HUMAN RIGHTS WATCH

“Without Water, We Are Nothing”

The Urgent Need for a Water Law in Guatemala

HUMAN RIGHTS WATCH

“Without Water, We Are Nothing”

The Urgent Need for a Water Law in Guatemala

Printed in the United States of America
ISBN: 979-8-88708-236-3
Cover design by Solé Nazaire

Human Rights Watch defends the rights of people worldwide. We scrupulously investigate abuses, expose the facts widely, and pressure those with power to respect rights and secure justice. Human Rights Watch is an independent, international organization that works as part of a vibrant movement to uphold human dignity and advance the cause of human rights for all.

Human Rights Watch is an international organization with staff in more than 40 countries, and offices in Amman, Amsterdam, Beirut, Berlin, Brussels, Chicago, Copenhagen, Geneva, Johannesburg, London, Los Angeles, Nairobi, New York, Paris, San Francisco, Sydney, Tokyo, Toronto, Tunis, Washington DC, and Zurich.

For more information, please visit our website: http://www.hrw.org

JULY 2025

ISBN: 979-8-88708-236-3

“Without Water, We Are Nothing”

The Urgent Need for a Water Law in Guatemala

Glossary

Acute malnutrition: A state of undernutrition experienced over a short period of time that is characterized by wasting (a low weight to height ratio).

Blind pit: Throughout this report, the term "blind pit" refers to a hole in the ground that is used as a latrine. It is a translation of the Spanish phrase "pozo ciego," which many interviewees used to describe where they go to the bathroom.

Child morbidity: The experience of illness, disease, or other medical condition by children under the age of 18.

Chronic malnutrition: A state of undernutrition experienced over a prolonged period that is characterized by stunting (a low height to age ratio).

Mechanical well: A hole dug or drilled in the ground to access groundwater that extracts the water using a mechanical pump.

Sanitation services: Throughout this report, "sanitation services" is used to refer to methods used to manage and dispose of human excreta, including toilets, latrines, drainage systems, and waste treatment infrastructure.

Surface waters: Water bodies accessible above ground, such as streams, rivers, and lakes.

Unprotected well: In this report, an "unprotected well" refers to a perforation in the ground to access groundwater or another natural source of water that is unsupported and unprotected by manmade materials or intervention, such as an internal casing or a cover to prevent contamination.

Wastewater: Residual water created by household, industrial, agricultural, or other uses, and includes sewage containing human excreta.

Wastewater treatment plant: Facility that receives and treats wastewater to remove contaminants—typically according to standards imposed by local regulations—before discharging the water back into the natural environment.

Map

Departments of Guatemala Where Human Rights Watch Conducted Interviews

Summary

María Osorio Osorio, a 41-year-old Indigenous Maya woman from the municipality of Santa María Chiquimula, in Guatemala's Totonicapán department, lives without access to running water. Three times a week she makes a two-hour round trip to collect water from a well or ravine, sometimes accompanied by her children, aged 5, 12, and 17. "Sometimes we each only drink one glass of water [a day]," María said. "There is no more water than that."

This lack of water affects nearly every aspect of María's life. With so little available, she is only able to bathe once a week. Her home has no toilet; instead, she relies on a blind pit (a hole in the ground) shared by seven people. María said her children are frequently sick, suffering from diarrhea or flu-like symptoms on a weekly basis.

Food is also scarce. María and her family only eat twice a day, typically beans or noodles. Without access to water, María explained, they cannot grow crops to eat. "What we need most is water," she said.

Like María, millions of Guatemalans face a daily struggle for water and lack access to a dignified sanitation service. Indigenous people, who have suffered exclusion and been neglected for generations in Guatemala, are disproportionally affected. Women are also particularly affected, often shouldering the responsibility of water collection for themselves and their families.

These conditions reflect broader patterns of structural discrimination, poverty, and inequality in Guatemala, which has one of the highest poverty rates in Latin America and extreme income inequality, with 56 percent of the country living in poverty in 2023, including over 75 percent of Indigenous people and about 44 percent of non-Indigenous people, according to government data.

This report documents the human rights toll of inadequate access to water and sanitation in Guatemala and identifies key steps the Guatemalan Congress and President Bernardo Arévalo's administration should take to address the rights violations and help alleviate the harms. Human Rights Watch interviewed 108 people in predominantly Indigenous communities in the departments of Santa Rosa, Jalapa, and Totonicapán; 6 healthcare

personnel; and dozens of experts, civil society members, and government officials. We also analyzed water, sanitation, and poverty data from the 2023 National Survey of Living Conditions (Encuesta Nacional de Condiciones de Vida, ENCOVI) conducted by the National Institute of Statistics (Instituto Nacional de Estadística, INE).

While Guatemala has more freshwater per capita than the majority of countries in the world, 40 percent of Guatemalans do not have access to running water inside their homes, forcing many to rely on wells, rivers, lakes, or rainwater for their daily needs. This poses serious health risks, as the government estimates that over 90 percent of surface waters in Guatemala are contaminated. The country's deficient sanitation infrastructure contributes to this contamination. Only 42 percent of households report having a toilet connected to a drainage network. The government estimates that the vast majority of wastewater is discharged directly into the environment without any treatment.

Our research found significant disparities in water and sanitation access in Guatemala. Members of Indigenous communities and people living in conditions of poverty often must take extreme measures to collect, ration, and preserve water—compromising their health, education, income, and overall quality of life.

According to 2023 ENCOVI data, 50 percent of Indigenous Guatemalans lack access to indoor running water, compared to 33 percent of non-Indigenous Guatemalans. Indigenous people are also nearly three times more likely to rely on latrines or blind pits, which can be unsanitary or unsafe, while non-Indigenous people are twice as likely to have a toilet connected to a sewage system.

The health impacts of inadequate water and sanitation access across Guatemala are severe. Alarmingly, in 2019, the World Health Organization (WHO) reported that Guatemala's mortality rate from unsafe water, sanitation, and hygiene services reached 15.3 deaths per 100,000 people—more than double that of any neighboring country. Limited access to water and sanitation also contributes to chronic childhood malnutrition, which affects nearly one in two children under five in Guatemala—one of the highest chronic malnutrition rates in the world. Guatemala also has the highest under-five mortality rate in Central America, with diarrhea—a symptom regularly caused by unsafe or insufficient water and sanitation—accounting for nearly 8 percent of these deaths, a higher share than in any neighboring country.

Although Guatemala's Constitution recognizes water as a common good and calls for a law regulating the exploitation, use, and enjoyment of water in accordance with the social interest, authorities have failed to pass such legislation for 40 years. As a result, critical issues like water rights, resource allocation, and contamination are not adequately regulated. In the absence of a comprehensive water governance framework, various authorities, including the Ministry of Environment and Natural Resources, the Ministry of Public Health and Social Assistance, and the Ministry of Agriculture, Livestock and Food hold overlapping responsibilities, creating inefficiencies and undermining accountability for water use, management, and contamination.

The Guatemalan Congress and the Arévalo administration can address these long-standing human rights challenges, and the time is ripe. The administration has already pledged to introduce a water law to Congress which, if well-designed, could be an essential step toward ensuring effective water governance and guaranteeing the human rights to water and sanitation.

Importantly, the government also has committed to facilitating a national dialogue to inform the law's drafting process. The resulting legislation should directly address the demands of those who bear the brunt of the country's water crisis, particularly Indigenous communities.

To create a strong foundation for lasting improvement in water quality and access, the water law should recognize and protect the human rights to water and sanitation. The law should establish a regulatory and financing system that can, to the maximum of available resources, guarantee the availability, continuity, accessibility, acceptability, safety, and sustainability of water for personal and domestic use. It should establish clear and enforceable sanctions for individuals, institutions, and businesses that contaminate water resources, divert water resources to the detriment of surrounding communities, threaten water availability, or otherwise infringe upon the water rights of others, in accordance with national laws and international instruments such as the International Labour Organization (ILO) Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples. It should also clearly establish the roles and responsibilities of the government agencies in charge of creating, monitoring, and enforcing water protection regulations, and strengthen their capacities.

“Without water, it is an impossible life,” one Indigenous Maya woman in Santa María Chiquimula, Totonicapán, told Human Rights Watch. Yet she remained hopeful: “What I am suffering, my children are going to overcome.”

Methodology

This report is based on research carried out between September 2024 and May 2025. In November 2024, Human Rights Watch visited the municipalities of Casillas in the department of Santa Rosa; Jalapa in the department of Jalapa; and Santa María Chiquimula in the department of Totonicapán. Researchers interviewed 108 people from predominantly Indigenous communities across these departments, 103 of whom were women. Interviewees predominantly lived in the municipalities of Casillas, Jalapa, and Santa María Chiquimula, though a few interviewees lived in neighboring municipalities. Researchers also interviewed six healthcare personnel in the municipalities of Casillas and Jalapa.

These departments were selected based on their demographics and poor performance on indicators related to water, sanitation, and malnutrition. Human Rights Watch chose to highlight the experiences of Indigenous communities, given the historically lower rates of access to water and sanitation among these communities in Guatemala. Jalapa and Santa Rosa have the highest percentage of Indigenous Xinka people in the country: Jalapa is 32 percent Xinka and Santa Rosa is 14 percent Xinka (about 2 percent of the national population is Xinka, according to the 2018 national census).[1] Both departments have low rates of access to uninterrupted water services among households that have indoor water network connections.[2] Totonicapán, meanwhile, has the highest percentage of Indigenous Maya people of any department (98 percent) (about 42 percent of the national population is Maya, according to the 2018 national census), one of the lowest rates of households with access to improved sanitation services according to the government, and the highest rate of chronic malnutrition in the country (70 percent), according to the most recent national data (2014-15).[3]

---

[1] National Institute of Statistics of the Republic of Guatemala (INE), Population and Housing Census 2018, Infographics, Percentage of population by self-identification, https://censo2018.ine.gob.gt/cuantossomos (accessed March 25, 2025).

[2] Of households with indoor water connections, Santa Rosa has the lowest rate of 24/7 water service delivery of any department (7.6 percent), and Jalapa has the fifth lowest rate (12.5 percent). Santa Rosa has the second lowest rate (16 percent) of households with indoor water service that functioned every day of the preceding month when surveyed, and Jalapa tied for the eighth lowest rate (25 percent). Human Rights Watch analysis of INE, National Survey of Living Conditions (ENCOVI) 2023 data, https://www.ine.gob.gt/pobreza-menu/ (accessed February 20, 2025).

[3] For demographic data, see INE, Population and Housing Census 2018, Demographics, Department of Totonicapán Results, https://censo2018.ine.gob.gt/mapas (accessed March 25, 2025). According to the government's analysis of 2023 ENCOVI data, Totonicapán has the second lowest rate of households with access to an improved sanitation service (30.2 percent). INE, ENCOVI 2023, https://www.ine.gob.gt/sistema/uploads/2024/08/22/20240822115045oP9hz3bt6r44qxs2amGK6YQqlpGhNdgo.pdf (accessed March 25, 2025), p. 66. For malnutrition rates, see INE, National Survey of Maternal and Child Health (ENSMI) 2014-15, https://portal.siinsan.gob.gt/ensmi/ (accessed March 25, 2025).

Most interviews were conducted in Spanish. Some interviews in Santa María Chiquimula were conducted in K'iche' with the assistance of interpreters. All translations from Spanish to English are by Human Rights Watch. Interviewees were identified with the help of local civil society partners and community leaders.

Human Rights Watch informed interviewees of the purpose of the interview and its voluntary nature. Researchers explained to interviewees that they could stop the interview at any time or elect not to respond to specific questions. Interviewees did not receive any compensation for speaking with us.

Most interviews were conducted in small groups of 2 to 5 people, with a few people interviewed individually. Interviews primarily focused on water and sanitation access but also covered demographic information and other social and economic topics, including access to health care, food, education, income, and social programs. In some cases, interviewees have been assigned a pseudonym to protect their privacy, noted in a footnote where applicable.

Human Rights Watch also met with government officials from the Ministry of Public Health and Social Assistance (MSPAS); the Ministry of Environment and Natural Resources (MARN); the Ministry of Social Development (MIDES); the Secretariat of Food and Nutritional Security (SESAN); the National Institute of Seismology, Volcanology, Meteorology, and Hydrology (INSIVUMEH); the governor of Santa Rosa department; and the Socio-environmental Ombudswoman and the Ombudswoman for the Right to Food—positions within the Human Rights Ombudsman's Office, which is charged with monitoring and promoting human rights in the country.

We also met with more than a dozen civil society organizations; as well as members of the UN Office of the High Commissioner for Human Rights (OHCHR)-Guatemala; officers from the UN Children's Fund (UNICEF) in Guatemala; public health experts; and water and sanitation experts.

Human Rights Watch also obtained, reviewed, and analyzed official data from the 2014 and 2023 National Survey of Living Conditions (Encuesta Nacional de Condiciones de Vida, ENCOVI) from the National Institute of Statistics (Instituto Nacional de Estadística, INE). This included data on access to water and sanitation, hunger, and demographic data,

including ethnic identity and poverty levels. Depending on the analysis, we used household and person-level weighting variables. All analysis was completed in R and the code is available in a repository on the Human Rights Watch GitHub page.

We also reviewed national laws and policies as well as news articles, civil society reports, government reports, academic papers, UN agency reports, World Bank reports, and statements by government officials.

We reviewed government data and information received in response to information requests submitted to the Ministry of Public Health and Social Assistance; the Ministry of Environment and Natural Resources; the Ministry of Social Development; the Attorney General's Office; the Public Prosecutor's Office; and the Ministry of Education, as well as other publicly available government data, including the 2018 national census. The information requested and responses include:

- On January 17, 2025, Human Rights Watch asked the Attorney General's Office for information related to complaints filed with or initiated by prosecutors for water-related crimes, including contamination and diversion, from 2019 to 2024. The office responded on January 28, 2025, with a list of complaints from the public, complaints from the Ministry of Environment and Natural Resources, and investigations initiated by the Office of the Attorney General itself from 2019 to 2024, including the date, location, category of crime, and status of each case.
- On January 17, 2025, Human Rights Watch asked the Ministry of Public Health and Social Assistance for data related to water access and quality, including monitoring practices; information on wastewater treatment plants; information related to complaints for certain Health Code violations; data on cases of malnutrition and gastrointestinal illnesses; data on water access in healthcare facilities; information related to policies and budgets of the Ministry; and information on internationally supported projects and agreements related to water and sanitation. On February 17, 2025, the Ministry sent Human Rights Watch community-level data on water connections, drinking water quality monitoring data, information on chronic and acute malnutrition and child morbidity, and information on water services in healthcare facilities.
- On January 17, 2025, Human Rights Watch asked the Public Prosecutor's Office—an agency charged with representing the interests of the state—for information on complaints filed with or involving the public prosecutor related to water access and

quality from 2019 to 2024, including cases involving contamination or diversion. On January 30, 2025, the Public Prosecutor's Office responded with information on relevant complaints from 2019 to 2024.

- On January 17, 2025, Human Rights Watch asked the Ministry of Environment and Natural Resources for information on complaints received by the Ministry from 2019-2024 related to water contamination, consumption, and diversion and complaints presented by the Ministry to the Attorney General's Office; information on projects supported by international development agencies; information on wastewater treatment plants; information on water quality monitoring and alert systems for cases of contamination; information on coordination mechanisms between the Ministry and local governments; relevant agreements and compliance with international standards; budgetary information; and information on the Ministry's efforts to lead a process to draft a national water law. On January 31 and February 3, 2025, the Ministry of Environment and Natural Resources sent Human Rights Watch information on water-related complaints filed with the Ministry from 2019 to 2024; information on wastewater treatment plants; information on water monitoring carried out by the Ministry; information on hydrographic basins and their management plans; budgetary information; information on relevant governmental agreements; information on work with municipalities; and information on projects receiving international support.
- On January 17, 2025, Human Rights Watch asked the Ministry of Social Development for information related to social protection programs and water and sanitation projects funded by the Ministry. On February 4, 2025, the Ministry of Social Development sent Human Rights Watch information on social protection programs and the government's inter-ministerial "Hand in Hand Initiative" ("Iniciativa Mano a Mano") to combat child malnutrition and poverty, as well as information on water and sanitation projects funded by the Ministry's Social Development Fund from 2019 to 2024.
- On April 9, 2025, Human Rights Watch asked the Ministry of Education for information from a study carried out by the Ministry in 2024 on infrastructure in educational institutions, including access to water in schools. On April 30, 2025, the Ministry of Education sent Human Rights Watch statistics on infrastructure gaps in educational institutions.

I. Background

Water Availability and Distribution Challenges

Guatemala has more renewable freshwater per capita than the global average.[4] According to the UN Food and Agricultural Organization (FAO), Guatemala had an estimated 7,167 cubic meters of water per capita in 2022, well above the threshold for "water stress" (1,700 cubic meters per year) or "water scarcity" (1,000 cubic meters per year).[5] These thresholds are based on the Falkenmark Water Stress Indicator, a simple but commonly used index that evaluates the amount of freshwater resources against basic human needs, including drinking water and hygiene.[6]

According to standards set out by the UN Committee on Economic, Social, and Cultural Rights in its General Comment 15, every person should have water "sufficient and continuous for personal and domestic uses[,]" which "ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene[,]" as well as additional demand that some people may have "due to health, climate, and work conditions[.]"[7] Guatemalan authorities have failed to adequately protect and manage the country's water resources to ensure everyone has adequate access to water to meet this range of demand.

---

[4] *Desperate Choices in Guatemala: How Drought- and Storm-Intensified Hardships Drive People to Risk Everything to Reach the US*, Human Rights Watch interactive feature, November 2023, https://www.hrw.org/video-photos/interactive/2023/11/15/desperate-choices-in-guatemala. See also United Nations Food and Agriculture Organization (FAO), "Renewable internal freshwater resources per capita (cubic meters) – Guatemala, World," webpage, [n.d.], https://data.worldbank.org/indicator/ER.H2O.INTR.PC?locations=GT-1W (accessed March 26, 2025); Manuel Basterrechea and Alex Guerra Noriega, "Water Resources" ("Recursos hídricos"), in *First assessment report on climate change knowledge in Guatemala* (*Primer reporte de evaluación del conocimiento sobre cambio climático en Guatemala)* (Guatemala: Sistema Guatemalteco de Ciencias del Cambio Climático, 2019), https://sgccc.org.gt/wp-content/uploads/2019/07/1RepCCGuaCap5.pdf (accessed March 26, 2025), p. 103.

[5] FAO, AQUASTAT Dissemination System, "Total renewable water resources per capita," Guatemala, webpage, [n.d.], https://data.apps.fao.org/aquastat/?lang=en (accessed March 26, 2025).

[6] Grace Kam Chun Ding and Sumita Ghosh, Sustainable Water Management – A Strategy for Maintaining Future Water Resources, *Encyclopedia of Sustainable Technologies*, 2017, https://www.sciencedirect.com/science/article/pii/B978012409548910171X?via%3Dihub (accessed March 26, 2025), pp. 92-93. Notably, the Falkenmark Indicator does not take into account contamination of water sources.

[7] UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15, The Right to Water (arts. 11 and 12 of the Covenant), UN Doc. E/C.12/2002/11 (2003), https://digitallibrary.un.org/record/486454?v=pdf (accessed January 20, 2025), para. 12.

While per capita water availability varies by location due to physical geography, rainfall variation, and concentrated demand in urban areas,[8] research shows that context-specific governance and water management strategies—such as urban planning, water storage systems, reforestation, and redistribution—can help align supply and demand across regions and seasons.[9]

Conversely, governance failures can exacerbate misalignments between water supply and demand and even create scarcity. For example, in the capital, Guatemala City, unabated contamination of the nearby freshwater lake, Lake Amatitlán, hinders it from serving as a

[8] Some municipalities in Guatemala have less than 1,000 cubic meters available per person per year, while others have tens of thousands of cubic meters available per person per year. Strategic Information Unit for Research and Projection (UIE), Research Institute of Natural Sciences and Technology (Iarna) of Rafael Landívar University (URL), and the Institute for Research and Projection on Science and Technology (Incyt), "Per capita water availability map – Estimation of municipal water stress," webpage, [n.d.], https://incyt.maps.arcgis.com/apps/dashboards/13d8a88c46884acebc29117cebca5441 (accessed March 26, 2025). See also Fundación para la Conservación del Agua de la Región Metropolitana de Guatemala (FUNCAGUA), *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us (Informe del estado del agua de la Región Metropolitana de Guatemala 2022: el agua nos une)* (Guatemala: FUNCAGUA, 2022), https://funcagua.org.gt/wp-content/uploads/2022/03/Informe-del-agua-2022-version-digital.pdf (accessed March 26, 2025), pp. 37-38 (discussing concentrated industrial water demand in the Guatemala Metropolitan Region); A.J. Kondash et al., "Food, energy, and water nexus research in Guatemala – A systematic literature review," *Environmental Science and Policy*, vol. 124, 2021, https://www.sciencedirect.com/science/article/pii/S1462901121001696 (accessed May 13, 2025), p. 176. ("Although Guatemala is a country with abundant water resources, uneven temporal and spatial distributions of rainfall coupled with poor management present challenges for achieving universal access to water, food, and electricity."); FAO, *Land of Opportunities: Dry Corridor in El Salvador, Guatemala, and Honduras*, 2021, https://www.fao.org/fileadmin/user_upload/rlc/docs/DryCorridor.pdf (accessed March 26, 2025).

[9] See, for example, Government of the Republic of Guatemala, Secretary of Planning and Programming of the Presidency (SEGEPLAN), *Guatemala's National Water Policy and Strategy (Política Nacional del Agua de Guatemala y su Estrategia)*, May 2011, https://www.segeplan.gob.gt/downloads/clearinghouse/politicas_publicas/Recursos%20Naturales/Pol%C3%ADtica%20Nacional%20del%20Agua%20de%20Guatemala.pdf (accessed March 26, 2025), p. 1 (explaining that water demand goes unmet despite "great availability" due to "multiple factors such as the spatial and temporal variability of the climate, the influence of topography and population location on the accessibility of water sources, but especially due to the absence of a national, institutionalized water management and governance system with planned, coherent, and coordinated activities."). See also Juventino Gálvez, "Water Crisis, Vital Risk and Water Law" ("Crisis del Agua, Riesgo Vital y Ley de Aguas"), *Natural Sciences and Technology Bulletin: Essays and analysis on water in Guatemala, 2nd edition (2022)*, http://www.infoiarna.org.gt/wp-content/uploads/2022/02/Boletin-agua-2-edicion-2022-Final.pdf (accessed March 31, 2025), p. 5 (identifying water management tactics to address access challenges, both in terms of quantity and quality, including treatment, storage, recharge, and transport); Chunyang He et al., "Future global urban water scarcity and potential solutions," *Nature Communications*, vol. 12, 2021: 4667, https://doi.org/10.1038/s41467-021-25026-3 (accessed March 26, 2025), p. 2 (describing some tactics to manage urban water scarcity, including reservoirs, desalination plants, and inter-basin water transfer, while also noting challenges to these strategies, including potential physical and financial constraints); Lea Rosenberger et al., "Providing sufficient water for urban trees with limited root space during drought: Modeling of irrigation scenarios in a temperate climate," *Urban Forestry & Urban Greening*, vol. 104, 2025: 128670, https://www.sciencedirect.com/science/article/pii/S1618866725000044 (accessed March 25, 2025), p. 9 (finding that "daily irrigation with stormwater collected from impervious surfaces in a storage tank can avoid drought stress" for a particular tree species in urban environments in Germany).

source of drinking water.[10] At the same time, the reported unchecked drilling of private wells in the capital region puts stress on groundwater needed to meet the demand of a growing population and raises concerns about the long-term impact of unfettered commercial consumption on municipal wells and residential water supply.[11]

Commercial water use affects water availability in the country more generally. Several key industries in Guatemala are water intensive, including agribusinesses like palm, banana, and sugarcane.[12] However, there is no national institution systematically monitoring water consumption by these or other businesses in Guatemala.[13] Additionally, according to a report published by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), businesses do not generally pay for the water they extract or capture as part of their operations.[14]

---

[10] Manuel Basterrechea et al., "Urban Water in Guatemala" in *Urban water challenges in the Americas: a perspective from the Academies of Science*, (Mexico: Inter-American Network of Academies of Sciences (IANAS) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), 2015), https://ianas.org/wp-content/uploads/2020/08/uwc12.pdf (accessed March 26, 2025), p. 337 ("In the [19]60s, the lake [Amatitlán] was conceived to be able to be a water reservoir to supply the MA [Metropolitan Area]; at this point in time this would require a multimillion dollar investment."); FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us*, p. 83; Eduardo Villagrán, "Amatitlán: Vital signs of a dying man and the role of municipalities" ("Amatitlán: signos vitales de un moribundo y el rol de las municipalidades"), *Plaza Pública*, August 16, 2024, https://www.plazapublica.com.gt/ensayo/ensayo/amatitlan-signos-vitales-de-un-moribundo-y-el-rol-de-las-municipalidades (accessed March 26, 2025).

[11] Emilio Lentini, *Drinking water and sanitation services in Guatemala: potential benefits and determinants of success (Servicios de agua potable y saneamiento en Guatemala: beneficios potenciales y determinantes de éxito*) (Santiago: United Nations Economic Commission for Latin America and the Caribbean (ECLAC), 2010), https://www.cepal.org/sites/default/files/events/files/servicios_de_agua_potable_y_saneamiento.pdf (accessed March 27, 2025), p. 38; La última gota Podcast, "Episode 1: Tomorrow the Water Comes" ("Episodio 1: Mañana viene el agua"), *Radio Ocote*, August 6, 2024, https://www.agenciaocote.com/blog/2024/08/06/la-ultima-gota-1-manana-viene-el-agua/ (accessed March 27, 2025); FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us*, pp. 37-38; FUNCAGUA, *Water Conservation Plan* (*Plan de conservación del agua)*, 2018, https://funcagua.org.gt/wp-content/uploads/2020/04/2018.-Plan-de-Conservaci%C3%B3n-del-Agua-para-la-Regi%C3%B3n-Metropolitana-de-Guatemala.-FUNCAGUA.pdf (accessed March 27, 2025), p. 16.

[12] The Observatory of Economic Complexity (OEC), "Guatemala," webpage, [n.d.], https://oec.world/en/profile/country/gtm (accessed March 27, 2025); see also A.J. Kondash et al., "Food, energy, and water nexus research in Guatemala – A systematic literature review," *Environmental Science and Policy*, vol. 124, 2021, https://www.sciencedirect.com/science/article/pii/S1462901121001696 (accessed May 13, 2025), pp. 179-180.

[13] See Interactive Country Fiches, "Guatemala – Water," webpage, [n.d.], https://dicf.unepgrid.ch/guatemala/water#section-drivers (accessed March 27, 2025) ("Water consumption by the various user sectors is not sufficiently measured."). See also FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us*, pp. 37-38 ("[I]n the absence of a regulatory body, there is no way to obtain records of the number of wells or water consumption for industrial purposes, since the data is handled at the discretion of the companies[.]")

[14] Emilio Lentini, *Drinking water and sanitation services in Guatemala: potential benefits and determinants of success,* p. 25 ("In general, most industries supply their own water (i.e., they capture or extract it from natural sources), since they do not pay anything for water extraction[.]"). See also Congress of the Republic of Guatemala, "Initiative to approve the Water Framework Law" ("Iniciativa que dispone aprobar Ley Marco del Agua"), No. 5070, May 4, 2016, https://www.congreso.gob.gt/detalle_pdf/iniciativas/5235 (accessed March 31, 2025) ("The use or exploitation of water in

Widespread Contamination and Inadequate Infrastructure

As with Lake Amatitlán, much of Guatemala's freshwater is polluted, limiting its potential use.[15] According to the government, over 90 percent of Guatemala's surface waters are contaminated.[16] A report by the Research Institute of Natural Sciences and Technology (formerly the Institute of Agriculture, Natural Resources and Environment) at Rafael Landívar University estimated that, "as of 2009, at least 14 [out of 38] major rivers and four lakes had high percentages of physical contaminants, organic matter, microorganisms, toxic contaminants and carcinogenic materials, which implies significant risks from using these waters for human consumption and irrigation."[17]

According to the Minister of Environment and Natural Resources, Patricia Orantes, sewage is a principal source of waterway contamination in Guatemala.[18] Although there is no systematic monitoring of how much sewage or other wastewater is discharged directly into waterways in Guatemala, the government estimated in 2006—the most recent information Human Rights Watch is aware of—that around 95 percent of wastewater is "discharged directly into rivers, lakes, and other bodies of water without treatment."[19]

Guatemala is free of any charge…"); Carmen Valle, "Water in Guatemala: Why do vendors have it and residents don't?" ("Agua en Guatemala: ¿Por qué los vendedores la tienen y los vecinos no?"), *Ojoconmipisto* , March 4, 2024, https://www.ojoconmipisto.com/agua-en-guatemala-por-que-los-vendedores-la-tienen-y-los-vecinos-no/ (accessed May 14, 2025); Carmen Valle, "20MinutesWith Marco Cerezo: 'In Guatemala, water has a price, but not all of us pay it'" ("20MinutosCon Marco Cerezo: 'En Guatemala el agua tiene precio, pero no todos lo pagamos'"), *Ojoconmipisto*, March 22, 2024, https://www.ojoconmipisto.com/20minutoscon-marco-cerezo-en-guatemala-el-agua-tiene-precio-pero-no-todos-lo-pagamos/ (accessed May 14, 2025).

[15] Juventino Gálvez, "Water Crisis, Vital Risk and Water Law," pp. 4-6.

[16] Government of the Republic of Guatemala, Ministry of Public Health and Social Assistance (MSPAS), National Policy for the Drinking Water and Sanitation Sector (Política Nacional del Sector de Agua Potable y Saneamiento), 2013, https://www.segeplan.gob.gt/downloads/clearinghouse/politicas_publicas/Salud/Politica_Nacional_del_Sector_de_Agua_Potable_y_Saneamient.pdf (accessed March 31, 2025), p. 8; Government of the Republic of Guatemala, "Guatemala Begins Water Law Process with the Motto 'United for Water'" ("Guatemala Inicia el Proceso de Ley de Aguas con el Lema 'Unidos por el Agua'"), August 29, 2024, https://mail.vicepresidencia.gob.gt/noticias/2024-08-30/guatemala-inicia-el-proceso-de-ley-de-aguas-con-el-lema-unidos-por-el-agua (accessed March 27, 2025).

[17] Iarna of URL, *Guatemala Environmental Profile 2010-2012: Local vulnerability and increasing risk construction (Perfil Ambiental de Guatemala 2010-2012: Vulnerabilidad local y creciente construcción de riesgo)* (Guatemala: IARNA-URL, 2012), https://funcagua.org.gt/wp-content/uploads/2020/04/2012.-Perfil-Ambiental-de-Guatemala.-2010-2012.pdf (accessed March 27, 2025), p. 138.

[18] Kristhal Figueroa, "There are no institutional tools to end pollution" («No hay herramientas institucionales para acabar con la contaminación»), *Agencia Ocote*, September 9, 2024, https://www.agenciaocote.com/blog/2024/09/09/no-hay-herramientas-institucionales-para-acabar-con-la-contaminacion/ (accessed March 27, 2025). See also Interactive Country Fiches, "Guatemala – Water"; Manuel Basterrechea et al., "Urban Water in Guatemala," p. 337.

[19] Government of the Republic of Guatemala, SEGEPLAN, and Inter-American Development Bank (IDB), *Strategy for the Integrated Management of Guatemala's Water Resources – Assessment (Estrategia para la Gestión Integrada de Los Recursos Hídricos de Guatemala – Diagnóstico)*, November 2006,

Under Guatemala's Municipal Code, the responsibility for establishing and managing water and sanitation services lies with the country's 340 municipal governments.[20] The Health Code also describes these responsibilities and explicitly prohibits the discharge of untreated wastewater into waterways or groundwater.[21]

In 2006, the national government issued a regulation imposing wastewater treatment standards.[22] However, the government repeatedly extended the deadline for the regulation's initial stage of implementation with regard to municipal wastewater treatment, and in May 2024, the Constitutional Court, the highest authority over constitutional matters, suspended implementation of operative articles of the regulation, pending an analysis of their constitutionality.[23] The National Association of Municipalities (Asociación Nacional de Municipalidades, ANAM), an organization led by mayors to represent the interests of and support municipal governments, challenged the regulation before the court.[24] The president of ANAM has said that the regulation's deadlines were

---

https://sswm.info/sites/default/files/reference_attachments/BID%202006%20Estrategia%20para%20la%20Gestion%20Integrada-SPANISH.pdf (accessed March 27, 2025), p. 16. On January 17, 2025, Human Rights Watch asked the Ministry of Environment and Natural Resources (MARN) for information related to wastewater treatment plants in Guatemala, including the number, location, and operation status of these plants; the Ministry's auditing practices; and wastewater treatment efficiency. On January 31, 2025, the MARN sent a list of the number of municipal wastewater treatment plants in operation, not in operation, or under construction in each department as of October 2022, noting that the Directorate of Water Monitoring and Surveillance, through the Department of Water Resource Control and Monitoring, only had general information about municipal wastewater treatment plants "and not the specifications of each of them."

[20] Congress of the Republic of Guatemala, Municipal Code (Código Municipal), Decree No. 12-2002, April 3, 2002, https://portal.segeplan.gob.gt/segeplan/wp-content/uploads/2024/01/04.Dto_.-12-2002_Codigo-Municipal.pdf (accessed March 27, 2025), arts. 68 and 142.

[21] Congress of the Republic of Guatemala, Health Code (Código de Salud), Decree No. 90-97, October 2, 1997, https://platform.who.int/docs/default-source/mca-documents/policy-documents/law/GTM-AD-28-01-LAW-1997-esp-Decreto-90-97-Codigo-de-salud.pdf (accessed March 27, 2025), arts. 79, 92, 96, 97 and 102.

[22] Government of the Republic of Guatemala, MARN, Government Agreement No. 236-2006, May 5, 2006, https://www.ecosistemas.com.gt/wp-content/uploads/2015/07/07-Acuerdo-gubernativo-236-2006-Reglamento-descargas-y-reuso.pdf (accessed March 27, 2025).

[23] Government of the Republic of Guatemala, MARN, Government Agreement No. 129-2015, April 30, 2015, https://www.segeplan.gob.gt/downloads/2015/SPOT/Mandatos_y_Normativas/Mandatos/Acuerdo%20Gubernativo%20129-2015.pdf (accessed March 27, 2025); Government of the Republic of Guatemala, MARN, Government Agreement No. 110-2016, June 2, 2016, https://www.infom.gob.gt/index.php/descargas-infom/365-anexos?download=2374:acuerdo-gubernativo-110-2016 (accessed March 27, 2025); Government of the Republic of Guatemala, MARN, Government Agreement No. 254-219, November 27, 2019, https://faolex.fao.org/docs/pdf/gua207028.pdf (accessed March 27, 2025); Government of the Republic of Guatemala, MARN, Government Agreement No. 285-2022, November 17, 2022, https://legal.dca.gob.gt/GestionDocumento/DescargarPDFDocumento?idDocumento=181791 (accessed March 27, 2025); Constitutional Court of Guatemala, Case No. 3071-2024, May 30, 2024, https://leyes.infile.com/index.php?id=182&id_publicacion=88961 (accessed March 27, 2025).

[24] Constitutional Court of Guatemala, Case No. 3071-2024, May 30, 2024, https://leyes.infile.com/index.php?id=182&id_publicacion=88961 (accessed March 27, 2025).

not possible to meet and that municipalities do not have the financial resources to comply with it.[25] At time of writing, the court had yet to rule on the merits of the case.

According to government data shared with Human Rights Watch by the Ministry of Environment and Natural Resources (MARN), as of 2021, Guatemala had 672 functioning municipal wastewater treatment plants and 269 non-functioning municipal plants.[26] Notably, this data reveals that 97 of the 340 municipalities in Guatemala, or 29 percent, did not have a single operational municipal wastewater treatment plant.

Poor garbage management in Guatemala also contributes to water pollution, creating long-term environmental and public health risks.[27]

---

[25] Carmen Valle, "Both the MARN and the Anam are confident that the CC will rule in their favor on the treatment plants" ("Tanto el MARN como la Anam confían en que la CC resolverá a su favor sobre las plantas de tratamiento"), *Ojoconmipisto*, June 11, 2024, https://www.ojoconmipisto.com/tanto-el-marn-como-la-anam-confian-en-que-la-cc-resolvera-a-su-favor-sobre-las-plantas-de-tratamiento/?tztc=1 (accessed May 30, 2025); Mabilia López, "Siero conditions unconstitutionality if reform benefits mayors" ("Siero condiciona inconstitucionalidad si reforma beneficia a alcaldes"), *LaHora.gt*, June 7, 2024, https://lahora.gt/nacionales/mlopez/2024/06/07/siero-condiciona-inconstitucionalidad-si-reforma-beneficia-a-alcaldes/ (accessed May 30, 2025); Marimaite Rayo, "Dispute between MARN and ANAM over wastewater treatment plants" ("Disputa entre el MARN y la ANAM por plantas de tratamiento de aguas residuales"), *República.*, July 9, 2024, https://republica.com/politica/disputa-entre-el-marn-y-la-anam-por-plantas-de-tratamiento-de-aguas-residuales-20247916100 (accessed May 30, 2025).

[26] Information provided to Human Rights Watch by the MARN via email, on April 7, 2025 (on file with Human Rights Watch). As noted above, on January 17, 2025, Human Rights Watch asked the MARN for information related to wastewater treatment plants in Guatemala. On January 31, 2025, the Ministry sent a list of the number of municipal wastewater treatment plants in operation, not in operation, or under construction in each department as of October 15, 2022. According to this list, across the 22 departments in Guatemala, there were 462 functioning municipal wastewater treatment plants, 296 non-functioning plants, and 44 plants under construction. On March 24, 2025, Human Rights Watch requested the number of wastewater treatment plants disaggregated by municipality. On April 7, 2025, the MARN sent a list of the number of municipal wastewater treatment plants in operation and not in operation in each municipality as of 2021, which is the information reflected above. When compared with the October 2022 data, it appears that the overall number of operational municipal wastewater treatments plants declined from 2021 to 2022.

[27] See, for example, Government of the Republic of Guatemala, MARN, National Policy for the Comprehensive Management of Waste and Solid Waste (Política Nacional para la Gestión Integral de Residuos y Desechos Sólidos), December 15, 2015, https://www.asomet.org/wp-content/uploads/2021/04/4041.pdf (accessed March 27, 2025). ("…the inadequate management of solid waste and residues is one of the main causes of pollution to the environment and natural resources"). See also Fredy Hernández, "Muni signs agreement with The Ocean Cleanup to rescue the Las Vacas River" ("Muni firma convenio con The Ocean Cleanup para rescatar río Las Vacas"), *Soy502,* March 8, 2023, https://www.soy502.com/articulo/muni-firma-convenio-ocean-cleanup-rescatar-rio-vacas-24039 (accessed March 27, 2025).

Excavators remove trash from Las Vacas River near Guatemala City, collected by a barricade built by the NGO the Ocean Cleanup. © 2023 The Ocean Cleanup

In February 2025, compliance with a regulation on solid waste management issued in 2021 became mandatory, requiring municipal governments to adhere to health and environmental standards in their waste management practices, including by preventing contamination of surface or groundwater.[28]

In September 2024, Minister of Environment and Natural Resources, Patricia Orantes, expressed reservations about the capacity of municipal governments to effectively manage solid waste or wastewater: "The truth is that municipal governments can't address these issues. They're failing. And those are the two main causes of pollution in all bodies of water."[29] The Ministry's Vice-Minister of Water, Jaime Luis Carrera, expressed a similar sentiment in the same interview, saying that "maintaining the operation of treatment

[28] Government of the Republic of Guatemala, MARN, Government Agreement No. 164-2021, August 9, 2021, https://www.marn.gob.gt/reglamento-164-2021/ (accessed March 27, 2025).

[29] Kristhal Figueroa, "There are no institutional tools to end pollution."

plants and systems is an issue that often exceeds municipal planning. It is a technically and financially challenging issue, especially for some small municipalities."[30]

Under Guatemalan law, water and sanitation projects may be financed through various means, including by municipal governments themselves (with, for example, payments collected for water and sanitation services, other fees, fines, or funding distributed to municipalities by the national government) or by the national government.[31]

According to the National Public Investment System of Guatemala, a government database that tracks public investment projects, in 2024, 2.4 billion quetzales (about US$316 million) in public funds were allocated to water projects, of which only 1.3 billion quetzales (about $173 million) were spent.[32] Another 947 million quetzales (about $123 million) were allocated to sanitation projects, of which only 457 million quetzales (about $60 million) were spent.[33]

Inadequate water and sanitation infrastructure is caused in part by a poor execution of funds allocated to these sectors. According to a World Bank study of water and sanitation budgets globally, low budget execution in these sectors is not well explained by "economic factors and conditions," and may instead relate to a range of "political and institutional factors[,]" including weak governance and ineffective institutions.[34]

---

[30] Ibid.

[31] Municipal Code, arts. 72 and 100; Constitution of the Republic of Guatemala (Constitución Política de la República de Guatemala), 1985, as amended in 1993, https://www.cijc.org/es/NuestrasConstituciones/GUATEMALA-Constitucion.pdf (accessed March 27, 2025), art. 257.

[32] Government of the Republic of Guatemala, SEGEPLAN, "National Public Investment System" ("Sistema Nacional de Inversión Pública"), https://sistemas.segeplan.gob.gt/guest/SNPPKG$PL_PRIORIDADES.MED?prmEjercicio=2025&prmIdPND=3 (accessed March 31, 2025). Underspending budgets allocated to the water sector is common globally. See World Bank Group, *Funding a Water-Secure Future: An Assessment of Global Public Spending* (Washington, DC: World Bank Group, 2024), https://www.worldbank.org/en/topic/water/publication/funding-a-water-secure-future (accessed March 31, 2025), p. 3. According to a World Bank estimate, Guatemala spends 0.37 percent of its GDP on water supply and sanitation annually. This is similar to spending rates of most neighboring countries (Belize: 0.41 percent; El Salvador: 0.34 percent; Honduras: 0.40 percent; Nicaragua: 0.15 percent; Mexico: 0.20 percent). Ibid., pp. 315-316. In December 2024, the Guatemalan quetzal was worth about US$0.13.

[33] Government of the Republic of Guatemala, SEGEPLAN, "National Public Investment System."

[34] World Bank Group, *Funding a Water-Secure Future: An Assessment of Global Public Spending*, p. 175 ("More effective governance, greater regulatory quality, higher state legitimacy, and superior quality of political institutions improve budget execution rates in the water sector.").

Governance and Legal Framework

The Constitutional Duty to Pass a Water Law

The Constitution of Guatemala, approved in 1985, calls for Congress to pass a law governing the "exploitation, use and enjoyment" of waters in Guatemala, which it recognizes as "goods of the public domain" that are "inalienable and imprescriptible."[35]

The Constitutional Court has urged Congress multiple times to fulfill its constitutional duty to approve a water law.[36] Most recently, in a 2019 ruling, the court directed Congress to regulate water "in accordance with the social interest" (per the language of the Constitution) and to "take into account" the following:

i) the fundamental nature of the right to water;
ii) the unique perception—material and spiritual—of Indigenous Peoples regarding water; and
iii) the statements made on this topic in the observations, resolutions and declarations issued by United Nations bodies and judgments of the Inter-American Court of Human Rights, as well as in other international standards related to the subject.[37]

Despite the constitutional mandate and the court's rulings, such a law has yet to be approved. There was a notable push to pass a water law in 2016, following a large mobilization led by Indigenous and peasant leaders and civil society organizations who marched to Guatemala City to demand water rights protections.[38] Multiple bills were proposed, including one by some of these grassroots actors, which sought to recognize and protect the human rights to water and sanitation, to promote water governance rights of Indigenous and peasant communities, and to prohibit water privatization.[39] However,

---

35 Constitution of the Republic of Guatemala, art. 127.

36 Constitutional Court of Guatemala, Case No. 452-2019, November 7, 2019, http://138.94.255.164/Sentencias/843425.452-2019.pdf (accessed March 27, 2025); Constitutional Court of Guatemala, Case No. 4617-2013, September 28, 2015, https://consultajur.cc.gob.gt/wcJur/Portal/wfTextoLibre.aspx (accessed May 14, 2025); Constitutional Court of Guatemala, Case No. 3722-2007, February 5, 2009, https://consultajur.cc.gob.gt/wcJur/Portal/wfTextoLibre.aspx (accessed May 14, 2025).

37 Constitutional Court of Guatemala, Case No. 452-2019, p. 62. (translated to English)

38 Mario Sosa, "The March for Water: a strategic struggle of all" ("La Marcha por el Agua: una lucha estratégica de todos"), April 19, 2016, *Plaza Pública*, https://www.plazapublica.com.gt/content/la-marcha-por-el-agua-una-lucha-estrategica-de-todos (accessed March 27, 2025).

39 See Diego Padilla Vassaux, "Contextualizing the water law and the human right to water debates in Guatemala," *Revista Análisis Jurídico-Político*, vol. 5(9), March 2023,

the bill did not advance past its initial introduction to Congress.[40] Guatemala remains the only country in Central America without a law regulating water use rights and obligations.[41]

In August 2024, the Arévalo Administration announced its intention to introduce a water law to Congress in 2025, following a citizen dialogue.[42] Approving a well-designed national water law that establishes rights and obligations related to water would be a crucial step to progressively establish comprehensive, equitable, and effective water governance in Guatemala.

Fragmented, Uncoordinated, and Inexpert Governance

In the absence of a water law, water in Guatemala is governed by a range of laws, regulations, policies, national and local bodies, and informal practices.[43]

Key institutions with water-related mandates at the national level include the Ministry of Public Health and Social Assistance; the Ministry of Environment and Natural Resources; the Ministry of Agriculture, Livestock and Food; the Ministry of Social Development; the Ministry of Energy and Mines; the Ministry of Communications, Infrastructure, and Housing; and the Municipal Development Institute, among others.

---

https://www.researchgate.net/publication/369528983_Contextualizando_el_debate_sobre_la_ley_de_aguas_y_el_derecho_al_agua_en_Guatemala (accessed March 27, 2025) (discussing the various initiatives introduced in 2016 and 2017). See also Congress of the Republic of Guatemala, "Initiative to approve the Water Framework Law" ("Iniciativa que dispone aprobar Ley Marco del Agua"), No. 5070, May 4, 2016, https://www.congreso.gob.gt/detalle_pdf/iniciativas/5235 (accessed March 31, 2025).

[40] Congress of the Republic of Guatemala, "Initiative to approve the Water Framework Law," No. 5070.

[41] Organization of American States (OAS), Department of Sustainable Development, "OAS National Focal Point: Information Inventory," webpage, [n.d.], https://www.oas.org/usde/EnvironmentLaw/WaterLaw/home.htm (accessed June 23, 2025).

[42] Government of the Republic of Guatemala, "The Guatemala Government Presents the Road to Constructing the 'United for Water' Water Law" ("El Gobierno de Guatemala Presenta la Ruta para la Construcción de la Ley de Aguas "Unidos por el Agua"), September 20, 2024, https://www.marn.gob.gt/el-gobierno-de-guatemala-presenta-la-ruta-para-la-construccion-de-la-ley-de-aguas-unidos-por-el-agua/ (accessed June 12, 2025).

[43] In the absence of a water law regulating water in accordance with the terms of the Constitution, water in Guatemala is in effect governed by transitory provisions of the Civil Code, as well as some provisions of the Municipal Code, the Criminal Code, the Health Code, the Mining Law, the Law of the Executive Branch, the General Electricity Law, the Law on the Protection and Improvement of the Environment, the Forestry Law, and myriad regulations and national policies. See Congress of the Republic of Guatemala, Civil Code (Código Civil), Decree – Law No. 106, September 14, 1963, https://mcd.gob.gt/wp-content/uploads/2013/07/codigo-civil.pdf (accessed June 12, 2025), art. 124 (transitory); Diego Padilla Vassaux, *The water law and the regulation of the human right to water in Guatemala: Debates and challenges (La ley de aguas y la regulación del derecho humano al agua en Guatemala: Debates y desafíos*) (Guatemala: Plaza Pública, Asociación de Amigos de Plaza Pública and OXFAM, 2020), https://dev.plazapublica.com.gt/sites/default/files/investigacion_aguaddhh_padilla_final.pdf (accessed March 27, 2025), pp. 24-26. See also MSPAS, *Public Policy on Drinking Water and Sanitation 2023-2035 (Política Pública de Agua Potable y Saneamiento 2023-2035*), 2023, https://inap.gob.gt/web/wp-content/uploads/2023/11/MV1.1-Autodiagnostico-de-la-gestion-sectorial-Agua-potable-y-Saneamiento.pdf (accessed March 27, 2025), pp. 8-11.

For example, the Ministry of Public Health and Social Assistance (MSPAS) is responsible for establishing and monitoring drinking water standards.[44] The Ministry of Environment and Natural Resources (MARN) is responsible for watershed management and the protection of water as a natural resource.[45] The Ministry of Social Development (MIDES) funds some local water projects through its Social Development Fund.[46] Several agencies, including the MARN; the Municipal Development Institute (INFOM); and the National Institute of Seismology, Vulcanology, Meteorology and Hydrology (INSIVUMEH) (which sits within the Ministry of Communications, Infrastructure, and Housing) conduct water quality monitoring.[47] Meanwhile, complaints related to water contamination can be filed with the MARN, the Attorney General's Office, or the Public Prosecutor's Office, depending on the nature of the complaint.[48]

As noted, municipal governments are responsible for providing water and sanitation services to residents, as laid out in the Municipal Code.[49] The longstanding failure of many municipal governments to provide these services is sometimes attributed to limited financial resources or low technical capacity.[50] Municipal governments can finance water

---

[44] Municipal Code, art. 86; Government of the Republic of Guatemala, MSPAS, Department of Regulation of Health and Environmental Programs, "Services – Health and Environment" ("Servicios – Salud y ambiente"), webpage, [n.d.], https://www.mspas.gob.gt/servicios/salud-y-ambiente (accessed March 27, 2025).

[45] Congress of the Republic of Guatemala, Law of the Executive Branch (Ley del Organismo Ejecutivo), Decree No. 114-97, November 13, 1997, https://www.oas.org/ext/Portals/33/Files/Member-States/Guate_intro_textfun_esp_5.pdf (accessed June 13, 2025), art. 29 bis; MSPAS, *Public Policy on Drinking Water and Sanitation 2023-2035*, p. 42.

[46] Government of the Republic of Guatemala, Ministry of Social Development (MIDES), Social Development Fund (Fondo de Desarrollo Social), webpage, [n.d.], https://fodes.gob.gt/ (accessed March 27, 2025).

[47] Government of the Republic of Guatemala, MARN, "Viceminister of Water – Water Quality Laboratory" ("Viceministerio del Agua – Laboratorio De Calidad Del Agua"), webpage, [n.d.], https://www.marn.gob.gt/viceministro-del-agua/laboratorio-de-calidad-del-agua/ (accessed May 14, 2025); Government of the Republic of Guatemala, Institute of Municipal Development (INFOM), "Services – Water Laboratory" ("Servicios – Laboratorio de Agua"), webpage, [n.d.], https://www.infom.gob.gt/index.php/servicios-infom/laboratorio-de-agua-infom (accessed May 14, 2025); Government of the Republic of Guatemala, Ministry of Communications, Infrastructure and Housing (MICIVI), "Hydrology – Water Quality" ("Hidrología – Calidad del Agua"), webpage, [n.d.], https://insivumeh.gob.gt/?p=3588# (accessed May 14, 2025).

[48] MARN, "Filing of Environmental Complaints" ("Ingreso de Denuncias Ambientales"), webpage, [n.d.], https://apps.marn.gob.gt/Sicoda/Publico/Denunciante/RegistroDenuncia.aspx (accessed May 14, 2025); Article 19, "How to file a complaint with the Attorney General's Office?" ("Cómo interponer una denuncia ante el Ministerio Público?"), 2021, https://www.seguridadintegral.articulo19.org/wp-content/uploads/2021/05/art19_2021_DenunciaMP.pdf (accessed May 14, 2025); Government of the Republic of Guatemala, Public Prosecutor's Office, "Report Here" ("Denuncia Aquí"), webpage, [n.d.], https://pgn.gob.gt/denuncia-aqui/ (accessed May 14, 2025).

[49] Municipal Code, art. 68.

[50] See, for example, Walfre García, "Water is a cost, not a municipal investment" ("El agua es un costo no una inversión municipal"), *Ojoconmipisto*, [n.d.], https://www.ojoconmipisto.com/agua-sucia/el-agua-es-un-costo-no-una-inversion-municipal.html (accessed May 30, 2025); Jimena Porres, "Development Councils Should Prioritize Waste or Water Treatment Projects" ("Consejos de Desarrollo deben priorizar proyectos de tratamiento de desechos o agua"), *Ojoconmipisto*, February 26,

and sanitation services through a fee system or through other revenue sources, including funding received directly or indirectly from the national government.[51] Some of this indirect support is provided by the Municipal Development Institute (Instituto de Fomento Municipal, INFOM), a national agency tasked with providing technical and financial assistance to municipalities, including for water and sanitation services.[52] However, INFOM faces its own challenges, including a financial crisis in early 2024 and the resignation of its director in December 2024, who said in his resignation statement that "the internal situation [of INFOM] was complicated by those knots of power that regularly destroy the public administration."[53]

Municipal governments may also receive support from the Presidential Commission on Municipal Affairs (a temporary institution created in 2020, currently set to exist until 2026) to establish Municipal Water and Sanitation Offices (Oficinas Municipales de Agua y Saneamiento, OMAS), which are meant to support water and sanitation service management in each municipality.[54] However, as of May 2023, only 160 of 340 municipalities had such an office.[55]

2025, https://www.ojoconmipisto.com/consejos-de-desarrollo-deben-priorizar-proyectos-de-tratamiento-de-desechos-o-agua/ (accessed May 30, 2025). See also Government of the Republic of Guatemala, SEGEPLAN, *Conceptual Framework of the National Public Investment System (Marco Conceptual Sistema Nacional de Inversión Pública)* (Guatemala City: SEGEPLAN, 2019), https://sistemas.segeplan.gob.gt/sche$sinip/documentos/Marco_Conceptual_2019.pdf (accessed May 30, 2025), pp. 48-49 (discussing low technical capacity of municipalities with regard to public investment projects generally) ("In conclusion, we can affirm that there are still significant weaknesses in the [public investment] project formulation and evaluation process at the subnational level due to a lack of formal training, the absence of information systems that can support municipal diagnoses, and the weakness of the municipal technical teams themselves.").

[51] Municipal Code, art. 100.

[52] INFOM, "Who are we?" ("¿Quiénes somos?"), webpage, [n.d.], https://www.infom.gob.gt/index.php/institucion-infom-guatemala/quienes-somos-infom (accessed March 27, 2025).

[53] INFOM, 2024 Annual Report ("Memoria de labores 2024"), January 2025, https://www.infom.gob.gt/images/Memoria-labores/doc-memoria-laboral/Memoria%20de%20Labores%20INFOM%202024-_1_11zon.pdf (accessed June 14, 2025), p. 21; Yesica Peña, "Jorge Mario Andrino Grotewold resigns as INFOM director due to 'power struggles'" ("Por «nudos de poder», Jorge Mario Andrino Grotewold renuncia a la gerencia del INFOM"), *La Hora*, January 2, 2025, https://lahora.gt/nacionales/ypena/2025/01/02/por-nudos-de-poder-jorge-mario-andrino-grotewold-renuncia-a-la-gerencia-del-infom/ (accessed May 15, 2025).

[54] Government of the Republic of Guatemala, Presidential Commission on Municipal Affairs (COPRESAM), "Municipal Water and Sanitation Offices (OMAS)" ("Oficinas Municipales de Agua y Saneamiento (OMAS)), webpage, [n.d.], https://www.copresam.gob.gt/omas/ (accessed March 27, 2025). COPRESAM was originally created to exist for four years (2020-2024), but this term was extended in 2023 for another two years (until 2026). Government of the Republic of Guatemala, Ministry of the Interior, Government Agreement No. 42-2020, March 18, 2020, https://www.copresam.gob.gt/wp-content/uploads/2020/11/Acuerdo-Gubernativo-42-2020-de-Creacion-de-COPRESAM.pdf (accessed June 13, 2020); Government of the Republic of Guatemala, Ministry of the Interior, Government Agreement No. 43-2023, March 10, 2023, https://faolex.fao.org/docs/pdf/gua224061.pdf (accessed June 13, 2025).

[55] Government of the Republic of Guatemala, COPRESAM, "Presidential Report: May 2023" ("Informe Presidencial: Mayo 2023"), May 2023, https://www.copresam.gob.gt/informes-direccion-ejecutiva/ (accessed June 13, 2025), p. 24. In 2024, legislation

The water-related mandates and efforts of these different government agencies are often uncoordinated or overlapping, complicating the execution of their responsibilities and undermining accountability.[56] Moreover, many of these agencies' water-related competencies comprise just a fraction of their overall responsibilities. The Ministry of Public Health and Social Assistance's Public Policy on Drinking Water and Sanitation (2023-2035) highlights how this dynamic plays out in the provision of drinking water and sanitation services: "[t]he functions of planning, coordination, policy formulation, financing, setting and controlling quality standards and service delivery are dispersed among different public entities, which makes it difficult to exercise leadership with comprehensive responsibility."[57]

was introduced to reform the Municipal Code and require municipalities to create Municipal Directorates of Water and Sanitation (Dirección Municipal de Agua y Saneamiento, DIMAS) to manage the provision of water and sanitation services and evaluate quality in coordination with the Ministry of Public Health and Social Assistance. These directorates would apparently replace the Water and Sanitation Offices where they exist, which are currently established through voluntary municipal agreements, according to comments by an advisor to a member of Congress sponsoring the bill. The bill received a favorable opinion from the congressional Commission on Municipal Affairs in October 2024 and was pending plenary consideration at time of writing. Congress of the Republic of Guatemala, "Initiative to approve amendments to Decree No. 12-2002 of the Congress of the Republic, Municipal Code" ("Iniciativa que dispone aprobar reformas al Decreto Número 12-2002 del Congreso de la República, Código Municipal"), No. 6440, September 24, 2024, https://www.congreso.gob.gt/detalle_pdf/iniciativas/6167 (accessed May 30, 2025); Pilar Rodríguez, "Municipal Affairs Commission rules on three initiatives in less than two hours" ("Comisión de Asuntos Municipales dictamina sobre tres iniciativas en menos de dos horas"), *Ojoconmipisto*, October 22, 2024, https://www.ojoconmipisto.com/comision-de-asuntos-municipales-dictamina-sobre-tres-iniciativas-en-menos-de-dos-horas/ (accessed May 30, 2025); Macedonio Pérez, Model for the Creation and Implementation of a Municipal Office of Water and Sanitation -OMAS- (Modelo de Creación e Implementación de una Oficina Municipal de Agua y Saneamiento -OMAS-), COPRESAM, August 2016, https://www.copresam.gob.gt/wp-content/uploads/2021/01/Modelo-OMAS-Sistematizacion-Tacana.pdf (accessed May 30, 2025), p. 10.

[56] Government of the Republic of Guatemala, SEGEPLAN, *Guatemala's National Water Policy and Strategy*, p. 10. See also Diego Padilla Vassaux, *The water law and the regulation of the human right to water in Guatemala: Debates and challenges*, pp. 24-25; World Bank Group, *Guatemala's Water Supply, Sanitation, and Hygiene Poverty Diagnostic: Challenges and Opportunities* (Washington, DC: World Bank Group, 2018), https://documents1.worldbank.org/curated/en/438191529514686054/pdf/124240-ENGLISH-v1-W17026.pdf (accessed March 31, 2025), pp. 76 and 78; Esther Perez Ruiz and Mauricio Soto, "Attaining Selected Sustainable Development Goals in Guatemala: Spending, Provision, and Financing Needs," International Monetary Fund (IMF), March 18, 2019, https://www.imf.org/en/Publications/WP/Issues/2019/03/18/Attaining-Selected-Sustainable-Development-Goals-in-Guatemala-Spending-Provision-and-46585 (accessed June 14, 2025), p. 24; Gabriel Woltke, *Guatemala up to its neck in water: Water crisis, social conflict and urgent demands (Guatemala con el agua hasta el cuello: Crisis hídrica, conflictividad social y demandas impostergables)*, Wilson Center (Washington, DC: Wilson Center, 2024), https://www.wilsoncenter.org/publication/guatemala-con-el-agua-hasta-el-cuello (accessed May 20, 2025), p. 5 ("…the affected neighbors do not know where and how to demand that their rights be respected.").

[57] MSPAS, *Public Policy on Drinking Water and Sanitation 2023-2035,* p. 9.

Structural Discrimination against Indigenous Peoples

Historical and Ongoing Discrimination

Indigenous communities in Guatemala have more limited access to water and sanitation services than non-Indigenous Guatemalans, reflecting broader structural inequalities.

According to 2023 ENCOVI data—using the government's definition of poverty—over 75 percent of Indigenous people in Guatemala live in poverty or extreme poverty, compared to about 44 percent of non-Indigenous Guatemalans.[58] For 2023, the poverty line used by the government was $2,031 per year in urban areas and $1,621 per year in rural areas, while the extreme poverty line was $815 per year in urban areas and $738 per year in rural areas.[59]

Indigenous Guatemalans are 1.72 times more likely to live in poverty or extreme poverty and about 4 times more likely to live in extreme poverty compared to non-Indigenous Guatemalans.[60] In other words, not only are Indigenous people more likely to live in poverty, but when they do, they're more likely to live in deeper poverty. According to 2023 ENCOVI data, Indigenous Guatemalans account for 39 percent of the total population but are 71 percent of those in extreme poverty.[61]

---

[58] INE, "Demographic and Poverty Data of Indigenous Peoples according to ENCOVI 2023" ("Datos demográficos y de pobreza de los pueblos indígenas según la ENCOVI 2023"), October 2024, https://www.ine.gob.gt/sistema/uploads/2024/12/05/20241205142224hb2DT5INXvYSKOiMBuPeeIOjO8GrLLIT.pdf (accessed March 27, 2025), p. 14.

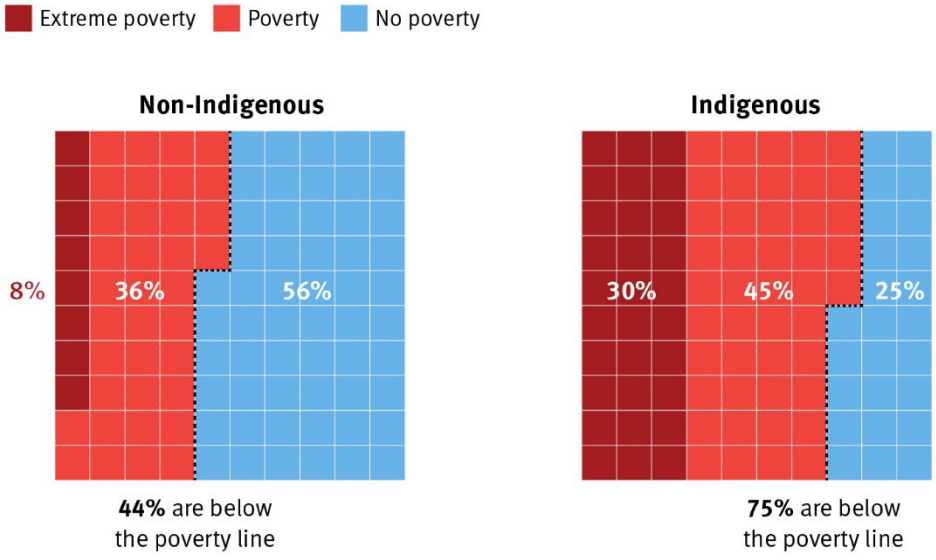
[59] The "in poverty" and "in extreme poverty" categories are based on thresholds established by INE for poverty and extreme poverty: "The extreme poverty line represents the cost of consuming a minimum of calories. For 2023, the extreme poverty line in urban areas is 6,381.2 quetzales [about US$815] a year. In rural areas, it is 5,781.5 quetzales [about $738], at prices from October of the same year. The total poverty line represents the annual cost of consuming that minimum of calories plus the cost of consuming goods and services other than food. In urban areas, the total poverty line is 15,911.2 quetzales [about $2,031] a year, and in rural areas, 12,700.1 quetzales [about $1,621]." INE, "National Survey of Living Conditions 2023: Principal Results of Poverty and Inequality" ("Encuesta Nacional de Condiciones de Vida (ENCOVI) 2023: Principales resultados de Pobreza y Desigualdad"), August 2024, https://www.ine.gob.gt/sistema/uploads/2024/08/22/20240822115045oP9hz3bt6r44qxs2amGK6YQqIpGhNdgo.pdf (accessed March 28, 2025), p. 29. At the end of October 2023, the Guatemalan quetzal was worth about US$0.128.

[60] Ibid. Relative risk of living in poverty for Indigenous Guatemalans vs. non-Indigenous Guatemalans is 1.26. For extreme poverty it is 3.91. For poverty or extreme poverty, it is 1.72.

[61] Ibid. Note that the percent of the population that identifies as Indigenous (Maya, Xinka, or Garífuna) was higher in the results of the 2018 national census, at about 44 percent. INE, Population and Housing Census 2018, Infographics, Percentage of population by self-identification, webpage, [n.d.], https://censo2018.ine.gob.gt/cuantossomos (accessed March 25, 2025).

Indigenous Guatemalans Face Higher Rates of Poverty

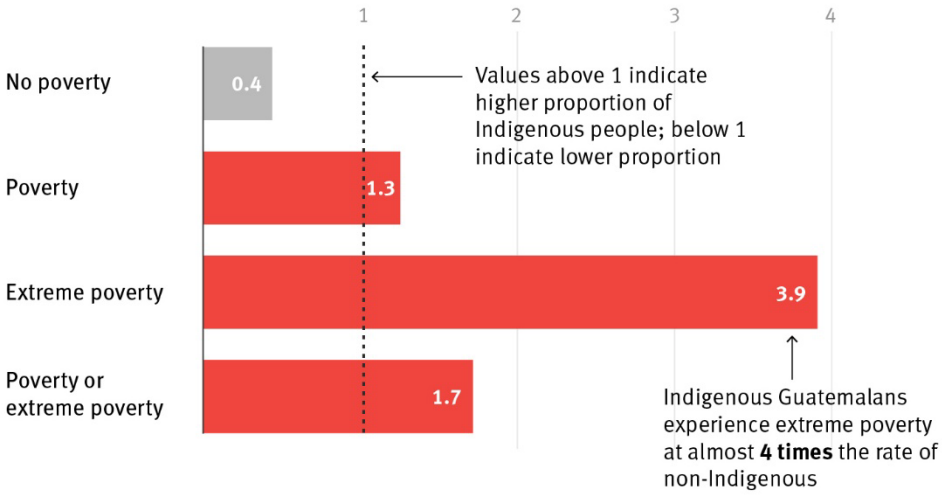
Poverty distribution by ethnicity, 2023



Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

Extreme Poverty Disproportionately Affects Indigenous Guatemalans

Relative rates of poverty for Indigenous and non-Indigenous Guatemalans, 2023



Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

Indigenous communities experience consistently worse outcomes in nutrition, health care, and education.[62] For example, while nearly 47 percent of children under five suffer from chronic malnutrition in Guatemala (the highest rate in Latin America) this number climbs to 58 percent for Indigenous children.[63]

Numerous international human rights bodies and mechanisms have found or acknowledged that Indigenous people in Guatemala face structural discrimination, including the Inter-American Commission on Human Rights, the Inter-American Court of Human Rights, the UN High Commissioner for Human Rights, the UN Special Rapporteur on the Rights of Indigenous Peoples, and the UN Committee on the Elimination of Racial Discrimination.[64]

This discrimination has deep historical roots, including the violence perpetrated against Indigenous Maya communities by the armed forces during Guatemala's internal armed conflict (1960-1996).[65] In 1983, Human Rights Watch found that security forces carried out

---

[62] See, for example, INE, "National Survey of Living 2014, Volume I," ("Encuesta Nacional de Condiciones de Vida 2014, Tomo I"), January 2016, https://www.ine.gob.gt/sistema/uploads/2016/02/03/bWC7f6t7aSbEI4wmuExoNRooScpSHKyB.pdf (accessed April 21, 2025), pp. 111, 198 and 209. See also INE, Demographic and Poverty data of Indigenous Peoples According to ENCOVI 2023 ("Datos demográficos y de pobreza de los pueblos indígenas según la ENCOVI 2023"), October 2024, https://www.ine.gob.gt/sistema/uploads/2024/12/05/20241205142224hb2DT5INXvYSKOiMBuPeeIOjO8GrLLIT.pdf (accessed June 14, 2025), p. 12.

[63] Government of the Republic of Guatemala, Secretariat of Food and Nutritional Security (SESAN), Resolution No. SESAN-36-2023, March 30, 2023, https://portal.sesan.gob.gt/wp-content/uploads/2023/05/POA-SESAN-2023.pdf (accessed March 31, 2025), p. 8. See also Sustainable Development Goals Fund, *Case Study: Partnerships to combat malnutrition in Guatemala*, 2017, https://www.sdgfund.org/case-study/partnerships-combat-malnutrition-guatemala (accessed March 27, 2025); World Food Programme (WFP), *Guatemala: Annual Country Report 2023* (Rome: WFP, 2024), https://docs.wfp.org/api/documents/WFP-0000157718/download/ (accessed March 28, 2025); Inter-American Commission on Human Rights (IACHR), *Situation of Human Rights in Guatemala* (Washington, DC: OAS, 2017), https://www.oas.org/en/iachr/reports/pdfs/Guatemala2017-en.pdf (accessed March 28, 2025); Samuel Loewenberg, "Guatemala's malnutrition crisis," *The Lancet*, vol. 374, July 18, 2009, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61314-3/fulltext (accessed March 28, 2025), pp. 187-189.

[64] IACHR, *Situation of Human Rights in Guatemala: Diversity, Inequality and Exclusion* (Washington, DC: OAS, 2015), https://www.oas.org/en/iachr/reports/pdfs/Guatemala2016-en.pdf (accessed March 28, 2025), paras. 1, 13, 69-71 and 79; Inter-American Court of Human Rights, Maya Kaqchikel Indigenous Peoples of Sumpango et al. Case, Judgment of October 6, 2021, Inter-Am.Ct.H.R., (Ser. C) No. 440, https://www.corteidh.or.cr/docs/casos/articulos/seriec_440_ing.pdf (accessed March 28, 2025), para. 139; "Guatemala: UN rights chief concerned over polarization, inequality, racism," *UN News*, July 19, 2024, https://news.un.org/en/story/2024/07/1152321 (accessed March 28, 2025); "Guatemala must break cycle of discrimination against indigenous peoples, says UN expert," UN Office of the High Commissioner for Human Rights (OHCHR) news release, May 11, 2018, https://www.ohchr.org/en/press-releases/2018/05/guatemala-must-break-cycle-discrimination-against-indigenous-peoples-says-un (accessed March 28, 2025); UN Committee on the Elimination of Racial Discrimination (CERD), Concluding observations on the combined sixteenth and seventeenth periodic reports of Guatemala, UN Doc. CERD/C/GTM/CO/16-17 (2019), https://undocs.org/Home/Mobile?FinalSymbol=cerd%2Fc%2Fgtm%2Fco%2F16-17&Language=E&DeviceType=Desktop&LangRequested=False (accessed March 28, 2025), para. 13.

[65] Commission for Historical Clarification (CEH), *Guatemala — Memory of Silence – Tz'inil Na 'Tab' Al: Report of the Commission for Historical Clarification: Conclusions and Recommendations* (Guatemala: CEH, 1999), https://hrdag.org/wp-content/uploads/2013/01/CEHreport-english.pdf (accessed March 28, 2025).

"a policy of extermination of a significant portion of Guatemala's [Indigenous] population."[66] A Commission for Historical Clarification established at the end of the conflict found that the government of Guatemala "committed acts of genocide against groups of Mayan people[.]"[67]

The legacy of this violence continues to impact Indigenous Peoples in Guatemala today, including through violations of land and territorial rights, with cascading consequences for the human rights and wellbeing of Indigenous communities.[68] For example, according to Silvel Elías, professor in the Agronomy School and coordinator of the Rural Development Master's Degree at the University of San Carlos in Guatemala, lack of access to land among Indigenous communities inhibits them from subsistence farming and is one of the structural drivers of malnutrition.[69] Similarly, the Inter-American Commission on Human Rights has stated that malnutrition in Guatemala "is closely related to the lack of access to and juridical insecurity affecting [l]ndigenous lands and territories," an issue it says Indigenous Peoples have emphasized in policy proposals for food and nutrition security.[70]

---

[66] Human Rights Watch, *Creating a Desolation and calling it peace; May 1983 Supplement to the Report of Human Rights in Guatemala* (New York: Human Rights Watch, 1983), https://www.hrw.org/reports/Guatemala%200582.pdf, p. 44.

[67] CEH, *Guatemala — Memory of Silence– Tz'inil Na 'Tab' Al: Report of the Commission for Historical Clarification: Conclusions and Recommendations*, pp. 38-41.

[68] See, for example, IACHR, *Preliminary Observations: On-site visit to Guatemala 2024*, August 15, 2024, https://www.oas.org/en/iachr/reports/pdfs/2024/Preliminary_Observations_Guatemala.pdf (accessed March 28, 2025), para. 56; IACHR, *Situation of Human Rights in Guatemala: Diversity, Inequality and Exclusion,* para. 70; Inter-American Court of Human Rights, Maya Q'eqchi' Agua Caliente Indigenous Community Case, Judgment of May 16, 2023, Inter-Am.Ct.H.R., (Ser. C) No. 448, https://jurisprudencia.corteidh.or.cr/es/vid/953774887 (accessed March 28, 2025), paras. 101 and 340; UN Human Rights Council, Report of the Special Rapporteur on the rights of indigenous peoples on her visit to Guatemala, UN Doc. A/HRC/39/17/Add.3 (2018), https://docs.un.org/en/A/HRC/39/17/Add.3 (accessed March 28, 2025), paras. 29 and 42; Norwegian Refugee Council (NRC), "*Now we have nothing": A study on housing, land, and property of displaced indigenous communities in Guatemala* (*"Ahora no tenemos nada": Estudio sobre vivienda, tierra y propiedad de comunidades indígenas desplazadas en Guatemala*) (Oslo: NRC, 2024), https://www.nrc.no/globalassets/pdf/reports/now-we-have-nothing-left/a-study-on-housing-land-and-property-of-displaced-indigenous-communities-in-guatemala.pdf (accessed March 28, 2025). On the links between land rights, poverty, and malnutrition, see: IACHR, *Northern Central America and Nicaragua: Economic, social, cultural and environmental rights of indigenous and Afro-descendant tribal peoples, 2023* (*Norte de Centroamérica y Nicaragua: Derechos económicos, sociales, culturales y ambientales de pueblos indígenas y afrodescendientes tribales, 2023*) (Washington, DC: OAS, 2023), https://www.oas.org/es/cidh/informes/pdfs/2023/NorteCentroamerica_DESCA_ES.pdf (accessed March 28, 2025), paras. 211, 241 and 249. See also IACHR, *Situation of Human Rights in Guatemala: Diversity, Inequality and Exclusion,* paras. 83 and 452.

[69] Human Rights Watch online interview with Silvel Elías, October 4, 2024.

[70] IACHR, *Situation of Human Rights in Guatemala: Diversity, Inequality and Exclusion,* para. 83.

Indigenous Self-Management and Stewardship of Water Resources

Amidst state neglect, many Indigenous communities exercise their own water resource management practices.[71]

For example, in Volcancito, Casillas municipality, Santa Rosa department, Xinka community leaders partnered with an NGO to construct a water tank to capture and store water from a spring in the community. One of the community leaders, Juan Rodríguez, told Human Rights Watch that while some families in the area have piped water, the service is sparce, making alternative sources essential.[72] He said that nearby rivers are not viable options because they are contaminated. "We are the communities most abandoned by the state," Rodríguez said, referring to the Xinka people.

Another Xinka leader explained to Human Rights Watch that in the absence of government action, Xinka youth monitor water quality at more than 60 points throughout the Santa Rosa department.[73] "[W]e are guardians and caretakers of our natural resources, our water sources," she said.

Around the country, community groups—often led by Indigenous people—undertake activities to protect water resources, including through reforestation projects and trash collection efforts.[74] These actions are crucial to the conservation and long-term availability of water in Guatemala. And yet, some Indigenous environmental rights defenders and leaders have faced criminalization, prompting condemnation by human rights

---

[71] IACHR, *Northern Central America and Nicaragua: Economic, social, cultural and environmental rights of indigenous and Afro-descendant tribal peoples, 2023*, para. 252.

[72] Human Rights Watch interview with Juan Rodríguez, Casillas, Santa Rosa, Guatemala, November 19, 2024.

[73] Human Rights Watch online interview with a Xinka representative, March 10, 2025. See also Simona Carnino, "Xinka scientists: guardians of water in the face of mining in Guatemala") ("Científicos xinkas: guardianes del agua frente a la minería en Guatemala"), *El País*, December 30, 2024, https://elpais.com/planeta-futuro/2024-12-31/cientificos-xinkas-guardianes-del-agua-frente-a-la-mineria-en-guatemala.html (accessed April 3, 2025).

[74] See, for example, Chico Mendes Reforestation Project, "Who We Are," webpage, [n.d.], https://www.chicomendesguatemala.org/who-we-are (accessed March 28, 2025); "Guardians of the Lake: The women's collective that cleans a natural wonder of Atitlán" ("Guardianas del Lago: El colectivo de mujeres que limpia una maravilla natural de Atitlán"), *Prensa Libre*, August 2, 2024, https://www.prensalibre.com/guatemala/comunitario/guardianas-del-lago-el-colectivo-de-mujeres-que-limpia-una-maravilla-natural-de-atilan/(accessed March 28, 2025).

mechanisms,[75] and potentially hindering their participation in dialogues with the government due to fear of reprisal.[76]

According to Elías, some Indigenous people worry that a water law would strip Indigenous Peoples of autonomy over their water resources.[77] For example, the 48 Cantons of Totonicapán, an organization of Indigenous authorities in the department of Totonicapán, has opposed previous drafts of water legislation over concerns about privatization and infringement of their water management practices.[78] Other Indigenous groups, including the Consejo del Pueblo Maya (Mayan People's Council) have expressed tentative support for a water law, to address issues like contamination and dispossession of water resources by mining, hydroelectric projects, and other megaprojects, while at the same time opposing the use of a water law to promote the commodification and privatization of water.[79] The Asamblea Social y Popular (Social and Popular Assembly), a coalition of Indigenous and peasant groups that led the 2016 march for water rights described above, helped facilitate a series of dialogues to construct a water law following the march, but

[75] See, for example, "Guatemala: Stop treating indigenous human rights defenders as criminals – UN experts," OHCHR news release, July 27, 2021, https://www.ohchr.org/en/press-releases/2021/07/guatemala-stop-treating-indigenous-human-rights-defenders-criminals-un?LangID=S&NewsID=27343 (accessed April 1, 2025). See also UN Human Rights Council, Report of the Special Rapporteur on the rights of indigenous peoples on her visit to Guatemala, para. 37; IACHR, *Northern Central America: Situation of Environmental Defenders* (Washington, DC: OAS, 2022), https://www.oas.org/en/iachr/reports/pdfs/2023/NorteCentroamerica_MedioAmbiente_EN.pdf (accessed April 1, 2025), paras. 65, 67, 70 and 75.

[76] See, for example, OHCHR Guatemala and Guatemala's Human Rights Ombudsman, *Situation of Human Rights Defenders in Guatemala: Between Commitment and Adversity* (*Situación de las personas defensoras de derechos humanos en Guatemala: Entre el compromiso y la adversidad*) (Guatemala City: OHCHR, 2019), https://oacnudh.org.gt/wp-content/uploads/2025/01/Informe_personas_defensoras-nuevo-diseno-1.pdf (accessed April 1, 2025), para. 31.

[77] Human Rights Watch interview with Silvel Elías, Guatemala City, Guatemala, November 25, 2025.

[78] See for example, Diego Padilla Vassaux, *The water law and the regulation of the human right to water in Guatemala: Debates and challenges*, pp. 62-63; Hugo Bulux, "The Totonicapán community organization and its water preservation work" ("La organización comunal de Totonicapán y su trabajo de preservación del agua"), *Prensa Comunitaria*, May 13, 2024, https://prensacomunitaria.org/2024/05/la-organizacion-comunal-de-totonicapan-y-su-trabajo-de-preservacion-del-agua/ (accessed May 7, 2025); Gilberto Escobar, "The 48 cantons of Totonicapán ask Congress to reject the approval of the water law" ("Los 48 Cantones de Totonicapán solicitan al Congreso rechazar aprobación de ley de aguas"), *Prensa Comunitaria*, September 11, 2020, https://prensacomunitaria.org/2020/09/los-48-cantones-de-totonicapan-solicitan-al-congreso-rechazar-aprobacion-de-ley-de-aguas/ (accessed May 7, 2025).

[79] Consejo del Pueblo Maya, post to Facebook, March 25, 2025, https://www.facebook.com/cpogt/posts/lanzamiento-de-la-cuarta-cumbre-plurinacional-por-la-libertad-del-agua-que-se-re/1059176592919383/ (accessed May 7, 2025). See also Movimiento de Trabajadores Campesino (Peasant Workers' Movement), "Unconstitutionality [action] filed for violating the right to water" ("Presentan inconstitucionalidad por violentar el derecho a agua"), November 10, 2020, https://mtc.org.gt/presentan-inconstitucionalidad-por-violentar-el-derecho-a-agua/ (accessed June 2, 2025).

have similarly objected to the use of such a law to commodify water rather than protect it as a human right.[80]

Water is a critical component of both Maya and Xinka cosmovisions, or worldviews, which respect it as sacred. The Xinka leader who described the water monitoring work of Xinka youth also explained to Human Rights Watch how the Xinka cosmovision is passed down through generations, with grandparents teaching children that "water is not thrown away, water is not sold, water is cared for, as you care for your heart."[81] She expressed concern that a water law might fail to benefit Indigenous people or respect their ancestral practices, and to that end said that it is critical that such legislation be drafted in consultation with Indigenous Peoples.

[80] See Diego Padilla Vassaux, "Contextualizing the water law and the human right to water debates in Guatemala," p. 72; Asamblea Social y Popular Guatemala, post to Facebook, August 8, 2016, https://www.facebook.com/104648139879761/photos/pb.104648139879761.-2207520000.1472016868./318563888488184/?type=3&locale=es_LA&_rdr (accessed June 2, 2025). See also José Gabriel Cubur, "The Mouth of the Water Dialogues" ("La Desembocadura de los Diálogos por el Agua"), Comité de Unidad Campesina (Peasant Unity Committee), August 18, 2016, https://cucguatemala.wordpress.com/2016/08/18/la-desembocadura-de-los-dialogos-por-el-agua/ (accessed June 2, 2025).

[81] Human Rights Watch online interview with a Xinka representative, March 10, 2025.

II. Inadequate Access to Safe Water and Sanitation

Guatemala faces deep-rooted and systemic challenges in water and sanitation accessibility and quality, with Indigenous communities and people living in poverty disproportionately affected.

Human Rights Watch analyzed 2014 and 2023 data—the most recent survey years—from Guatemala's National Survey of Living Conditions (Encuesta Nacional de Condiciones de Vida, ENCOVI), which measures poverty and other indicators related to living conditions, including access to water and sanitation. We also interviewed people in different departments in Guatemala: Jalapa, Santa Rosa, and Totonicapán.

Our research revealed persistent barriers to water and sanitation access, including inadequate infrastructure, intermittent service delivery, long distances to water sources, and the physical and mental burden of water collection, which disproportionately affect women and their children. We also documented water quality concerns, including contamination and insufficient monitoring and drinking water treatment, with unsafe water posing significant health risks, especially for those with no alternative source due to access barriers.

Inadequate Access to Water and its Disparate Impacts on Indigenous and Low-Income Communities

Many Guatemalans have no access to piped water, and many that do face intermittent or low-quality service. There are also stark disparities in access among different regions, ethnic identities (Indigenous vs. non-Indigenous), and income groups (not in poverty vs. in poverty vs. in extreme poverty).

Human Rights Watch analysis of 2023 ENCOVI data shows that 40 percent of the Guatemalan population lives in a home without any indoor connection to a water distribution network.[82] The survey results also show only a 3.6 percentage point increase

[82] Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023 data, https://www.ine.gob.gt/portal-estadistico-2-0/ (accessed February 20, 2025).

in indoor connection to water over the preceding nine years (the previous ENCOVI survey was conducted in 2014).[83]

People living in poverty (as defined by the government) and Indigenous people face the greatest barriers to water access. As explained above, poverty and ethnicity are correlated, reflecting past and continuing discrimination. The majority (over 75 percent) of Indigenous people live in poverty or extreme poverty, compared to about 44 percent of non-Indigenous people.[84]

Over half of all Indigenous Guatemalans live in homes without an indoor water network connection, compared to 33 percent of non-Indigenous Guatemalans.[85] Indigenous Guatemalans have less access to indoor water connections than non-Indigenous Guatemalans, regardless of whether they live above or below the government's poverty threshold. In fact, Indigenous people who live in households above the poverty threshold have the same level of access as non-Indigenous people in households below the threshold.

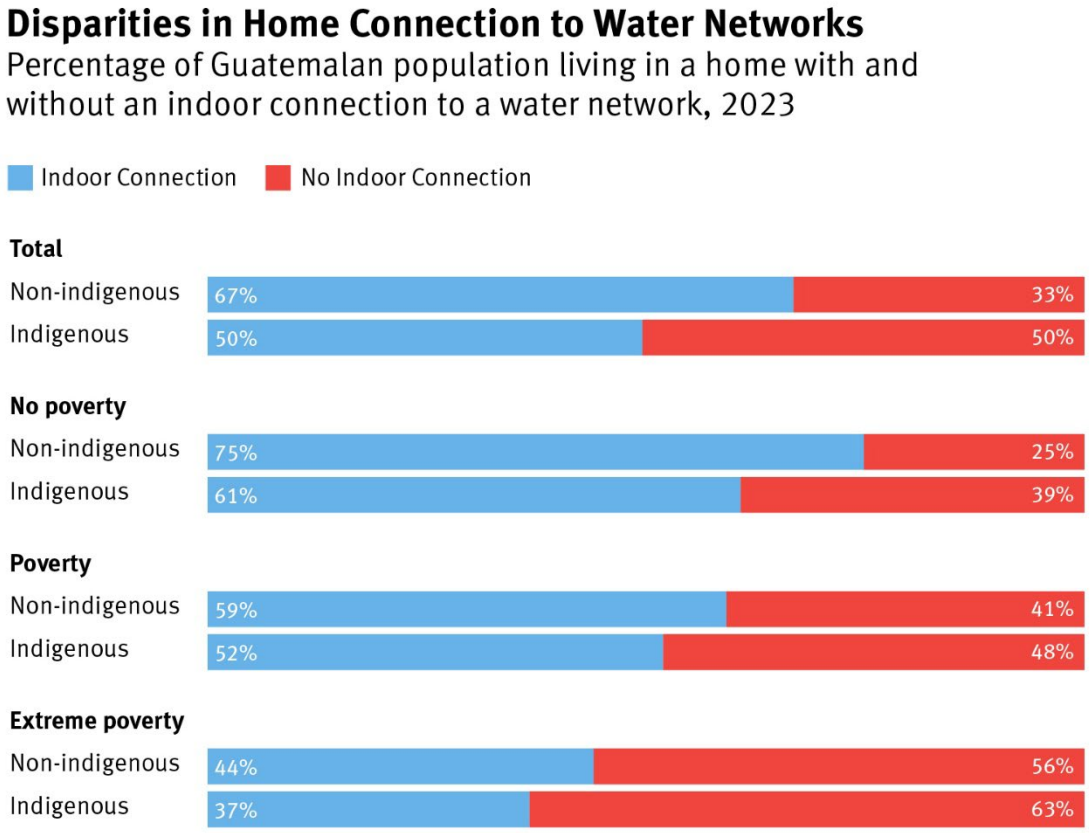
The proportion of both Indigenous and non-Indigenous Guatemalans living with an indoor connection has only increased by about 3 percentage points since 2014; the disparity between the two groups has not changed over time.[86]

[83] There was 43.5 percent without a connection in 2014 and 39.9 percent in 2023. Human Rights Watch analysis of Guatemala's 2014 and 2023 ENCOVI survey data, https://www.ine.gob.gt/portal-estadistico-2-0/ (accessed February 20, 2025).

[84] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data. For this analysis, "Indigenous" refers to respondents who self-identified as either "Maya," "Xinka," or "Garífuna," and "non-Indigenous" refers to respondents who self-identified as "Afro-Guatemalan/Afro-colonial/Afro-mestizo," "Ladino/mestizo," or "foreigner").

[85] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data.

[86] Human Rights Watch analysis of Guatemala's 2014 and 2023 ENCOVI survey data.



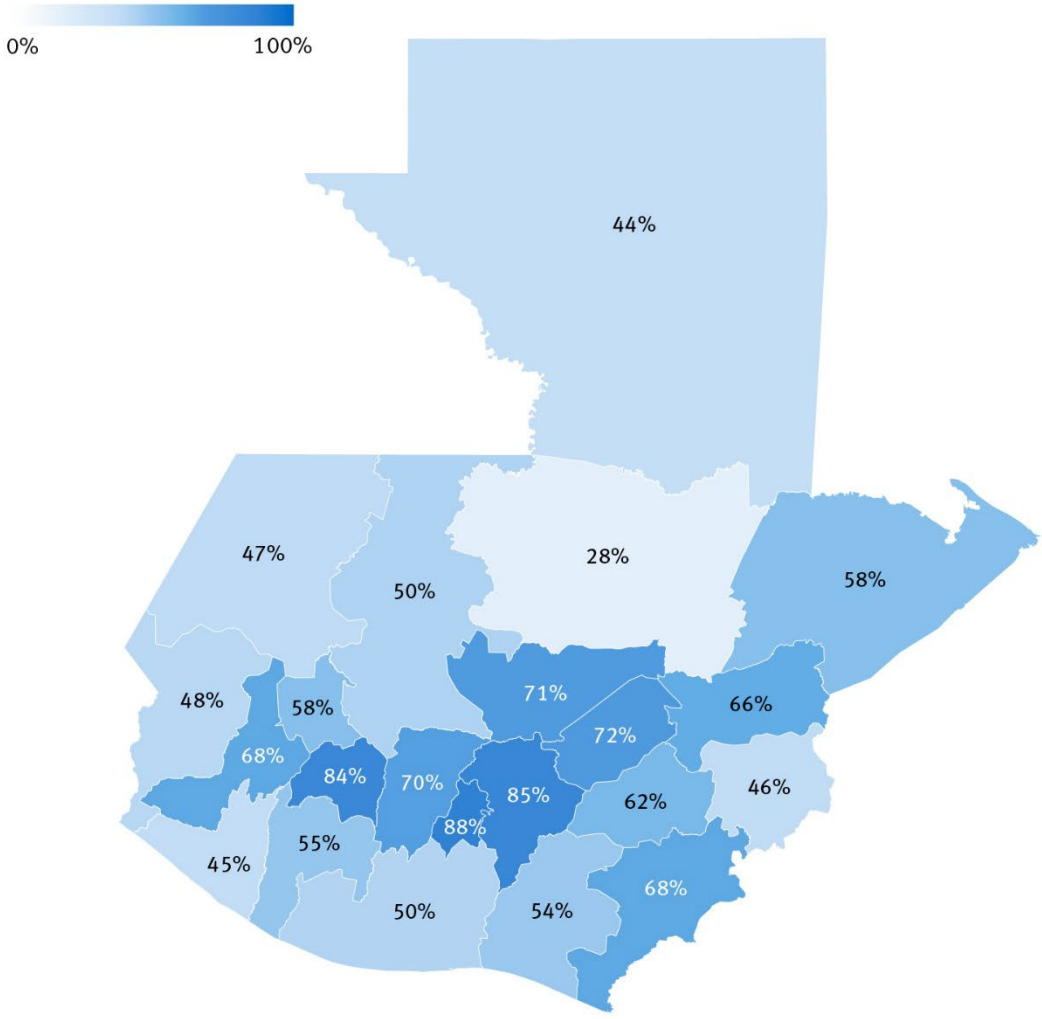
Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

In addition to varying by ethnicity and level of poverty, access to indoor water connections varies by location. As the graphic on the following page shows, in the departments of Sacatepéquez, Guatemala, and Sololá, more than 80 percent of the population lives in a home with an indoor water distribution network connection (fewer than 20 percent of homes lack a connection). In eight departments, including Alta Verapaz, Huehuetenango, and San Marcos, more than half of the population lives without an indoor connection.[87]

[87] Ibid.

Access to Water Distribution Networks

Percent of population living in a home with an indoor water connection, 2023



Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

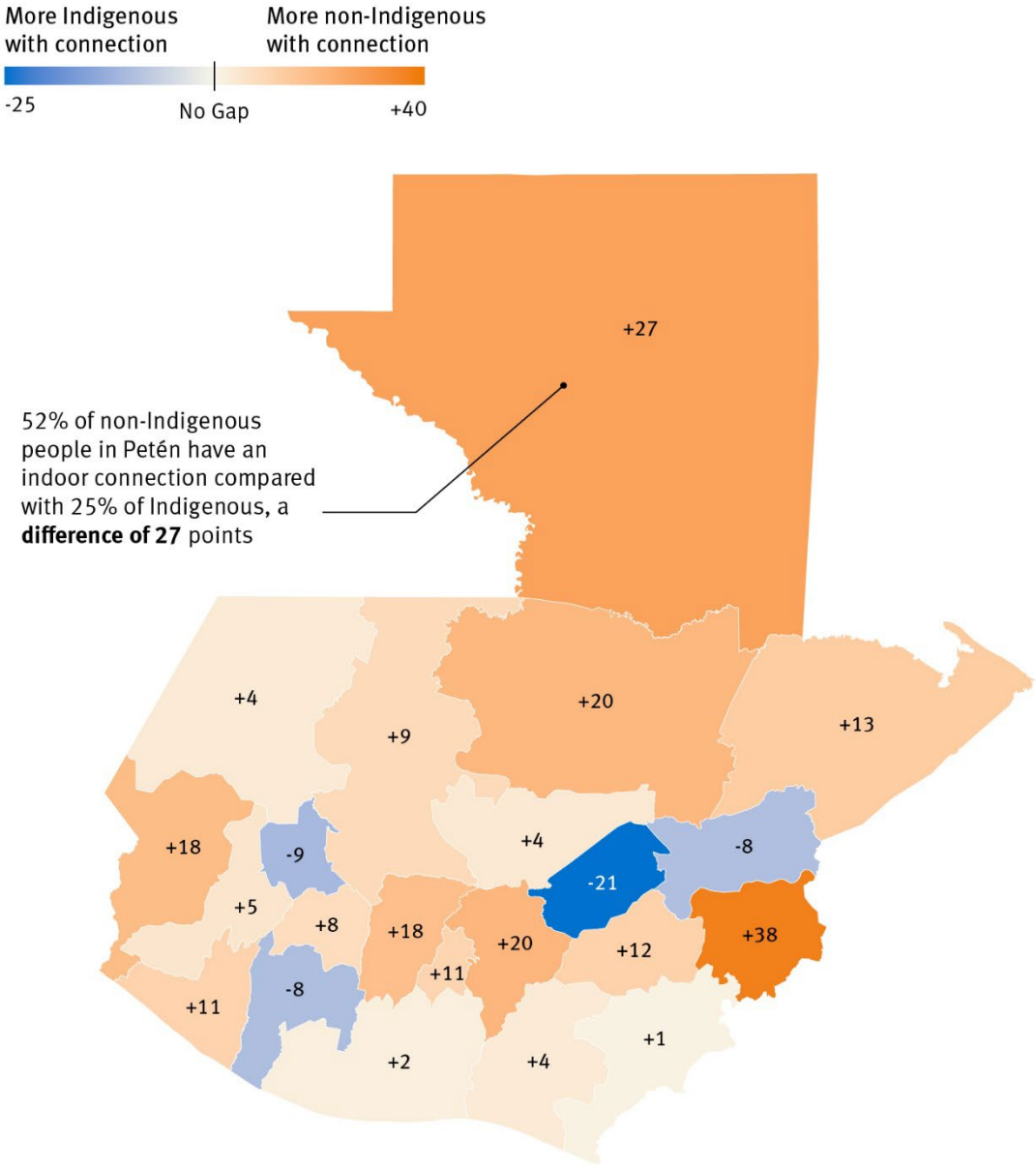
The above map does not simply correlate with departments that are heavily Indigenous or living in poverty as the relationship between these and indoor water connections is not a binary linear relationship.[88] There appears to be a more complex interaction between poverty levels, ethnicity, and geography. Human Rights Watch examined the gap between the percentage of the Indigenous and non-Indigenous populations in each department who have an indoor water connection. In 18 of 22 departments, a higher proportion of the non-Indigenous population than the Indigenous population has an indoor connection. The average department disparity is over 8 percentage points. This disparity is not limited to specific parts of the country but is a widespread pattern. The map on the following page shows the percentage point gap between the proportion of non-Indigenous and Indigenous people in each department who have an indoor connection.

Additional analysis provides insight into the interaction between ethnicity, poverty, geography, and access to an indoor water connection. We used a mixed-effects model to examine the impact of both ethnicity and poverty on indoor water access while controlling for the other variable as well as which of the 22 departments the household is located in.[89] After controlling for poverty and geography, non-Indigenous households have a 63 percent probability of having an indoor water connection, compared to 53 percent for Indigenous households—a difference of 10 percentage points. When controlling for ethnicity, households in poverty have a 58 percent probability of having an indoor connection, compared to 67 percent for households that are not in poverty—a difference of 9 percentage points. Households in extreme poverty are 18 percentage points less likely (49 percent) than those not in poverty to have an indoor connection. Ethnicity and poverty both independently affect access to water, but extreme poverty has the greatest impact. Nearly a third of Indigenous Guatemalans are in extreme poverty and they make up 71 percent of all Guatemalans in extreme poverty.

[88] Departments with higher proportions of Indigenous Guatemalans also tend to have higher poverty rates (Pearson correlation r = -.457) and places with higher poverty rates tend to have lower proportions of indoor water connections (Pearson correlation r = .511), but there is not a direct correlation between higher proportions of Indigenous population and lower proportions of indoor water connections (Pearson correlation r = -.097).

[89] Generalized linear mixed-effects model included ethnicity and poverty level as fixed effects and Department as a random effect. Results showed significant effects for both ethnicity ($\beta = 0.41$, $p < .001$) and poverty (poverty: $\beta = -0.40$, $p < .001$; extreme poverty: $\beta = -0.76$, $p < .001$). The random effects variance for Department was 0.45, indicating substantial geographic variation in access to indoor water connections.

Gap Between Non-Indigenous and Indigenous Indoor Water Connection



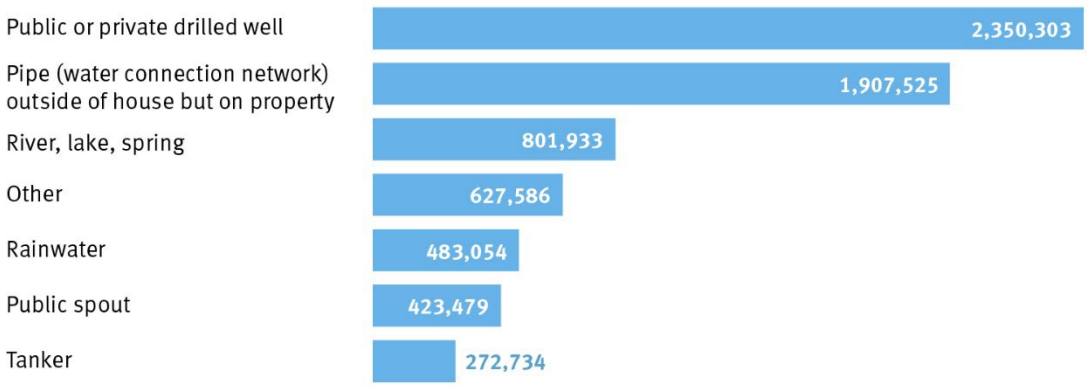
Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

Infrastructure Gaps

The 40 percent of Guatemalans who live without an indoor water network connection must find alternative sources to meet their daily water needs. More than 2.35 million people rely on private or public drilled wells as their primary water source, while over 800,000 fetch water from rivers, lakes, or springs.[90] More than 480,000 depend on collected rainwater for their household supply.[91]

Among those living in a home without an indoor water network connection, Indigenous people are 3.3 times more likely to rely on rivers, lakes, or springs as their principal source of drinking water, and almost 10 times more likely to depend on rainwater as their principal source compared to non-Indigenous people.

Number of People in Guatemala Without an Indoor Water Connection by Main Water Source
2023



Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

[90] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data. These numbers are calculated using a population total of 17.23 million, which is also based on the 2023 ENCOVI data.

[91] Ibid.

Disparities in Main Water Source Types

Number of people using each type at home per 10,000 of each population, 2023

By ethnicity

	Public or private drilled well	Public spout	Rainwater	River, lake, spring	Tanker
Non-indigenous	1,401	236	63	248	180
Indigenous	1,304	261	623	808	124

By poverty rate

	Public or private drilled well	Public spout	Rainwater	River, lake, spring	Tanker
Extreme poverty	1,480	488	811	1,357	25
Poverty	1,425	297	283	461	146
No poverty	1,265	110	82	140	219

Only includes those without an in-home water network connection.

Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

A quarter of households travel at least 100 meters or more from their home to access water, which is about the length of a football field. Indigenous people are 2.3 times more likely to have to travel at least 100 meters for their water than non-Indigenous people. People living in poverty are about 6 times more likely than those who are not living in poverty to travel such distance in search of water.[92]

Nearly 3 million people live in homes where water must be carried on foot, and for over 300,000 of them, the effort takes more than an hour.[93] The burden falls most heavily on economically marginalized groups, with 42 percent of those transporting water by foot living in poverty and another 32 percent living in extreme poverty.

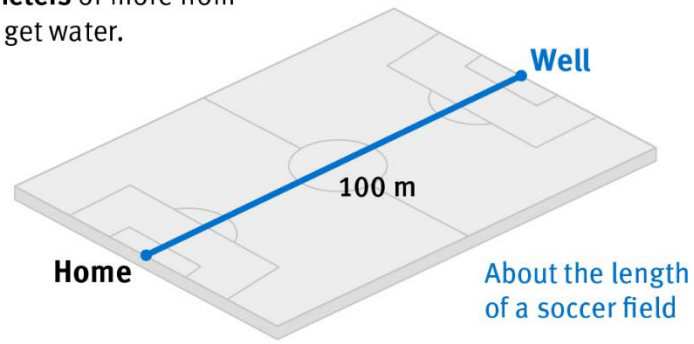
[92] Ibid.

[93] Ibid.

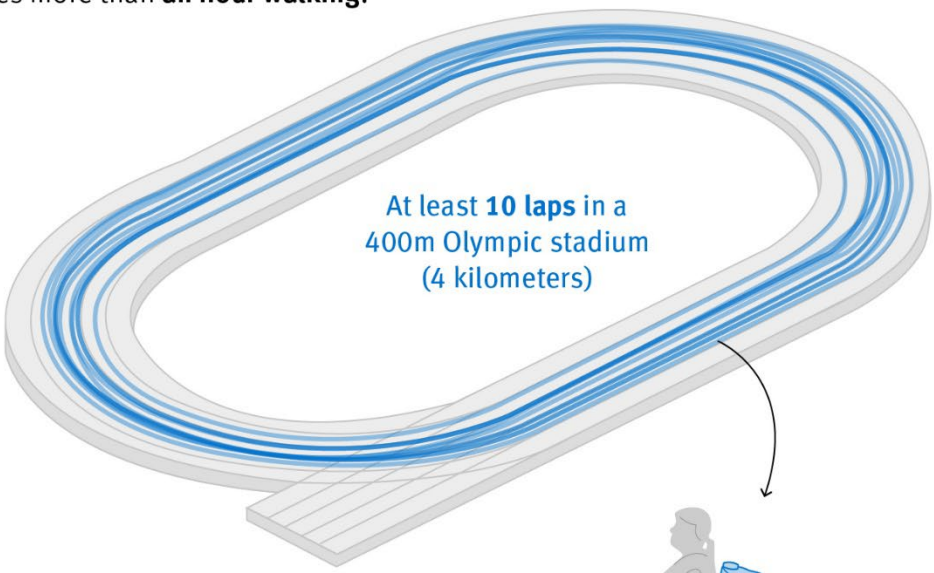
Long Distances to Get Water

Distance people in Guatemala may walk for water

A quarter of households travel **at least 100 meters** or more from their home to get water.



For nearly 300,000 people, the effort takes more than **an hour walking**.



Half the journey is made carrying the **water back.** Water jug weight varies, with some weighing **5 to 10 kilos** or more.

Two women in Santa María Chiquimula municipality, Totonicapán department, transport water home from a well. © 2025 Víctor Peña for Human Rights Watch

Human Rights Watch documented a longstanding absence of water service infrastructure in eight Indigenous communities within Santa María Chiquimula municipality, Totonicapán department.

Lack of access to improved water sources, like piped water or protected wells, forces some residents in Santa María Chiquimula to rely on distant, unprotected wells, springs, and rivers as their primary water source. Of 68 women interviewed in Santa María Chiquimula, 54 reported walking at least 40 minutes round trip to collect water, and 17 reported walking at least two hours round trip. Twenty-four women also reported that they must make multiple trips a day due to limited carrying and storage capacity. This does not include the additional time women spend traveling to rivers to wash clothes or bathe.

In one case, **Lesbia Maribel Crúz Olivarez**, 28, in Santa María Chiquimula, told Human Rights Watch that she typically collects water from a well four times a day to try to meet the needs of herself, her husband, and their six children.[94] The well is a two-hour round trip, meaning she spends eight hours collecting water. Another woman from Santa María Chiquimula, **Liliana S.**, 26, said that she goes to a well three times a day, a 45-minute round trip each time. "We spend all day carrying water," she said.[95]

The task is even more daunting during the dry season, which usually runs from November to April.[96] Several women Human Rights Watch interviewed talked about the increased difficulty they face in accessing water during the dry season, as some wells become depleted and rainwater collection systems no longer provide supply.

Throughout the year, limited water supply and physical constraints of water transport force harsh rationing. Many women Human Rights Watch interviewed reported that they use water obtained from wells primarily or only for consumption-related activities, including drinking, cooking, or washing dishes.

---

[94] Human Rights Watch interview with Lesbia Maribel Crúz Olivarez, Santa María Chiquimula, Totonicapán, Guatemala, November 23, 2024.

[95] Human Rights Watch interview with Liliana S. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[96] National Institute of Seismology, Volcanology, Meteorology, and Hydrology (Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología, INSIVUMEH) of the Republic of Guatemala, Department of Meteorological Research and Services, "Special Bulletin – Beginning of the Rainy Season" ("Boletín Especial – Inicio de Época Lluviosa"), April 2024, https://insivumeh.gob.gt/wp-content/uploads/2024/04/202404_boletinespecial_iell_insivumeh.pdf (accessed March 28, 2025), p. 1. In 2023, INSIVUMEH reported an average monthly precipitation of 99.28 millimeters for the months of January-April and November-December (the "dry season") versus an average monthly precipitation of 224.74 millimeters for the months of May-October (the "rainy season"). INSIVUMEH, *State of the climate in Guatemala 2023* (*Estado del Clima en Guatemala 2023*) (Guatemala: INSIVUMEH, 2024), https://insivumeh.gob.gt/wp-content/uploads/2024/06/Estado_del_Clima_2023.pdf (accessed March 28, 2025), p. 17.

Unprotected well in Aldea Chuiaj, Santa María Chiquimula, Totonicapán department. © 2024 Human Rights Watch

A family collects water in Santa María Chiquimula municipality, Totonicapán department. © 2025 Víctor Peña for Human Rights Watch

An aerial view of a river in Santa María Chiquimula municipality, Totonicapán department, where people bathe and wash their clothes. © 2025 Víctor Peña for Human Rights Watch

A family stops to rest while transporting water from a well in Santa María Chiquimula municipality, Totonicapán department. © 2025 Víctor Peña for Human Rights Watch

To wash clothes and bathe, many women walk long distances to rivers. Twenty-six women in Santa María Chiquimula told Human Rights Watch that they walk at least 2 hours round trip to a river, often once a week. Of those 26 women, 10 reported walking at least 4 hours round trip. This imposes a significant physical burden. For example, **Magdalena O.**, 62, goes to the river twice a week to do laundry. She described leaving home at 8 a.m. and returning at 3 or 4 p.m. She spends hours walking, washing the clothes, and waiting for the clothes to dry before carrying them back, so they are less heavy.[97]

Such physical barriers to water access are incompatible with people's enjoyment of the right to water. In its General Comment 15, the UN Committee on Economic, Social, and Cultural Rights explained that states have a core obligation "[t]o 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[.]"[98]

To supplement their limited water access, many women reported trying to capture rainwater for consumption, cleaning, or bathing. However, they often rely on relatively small containers to capture and store rainwater, including 3-liter plastic soda bottles, buckets, and "tinajas" (plastic vases).

Non-profit groups have been a critical stopgap in addressing some of these challenges. Among them, the humanitarian organization CARE International, which is dedicated to eradicating poverty, ran a two-year program from 2023 to early 2025 to facilitate rainwater harvesting by providing rainwater capture, storage, and filtration systems to families in Santa María Chiquimula, Totonicapán.[99]

---

[97] Human Rights Watch interview with Magdalena O. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[98] UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15, The Right to Water (arts. 11 and 12 of the Covenant), UN Doc. E/C.12/2002/11 (2003), https://digitallibrary.un.org/record/486454?v=pdf (accessed June 6, 2025), para. 37.

[99] CARE Guatemala, "Harvesting Water for Life: Promoting Resilient Communities" ("Cosechando agua para la vida: Promoviendo comunidades resilientes"), webpage, [n.d.], https://care.org.gt/cosechando-agua-para-la-vida/ (accessed March 28, 2025).

Containers used to collect and store water, including rainwater, at a home in Aldea Xecachelaj, Santa María Chiquimula, Totonicapán department. © 2024 Human Rights Watch

(Left): Women pose with a cistern donated and installed by CARE International to catch and store rainwater in Santa María Chiquimula, Totonicapán department. © 2024 Human Rights Watch; (Right): A cistern donated and installed by CARE International to catch and store rainwater in Santa María Chiquimula, Totonicapán department. © 2024 Human Rights Watch

Intermittent Water Service Delivery

As noted above, 60 percent of the Guatemalan population lives in a home with an indoor connection to a water distribution network.[100]

However, even this figure is misleading because it does not account for chronic service gaps, including intermittent and unreliable service, as well as worse access amongst Indigenous communities.

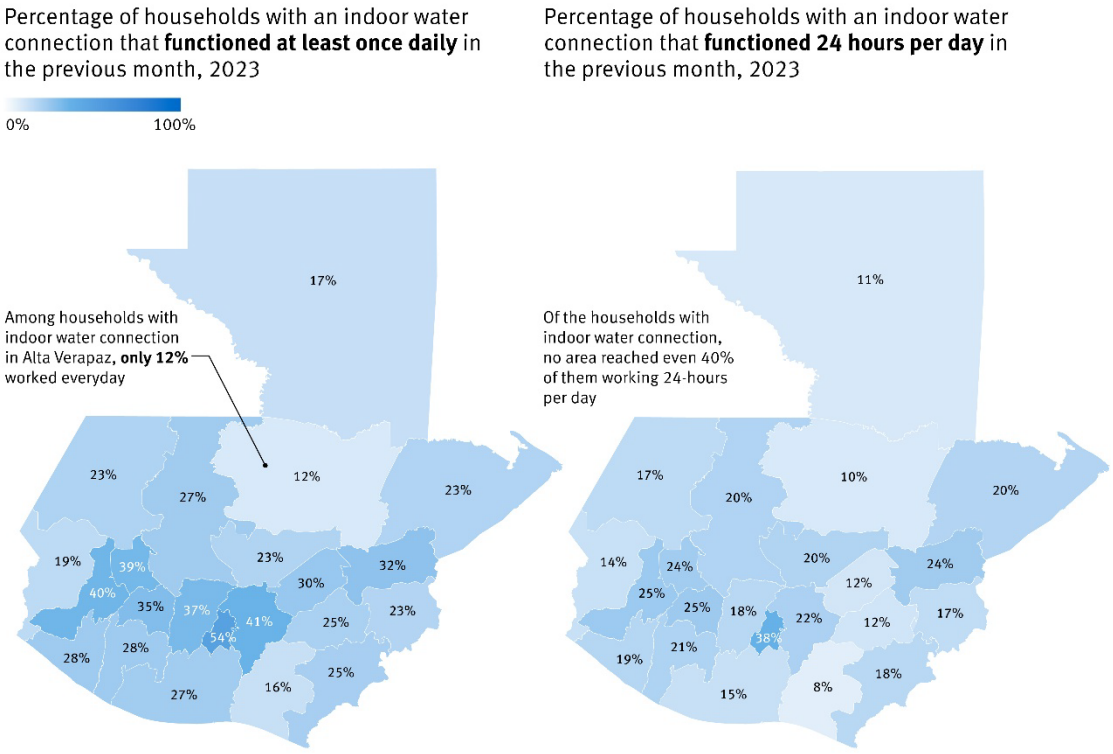
Fewer than half of households with a water network connection—whether indoor or on the property—reported having consistent water access. One in five connected households went without water for at least 14 days in the previous month. In other words, the survey suggests that over 2.5 million Guatemalans live in homes with a water connection that functions for only about half of the days in a month. Only 30 percent of households had an indoor water connection that delivered at least some water every day in the previous month.

But even among those who have daily service, many experience disruptions. Nationwide, only 19 percent of households reported having uninterrupted 24-hour indoor water service every day in the previous month. This marks a decline from 2014, when 27 percent had round-the-clock service. This decrease in access violates the international human rights law principle of non-retrogression.

Nearly 25 percent of households with an outdoor connection to a water network on their property (but no indoor connection) do not rely on the network as their primary water source. Instead, they access water from a public well or other source.

[100] The figures here and on the next pages derive from Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data, https://www.ine.gob.gt/pobreza-menu/ (accessed June 24, 2025).

Intermittent Access to Water



Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

In addition to facing intermittent service from water network connections, nearly 10 percent of the people who live in a household with a water network connection (either indoor or outdoor) reported that they share that connection with one or more households.

Among households with an indoor connection, 49 percent receive water through public service and about 10 percent are connected to a private provider. The other 41 percent receive service through a "water committee." Water committees are local community-led water-management bodies.[101]

[101] See, for example, Antonia Faustina Xurux Berreno, "Community water governance in the Western Highlands of Guatemala" ("Gobernanza comunitaria del agua en el Altiplano Occidental de Guatemala"), *Revista Mesoamericana de Biodiversidad y Cambio Climático*, vol. 3(6), 2019, https://revistayuam.com/wp-content/uploads/2019/09/Gobernanza-130919.pdf (accessed March 28, 2025), p. 51; Kristhal Figueroa, "They say water comes from the stream, but... water comes from the forests" («Dicen que el agua viene del chorro, pero... el agua viene de los bosques»), *Agencia Ocote,* March 4, 2025, https://www.agenciaocote.com/blog/2025/03/04/dicen-que-el-agua-viene-del-chorro-pero-el-agua-viene-de-los-bosques/ (accessed March 28, 2025).

Human Rights Watch documented the unreliability of water network services in communities in the Santa Rosa and Jalapa departments. In both departments, interviewees reported receiving water only once every week, and in Jalapa, for as little as 30 minutes. For example:

- Saydi Ispache, 27, in Santa Rosa de Lima municipality in Santa Rosa department, said she gets water from the pipes in her home every 15 days. She said the pipes are connected to a mechanical well that was constructed and is managed by her local water committee, a water-management body comprised of people from four neighboring communities. Saydi explained that because so many people depend on one well, they have to wait their "turn" to get water. When she cannot get water from the tap at home, Saydi buys it from people with private wells.[102]
- In the village of Volcancito, Casillas municipality, Santa Rosa department, Juana Mariles, a 33-year-old woman and mother of eight, said that she has pipes that deliver water to her home, but only once every eight days. She described difficult choices to ration her weekly water delivery. Her family frequently runs out before the next delivery, leaving them unable to wash hands, clean dishes, grow food, or maintain basic hygiene. She said this has led to illness among her children, including diarrhea and vomiting.[103]
- Basilia Pérez is a 62-year-old woman who is a mother of six, and a cook and food vendor in Buena Vista community, Jalapa municipality, where some—not all—have some access to running water. She has a tap at home, but she told Human Rights Watch that she only receives water for two hours once a week, and only during the rainy season. Basilia said she stores the tap water she receives in tanks to use for the rest of the week, rationing it for drinking, washing vegetables, and washing dishes. When she needs more—or when she has no tap water in the dry season—she spends an hour collecting it from a well, usually twice a week.[104]

[102] Human Rights Watch interview with Saydi Ispache, Casillas, Santa Rosa, Guatemala, November 19, 2024.

[103] Human Rights Watch interview with Juana Mariles, Casillas, Santa Rosa, Guatemala, November 19, 2024.

[104] Human Rights Watch interview with Basilia Pérez, Jalapa, Jalapa, Guatemala, November 20, 2024.

Like Basilia, many women with pipes in their homes must physically collect water throughout the week to supplement their water supply, forcing them to face many of the same stresses that women without any access to piped water face.

Water faucet outside a home in Buena Vista, Jalapa. The faucet did not provide any water while Human Rights Watch researchers were present. © 2024 Human Rights Watch

Insufficient Quality and Monitoring of Water

The UN Committee on Economic, Social, and Cultural Rights has stated that governments should ensure access to water that is of sufficient quality, meaning it must be both *safe* (free from contaminants that pose a risk to health) and *acceptable* in terms of "colour, odour and taste for each personal or domestic use."[105]

Irregular Monitoring

Lack of systematic monitoring of the quality of drinking water in Guatemala makes it difficult to assess whether Guatemalans with access to a water distribution network have access to safe water in accordance with international human rights standards.

According to data shared by the Ministry of Public Health and Social Assistance with Human Rights Watch, as of 2024, only 34 percent of drinking water systems were monitored for residual chlorine to assess disinfection efficacy, and just 53 percent were monitored for microbiological quality, which detects the presence of coliform bacteria, including Escherichia coli, some strains of which can cause serious illness, especially

[105] UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 15, The Right to Water (arts. 11 and 12 of the Covenant), UN Doc. E/C.12/2002/11 (2003), https://digitallibrary.un.org/record/486454?v=pdf (accessed January 20, 2025), para. 12.

among children and older adults.[106] While these numbers represent an improvement over the previous five-year period—25-26 percent of drinking water systems monitored were tested for residual chlorine and 26-28 percent were monitored for microbiological quality in 2020—the percentage of water monitored for quality falls short of the WHO's recommendation of 12 microbial quality samples of each water distribution system per year per every 5,000 residents supplied by the system.[107]

The safety of surface water sources in Guatemala is also a major concern, particularly given that over 800,000 Guatemalans rely on a river, lake, or spring as their primary water source.[108]

The National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH) monitored 75 points of surface water in 2023, selected on the basis of factors including economic significance, flow rates, flood risks, social importance, and historical needs, as well as physical security considerations for personnel.[109] INSIVUMEH reported that 31 monitoring points, over 40 percent of those studied, had "intermediate" or "bad" quality. "Intermediate" quality indicated dirty water "that can have colours, bad smells and bad taste," while "bad" quality referred to "deteriorated water" that is "not recommended for human consumption.[110]

---

[106] Government of the Republic of Guatemala, National Water Quality Monitoring System (Sistema de Información para la Vigilancia de la Calidad del Agua, SIVIAGUA) and Ministry of Public Health and Social Assistance (MSPAS), response to an information request filed by Human Rights Watch, received on February 17, 2025; "Residual Chlorine," *Encyclopedia of Physical Science and Technology (Third Edition)*, 2003, https://www.sciencedirect.com/topics/engineering/residual-chlorine (accessed March 28, 2025); Government of the Republic of Guatemala, MSPAS, Ministerial Agreement No. 523-2013, October 3, 2013, https://www.copresam.gob.gt/wp-content/uploads/2021/01/Acuerdo-Ministerial-523-2013.-Manual-de-Especificaciones-para-la-Vigilancia-y-Control-de-la-Calidad-del-Agua.pdf (accessed March 28, 2025); "About Escherichia coli Infection," Centers for Disease Control and Prevention, May 14, 2024, https://www.cdc.gov/ecoli/about/?CDC_AAref_Val=https://www.cdc.gov/ecoli/general/index.html (accessed June 15, 2025).

[107] The range of percentages reflects the difference in statistics provided by the Ministry of Public Health and Social Assistance to Human Rights Watch. The lower numbers come from SIVIAGUA/MSPAS data provided in response to an information request filed by Human Rights Watch, received on February 17, 2025. The higher numbers represent data included in a presentation by the director of the Directorate of Drinking Water, Sanitation, Health and Environment (Dirección de Agua Potable, Saneamiento, Salud y Ambiente, DAPSSA) to Human Rights Watch on November 26, 2024 (on file with Human Rights Watch), which also cites the SIVIAGUA data collection system. For WHO standards, see WHO, *Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum* (Geneva: WHO, 2017), https://iris.who.int/bitstream/handle/10665/254637/9789241549950-eng.pdf?sequence=1 (accessed March 28, 2025), p. 67.

[108] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data.

[109] Human Rights Watch interview with Mario René Mejía Clara, the Sub-Director General of INSIVUMEH, Guatemala City, Guatemala, November 25, 2024.

[110] INSIVUMEH, Department of Water Research and Services, "Annual Bulletin No. 26 of Water Quality Guatemala" ("Boletín Anual No. 26 de Calidad del Agua Guatemala"), https://insivumeh.gob.gt/wp-content/uploads/2024/06/Boletin-anual-de-

The MARN informed Human Rights Watch that its Directorate of Water Monitoring and Surveillance monitors the water quality of 21 bodies of water every six months, looking for the presence of heavy metals and fecal coliforms (which can have serious impacts on human health and child development), as well as other water quality indicators, including dissolved oxygen levels (which impacts aquatic life).[111] However, 18 of these 21 monitoring points are concentrated in Guatemala City.[112]

Concerns about Quality

In Santa Rosa, Jalapa, and Totonicapán, residents face serious concerns about water quality. Human Rights Watch interviewed 46 women across these departments who reported concerning drinking water conditions, including murky water, bad odor, and contaminating debris. Additionally, while water is generally more readily available in the rainy season, some women in Santa María Chiquimula explained that the cleanliness of the water they collect is impacted by heavy rains that carry and deposit foliage and other debris into their water source.

Despite their concerns about water quality, women told Human Rights Watch they drink it because they have no other option. For example, **María Carolina Barrera Tzun**, 28, Santa María Chiquimula, said the well where she gets her water is very dirty. "Sometimes, my kids say, 'why is the water so dirty? Why don't we have water in the house?'" she said. "We drink it because we have nowhere [else] to go to fetch water."[113]

Many women in Santa María Chiquimula told Human Rights Watch that they catch and store rainwater, especially during the rainy season. Some women said they drink the

---

calidad-de-agua-2023.pdf (accessed March 28, 2025), pp. 12 and 30-32. 26 points had "intermediate" water quality, and 5 points had "bad" quality.

[111] Information provided to Human Rights Watch by the MARN via email, on January 31, 2025 (on file with Human Rights Watch). For health impacts of lead, see World Health Organization (WHO), "Lead Poisoning," webpage, September 27, 2024, https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health (accessed June 16, 2025). For health impacts of mercury, see Pan American Health Organization (PAHO), "Mercury," webpage, [n.d.], https://www.paho.org/en/topics/mercury#:~:text=Foetuses%20are%20most%20susceptible%20to,methylmercury%20is%20impaired%20neurological%20development (accessed June 16, 2025). For the impact of dissolved oxygen on aquatic life, see United States Environmental Protection Agency (EPA), "Indicators: Dissolved Oxygen," webpage, January 10, 2025, https://www.epa.gov/national-aquatic-resource-surveys/indicators-dissolved-oxygen (accessed June 16, 2025).

[112] Information provided to Human Rights Watch by the MARN via email, on January 31, 2025 (on file with Human Rights Watch).

[113] Human Rights Watch interview with María Carolina Barrera Tzun, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

rainwater, but others said they only use it for other activities because they are concerned about its quality.

Sandra Rosita Carrillo Castro, 31, said that while she is able to catch rainwater that runs off her metal roof into a bucket, the roof makes it too dirty to drink.[114] Because many women do not have containers larger than buckets, it is impossible for them to capture more rainwater directly from the sky. The WHO has warned about contamination risks for rainwater captured on roofs and in cisterns, including by "[w]ind-blown dirt, leaves, faecal droppings from birds and other animals, insects and litter[.]"[115] Families that can capture rainwater with minimal contamination from their roof or other surfaces still face safety risks posed by stagnant water, which can harbor disease-carrying mosquitos.[116]

Containers used by a family to store water in Santa María Chiquimula municipality, Totonicapán department.
© 2025 Víctor Peña for Human Rights Watch

[114] Human Rights Watch interview with Sandra Rosita Carrillo Castro, Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[115] WHO, *Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum*, p. 95.

[116] Ibid., p. 99. See also WHO, "Water Sanitation and Health, Humanitarian emergencies – Health risks: Drinking-water and sanitation," webpage, [n.d.], https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/environmental-health-in-emergencies/humanitarian-emergencies (accessed March 28, 2025).

Many interviewees described experiencing symptoms such as stomachaches, vomiting, fevers, and diarrhea after consuming the water available to them, with their children particularly vulnerable to getting sick. For example, **Michaela Rosa López Lux**, a 37-year-old woman and mother of four in Santa María Chiquimula, told Human Rights Watch that she knows the well water that she uses is dirty because she and her family often get sick after drinking it. She said her children get diarrhea every few days, and she has to take them to a public health center about three times a month as a result.[117]

Limited Water Treatment Options

Human Rights Watch analysis of 2023 ENCOVI data shows that about 30 percent of households across the country boil their water to treat it,[118] another 14 percent use chlorine to treat it,[119] and 11 percent filter it.[120] The remaining either "buy purified water" or do not treat it.

Most people interviewed by Human Rights Watch could only afford to treat their water by boiling it or adding chlorine. A few who could afford it reported that they buy their drinking water rather than drink tap water because of its inadequate quality.

The majority of people in Guatemala—including the vast majority of people living in poverty—use firewood to cook, meaning people also need firewood to boil water, which can be expensive.[121] One woman told Human Rights Watch that she spends 300 quetzales a month on firewood (to meet general needs, not just to boil water), almost a third of her family's income.[122] Another woman told Human Rights Watch that the cost of firewood makes boiling water expensive, but she has to do it because the water quality is poor and she and her children often get sick after drinking it.[123]

---

[117] Human Rights Watch interview with Michaela Rosa López, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

[118] According to the WHO, "[b]ringing water to a rolling boil is the simplest and most effective way to kill all disease-causing pathogens," though it will not clarify the water or protect against future contamination. See WHO, *Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum*, pp. 108 and 110.

[119] Chlorine can also be a safe way to treat water prior to consumption when administered in appropriate doses, though the WHO notes that it can fail to kill certain pathogens. Ibid., pp. 6, 108, 141, 227 and 272.

[120] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data.

[121] INE, "The INE presents poverty figures in Guatemala" ("El INE presenta cifras de pobreza en Guatemala"), August 21, 2024, https://www.ine.gob.gt/2024/08/ (accessed June 17, 2025).

[122] Human Rights Watch interview with Carina Alicia Cun Chechot, Santa María Chiquimula, Guatemala, November 23, 2024.

[123] Human Rights Watch interview with Ingrid, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

Stove inside a home in Aldea Chuiaj, Santa María Chiquimula, Totonicapán department.
© 2024 Human Rights Watch

Inadequate Oversight of Industrial and Agricultural Operations

Water quality in Guatemala is also threatened by industrial and agricultural activities.[124] According to a diagnostic assessment of water management conducted by the government in 2006, 40 percent of water contamination comes from agricultural activities, 7 percent from agro-industries, and 13 percent from other industries.[125] The lack of an adequate legal framework to regulate the impact of industrial and large-scale agricultural use and contamination of water—and inadequate monitoring of this contamination—puts the health of local communities at risk.

Between August 2024 and March 2025, the Ministry of Public Health and Social Assistance documented arsenic levels in water systems of Casillas municipality, Santa Rosa department, significantly higher than the WHO's provisional guideline standard of 10 micrograms per liter (µg/L).[126] According to the WHO, long-term consumption of inorganic

[124] Government of the Republic of Guatemala, SEGEPLAN, and Inter-American Development Bank (IDB), *Strategy for the Integrated Management of Guatemala's Water Resources – Assessment*, pp. 48-49.

[125] Ibid.

[126] Government of the Republic of Guatemala, MSPAS, "Arsenic Component Physicochemical Results, August-December 2024, January-March 2025, Health District, Casillas, Santa Rosa" ("Resultados Fisicoquímicos Componente Arsénico, Agosto-

arsenic (the type of arsenic typically found in drinking water)[127] can lead to a range of serious health issues, including "neuropathy, gastrointestinal symptoms, diabetes, cardiovascular disease, developmental toxicity, and cancer of the skin and internal organs."[128]

Xinka human rights defenders have long complained that the Escobal silver mine in the municipality of San Rafael Las Flores (neighboring Casillas municipality) contributed to contaminating the region's water, an issue that also came up in legal proceedings before the Constitutional Court.[129] The Constitutional Court temporarily suspended the mine's operations in 2018, finding that the Xinka people were not adequately consulted in accordance with the International Labour Organization (ILO) Convention 169.[130] In its ruling, the court considered the mine's environmental impact study; a Ministry of Environment and Natural Resources, Ministry of Energy and Mines, and Ministry of Public Health and Social Assistance inter-institutional inspection report evaluating the mine's compliance with its environmental management plan; and expert reports solicited by the court.

The report by the ministries documented arsenic levels above permissible levels in the municipal well of San Rafael Las Flores but stated they may result from local geological

---

Diciembre 2024, Enero-Marzo 2025, Distrito de Salud, Casillas, Santa Rosa") (copy of report on file with Human Rights Watch). Levels of arsenic observed ranged from 0.017m-0.057 milligrams per liter (mg/L) across 7 samples from 3 communities measured between August 2024 and March 2025, with a median value of .033 mg/L, or 33 micrograms per liter (µg/L). For the WHO's standards, see WHO, *Preventing disease through healthy environments: exposure to arsenic: a major public health concern*, 2019, https://iris.who.int/bitstream/handle/10665/329482/WHO-CED-PHE-EPE-19.4.1-eng.pdf (accessed March 28, 2025). Guatemala's national "maximum permissible limit" is also 10 µg/L (or 0.01mg/L). See Government of the Republic of Guatemala, Ministry of Economy, Guatemalan Commission of Standards (La Comisión Guatemalteca de Normas, COGUANOR), "Guatemalan Technical Standard: Water for human consumption (drinking water), Specifications" ("Norma Técnica Guatemalteca: Agua para consumo humano (agua potable), Especificaciones"), 2021, https://www.copresam.gob.gt/wp-content/uploads/2021/01/Norma-Tecnica-Guatemalteca-NTG29001.pdf (accessed March 28, 2025), p. 7.

[127] Marisa Naujokas et al., "The broad scope of health effects from chronic arsenic exposure: update on a worldwide public health problem," *Environmental Health Perspectives*, vol. 121(3), 2013, https://pubmed.ncbi.nlm.nih.gov/23458756/ (accessed June 17, 2025), p. 295.

[128] WHO, *Preventing disease through healthy environments: exposure to arsenic: a major public health concern.*

[129] Gabriel Woltke and Alberto Pradilla, "The water 'scientists' are young community members" ("Los «científicos» del agua son jóvenes comunitarios"), *Plaza Pública*, March 8, 2021, https://www.plazapublica.com.gt/content/los-cientificos-del-agua-son-jovenes-comunitarios-o#:~:text=Ante%20el%20desinter%C3%A9s%20y%20la,regi%C3%B3n%20dominada%20por%20la%20miner%C3%ADa (accessed March 28, 2025); Simona Carnino, "Xinka scientists: guardians of water against mining in Guatemala" ("Científicos xinkas: guardianes del agua frente a la minería en Guatemala"), *El País*, December 31, 2024, https://elpais.com/planeta-futuro/2024-12-31/cientificos-xinkas-guardianes-del-agua-frente-a-la-mineria-en-guatemala.html (accessed March 28, 2025).

[130] Constitutional Court of Guatemala, Case No. 4785-2017, September 3, 2018, https://mem.gob.gt/wp-content/uploads/2021/09/4.-Sentencia-de-Segunda-Instancia-Escobal.pdf (accessed June 17, 2025).

factors.[131] However, the court explained that the solicited expert reports identified several issues with the ministries' report, including discrepancies in water monitoring sites identified in the environmental impact study versus those evaluated in the inspection and a lack of repeat monitoring.[132] Given these shortcomings, the court said that it did not have "conclusive evidence" that the mine had "caused contamination of the water resources in the area[,]" but it expressed "reasonable doubt" as to whether the government had "diligently and scrupulously" monitored the mine's compliance with its environmental commitments.[133]

Recently, in May 2025, after a multi-year consultation process, representatives of the Xinka people declared that they did not consent to the resumption of the mining project.[134] At time of writing, the mine was still inoperative.[135]

Lack of Accountability for Contamination and other Water-Related Crimes

A major challenge facing the water sector in Guatemala is the lack of accountability for those who pollute water bodies.[136] Between 2019 and 2024, the Attorney General's Office initiated only 93 investigations *ex officio* (that is, without a criminal complaint) for water-related crimes such as contamination, water usurpation, or attacks on public utilities. This number is strikingly low compared to the 4,970 water-related complaints filed by the public during the same period, as well as 438 complaints submitted by the Ministry of Environment and Natural Resources.[137]

---

[131] Ibid., pp. 135-136 and 141. One of the expert reports noted that even where naturally occurring, the presence of arsenic is an important consideration for mining operations, which can increase its dissolution in surface and groundwater. Ibid., pp. 141-142.

[132] Ibid., pp. 136-137, 139-141 and 485-486.

[133] Ibid., pp. 487-488.

[134] "The Xinka Parliament Calls on Guatemalan State to Restore Indigenous Land Rights After Years of Resistance Against the Illegal Escobal Mine," Robert F. Kennedy Human Rights (RFK) news release, May 9, 2025, https://rfkhumanrights.org/press/the-xinka-parliament-calls-on-guatemalan-state-to-restore-indigenous-land-rights-after-years-of-resistance-against-the-illegal-escobal-mine/ (accessed June 6, 2025).

[135] Pan American Silver, "Escobal, Santa Rosa, Guatemala," webpage, [n.d.], https://panamericansilver.com/operations-2/silver-segment/escobal/ (accessed May 30, 2025).

[136] UN Human Rights Council, Situation of Human Rights in Guatemala, Report of the UN Office of the High Commissioner for Human Rights (OHCHR), UN Doc. A/HRC/58/22 (2025), https://docs.un.org/en/A/HRC/58/22 (accessed March 27, 2025), paras. 47-48.

[137] Information provided to Human Rights Watch by the Attorney General's Office via email, on January 28, 2025 (on file with Human Rights Watch).

Of the 93 *ex officio* cases, as of January 26, 2025, just 27 remained under investigation and zero had resulted in criminal penalties.[138] Only 5 of the 93 cases were opened in 2024—despite over 1,000 public complaints that year alone.[139]

Of the 4,970 public complaints filed from 2019 to 2024, just 22 were adjudicated. Meanwhile, as of January 26, 2025, 1,413 remained under investigation and 2,336 had been dismissed.[140]

The UN Office of the High Commissioner for Human Rights raised the issue of water contamination in its February 2025 report to the UN Human Rights Council on the situation of Human Rights in Guatemala. The office expressed concern over the lack of investigations into such cases, including those "that have had an adverse impact on crops, food and the health of Indigenous communities," and cited unresolved cases against companies in the coffee, palm, sugar, and mining industries.[141]

In addition to threatening the rights to water, health, and life, the government's failure to address widespread water pollution violates the right to a healthy environment. Under international law, Guatemala is obligated to "promote the protection, preservation, and improvement of the environment," which includes its water resources.[142] As with other rights, Guatemala must act to protect the right to a healthy environment, including by regulating and monitoring contamination, and must also investigate, punish, and facilitate redress for abuses of this right.[143]

---

[138] Ibid.

[139] Ibid.

[140] Ibid.

[141] UN Human Rights Council, UN Doc. A/HRC/58/22 (2025), paras. 47-48.

[142] Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights ("Protocol of San Salvador"), adopted November 17, 1988, O.A.S.T.S. No. 69 (entered into force November 16, 1999), art. 11. Guatemala ratified the protocol on May 30, 2000.

[143] Inter-American Court of Human Rights, The Environment and Human Rights, Advisory Opinion OC-23/17 of November 15, 2017, Inter-Am.Ct.H.R., (Ser. A) No. 23, https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf (accessed May 12, 2025), paras. 141 and 154.

Lack of Access to Sanitation Services

People in Guatemala have limited access to safe sanitation systems.[144] This prevents their enjoyment of the right to sanitation and threatens a range of other human rights, including the rights to health, to housing, and life.[145] The right to sanitation, derived from the right to an adequate standard of living, "entitles everyone, without discrimination, to have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, socially and culturally acceptable and that provides privacy and ensures dignity[.]"[146]

According to 2022 estimates from the WHO and UNICEF's Joint Monitoring Programme (JMP), which monitors water and sanitation data globally, 70 percent of households in Guatemala had access to at least a "basic" sanitation service—defined as one that is not shared with other households and is "designed to hygienically separate excreta from human contact."[147] The rate is lower than those of neighboring countries, including El Salvador (87 percent) and Honduras (84 percent) in 2022, and Nicaragua (73 percent) in 2020, the latest available data.[148] Moreover, this figure also fails to capture the gap between households with a toilet connected to a drainage system and those relying on other methods, like "pit latrines with slabs," which may present vastly different levels of hygiene and dignity.

---

[144] The former UN Independent Expert on the issue of human rights obligations related to access to safe drinking water and sanitation defined sanitation as "a system for the collection, transport, treatment, and disposal or reuse of human excreta and associated hygiene." See UN Human Rights Council, Report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, UN Doc. A/HRC/12/24 (2009), https://docs.un.org/en/A/HRC/12/24 (accessed March 28, 2025), para. 63. This definition uses language from the 1992 Protocol on Water and Health, an international agreement to promote health through water systems management. See United Nations, Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1999, https://treaties.un.org/doc/Treaties/1999/06/19990602%2005-47%20AM/Ch_XXVII_05_ap.pdf (accessed March 28, 2025), art. 2(8). It has since been adopted by various UN mechanisms, including the Committee on Economic, Social, and Cultural Rights. See CESCR, Statement on the Right to Sanitation, UN Doc. E/C.12/2010/1 (2011), https://docs.un.org/en/E/C.12/2010/1 (accessed March 28, 2025), para. 8. The WHO similarly defines "a safe sanitation system" as one "designed and used to separate human excreta from human contact[.]" See WHO, Guidelines on Sanitation and Health (Geneva: WHO, 2018), https://iris.who.int/bitstream/handle/10665/274939/9789241514705-eng.pdf (accessed March 28, 2025), p. xii.

[145] CESCR, Statement on the Right to Sanitation, UN Doc. E/C.12/2010/1 (2011), para. 7.

[146] UN General Assembly, The human rights to safe drinking water and sanitation, Resolution No. 70/169, UN Doc. A/RES/70/169 (2015), https://documents.un.org/doc/undoc/gen/n15/442/72/pdf/n1544272.pdf (accessed May 9, 2025), para. 2.

[147] WHO and UN Children's Fund (UNICEF), "Joint Monitoring Programme (JMP) for Water Supply, Sanitation, and Hygiene," webpage, [n.d.], https://washdata.org/data/household#!/table?geo0=region&geo1=sdg (accessed March 28, 2025). Basic services are "improved facilities which are not shared with other households"; "Improved facilities" are "those designed to hygienically separate excreta from human contact, and include: flush/pour flush toilets connected to piped sewer systems, septic tanks or pit latrines; pit latrines with slabs (including ventilated pit latrines), and composting toilets." WHO and UNICEF, JMP, "Sanitation," webpage, [n.d.], https://washdata.org/monitoring/sanitation (accessed March 28, 2025).

[148] WHO and UNICEF, "JMP for Water Supply, Sanitation, and Hygiene."

Disparities in Type of Toilet Used

Number of people using each type at home per 10,000 of each population, 2023

By ethnicity

	Latrine or blind pit	No facility	Toilet connected to drainage network	Toilet connected to septic tank	Washable toilet
Indigenous	5,856	387	2,239	823	695
Non-indigenous	2,075	363	4,735	1,430	1,397

By poverty rate

	Latrine or blind pit	No facility	Toilet connected to drainage network	Toilet connected to septic tank	Washable toilet
Extreme poverty	6,585	938	1,099	689	689
Poverty	4,132	394	3,019	1,206	1,249
No poverty	1,883	141	5,431	1,373	1,172

Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

According to Human Rights Watch analysis of 2023 ENCOVI data, only 42 percent of households report having a toilet connected to a drainage network.[149] Nearly 31 percent use a latrine or a pit, forms of sanitation which can present health and safety risks. Twelve percent have a toilet connected to a septic tank and another 12 percent use a "washable toilet," which is a toilet that is not connected to a water network or drain and must be cleaned with water transported from another source.[150] Three percent report having no type of sanitation service at all.

Non-Indigenous people are twice as likely as Indigenous people to live in homes with a toilet connected to a drainage network. In contrast, Indigenous people are 2.8 times more likely to live in homes where people use a latrine or blind pit.

Households that rely on latrines or lack sanitation facilities are also much less likely to have access to a place to wash hands with soap and water. Over 183,000 households with

[149] The figures here and on the next pages derive from Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data.

[150] INE, Population and Housing Census, Glossary Results 2018 Census, 2019, https://censo2018.ine.gob.gt/archivos/Glosario.pdf (accessed March 28, 2025), p. 8.

latrines lack handwashing facilities, and nearly 30 percent of households without any sanitation system also have no designated place to wash hands.

The vast majority of households (85 percent) with a sewage connection also have an indoor water network connection. However, nearly 43 percent of homes with an indoor water connection do not have a toilet connected to a drainage network. There are over 1.25 million households in the country with neither indoor water nor sewage connections.

Most people that Human Rights Watch interviewed reported that they had no access to an adequate sanitation system, relying instead on latrines, pits, or open-air defecation.

The situation is especially challenging for people with disabilities or older people because makeshift sanitation facilities can be difficult to access or unsafe, and may require people to walk long distances with inadequate lighting. During rainy seasons, these problems can worsen as pits overflow and pathways become hazardous. Additionally, without private facilities, women, girls, or others may opt to travel to latrines when it is darker out in pursuit of greater privacy, particularly to manage menstrual health, which carries a greater risk of violence, as highlighted in a report published by UN Women.[151]

Household Water and Sanitation Connections in Guatemala
2023

Indoor Water Connection	Number of Households	Percent of Households
Both Water and Sanitation	1,451,358	36%
Neither	1,251,416	31%
Water only	1,113,249	27%
Sanitation only	252,833	6%

Source: Human Rights Watch analysis of National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Living Conditions (ENCOVI) 2023.

[151] UN Women, *Spotlight on Goal 6: From commodity to common good: A feminist agenda to tackle the world's water crisis* (New York: UN Women, 2023), https://www.unwomen.org/sites/default/files/2023-07/from-commodity-to-common-good-a-feminist-agenda-to-tackle-the-worlds-water-crisis-en.pdf (accessed March 31, 2025), p. 24.

Latrine in Buena Vista, Jalapa, Jalapa department. © 2024 Human Rights Watch

In the community of Buena Vista, Jalapa municipality, a woman showed Human Rights Watch researchers an outdoor latrine shared by 15 people, including children. The latrine is a small plastic receptacle over a hole in the ground, surrounded on three sides by degraded plastic walls. To reach it, residents must walk 100 meters across muddy terrain. The woman said they had no access to soap or basic hygiene supplies.

Nineteen women in Buena Vista told Human Rights Watch that they and their families rely on latrines or "blind pits"–simple holes dug in the ground—as their only sanitation option. In the municipality of Casillas, in Santa Rosa, **Juana Mariles** described having to use urine to flush her latrine due to water scarcity. She tells family members, "whoever can use the bathroom outside should do so" to reduce pressure on the limited facilities.[152]

[152] Human Rights Watch interview with Juana Mariles, Casillas, Santa Rosa, Guatemala, November 19, 2024.

Most women interviewed in Santa María Chiquimula, Totonicapán, said they use blind pits as their only sanitation service. One woman reported that she shared the same pit with seven people, and another said she shared the same pit with 10 people.[153] Several women told Human Rights Watch that they and their families simply go outside in the open air.

Differentiated Impact on Women and Girls

Water collection places a significant burden on women and their children. The 2023 ENCOVI data shows that nationwide, about 11 percent of women and about 8 percent of children aged 7 to 18 reported carrying water for household use the day before the survey, compared to 7 percent of men. Among adults who said they carried water the previous day, two-thirds were women.[154]

In the communities that Human Rights Watch visited, women and girls were often responsible for water-related tasks in their households, including collection and storage, treatment and rationing, cooking and cleaning, and children's hygiene and health care. This work is time-consuming, and rationing water requires making complicated decisions, provoking stress.

Travel timing for water collection also poses challenges. Women must plan strategically, sometimes around early morning collection times to ensure availability and avoid waiting in long lines, or around their children's schedule, while also needing to consider personal safety. Multiple women in Buena Vista told Human Rights Watch that they get up before dawn to search for water, including Claudia R., 29, who gets up at 4 a.m. to walk half an hour for water. She has no choice; it is impossible to go without it. "Without water, we are nothing," she said.[155]

For many women, water collection intertwines with childcare, creating a double burden. For example:

[153] Human Rights Watch interview with María Osorio Osorio, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024; Human Rights Watch interview with Amy Maribel Uguiroa, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

[154] Ibid.

[155] Human Rights Watch interview with Claudia R. (pseudonym), Jalapa, Jalapa, Guatemala, November 20, 2024.

- **Angelica L.**, 16, told Human Rights Watch that she has to carry her two-year-old child on her back when she walks an hour round trip to get water from a well, which limits the amount of water she can carry home.[156]
- **Rosalía Maribel Osorio Chivalan** is a 24-year-old woman and mother of four children between the ages of 10 months and 8 years. Rosalía gets up at 5 or 5:30 a.m. to make a two-hour round trip to collect water from a well before she has to make another 40-minute round trip to drop her children off at school by 8 a.m.[157]
- **Sandra Rosita Carillo Castro**, 31, is a mother of an 8-year-old girl and a 12-year-old boy. Sandra's husband is typically away from home, working as a field laborer or weaving to earn income for their family, and she cares for their children and home. She plans her water collection around her children, who always accompany her. They go to a well every other day at 2 p.m. after school, and they make a four-hour round trip every Saturday to the river to bathe.[158]

Like Angelica L., many girls in Guatemala are mothers. As documented by Human Rights Watch, forced and early motherhood is a systemic issue in Guatemala. Approximately 2,000 girls aged 10-14 give birth every year as a result of sexual violence. Girls who become mothers at an early age are also often labeled as women, assigned caregiving roles, and drop out of school without adequate social support.[159]

As noted above, water scarcity and inadequate sanitation services also differentially impact women, girls, and others who menstruate. Without access to clean and private facilities, women and girls may struggle with managing hygiene during menstruation and may forgo using sanitation facilities when needed, which, according to a report published by UN Women, "increases the likelihood of urinary and reproductive tract infections[,]"

---

[156] Human Rights Watch interview with Angelica L. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[157] Human Rights Watch interview with Rosalía Maribel Osorio Chivalan, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

[158] Human Rights Watch interview with Sandra Rosita Carillo Castro, Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[159] Human Rights Watch, *Forced to Give Up on Their Dreams: Sexual Violence against Girls in Guatemala* (New York: Human Rights Watch, 2025), https://www.hrw.org/sites/default/files/media_2025/02/guatemala0225web_0.pdf, pp. 1-2, 17, 29 and 62.

which "can result in infertility and birth complications."[160] As discussed further below, this also negatively affects school attendance and participation.[161]

Water-related and other caregiving responsibilities are time-intensive and impede women's ability to undertake income-generating work, with compounding negative effects for their and their household's wellbeing, discussed further below.

[160] UN Women, *Spotlight on Goal 6: From commodity to common good: A feminist agenda to tackle the world's water crisis*, pp. 24 and 39.

[161] Ibid.; UNICEF and WHO, *Progress on Drinking Water, Sanitation and Hygiene in Schools 2015-2023: Special focus on menstrual health* (New York: UNICEF and WHO, 2024), https://cdn.who.int/media/docs/default-source/wash-documents/jmp-wash-in-schools240525.pdf?sfvrsn=1568505b_3&download=true (accessed March 31, 2025), pp. 63-65.

III. How the Water Crisis Threatens Other Rights

In a 2010 resolution on the right to water and sanitation, the UN General Assembly recognized that access to water and sanitation are fundamental to the enjoyment of many other rights.[162] The Guatemalan government has also acknowledged that lack of access to water and sanitation can have cascading negative impacts on health, education, and income, with a disproportionately harmful impact on people living in poverty.[163]

Human Rights Watch documented multiple ways in which inadequate access to water and sanitation in Guatemala impedes the enjoyment of several rights, while reinforcing cycles of poverty and inequality.

The Right to Health

The availability and accessibility of safe and sufficient water for personal and domestic uses and adequate sanitation are necessary for the enjoyment of the right to the highest attainable standard of physical and mental health.[164]

Inadequate access to safe water for drinking, cooking, hygiene, and sanitation, and inadequate sanitation facilities, including wastewater treatment systems, undermine the right to health in Guatemala, including by exposing people to serious and sometimes deadly water-borne disease, causing reduced hygiene that can lead to illness, contributing to malnutrition in children, and hindering the efficacy of functioning health systems.

Water-Borne Disease and Limited Hygiene due to Water Scarcity

Inadequate water and sanitation infrastructure and widespread water contamination puts Guatemalans at risk of water-borne disease and illnesses contracted because of reduced hygiene due to water scarcity.

---

[162] UN General Assembly, The human right to water and sanitation, Resolution No. 64/292, UN Doc. A/RES/64/292 (2010), https://digitallibrary.un.org/record/687002?v=pdf (accessed March 31, 2025).

[163] Government of the Republic of Guatemala, MSPAS, National Policy for the Drinking Water and Sanitation Sector, p. 7.

[164] UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 14, The Right to the Highest Attainable Standard of Health (art. 12 of the Covenant), E/C.12/2000/4 (2000), https://digitallibrary.un.org/record/425041?ln=en&v=pdf (accessed April 28, 2025), para. 4.

For example, as noted above, without reliable access to safe running water, many interviewees reported capturing and storing rainwater for domestic use, including drinking in some cases. Rainwater captured from surfaces like rooftops can contain harmful contaminants.[165] Additionally, rainwater or other water stored in open containers for extended periods of time pose safety concerns, as stagnant water can harbor disease-carrying mosquitos.[166]

Additionally, water safety is threatened by the lack of adequate sanitation infrastructure, which leaves untreated human waste at risk of contaminating groundwater or washing into nearby rivers—the same sources many families rely on for drinking, cooking, and washing.[167]

Water scarcity also poses a risk to personal hygiene and general sanitation. Many women reported that they forgo cleaning, bathing, and other hygiene activities because they do not have enough water. For example:

- Julieta R. a 36-year-old woman and mother of four in Santa María Chiquimula, told Human Rights Watch that she and her children can only bathe once a week, which requires making a journey to the nearest river.[168]
- Amy Maribel Uguiroa, 25, Santa María Chiquimula, who has some running water four days a week, said she reuses her bathwater for cleaning activities.[169]

---

[165] World Health Organization (WHO), *Guidelines for Drinking-water Quality: fourth edition incorporating the first addendum,* p. 95.

[166] Ibid. See also WHO, "Water Sanitation and Health, Humanitarian emergencies – Health risks: Drinking-water and sanitation"; Martin S. Fritsch, "Chapter 7 – Health issues related to drainage water management" in *Management of agricultural drainage water quality*, (Rome: UN Food and Agriculture Organization (FAO), 1997), https://www.fao.org/4/w7224e/w7224e0b.htm#the%20interactions%20between%20drainage,%20water%20management%20and%20health (accessed March 28, 2025).

[167] Jay P. Graham and Matthew L. Polizzotto, "Pit Latrines and Their Impacts on Groundwater Quality: A Systematic Review," *Environmental Health Perspectives*, vol. 121(5), March 2013, https://ehp.niehs.nih.gov/doi/10.1289/ehp.1206028 (accessed March 31, 2025). ("[B]ased on available reports, researchers who looked for groundwater contamination from pit latrines frequently detected it, and studies observed travel distances of up to 25 m, 50 m, and 26 m for unsafe concentrations of bacteria, viruses, and chemicals, respectively."); WHO, *Protecting Groundwater for Health: Managing the Quality of Drinking-water Sources* (London: IWA Publishing for the WHO, 2006), https://www.who.int/docs/default-source/food-safety/arsenic/9241546689-eng.pdf?sfvrsn=4d933016_2 (accessed March 31, 2025), pp. 280 and 604. ("The risks of groundwater contamination from open-air defecation are variable and largely depend on local conditions, including groundwater use for drinking-water supply. Pathogenic microorganisms in feces may contaminate groundwater or spring abstraction points by leaching through soils into shallow groundwater or springs, flowing into outcropping or shallow rock fractures, seeping into pits or low areas (recharge zones) or runoff to surface water, with secondary transport to connected aquifers.") ("Whilst rainwater is perceived as being clean it can rapidly become polluted and transport contaminants, for example washing poorly disposed feces into the water cycle.").

[168] Human Rights Watch interview with Julieta R. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

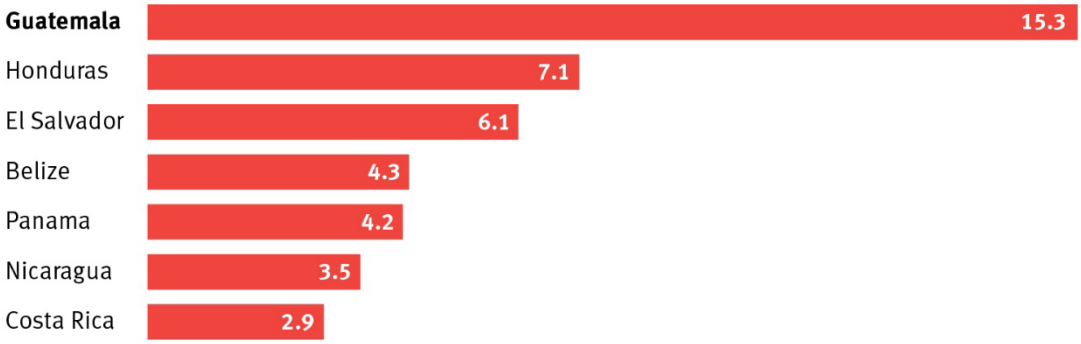
[169] Human Rights Watch interview with Amy Maribel Uguiroa, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

- **Sara R.**, a 29-year-old woman and mother of four in Casillas, Santa Rosa, who only has running water once a week, told Human Rights Watch that the hardest thing about not having water is that she cannot wash her children's belongings.[170]

Drinking and cooking with contaminated water and having insufficient water that reduces hygiene are linked to a range of diseases, including diarrheal diseases that can result in serious illness and death.[171] According to the WHO, in 2019 (the latest available figure), the rate of deaths attributable to unsafe water, sanitation, and hygiene services in Guatemala was 15.3 per 100,000—more than double the mortality rate of any neighboring country, and triple the average for the Americas region overall (5 per 100,000).[172]

Mortality Rate Attributed to Unsafe Water, Unsafe Sanitation and Lack of Hygiene

Deaths per 100,000 people, Central America, 2019



Source: Global Health Observatory Data, World Health Organization. https://www.who.int/data/gho.

[170] Human Rights Watch interview with Sara R., Casillas, Santa Rosa, Guatemala, November 19, 2024.

[171] WHO, "Diarrheal disease," Fact Sheet, March 7, 2024, https://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease (accessed May 7, 2025). See also Annette Prüss-Ustün, et al., "Burden of disease from inadequate water, sanitation and hygiene in low- and middle-income settings: a retrospective analysis of data from 145 countries," *Tropical Medicine & International Health*, vol. 19(8), August 2014, https://pubmed.ncbi.nlm.nih.gov/24779548/ (accessed March 31, 2025).

[172] Global Health Observatory, "Mortality rate attributed to exposure to unsafe WASH services (per 100,000 population) (SDG 3.9.2)," WHO, webpage, [n.d.], https://www.who.int/data/gho/data/indicators/indicator-details/GHO/mortality-rate-attributed-to-exposure-to-unsafe-wash-services-(per-100-000-population)-(sdg-3-9-2) (accessed March 31, 2025). The Americas region includes the United States.

Impact on the Delivery of Healthcare Services

Adequate water and sanitation infrastructure in healthcare facilities is essential to ensuring personal hygiene, facility cleanliness, health care waste management, patient and staff safety, and patient and staff dignity.[173] Without it, staff cannot provide adequate care, and both staff and patients are at greater risk of disease transmission.[174]

There is little reliable national-level data on water and sanitation availability in healthcare facilities in Guatemala. A 2018 survey of 328 public healthcare facilities carried out by the WHO and the Ministry of Public Health and Social Assistance (MSPAS) found that only 67 percent of public healthcare facilities had water service 24/7.[175]

Human Rights Watch reviewed data provided by 28 of 29 Departmental Directorates of Integrated Health Services Networks (Dirección Departamental de Redes Integradas de Servicios de Salud, DDRISS) in Guatemala. These directorates are part of the MSPAS and oversee the provision of healthcare services in each department in Guatemala.[176] Differences in the level of detail, method of reporting, and types of facilities included in the DDRISS reports complicated any systematic comparison.[177] Despite these challenges,

---

[173] WHO and the UN Children's Fund (UNICEF), *Water, sanitation, hygiene, environmental cleaning and waste management in health care facilities: 2023 data update and special focus on primary health care* (Geneva: WHO and UNICEF, 2024), https://washdata.org/reports/jmp-2024-wash-hcf (accessed March 31, 2025), pp. 47 and 60.

[174] Ibid., pp. 10, 20, 28, 47, 49 and 60.

[175] Pan American Health Organization (PAHO), WHO, Inter-American Association of Sanitary and Environmental Engineering (AIDIS), *Assessment of the water, sanitation, and hygiene situation in health care facilities: Guatemala Report* (*Evaluación de la situación de agua, saneamiento e higiene en establecimientos de atención de salud: Informe Guatemala*), 2021, https://washinhcf.org/wp-content/uploads/2021/07/Inforrme-Guatemala.pdf (accessed March 31, 2025), p. 8.

[176] See MSPAS, "DDRISS [Directorates of Integrated Health Services Networks]-Jalapa Department," webpage, [n.d.], https://ddrissjalapa.gob.gt/ (accessed March 31, 2025). See also Government of the Republic of Guatemala, MSPAS, Government Agreement No. 59-2023, March 30, 2023, https://medicamentos.mspas.gob.gt/index.php/legislacion-vigente/acuerdos (accessed April 14, 2025), art. 23. Human Rights Watch did not receive a response to the request for this information from the Quiché Department DDRISS.

[177] Information provided to Human Rights Watch by the MSPAS via email, on February 17, 2025 (on file with Human Rights Watch). Some DDRISS reported on various types of healthcare facilities, including health centers, health posts, and community centers. Others only reported on health centers, which offer more care options than health posts or community centers but typically comprise a much smaller percentage of facilities in a department overall. The Sololá DDRISS only provided information on one health center. Not all DDRISS responded to all questions that Human Rights Watch asked. Consequently, a DDRISS may not be included in the information below, but that does not mean there are not healthcare facilities within that DDRISS system that fit the criteria evaluated by Human Rights Watch. For example, the Retalhuleu DDRISS did not report on whether its facilities comply with national drinking water quality standards nor on whether there have been water contamination incidents in any facilities, so it is not included in the section on water quality below. In cases where Human Rights Watch researchers could not clearly discern whether or not a gap infrastructure or a water quality concern was being reported, it has not been included. The following sections reflect self-reported gaps in infrastructure and water quality concerns, but do not intend to suggest that these problems do not exist where not reported.

the reported information consistently highlights serious concerns about water infrastructure and water quality in healthcare facilities across the country. Key findings include:

- Ten DRRISS reported that at least one health facility in their jurisdiction lacked access to potable water, while 19 DDRISS reported that at least one facility (often many) only had intermittent service. For example, the DDRISS in the Jalapa department reported access to potable water in 90 of 93 healthcare facilities but noted that 82 of these facilities only have intermittent service.[178]
- Eleven DDRISS reported that water samples taken at some healthcare facilities did not comply with national drinking water quality standards.[179] For example, the Huehuetenango DDRISS reported that samples at 125 of 382 healthcare facilities failed to meet these standards.[180] The Jalapa DDRISS, meanwhile, reported that no facilities fully comply with national water quality norms. According to the Quiché Area Ixil DDRISS, an area comprising part of the Quiché department, piped water is not potable because neither the community nor municipal providers that supply the healthcare facilities have treatment systems.
- Seven DDRISS reported incidents of water contamination at some healthcare facilities. For example, the DDRISS in the Izabal department reported contamination incidents at 7 of 18 facilities, including fecal coliforms in the water supply of at least two health posts. The Petén Sur Oriente DDRISS, serving the southeastern part of the Petén department, noted that all of 41 facilities in its jurisdiction rely on water sources without an adequate disinfection process and "[m]onthly reports for microbiological contamination are positive in 100% of cases."
- Seven DDRISS reported that water scarcity has interrupted the delivery of healthcare services in at least one facility. For example, the DDRISS in the Baja Verapaz department reported that services at the San Jerónimo Permanent Care Center ("Centro de atención permanente") in San Jerónimo municipality are

[178] The same report says, "The Departmental Directorate of Integrated Health Services Networks of Jalapa has 92 health services," but reports access to water in 90 facilities and no access in 3, suggesting that there are actually 93 healthcare facilities.

[179] Government of the Republic of Guatemala, Ministry of Economy, Guatemalan Commission of Standards (La Comisión Guatemalteca de Normas, COGUANOR), "Guatemalan Technical Standard: Water for human consumption (drinking water), Specifications" ("Norma Técnica Guatemalteca: Agua para consumo humano (agua potable), Especificaciones"), 2021, https://www.copresam.gob.gt/wp-content/uploads/2021/01/Norma-Tecnica-Guatemalteca-NTG29001.pdf (accessed April 8, 2025).

[180] Water quality was not monitored at all 382 facilities; the Huehuetenango DDRISS report indicated that only 208 facilities had water samples that complied with national drinking water standards.

interrupted every two or three weeks due to water system failures. Similarly, the Northwest Guatemala DDRISS, serving communities in the northwestern region of the Guatemala department, reported interruptions in maternity care at the Primero de Julio Health Center due to a water pump failure.

- Eighteen DDRISS indicated that at least one healthcare facility lacks a backup system to supply water if the primary water source fails. One health post within the Izabal DDRISS system reported that when water service is interrupted, staff from the health post must retrieve water from a river.

These intermittent or non-existent water supplies and quality issues raise concerns about the availability and quality of the healthcare services that these facilities can provide, as well as the working conditions of healthcare personnel.

Human Rights Watch visited a public health post in the community of Buena Vista, Jalapa department, that had no access to water. A nurse at the facility explained that the post served three predominantly Indigenous communities, primarily providing maternal, child, and infant care and counseling.[181]

During Human Rights Watch's visit, a sink in an exam room did not deliver any water, and the facility relied entirely on rainwater collected in an outdoor cistern. This provides limited, untreated water during the rainy season and almost no water in the dry season.

During the peak dry season, some community members buy water for the health post. The nurses also carry buckets of water to the health post from a well, the same way they get water for their own homes.[182]

[181] Human Rights Watch interview with Héctor Armando Sánchez, Jalapa, Jalapa, Guatemala, November 20, 2024.
[182] Ibid.

A nurse shows Human Rights Watch researchers that the sink at a health post in Buena Vista, Jalapa, does not provide any water. © 2024 Human Rights Watch

Without access to running water, nurses at the health post in Buena Vista, Jalapa struggle to keep the floors clean as patients track in mud and other contaminants from outside. © 2024 Human Rights Watch

Without access to water, the staff can only clean on Mondays and Fridays, and they rely primarily on alcohol to sanitize their hands and equipment. Water scarcity and a lack of sanitation infrastructure limit the services the post can provide. For example, the nurse explained that they are not able to administer urine pregnancy tests, because they cannot offer women a toilet or water to wash their hands. Staff cannot go to the bathroom all day either, the nurse said, affecting their own right to sanitation.[183]

Vicious Cycle Between Water, Diarrhea and Malnutrition

As noted above, unsafe water, insufficient water (which reduces hygiene activities), and inadequate sanitation can cause a range of illnesses, including gastrointestinal infections and diarrheal diseases.[184] These illnesses can lead to and contribute to malnutrition.[185]

The WHO published a report in 2008 stating that about half of malnutrition cases globally are linked to recurrent diarrhea or "intestinal nematode infections" (a parasitic infection) because of "unsafe water, inadequate sanitation or insufficient hygiene."[186] Other studies

---

[183] Ibid.

[184] See, for example, Merel H. van Cooten, et al., "The association between acute malnutrition and water, sanitation, and hygiene among children aged 6–59 months in rural Ethiopia," *Maternal & Child Nutrition*, vol. 15(1), 2019, https://pmc.ncbi.nlm.nih.gov/articles/PMC7232102/pdf/MCN-15-e12631.pdf (accessed March 31, 2025), p. 2 ("Studies show that poor environmental conditions, lack of availability of safe, accessible drinking water, and poor hygiene and sanitation practices are the principle causes of diarrhea among children under 5 years of age."). See also Annette Prüss-Ustün, et al., "Burden of disease from inadequate water, sanitation and hygiene in low- and middle-income settings: a retrospective analysis of data from 145 countries"; Steev Loyola, et al., "Fecal Contamination of Drinking Water Was Associated with Diarrheal Pathogen Carriage among Children Younger than 5 Years in Three Peruvian Rural Communities," *The American Journal of Tropical Medicine and Hygiene*, vol. 102(6), 2020, https://www.ajtmh.org/view/journals/tpmd/102/6/article-p1279.xml (accessed June 9, 2025), p. 1279.

[185] Specifically, WASH related illnesses can cause "undernutrition," one form of malnutrition that includes wasting (a low weight to height ratio), stunting (a low height to age ratio), and being underweight (a low weight to age ratio). WHO, "Malnutrition," webpage, [n.d.], https://www.who.int/health-topics/malnutrition#tab=tab_1 (accessed March 31, 2025); Leah Selim, "4 things you need to know about water and famine," UNICEF, September 1, 2022, https://www.unicef.org/stories/4-things-you-need-know-about-water-and-famine (accessed March 31, 2025); Richard L Guerrant et al., "Malnutrition as an enteric infectious disease with long-term effects on child development," *Nutrition Reviews*, vol. 66(9), 2008, https://doi.org/10.1111/j.1753-4887.2008.00082.x (accessed March 31, 2025); Merel H. van Cooten, et al., "The association between acute malnutrition and water, sanitation, and hygiene among children aged 6–59 months in rural Ethiopia"; Munazza Batool, et al., "Relationship of stunting with water, sanitation, and hygiene (WASH) practices among children under the age of five: a cross-sectional study in Southern Punjab, Pakistan," *BMC Public Health*, vol. 23(2153), 2023, https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-17135-z (accessed March 31, 2025).

[186] Annette Prüss-Üstün, et al., *Safer Water, Better Health: Costs, benefits and sustainability of interventions to protect and promote health*, (Geneva: WHO, 2008), https://iris.who.int/bitstream/handle/10665/43840/9789241596435_eng.pdf;jsessionid=A204BE9F3DC328BFF1DE4D9868E09FoE?sequence=1 (accessed March 31, 2025), p. 7.

have also linked inadequate access to safe water and sanitation to stunting (a low height to age ratio), an indicator of chronic malnutrition.[187]

Children with underlying malnutrition—potentially caused by inadequate access to safe and sufficient water or sanitation—are also more susceptible to infections that can cause diarrheal diseases.[188] This can create a vicious cycle where inadequate water or sanitation causes diarrhea and malnutrition, which then makes further exposure to these conditions more likely to cause more severe malnutrition and even potentially life-threatening dehydration.

According to the latest available government data (2014-2015), 46.5 percent of children under five in Guatemala are chronically malnourished,[189] a figure that rises to 58 percent among Indigenous children.[190] A more recent estimate from 2022—based on modeling by UNICEF, the WHO, and the World Bank—suggests minimal progress has been made in recent years. At 43.5 percent, Guatemala has the highest rate of stunting in Latin America

---

[187] World Bank Group, *Guatemala's Water Supply, Sanitation, and Hygiene Poverty Diagnostic: Challenges and Opportunities*, p. 59; Oliver Cumming and Sandy Cairncross, "Can water, sanitation and hygiene help eliminate stunting? Current evidence and policy implications," *Maternal & Child Nutrition*, vol. 12(S1), 2016, https://pmc.ncbi.nlm.nih.gov/articles/PMC5084825/ (accessed June 19, 2025) ("The evidence reviewed suggests that poor WASH conditions have a significant detrimental effect on child growth and development resulting from sustained exposure to enteric pathogens but also due to wider social and economic mechanisms."); Biniyam Sahiledengle, et al., "Association between water, sanitation and hygiene (WASH) and child undernutrition in Ethiopia: a hierarchical approach," *BMC Public Health*, vol. 22:1943, 2022, https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-022-14309-z (accessed March 31, 2025) ("The present study showed that children from households that defecated in the open and had unimproved latrine facilities were more likely to be stunted."); Tolesa Bekele, et al., "The effect of access to water, sanitation and handwashing facilities on child growth indicators: Evidence from the Ethiopia Demographic and Health Survey 2016," *PLOS One*, vol. 15(9), 2020, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239313 (accessed March 31, 2025) ("Children with access to improved combined sanitation with handwashing facilities had 29% lower odds of linear growth failure (stunting)[.]"); Jee Hyun Rah, et al., "Household sanitation and personal hygiene practices are associated with child stunting in rural India: a cross-sectional analysis of surveys," *BMJ Open*, vol. 5(2), 2015, https://pmc.ncbi.nlm.nih.gov/articles/PMC4330332/ (accessed March 31, 2025) ("Compared with open defecation, household access to toilet facility was associated with a 16–39% reduced odds of stunting among children aged 0–23 months, after adjusting for all potential confounders[.]"); Audrie Lin, et al., "Household Environmental Conditions Are Associated with Enteropathy and Impaired Growth in Rural Bangladesh," *American Journal of Tropical Medicine and Hygiene*, vol. 89(1), 2013, https://pmc.ncbi.nlm.nih.gov/articles/PMC3748469/ (accessed March 31, 2025).

[188] Merel H. van Cooten, et al., "The association between acute malnutrition and water, sanitation, and hygiene among children aged 6–59 months in rural Ethiopia." ("It is now well accepted that diarrhea can be both a cause and a consequence of malnutrition."); WHO, "Diarrheal disease." ("Children who die from diarrhea often suffer from underlying malnutrition, which makes them more vulnerable to diarrhea. Each diarrheal episode, in turn, makes their malnutrition even worse.").

[189] National Institute of Statistics of the Republic of Guatemala (INE), National Survey of Maternal and Child Health (ENSMI) 2014-15.

[190] Government of the Republic of Guatemala, Secretariat of Food and Nutritional Security (SESAN), Resolution No. SESAN-36-2023, March 30, 2023, https://portal.sesan.gob.gt/wp-content/uploads/2023/05/POA-SESAN-2023.pdf (accessed March 31, 2025), p. 8.

and the eighth highest rate in the world.[191] Guatemala's Ministry of Public Health and Social Assistance (MSPAS) documented over 1.2 million cases of chronic malnutrition in children under 5 years old from 2019 to 2024.[192]

Human Rights Watch visited a public health center in Casillas municipality, Santa Rosa department, dedicated to treating child malnutrition. The center serves most of Santa Rosa department and some patients from the neighboring Jalapa department. MSPAS data shows a yearly increase in registered cases of chronic child malnutrition in Santa Rosa department from 2019 to 2023, with a slight decline in 2024.[193]

The director of the health center attributed many of these cases to poor water quality, with contaminated water in surrounding communities causing diarrhea.[194] According to MSPAS data, only 77 percent of water samples from 30 systems in Casillas municipality met microbiological quality standards in 2024, with four systems failing all tests.[195] At the departmental level in Santa Rosa, just 64 percent of 1,335 samples from 246 systems complied with government standards.[196]

Malnutrition is not only linked to poor water quality, but also to water scarcity. A nurse at a health post in Buena Vista, Jalapa municipality, Jalapa department, told Human Rights Watch that the lack of regular water access in the surrounding communities undermines hygiene and contributes to malnutrition.[197]

Water scarcity also makes it harder for families to recover from malnutrition. For example, the director of a non-profit working on malnutrition said that lack of access to boiling water

---

[191] UNICEF, WHO, and World Bank Group, *Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates: key findings of the 2023 edition* (New York: UNICEF and WHO, 2023), https://data.unicef.org/resources/jme-report-2023/ (accessed March 31, 2025), p. 18.

[192] Information provided to Human Rights Watch by the MSPAS via email, on February 17, 2025 (on file with Human Rights Watch).

[193] Information provided to Human Rights Watch by the MSPAS Information Technology Directorate via email on February 17, 2025 (on file with Human Rights Watch).

[194] Human Rights Watch interview with Helcira Franco, Casillas, Santa Rosa, Guatemala, November 19, 2024.

[195] Ibid.

[196] Ibid. These samples assess the presence of coliform bacteria, including E. coli; Government drinking water quality standards are established in Ministerial Agreement No. 523-2013. Government of the Republic of Guatemala, MSPAS, Ministerial Agreement No. 523-2013, October 3, 2013, https://www.copresam.gob.gt/wp-content/uploads/2021/01/Acuerdo-Ministerial-523-2013.-Manual-de-Especificaciones-para-la-Vigilancia-y-Control-de-la-Calidad-del-Agua.pdf (accessed March 28, 2025).

[197] Human Rights Watch interview with Héctor Armando Sánchez, Jalapa, Jalapa, Guatemala, November 20, 2024.

undermines children's access to a fortified powdered beverage sometimes used to address malnutrition.[198] And, in the vicious cycle described above, water scarcity can lead to diarrheal illnesses that make it harder to recover from malnutrition.[199]

Lack of income presents another link between water and malnutrition. Having less income of course makes it harder to acquire food and water. However, in another vicious cycle of poverty, income is also harder to earn or save for people without reliable access to water, who must dedicate time to acquiring water that they might otherwise be able to spend on paid work, and who may incur costs for illnesses caused by a lack of water, like malnutrition.[200]

Human Rights Watch gathered testimonies from mothers who struggle with water access and reported having children that suffer from malnutrition:

- Isabel T., 44, a woman and mother of six in Santa María Chiquimula, spends much of her week collecting water—she makes multiple trips to a well every other day and a 2-hour round trip to a river when she needs to wash clothes—but it is not enough to meet her and her family's needs. She said that her children often remain unbathed due to water scarcity, leading to illness. Isabel works as a seamstress, earning around 150 quetzales a month (about US$20)—a figure notably lower than the government's November 2024 estimate of 690 quetzales as the average monthly cost per person for a basic food basket in rural areas.[201] With limited food and water, Isabel told Human Rights Watch that her 14-year-old son suffers from malnutrition, losing his hair but receiving no medical treatment.[202]
- Carina Alicia Cun Chechot, 31, a woman and mother of six in Santa María Chiquimula, received a tank to capture and store rainwater from CARE International five months before she spoke to Human Rights Watch. Since then, her family has relied primarily on rainwater to drink, cook, bathe, and clean. When the rainwater runs out, which has happened three times in five months, they get water from a river. Carina said that prior to receiving the tank, her children often experienced

[198] Human Rights Watch online interview with Sofía Letona, director of Antigua al Rescate, October 3, 2024.

[199] WHO, "Diarrheal disease."

[200] Rachel Nugent et al., "Economic effects of the double burden of malnutrition," *The Lancet*, vol. 395: 10218, January 11, 2020, https://pubmed.ncbi.nlm.nih.gov/31852601/ (accessed June 19, 2025).

[201] INE, "Basic Food Basket November 2024" ("Canasta Básica Alimentaria Noviembre 2024"), December 2024, https://www.ine.gob.gt/sistema/uploads/2024/12/12/20241212113811hk9xzLjtlLylqA5fFoFY3udjjRUQlTkq.pdf (accessed June 19, 2025), p. 6.

[202] Human Rights Watch interview with Isabel T. (pseudonym), Santa María Chiquimula, Totonicapán, November 21, 2024.

stomach problems. She said that she did not take her children to the health post when this happened, because it required either walking three hours or paying for a ride, which she could not afford. Her 2-year-old son, weighing just 19 pounds, is malnourished. A health post provided crackers and vitamins, but he has not yet recovered.[203]

The Right to Food

Water access and food access are closely linked. The risk of malnutrition is obviously higher when food is scarce, threatening the right to health, but water scarcity may also threaten the right to food itself. Everyone has the right to be free from hunger and should be able to physically and economically access enough food to meet dietary and cultural needs.[204]

An analysis of 2020 Gallup World Poll data by the Food and Agriculture Organization and other UN agencies found that Guatemalans experiencing moderate-to-severe water insecurity have 2.5 times the odds of experiencing moderate or severe food insecurity, after adjusting for income.[205]

According to Human Rights Watch analysis of 2023 ENCOVI data, about 38 percent of all Guatemalans live in a household with potential food insecurity.[206] Households that either did not have an indoor water connection or did not have a sewage connection were about 45 percent more likely to have food insecurity than those with one of those connections.[207] Households without either type of connection were 70 percent more likely to be food insecure than households with both connections.[208]

---

[203] Human Rights Watch interview with Carina Alicia Cun Chechot, Santa María Chiquimula, Totonicapán, November 23, 2024.

[204] CESCR, General Comment No. 12, The Right to Adequate Food (art. 11 of the Covenant), UN Doc. E/C.12/1999/5 (1999), https://docs.un.org/en/E/C.12/1999/5 (accessed June 23, 2025), para. 8.

[205] FAO, International Fund for Agricultural Development (IFAD), PAHO, UNICEF and World Food Programme (WFP), *Latin America and the Caribbean Regional Overview of Food Security and Nutrition 2024 – Building resilience to climate variability and extremes for food security and nutrition*, (Santiago: FAO, IFAD, PAHO, UNICEF and WFP, 2025), https://openknowledge.fao.org/items/c500cc9c-d1ab-4498-8c45-ca484fc12da3 (accessed March 31, 2025), p. 95.

[206] Human Rights Watch analysis of Guatemala's 2023 ENCOVI survey data. This includes households that answered "yes" to one or both of the following questions: "Did anyone under 18 years of age in your home eat less than they should?" and "Did you or any adult feel hungry but didn't eat?"

[207] Ibid.

[208] Ibid. Forty-four percent of households without an indoor water connection were potentially food insecure versus 35 percent of households with a connection. Forty-two percent of households without a sewage connection were potentially food insecure versus 34 percent of households with a connection.

An official who monitors the department of Santa Rosa for the national Secretariat of Food and Nutritional Security told Human Rights Watch that water scarcity impedes families' ability to produce food at home, contributing to food insecurity.[209] A few interviewees in Totonicapán and Jalapa told Human Rights Watch that water scarcity limits their ability to grow food. "Anything can be planted in your house, but we can't due to lack of water," explained one woman in Buena Vista, Jalapa.[210]

The Rights of Children

A lack of water and sanitation access negatively impacts the wellbeing of children, impeding their right to play and rest, impairing their development, and endangering their health and lives.[211]

Physical and Mental Health

As described above, inadequate water and sanitation contributes to and makes it more difficult for children to recover from chronic malnutrition. However, children that are not chronically malnourished may still suffer from water-borne diseases or illnesses contracted because of limited hygiene due to water scarcity. As noted above, many women in Santa María Chiquimula municipality told Human Rights Watch that their children recurrently get sick with diarrhea, stomachaches, vomiting, or fevers after drinking water.

Diarrheal disease is a leading cause of death among children under age 5 worldwide.[212] According to 2021 estimates from the UN Inter-agency Group for Child Mortality Estimation, Guatemala has the highest under-five mortality rate in Central America, with 22.85 deaths

[209] Human Rights Watch interview with an official from the Secretariat of Food and Nutritional Security (SESAN), Casillas, Santa Rosa, Guatemala, November 19, 2024.

[210] Human Rights Watch interview with Alma S., Jalapa, Jalapa, Guatemala, November 20, 2024.

[211] See Convention on the Rights of the Child (CRC), adopted November 20, 1989, G.A. Res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force September 2, 1990, arts. 6, 24, and 31. Guatemala ratified the CRC on June 6, 1990.

[212] WHO, "Diarrheal disease."

per 1,000 live births annually in 2021.[213] Diarrhea accounted for nearly 8 percent of these deaths, which is a higher share than it is for any neighboring country.[214]

Children are also sometimes responsible for collecting and carrying water for themselves and their families, which is time-consuming and exhausting.[215]

Thirty women in Santa María Chiquimula municipality told Human Rights Watch that their children accompany or used to accompany them to collect water at least some of the time, either so that the children were not left unsupervised or so that they could carry more water. Among them, Irma M., a 29-year-old woman and single mother of a 10-year-old, a 7-year-old, and a 2-year-old, said that her children accompany her on a two-hour round trip to get water every day. Irma said her children "suffer," but they go with her because she cannot do it alone. "Sometimes I despair to see them walking, carrying water," she said.[216]

Imelda Azucena Carpu, a 16-year-old girl in the Santa María Chiquimula municipality, described to Human Rights Watch how collecting water takes her almost three hours, exhausting her. "When I go to fetch water, I'm already tired when I get home. I don't want [to do] anything, because I'm already tired," she said.[217]

Access to Education

Children's access to education is also negatively impacted by a lack of access to water and sanitation services. In its General Comment 13, the UN Committee on Economic, Social and Cultural Rights noted that the right to education requires the availability of "functioning

---

[213] UN Inter-agency Group for Child Mortality Estimation (UN IGME), "Under-five mortality rate – Total," webpage, [n.d.], https://childmortality.org/all-cause-mortality/data?refArea=GTM (accessed March 31, 2025).

[214] While diarrhea is responsible for nearly 8 percent of deaths of children under the age of 5 in Guatemala, it only accounts for the following percentages of the under-five mortality rate in the rest of the region: 4 percent in Honduras; 5 percent in Panama; 4 percent in Nicaragua; 2 percent in El Salvador; 1 percent in Costa Rica; and 2 percent in Belize (all numbers rounded to the nearest whole number). UN IGME, "Rate in World and Under 5 Years and Total," webpage, [n.d.], https://childmortality.org/causes-of-death/data/compare?refArea=GTM (accessed March 31, 2025).

[215] See Government of the Republic of Guatemala, MSPAS, National Policy for the Drinking Water and Sanitation Sector, p. 9; See also UNICEF Guatemala, post to Facebook, April 14, 2025, https://www.facebook.com/unicefguatemala/videos/-el-agua-no-es-un-privilegio-es-un-derechoen-muchas-comunidades-ni%C3%B1as-y-ni%C3%B1os-a%C3%BA/2080429509099366/ (accessed June 23, 2025).

[216] Human Rights Watch interview with Irma M. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

[217] Human Rights Watch interview with Imelda Azucena Carpu, Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

educational institutions[,]" which must typically provide safe drinking water and sanitation facilities.[218]

School attendance or participation may be impeded by several factors related to water and sanitation access, including time spent by children collecting water or recovering from water-related or sanitation-related illnesses.[219]

One woman from Santa María Chiquimula told Human Rights Watch that before she received a donated tank to capture and store rainwater, her school-aged children used to frequently miss school to help her collect water.[220] Another woman in Santa María Chiquimula said that one of her four children does not attend school in part because of cost, but also because it allows the child to instead spend time helping her collect water and care for the house.[221]

Access to education is also undermined by inadequate water and sanitation infrastructure in schools, including a lack of functional toilets, handwashing stations, and clean drinking water, all of which may dissuade attendance.[222]

According to WHO and UNICEF Joint Monitoring Programme (JMP) estimates, as of 2023, 30 percent of schools in Guatemala had no water service and only 72 percent of schools had access to "basic sanitation services."[223]

---

[218] CESCR, General Comment No. 13, The Right to Education (art. 13 of the Covenant), UN Doc. E/C.12/1999/10 (1999), https://undocs.org/%20E/C.12/1999/10 (accessed May 9, 2025), para. 6.

[219] See Government of the Republic of Guatemala, MSPAS, National Policy for the Drinking Water and Sanitation Sector, p. 9. See also FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us*, p. 128.

[220] Human Rights Watch interview with Ana P. (pseudonym), Santa María Chiquimula, Totonicapán, November 23, 2024.

[221] Human Rights Watch interview with Marta C. (pseudonym), Santa María Chiquimula, Totonicapán, November 22, 2024.

[222] FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us,* p. 128; Government of the Republic of Guatemala, MSPAS, National Policy for the Drinking Water and Sanitation Sector, p. 9.

[223] WHO and UNICEF, Joint Monitoring Programme (JMP), "Schools," webpage, [n.d.], https://washdata.org/data/school#!/dashboard/new (accessed March 31, 2025). The JMP defines an "improved drinking water source" in schools as those "designed to protect against contamination and include piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water." Schools without an improved water source are classified as having "no service." "Basic sanitation services" are defined as "improved sanitation facilities which are single-sex and usable at the time of the survey or questionnaire[.]" "Improved sanitation facilities" are facilities "designed to hygienically separate excreta from human contact and include flush/pour-flush toilets, ventilated improved pit latrines, composting toilets and pit latrines with a slab or platform." WHO and UNICEF, JMP, "Methods for WASH in Schools," webpage, [n.d.], https://washdata.org/monitoring/wash-schools/methods-wash-schools (accessed April 14, 2025).

According to 2024 data from the Ministry of Education, nearly 15 percent of public schools in Guatemala do not have any water supply, 60 percent do not have drains, 28 percent need drain repairs, nearly 59 percent need bathroom repairs, and 29 percent need water pipe repairs.[224]

These conditions disproportionately affect students who need access to private, sanitary facilities for menstrual hygiene management.[225]

The Right to Work and Economic Impacts for Women and Households

Human Rights Watch documented how inadequate access to water and sanitation impedes the enjoyment of the right to work and takes an economic toll on women and their families. Under international human rights law, everyone has the right to earn a living through freely chosen work.[226]

Several women interviewed reported that the time and effort required to collect and manage water significantly limits their ability to pursue paid work, reducing household income and contributing to cycles of poverty. Among them:

- Andelina Uz Deseng, 48, who earns around 150 quetzales a week (about $20) selling produce and working as a field laborer when she can find work in Santa María Chiquimula, said she loses potential income due to water-related tasks. Without access to running water at home, Andelina must make a two-hour round trip to collect water from a well every couple of days. She also spends time caring for her 7-year-old son when he gets sick with stomach pains after drinking well water—roughly half of each month. These constraints have created other hardships, including inadequate nutrition, with Andelina often limited to one meal

[224] Government of the Republic of Guatemala, Ministry of Education, "Transparency Portal for the Remodeling of Public Sector Educational Centers" ("Portal de Transparencia en el Remozamiento de Centros Educativos del Sector Oficial"), webpage, [n.d.], https://remozamientos.mineduc.gob.gt/ (accessed March 31, 2025).

[225] FUNCAGUA, *Report on the State of Water in the Metropolitan Region of Guatemala 2022: Water unites us*, p. 128. See also UNICEF and WHO, *Progress on Drinking Water, Sanitation and Hygiene in Schools 2015-2023: Special focus on menstrual health* (New York: UNICEF and WHO, 2024), https://cdn.who.int/media/docs/default-source/wash-documents/jmp-wash-in-schools240525.pdf?sfvrsn=1568505b_3&download=true (accessed March 31, 2025), pp. 64-65.

[226] International Covenant on Economic, Social and Cultural Rights (ICESCR), adopted December 16, 1966, G.A. Res. 2200A (XXI), 21 U.N. GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force January 3, 1976. Guatemala ratified the Covenant on March 30, 1988, art. 6.

a day, and barriers to her son's education, as she cannot afford the required uniform and books, despite free primary enrollment.[227]

- Juana Esther Soc Carrillo, 28, is responsible for water provision for herself and her parents. She makes two-hour round trips to a well every other day plus weekly four-hour journeys for bathing and laundry. During dry periods when wells fail, her water collection time doubles as she relies exclusively on the river. Juana said that these responsibilities prevent her from working.[228]
- Gloria P., 41, a seamstress earning approximately 100 quetzales (about $13) a week, with her 18-year-old daughter, must make multiple two-hour water collection trips a day due to limited container capacity (two to three bottles per journey). If she could spend less time collecting water, she said she would sew more to earn additional income.[229]

[227] Human Rights Watch interview with Andelina Uz Deseng, Santa María Chiquimula, Totonicapán, Guatemala, November 21, 2024.

[228] Human Rights Watch interview with Juana Esther Soc Carrillo, Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

[229] Human Rights Watch interview with Gloria P. (pseudonym), Santa María Chiquimula, Totonicapán, Guatemala, November 22, 2024.

IV. Recommendations

To the Administration of President Bernardo Arévalo

- In line with article 127 of the Constitution of Guatemala, draft and introduce a water law proposal to Congress that at a minimum:
    - Recognizes the human right to water and obliges the government to work towards its progressive realization, including taking steps to guarantee its availability and safety for human consumption and other personal and domestic uses.
    - Recognizes the human right to sanitation, which is critical to the enjoyment of health and dignity and to the preservation and quality of water resources.
    - Recognizes the right to a healthy environment.
    - Establishes procedural and substantive protections for the rights of Indigenous communities, ensuring their meaningful involvement in water governance, including by:
        - Taking appropriate steps to recognize, protect, and support Indigenous water resource management and cultural practices, such as their cosmovisions of water.
        - Guaranteeing participation and consent of Indigenous Peoples in water-related decisions that may impact them, in accordance with international law.
        - Establishing technical support to Indigenous communities to facilitate their active and meaningful participation in the elaboration of water-related regulations and policies.
    - Establishes a regulatory and financing system that aligns with Guatemala's obligation to take steps to the maximum of its available resources to guarantee the availability, continuity, accessibility, acceptability, safety, and sustainability of water for personal and domestic use.
    - Establishes a clear sanctions regime for individuals and entities that contaminate water resources, divert rivers, threaten water availability, or otherwise violate water rights; the new regime should clearly define unlawful conduct in ways that afford adequate protection to water rights and water resources, complementing and strengthening the current legal framework.

    - Strengthens institutional capacity to regularly monitor surface and groundwater availability and quality, facilitating early identification of contamination, diversion, or other significant changes to water resources.
    - Clarifies water-related responsibilities among government agencies to improve coordination and efficiency in water governance.
    - Considers creating an autonomous national water authority to facilitate integrated water management in Guatemala, as some other countries in the region have done.
    - Ensures that water use restrictions do not harm subsistence farming or community-led water management.
    - Establishes a financial mechanism to facilitate reparations for communities affected by water contamination or unlawful water diversion.
- Ensure that the contents of a proposed water law are responsive to the demands of communities that disproportionately suffer the consequences of inadequate water management and distribution, including Indigenous communities.
- Provide technical and other assistance to municipal governments to strengthen their capacity to administer water and sanitation services, focusing on improving efficiency in resource allocation and spending, with enhanced oversight mechanisms to ensure transparency and accountability in the use of public funds.
- Work with Congress to ratify the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (the "Escazú Agreement"), as a regional benchmark for protecting human rights defenders and promoting access to information, participation, and access to justice in environmental matters, including water governance.

To the Congress of the Republic of Guatemala

- In line with article 127 of the Constitution of Guatemala, approve a general water law that aligns with the recommendations listed above, including, at a minimum, recognizing water and sanitation as human rights, establishing a regulatory and financing system to guarantee access to water for personal and domestic use, and creating a sanctions regime to address widespread water contamination.
- Consider opportunities to adopt progressive taxation measures to increase public revenues for the establishment and improvement of drinking water and wastewater

treatment systems, helping to ensure universal access to water and sanitation services in ways that do not unduly burden those with limited financial means.
- To the maximum extent of available resources, allocate an adequate budget to the institutions responsible for implementing provisions of a general water law, establishing robust transparency and accountability mechanisms to ensure efficient use of allocated resources.
- Create an independent oversight body with technical capacity to monitor compliance with water legislation, evaluate the effectiveness of water and sanitation programs, and provide recommendations for improving service delivery.
- Approve ratification of the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (the "Escazú Agreement").

To the Ministry of Environment and Natural Resources

- Implement proactive strategies to prevent water contamination, including through stricter environmental regulations and monitoring, and by supporting the installation and operation of wastewater treatment infrastructure in accordance with mandatory quality standards in every municipality.
- Conduct a thorough assessment of how environmental and agrochemical pollutants affect drinking water quality, working with the Ministry of Public Health and Social Assistance to identify specific health risks to communities, and disseminating and alerting the population about this information.
- Develop a time-bound plan to address contamination in bodies of water, prioritizing water sources in communities that disproportionately rely on rivers and lakes for personal consumption and domestic use.
- Facilitate systematic monitoring of water consumption and diversion by commercial industries, including by evaluating water consumption and diversion when granting or renewing environmental licenses, and make this information publicly available.

To the Ministry of Public Health and Social Assistance

- Systematically monitor:

    - The establishment and operation of drinking water treatment plants and wastewater treatment plants, and regularly publish the data in a centralized, accessible manner.
    - Water quality, including suitability for consumption, across water systems, and evaluate the impact of water service interruptions on water quality.
    - The availability of water and sanitation services in healthcare facilities, with regular, centralized, and accessible data publication.
- Maintain a consistent supply of basic cleaning and disinfection materials—particularly for handwashing and waste management—in all healthcare facilities.
- Develop and implement a plan to ensure all healthcare facilities have functional and sustainable water and sanitation facilities, collaborating with municipal governments for long-term infrastructure improvements.
- Implement an integrated approach to address chronic malnutrition that recognizes the critical link between water, sanitation, and nutritional outcomes, prioritizing communities with high malnutrition rates.

To the Ministry of Social Development

- Conduct proactive outreach to Municipal Development Councils, Community Development Councils, and local water committees to provide technical assistance for proposal development and access to funding for water and sanitation projects, especially in municipalities with the lowest rates of access to water and sanitation services.
- Develop transparent criteria for prioritizing investment in communities with the highest water insecurity or inadequate water and sanitation infrastructure.
- Provide appropriate support to Indigenous communities through their legitimate representatives that are executing effective water management, conservation, and groundwater recharge, to facilitate ongoing management by these communities and replication of their effective strategies.

To the Ministry of Education

- Develop and implement a plan to ensure that all schools have functional and sustainable water and sanitation facilities, collaborating with municipal governments for long-term infrastructure improvements.

- Consistently monitor the availability of water and sanitation services in schools, with regular, centralized, and accessible data publication.
- Regularly assess the impact of inadequate access to water and sanitation in schools and homes on educational outcomes, including attendance, student engagement, and academic performance.

To the National Institute of Seismology, Volcanology, Meteorology and Hydrology

- Coordinate with the Ministry of Environment and Natural Resources, the Attorney General's Office, the Public Prosecutor's Office, and the Human Rights Ombudsman's Office to systematically share water monitoring data that strengthens evidence-based enforcement of protections against water contamination and diversion.
- Expand the national water quality monitoring network to include previously unmonitored watersheds and aquifers, prioritizing areas with reported contamination incidents and high population vulnerability.
- Implement standardized sampling protocols and advanced analytical methods for detecting emerging contaminants, industrial pollutants, and agricultural runoff, publishing comprehensive results in accessible formats for both public awareness and legal proceedings.

To the National Institute of Statistics

- Collect regular information to identify and update the database on the level of water consumption by sector.
- When analyzing results of surveys that collect data on gender and ethnic identity of respondents, disaggregate key indicators by gender and ethnicity so that the public may readily see differentiated outcomes.

To Municipal Governments

- Implement Government Agreement 236-2006 and its reforms, carrying out studies to evaluate the characteristics of wastewater and operating wastewater treatment systems to bring wastewater and sludge into compliance with specified standards prior to discharging them into the environment.

- Implement Government Agreement 164-2021, preparing plans—in coordination with the Ministry of Environment and Natural Resources—for managing solid waste to prevent degradation of environmental systems (including water systems), and construct and operate treatment plants to carry out these plans.
- In line with article 68 of the Municipal Code and article 79 of the Health Code, construct and maintain comprehensive water and sanitation infrastructure, including drinking water treatment plants, extensive pipelines delivering drinking water to all homes, wastewater treatment plants meeting national environmental standards, including those laid out in Government Agreement 236-2006, and drainage systems connected to all homes.
- Ensure that the construction of infrastructure projects complies with national and international legal obligations, including the obligation to consult Indigenous Peoples before undertaking projects that may affect them, guaranteeing their participation and free, prior, and informed consent.
- Provide immediate support to communities affected by untreated wastewater, mapping downstream impacts and distributing point-of-use treatment systems.
- Regularly monitor drinking water quality, water and sanitation service provision, and water and sanitation infrastructure.
- Regulate the provision of water and sanitation services by private companies, imposing minimum standards that protect the rights of residents and ensure accountability for quality service delivery. To that end:
    - Consult affected communities prior to granting contracts to private companies to provide water and sanitation services and ensure transparency throughout procurement processes.
    - Ensure that there are accessible and transparent mechanisms for residents to hold service providers accountable for poor delivery and quality of water and sanitation services.

To the UN Special Rapporteur on the human rights to safe drinking water and sanitation

- Request permission to undertake a country visit to Guatemala to evaluate the situation of water and sanitation, publishing a report with findings and recommendations to the government.

To the UN Special Rapporteur on the right to adequate housing

- Assess the impact of inadequate water and sanitation services on the right to adequate housing in Guatemala in the upcoming visit to the country, scheduled for July 2025.

To international funders, including donor governments and development agencies

- Provide financial support and technical assistance to the Guatemalan government agency charged with overseeing implementation of a general water law, to facilitate:
    - The construction and maintenance of drinking water and sanitation infrastructure, including drinking water treatment plants, pipes that deliver drinking water to all communities, wastewater treatment plants, and drainage systems;
    - Regular monitoring of water and sanitation services;
    - Long-term sustainable management of these services; and
    - A national effort to tackle existing contamination of bodies of water.

Acknowledgments

Human Rights Watch would like to thank the members of the Indigenous communities that shared their stories, knowledge, and hopes with us.

Human Rights Watch would also like to thank Quelvin Jiménez and Gerardo Palacios, without whose accompaniment, expertise, and generosity much of the research for this report would not have been possible.

This report was researched and written by Reagan Williams, a fellow in the Americas Division. Another researcher in the Americas Division, whose name is withheld for security reasons, contributed research, writing, and editing. Brian Root, senior quantitative analyst, conducted and wrote the quantitative analysis sections. Lena Simet, senior researcher and advocate in the Economic Justice and Rights Division, also contributed research.

This report was reviewed and edited by Juan Pappier, Americas deputy director; Juanita Goebertus, Americas director; Joseph Saunders, deputy program director; and Chris Albin-Lackey, senior legal advisor. Specialist reviews were provided by Matt McConnell, researcher, Lena Simet, senior researcher and advocate, and Sylvain Aubry, deputy director, all in the Economic Justice and Rights Division; Cristina Quijano Carrasco, researcher in the Women's Rights Division; Luciana Téllez-Chávez, senior researcher in the Environment and Human Rights Division; and Margaret Wurth, senior researcher in the Children's Rights Division. Elin Martinez, senior researcher, and Bede Sheppard, deputy director, both in the Children's Rights Division, reviewed parts of the report dealing with the right to education. Aruna Kashyap, associate director in the Economic Justice and Rights Division, provided corporate accountability review.

Visuals for the report were designed and prepared by Brian Root, senior quantitative analyst, and Laura Navarro Soler, information designer.

Delphine Starr, Americas editorial officer, Johan Romero, Americas senior associate, Travis Carr, publications manager, and José Martínez, senior administration coordinator, provided editorial and production assistance for the report.

Human Rights Watch would like to thank the following individuals for sharing their expertise: Juan Jose Cifuentes Lopez, Homero Escobar, and Edgar Fajardo Oliva, UNICEF; Silvel Elías, Universidad de San Carlos de Guatemala; Héctor Espinoza, Fundación para la Conservación del Agua de la Región Metropolitana de Guatemala (FUNCAGUA); Christine Marie George and Kelly Endres, Johns Hopkins University; Amanda Klasing, Amnesty International USA; Sara Lodi, OHCHR Economic, Social, Cultural and Environmental Rights Unit, Guatemala; Patricia Meléndez, Pastoral de la Tierra San Marcos; Jeanette Noack and Lucía Xiloj, Alianza de Derecho Ambiental y Agua; Gabriel Woltke, Quorum.gt.

Human Rights Watch is also extremely grateful to the following organizations and coalitions for sharing their time and expertise: Amigos por el Agua; Antigua al Rescate; Asociación de Mujeres del Altiplano; CARE Guatemala; CONGCOOP; End Water Poverty; Maíz de Vida; Maya Health Alliance; Oxfam Guatemala; Red Nacional por la Defensa de la Soberanía Alimentaria en Guatemala; WASH United; Water 4 Life.

“Without Water, We Are Nothing”

The Urgent Need for a Water Law in Guatemala

Millions of people in Guatemala lack reliable access to safe and continuous water and sanitation services despite the country having more freshwater per capita than the global average. Poor resource governance and inadequate water and sanitation infrastructure have led to a situation of drinking water scarcity and contamination in communities across the country.

“Without Water, We Are Nothing” documents the human rights toll of the widespread lack of access to safe water and sanitation in Guatemala, including the extreme measures people must take to collect, ration, and preserve water. It shows how Indigenous people are disproportionately affected.

Resolving this crisis requires comprehensive water governance, including coordinated resource management efforts, effective sanctioning of contamination, regulation of water use, and investments in water and sanitation infrastructure.

Guatemala’s current administration has committed to introducing a national water law to Congress in 2025, a notable step toward ensuring effective water governance. The government and Congress should enact a legal framework that is responsive to the needs of communities most affected by the water crisis and that creates a regulatory system that effectively guarantees the human rights to water and sanitation.

(above) María Candelaria Pú Carrillo and her children collect water together, Santa María Chiquimula municipality, Totonicapán department.

(cover) María Magdalena Cac Pú transports water on her back while carrying her youngest son in her arms, Santa María Chiquimula municipality, Totonicapán department.