

The Sustainable Development Goals: An analysis from the perspective of the human rights to water and sanitation

Reading packet consists of:

1. Excerpt of “Translating Legal Norms into Quantitative Indicators: Lessons from the Global Water, Sanitation, and Hygiene Sector” by Sharmila L. Murthy
2. General Comment 15 on the right to water (2002)
3. Excerpt of “Progress on Drinking Water, Sanitation and Hygiene 2017” by the World Health Organization and UNICEF’s Joint Monitoring Program (introduction & highlights)

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TRANSLATING LEGAL NORMS INTO QUANTITATIVE INDICATORS: LESSONS FROM THE GLOBAL WATER, SANITATION, AND HYGIENE SECTOR

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Legal norms that are translated into quantitative indicators have the potential to shape behavior, even absent legal penalties, because numbers are easy to understand and provide a basis for accountability, comparability, and performance benchmarking. In the field of international environmental law, where legal enforcement options are often limited, quantitative indicators that facilitate comparison between nations can be a particularly important way of fostering compliance with emerging norms. However, quantitative indicators are like double-edged swords: the very simplicity that enables them to have strong communicative power often comes at the cost of a complete and accurate understanding of the problem. This Article analyzes both sides of this proverbial sword through a case study of the global water, sanitation, and hygiene sector.

Drawing on the environmental law literature on information disclosure and the social science and human rights literature on global indicators, I first develop a conceptual framework that examines (1) when information disclosure is more likely to promote legal compliance, which is described as a “governance effect;” and (2) how the form of the information disclosed, i.e., the choice of certain quantitative indicators, can shape policy options and alter—or even distort—the meaning of the original legal norm, which is known as a “knowledge effect.”

I then apply this new approach for studying the dynamic interaction between legal norms and statistics to a case study on global water. I argue that through quantitative information disclosure, these non-binding “soft law” declarations to expand access to water, sanitation, and

Abstract
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overview of
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hygiene have had a governance effect by influencing international and national development agendas. I also demonstrate how quantitative indicators can have unintended knowledge effects with perverse policy consequences; for example, a person with access to a water tap was considered to have met one global target even if the water was contaminated or the tap was broken. Finally, I show how the development of these statistical tools has been influenced by the conception of water and sanitation as human rights. An analysis of this unusual dialogue offers insights to human rights advocates who want to translate their ideas into numeric terms that policymakers can understand.

This Article makes a unique contribution through its original interdisciplinary conceptual framework and comparative analysis of domestic and international law. It underscores the importance of studying how quantitative indicators are created to ensure that the knowledge they impart reflects the original legal norms.

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¹ Kevin E. Davis et al., *Indicators as a Technology Global Governance*, 46 LAW & SOC'Y

II. CASE STUDY ON GLOBAL WATER, SANITATION, AND HYGIENE

A. *Brief History of Global Water Goals*

Over the last half century, access to *intrastate* water has become an object of global environmental governance. The start of the international

environmental movement is often traced to the 1972 Stockholm Conference on the Human Environment, whose declaration briefly mentioned water as among the natural resources of the earth that must be safeguarded.¹³³ However, it was the 1977 Action Plan of the U.N. Water Conference in Mar Del Plata that galvanized attention on a variety of water issues. With respect to community water supply, the U.N. conference declared that “[a]ll peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs.”¹³⁴ The 1980s were declared the International Drinking Water Supply and Sanitation Decade and concrete targets were established: 100% access for urban water, 80% access for urban sanitation, and 50% access for rural water and sanitation.¹³⁵ Any achievement towards these targets was negated by population growth, so when states met at the 1990 Global Consultation on Safe Water and Sanitation in New Delhi, they declared that universal access for water and sanitation should be achieved by 2000.¹³⁶ This commitment to universal access to safe water and sanitation services was reaffirmed in Agenda 21, the comprehensive action plan that accompanied the 1992 Rio Declaration on Environment and Development.¹³⁷

The turn of the century heralded a new approach to international development, one that prioritized measurable goals that could be monitored through quantitative indicators.¹³⁸ In 2000, U.N. member states adopted the Millennium Declaration, which did not commit to universal water access but instead resolved “to halve the proportion of people who

¹³³ See generally G.A. *Report of the United Nations Conference on the Human Environment*, U.N. Doc. A/Conf.48.14.Rev.1.

¹³⁴ U.N. WATER CONFERENCE—RESOLUTIONS, at 1, U.N. Sales No. E.77.II.A.12 (March 1977), <http://ielrc.org/content/e7701.pdf> [<https://perma.cc/D2WD-TWG3>].

¹³⁵ G.A. Res. 35/18, at ¶ 4 (Nov. 10, 1980), <http://www.un.org/documents/ga/res/35/a35r18e.pdf> [<https://perma.cc/9WPP-2J2B>]; B.Z. Diamant, *Assessment and Evaluation of the International Water Decade*, 112 J. R. SOC. HEALTH 183, 183–84 (1992).

¹³⁶ *New Delhi Statement, Global Consultation on Safe Water and Sanitation*, 2–3, U.N. Doc A/C.2/45/3 (Oct. 11, 1990), <http://ielrc.org/content/e9005.pdf> [<https://perma.cc/4DUT-4WW9>].

¹³⁷ *United Nations Conference on Env't & Dev., Agenda 21*, art. 6.12 (June 14, 1992), <http://www.un.org/esa/sustdev/documents/agenda21/english/Agenda21.pdf> [<https://perma.cc/MMC6-C288>].

¹³⁸ Statement by Mark Suzman, Managing Director, International Policy, Programs & Advocacy, Bill & Melinda Gates Foundation, to High Level Dialogue on Health in the Post-2015 Development Agenda (Mar. 5, 2013), <https://www.gatesfoundation.org/Media-Center/Speeches/2013/03/High-Level-Dialogue-on-Health-in-the-Post-2015-Development-Agenda> [<https://perma.cc/5BKP-R6AM>] [hereinafter Suzman Statement Mar. 2013].

are unable to reach or to afford safe drinking water” by 2015.¹³⁹ This shift away from universal water access reflected the international community’s embrace of more realistic time-bound goals that could be measured.

The goals in the Millennium Declaration were ultimately translated into the MDGs,¹⁴⁰ through a technical process that was criticized by civil society for being non-transparent and non-participatory.¹⁴¹ The resulting goals committed states to “halv[ing] by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.”¹⁴² This target differed from the original wording of the Millennium Declaration in several ways. The Millennium Declaration only addressed water, but sanitation was added to the MDG target in 2002.¹⁴³ After much debate, the reference to “affordability” in the Declaration was deleted, the phrase “sustainable access” was added to the MDG target, and the description of water as “safe” in the Declaration was maintained.¹⁴⁴ However, as will be discussed in Section II.C, the actual indicators used to measure progress with this MDG target did not consider sustainability, safety, or affordability. The Joint Monitoring Program for Water Supply and Sanitation (“JMP”), which the World Health Organization and UNICEF created in 1990, was tasked with developing indicators to monitor progress towards the MDGs.¹⁴⁵

¹³⁹ G.A. Res. 55/22, at 4 (Sept. 18, 2000); Langford & Winkler, *supra* note 41, at 145 (describing this as a “normative regression”).

¹⁴⁰ The targets identified in the Millennium Declaration were merged with the International Development Goals that had been developed by the Development Assistance Committee of the OECD to prioritize funding for overseas development. David Hulme, *The Millennium Development Goals (MDGs): A Short History of the World’s Biggest Promise* 12–16 (Brooks World Poverty Inst., Working Paper No. 100, Sept. 2009), <http://papers.ssrn.com/abstract=1544271> [<https://perma.cc/F83W-CTPV>] (last visited Jan. 21, 2018); John W. McArthur, *The Origins of the Millennium Development Goals*, XXXIV SAIS REV. 5, 6 (2014) (“The lack of transparency in the formulation of the MDGs was one of their shortcomings, for a group of staff members from the U.N., International Monetary Fund, World Bank, and OECD were responsible for the drafting process without any broader participation, especially from civil society.”).

¹⁴¹ See, e.g., Ved Nanda, *The Journey from the Millennium Development Goals to the Sustainable Development Goals*, 44 DENV. J. INT’L POL’Y 389, 398 (2016).

¹⁴² U.N. DEP’T OF ECON. AFFAIRS, OFFICIAL LIST OF MDG INDICATORS, <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm> [<https://perma.cc/GC77-G2CP>] (last visited Oct. 24, 2017).

¹⁴³ Bartram et al., *supra* note 14, at 8142.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* at 8138, 8142 (noting that international monitoring of drinking water and sanitation began in the 1930s under the League of Nations but became more robust under the JMP).

In 2010, the MDG target for water was met five years ahead of schedule, but there was less cause for celebration than might appear at first glance.¹⁴⁶ At that point in time, there were still approximately 780 million individuals without access to improved drinking water.¹⁴⁷ As discussed below, however, these figures were underestimates because the statistical methodology did not capture whether the water was safe, available when needed, easily accessible, or affordable.¹⁴⁸ In addition, by the time the MDGs expired in 2015, sanitation remained one of the most off-track MDGs, with the target having been missed by almost 700 million people.¹⁴⁹

The year 2010 was also when the U.N. General Assembly and Human Rights Council adopted resolutions recognizing a human right to safe drinking water and sanitation.¹⁵⁰ The right, which derives principally from the International Covenant on Economic, Social and Cultural Rights, “entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.”¹⁵¹ As discussed in Section II.D, this recognition fueled greater attention to the MDG water targets by the human rights community and provided another language for describing the shortcomings of the indicators.¹⁵²

The MDGs expired in 2015 and there was significant debate over what would define the so-called post-2015 development agenda.¹⁵³ At the 2012 Rio+20 Conference on Sustainable Development, states adopted an outcome document that included a call to develop SDGs.¹⁵⁴ Ultimately,

¹⁴⁶ WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY AND SANITATION, JMP REPORT: PROGRESS ON DRINKING WATER AND SANITATION: 2012 UPDATE Looking Forward Looking Back, Foreword (2012), <https://washdata.org/reports?reports%5B0%5D=date%3A2012> [<https://perma.cc/Y3QG-2ZZW>] [hereinafter WHO/UNICEF JMP 2012 UPDATE].

¹⁴⁷ *Id.*

¹⁴⁸ WHO/UNICEF JMP 2015 UPDATE, *supra* note 11, at 5.

¹⁴⁹ *Id.* at 4.

¹⁵⁰ G.A. Res. 64/292, U.N. Doc. A/RES/64/PV.108, at 2 (July 28, 2010); Human Rights Council Res. 15/9, U.N. Doc. A/HRC/RES/15/9, at 1 (Oct. 6, 2010).

¹⁵¹ *Gen. Comment No. 14: Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights*, ESCOR, Comm. on Economic, Social and Cultural Rights on Its 22nd Session, E/C.12/2000/4 (Aug. 11, 2000) [hereinafter *Gen. Comment No. 14*]; *Gen. Comment No. 15: The Right to Water*, Comm. on Economic, Social, and Cultural Rights on Its 29th Session, E/C.12/2002/22, ¶ 2 (Jan. 20, 2003) [hereinafter *Gen. Comment No. 15*].

¹⁵² *Gen. Comment No. 15, supra* note 151.

¹⁵³ G.A. Res. 66/288, ¶ 249 (July 27, 2012), http://www.un.org/en/ga/search/view_doc.asp?symbol=%20A/RES/66/238 [<https://perma.cc/6H9M-UXF3>].

¹⁵⁴ *Id.* ¶ 81.

in 2015, the U.N. General Assembly adopted a resolution entitled “Transforming our world: the 2030 Agenda for Sustainable Development,” which set forth the 17 goals and 169 targets that now comprise the SDGs.¹⁵⁵ The declaration also reaffirms state “commitments regarding the human right to safe drinking water and sanitation.”¹⁵⁶

Goal 6 of the SDGs seeks to “ensure availability and sustainable management of water and sanitation for all.”¹⁵⁷ In Targets 6.1 and 6.2 of the SDGs, states commit to achieving by 2030 “universal and equitable access to safe and affordable drinking water for all” and “access to adequate and equitable sanitation and hygiene for all and end[ing] open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.”¹⁵⁸ As discussed more in Section II.D, although the actual goal and targets are not framed in human rights terms, the JMP, which is responsible for developing the statistical indicators for the water, sanitation and hygiene targets, has explicitly embraced a human rights interpretation of these targets.¹⁵⁹ In addition, SDG 6 also encompasses process-oriented “means of implementation” targets, with states pledging in Target 6.b to “support and strengthen the participation of local communities in improving water and sanitation management.”¹⁶⁰ Several other SDGs are also relevant to the water targets, including the commitment to “reduce inequality within and among countries”¹⁶¹ and to “ensure all men and women, in particular the poor and vulnerable, have equal rights to economic resources, as well as access to basic services. . . .”¹⁶²

To measure and compare country progress, enhance accountability, and inform policy, several U.N. agencies¹⁶³ are developing quantitative

¹⁵⁵ G.A. Res. 70/1, *supra* note 15, ¶ 7.

¹⁵⁶ *Id.* ¶ 7.

¹⁵⁷ *Id.* at 14.

¹⁵⁸ *Id.* at 18.

¹⁵⁹ IAEG-SDGs, *supra* note 42; WHO/UNICEF: METHODOLOGICAL NOTE, *supra* note 40, at 29, 81. As discussed in Section II.D, the current U.N. Special Rapporteur on the human rights to water and sanitation has criticized the JMP for not including a human rights perspective even more explicitly in their 2017 progress report. Open Letter from Léo Heller, U.N. Special Rapporteur on the human rights to safe drinking water and sanitation, to the WHO-UNICEF Joint Monitoring Programme for WASH, ¶3 (July 28, 2017), http://www.ohchr.org/Documents/Issues/Water/OpenLetter_WHO_UNICEF_WASH.pdf [<https://perma.cc/VSP5-8ZVH>].

¹⁶⁰ G.A. Res. 70/1, *supra* note 15, ¶ 3.

¹⁶¹ *Id.* at 21.

¹⁶² *Id.* at 15.

¹⁶³ All of these targets under Goal 6 are being managed under the umbrella of U.N. Water. The drinking water and sanitation access targets will continue to be monitored by the Joint Monitoring Program on UNICEF and the World Health Organization, which

indicators through a complex bureaucratic process that is being coordinated by the Inter-Agency Expert Group on SDG Indicators, a new initiative under the auspices of the U.N. Statistical Commission.¹⁶⁴

was created in 1991. The process-oriented “means of implementation” targets relating to assistance and participation will be monitored by U.N. Water Global Analysis and Assessment for Sanitation and Drinking Water (“GLAAS”), in collaboration with OECD and U.N. Environment. The other targets relating to water quality, wastewater management, water resource management, etc. are being coordinated by a new initiative known as GEMI under the U.N. Water umbrella. *See* U.N. WATER, MONITORING WATER AND SANITATION IN THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT: AN INTRODUCTORY GUIDE 7 (2016), <http://www.indiaenvironmentportal.org.in/files/file/Monitoring%20Water%20and%20Sanitation%20in%20the%202030%20Agenda.pdf> [<https://perma.cc/32HC-XS6S>].

¹⁶⁴ U.N. Dep’t of Econ. and Soc. Affairs, IAEG-SDGs—SDG Indicators, <https://unstats.un.org/sdgs/iaeg-sdgs/metadata-compilation/> [<https://perma.cc/5S6W-2HCY>] (last visited Jan. 21, 2018).

D. A Dialogue Between Human Rights and Statistics

An important insight also emerges from the analysis of the way in which human rights have been influencing the creation of the SDG water indicators.³²⁰ In the 1990s, water was increasingly becoming a concern of the human rights community, at least in part due to protests that had been erupting around the globe in response to water privatization efforts.³²¹ In 2002, the U.N. committee responsible for interpreting the International Covenant for Economic, Social and Cultural Rights (“ICESCR”) issued General Comment 15 on the Right to Water.³²² It determined that the ICESCR’s articles on the “right to an adequate standard of living,” the “right to health,” and the “right to life” should be interpreted to encompass a right to water.³²³ This recognition also built on relevant language in the Convention on the Rights of the Child³²⁴ and in the Convention on the Elimination of All Forms of Discrimination Against Women,³²⁵ and on soft law declarations, such as the Mar del Plata declaration of 1977 discussed in Section II.A.³²⁶ As defined in General Comment 15, the right

³¹⁹ Rosga & Satterthwaite, *supra* note 32, at 256.

³²⁰ U.N. Dev. Programme, *The Human Rights Based Approach to Development Cooperation Towards a Common Understanding Among UN Agencies*, https://undg.org/wp-content/uploads/2016/09/6959-The_Human_Rights_Based_Approach_to_Development_Cooperation_Towards_a_Common_Understanding_among_UN.pdf [<https://perma.cc/P8FM-JJHS>].

³²¹ See Murthy, *supra* note 42, at 97–100.

³²² *Gen. Comment No. 15*, *supra* note 151.

³²³ *Id.* at ¶ 3.

³²⁴ Convention on the Rights of the Child art. 24.2(c), Nov. 20, 1989, 1577 U.N.T.S. 3 (requiring States to combat disease and malnutrition “through the provision of adequate nutritious foods and clean drinking-water”).

³²⁵ Convention on the Elimination of All Forms of Discrimination Against Women art. 14.2(h), Dec. 18, 1979, 1249 U.N.T.S. 13 (requiring States to ensure that women have the right to “enjoy adequate living conditions, particularly in relation to . . . water supply”).

³²⁶ U.N. WATER CONFERENCE—RESOLUTIONS, *supra* note 134, at 66 (“All peoples . . . have the right to have access to drinking water in quantities and of a quality equal to their basic needs.”).

to water “entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.”³²⁷ In 2010, the U.N. General Assembly and the U.N. Human Rights Council adopted resolutions recognizing a human right to safe drinking water and sanitation.³²⁸ In 2008, the Human Rights Council also appointed a Special Rapporteur on the human right to safe drinking water and sanitation, who began to engage the water community on a variety of issues, including on the shortcomings of the MDGs.

Although the push to recognize water as a human right largely emerged out of struggles against water privatization, it should be noted that human rights law does not prohibit the use of private actors in the delivery of water services.³²⁹ Although states have the primary obligation to ensure that the human right to safe drinking water and sanitation is progressively realized, private actors can step in and fulfill the need. Moreover, under international human rights law, water and sanitation services must be affordable, not free. As a result, many private companies, such as Nestle,³³⁰ Pepsi,³³¹ and Veolia,³³² have embraced the idea of water as a human right because they see themselves as being able to fill a service gap.

In the 2030 Agenda resolution that gave rise to the SDGs, states reaffirmed in the Declaration their “commitments regarding the human right to safe drinking water and sanitation.”³³³ This inclusion is noteworthy because of what was omitted: food and housing, which are expressly described as human rights under the ICESCR, are framed only as basic needs. The clear recognition of the right to water and sanitation—which has only recently been interpreted as a right—reflects the attention given this issue. This acknowledgment follows several resolutions that had been adopted by the U.N. General Assembly and Human Rights Council,

³²⁷ *Gen. Comment No. 14*, *supra* note 151, ¶ 2.

³²⁸ G.A. Res 64/292, *supra* note 150, ¶ 1 (July 28, 2010); Human Rights Council Res. 15/9, *supra* note 150, ¶ 3.

³²⁹ Murthy, *supra* note 42, at 90–91; SALZMAN, *supra* note 12, at 204–05.

³³⁰ *What about the human right to water?*, NESTLE WATERS, <http://www.nestle-waters.com/question-and-answers/what-about-the-human-right-to-water> [https://perma.cc/3KAH-YNUX] (last visited Jan. 21, 2018).

³³¹ PEPSICO, PepsiCo Guidelines in Support of the Human Right to Water (Oct. 30, 2015), <https://www.pepsico.com/docs/album/default-document-library/pepsicohumanrightto water.pdf?sfvrsn=0> [https://perma.cc/YTD2-9X7U].

³³² VEOLIA WATER, Right to Water—From Concept to Reality (2010), <http://www.ohchr.org/Documents/Issues/Water/ContributionsPSP/Veolia.pdf> [https://perma.cc/R9H2-CMS6].

³³³ G.A. Res. 70/1, *supra* note 15, ¶ 7.

which highlighted the importance of including the human right to safe drinking water and sanitation in the post-2015 development agenda.³³⁴

In December 2015, the U.N. General Assembly adopted a resolution on “[t]he human rights to safe drinking water and sanitation” that specifically welcomed the reaffirmation of the human right to safe drinking water and sanitation as part of the 2030 Agenda for Sustainable Development.³³⁵ The title of this resolution is notable because it reflects the evolving consensus that water and sanitation are related but distinct human rights; this is the first time that a General Assembly resolution or Human Rights Council resolution has used the plural form. This resolution followed one adopted in December 2013, in which the General Assembly specifically called upon states “[t]o give due consideration to the human right to safe drinking water and sanitation and the principles of equality and non-discrimination in the elaboration of the post 2015 development agenda.”³³⁶ Moreover, the Human Rights Council has also repeatedly underscored the need to consider the human right to safe drinking water and sanitation in the post-2015 development agenda.³³⁷

Despite the strong advocacy that led to the recognition of the human right to safe drinking water and sanitation in the 2030 Agenda,³³⁸ the actual water, sanitation, and hygiene goals and targets of the SDGs were not framed in human rights terms.³³⁹ Because the 2030 Agenda is not a treaty, it had the freedom to be ambitious.³⁴⁰ Thus, it is perhaps puzzling why it did not incorporate more references to human rights,

³³⁴ G.A. Res. 70/169, at 1 (Feb. 22, 2016); G.A. Res. 68/157, at ¶ 6 (c) (Feb. 12, 2014); Human Rights Council Res. 27/7, UN Doc. A/HRC/RES/27/7, ¶ 4 (Oct. 2, 2014); Human Rights Council Res. 24/18, U.N. Doc. A/HRC/RES/24/18, ¶ 10 (Oct. 8, 2013).

³³⁵ G.A. Res. 70/169, *supra* note 334, at 1.

³³⁶ G.A. Res. 68/157, *supra* note 334, ¶ 6(c).

³³⁷ Human Rights Council Res. 27/7, *supra* note 334, ¶ 4; Human Rights Council Res. 24/18, *supra* note 334, ¶ 10; Human Rights Council Res. 21/2, U.N. Doc. A/HRC/21/2 (Aug. 26, 2013), ¶ 14.

³³⁸ See, e.g., Open Letter from Léo Heller, *supra* note 159, at 2; *The Foundations of SDG 6—The Human Right to Water and Sanitation*, U.N. WEB TV (2016), <http://webtv.un.org/search/the-foundations-of-sdg-6-the-human-right-to-water-and-sanitation/5031101605001?term=human%20right%20to%20water%20and%20sanitation> [https://perma.cc/X6GN-44QN] (last visited Jan. 21, 2018); *News: The Foundations of SDG 6—The Human Right to Water and Sanitation*, NGO MINING WORKING GROUP (2016), <https://miningwg.com/news/> [https://perma.cc/GM8K-X68X] (last visited Jan. 21, 2018).

³³⁹ In fact, none of the goals or targets in any of the sectors used human rights language despite strong advocacy by NGOs and several U.N. agencies. See, e.g., U.N. OFFICE OF THE HIGH COMM’R FOR HUMAN RIGHTS & CENTER FOR ECON. AND SOC. RIGHTS, *supra* note 234.

³⁴⁰ Thomas Pogge & Mitu Sengupta, *The Sustainable Development Goals (SDGs) as Drafted: Nice Idea, Poor Execution*, WASH. INT’L L.J. 571, 572 (2015).

especially considering the natural alignment of the SDG goals with economic and social rights and the strong advocacy efforts to do so.³⁴¹ I suggest that this did not occur because human rights would have led to greater accountability than member states wanted. Indeed, even the softer term “follow-up and review” was used instead of “monitoring and accountability” due to sensitivities of the block of developing countries known as the G-77.³⁴² Nations still have human rights obligations under existing treaties, but grounding the SDGs in human rights would have enhanced their accountability and legal bindingness. Nevertheless, the JMP has purposefully incorporated a human rights perspective into its interpretation of the SDG targets on water, sanitation, and hygiene and this analysis seeks to explain why.³⁴³

The fields of human rights and international development are often like “ships passing in the night”: the ultimate goals may be similar but the strategies and priorities are different.³⁴⁴ The economic and managerial concepts that underpin the MDGs and the SDGs are at odds with the legal and philosophical theory behind human rights.³⁴⁵ Moreover, U.N. statisticians, who pride themselves on developing objective indicators, are not usually keen to embrace human rights language, which they see as advocacy-oriented and difficult to quantify.³⁴⁶

³⁴¹ See, e.g., Human Rights Caucus Reaction to the 2030 Agenda for Sustainable Development (2015) [hereinafter Human Rights Caucus]; Donoghue, *supra* note 270, at 7.

³⁴² Donoghue, *supra* note 270, at 2.

³⁴³ For a more detailed assessment of how the water targets of the SDGs specifically relate to the normative content of the human rights to safe drinking water and sanitation, see ANALYSIS OF THE SUSTAINABLE DEVELOPMENT GOALS FROM THE PERSPECTIVE OF THE HUMAN RIGHTS TO SAFE DRINKING WATER AND SANITATION, REPORT PREPARED FOR THE SISTERS OF MERCY ON BEHALF OF THE NGO MINING WORKING GROUP AT THE UNITED NATIONS, compiled by Sharmila L. Murthy (2016) <https://cdn1.sph.harvard.edu/wp-content/uploads/sites/134/2016/07/Reading-packet-on-HRTWS.pdf> [<https://perma.cc/9S4K-X8N3>].

³⁴⁴ Alston, *supra* note 166. See also U.N. DEV. PROGRAMME, *Integrating human rights with sustainable human development* (1998), http://www.crin.org/docs/resources/publications/hrbap/UNDP_integrating_hr.pdf [<https://perma.cc/J5XX-NSBY>]; PAUL GREARY, HUMAN RIGHTS AND DEVELOPMENT IN THE NEW MILLENNIUM: TOWARDS A THEORY OF CHANGE (1st ed. 2014); TAKHMINA KARIMOVA, HUMAN RIGHTS AND DEVELOPMENT IN INTERNATIONAL LAW (2016); PETER UVIN, HUMAN RIGHTS AND DEVELOPMENT (2004); Peter Uvin, *From the Right to Development to the Rights-Based Approach: How 'Human Rights' Entered Development*, 17 DEV. IN PRACTICE 597–606 (2007); PHILIP ALSTON & MARY ROBINSON, HUMAN RIGHTS AND DEVELOPMENT: TOWARDS MUTUAL REINFORCEMENT (2005); Human Rights Caucus, *supra* note 341; U.N. OFFICE OF THE HIGH COMM’R FOR HUMAN RIGHTS & CENTER FOR ECON. AND SOC. RIGHTS, *supra* note 43, at 2.

³⁴⁵ Alston, *supra* note 166, at 807; Darrow, *supra* note 234, at 68.

³⁴⁶ MERRY, *supra* note 3, at 24.

In light of these distinct epistemologies, the JMP's deliberate incorporation of a human rights perspective into the technical monitoring framework is noteworthy. For example, the JMP explains that "[i]nternational consultations since 2011 have established consensus on the need to build on and address the shortcomings of this [proxy water] indicator, specifically, to address the normative criteria of the human right to water including accessibility, availability, and quality."³⁴⁷ Similarly, the JMP perceives its efforts to disaggregate data as a way of addressing the human rights concepts of universal access and non-discrimination.³⁴⁸ As a result, the JMP has been lauded by much of the human rights community for its efforts to integrate human rights criteria within its framework for global monitoring.³⁴⁹ However, others argue that the JMP has not gone far enough in embracing a human rights approach to its monitoring efforts.³⁵⁰

The conceptual framework developed in this Article helps to explain how and why human rights are being translated into statistical terms. These two distinct approaches have become increasingly fungible or comparable. This equivalence phenomenon can be partly attributed to the rise of human rights indicators, which seek to measure compliance with human rights treaty obligations and thereby transform abstract legal concepts into specific policy prescriptions.³⁵¹ For example, the Social

³⁴⁷ WHO/UNICEF JMP 2012 UPDATE, *supra* note 146.

³⁴⁸ *Id.* at 3; Bartram et al., *supra* note 14, at 8157. The SDGs also contain a broader goal on the need to "reduce inequality within and among countries," which includes targets on the need to "empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status," and "ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard." G.A. Res. 70/1, *supra* note 15, at Goal 10. However, as of April 2017, the indicators for these Goal 10 targets were classified as "Tier III" by the Inter-agency and Expert Group on SDG Indicators ("IAEG-SDGs"), which means that "[n]o internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested." IAEG-SDGs, TIER CLASSIFICATION FOR GLOBAL SDG INDICATORS 3, 27 (Apr. 20, 2017), https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_20%20April%202017_web.pdf [<https://perma.cc/VK4S-FXE6>].

³⁴⁹ U.N. OFFICE OF THE HIGH COMM'R FOR HUMAN RIGHTS & CENTER FOR ECON. AND SOC. RIGHTS, *supra* note 234, at 54–56.

³⁵⁰ Open Letter from Léo Heller, *supra* note 159.

³⁵¹ U.N. OFFICE OF THE HIGH COMM'R ON HUMAN RIGHTS, *supra* note 234, at 1–2; Margaret L. Satterthwaite, *Coding Personal Integrity Rights: Assessing Standards-Based Measures Against Human Rights Law and Practice*, 48 NYU J. INT'L POL. 513, 513 (2015); Rosga & Satterthwaite, *supra* note 32, at 254; MERRY, *supra* note 3, at 164.

and Economic Rights Fulfillment Index provides a quantitative measure of a country's fulfillment with social and economic rights.³⁵² Another measure is the Water, Sanitation, and Hygiene Performance Index, which has been developed as a way to measure progress towards the human rights to water and sanitation.³⁵³

Through the lens of equivalence, we see how two different communities (human rights and development) that use two distinct languages (law and statistics) have been able to communicate with each other, thereby providing a pathway for the integration of the rights to water and sanitation into the SDG technical monitoring process. This process was enhanced by channels of communication that were established by the JMP as part of the post-2015 development process.³⁵⁴ The JMP convened working groups not only on the target topics, i.e., water, sanitation, and hygiene, but also on equality and non-discrimination ("END"). Then—U.N. Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque, chaired the END working group.³⁵⁵

The current U.N. Special Rapporteur, Leo Heller, has continued to play an active role, including serving as a member of the Strategic Advisory Group of JMP and GLAAS.³⁵⁶ However, he has also been critical of the process, publishing an open letter "to express [his] disappointment that the JMP's 2017 Progress Report does not incorporate any explicit human rights language."³⁵⁷ Although the emphasis could have been greater, the JMP's 2017 report does in fact state that "[t]he human rights to water and sanitation place obligations on States to ensure that services are affordable," and that "[a]ccessibility, availability and quality are three of the normative criteria of the human right to safe drinking water, and are used by the JMP for global monitoring of drinking water."³⁵⁸ Heller also criticized the JMP's approach for failing to treat affordability

³⁵² Fukuda-Parr et al., *An Index of Economic and Social Rights Fulfillment: Concept and Methodology*, 8 J. HUMAN RIGHTS 195, 197–98 (2009); SAKIKO FUKUDA-PARR, FULFILLING SOCIAL AND ECONOMIC RIGHTS 15–16 (2015), http://nrs.harvard.edu/urn-3:hul.ebookbatch.GEN_batch:EDZ000100263520160623 [<https://perma.cc/FFZ9-N8UA>] (last visited Jan. 21, 2018).

³⁵³ Benjamin Mason Meier et al., *Monitoring the Progressive Realization of the Human Rights to Water and Sanitation: Frontier Analysis as a Basis to Enhance Human Rights Accountability*, in THE OXFORD HANDBOOK OF WATER POLITICS AND POLICY (Ken Conca & E. Weinthal eds., 2017), <https://papers.ssrn.com/abstract=2851032> [<https://perma.cc/CE43-WLXF>] (last visited Jan. 21, 2018).

³⁵⁴ See, e.g., WHO/UNICEF JMP 2017 UPDATE, *supra* note 11, at 1.

³⁵⁵ G.A. Res. 67/270, at 5 (Aug. 8, 2012).

³⁵⁶ Open Letter from Léo Heller, *supra* note 159.

³⁵⁷ *Id.* at 2.

³⁵⁸ WHO/UNICEF JMP 2017 UPDATE, *supra* note 11, at 20, 26.

and equality as an integral part of the definition of “safely managed” water and sanitation.³⁵⁹ Although the extent to which the JMP has embraced human rights language can be debated, this public exchange underscores the open channels of communication between the human rights and technical monitoring communities.

In addition, the former Special Rapporteur, de Albuquerque, helped to promote equivalence by unbundling the rights to water and sanitation into two categories: normative content (quality, accessibility, availability, affordability and acceptability); and cross-cutting criteria (non-discrimination, participation, accountability, impact and sustainability).³⁶⁰ The water community was receptive to this human rights approach because it dovetailed with existing conceptions of “good” water, sanitation, and hygiene access, such as the fact that water should be safe.³⁶¹ In other words, human rights gave the water community a shorthand way of describing “ideal” access. Moreover, in response to demands by the human rights community for a more analytically rigorous way to measure equality and to identify discrimination in service provision, the JMP heightened its efforts to disaggregate data by wealth quintiles and by urban-rural locations even during the MDG monitoring period.³⁶² In addition, the “ladder” approach used by JMP to show progress was seen as responsive to the human rights concept of “progressive realization.”³⁶³

The unbundling of the rights to water and sanitation into their constitutive parts has also facilitated the calculability of the rights to water and sanitation. As noted earlier, the JMP specifically mentioned three constitutive elements of the right to water in its plans for the SDG water access indicator: accessibility, availability, and quality. This corresponds with the efforts to measure whether an improved source is located on premises, available when needed, and free of fecal and certain chemical contamination.³⁶⁴

The human rights to water and sanitation have influenced the SDG indicator development process, but the converse may also be true:

³⁵⁹ Open Letter from Léo Heller, *supra* note 159, at 2.

³⁶⁰ Catarina de Albuquerque, *Progress report on the compilation of good practices*, U.N. Doc. A/HRC/15/31/Add.1, at ¶ 11 (July 1, 2010), http://www2.ohchr.org/english/bodies/hrcouncil/docs/15session/A.HRC.15.31.Add.1_en.pdf [<https://perma.cc/4H96-GSHC>]; Inga T. Winkler, Margaret L. Satterthwaite & Catarina de Albuquerque, *Treasuring What We Measure and Measuring What We Treasure: Post-2015 Monitoring for the Promotion of Equality in the Water, Sanitation, and Hygiene Sector*, 32 WIS. INT'L L.J. 547, 547–48 (2014).

³⁶¹ See Bartram et al., *supra* note 14, at 8142.

³⁶² *Id.*

³⁶³ See *id.*

³⁶⁴ IAEG-SDGs, *supra* note 42, at 2.

the technocratic process associated with SDG monitoring of water, sanitation, and hygiene may influence the evolution and content of these rights. Because the U.N. agencies responsible for developing the water indicators are working directly with countries to implement and measure the SDGs, the inclusion of a human rights perspective into the SDG monitoring apparatus may enhance state recognition and practice, and thereby deepen the status of the rights to water and sanitation under international law.³⁶⁵ Moreover, global data collected through the MDGs revealed the depths of the sanitation problem and also the dearth of information about hygiene, especially menstrual hygiene. The efforts to address these shortcomings in the SDGs have dovetailed with calls to recognize a right to sanitation that is related to, but distinct from, the right to water, and to heighten the status of hygiene as a human rights issue.³⁶⁶

However, the prominent role that the SDG indicator development process has given to the rights to water and sanitation could also result in an unintentional knowledge effect. The scope of the rights to water and sanitation could inadvertently be distorted through the process of developing indicators because certain criteria of the normative content, such as accessibility, availability, and quality, are easier to measure than others, such as participation. As noted earlier, participation has not easily been quantified, even though it is a key human rights concept.³⁶⁷ Similarly, other important process-related values, such as accountability and transparency,³⁶⁸ are not directly measured by the SDG water indicators. Even affordability, which is theoretically calculable, has not been easy to measure.

Some of these human rights concepts are intended to be captured by other goals. Specifically, Goal 16 of the SDGs seeks to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels,”³⁶⁹ which includes targets on the need to “[e]nsure responsive, inclusive, participatory and representative decision-making at all levels.”³⁷⁰ The proposed indicators for these targets are more comprehensive

³⁶⁵ See BOYLE & CHINKIN, *supra* note 16, at 215; HUNTER ET AL., *supra* note 18; SALZMAN, *supra* note 12; ZAELKE ET AL., *supra* note 20.

³⁶⁶ See, e.g., Murthy, *supra* note 42, at 92, 102; Winkler et al., *supra* note 360, at 553, 566–67; Inga Winkler & Virginia Roaf, *Taking the Bloody Linen out of the Closet—Menstrual Hygiene as a Priority for Achieving Gender Equality*, 21 CARDOZO J. L. GENDER 1, 1–2, 20–21 (2015).

³⁶⁷ *Gen. Comment No. 15*, *supra* note 151, at ¶ 48.

³⁶⁸ *Id.* at ¶ 49.

³⁶⁹ G.A. Res. 70/1, *supra* note 15, at 25.

³⁷⁰ *Id.* at Target 16.7. See also *id.* at Target 16.6 (“Develop effective, accountable and transparent institutions at all levels.”).

than the water-specific participation questions because they attempt to capture participation by different subpopulations³⁷¹ and assess public perception of participation processes by subpopulation.³⁷² However, these indicators are still in the early phase of development and do not yet have any internationally established methodologies that would facilitate measurement.³⁷³

By design, the indicator development process necessarily prioritizes those issues that can be measured. Yet, as this analysis illustrates, not all things that matter can easily be reduced to quantifiable measurement. In many instances, sufficient data simply does not exist—which may reflect political priorities and power dynamics because those in positions of authority do not necessarily want to collect information that could reveal weaknesses in the system.³⁷⁴ If the human rights to water and sanitation are simply about ensuring that everyone has access to sufficient amounts of safe water and toilets, then the existing SDG indicators may be sufficient. But if, as I am arguing, recognizing water and sanitation as human rights also means ensuring process-oriented values, like participation and accountability, then the current indicators are somewhat deficient. In other words, the scope of the rights to water and sanitation could be distorted through the indicator development process because the rights will be equated with only those aspects that can be easily measured, like water quality. This knowledge effect risks reducing the meaning of the rights to a few of their constituent elements—a mere shadow of the true meaning. While the statistics obtained through monitoring are important for understanding whether the human rights to water and sanitation are being realized, the two processes are distinct. As a growing literature on human rights indicators suggests, a complete picture may only emerge when statistical data is supplemented by context-specific qualitative data.³⁷⁵

³⁷¹ Indicator 16.7.1 is the “proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions.” IAEG-SDGs, *supra* note 42, at 27.

³⁷² Indicator 16.7.2 is the “proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group.” *Id.*

³⁷³ *Id.* at 3, 27.

³⁷⁴ See Kate Donald, *The Politics of ‘Progress’: UN report paints a highly partial picture of SDG implementation*, CTR. FOR ECON. & SOCIAL RIGHTS, <http://www.cesr.org/politics-%E2%80%98progress%E2%80%99-un-report-paints-highly-partial-picture-sdg-implementation> [<https://perma.cc/M5B3-PTUN>] (last visited Jan. 21, 2018).

³⁷⁵ Rosga & Satterthwaite, *supra* note 32, at 273; Winkler, Satterthwaite & de Albuquerque, *supra* note 360, at 554.

This analysis not only illustrates how a dialogue is possible between human rights and statistics, but it also provides important lessons for human rights advocates seeking to translate their concerns into a language that can be understood by policymakers. When it comes to developing quantitative indicators, numbers are the *lingua franca*. As the experience from the water sector suggests, human rights often seem nebulous and intimidating until they are broken down into calculable elements that can be understood by those in other fields. Because a human rights perspective often demands more information than is currently available and requires using new data-gathering methodologies, there is a need to overcome data inertia and expertise inertia.

This lack of available data and techniques should be understood as human rights issues because, as I have argued throughout this Article, information is a form of power. Under the right conditions, the disclosure of information through quantitative indicators can have a strong governance effect and shape the behavior of governments, business and individuals, even without binding legal penalties. Many in the human rights community already recognize this because using information to “name and shame” is a well-established advocacy technique. However, what may be less obvious is how the form of information disclosure can mask or obscure the real problem. For instance, if slum-dwellers are not included in census data, then statistics showing progress on urban water access are likely to be inaccurate. These kinds of problems with calculability, data inertia, and expertise inertia that cause indicators to have knowledge effects need to be addressed.

Human rights advocates, who tend to be trained in law and may not be well-versed in math or statistics, should not throw up their hands in despair when confronted with data gaps; rather, they need to partner with the statisticians responsible for developing quantitative indicators to offer constructive input. Quantitative indicators will never be able to convey the complexity of a problem and they are not a substitute for contextual and qualitative information.³⁷⁶ But because quantitative metrics will continue to be used as influential policy tools, human rights discourse can improve their scope and ultimate impact.

³⁷⁶ The literature on cost-benefit analysis and on human rights indicators both underscore that not everything can be measured and translated into a number. *See, e.g.*, Ackerman & Heinzerling, *supra* note 34, at 1556, 1584; Satterthwaite, *supra* note 351; Rosga & Satterthwaite, *supra* note 32, at 273; Winkler et al., *supra* note 360, at 554.



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**SUBSTANTIVE ISSUES ARISING IN THE IMPLEMENTATION OF THE
INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL
RIGHTS**

General Comment No. 15 (2002)

**The right to water (arts. 11 and 12 of the International Covenant
on Economic, Social and Cultural Rights)**

I. INTRODUCTION

1. Water is a limited natural resource and a public good fundamental for life and health. The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights. The Committee has been confronted continually with the widespread denial of the right to water in developing as well as developed countries. Over one billion persons lack access to a basic water supply, while several billion do not have access to adequate sanitation, which is the primary cause of water contamination and diseases linked to water.¹ The

¹ In 2000, the World Health Organization estimated that 1.1 billion persons did not have access to an improved water supply (80 per cent of them rural dwellers) able to provide at least 20 litres of safe water per person a day; 2.4 billion persons were estimated to be without sanitation. (See WHO, *The Global Water Supply and Sanitation Assessment 2000*, Geneva, 2000, p.1.) Further, 2.3 billion persons each year suffer from diseases linked to water: see United Nations, Commission on Sustainable Development, *Comprehensive Assessment of the Freshwater Resources of the World*, New York, 1997, p. 39.

continuing contamination, depletion and unequal distribution of water is exacerbating existing poverty. States parties have to adopt effective measures to realize, without discrimination, the right to water, as set out in this general comment.

The legal bases of the right to water

2. The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygienic requirements.

3. Article 11, paragraph 1, of the Covenant specifies a number of rights emanating from, and indispensable for, the realization of the right to an adequate standard of living “including adequate food, clothing and housing”. The use of the word “including” indicates that this catalogue of rights was not intended to be exhaustive. The right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival. Moreover, the Committee has previously recognized that water is a human right contained in article 11, paragraph 1, (see General Comment No. 6 (1995)).² The right to water is also inextricably related to the right to the highest attainable standard of health (art. 12, para. 1)³ and the rights to adequate housing and adequate food (art. 11, para. 1).⁴ The right should also be seen in conjunction with other rights enshrined in the International Bill of Human Rights, foremost amongst them the right to life and human dignity.

4. The right to water has been recognized in a wide range of international documents, including treaties, declarations and other standards.⁵ For instance, Article

² See paras. 5 and 32 of the Committee’s General Comment No. 6 (1995) on the economic, social and cultural rights of older persons.

³ See General Comment No. 14 (2000) on the right to the highest attainable standard of health, paragraphs 11, 12 (a), (b) and (d), 15, 34, 36, 40, 43 and 51.

⁴ See para. 8 (b) of General Comment No. 4 (1991). See also the report by Commission on Human Rights’ Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, Mr. Miloon Kothari (E.CN.4/2002/59), submitted in accordance with Commission resolution 2001/28 of 20 April 2001. In relation to the right to adequate food, see the report by the Special Rapporteur of the Commission on the right to food, Mr. Jean Ziegler (E/CN.4/2002/58), submitted in accordance with Commission resolution 2001/25 of 20 April 2001.

⁵ See art. 14, para. 2 (h), Convention on the Elimination of All Forms of Discrimination Against Women; art. 24, para. 2 (c), Convention on the Rights of the Child; arts. 20, 26, 29 and 46 of the Geneva Convention relative to the Treatment of Prisoners of War, of 1949; arts. 85, 89 and 127 of the Geneva Convention relative to the Treatment of Civilian Persons in Time of War, of 1949; arts. 54 and 55 of Additional Protocol I thereto of 1977; arts. 5 and 14 Additional Protocol II of 1977; preamble, Mar Del

14, paragraph 2, of the Convention on the Elimination of All Forms of Discrimination Against Women stipulates that States parties shall ensure to women the right to “enjoy adequate living conditions, particularly in relation to [...] water supply”. Article 24, paragraph 2, of the Convention on the Rights of the Child requires States parties to combat disease and malnutrition “through the provision of adequate nutritious foods and clean drinking-water”.

5. The right to water has been consistently addressed by the Committee during its consideration of States parties’ reports, in accordance with its revised general guidelines regarding the form and content of reports to be submitted by States parties under articles 16 and 17 of the International Covenant on Economic, Social and Cultural Rights, and its general comments.

6. Water is required for a range of different purposes, besides personal and domestic uses, to realize many of the Covenant rights. For instance, water is necessary to produce food (right to adequate food) and ensure environmental hygiene (right to health). Water is essential for securing livelihoods (right to gain a living by work) and enjoying certain cultural practices (right to take part in cultural life). Nevertheless, priority in the allocation of water must be given to the right to water for personal and domestic uses. Priority should also be given to the water resources required to prevent starvation and disease, as well as water required to meet the core obligations of each of the Covenant rights.⁶

Water and Covenant rights

7. The Committee notes the importance of ensuring sustainable access to water resources for agriculture to realize the right to adequate food (see General Comment

Plata Action Plan of the United Nations Water Conference; see para. 18.47 of Agenda 21, *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (A/CONF.151/26/Rev.1 (Vol. I and Vol. I/Corr.1, Vol. II, Vol. III and Vol. III/Corr.1) (United Nations publication, Sales No. E.93.I.8), vol. I: *Resolutions adopted by the Conference*, resolution 1, annex II; Principle No. 3, The Dublin Statement on Water and Sustainable Development, International Conference on Water and the Environment (A/CONF.151/PC/112); Principle No. 2, Programme of Action, *Report of the United Nations International Conference on Population and Development, Cairo, 5-13 September 1994* (United Nations publication, Sales No. E.95.XIII.18), chap. I, resolution 1, annex; paras. 5 and 19, Recommendation (2001) 14 of the Committee of Ministers to Member States on the European Charter on Water Resources; resolution 2002/6 of the United Nations Sub-Commission on the Promotion and Protection of Human Rights on the promotion of the realization of the right to drinking water. See also the report on the relationship between the enjoyment of economic, social and cultural rights and the promotion of the realization of the right to drinking water supply and sanitation (E/CN.4/Sub.2/2002/10) submitted by the Special Rapporteur of the Sub-Commission on the right to drinking water supply and sanitation, Mr. El Hadji Guissé.

⁶ See also World Summit on Sustainable Development, Plan of Implementation 2002, paragraph 25 (c).

No.12 (1999)).⁷ Attention should be given to ensuring that disadvantaged and marginalized farmers, including women farmers, have equitable access to water and water management systems, including sustainable rain harvesting and irrigation technology. Taking note of the duty in article 1, paragraph 2, of the Covenant, which provides that a people may not “be deprived of its means of subsistence”, States parties should ensure that there is adequate access to water for subsistence farming and for securing the livelihoods of indigenous peoples.⁸

8. Environmental hygiene, as an aspect of the right to health under article 12, paragraph 2 (b), of the Covenant, encompasses taking steps on a non-discriminatory basis to prevent threats to health from unsafe and toxic water conditions.⁹ For example, States parties should ensure that natural water resources are protected from contamination by harmful substances and pathogenic microbes. Likewise, States parties should monitor and combat situations where aquatic eco-systems serve as a habitat for vectors of diseases wherever they pose a risk to human living environments.¹⁰

9. With a view to assisting States parties' implementation of the Covenant and the fulfilment of their reporting obligations, this General Comment focuses in Part II on the normative content of the right to water in articles 11, paragraph 1, and 12, on States parties' obligations (Part III), on violations (Part IV) and on implementation at the national level (Part V), while the obligations of actors other than States parties are addressed in Part VI.

II. NORMATIVE CONTENT OF THE RIGHT TO WATER

10. The right to water contains both freedoms and entitlements. The freedoms include the right to maintain access to existing water supplies necessary for the right to water, and the right to be free from interference, such as the right to be free from arbitrary disconnections or contamination of water supplies. By contrast, the entitlements include the right to a system of water supply and management that provides equality of opportunity for people to enjoy the right to water.

⁷ This relates to both *availability* and to *accessibility* of the right to adequate food (see General Comment No. 12 (1999), paras. 12 and 13).

⁸ See also the Statement of Understanding accompanying the United Nations Convention on the Law of Non-Navigational Uses of Watercourses (A/51/869 of 11 April 1997), which declared that, in determining vital human needs in the event of conflicts over the use of watercourses “special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation”..

⁹ See also para. 15, General Comment No. 14.

¹⁰ According to the WHO definition, vector-borne diseases include diseases transmitted by insects (malaria, filariasis, dengue, Japanese encephalitis and yellow fever), diseases for which aquatic snails serve as intermediate hosts (schistosomiasis) and zoonoses with vertebrates as reservoir hosts.

11. The elements of the right to water must be *adequate* for human dignity, life and health, in accordance with articles 11, paragraph 1, and 12. The adequacy of water should not be interpreted narrowly, by mere reference to volumetric quantities and technologies. Water should be treated as a social and cultural good, and not primarily as an economic good. The manner of the realization of the right to water must also be sustainable, ensuring that the right can be realized for present and future generations.¹¹

12. While the adequacy of water required for the right to water may vary according to different conditions, the following factors apply in all circumstances:

(a) *Availability*. The water supply for each person must be sufficient and continuous for personal and domestic uses.¹² These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene.¹³ The quantity of water available for each person should correspond to World Health Organization (WHO) guidelines.¹⁴ Some individuals and groups may also require additional water due to health, climate, and work conditions;

(b) *Quality*. The water required for each personal or domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health.¹⁵ Furthermore, water should be of an acceptable colour, odour and taste for each personal or domestic use.

¹¹ For a definition of sustainability, see the *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 1992*, Declaration on Environment and Development, principles 1, 8, 9, 10, 12 and 15; and Agenda 21, in particular principles 5.3, 7.27, 7.28, 7.35, 7.39, 7.41, 18.3, 18.8, 18.35, 18.40, 18.48, 18.50, 18.59 and 18.68.

¹² "Continuous" means that the regularity of the water supply is sufficient for personal and domestic uses.

¹³ In this context, "drinking" means water for consumption through beverages and foodstuffs. "Personal sanitation" means disposal of human excreta. Water is necessary for personal sanitation where water-based means are adopted. "Food preparation" includes food hygiene and preparation of food stuffs, whether water is incorporated into, or comes into contact with, food. "Personal and household hygiene" means personal cleanliness and hygiene of the household environment.

¹⁴ See J. Bartram and G. Howard, "Domestic water quantity, service level and health: what should be the goal for water and health sectors", WHO, 2002. See also P.H. Gleick, (1996) "Basic water requirements for human activities: meeting basic needs", *Water International*, 21, pp. 83-92.

¹⁵ The Committee refers States parties to WHO, *Guidelines for drinking-water quality*, 2nd edition, vols. 1-3 (Geneva, 1993) that are "intended to be used as a basis for the development of national standards that, if properly implemented, will ensure the safety of drinking water supplies through the elimination of, or reduction to a

(c) *Accessibility*. Water and water facilities and services have to be accessible to *everyone* without discrimination, within the jurisdiction of the State party. Accessibility has four overlapping dimensions:

(i) *Physical accessibility*: water, and adequate water facilities and services, must be within safe physical reach for all sections of the population. Sufficient, safe and acceptable water must be accessible within, or in the immediate vicinity, of each household, educational institution and workplace.¹⁶ All water facilities and services must be of sufficient quality, culturally appropriate and sensitive to gender, life-cycle and privacy requirements. Physical security should not be threatened during access to water facilities and services;

(ii) *Economic accessibility*: Water, and water facilities and services, must be affordable for all. The direct and indirect costs and charges associated with securing water must be affordable, and must not compromise or threaten the realization of other Covenant rights;

(iii) *Non-discrimination*: Water and water facilities and services must be accessible to all, including the most vulnerable or marginalized sections of the population, in law and in fact, without discrimination on any of the prohibited grounds; and

(iv) *Information accessibility*: accessibility includes the right to seek, receive and impart information concerning water issues.¹⁷

Special topics of broad application

Non-discrimination and equality

13. The obligation of States parties to guarantee that the right to water is enjoyed without discrimination (art. 2, para. 2), and equally between men and women (art. 3), pervades all of the Covenant obligations. The Covenant thus proscribes any discrimination on the grounds of race, colour, sex, age, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status (including HIV/AIDS), sexual orientation and civil, political, social or other status, which has the intention or effect of nullifying or impairing the equal enjoyment or exercise of the right to water. The Committee recalls paragraph 12 of General Comment No. 3 (1990), which states that even in times of severe resource

minimum concentration, of constituents of water that are known to be hazardous to health.”

¹⁶ See also General Comment No. 4 (1991), para. 8 (b), General Comment No. 13 (1999) para. 6 (a) and General Comment No. 14 (2000) paras. 8 (a) and (b). Household includes a permanent or semi-permanent dwelling, or a temporary halting site.

¹⁷ See para. 48 of this General Comment.

constraints, the vulnerable members of society must be protected by the adoption of relatively low-cost targeted programmes.

14. States parties should take steps to remove de facto discrimination on prohibited grounds, where individuals and groups are deprived of the means or entitlements necessary for achieving the right to water. States parties should ensure that the allocation of water resources, and investments in water, facilitate access to water for all members of society. Inappropriate resource allocation can lead to discrimination that may not be overt. For example, investments should not disproportionately favour expensive water supply services and facilities that are often accessible only to a small, privileged fraction of the population, rather than investing in services and facilities that benefit a far larger part of the population.

15. With respect to the right to water, States parties have a special obligation to provide those who do not have sufficient means with the necessary water and water facilities and to prevent any discrimination on internationally prohibited grounds in the provision of water and water services.

16. Whereas the right to water applies to everyone, States parties should give special attention to those individuals and groups who have traditionally faced difficulties in exercising this right, including women, children, minority groups, indigenous peoples, refugees, asylum seekers, internally displaced persons, migrant workers, prisoners and detainees. In particular, States parties should take steps to ensure that:

(a) Women are not excluded from decision-making processes concerning water resources and entitlements. The disproportionate burden women bear in the collection of water should be alleviated;

(b) Children are not prevented from enjoying their human rights due to the lack of adequate water in educational institutions and households or through the burden of collecting water. Provision of adequate water to educational institutions currently without adequate drinking water should be addressed as a matter of urgency;

(c) Rural and deprived urban areas have access to properly maintained water facilities. Access to traditional water sources in rural areas should be protected from unlawful encroachment and pollution. Deprived urban areas, including informal human settlements, and homeless persons, should have access to properly maintained water facilities. No household should be denied the right to water on the grounds of their housing or land status;

(d) Indigenous peoples' access to water resources on their ancestral lands is protected from encroachment and unlawful pollution. States should provide resources for indigenous peoples to design, deliver and control their access to water;

(e) Nomadic and traveller communities have access to adequate water at traditional and designated halting sites;

(f) Refugees, asylum-seekers, internally displaced persons and returnees have access to adequate water whether they stay in camps or in urban and rural areas.

Refugees and asylum-seekers should be granted the right to water on the same conditions as granted to nationals;

(g) Prisoners and detainees are provided with sufficient and safe water for their daily individual requirements, taking note of the requirements of international humanitarian law and the United Nations Standard Minimum Rules for the Treatment of Prisoners;¹⁸

(h) Groups facing difficulties with physical access to water, such as older persons, persons with disabilities, victims of natural disasters, persons living in disaster-prone areas, and those living in arid and semi-arid areas, or on small islands are provided with safe and sufficient water.

III. STATES PARTIES' OBLIGATIONS

General legal obligations

17. While the Covenant provides for progressive realization and acknowledges the constraints due to the limits of available resources, it also imposes on States parties various obligations which are of immediate effect. States parties have immediate obligations in relation to the right to water, such as the guarantee that the right will be exercised without discrimination of any kind (art. 2, para. 2) and the obligation to take steps (art. 2, para.1) towards the full realization of articles 11, paragraph 1, and 12. Such steps must be deliberate, concrete and targeted towards the full realization of the right to water.

18. States parties have a constant and continuing duty under the Covenant to move as expeditiously and effectively as possible towards the full realization of the right to water. Realization of the right should be feasible and practicable, since all States parties exercise control over a broad range of resources, including water, technology, financial resources and international assistance, as with all other rights in the Covenant.

19. There is a strong presumption that retrogressive measures taken in relation to the right to water are prohibited under the Covenant.¹⁹ If any deliberately retrogressive measures are taken, the State party has the burden of proving that they have been introduced after the most careful consideration of all alternatives and that they are duly justified by reference to the totality of the rights provided for in the Covenant in the context of the full use of the State party's maximum available resources.

¹⁸ See arts. 20, 26, 29 and 46 of the third Geneva Convention of 12 August 1949; arts. 85, 89 and 127 of the fourth Geneva Convention of 12 August 1949; arts. 15 and 20, para. 2, United Nations Standard Minimum Rules for the Treatment of Prisoners, in *Human Rights: A Compilation of International Instruments* (United Nations publication, Sales No. E.88.XIV.1).

¹⁹ See General Comment No. 3 (1990), para. 9.

Specific legal obligations

20. The right to water, like any human right, imposes three types of obligations on States parties: obligations to *respect*, obligations to *protect* and obligations to *fulfil*.

(a) Obligations to respect

21. The obligation to *respect* requires that States parties refrain from interfering directly or indirectly with the enjoyment of the right to water. The obligation includes, inter alia, refraining from engaging in any practice or activity that denies or limits equal access to adequate water; arbitrarily interfering with customary or traditional arrangements for water allocation; unlawfully diminishing or polluting water, for example through waste from State-owned facilities or through use and testing of weapons; and limiting access to, or destroying, water services and infrastructure as a punitive measure, for example, during armed conflicts in violation of international humanitarian law.

22. The Committee notes that during armed conflicts, emergency situations and natural disasters, the right to water embraces those obligations by which States parties are bound under international humanitarian law.²⁰ This includes protection of objects indispensable for survival of the civilian population, including drinking water installations and supplies and irrigation works, protection of the natural environment against widespread, long-term and severe damage and ensuring that civilians, internees and prisoners have access to adequate water.²¹

(b) Obligations to protect

23. The obligation to *protect* requires State parties to prevent third parties from interfering in any way with the enjoyment of the right to water. Third parties include individuals, groups, corporations and other entities as well as agents acting under their authority. The obligation includes, inter alia, adopting the necessary and effective legislative and other measures to restrain, for example, third parties from denying equal access to adequate water; and polluting and inequitably extracting from water resources, including natural sources, wells and other water distribution systems.

24. Where water services (such as piped water networks, water tankers, access to rivers and wells) are operated or controlled by third parties, States parties must prevent them from compromising equal, affordable, and physical access to sufficient, safe and acceptable water. To prevent such abuses an effective regulatory system must be established, in conformity with the Covenant and this General Comment, which

²⁰ For the interrelationship of human rights law and humanitarian law, the Committee notes the conclusions of the International Court of Justice in *Legality of the Threat or Use of Nuclear Weapons (Request by the General Assembly)*, ICJ Reports (1996) p. 226, para. 25.

²¹ See arts. 54 and 56, Additional Protocol I to the Geneva Conventions (1977), art. 54, Additional Protocol II (1977), arts. 20 and 46 of the third Geneva Convention of 12 August 1949, and common article 3 of the Geneva Conventions of 12 August 1949.

includes independent monitoring, genuine public participation and imposition of penalties for non-compliance.

(c) Obligations to fulfil

25. The obligation to *fulfil* can be disaggregated into the obligations to facilitate, promote and provide. The obligation to facilitate requires the State to take positive measures to assist individuals and communities to enjoy the right. The obligation to promote obliges the State party to take steps to ensure that there is appropriate education concerning the hygienic use of water, protection of water sources and methods to minimize water wastage. States parties are also obliged to fulfil (provide) the right when individuals or a group are unable, for reasons beyond their control, to realize that right themselves by the means at their disposal.

26. The obligation to fulfil requires States parties to adopt the necessary measures directed towards the full realization of the right to water. The obligation includes, inter alia, according sufficient recognition of this right within the national political and legal systems, preferably by way of legislative implementation; adopting a national water strategy and plan of action to realize this right; ensuring that water is affordable for everyone; and facilitating improved and sustainable access to water, particularly in rural and deprived urban areas.

27. To ensure that water is affordable, States parties must adopt the necessary measures that may include, inter alia: (a) use of a range of appropriate low-cost techniques and technologies; (b) appropriate pricing policies such as free or low-cost water; and (c) income supplements. Any payment for water services has to be based on the principle of equity, ensuring that these services, whether privately or publicly provided, are affordable for all, including socially disadvantaged groups. Equity demands that poorer households should not be disproportionately burdened with water expenses as compared to richer households.

28. States parties should adopt comprehensive and integrated strategies and programmes to ensure that there is sufficient and safe water for present and future generations.²² Such strategies and programmes may include: (a) reducing depletion of water resources through unsustainable extraction, diversion and damming; (b) reducing and eliminating contamination of watersheds and water-related eco-systems by substances such as radiation, harmful chemicals and human excreta; (c) monitoring water reserves; (d) ensuring that proposed developments do not interfere with access to adequate water; (e) assessing the impacts of actions that may impinge upon water availability and natural-ecosystems watersheds, such as climate changes, desertification and increased soil salinity, deforestation and loss of biodiversity;²³ (f)

²² See footnote 5 above, Agenda 21, chaps. 5, 7 and 18; and the World Summit on Sustainable Development, Plan of Implementation (2002), paras. 6 (a), (l) and (m), 7, 36 and 38.

²³ See the Convention on Biological Diversity, the Convention to Combat Desertification, the United Nations Framework Convention on Climate Change, and subsequent protocols.

increasing the efficient use of water by end-users; (g) reducing water wastage in its distribution; (h) response mechanisms for emergency situations; (i) and establishing competent institutions and appropriate institutional arrangements to carry out the strategies and programmes.

29. Ensuring that everyone has access to adequate sanitation is not only fundamental for human dignity and privacy, but is one of the principal mechanisms for protecting the quality of drinking water supplies and resources.²⁴ In accordance with the rights to health and adequate housing (see General Comments No. 4 (1991) and 14 (2000)) States parties have an obligation to progressively extend safe sanitation services, particularly to rural and deprived urban areas, taking into account the needs of women and children.

International obligations

30. Article 2, paragraph 1, and articles 11, paragraph 1, and 23 of the Covenant require that States parties recognize the essential role of international cooperation and assistance and take joint and separate action to achieve the full realization of the right to water.

31. To comply with their international obligations in relation to the right to water, States parties have to respect the enjoyment of the right in other countries. International cooperation requires States parties to refrain from actions that interfere, directly or indirectly, with the enjoyment of the right to water in other countries. Any activities undertaken within the State party's jurisdiction should not deprive another country of the ability to realize the right to water for persons in its jurisdiction.²⁵

32. States parties should refrain at all times from imposing embargoes or similar measures, that prevent the supply of water, as well as goods and services essential for securing the right to water.²⁶ Water should never be used as an instrument of political

²⁴ Article 14, para. 2, of the Convention on the Elimination of All Forms of Discrimination Against Women stipulates States parties shall ensure to women the right to "adequate living conditions, particularly in relation to [...] sanitation". Article 24, para. 2, of the Convention on the Rights of the Child requires States parties to "To ensure that all segments of society [...] have access to education and are supported in the use of basic knowledge of [...] the advantages of [...] hygiene and environmental sanitation."

²⁵ The Committee notes that the United Nations Convention on the Law of Non-Navigational Uses of Watercourses requires that social and human needs be taken into account in determining the equitable utilization of watercourses, that States parties take measures to prevent significant harm being caused, and, in the event of conflict, special regard must be given to the requirements of vital human needs: see arts. 5, 7 and 10 of the Convention.

²⁶ In General Comment No. 8 (1997), the Committee noted the disruptive effect of sanctions upon sanitation supplies and clean drinking water, and that sanctions regimes should provide for repairs to infrastructure essential to provide clean water.

and economic pressure. In this regard, the Committee recalls its position, stated in its General Comment No. 8 (1997), on the relationship between economic sanctions and respect for economic, social and cultural rights.

33. Steps should be taken by States parties to prevent their own citizens and companies from violating the right to water of individuals and communities in other countries. Where States parties can take steps to influence other third parties to respect the right, through legal or political means, such steps should be taken in accordance with the Charter of the United Nations and applicable international law.

34. Depending on the availability of resources, States should facilitate realization of the right to water in other countries, for example through provision of water resources, financial and technical assistance, and provide the necessary aid when required. In disaster relief and emergency assistance, including assistance to refugees and displaced persons, priority should be given to Covenant rights, including the provision of adequate water. International assistance should be provided in a manner that is consistent with the Covenant and other human rights standards, and sustainable and culturally appropriate. The economically developed States parties have a special responsibility and interest to assist the poorer developing States in this regard.

35. States parties should ensure that the right to water is given due attention in international agreements and, to that end, should consider the development of further legal instruments. With regard to the conclusion and implementation of other international and regional agreements, States parties should take steps to ensure that these instruments do not adversely impact upon the right to water. Agreements concerning trade liberalization should not curtail or inhibit a country's capacity to ensure the full realization of the right to water.

36. States parties should ensure that their actions as members of international organizations take due account of the right to water. Accordingly, States parties that are members of international financial institutions, notably the International Monetary Fund, the World Bank, and regional development banks, should take steps to ensure that the right to water is taken into account in their lending policies, credit agreements and other international measures.

Core obligations

37. In General Comment No. 3 (1990), the Committee confirms that States parties have a core obligation to ensure the satisfaction of, at the very least, minimum essential levels of each of the rights enunciated in the Covenant. In the Committee's view, at least a number of core obligations in relation to the right to water can be identified, which are of immediate effect:

(a) To ensure access to the minimum essential amount of water, that is sufficient and safe for personal and domestic uses to prevent disease;

(b) To ensure the right of access to water and water facilities and services on a non-discriminatory basis, especially for disadvantaged or marginalized groups;

(c) To ensure physical access to water facilities or services that provide sufficient, safe and regular water; that have a sufficient number of water outlets to avoid prohibitive waiting times; and that are at a reasonable distance from the household;

(d) To ensure personal security is not threatened when having to physically access to water;

(e) To ensure equitable distribution of all available water facilities and services;

(f) To adopt and implement a national water strategy and plan of action addressing the whole population; the strategy and plan of action should be devised, and periodically reviewed, on the basis of a participatory and transparent process; it should include methods, such as right to water indicators and benchmarks, by which progress can be closely monitored; the process by which the strategy and plan of action are devised, as well as their content, shall give particular attention to all disadvantaged or marginalized groups;

(g) To monitor the extent of the realization, or the non-realization, of the right to water;

(h) To adopt relatively low-cost targeted water programmes to protect vulnerable and marginalized groups;

(i) To take measures to prevent, treat and control diseases linked to water, in particular ensuring access to adequate sanitation;

38. For the avoidance of any doubt, the Committee wishes to emphasize that it is particularly incumbent on States parties, and other actors in a position to assist, to provide international assistance and cooperation, especially economic and technical which enables developing countries to fulfil their core obligations indicated in paragraph 37 above.

IV. VIOLATIONS

39. When the normative content of the right to water (see Part II) is applied to the obligations of States parties (Part III), a process is set in motion, which facilitates identification of violations of the right to water. The following paragraphs provide illustrations of violations of the right to water.

40. To demonstrate compliance with their general and specific obligations, States parties must establish that they have taken the necessary and feasible steps towards the realization of the right to water. In accordance with international law, a failure to act in good faith to take such steps amounts to a violation of the right. It should be stressed that a State party cannot justify its non-compliance with the core obligations set out in paragraph 37 above, which are non-derogable.

41. In determining which actions or omissions amount to a violation of the right to water, it is important to distinguish the inability from the unwillingness of a State party to comply with its obligations in relation to the right to water. This follows from articles 11, paragraph 1, and 12, which speak of the right to an adequate standard of living and the right to health, as well as from article 2, paragraph 1, of the Covenant, which obliges each State party to take the necessary steps to the maximum of its available resources. A State which is unwilling to use the maximum of its available resources for the realization of the right to water is in violation of its obligations under the Covenant. If resource constraints render it impossible for a State party to comply fully with its Covenant obligations, it has the burden of justifying that every effort has nevertheless been made to use all available resources at its disposal in order to satisfy, as a matter of priority, the obligations outlined above.

42. Violations of the right to water can occur through *acts of commission*, the direct actions of States parties or other entities insufficiently regulated by States. Violations include, for example, the adoption of retrogressive measures incompatible with the core obligations (outlined in para. 37 above), the formal repeal or suspension of legislation necessary for the continued enjoyment of the right to water, or the adoption of legislation or policies which are manifestly incompatible with pre-existing domestic or international legal obligations in relation to the right to water.

43. Violations through *acts of omission* include the failure to take appropriate steps towards the full realization of everyone's right to water, the failure to have a national policy on water, and the failure to enforce relevant laws.

44. While it is not possible to specify a complete list of violations in advance, a number of typical examples relating to the levels of obligations, emanating from the Committee's work, may be identified:

(a) Violations of the obligation to respect follow from the State party's interference with the right to water. This includes, inter alia: (i) arbitrary or unjustified disconnection or exclusion from water services or facilities; (ii) discriminatory or unaffordable increases in the price of water; and (iii) pollution and diminution of water resources affecting human health;

(b) Violations of the obligation to protect follow from the failure of a State to take all necessary measures to safeguard persons within their jurisdiction from infringements of the right to water by third parties.²⁸ This includes, inter alia: (i) failure to enact or enforce laws to prevent the contamination and inequitable extraction of water; (ii) failure to effectively regulate and control water services providers; (iv) failure to protect water distribution systems (e.g., piped networks and wells) from interference, damage and destruction; and

(c) Violations of the obligation to fulfil occur through the failure of States parties to take all necessary steps to ensure the realization of the right to water. Examples includes, inter alia: (i) failure to adopt or implement a national water policy designed to ensure the right to water for everyone; (ii) insufficient expenditure or misallocation of public resources which results in the non-enjoyment of the right to

²⁸ See para. 23 for a definition of "third parties".

water by individuals or groups, particularly the vulnerable or marginalized; (iii) failure to monitor the realization of the right to water at the national level, for example by identifying right-to-water indicators and benchmarks; (iv) failure to take measures to reduce the inequitable distribution of water facilities and services; (v) failure to adopt mechanisms for emergency relief; (vi) failure to ensure that the minimum essential level of the right is enjoyed by everyone (vii) failure of a State to take into account its international legal obligations regarding the right to water when entering into agreements with other States or with international organizations.

V. IMPLEMENTATION AT THE NATIONAL LEVEL

45. In accordance with article 2, paragraph 1, of the Covenant, States parties are required to utilize “all appropriate means, including particularly the adoption of legislative measures” in the implementation of their Covenant obligations. Every State party has a margin of discretion in assessing which measures are most suitable to meet its specific circumstances. The Covenant, however, clearly imposes a duty on each State party to take whatever steps are necessary to ensure that everyone enjoys the right to water, as soon as possible. Any national measures designed to realize the right to water should not interfere with the enjoyment of other human rights.

Legislation, strategies and policies

46. Existing legislation, strategies and policies should be reviewed to ensure that they are compatible with obligations arising from the right to water, and should be repealed, amended or changed if inconsistent with Covenant requirements.

47. The duty to take steps clearly imposes on States parties an obligation to adopt a national strategy or plan of action to realize the right to water. The strategy must: (a) be based upon human rights law and principles; (b) cover all aspects of the right to water and the corresponding obligations of States parties; (c) define clear objectives; (d) set targets or goals to be achieved and the time-frame for their achievement; (e) formulate adequate policies and corresponding benchmarks and indicators. The strategy should also establish institutional responsibility for the process; identify resources available to attain the objectives, targets and goals; allocate resources appropriately according to institutional responsibility; and establish accountability mechanisms to ensure the implementation of the strategy. When formulating and implementing their right to water national strategies, States parties should avail themselves of technical assistance and cooperation of the United Nations specialized agencies (see Part VI below).

48. The formulation and implementation of national water strategies and plans of action should respect, inter alia, the principles of non-discrimination and people's participation. The right of individuals and groups to participate in decision-making processes that may affect their exercise of the right to water must be an integral part of any policy, programme or strategy concerning water. Individuals and groups should be given full and equal access to information concerning water, water services and the environment, held by public authorities or third parties.

49. The national water strategy and plan of action should also be based on the principles of accountability, transparency and independence of the judiciary, since

good governance is essential to the effective implementation of all human rights, including the realization of the right to water. In order to create a favourable climate for the realization of the right, States parties should take appropriate steps to ensure that the private business sector and civil society are aware of, and consider the importance of, the right to water in pursuing their activities.

50. States parties may find it advantageous to adopt framework legislation to operationalize their right to water strategy. Such legislation should include: (a) targets or goals to be attained and the time-frame for their achievement; (b) the means by which the purpose could be achieved; (c) the intended collaboration with civil society, private sector and international organizations; (d) institutional responsibility for the process; (e) national mechanisms for its monitoring; and (f) remedies and recourse procedures.

51. Steps should be taken to ensure there is sufficient coordination between the national ministries, regional and local authorities in order to reconcile water-related policies. Where implementation of the right to water has been delegated to regional or local authorities, the State party still retains the responsibility to comply with its Covenant obligations, and therefore should ensure that these authorities have at their disposal sufficient resources to maintain and extend the necessary water services and facilities. The States parties must further ensure that such authorities do not deny access to services on a discriminatory basis.

52. States parties are obliged to monitor effectively the realization of the right to water. In monitoring progress towards the realization of the right to water, States parties should identify the factors and difficulties affecting implementation of their obligations.

Indicators and benchmarks

53. To assist the monitoring process, right to water indicators should be identified in the national water strategies or plans of action. The indicators should be designed to monitor, at the national and international levels, the State party's obligations under articles 11, paragraph 1, and 12. Indicators should address the different components of adequate water (such as sufficiency, safety and acceptability, affordability and physical accessibility), be disaggregated by the prohibited grounds of discrimination, and cover all persons residing in the State party's territorial jurisdiction or under their control. States parties may obtain guidance on appropriate indicators from the ongoing work of WHO, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Centre for Human Settlements (Habitat), the International Labour Organization (ILO), the United Nations Children's Fund (UNICEF), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the United Nations Commission on Human Rights.

54. Having identified appropriate right to water indicators, States parties are invited to set appropriate national benchmarks in relation to each indicator.²⁹ During the periodic reporting procedure, the Committee will engage in a process of “scoping” with the State party. Scoping involves the joint consideration by the State party and the Committee of the indicators and national benchmarks which will then provide the targets to be achieved during the next reporting period. In the following five years, the State party will use these national benchmarks to help monitor its implementation of the right to water. Thereafter, in the subsequent reporting process, the State party and the Committee will consider whether or not the benchmarks have been achieved, and the reasons for any difficulties that may have been encountered (see General Comment No.14 (2000), para. 58). Further, when setting benchmarks and preparing their reports, States parties should utilize the extensive information and advisory services of specialized agencies with regard to data collection and disaggregation.

Remedies and accountability

55. Any persons or groups who have been denied their right to water should have access to effective judicial or other appropriate remedies at both national and international levels (see General Comment No. 9 (1998), para. 4, and Principle 10 of the Rio Declaration on Environment and Development).³⁰ The Committee notes that the right has been constitutionally entrenched by a number of States and has been subject to litigation before national courts. All victims of violations of the right to water should be entitled to adequate reparation, including restitution, compensation, satisfaction or guarantees of non-repetition. National ombudsmen, human rights commissions, and similar institutions should be permitted to address violations of the right.

56. Before any action that interferes with an individual’s right to water is carried out by the State party, or by any other third party, the relevant authorities must ensure that such actions are performed in a manner warranted by law, compatible with the Covenant, and that comprises: (a) opportunity for genuine consultation with those affected; (b) timely and full disclosure of information on the proposed measures; (c) reasonable notice of proposed actions; (d) legal recourse and remedies for those affected; and (e) legal assistance for obtaining legal remedies (see also General

²⁹ See E. Riedel, “New bearings to the State reporting procedure: practical ways to operationalize economic, social and cultural rights – The example of the right to health”, in S. von Schorlemer (ed.), *Praxishandbuch UNO*, 2002, pp. 345-358. The Committee notes, for example, the commitment in the 2002 World Summit on Sustainable Development Plan of Implementation to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water (as outlined in the Millennium Declaration) and the proportion of people who do not have access to basic sanitation.

³⁰ Principle 10 of the Rio Declaration on Environment and Development (*Report of the United Nations Conference on Environment and Development*, see footnote 5 above), states with respect to environmental issues that “effective access to judicial and administrative proceedings, including remedy and redress, shall be provided”.

Comments No. 4 (1991) and No. 7 (1997)). Where such action is based on a person's failure to pay for water their capacity to pay must be taken into account. Under no circumstances shall an individual be deprived of the minimum essential level of water.

57. The incorporation in the domestic legal order of international instruments recognizing the right to water can significantly enhance the scope and effectiveness of remedial measures and should be encouraged in all cases. Incorporation enables courts to adjudicate violations of the right to water, or at least the core obligations, by direct reference to the Covenant.

58. Judges, adjudicators and members of the legal profession should be encouraged by States parties to pay greater attention to violations of the right to water in the exercise of their functions.

59. States parties should respect, protect, facilitate and promote the work of human rights advocates and other members of civil society with a view to assisting vulnerable or marginalized groups in the realization of their right to water.

VI. OBLIGATIONS OF ACTORS OTHER THAN STATES

60. United Nations agencies and other international organizations concerned with water, such as WHO, FAO, UNICEF, UNEP, UN-Habitat, ILO, UNDP, the International Fund for Agricultural Development (IFAD), as well as international organizations concerned with trade such as the World Trade Organization (WTO), should cooperate effectively with States parties, building on their respective expertise, in relation to the implementation of the right to water at the national level. The international financial institutions, notably the International Monetary Fund and the World Bank, should take into account the right to water in their lending policies, credit agreements, structural adjustment programmes and other development projects (see General Comment No. 2 (1990)), so that the enjoyment of the right to water is promoted. When examining the reports of States parties and their ability to meet the obligations to realize the right to water, the Committee will consider the effects of the assistance provided by all other actors. The incorporation of human rights law and principles in the programmes and policies by international organizations will greatly facilitate implementation of the right to water. The role of the International Federation of the Red Cross and Red Crescent Societies, International Committee of the Red Cross, the Office of the United Nations High Commissioner for Refugees (UNHCR), WHO and UNICEF, as well as non-governmental organizations and other associations, is of particular importance in relation to disaster relief and humanitarian assistance in times of emergencies. Priority in the provision of aid, distribution and management of water and water facilities should be given to the most vulnerable or marginalized groups of the population.



Progress on Drinking Water, Sanitation and Hygiene

2017

Update and SDG Baselines



2. Introduction



The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has produced regular estimates of global progress on drinking water, sanitation and hygiene (WASH) since 1990. It has established an extensive global database and has been instrumental in developing global norms to benchmark progress. The JMP was responsible for monitoring the 2015 Millennium Development Goal (MDG) target 7c⁵ and is now responsible for tracking progress towards the 2030 Sustainable Development Goal (SDG) targets related to drinking water, sanitation and hygiene (WASH). This 2017 update is the most comprehensive assessment to date and establishes the first global baseline estimates for SDG targets 6.1 and 6.2.

2.1 2030 vision for water, sanitation and hygiene

On 25 September 2015, Member States of the United Nations adopted the 2030 Agenda for Sustainable Development.⁶ The 2030 Agenda comprises 17 Sustainable Development Goals and 169 targets addressing social, economic and environmental aspects of development, and seeks to end poverty, protect the planet and ensure prosperity for all. The SDGs are **aspirational global targets** that are intended to be universally relevant and applicable to all countries, “with each Government setting its own national targets guided by the global level of ambition, but taking into account national circumstances” (para. 55). Global indicators will be tracked by mandated agencies, using consistent international definitions and methods to compare data from national sources. National targets will be tracked by national authorities, and in some cases indicators, definitions and methods may differ from those used at the global levels.

SDG 1 calls on Member States to “End poverty in all its forms everywhere” and includes a target for universal access to basic services, with a particular focus on poor and vulnerable groups (1.4). Goal 6 is to “Ensure availability and sustainable management of water and sanitation for all” and includes targets addressing all aspects of the freshwater cycle (Box 1). The targets agreed upon by Member States focus on improving the standard of WASH services (6.1 and 6.2); increasing treatment, recycling and reuse of wastewater (6.3); improving efficiency and ensuring sustainable withdrawals (6.4); and protecting water-related ecosystems (6.6) as part of an integrated approach to water resources management (6.5). They also address the means of implementation for achieving these development outcomes (6.a and 6.b).

In March 2016, the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDG) published a list of global SDG indicators for monitoring the goals and targets of the 2030 Agenda.⁷ The list included a subset of the indicators recommended by the JMP following international consultations with water and sanitation sector stakeholders. WHO and UNICEF serve as the custodian agencies responsible for global reporting on SDG targets 6.1 and 6.2, and contribute to the wider UN-Water integrated monitoring initiative for Goal 6.⁸ The JMP also collaborates with custodian agencies responsible for monitoring other SDG goals and targets related to WASH, including SDG target 1.4 on universal access to basic services, SDG target 3.9 on the disease burden from inadequate WASH, and SDG target 4.a on basic WASH in schools.

⁵ United Nations Children's Fund and World Health Organization, *Progress on Sanitation and Drinking Water: 2015 update and MDG assessment*, UNICEF and WHO, New York, 2015.

⁶ *Transforming Our World: The 2030 Agenda for Sustainable Development*, United Nations General Assembly Resolution, A/RES/70/1, 21 October 2015.

⁷ United Nations Department of Economic and Social Affairs, Statistics Division, ‘IAEG-SDGs’, <<https://unstats.un.org/sdgs/iaeg-sdgs>>.

⁸ UN-Water, *Monitor and Report*, <www.unwater.org/what-we-do/monitoring-and-report>.

Box 1

GOAL 6. Ensure availability and sustainable management of water and sanitation for all

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- 6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- 6.b Support and strengthen the participation of local communities in improving water and sanitation management

2.2 MDGs to SDGs: Addressing unfinished business and raising the bar

SDG targets 6.1 and 6.2 relate to drinking water, sanitation and hygiene and are far more ambitious than the previous MDG target 7c, which aimed to halve the proportion of the population without access to water and sanitation by 2015. First, the SDG targets call for universal and equitable access for all, which implies eliminating inequalities in service levels. Second, they include hygiene, which was not addressed in the MDGs. Third, they specify that drinking water should be safe and affordable, and that sanitation should be adequate. Lastly, they include explicit references to ending open defecation and to the needs of women and girls and those in vulnerable situations. The JMP has developed a normative interpretation for each of the terms used in the targets, and the approach to global monitoring aims to reflect these as closely as possible.⁹

The JMP uses service **ladders** to benchmark and compare progress across countries, and these have been updated and expanded to facilitate enhanced monitoring. The new ladders build on the established improved/unimproved facility type classification, thereby providing continuity with MDG monitoring, and introduce additional criteria relating to the level of service provided to households. The JMP will continue to monitor all rungs on each ladder, with a particular focus on those that relate to progress towards the following Sustainable Development Goal (SDG) global targets:

- Ending **open defecation** (SDG 6.2)
- Achieving universal access to **basic services** (SDG 1.4)
- Achieving universal access to **safely managed services** (SDG targets 6.1 and 6.2).

⁹ WHO/United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation, *WASH in the 2030 Agenda: New global indicators for drinking water, sanitation and hygiene*, UNICEF and WHO, 2016, <https://washdata.org/report/jmp-2017-wash-2030-agenda>.

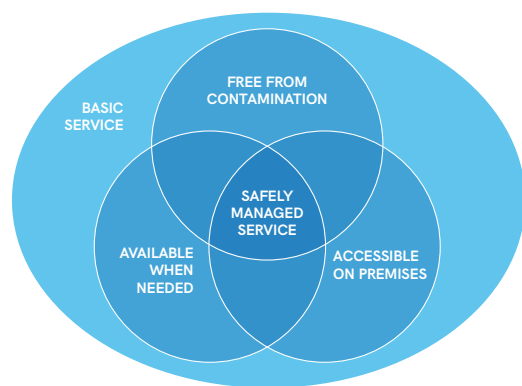




Improved drinking water sources are those which by nature of their design and construction have the potential to deliver safe water. During the SDG period, the population using improved sources will be subdivided into three groups according to the level of service provided. In order to meet the criteria for a **safely managed** drinking water service (SDG 6.1), people must use an improved source meeting three criteria (Figure 11, and Section 4.1):

- it should be accessible on premises,
- water should be available when needed, and
- the water supplied should be free from contamination.

If the improved source does not meet any one of these criteria, but a round trip to collect water takes 30 minutes or less, it will be classified as a **basic** drinking water service (SDG 1.4). If water collection from an improved source exceeds 30 minutes, it will be categorized as a **limited** service.



SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
UNIMPROVED	Drinking water from an unprotected dug well or unprotected spring
SURFACE WATER	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal

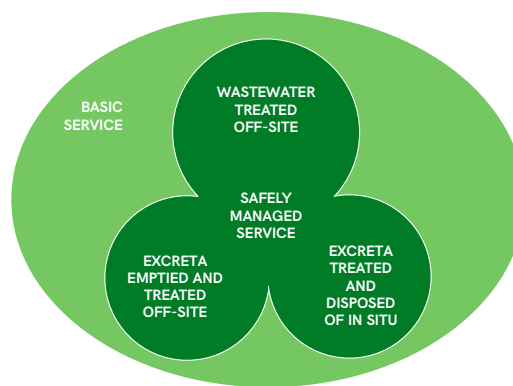
Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

Fig. 11 The new JMP ladder for drinking water services

Improved sanitation facilities are those designed to hygienically separate excreta from human contact. There are three main ways to meet the criteria for having a **safely managed** sanitation service (SDG 6.2). People should use improved sanitation facilities that are not shared with other households, and the excreta produced should either be (Figure 12, and Section 4.2):

- treated and disposed of in situ,
- stored temporarily and then emptied, transported and treated off-site, or
- transported through a sewer with wastewater and then treated off-site.

If the excreta from improved sanitation facilities are not safely managed, then people using those facilities will be classed as having a **basic** sanitation service (SDG 1.4). People using improved facilities that are shared with other households will



SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite
BASIC	Use of improved facilities that are not shared with other households
LIMITED	Use of improved facilities shared between two or more households
UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste

Note: improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.

Fig. 12 The new JMP ladder for sanitation services



SERVICE LEVEL	DEFINITION
BASIC	Availability of a handwashing facility on premises with soap and water
LIMITED	Availability of a handwashing facility on premises without soap and water
NO FACILITY	No handwashing facility on premises

Note: Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

Fig. 13 The new JMP ladder for hygiene

be classified as having a **limited** service. The JMP will also continue to monitor the population practising **open defecation**, which is an explicit focus of SDG target 6.2.

The presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene under the SDGs. Households that have a handwashing facility with soap and water available on premises will meet the criteria for a **basic** hygiene facility (SDG 1.4 and 6.2). Households that have a facility but lack water or soap will be classified as having a **limited** facility, and distinguished from households that have no facility at all (Figure 13).



2.3 Report overview

The new service ladders are discussed in more detail in subsequent sections.

Section 3 examines coverage of basic drinking water and sanitation services and handwashing facilities with soap and water, and assesses the prospects for achieving SDG target 1.4 of universal access to basic services by 2030. It shows that while billions have gained access to basic water and sanitation services since 2000, faster progress will be required in order to achieve universal access to basic drinking water, sanitation and handwashing facilities by 2030.

Section 4 examines the extent to which existing drinking water and sanitation facilities met the new SDG criteria for safely managed services in 2015. It shows that while the majority of the global population used services meeting the new SDG criteria for safely managed drinking water services, relatively few people used services meeting the new SDG criteria for safely managed sanitation services.

Section 5 examines inequalities in WASH services in light of the SDG call to reduce inequalities within and between countries and to "leave no one behind". It identifies populations that will need to be targeted in order to eliminate open defecation by 2030 and documents inequalities in basic services between rich and poor as well as subnational regions. It also highlights significant disparities in safe management of drinking water and sanitation services between rural and urban areas.

Section 6 considers the implications of monitoring SDG targets for universal access, which means looking beyond the household and addressing WASH in institutional settings and public spaces. It outlines proposed indicators for monitoring WASH in schools and in health care facilities and considers national sources of data that can potentially be used for SDG monitoring.

The report finds that while billions of people have gained access to basic services since 2000, faster progress will be required in order to end open defecation and achieve universal access to basic services by 2030. Achieving safely managed drinking water and sanitation services presents a major challenge in many parts of the world, and there is a need to address significant inequalities. There are major data gaps, and effective monitoring of inequalities in WASH services during the SDG era will require significant improvements in the availability and quality of data underpinning national, regional and global estimates of progress.

1. Highlights

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has produced regular estimates of national, regional and global progress on drinking water, sanitation and hygiene (WASH) since 1990. The JMP service 'ladders' enable benchmarking and comparison of progress across countries at different stages of development. This 2017 report introduces updated water and sanitation ladders which build on established indicators and establish new rungs with additional criteria relating to service levels. A third ladder has also been introduced for hygiene. The JMP will continue to monitor all rungs on each ladder, with a particular focus on those that relate to the Sustainable Development Goal (SDG) global targets and indicators.

Global goals, targets and indicators for drinking water, sanitation and hygiene

WASH SECTOR GOAL	SDG GLOBAL TARGET	SDG GLOBAL INDICATOR
Ending open defecation	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation , paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Population practising open defecation
Achieving universal access to basic services	1.4 By 2030, ensure all men and women, in particular the poor and vulnerable, have equal rights to economic resources, as well as access to basic services ...	1.4.1 Population living in households with access to basic services (including basic drinking water, sanitation and hygiene)
Progress towards safely managed services	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Population using safely managed drinking water services
	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Population using safely managed sanitation services
		6.2.1 Population with a basic handwashing facility with soap and water available on premises

Table 1

Updated JMP ladders for drinking water and sanitation and a new ladder for hygiene

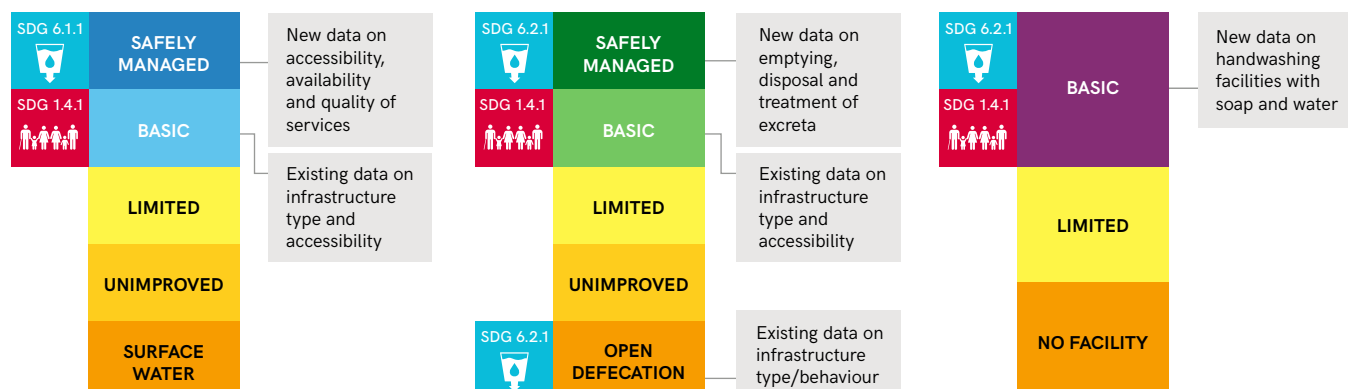


Fig. 1 Updated JMP service ladders

Key messages

In 2015,

1. 71 per cent of the global population (5.2 billion people) used a **safely managed** drinking water service; that is, one located on premises, available when needed and free from contamination.
2. Estimates for **safely managed** drinking water were available for 96 countries (representing 35 per cent of the global population), and for four out of eight SDG regions¹.
3. One out of three people using **safely managed** drinking water services (1.9 billion) lived in rural areas.
4. Eight out of ten people (5.8 billion) used improved sources with **water available when needed**.
5. Three out of four people (5.4 billion) used improved sources **located on premises**.
6. Three out of four people (5.4 billion) used improved sources **free from contamination**.
7. 89 per cent of the global population (6.5 billion people) used at least a **basic** service; that is, an improved source within 30 minutes' round trip to collect water.
8. 844 million people still lacked even a **basic** drinking water service.
9. 263 million people spent over 30 minutes per round trip to collect water from an improved source (constituting a **limited** drinking water service).
10. 159 million people still collected drinking water directly from **surface water** sources, 58% lived in sub-Saharan Africa.

7 out of 10 people used safely managed drinking water services in 2015

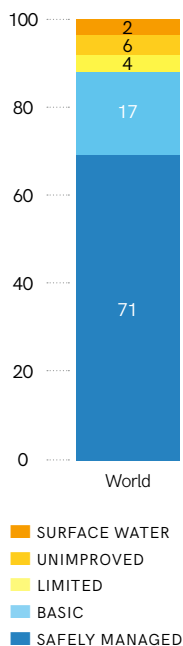


Fig. 2 Global drinking water coverage, 2015

Estimates of safely managed drinking water services are available for four out of eight SDG regions

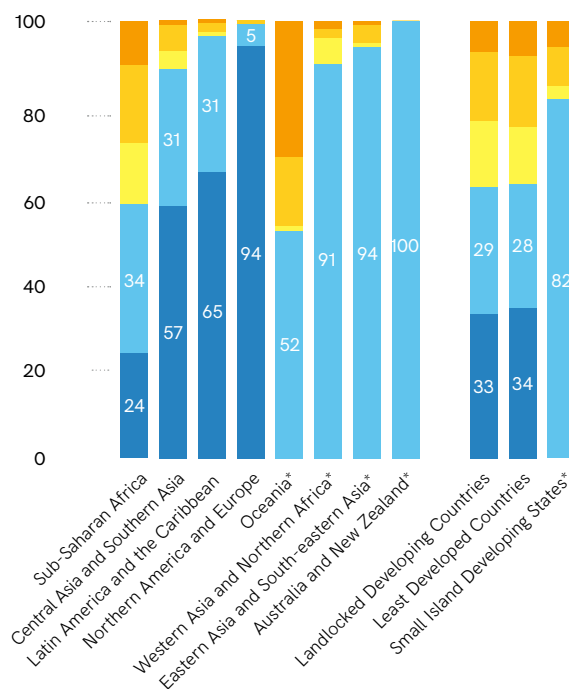


Fig. 3 Regional drinking water coverage, 2015²

* Insufficient data to estimate safely managed services.

By 2015, 181 countries had achieved over 75% coverage with at least basic drinking water services³

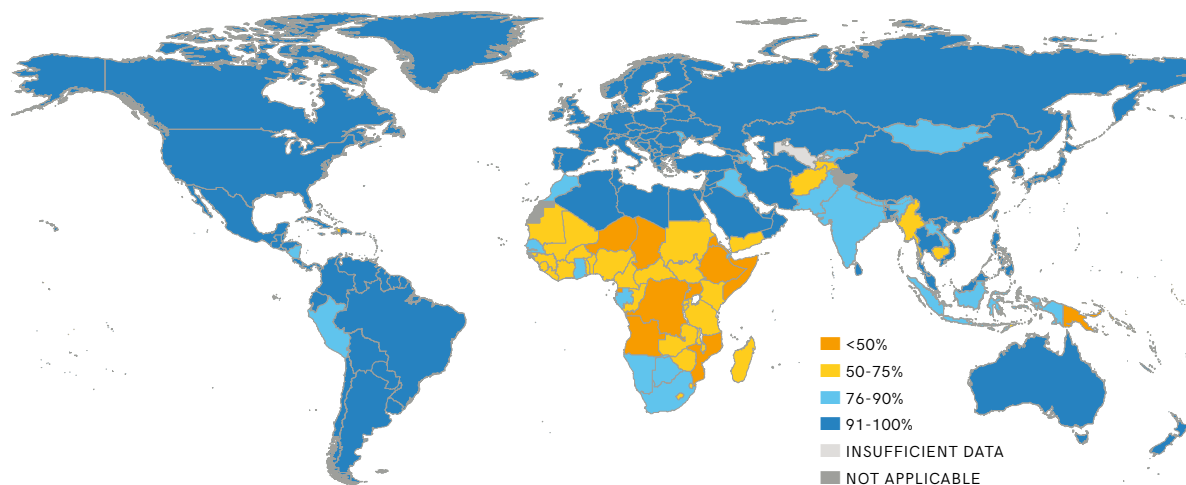


Fig. 4 Proportion of population using at least basic drinking water services, 2015

¹ National estimates are made where data are available for at least 50% of the relevant population. Regional and global estimates are made where data are available for at least 30% of the relevant population.

² This report refers to the SDG region of "Oceania excluding Australia and New Zealand" as Oceania.

³ The JMP tracks progress for 232 countries, areas and territories, including all United Nations Member States. Statistics in this report refer to countries, areas or territories.

Key messages

In 2015,

1. 39 per cent of the global population (2.9 billion people) used a **safely managed** sanitation service; that is, excreta safely disposed of in situ or treated off-site.
2. Estimates for **safely managed** sanitation were available for 84 countries (representing 48 per cent of the global population), and for five out of eight SDG regions⁴.
3. Two out of five people using **safely managed** sanitation services (1.2 billion) lived in rural areas.
4. 27 per cent of the global population (1.9 billion people) used private sanitation facilities connected to sewers from which **wastewater was treated**.
5. 13 per cent of the global population (0.9 billion people) used toilets or latrines where excreta were **disposed of in situ**.
6. Available data were insufficient to make a global estimate of the proportion of population using septic tanks and latrines from which excreta are **emptied and treated off-site**.
7. 68 per cent of the global population (5.0 billion people) used at least a **basic** sanitation service.
8. 2.3 billion people still lacked even a **basic** sanitation service.
9. 600 million people used a **limited** sanitation service; that is, improved facilities shared with other households.
10. 892 million people worldwide still practised **open defecation**.

Two out of five people used safely managed sanitation services in 2015

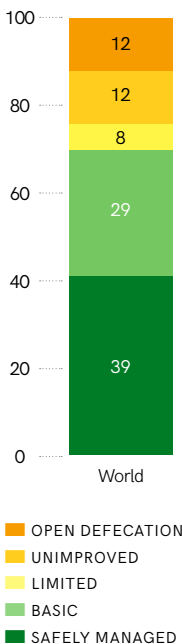


Fig. 5 Global sanitation coverage, 2015

Estimates of safely managed sanitation services are available for five out of eight SDG regions

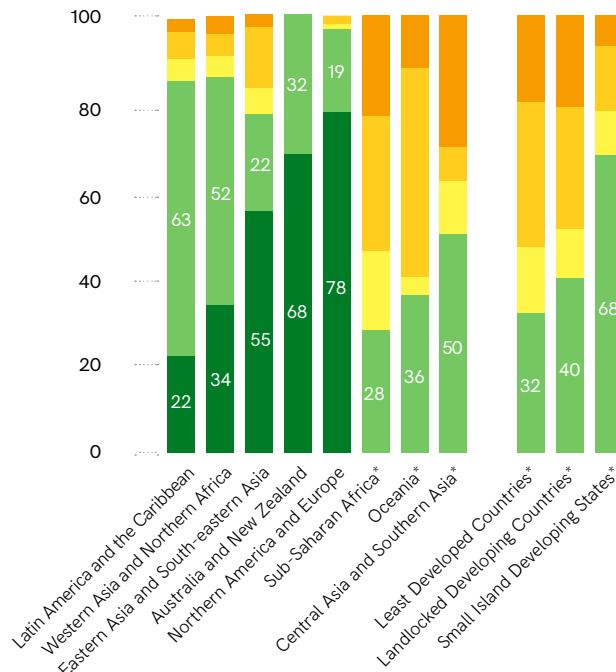


Fig. 6 Regional sanitation coverage, 2015

* Insufficient data to estimate safely managed services.

By 2015, 154 countries had achieved over 75% coverage with basic sanitation services

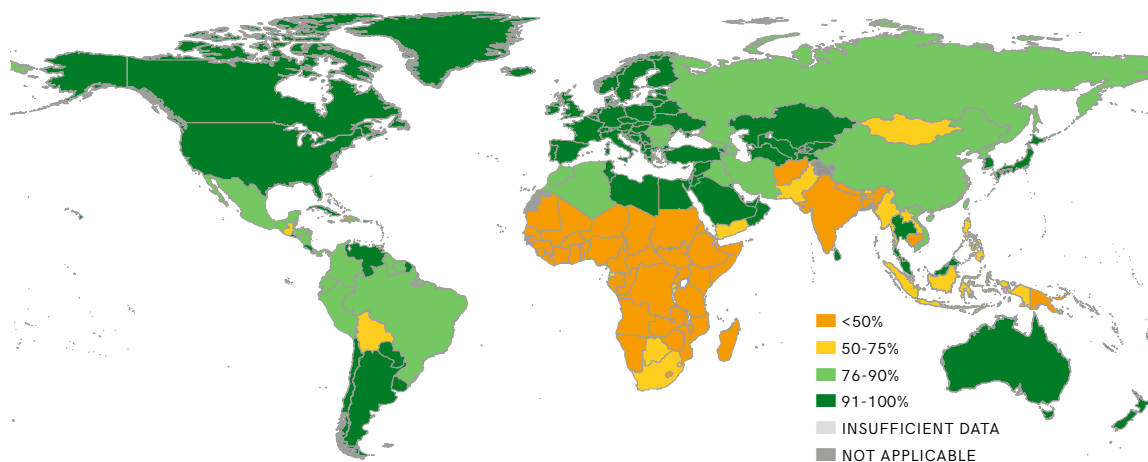


Fig. 7 Proportion of population using at least basic sanitation services, 2015

⁴ National estimates are made where data are available for at least 50% of the relevant population. Regional and global estimates are made where data are available for at least 30% of the relevant population.

Key messages

In 2015,

1. 70 countries had comparable data available on handwashing with soap and water, representing 30 per cent of the global population.
2. Coverage of basic handwashing facilities with soap and water varied from 15 per cent in sub-Saharan Africa to 76 per cent in Western Asia and Northern Africa, but data are currently insufficient to produce a global estimate, or estimates for other SDG regions.
3. In Least Developed Countries, 27 per cent of the population had basic handwashing facilities with soap and water, while 26 per cent had handwashing facilities lacking soap or water. The remaining 47 per cent had no facility.
4. In sub-Saharan Africa, three out of five people with basic handwashing facilities (89 million people) lived in urban areas.
5. Many high-income countries lacked sufficient data to estimate the population with basic handwashing facilities.

70 countries had comparable data available on handwashing in 2015

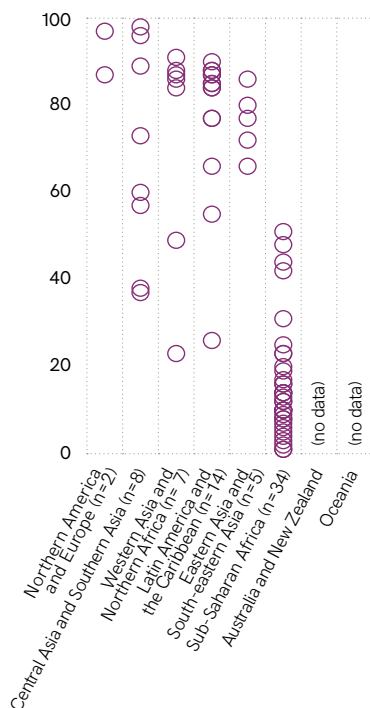


Fig. 8 Proportion of population with basic handwashing facilities in 70 countries, 2015

A substantial acceleration is needed to end open defecation by 2030

Between 2000 and 2015, the number of people practising open defecation declined from 1229 million to 892 million, an average decrease of 22 million people per year. As shown in Figure 9, progress will need to accelerate in order to end open defecation by 2030.

All SDG regions saw a drop in the number of people practising open defecation, except for sub-Saharan Africa, where high population growth led to an increase in open defecation from 204 to 220 million, and in Oceania, where open defecation increased from 1 to 1.3 million.

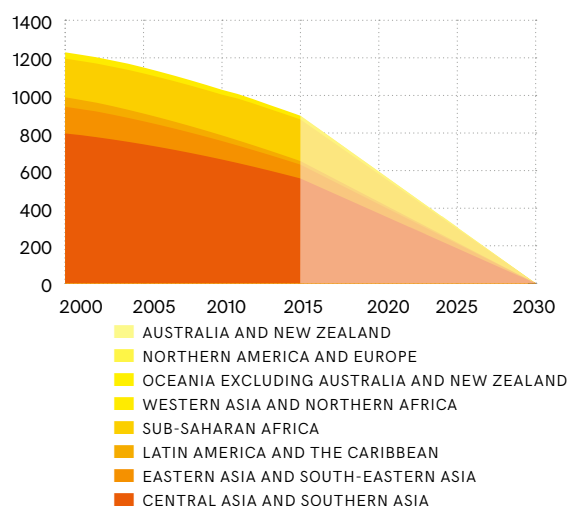


Fig. 9 Regional trends in national population practising open defecation, 2000-2015 (in millions)

In 2015, most countries in Africa had less than 50% coverage with basic handwashing facilities

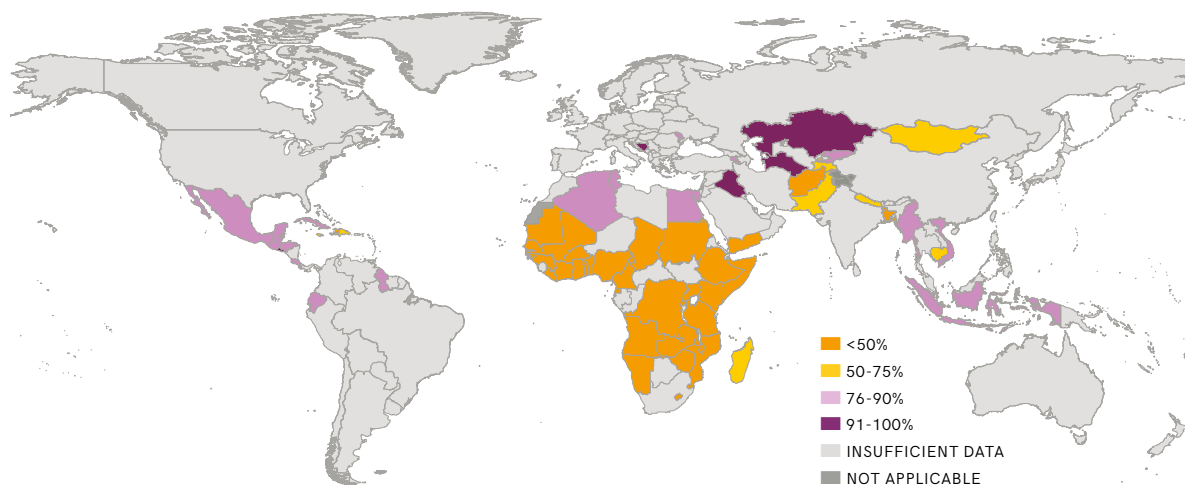


Fig. 10 Proportion of population with handwashing facilities including soap and water at home, 2015