FIOCRUZ | Brasília

Cadernos Ibero-Americanos de Direito Sanitário
Cuadernos Iberoamericanos de Derecho Sanitario

ISSN: 2358-1824



Article

Inseparability between water and sanitation: perceptions of human rights violations among quilombolas

Indissociabilidade entre água e saneamento: as percepções de violações dos direitos humanos dentre quilombolas

Inseparabilidad entre agua y saneamiento: percepciones de violaciones de derechos humanos entre quilombolas

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Abstract

Objective: to identify the interrelationship between access to water and sanitation services in the Quilombola, fishing, and floodplain community of Croatá, located in the municipality of Januária, Minas Gerais, Brazil, and the realization of the human right to sanitation, considering associated vulnerabilities. **Methods:** this qualitative study was conducted through fieldwork in a Quilombola community. Data were collected using participant observation, household surveys, and semi-structured interviews with community members to explore their experiences and perceptions regarding water access and sanitation conditions. **Results:** nine Quilombola residents and community leaders with diverse age groups, genders, and occupations were interviewed. The findings reveal difficulties in accessing safe water and limitations related to toilet facilities and sanitation services, despite the community being located on the banks of the São Francisco River. These conditions highlight persistent inequalities in access to sanitation among ethnoracial groups and expose residents to socio-environmental vulnerabilities and health risks. **Conclusion:** access to water and sanitation services is intrinsically interconnected in ensuring the human right to sanitation. In the context analyzed, the precariousness of these services reinforces ethnoracial inequalities and underscores the need for intersectoral public policies that are responsive to the territorial and cultural specificities of traditional communities.

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Keywords: Quilombola Communities; Sanitation; Human Rights.

Resumo

Objetivo: identificar as indissociabilidades entre o acesso à água e ao esgotamento sanitário na comunidade quilombola, pesqueira e vazanteira de Croatá, localizada no município de Januária/MG, e a garantia do direito humano ao saneamento básico, a partir de possíveis vulnerabilidades associadas. **Metodologia:** trata-se de um estudo qualitativo com a realização de trabalho de campo em uma comunidade quilombola. A coleta de dados se deu por meio de observação participante, inquérito domiciliar e entrevistas semiestruturadas com moradores, buscando compreender as experiências e percepções relacionadas ao uso da água e às condições de esgotamento sanitário. **Resultados:** foram entrevistados nove quilombolas e lideranças da comunidade, com perfil etário, de gênero e profissional diversificados. Os achados evidenciam dificuldades de acesso à água de qualidade e limitações relacionadas ao uso de banheiros e ao esgotamento sanitário, mesmo em uma comunidade situada às margens do Rio São Francisco. Tais condições revelam a persistência de desigualdades no acesso ao saneamento entre grupos étnico-raciais e expõem os moradores a situações de vulnerabilidade socioambiental e riscos à saúde. **Conclusão:** conclui-se que o acesso à água e ao esgotamento sanitário apresenta caráter indissociável na garantia do direito humano ao saneamento básico. No contexto analisado, a precariedade desses serviços reforça desigualdades étnico-raciais e demanda políticas públicas intersetoriais sensíveis às especificidades territoriais e culturais de comunidades tradicionais.
Palavras-chave: Quilombolas; Saneamento; Direitos Humanos.

Resumen

Objetivo: identificar la interrelación entre el acceso al agua y al saneamiento en la comunidad quilombola, pesquera y ribereña de Croatá, ubicada en el municipio de Januária, estado de Minas Gerais, Brasil, y la garantía del derecho humano al saneamiento, considerando las posibles vulnerabilidades asociadas. **Metodología:** se realizó un estudio cualitativo mediante trabajo de campo en una comunidad quilombola. La recolección de datos se llevó a cabo a través de observación participante, encuesta domiciliaria y entrevistas semiestructuradas con los habitantes, con el fin de comprender sus experiencias y percepciones sobre el acceso al agua y las condiciones de saneamiento. **Resultados:** se entrevistó a nueve personas quilombolas y líderes comunitarios de diferentes grupos etarios, géneros y ocupaciones. Los hallazgos evidencian dificultades para acceder a agua de calidad y limitaciones relacionadas con el uso de baños y los servicios de saneamiento, aun cuando la comunidad se encuentra ubicada a orillas del río São Francisco. Estas condiciones ponen de manifiesto la persistencia de desigualdades en el acceso al saneamiento entre los grupos étnico-raciales y exponen a los habitantes a situaciones de vulnerabilidad socioambiental y riesgos para la salud. **Conclusión:** se concluye que el acceso al agua y al saneamiento constituye un componente indisociable para garantizar el derecho humano al saneamiento. En el contexto analizado, la precariedad de estos servicios refuerza las desigualdades étnico-raciales y evidencia la necesidad de políticas públicas intersectoriales sensibles a las especificidades territoriales y culturales de las comunidades tradicionales.
Palabras clave: Comunidades Quilombolas; Saneamiento; Derechos Humanos.

Introduction

Access to drinking water, sanitation, and the conditions necessary for adequate hygiene is widely recognized as a fundamental prerequisite for promoting individual health, regardless of one's historical and geographical context[1]. Resolution A/64/262, adopted in 2010 by the United Nations General Assem, established the understanding that access to water and sanitation are basic human

rights for all peoples, regardless of their social and economic conditions, in quantities and of a quality sufficient to meet their basic needs[2].

The legal framework for the human right to water and sanitation is United Nations Resolution 64/292[3,4,5] of 2010, which recognizes this as an inherent right of all social groups, serving as a goal to be developed and achieved by the member states of the General Assembly, with a view to improving the quality of life and health of the world's population. It is worth noting that such access must be: available, accessible, safe, acceptable, and financially affordable[5].

When addressing water, sanitation, and hygiene in a quilombola community, the territorial dimension becomes central, since the collection of water resources and autonomy in their management presuppose free movement. This understanding serves as the starting point for analyzing basic sanitation in these contexts, given that the provision of these services is intrinsically linked to the recognition of identity and collective sovereignty in territorial and environmental management. Lack of access — or limited access — to a previously recognized right may reveal the existence of discrimination and exclusion rooted in racial factors. The concept of environmental racism can aid in this understanding, as it exposes racialized populations to various vulnerabilities. These aspects range from the historical context of the formation of Quilombola communities - and their consequent exclusion from basic rights - to the lack of access to territory, which is a prerequisite for the socioeconomic reproduction and well-being of these populations.

Furthermore, another key point is the cultural dimension, particularly regarding water, sewage, and hygiene practices, which warrants a more nuanced perspective, given that these issues cannot be addressed in a one-size-fits-all manner.

It is within this context that the present analysis focuses on the Croatá quilombola, fishing, and floodplain community, located in Januária, Minas Gerais. The community is experiencing a territorial conflict with a local landowner, who has restricted access to areas essential for their subsistence - such as natural lagoons - and limited the free movement of residents. These restrictions cause significant disruptions to their ways of life, curtailing their use of the territory they have traditionally occupied.

Thus, the objective of this article is to identify the inseparable links between access to water and sanitation in the Quilombola, fishing, and floodplain community of Croatá, located in the municipality of Januária (MG), and the guarantee of the human right to basic sanitation, based on potential associated vulnerabilities.

Methodology

This is a qualitative study conducted in collaboration with members of the Croatá Quilombola community, located in the rural area of the municipality of Januária, in the northern region of Minas Gerais. The community is located near the municipal seat, not far from the official water supply network; it comprises 32 families and has a community association that represents it. Of these, 26 families live near the São Francisco River, and six live in the recently reclaimed portion of the territory known as Retiro.

The community's main economic activity is artisanal fishing, which is carried out regularly on the São Francisco River and is properly registered. A significant portion of the community also identifies as farmers, but this activity has been increasingly affected by periods of drought, when they are unable to plant during what is known locally as the "vazante".

The community has been certified by the Fundação Cultural Palmares since 2016 as a remnant of a quilombo, and has been undergoing a land regularization process with the National Institute of Colonization and Agrarian Reform (INCRA) since that same year. This situation stems from intensifying territorial conflicts with a farmer from Belo Horizonte, who claims to have acquired the community's lands during the "vazante" period - a time when the community relocates to dry areas until the waters return to the riverbed.

This research was conducted throughout 2023 through field visits and meetings with the community, in order to present its objectives and obtain consent to carry it out. To this end, three guiding methods were adopted: a) participant observation of the daily lives of community leaders and members; b) semi-structured interviews conducted with nine Quilombola residents of the community; and c) a survey on bathrooms.

The use of participant observation as part of the methodology allowed for greater proximity to community members, particularly through integration into and participation in daily activities, in order to examine their dynamics, relationships, and daily routines. Through informal conversations held in the kitchen or in backyards, it was possible to capture the subjectivity present in a given territory[6], in order to examine "the system of symbols that gives meaning to what people think and do"[7].

It is worth noting that, during these observations, we noticed the different levels of access to water in each household, which highlighted the need to better understand the issues of sanitation and water supply in the community. All relevant issues were recorded in a field journal. Consequently, we decided to conduct interviews with some residents in order to elucidate specific details that could not be captured through observations alone.

The interview guide developed for the interviews took into account essential aspects of public health, enabling the creation of a tool that allowed interviewees to raise issues specific to their own experiences and life stories[8], in addition to important principles of qualitative research from a social perspective[9]. The themes were defined based on fieldwork and the literature on sanitation as a human right[1,4,8,9], as well as the criteria adopted by the Joint Monitoring Program for Water Supply and Sanitation (JMP): "safely managed"; "basic service"; "limited service"; "unimproved source"; and "surface water," which serve as parameters for assessing the effectiveness of this right[10].

The selection of participants was based on two criteria: active participation in the reoccupation process and nomination by community leaders. Nine residents, including both men and women, aged between 35 and 80, were interviewed individually in their homes. The participants were informed of the research objectives and signed the Informed Consent Form (TCLE), which had been previously approved by the Research Ethics Committee (No. 67346523.80000.5091). The interviews were recorded and subsequently transcribed for analysis, guided by the content analysis technique[11].

The survey on bathrooms consisted of a short questionnaire containing questions about the conditions of the families' bathrooms, which was conducted in partnership with the Community Association and administered to Quilombola families residing in the territory.

The Joint Monitoring Programme (WHO/UNICEF) Monitoring Scale is the primary international methodology for assessing the population's access to safe drinking water in the context of Sustainable Development Goal 6 (SDG 6): Water and Sanitation. The scale classifies households into five levels of access, from the most precarious to the most adequate, serving as an important parameter for assessing the quality of access to sanitation services. Among the levels established by

the scale are: a) safely managed service; b) basic service; c) limited service; d) unimproved source; and e) surface water.

To analyze conditions of access to water, the Joint Monitoring Programme (WHO/UNICEF) Monitoring Scale is used as a reference, as it is the primary international methodology for assessing the population's access to safe drinking water in the context of SDG 6: "Water and Sanitation".

Results and Discussion

The analysis of the results was aimed at comparing the methods used and their respective findings with the assessment of access to water and sanitation, using SDG 6 and the JMP scale and monitoring framework as previously described as parameters. To this end, five men and four women, aged 45 to 70, including farmers and fishermen from the Croatá community, were interviewed.

The following section presents a characterization of the key aspects of sanitation observed in the field, highlighting the interdependencies identified throughout the study.

Water

The community of Croatá does not have access to the official water supply network; furthermore, in cases where water is treated by the residents themselves on an individual basis, there is no analysis of its quality. Furthermore, the water source considered safe for use by the community (rainwater collection tanks) cannot be used during the river's flood season. In fact, some families had their collection tanks destroyed during the last flood.

The lack of access to these services exposes a "technocratic omission"[4] in the drafting of the Municipal Basic Sanitation Plans (PMSB), which stipulate, in Article 2, "transparency in actions, based on information systems and processes of consultation and public participation" — principles that should be upheld when planning such services. Part of this omission manifests itself in the disregard for the specific needs of traditional peoples and communities; through the adoption of technical models that prioritize profit and disregard access as a right, regardless of the financial contributions generated by the provision of sanitation services[4].

According to information gathered in the field, the water sources used by community residents are varied, the main ones being: a) direct collection from the São Francisco River; b) artesian wells; and c) rainwater collection cisterns. In other words, in addition to lacking a common water source accessible to all, the community's water collection also varies depending on the time of year — flood and dry seasons — since residents move to "dry areas" and end up relying on other sources.

In addition to this factor, water treatment alone does not guarantee its quality for consumption, since it must also be stored in an appropriate and clean location, as stipulated in the Ministry of Health's Manual of Procedures for Environmental Health Surveillance Related to the Quality of Water for Human Consumption:

> Water treatment, in and of itself, does not guarantee that water remains safe to drink, since water quality can deteriorate during treatment, distribution, storage, and consumption. For this reason, Brazilian legislation recognizes that achieving and maintaining water potability requires a systemic approach, encompassing the water cycle from the source to consumption.[12]

In the case of rainwater harvesting tanks, the collected water is considered suitable for consumption only if the home's roof and gutters are suitable for this technology, and the first rainfall

must be discarded. However, in a semi-arid region with limited access to public policies, access to water becomes invaluable, and families in need may disregard usage rules, prioritizing their most urgent needs. It is worth noting that during periods of prolonged drought, when water is scarce, the community requests a water truck from the Municipal Civil Defense to refill their tanks.

A study evaluating the Rural Water Supply System, conducted by Corrêa and Ventura, presents a systematic analysis that considers not only the source of water collection but also storage conditions as factors for measuring and assessing the quality of the water used. It highlights aspects such as "heavy rains causing changes in water turbidity," "unrestricted access by animals," "water contamination due to a missing lid," and "collection using an inappropriate container," as factors that should be considered when analyzing access to water[13].

In this context, recognizing the lack of access as a form of social Injustice — such as the failure to implement public policies that ensure basic sanitation in rural communities — and unequal access to natural resources are key aspects for understanding the existing inequalities in this field. Quilombola communities can be classified under these categories, as previously discussed, which supports the understanding that environmental racism exists.

By adopting this concept, we seek to emphasize that cases of environmental racism ultimately expose affected populations to various vulnerabilities, with the lack of access to territory — a right guaranteed by the Constitution — being merely the first in a series of denials of rights resulting from Brazil's racially marked historical process:

> [...] Thus, the importance of environmental racism in shaping a reality marked by environmental health hazards becomes evident, insofar as sanitation is one of the factors that promote such conditions, that is, it provides the material and social conditions that ensure the full enjoyment of health and well-being by curbing, preventing, or halting endemic and epidemic diseases transmitted through the environment (Funasa, 2015). In practice, these data highlight the racial divide in the provision of public sanitation policies, revealing a direct correlation between the precariousness of the service provided and the proportion of Black people among the underserved population, exposing the Black population to precarious forms of access to water and sewage and waste disposal and, consequently, making them more vulnerable to health risks.[14]

If water is a matter of power, linking discussions about access to it with the concept of environmental racism becomes relevant, as it allows us to identify which groups — through their daily struggles to defend their territories — amplify such interests, as is the case with the São Francisco River. And in a politicized contexto especially an economically driven one the sociocultural and symbolic role that water plays for ethnic groups, understood as territory, is rarely discussed and not taken into account when municipal plans are developed and public sanitation policies are implemented.

Considering the second point on the JMP monitoring scale, which classifies access as a "basic service," many families especially those without rainwater collection tanks go into town to fetch water for consumption. Given the high demand, residents use drums and larger plastic containers to store larger quantities, allowing them to have a supply for a longer period, as one resident describes:

> That was all we could do — two drums from here… that was quite a few drums. I'd go back and forth and bring back about four or five drums full of water here for us to drink and cook with. And then after the rain, when we saw that our rainwater collection tank had broken, we were drinking the rainwater we'd collected (Interviewee 1).

Another important issue concerns a misconception or limited understanding regarding the uses of water for drinking and other tasks. It is evident in several community members' accounts that they believe water collected directly from the river is unsuitable for drinking. However, it became clear that they end up consuming this water in other ways, since they use water from the São Francisco River for cooking, as noted in one of the interviews: "For cooking. We 'cook' with it. You just can't drink it. But we don't drink it, no, because my daughter brings it from the city" (Interviewee 2).

Figure 1. Various water containers recorded in the community



Source: Own elaboration.

Storing water in inappropriate containers (such as plastic drums or open-air water tanks without lids) can expose individuals to potential contamination, since changes in the water's color may indicate possible physicochemical and biological alterations. This issue, combined with changes in the water's odor, may be associated with the presence of organic matter or even microbiological contamination, especially in contexts of poor household water storage. Under these conditions, in addition to compromising water potability and increasing the risk of waterborne diseases - such as infectious diarrhea, hepatitis A, and leptospirosis - environments conducive to the reproduction of arbovirus vectors — such as the Aedes aegypti mosquito, responsible for transmitting diseases like dengue, Zika, and chikungunya[15,16] — are also observed.

Thus, the interplay between local perceptions and technical knowledge highlights not only the precarious state of sanitation infrastructure but also the need for integrated strategies that incorporate safe storage practices and vector control as part of health and sanitation policies in vulnerable areas.

In addition to using it for food preparation, it was also found that the Quilombola communities use water collected directly from the river for bathing and washing dishes, which may lead to some

form of contamination, given the direct contact with the skin and with water contaminants that may be ingested indirectly[4,17,18]. However, this aspect requires further investigation, as it exceeds the scope of the present study.

Despite the multiple uses and their potential consequences, the monitoring framework considers only water sources used for drinking, disregarding their use in other activities with which people have direct contact — activities that may lead to health problems, even if indirectly. In an interview with one of the community leaders, there are reports of past cases of infections and irritations in the genital areas of women in the community, which, according to her, were caused by direct contact with river water — whether while washing clothes or while bathing in the river, a common activity among community members, especially those who do not have a bathroom at home:

> Oh, girl, listen, I'm going to tell you something: most of the women there bathed completely naked… the younger ones bathed in panties and a bra, sometimes wearing shorts. And the older women bathed in nightgowns and petticoats. I used to bathe in shorts or Bermuda shorts. The men bathed in shorts; some bathed in underwear; and the boys up to thirteen years old bathed naked. So, they didn't have that whole thing about wearing appropriate clothing. "I'm going to bathe in X outfit," no (Interviewee 3).

In short, analyses and observations that consider only the water used for drinking and cooking are not sufficient to assess the safety of the water used by the quilombo residents. This is because, within the same household, different water sources are used, which can result in indirect contamination, as in the case of bathing in the river.

Sanitation

Access to formal sanitation services remains a distant reality for most quilombo communities located in rural areas. According to data from the National Sanitation Information System, only 16.20% of the population of Januária (MG) — where the Croatá community is located — has access to a sewer system, despite the city having a Municipal Sanitation Plan as well as a municipal fund for this purpose, out of an estimated population of 65,150 inhabitants. Although the SNIS does not specify these figures, the differences in access to sewage systems between rural and urban areas have already been described in the literature[13,19,20,21].

Several factors may explain this distinction, given that access to basic sanitation — despite being considered a human right - has been treated as a commodity, as is the case in Brazil, which has expanded the scope for privatizing sanitation services. Law No. 14,026, dated July 15, 2020[22], provides, among other changes, for the privatization of the implementation and provision of these services, handing over to the market a service considered a basic right — one that the state should be responsible for guaranteeing. In this sense, what was, until then, considered a basic right, indispensable to human life, is now measured by profit: access is granted to those who pay for the services, and, more than that, the availability of the service is now determined by the number of paying customers. In Brazil, recent analyses indicate that, following the enactment of Law No. 14,026/2020, concession processes tend to prioritize more profitable urban areas, relegating rural sanitation to a secondary role or even rendering it invisible in public policies[23].

With regard to quilombola communities, the titling of the properties they occupy occurs through collective titling, a procedure conducted by INCRA, which presents a challenge. This is

because the collective nature of the territory ultimately requires technologies and management approaches distinct from those implemented in urban areas[19]. It is worth noting that these difficulties also apply to the regularization of water services, since charging for access — which had previously been free — becomes a problem for quilombola communities, especially given the low income of their families.

The lack of access to formal services necessitates the implementation of alternative technologies, which are generally rudimentary, social in nature, and low-cost. We found that a significant portion of the homes have what is known as an "ecological septic tank," implemented by community leaders - a social technology that uses used tires for effluent infiltration[24].

Bathrooms

In this category, we sought not only to quantify the homes that do — or do not — have bathrooms, but also to assess their condition. Regarding homes with bathrooms, we found that, according to the survey conducted, of the 32 homes, 24 have bathrooms, but these are in poor condition in terms of infrastructure. Of the 24 bathrooms in the community, 14 have only a toilet, six have a toilet and a shower, and only three have a more complete setup, with a toilet, shower, and sink.

Access to bathrooms also varies depending on the time of year, just as it does for water. During the last river flood, in 2022, the community camped at the entrance to a farm, using tarps to sleep on and a makeshift kitchen, relying on water that community members fetched from the homes of relatives living in the urban area to supply the settled families. One of the community leaders describes the use of the bathrooms during this period:

> It wasn't good, because it was just a hole with some sticks, and you had to crouch down there, right? So you weren't sitting up — you were crouched down. And a lot of the time, we'd throw ashes in there; when we did, it gave off that horrible smell. It was just a tarp, and often the wind would come and tear it. You'd be there and see someone else, and you'd have to cover the hole up again with the tarp; to shower, it was the same thing — there was a bucket with a basin on top so you could pour water over yourself, scoop it up with a bucket, and pour it over yourself to shower. We didn't feel comfortable (Interviewee 4).

The conversations with the community show that residents understand the need for bathrooms from an integrated perspective that combines sanitation and environmental conservation: "Yeah, that's the thing about preservation, about us respecting… today, we can't just go out into the woods anymore. That's a lack of hygiene and also a lack of respect for nature, right?" (Interviewee 5).

There is also a sense that their quality of life would improve: "Definitely. It's my dream to get there and just flush the toilet and turn on the shower to take a bath. Oh! For me, that's the dream I have" (Interviewee 4). Having a bathroom at home is also a safety factor, especially for women: "It's really hard when there's no bathroom. For us women, it's difficult. Yeah, but we've been through so Much — if we were to tell everything we've been through, right?" (Interviewee 2). It is worth noting that the lack of bathrooms not only puts people's health at risk but can also lead to situations of violence, especially among women[1].

The idea that restrooms are important for improving community health came up several times in the interviews:

> Yes, it's very embarrassing. And it also helps prevent diseases. A bathroom prevents diseases. Because, imagine if everyone — if no one in the community had a bathroom and everyone had to relieve themselves in the woods? Imagine what that would be like? How could it not be? What would our water table be like? What would our territory be like, right? It would be a nightmare (Interviewee 3).

The first point that needs to be analyzed is the high number of households without bathrooms, with residents relieving themselves outdoors, in wooded areas, or at neighbors' homes. The poor condition of the bathrooms is also an important factor to analyze, since a large portion of these bathrooms lack running water, as revealed by the survey on bathroom conditions.

The hygiene conditions of the Quilombola residents were also a focus of the survey, since adequate access to water — and the resulting ability to wash hands, food, objects, and the home itself - are essential for promoting health.

With regard to homes that have a water connection in their bathrooms, the following was identified: 29% have running water, compared to 58% without a direct connection — with water supplied irregularly via buckets or hoses — and 13% declined to provide this information.

Information on water connections in the community's bathrooms is relevant since "bathing" is considered a key indicator of hygiene within the framework of the human rights to water and sanitation[25,26], even though it is not the primary focus of these observations. As evidenced by the data collected in the survey, most community residents do not have running water in their bathrooms, which significantly compromises daily hygiene.

In households where bathrooms lack running water, hygiene practices take place in open areas, usually in backyards or directly in the river, which highlights the precarious state of hygiene promotion and, consequently, the health of these individuals. According to accounts obtained in interviews, the river water is contaminated by various agents, making it unsuitable not only for consumption but also for direct contact with the skin.

The poor condition of the bathrooms is also a cause for concern, since only one home in the community has a bathroom with tiling or other finishes, which reveals a social vulnerability that must be taken into account.

Multiple Water Sources

The community's use of water sources depends directly on the locations within the territory and on the river's flood and ebb cycles, causing significant changes in access. Among the homes located near the river and those in the reclaimed area, 19 homes have cisterns for collecting rainwater, part of the 1 Million Cisterns Program[27], implemented by Articulação do Semiárido in partnership with the federal government. This water is used for human consumption — drinking and cooking. In addition to considering this water safe to drink, residents typically treat it with chlorine, which is provided by the municipality's social assistance service and distributed to families by a community leader. This provision of chlorine to rural communities is a public policy of the municipality of Januária, carried out through the Social Assistance Reference Center (CRAS) and linked to the Municipal Department of Social Assistance.

During one of our most recent visits, we identified a very concerning situation in one of the homes, as shown in Figure 2, particularly the larger container holding stagnant, dirty, and greenish-colored water.

Figure 2. Containers used to store river water for domestic use



Source: Own elaboration.

These water storage conditions not only expose residents to various diseases and infections but also reveal a lack of security in water access, as they require the constant collection of river water for domestic tasks. For other activities, the quilombo residents use water directly from the river, which is drawn using a gasol — powered pump, since the community does not yet have electricity. River water is used to water the animals — dogs, pigs, goats, horses, cattle, chickens, and pigeons — to irrigate the plants in the yard, to bathe, to clean the house, and to wash dishes. Women wash clothes directly in the river, since the lack of electricity makes it difficult to pump water for this task, given the cost of the gasoline needed to power the pumps. In some homes, it is common to see containers used to store river water, which is used for household chores.

Figure 3. Water storage containers: rainwater collection box and container for river water



Source: Own elaboration.

Households that do not have cisterns for collecting rainwater have two sources of water for human consumption: a) directly from the river; or b) they fetch water from the city, usually from the homes of relatives living in urban areas, using family members' cars, motorcycles, or horses. Some families in the Community — especially those who are most vulnerable and have the largest number of children — use water directly from the river for all activities, including drinking:

> Look… it comes from the river, but for drinking, we're drinking water from COPASA, because when the water ran out here, before that, I used to bring those drums on a wagon; when the river was full, I'd bring it by boat, but after the river receded, I was bringing it on a wagon (Interviewee 1).

Many reported that they grew up drinking water from the river. Some seem to recognize that the river water is unfit for consumption and no longer use it for drinking, but others do not appear to be concerned about this issue, whether due to cultural factors or a lack of alternatives:

> Because we're already used to this kind of water. We're not used to the water itself—we're used to getting sick. Because, a lot of times, that water made us sick, and we didn't feel anything, and we didn't think it was the water. But it was the water, yes (Interviewee 6).

It is worth noting that the six families living in the reclaimed portion of the territory received funding — through a parliamentary amendment proposed by a state representative — to drill a communal artesian well, which serves as the water source for all the activities of the families residing in that portion of the territory. In this community center, the water pumped from the well is stored in

water tanks, which are then pumped to the homes using solar panels — also donated through a parliamentary amendment, as described by community leaders.

The multiple sources also complicate data analysis, since not all the water consumed comes from piped sources; moreover, it is worth noting that the existing piped system does not originate from an official network but rather from a direct connection to the river, established by the quilombolas themselves. If a single community uses water collected from rainwater cisterns, the river, and artesian wells, it becomes difficult to measure this access without taking such specificities and the multiple sources into account. Another aspect worth highlighting concerns territorial dynamics, which are not static or rigid but occupy different parts of the territory depending on the river's flood and ebb cycles.

The report "Inequalities in Sanitation and Drinking Water in Latin America and the Caribbean" presents data on progress in access to basic sanitation in Latin America[25], highlighting differences between urban and rural areas. In addition to highlighting significant differences, some figures are cause for concern, such as the rate of "safely managed" sanitation, which stands at 85% in urban areas compared to 56% in rural areas of South America. Similarly, for indicators of contamination-free water, the ratio is 85% to 56%. Among the population with piped water, the proportion is 97% in urban areas and 78% in rural areas. These figures underscore the differences between the two contexts, as explained throughout this text.

When comparing this data with that of the Croatá community, certain gaps become evident, since the community is experiencing two distinct phases, which influence access to and the quality of water. In a community where a significant portion of residents use water collected directly from the river and treated at home, assessing its safety for human consumption becomes a challenge.

In short, although there has been progress in the numbers regarding access to basic sanitation over time, these data do not reflect the same proportion for the Quilombola population, which requires further information considering aspects of their identity, highlighting the need for alternative methods to understand their challenges and needs.

Observing community members' use of water for other activities, such as bathing, is directly linked to SDG 6, which — although it does not address water ingestion — considers water quality for other purposes, as it proposes: "By 2030, achieve universal and equitable access to adequate sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations"[28].

Although it is not an aspect considered by the monitoring framework, water use — especially for maintaining hygiene — is of paramount importance when considering the relationship between water and health. Given the financial circumstances of Croatá's residentes — most of whom make their living from fishing — purchasing hygiene products is difficult due to the region's low income, as described by two of the community's most prominent leaders, one a fisherwoman and the other a craftsperson:

> It's always like that, isn't it? It's always like that. Sometimes, you look up and look down - you've bought the rice, the beans, and the starch — but you didn't have enough money left to buy soap, toilet paper, laundry detergent, dish soap, and bleach. Because I'll put it this way: toilet paper, dish soap, laundry detergent, and bleach are part of our basic necessities. If you don't have those, my goodness, how do you get things done? How do you clean the house, right? (Interviewee 3).

> And a bar of soap is really expensive. So, I have to… but then there are clothes you can't wash with it because they end up smelling funny, right? But we wash the anyway — like I had to do yesterday. I went over to my daughter's place, and she gave me some cooking oil, which is why I was able to do it (Interviewee 4).

In addition to the difficulty in acquiring personal hygiene and cleaning products, the use of unsafe water is directly related to this population's quality of life and health promotion, making this an important aspect to be measured in monitoring and evaluation tools.

Based on this research, it is evident that the monitoring scale, as the sole method for analyzing access to sanitation, is insufficient to understand such a dynamic and unstable context; it can be stated that the community experiences two distinct phases throughout the year. The use of quantitative data to assess access conditions is insufficient for measuring and analyzing subjective issues present in the daily lives of communities, as is the case in Croatá, where there are divergent perspectives within the community itself.

Another aspect worth highlighting when examining basic sanitation in a traditional community concerns the relationships the community establishes with its territory, since the community's survival depends directly on water — not only for drinking and cooking, but also for food production[21]. Upon examining this aspect in a settlement of the Landless Workers' Movement (MST), the authors show that this factor also impacts other rights, particularly "the food security of their families, who depend on what they produce to feed their households - a cultural specificity that must be taken into account"[21].

Despite differences in access between urban and rural populations, this analysis — when viewed in isolation from other intersectionalities — makes it difficult to generate data that more accurately reflect the reality of quilombola communities. Even though it uses a gender lens in its annual reports, the JMP does not attribute these differences in access to racial distinctions, which, for quilombola communities, is an essential factor in identifying inequities in access to sanitation and other rights. In a racialized country, the race lens becomes indispensable in analyzing the social landscape in the realm of rights.

Final Considerations

The triad of water, sewage, and personal hygiene is an indispensable prerequisite for human health, even though this right remains out of reach or is scarcely accessed by many population groups. Although recognized by the Brazilian Constitution as rights-holders, the quilombolas still rank among the most vulnerable groups, despite being a numerically significant population.

As discussed throughout this text, access to territory is a prerequisite for the social, cultural, and economic reproduction of communities; it is impossible to conceive of health promotion without territory. Taking the example of the Croatá quilombola community — which relies on fishing and the seasonal floodplain — which is undergoing a process of reclaiming its land and facing consequent territorial conflicts, the concept of health is inextricably linked to the autonomy its members exercise over their territory. Without land titles, the Quilombola families find themselves unable to propose improvements, since the territorial dispute also excludes them by denying them access to public policies, such as the availability of electricity.

The difficulty in accessing water sources impacts the community's hygiene, particularly regarding water that is minimally treated to ensure the health of those who use it — a condition not

met by the community studied. The use of multiple water sources ultimately yields inconsistent data, as the monitoring framework does not account for this diversity.

Another aspect highlighted in the study is seasonality and its influence on the access, use, and quality of the water available to the Quilombola communities, as they move in tandem with the river. This factor alone hinders the fulfillment of the rights guaranteed by human rights standards, which presuppose easy, low-cost access to sufficient quantities of water to meet the community's daily needs.

Recognition of environmental racism, which particularly affects traditional communities, must also be considered in analyses of basic sanitation, as it creates inequalities in access especially given the economic factor, which is increasingly attributed to water and sewage services.

Therefore, monitoring aimed at understanding access to water, sewage, and personal hygiene can only be effective if it takes into account other issues that intersect with the lived experiences of these populations. The intersectionalities of gender, racism, and coloniality are essential to understanding the limited access or lack thereof that quilombola communities have to the right to water. This also implies recognizing the different uses of water for various purposes, which, in a quilombola community, encompass leisure, production (farming and animal husbandry), income generation, and other material and symbolic aspects.

Finally, by placing the research subjects at the center of the study which, in this work, takes the form of including their narratives we enable a participatory research approach that names and embodies those being studied, moving away from cold, data-driven information based solely on numbers. This decolonial process humanizes these subjects who have been objectified for centuries, allowing us to work with them to develop policies that address not only their demands but also their aspirations as rights-holders.

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Editorial Information

History

Received: February 20, 2026
Revised: July 6, 2026
Accepted: July 20, 2026

Review Process

Double-blind peer review.

Open peer review

Two ad hoc reviewers evaluated this manuscript. The authors and reviewers agreed to interact, if necessary. Both authorized the publication of the review, if indicated by the journal.

Preprint

The manuscript is not a preprint.

Similarity check

This article underwent a textual similarity check using CopySpider software.

Authors' Contributions

A.M.F. Moreira: conception/design of the article, data analysis and interpretation, and writing of the article.
L. Heller: critical review of its content; and approval of the final version of the article.
P.N. Silva: critical review of its content; and approval of the final version of the article.

Conflict of Interest

The authors declare that they have no personal, commercial, academic, political or financial conflicts of interest in relation to this article.

Funding

Not applicable.

Origin of the Research

This article is based on a doctoral dissertation completed in the Graduate Program in Public Health at Fundação Oswaldo Cruz, Fiocruz, Instituto René Rachou, Fiocruz Minas.

Ethical Approval of the Research

The study was approved by the Research Ethics Committee of Plataforma Brasil under opinion No. 67346523.80000.5091.

Availability of research data

The data underlying the research text will be available upon request to the authors after publication, as justified in the manuscript.

Declaration of use of Artificial Intelligence (AI) tools

The authors declare that no artificial intelligence tools were used in the preparation of this manuscript or in the research reported herein.

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Fundação Oswaldo Cruz, Fiocruz, Health Law Program, Brasília, Federal District, Brazil

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How to Cite (Vancouver)

Moreira AMF, Heller L, Silva PN. Inseparability between water and sanitation: perceptions of human rights violations among quilombolas. Cad. Ibero-Am. Direito Sanit. 2026;15:e2026024. doi: 10.17566/ciads.e2026024