health outcomes. This role is carried out through the development of global guidelines on sanitation, safe wastewater use, recreational water quality and WES, supported by expert groups, derivative capacity-building products and related training activities, as well as through networks and partnerships.

WHO will also draw on emerging evidence on solid waste and health to support countries in aligning sanitation, wastewater and solid waste policies and standards, particularly in rapidly urbanizing settings [\(34\)](#).

In addition, WHO provides leadership and convening for:

- Sector alignment through mechanisms such as the CRSC and WASH expert and practitioner networks;
- Integration of sanitation and WES within relevant disease programme strategies and implementation, including collaborative surveillance, pandemic preparedness, AMR and NTDs; and
- Shaping global campaigns and dialogues such as World Toilet Day and major international water conferences.

Wherever possible, WHO applies a One Health approach, addressing human, ecosystem and animal health in collaboration with partners, including UNEP and the Quadripartite.

Country support includes clarifying mandates, aligning standards to health-based targets, operationalizing stepwise compliance for small and non-sewered systems, and aligning oversight metrics with JMP/GLAAS and country dashboards. Peer learning on regulatory practice – including, as resources allow, via RegNet – will complement normative guidance and direct technical assistance.

Future directions (2026–2035)

- A major focus on WES with strong links to WHO-wide efforts on collaborative surveillance and pandemic preparedness.
- Sustained training and capacity for scaling CR-SSP and sanitary inspections.
- Light-touch peer learning through RegNet where helpful, while focusing effort on country implementation of the Roadmap for Advancing Sanitation Regulation [\(35\)](#).
- Greater emphasis on climate resilience and a co-leadership role in the CRSC, specifically through:
 - A flagship normative effort on updating the Guidelines on the safe use of wastewater [\(36\)](#).
 - Technical assistance for integration of climate-resilient sanitation (CRS) and CR-SSP within climate finance proposals.
 - Stronger linkages between public health, environment and marine protection drivers for sanitation investment.
 - Light-touch promotion of, and technical support for, adoption and implementation of recreational water quality guidelines.

3.1.3 Hand hygiene in community settings

Aim: enable and encourage the practice of hand hygiene across community settings (non-health care settings).

Targets

- Governments develop and finance costed, multisector national plans for hand hygiene improvement. Plans should follow a structured approach to strengthening the systems that deliver effective and sustainable hand hygiene services, with a view to enabling universal access to the core requirements for sustained practice of hand hygiene.
- Governments adopt and implement the WHO/UNICEF Global guidelines on hand hygiene in community settings [\(37\)](#) in national policies, standards and facility accreditation.
- Governments strengthen monitoring and accountability by aligning core hygiene indicators across JMP, GLAAS and other monitoring mechanisms.

Problem

Hand hygiene can reduce the burden of infectious diseases and, by extension, improve other health outcomes by relieving the strain that such diseases place on health systems. It can also reduce the need for antibiotic treatment, thereby reducing the spread of AMR and the associated deaths and health costs.

Despite international recognition of its importance, global progress on hand hygiene has consistently failed to measure up to political commitments and pledges. In 2024, 1.7 billion people lacked a handwashing facility with soap and water in their home; 611 million had no handwashing facility at all. Nearly half lived in sub-Saharan Africa, a quarter in Central and Southern Asia and three out of five lived in rural areas. Achieving universal access by 2030 would require a doubling globally of current rates of progress, rising to 11-fold in least developed countries and eightfold in fragile contexts.

Such acceleration will require strong systems for delivering hand hygiene services. However, although most countries include hand hygiene in at least one policy or plan, half of countries do not have national targets, over a third do not have a financial plan and, of those with an agreed financial

plan, three in 10 report insufficient implementation. In addition, global guidance on how best to accelerate hand hygiene improvements has historically been discordant or lacking, limiting the effectiveness of already constrained investments.

Response

The COVID-19 pandemic shone a spotlight on lagging progress on hand hygiene across all settings, particularly in communities. Since 2020, through a global initiative called Hand Hygiene for All, WHO, UNICEF and other partners have been working with Member States to advocate for increased political leadership on hand hygiene within countries and to align regional and global efforts behind national leadership. Dozens of countries have developed national roadmaps providing a pathway for acceleration. Alongside this, the global community has worked to strengthen normative guidance and monitoring frameworks to support governments.

Role of the World Health Organization

WHO's normative leadership anchors global and national hand hygiene efforts: the Organization sets evidence-based recommendations and promotes the "accelerator" approach – governance, finance, capacity, data and innovation – to drive sustainable, system-level improvements. Together with UNICEF, WHO co-leads HH4A, mobilizing partners and supporting countries to develop costed, multisector roadmaps and monitoring platforms that embed hand hygiene across community and institutional settings.

Future directions (2026-2035)

Over 2026–2035, WHO and UNICEF will consolidate a systems-first approach to hand hygiene.

- The new community-settings guidelines will provide clear, evidence-based recommendations on the core requirements for sustained hand hygiene practice, paired with an implementation framework co-designed with "champion countries". This guidance will complement existing WHO health care guidance, recognizing alcohol-based handrub as the gold standard at the point of care, while clarifying effective methods and service requirements for homes, schools, workplaces and public spaces.
- Countries will be supported to translate recommendations into costed national roadmaps with defined responsibilities across health, WASH, education, labour and finance; to integrate hand hygiene into IPC programmes, AMR strategies and emergency preparedness; and to sustain behaviour change through multimodal strategies. Monitoring of both coverage and the enabling environment will be strengthened through JMP/GLAAS and HH4A tools so governments can track progress, target investments and improve accountability.
- Further disseminate the WHO/UNICEF Global guidelines on hand hygiene in community settings, including an implementation framework, core requirements and setting-specific policy briefs; coordinate a staged global and regional roll-out with early-adopter countries.
- Promote country uptake through HH4A: co-develop costed national roadmaps and timelines, establish knowledge-exchange platforms and strengthen cross-sector partnerships (health, WASH, education, labour, finance).
- Embed hand hygiene in health programmes (IPC, AMR, outbreak preparedness and response) and in institutional settings (health facilities, schools, workplaces, humanitarian contexts) using proven multimodal strategies and minimum requirements.
- Strengthen monitoring and accountability: align core indicators and data flows across JMP and GLAAS, including standardized hygiene definitions and enabling-environment tracking; support national systems to use data for planning and budgeting.
- Support behaviour change and demand creation with evidence-based communication and social mobilization – leveraging HH4A partners and channels to normalize hand hygiene in daily life.

3.2 Strengthening global monitoring and national data systems to track water, sanitation and hygiene inputs, status and health outcomes

3.2.1 Water, sanitation and hygiene systems monitoring

Aim: WASH systems monitoring has two aims: (i) national monitoring systems for WASH are strengthened; and (ii) decisions by governments and development partners are informed by easily accessible data on WASH systems.

Problem

The sector's shift from project-based delivery to country-led strengthening of national and local WASH systems requires robust, routine monitoring. Yet many countries still lack coherent indicator sets, comprehensive financial information, and the institutional capacity and tools to collect, assure, analyse and use systems data. As a result, governance gaps persist, financing is hard to track and evidence is not consistently informing planning, budget dialogue, climate-resilience actions or service-quality improvements.

Response

WHO is working with partners to strengthen national monitoring systems and increase data use so that WASH systems are strengthened and systems data become reliably available and used. This includes supporting governments to consolidate indicators within national platforms, reduce parallel reporting and embed regular review processes that connect data to decisions.

Two complementary streams underpin this work:

- Defining and piloting a manageable core set of WASH systems indicators – through collaborative efforts such as Align to Accelerate (A2A) – that countries can integrate and review routinely; and
- Improving finance evidence through WASH accounts so countries can see who pays, how much, for what and by whom, and use this for planning, equity and efficiency.

Across all streams, WHO promotes quality assurance, interoperability and open access to data, and integrates cross-cutting priorities – especially climate and health, equity and leave no one behind (LNOB), and gender – into routine monitoring and analysis.

Role of the World Health Organization

Under the UN-Water GLAAS umbrella, WHO implements the UN-Water GLAAS strategy [\(38\)](#) that leads monitoring of core components of WASH systems – governance (legislation, policies, plans, regulatory frameworks), institutional arrangements, financing streams and financial systems, monitoring systems for informed assessments and reviews, and human resources and capacity development. WHO runs GLAAS cycles every two to three years and publishes analyses; convenes partners to agree and refine a globally coherent, country-usable core indicator set (informed by A2A) covering inputs, processes and outputs alongside outcomes and impact; and supports WASH accounts to generate comparable financing evidence.

WHO also strengthens country capacity for data collection, quality control, visualization and regular sector review (for example, joint sector reviews), links GLAAS/JMP outputs to climate-resilient WASH and other health agendas, and works with external support agencies to align partner reporting to national systems.

Future directions (2026–2035)

- Finalize, localize and institutionalize a core set of WASH systems indicators within national platforms and regular review processes, avoiding parallel data collections (Align to Accelerate).
- Align partner support around the national indicator set of WASH systems indicators and review calendar to reduce reporting burden and focus on country priorities.
- Expand WASH accounts where they add value to planning, equity and efficiency dialogues, and draw on them systematically in GLAAS analyses.
- Strengthen data quality, interoperability and accessibility (including digital tools and quality assurance) and build country capacity for data use in plans, budgets and climate-resilience strategies through GLAAS cycles.
- Integrate climate and health, equity/LNOB and gender across indicators, analyses and country support, linking systems data to action.

3.2.2 The WHO/UNICEF Joint Monitoring Programme

Aim: provide a trusted, policy-relevant global evidence base on WASH services across households, schools and health care facilities – translating normative priorities (quality, safety, equity, resilience and gender) into simple, comparable indicators and strengthening country statistical systems to use them.

Targets

- Countries use harmonized SDG-aligned indicators for drinking-water, safely managed sanitation (including SMOSS) and hygiene across households, schools and health care facilities.
- A concise climate-resilient WASH core (with optional national modules) is integrated into national monitoring and JMP/GLAAS.
- Gender-responsive monitoring, including MHM, is mainstreamed and hygiene data gaps – especially in higher-income settings – narrow; regular global updates and inequality analyses inform decisions via washdata.org.

Problem

Since 1990, JMP has enabled consistent country comparisons; under the SDGs it modernized indicators to capture service quality and safe management. In 2024/25, database upgrades and consultations expanded coverage, including wider household water-quality testing and stronger SMOSS support. Yet hygiene data remain incomplete – especially in many upper-middle- and high-income contexts – and emerging priorities (climate resilience, gender) require integration without overburdening national systems.

In 2025, at 35 years of global WASH monitoring, the programme faces an inflection point to consolidate gains and meet new data needs.

Response

JMP and GLAAS have launched a joint, evidence-based process to integrate climate-resilient WASH into global and national monitoring – focusing on service functioning and user experience, relevant climate hazards and feasible, nationally owned data sources.

JMP maintains a standing gender and menstrual-health spotlight, advancing recommended indicators (for example, MHM in schools and health care facilities; safety, privacy and time burdens) and periodic syntheses. Country consultations, upgraded inequalities files and clearer linkages to health outcomes (for example, IPC/AMR in facilities) will drive decisions and financing across the

humanitarian–development–climate nexus.

Role of the World Health Organization

As the producer of normative guidance on drinking-water, sanitation and hygiene, and under its most recent JMP five-year strategy 2021–2025 (39), WHO – through JMP, and together with UNICEF – ensures monitoring reflects what matters for health. Through JMP’s mandate for internationally comparable estimates across households, schools and health care facilities, and close coordination with GLAAS on the enabling environment, WHO/UNICEF will:

- Sustain a trusted global evidence base;
- Translate priorities such as climate resilience and gender into measurable indicators; and
- Support national statistical systems to integrate these indicators into surveys, censuses and administrative platforms.

Future directions (2026–2035)

JMP will evolve beyond “access-only” tracking towards resilience- and equity-aware monitoring while preserving comparability. The programme will consolidate SMOSS measurement, close hygiene data gaps in higher-income settings and mainstream gender-responsive metrics. A pragmatic climate-resilience scope will enable progressive adoption by countries, with a small global core plus nationally tailored modules. Specifically, JMP will:

- Finalize and roll out a small climate-resilient indicator core for households, schools and health care facilities, and integrate it into national systems and JMP/GLAAS.
- Scale household water-quality testing and analytics, and use results to target risk reduction.
- Consolidate SMOSS measurement with practical methods and tools to strengthen safely managed sanitation estimates.
- Mainstream gender and MHM indicators and expand inequalities analyses, producing periodic syntheses to guide budgeting and targeting.
- Close hygiene data gaps in higher-income settings.
- Improve data use through more usable open data (washdata.org, APIs, etc.) and systematic country consultation.

3.2.3 Estimation of burden of disease from inadequate water, sanitation and hygiene

Aim: estimate the burden of disease related to unsafe WASH to monitor progress against SDG 3.9.2 and guide WASH policy and investments.

Targets:

- Global and national estimates for SDG 3.9.2 regularly updated.
- WASH BoD data used at international and national levels for WASH planning and advocacy.
- Methods, guidance and tools improved, and scope expanded, as evidence and data allow.
- Alignment between WASH service data and health outcomes strengthened.

Problem

Unsafe WASH remains a major preventable cause of death and disability. In 2019, unsafe WASH led to an estimated 1.4 million deaths and 74 million disability-adjusted life years (DALYs), representing 2.5% of global deaths. Children under five accounted for about 395 000 deaths. Diarrhoeal diseases account for most of the burden, alongside respiratory infections linked to unsafe hand hygiene practices, undernutrition and soil-transmitted helminths. The highest impacts are seen in low- and

lower-middle-income countries, particularly in Africa and South-East Asia.

However, current estimates significantly understate the true burden by excluding many plausible health outcomes due to limited epidemiological evidence, overlooking risks in non-domestic settings and not accounting for climate-related impacts.

Response

WHO has produced estimates of the BoD related to unsafe WASH on a regular basis and is the custodian agency for reporting on SDG indicator 3.9.2 on mortality attributed to unsafe WASH. These estimates are developed through rigorous methods involving global experts and consultations with national statistical authorities.

The most recent estimates, published in *The Lancet*, are widely used by governments, donors and development partners to inform policy, prioritize investments and advocate for improved WASH services. WHO also developed a user-friendly scenario-modelling tool that enables countries to simulate the health impacts of different WASH interventions. This tool has been applied in India to assess the potential health benefits of the Jal Jeevan Mission, a national initiative to provide safely managed drinking-water to all rural households.

Role of the World Health Organization

WHO is the custodian agency for SDG 3.9.2 and leads the production of global estimates on the health burden from unsafe WASH. It develops methods and synthesizes current evidence on health impacts of WASH in collaboration with experts and in consultation with national authorities.

Beyond estimation, WHO supports countries in interpreting and applying BoD data to strengthen national WASH strategies. It provides technical support, builds capacity and offers tools for local adaptation. WHO also works with JMP, GLAAS and other initiatives to improve alignment of health data with WASH service data.

Future directions (2026-2035)

- Continue regular updates of global and national estimates for SDG 3.9.2 reporting.
- Continue capacity strengthening through improved country-level estimation tools and guidance.
- Engage end-users to better identify data needs on WASH and health, and develop accessible communication products tailored to policy-makers and programme leads to drive action in disease hotspots and among underserved populations.
- Advance methods and expand scope to improve modelling frameworks and characterization of exposures, and to explore inclusion of additional health outcomes, climate-sensitive exposure pathways and non-domestic settings as data and methods allow.
- Improve data linkages with JMP, GLAAS and other sources to align service data with health outcomes.
- Support integration of BoD data into national health strategies (for example, cholera, NTDs).

3.3 Integration of water, sanitation and hygiene within health programmes and health systems

3.3.1 Water, sanitation and hygiene in health care facilities

Aim: all health care facilities have safe and sustainable water, sanitation, hygiene, waste and electricity services.

Targets

- 100% of countries have updated standards that are actively disseminated, implemented, regulated and monitored.
- 100% of countries regularly review, disseminate and use WASH, waste and electricity-related data in health management information systems (HMIS) to inform policy decisions.
- 100% of countries have dedicated and sufficient funding for WASH, waste and reliable electricity.
- 100% of countries have plans that address inclusivity of WASH services, and these plans are resourced and monitored.

Problem

Significant gaps in WASH, waste and electricity services in health care facilities exist. In 2022, 20% of health care facilities lacked basic water, 39% lacked hand hygiene and nearly 1 billion people in low-income countries faced unreliable electricity in health care facilities [\(40\)](#). These fundamental gaps undermine quality of care, contribute to preventable maternal and newborn deaths, erode user and worker trust in health services and exacerbate the challenge of preventing and controlling outbreaks.

Furthermore, while 81% of countries have strengthened WASH and waste standards, only 14% have developed costed roadmaps with identified financing. The COVID-19 pandemic further exposed these weaknesses: a global WHO analysis of health care waste generated during the response documented large surges of infectious and plastic waste and the limited capacity of many systems to manage it safely [\(41\)](#).

Response

Since 2015, WHO has been working with UNICEF and other key partners to address the situation through global leadership, coordination, monitoring and technical support and implementation. Efforts contributed to the passing in 2019 of a World Health Assembly resolution, followed in 2023 by a United Nations General Assembly resolution. Both call for greater country action to strengthen standards, monitoring and investments, and for coordinated technical and financial support from partners.

The WHO/UNICEF water and sanitation for health facility improvement tool (WASH FIT) was launched in 2015 and is now in use in over 71 countries, supporting risk-based incremental improvements. The WHO/UNICEF Joint Monitoring Programme produces regular global monitoring reports on the status of WASH and waste services, and WHO/UNICEF publish global progress reports on national actions including standard-setting, national planning and financing, which provide updates for the resolutions. A global knowledge portal [\(42\)](#) provides the latest training materials, over 400 country-related resources and data on country actions.

The WHO/UNICEF Global framework for action (2024–2030) articulates targets on integration, policy and governance, monitoring and equity and brings together over 40 partners to support nationally led plans and implementation. In 2024, WHO and UNICEF established a global strategic network on WASH, waste and electricity in health care facilities, which is comprised of 40 health, WASH, energy and climate partners working to stimulate global, regional and country leadership and to identify and synthesize new thinking on solutions for scaling up systems change.

Role of the World Health Organization

WHO has led the development of guidance documents, including those on health care waste and risk-based approaches to assess and improve WASH and waste services (such as WASH FIT), and has worked to embed WASH indicators and training in IPC, AMR, child and maternal health global standards, strategies and country plans. Along with UNICEF, WHO manages the global knowledge portal, which includes data and resources from 107 countries on national standards, roadmaps and monitoring.

WHO develops and disseminates health care waste and pharmaceutical waste guidance, including the publication *Global best practices on safe management of pharmaceutical waste from health care facilities*, and supports countries to adapt and operationalize these within national policies, standards and procurement systems [\(43\)](#). WHO has also provided direct support to countries through national WASH FIT training, strategic WASH and health policy dialogues, and work with national entities to institutionalize WASH, waste and electricity within regular health systems planning, monitoring, programming and regulation.

Future directions (2026–2035)

With the recognition that WASH, waste and electricity in health care facilities are now core elements of many WHO country and partner programmes and are included in major health and development strategies and monitoring frameworks, WHO will reduce certain global advocacy and leadership activities, continue monitoring and pivot towards emerging issues that present health and environmental risks.

Specifically, WHO will:

- Continue to monitor and report on service availability and national actions, including standards, roadmaps and implementation, and continue to work to integrate electricity into monitoring and high levels of service.
- Continue to work with key health partners and programmes to integrate wash and waste into global and national policies, monitoring and programming.
- Focus on a subset of 20 champion countries to support national scale-up and document processes, approaches and results from achieving universal access.
- Reduce global advocacy and leadership, including consolidated and shorter global reports and fewer global events and webinars.
- Reduce direct support for training and implementation of WASH FIT.
- Pivot to a greater focus on facilities in emergencies, with the aim of implementing more sustainable, longer-term solutions.
- Pivot towards a greater focus on sustainable and safe waste management with normative guidance, technology options and country implementation support linked to climate and sustainability agendas.
- Pivot towards targeted technical support for improving water-quality management in health care facilities.

3.3.2 Water, sanitation and hygiene in public health emergency preparedness and response

Aim: fully integrate WASH in health emergency preparedness, planning and response activities to support healthier and more dignified lives for all affected by emergencies.

Targets

- 100% access to basic WASH services in areas most affected by cholera.
- WASH development strategies and planning, including through UN-Water, include emergency actors, consider infectious disease hotspots (for example, cholera) for targeted funding and adapt interventions to address multiple health-related emergency needs.
- 100% of countries have national standards for IPC, WASH and waste in health care facilities that are implemented, including in emergency areas.
- All humanitarian, pandemic and outbreak health emergency plans, budgets and programmes include WASH and IPC training, infrastructure and operation and maintenance support.

Problem

The increasing frequency, scale and complexity of public health emergencies (44), including disease outbreaks, conflicts, climate-related disasters and displacement crises, have exposed major gaps in the coordination, capacity and technical readiness of WASH actors to respond effectively. These gaps place immense strain on already weak WASH and health care waste systems, as illustrated by WHO's global analysis of health care waste in the context of COVID-19.

Despite WASH being a critical social determinant of health and frontline defence in emergencies, responses are often fragmented, insufficiently informed by public health priorities and lacking sustained evidence-based technical collaboration between WASH, IPC and health systems stakeholders.

At the same time, despite years of concerted effort through national cholera planning and action, along with support from the GTFCC, cholera has resurged, affecting countries that had been free of outbreaks for decades. This is coupled with growing threats from climate change, conflict and human displacement, contributing to a growing number of densely populated, unplanned urban settlements often lacking safely managed water and sanitation services. Consequently, there has been an increase in deadly mosquito-borne diseases, including malaria and dengue, including among previously non-exposed populations.

Response

The inclusion of WASH as a concept and set of indicators is now common across a range of health-emergency-related strategies, including the pandemic prevention, preparedness and response accord (45), Ending cholera: a global roadmap to 2030 (46), the WHO health emergency preparedness and response strategy (47), and the health emergencies pillar of the WHO Global Programme of Work (2025-2028). The WASH working group of the Global Task Force on Cholera Control (48) meets regularly and has developed a number of technical documents. In global fora, leaders often note the importance of WASH. However, in practice, WASH measures to protect health in emergencies are not well understood, not well monitored and underfunded.

WHO guidance on pharmaceutical waste management provides specific recommendations for emergency and surge situations and will be integrated into health emergency preparedness planning, training and simulation exercises.

Role of the World Health Organization

WHO has been working with key partners, including UNICEF, in several areas. First, new guidance has been created and older guidance updated to reflect the latest evidence on preventive WASH interventions, including hand hygiene in communities, managing water-quality risks and WASH for prevention of cholera, Ebola and mpox, and WASH for prevention of mosquito-borne disease.

Second, WHO contributes direct technical support, including missions and capacity-building on the ground for humanitarian crises (for example, Ukraine) as well as for infectious disease outbreaks (for example, cholera). In addition, in 2023, WHO and UNICEF established a global public health in emergencies task force, comprised of approximately 30 WASH emergency partners, to support the integration of WASH into strategic preparedness and response plans, disseminate technical guidance and new evidence, and foster and enhance capacity-building efforts for WASH interventions in public health emergencies.

Future directions (2026–2035)

- Continue to disseminate and promote health- and risk-based WASH interventions in emergencies and regularly review and disseminate lessons from the field to improve routine practice.
- Strengthen engagement between WASH emergency and development actors, including in health care facility settings, with the aim of addressing those most at risk and implementing more sustainable, longer-term solutions.
- Reduce general global advocacy and engagement in a wide range of emergency-related policy discussions, events and forums.
- In line with WHO's emergency response framework (ERF), provide coordinated technical and operational surge capacities to countries affected by emergencies – channeling financial and technical support through established mechanisms and prioritizing nationally led responses and capacity transfer over ad hoc missions.
- Pivot towards emerging WASH and health-emergency issues, especially on capacitating countries and partners to implement WASH and waste measures as part of mosquito-borne disease prevention and management.
- Pivot towards working with partners to deploy specialized experts working on health-related WASH measures, including managing water quality and safe, sustainable health care waste management.

3.3.3 Water, sanitation and hygiene in disease prevention and control

Aim: integrate WASH and wastewater management into evidence, planning and targeted implementation to prevent and control priority health risks, particularly AMR and NTDs.

Targets

- AMR prevention through WASH, wastewater and waste management is integrated into the the Global action plan on antimicrobial resistance [\(49\)](#) and all national AMR action plan implementation processes.
- AMR implementation is supported by evidence, guidance and capacity on community WASH, health facility WASH and pharmaceutical waste management, safe management of manufacturing effluent, safe wastewater treatment and reuse, and integrated surveillance in coordination with the Quadripartite, as appropriate.
- Countries prioritize WASH investments in high-burden NTD areas, focusing on underserved, fragile and high-risk communities, guided by Ending the neglect to attain the sustainable development goals: a global strategy on water, sanitation and hygiene to combat neglected

tropical diseases, 2021–2030 [\(50\)](#) and WASH and health working together: a ‘how-to’ guide for neglected tropical disease programmes [\(51\)](#).

Problem

Safe WASH and waste management are critical for the sustained prevention and control of many of the diseases and risks WHO targets in GPW 14 and SDG 3. In particular, the global fight to combat antimicrobial-resistant infections and the emergence and spread of AMR is hampered by a lack of WASH in households and health care facilities, widespread lack of adequate wastewater treatment and unsafe use of wastewater and sludge. Achieving universal access to WASH in households and health care facilities, as set out in SDG 6.1 and 6.2, could prevent millions of avoidable doses of antimicrobials every year.

Further, improved evidence for AMR and management of wastewater and solid waste from all sources, especially manufacturing, health care facilities and communities, is needed to prevent emergence and spread via the environmental dimensions of AMR.

WASH is fundamental to both the prevention and care of many NTDs. The transmission of NTDs such as trachoma, schistosomiasis, soil-transmitted helminthiasis and Guinea-worm disease is closely linked to inadequate WASH conditions. While significant progress has been made in reducing the burden of NTDs, these diseases continue to disproportionately affect vulnerable populations – particularly those living in remote, underserved or fragile settings – where access to basic WASH services remains limited or absent. Strengthening WASH service delivery and better targeting investments in NTD-affected areas can greatly improve health outcomes and advance equity.

Response

The Global action plan on antimicrobial resistance, version 2, and the United Nations General Assembly high-level declaration on AMR [\(52\)](#) both incorporate WASH, wastewater and waste management strongly throughout under a theme of prevention. These topics are also integrated into national action plans via mechanisms such as the people-centred approach to addressing AMR and draw on the latest data and guidance generated by the WHO Water, Sanitation, Hygiene and Health programme and Quadripartite partners on environmental dimensions of AMR.

Ending the neglect to attain the Sustainable Development Goals: A road map for neglected tropical diseases 2021–2030, sets ambitious goals to prevent, control, eliminate or eradicate 20 diseases by 2030. The road map underscores the importance of cross-sectoral actions and highlights WASH as a foundational element of disease control. Complementing the road map, the Global strategy on WASH to combat NTDs 2021–2030 provides a framework for action. This includes raising awareness on WASH–NTD links, using joint monitoring tools to target underserved populations, strengthening and sharing evidence on effective service delivery and promoting joint planning and evaluation across sectors.

Role of the World Health Organization

The WHO Water, Sanitation, Hygiene and Health programme contributes to the Global Action Plan on AMR and the United Nations General Assembly declaration under the sectoral areas set out in the Technical brief on WASH and wastewater management to prevent infections and reduce the spread of AMR [\(53\)](#) specifically through technical guidance and capacity support on: WASH and waste management in health care facilities; safe use of wastewater; safe management of manufacturing effluent; and WES for AMR. The WHO Water, Sanitation, Hygiene and Health programme works via national AMR action plans and with Quadripartite partners.

WHO provides leadership in WASH–NTD integration by developing technical tools, tracking progress through mechanisms such as JMP and the Expanded Special Project for Elimination of Neglected

Tropical Diseases (ESPEN) and supporting countries to adapt operational guidance. Working with partners – including the NTD NGO Network (NNN), the International Coalition for Trachoma Control (ICTC) and national ministries – WHO helps co-develop best practices and build capacity.

Future directions (2026–2035)

- Step up collaboration with AMR national action plan teams to ensure WASH, wastewater and waste management aspects are included, supported and evaluated in national action plans.
- Continue to integrate AMR aspects within the WASH and waste in health care facilities initiative (section 3.3.1), including implementation and periodic updating of WHO guidance on safe management of pharmaceutical waste from health care facilities, and support its adaptation in national AMR and emergency preparedness plans.
- Support further dissemination and implementation of guidance on wastewater and solid waste from manufacturing of antibiotics.
- Incorporate AMR risk into the update of the Guidelines for the safe use of wastewater, excreta and greywater in agriculture and aquaculture.
- Develop summary information on WES for AMR as part of the WES package and in coordination with AMR integrated surveillance.
- Maintain support for implementing the Global strategy on WASH and NTDs through key partners and networks, including the NNN.
- Maintain support for reporting against the NTD road map cross-cutting target on WASH – contributing to data analyses to overlay WASH access and NTD endemicity data at subnational levels and to support identification of high-priority areas for WASH.
- Collaborate with partners to document and disseminate case studies and lessons learned, particularly in fragile and underserved contexts.
- Provide input on WASH in the NTD research and development blueprint.
- Support integration of water-management strategies to reduce vector-borne diseases, aligning with broader WASH and health goals.

3.4 Cross-cutting priorities across strategic results areas

Cross-cutting priorities – climate resilience, One Health (including food and nutrition safety), gender, disability and social inclusion, and migration – are treated as practical risk lenses that shape what is recommended, tracked and delivered across SRA1 (norms, risk management and regulation), SRA2 (monitoring and evidence for decisions) and SRA3 (integration in health programmes).

Building on section 1.2.1 (WHO’s approach to climate and health), WASH adopts a risk-informed, equity-centred and low-carbon stance: guidance under SRA1 updates drinking-water, sanitation and wastewater, hand hygiene and proportionate regulation so services are safe, inclusive, climate-aware and migrant-responsive; SRA2 streamlines indicators on continuity, event impacts, equity (including MHM) and AMR-relevant controls within JMP, GLAAS/WASH accounts, BoD and economic work, and country dashboards to inform timely decisions; and SRA3 embeds these lenses in health care facility WASH (quality, IPC/AMR, waste, reliable electricity), public-health emergency preparedness and response (for example, cholera) and disease prevention and control (AMR/One Health, NTDs, primary care linkages).

This also includes new guidance such as WHO’s global best practices on safe management of pharmaceutical waste from health care facilities, which help reduce medicine residues and resistant pathogens entering the environment. Food and nutrition safety is integrated through safer water, sanitation in food environments and hygiene across supply chains.

New evidence on solid waste and health also points to the climate and air-quality impacts of open burning and poorly controlled incineration, providing an important evidence base for low-carbon, health-protecting waste strategies in the health sector.

Throughout, the WHO Water, Sanitation, Hygiene and Health programme works closely with related WHO programmes (climate and health, AMR, health emergencies, nutrition, maternal and child health, and disability) to ensure consistent approaches and coordinated country support.

4 Water, sanitation and hygiene in the regions

WHO African Region

The WHO African Region enters the post-2025 period with large, persistent gaps in safely managed services and recurrent cholera, amplified by climate shocks and fragile systems. The WHO Regional Office for Africa focuses on practical delivery at facility and community level, paired with stronger governance, financing and measurement to close access gaps while protecting health systems.

Priorities are to scale WASH in health care facilities using WASH FIT linked to infection prevention and control and emergency preparedness; embed climate-resilient practice through risk-based standards, drinking-water surveillance and climate-resilient water safety plans and target underserved and fragile settings with contextual, incremental upgrades. WES will be expanded where feasible to sharpen early warning and targeting. Delivery is underpinned by multisectoral coordination with governments and partners, and by financing that blends domestic budgets with climate and health funds. Progress will be tracked through a lean indicator set using JMP, GLAAS and WASH accounts, plus key performance indicators (KPIs) specific to the WHO African Region on adoption of risk-based regulation, WASH FIT coverage and functional surveillance.

WHO Region of the Americas

Regional averages conceal deep rural, indigenous and peri-urban inequities, alongside climate vulnerability and ageing infrastructure. The post-2025 agenda is to translate norms into routine delivery – risk-based planning and surveillance from communities to clinics, resilient facilities and financing that reaches places most at risk.

Countries will intensify water and sanitation safety planning and make surveillance routine across households, schools and health care facilities, reinforcing behaviour change and infection prevention and control. Health care facilities will be made climate-ready and with a lower environmental footprint (reliable WASH, safe waste, sustainable energy, trained staff). The programme frameworks of the Pan American Health Organization provide the policy spine; data systems (JMP, GLAAS, WASH accounts) guide equitable investment. Measurement will show contribution to universal health coverage, emergency readiness and climate resilience, with disaggregated data to close the rural–urban divide.

WHO South-East Asia Region

The WHO South-East Asia Region faces high WASH-related disease burdens, rapid urbanization and escalating climate hazards, with crisis contexts compounding risk. The regional portfolio aligns closely with the global strategy: systems-first implementation, stronger surveillance and climate-resilient services.

Work will expand WES and link signals to outbreak readiness; scale WASH in health care facilities (including waste management and energy reliability) integrated with primary health care, infection prevention and control and antimicrobial resistance; and deepen routine reporting via GLAAS, JMP and WASH accounts. Emphasis on gender equality, disability and social inclusion and community engagement ensures solutions are usable and sustained. A more structured partner and finance model prioritizes durable improvements over one-off projects, with selective digital tools where they add value. Monitoring focuses on a concise set of indicators that countries and WHO track jointly.

WHO European Region

Overall access is high in the WHO European Region, but disparities persist, especially in small systems, rural areas and emergency settings. The regional approach is to lock in resilient, risk-

managed services while protecting equity.

Implementation of the Protocol on Water and Health and European Union (EU)-aligned directives is paired with scaled water safety plans and sanitation safety planning and surveillance in small supplies; strengthened WASH in health care facilities with better waste management and energy reliability; and sustained emergency support, including in conflict-affected contexts. Country partnerships build operator and regulator capability. Measurement draws on JMP, GLAAS and WASH accounts, with targeted technical assistance for countries furthest behind.

WHO Eastern Mediterranean Region

Fragility, conflict and recurrent outbreaks shape WASH risks across the WHO Eastern Mediterranean Region, with uneven institutional capacity and sharp subnational gaps. The regional programme prioritizes service continuity and risk reduction in health care facilities and communities, consistent with the outcomes of the Fourteenth General Programme of Work on health protection and equity. Countries will institutionalize WASH FIT, scale water and sanitation safety planning for both utility and on-site systems, and strengthen household-level monitoring to target and account for results. Partnerships with United Nations agencies and ministries support capacity-building on waste, sanitation safety planning and climate-risk analysis. Technical assistance concentrates on countries with the greatest need, while tracking uses JMP, GLAAS and WASH accounts to focus resources where impact is highest.

WHO Western Pacific Region

The WHO Western Pacific Region combines very high coverage in some settings with stark gaps – particularly across Pacific Island Countries and hazard-prone subregions facing sea-level rise, storms and drought. The agenda is to scale integrated, climate-aware service packages and target inequities with data-led delivery.

Countries will expand WASH in health care facilities using joint tools (WASH FIT, health service indicators, climate-resilient facility guidance), strengthen multi-hazard preparedness with vulnerability mapping and operational playbooks, and institutionalize routine monitoring to track and close gaps. Technical assistance will deepen for Level-1 countries and be tailored for Pacific Island Countries, linking WASH to infection prevention and control, primary health care and emergencies. Progress will be measured through a streamlined set of indicators grounded in JMP, GLAAS and WASH accounts, demonstrating advances in resilience, equity and readiness.

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Annex 1: Theory of change for water, sanitation, hygiene, waste and health

Key activities (by Strategic Results Area)	Outputs (WHO)	Outcomes (countries & partners)	Impact
SRA 1 – Norms, risk management and regulation			
Develop and disseminate WHO norms, standards and tools for safe, climate-resilient WASH (drinking-water, sanitation, wastewater, recreational water, HCFs, WES). Provide risk-based implementation tools and training (WSP, SSP, WASH FIT, regulatory roadmaps) and support their adoption into national policies, standards and regulations, including for small and on-site systems. Convene and support regulators and authorities through RegNet and regional platforms.	Updated, implementation-ready norms, standards, tools and training materials on WASH, waste and WES. Contextualized policies, regulations and technical standards reflecting risk-based, climate-resilient approaches. Regulators and practitioners trained and networked to apply WHO guidance.	Governments, regulators and providers adopt risk-based approaches in laws, standards, supervision and operations, improving safety, continuity and resilience of WASH and waste services, especially for underserved and high-risk populations.	Substantially improved health through safely managed WASH services in all settings, with stronger protection from water-, sanitation- and hygiene related risks.
SRA 2 – Monitoring and evidence for decisions			
Run global monitoring and analytics (JMP, GLAAS, WASH accounts, burden of disease, climate- and gender-responsive indicators). Support consolidation of core WASH and systems indicators in national platforms and review processes. Build national capacity for data collection, analysis and use in policy dialogue, budgeting and climate strategies.	Regular global and national WASH and systems data sets and analyses produced and accessible (JMP, GLAAS, WASH accounts, BoD, climate/GEDSI modules). Practical guidance and tools for integrating WASH indicators into national systems and reviews.	Evidence on service levels, systems and finance is routinely used to set targets, prioritize investments, track inequalities and hold sector actors to account. Enabling environments (institutions, human resources, finance) are increasingly evidence-informed.	More efficient, equitable and accountable WASH systems that direct resources to those most in need and support sustained progress towards universal, safely managed services.
SRA 3 – Integration with health programmes			
Package WASH, IPC and waste solutions for health care facilities and emergency-prone settings and support implementation of the Global Framework for Action on universal WASH, waste and electricity in HCFs. Integrate WASH into PHC, health security and priority disease programmes (cholera, NTDs, AMR, One Health, emergencies, nutrition, climate adaptation and “net zero health” plans). Build capacity via WHO Academy, regional trainings and peer-learning networks.	Integrated technical packages, guidance and training materials for WASH, IPC and waste in health care facilities, PHC and priority health programmes. Health authorities and partners equipped to incorporate WASH into health planning, quality and safety initiatives and emergency readiness.	WASH is treated and financed as essential public-health infrastructure, embedded in PHC, quality of care, IPC/AMR, emergency preparedness and disease-specific programmes. Health services are better able to prevent infections, maintain continuity of care and manage outbreaks.	Stronger, more resilient health systems with reduced infection risks, improved quality of care and better health security, supported by reliable WASH and waste services.
Cross-cutting priorities – climate, One Health/AMR, GEDSI (including menstrual health), migration and displacement			
Mainstream these lenses across all norms, monitoring platforms and country support; promote low-carbon, climate-resilient WASH and health systems.	Cross-cutting considerations systematically reflected in WHO guidance, indicators, tools and technical cooperation.	Country strategies and investments increasingly climate-resilient, low-carbon, gender-responsive and inclusive of migrants and displaced populations.	Safer, more equitable and climate-resilient WASH and health systems that can withstand and recover from current and future shocks.

Annex 2: Programmatic risks and mitigation

Delivery of this strategy depends on political will, partner alignment, adequate capacity and financing, and effective collaboration across WHO's three levels, while recognizing external risks such as climate shocks, pandemics, conflict and migration.

Risk	Potential impact	Probability	Mitigation / management
1. Limited government and partner commitment to a systems-first, risk-based WASH agenda	Slow or partial uptake of WHO guidance (for example, GDWQ, sanitation guidelines, WSP/SSP, WASH FIT); weak regulation and surveillance; continued focus on projects rather than systems.	Medium	Use GPW 14, UN SWS and WHA mandates to advocate for WASH as essential public-health infrastructure; link guidance to health and climate outcomes and economic returns; target support to committed "pathfinder" countries and use their examples in advocacy.
2. Human and institutional capacity constraints in WHO and countries	Inability to meet demand for technical support, regulatory strengthening, monitoring and integration across health programmes; uneven quality of implementation.	High	Prioritize high-yield normative work and scalable tools; channel more resources to regional and country offices; use WHO Academy modules, regional trainings and peer learning to build capacity at scale; work through implementing partners and regulator networks (for example, RegNet) where WHO presence is limited.
3. Insufficient and fragmented financing, including limited access to climate and health funds	Underfunded core functions (JMP, GLAAS, WASH accounts, guidance updates); stalled country reforms; inability to scale climate-resilient WASH and WES.	High	Strengthen the investment case using burden-of-disease and ROI analyses; use WASH accounts and GLAAS to show gaps and value for money; align with UN SWS collaborative plans and climate processes (NDCs, NAPs) to access climate and health finance; promote pooled and multi-year funding rather than fragmented projects.
4. Weak national monitoring systems and limited use of evidence	Incomplete or low-quality data on services, systems and finance; difficulty targeting underserved populations, tracking climate resilience and demonstrating results.	Medium	Support consolidation of a core WASH indicator set in national platforms; strengthen country capacity for data collection, quality assurance, analysis and review; continue global monitoring (JMP, GLAAS, WASH accounts, BoD) and link outputs to sector reviews, budgeting and climate-resilience strategies.
5. Intensifying external shocks (climate change, outbreaks, conflict and migration)	Service disruptions, reversals in coverage and quality, diversion of political attention and resources away from medium-term system strengthening.	High	Embed climate risk management and emergency readiness in norms (for example, climate-resilient WSP/SSP, WASH FIT), indicators and country support; integrate WASH into emergency preparedness and response, health security and One Health; prioritize fragile, rural and peri-urban settings and use incremental, resilience-focused approaches.

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