



UNITED NATIONS  
HUMAN RIGHTS  
SPECIAL PROCEDURES

SPECIAL RAPPORTEURS, INDEPENDENT EXPERTS & WORKING GROUPS

# Fulfilling the human rights of those living in poverty and restoring the health of aquatic ecosystems: two converging challenges

A/HRC/54/32

Report of the Special Rapporteur  
on the human rights  
to safe drinking water and sanitation

Pedro Arrojo Agudo

WATER IS  
LIFE

A stylized illustration of a diverse group of people standing on a rocky bank next to a river. They are holding a white sign with the text 'WATER IS LIFE'. The background shows a blue river, green trees, and a bright yellow sun in a blue sky.



## Summary

For the Special Rapporteur, ensuring drinking water to the 2 billion people without guaranteed access to it, most of them severely impoverished, is only possible if progress is made in restoring the good condition of the aquatic ecosystems that supply their water.

This report focuses on the problems of pollution, overexploitation and mismanagement of rivers, lakes, wetlands and aquifers and their impacts on the human rights to drinking water and sanitation. In particular, it shows how the toxic contamination of water by heavy metals and other contaminants breaks not only the right to water but also the right to health and life of millions of people.

Given the magnitude of the harm, the Special Rapporteur suggests starting a debate in the international community towards including these actions among the list of crimes against humanity to hold the perpetrators accountable.

The Special Rapporteur states that the human rights to drinking water and sanitation and the human right to a clean, healthy and sustainable environment go hand in hand with promoting climate change adaptation strategies to face the increasing risks of drought and floods that it causes.

## I. Introduction

We face a paradoxical crisis: the Global Water Crisis on Planet Water, the Blue Planet, **with 2 billion people without guaranteed access to safe drinking water.**

**Most of the 2 billion people without guaranteed access to safe drinking water are not thirsty people without water in their living environments but impoverished people living next to rivers or aquifers contaminated, often with toxins, or overexploited by abusive and unsustainable productive developments.**

The roots of this water crisis lie in the unsustainability of the current development model, based on the paradigm of domination of nature, and in the greed and irresponsibility of the richest. It is necessary to move towards a new model of environmental regeneration based on the paradigm of sustainability and to promote democratic water governance based on a human rights approach.





## II. The health of aquatic ecosystems is critical for realizing the human rights to safe drinking water and sanitation

Networks of rivers, lakes, wetlands, and underground aquifers have constituted the natural supply network of human settlements for thousands of years.

This natural network stores and regulates flows, mainly underground aquifers, wetlands, lakes, glaciers, and snow masses in the mountains. These storage and regulation functions guarantee permanent flows in many rivers, even when not raining, and they generate essential water reserves for life during low water levels and drought cycles.

Managing this complexity of functions and values, ensuring sustainability and prioritising the fulfilment of the human rights at stake requires promoting participative democratic governance of these ecosystems and water.

### A. Surface water in rivers, lakes and wetlands

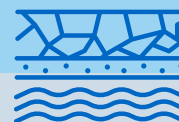


Aquatic ecosystems, such as wetlands, rivers and lakes, including mangroves and lagoons in deltas and estuaries, manage the surface waters of the water cycle and backbone life on islands and continents but also significantly influence coastal marine life and ecosystems. They also provide water for drinking, sanitation, recreation, irrigation, fisheries, energy production, and industrial activity, sustain spiritual values, and generate natural flow regulation and purification functions.

Rivers are arteries of life on islands and continents. They transport sediments and nutrients essential for fluvial biodiversity, riparian ecosystems, and ecosystem biodiversity on coastal marine platforms. The fluvial flows of continental nutrients fertilise the life and the fisheries of the marine littoral platforms.

Wetlands are the natural mega-treatment plants of the water cycle, thanks to the action of plants and microorganisms that digest organic matter generated in nature and produced by communities and societies. They also retain sediments and even remove toxic contaminants.

Riverine ecosystems are vital for riparian communities, serving as green filters that purify alluvial aquifers, flowing beneath the riverbed's gravel.



These ecosystems, along with wetlands and lakes, mitigate river floods by expanding and slowing them down through their riparian forests. These functions are especially critical in middle catchments, **reducing flood risks downstream in densely populated areas.**



If in good condition, rivers, lakes and wetlands also support an essential food source for many communities, fishing as the protein base of their diet. Biodiversity is widely regarded as an implicit measure to indicate ecosystems' integrity and healthy functioning.



## B. Groundwater

**Underground aquifers are nature's water lungs on islands and continents, storing 99% of the planet's fresh liquid water.** Aquifers sustain aquatic ecosystems, feeding the base flows of rivers, even when it does not rain.

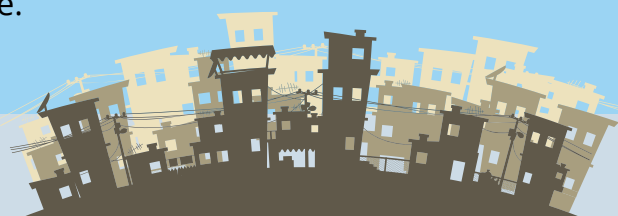
Groundwater provides half of the water withdrawn for domestic use in the world and about 25% of the irrigation water is extracted from the aquifers. Most of the supply from rivers, lakes and wetlands depends on aquifers. Underground aquifers provide the only feasible and affordable access to water for many impoverished rural communities, especially in arid and semi-arid territories such as sub-Saharan Africa and South Asia, with large but scattered rural populations.

Aquifers ensure superior water quality protection against contamination risks. Properly managed, non-overexploited aquifers serve as strategic reserves during exacerbated droughts due to climate change. However, overexploitation can lead to salinization, compaction, and irreversible capacity loss. Pollutant infiltration may also be challenging to reverse depending on the geological substratum. The global groundwater storage decreases at an estimated rate of 100 to 200 km<sup>3</sup>/year.

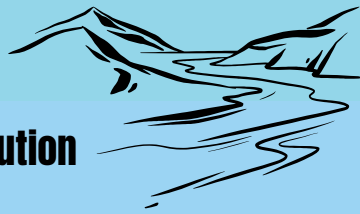


## III. Keys to the degradation of aquatic ecosystems

Why do two billion people lack reliable access to safe drinking water? The answer could be found in the interaction of multiple and accumulative pressures driven by human activities that threaten or undermine the water sources of billions of often impoverished people.







## A. Toxic pollution

Pollution by heavy metals, metalloids and other toxins generated by legal and illegal mining and other productive activities continues to grow in many countries. Large-scale mining produces large volumes of toxic waste with sulphuric acid, arsenic, copper, cadmium, lead, cobalt, zinc and chemical agents, such as cyanide. Small-scale gold mining, pollutes aquatic ecosystems mainly with mercury.

In Paraguay, in Paso Yobái, the use of mercury and cyanide in gold mining severely impacts aquatic ecosystems, particularly fisheries, progressively poisoning mine workers and people.

In Mongolia, gold mining with arsenic and cyanide killed fish in the Onon River in Khentii Aimag and poisoned the waters used by pastoralist communities and their livestock.

**Mining is estimated to discharge more than 180 million tonnes of hazardous waste each year into rivers, lakes and oceans worldwide.**

The contamination of river headwaters affects entire watersheds, infiltrating into aquifers and contaminating soils. Toxic contamination of aquatic ecosystems often reaches drinking water and water for irrigation and livestock watering, affecting food and causing progressive, cumulative and permanent population poisoning.

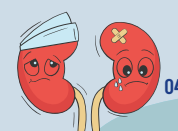
Oil and gas extraction severely impacts freshwater ecosystems by releasing high amounts of so-called produced water during extraction (a dangerous and potentially carcinogenic mixture).

Fracking natural gas also presents considerable risks of groundwater contamination affecting drinking water supplies.

According to UNEP, around **100 million tonnes of plastic waste are discarded yearly in the environment, particularly in rivers and aquatic ecosystems, all the way into the sea generating toxic substances and pollution of microplastics.**

Among the largest and ever-growing sources of toxic pollution is the massive use of pesticides, especially in industrial agriculture, with diffuse pollution dynamics difficult to control.

Sri Lanka, one of the countries with the highest rate of pesticide consumption, suffers from water contamination, leading to an increase in chronic kidney diseases in the country.





## B. Biological, organic and nutrient pollution

One of the reasons for the non-drinkability of water is biological contamination by pathogens. Key factors include the lack of wastewater sanitation, inadequate disinfection by chlorination or other methods, and water contamination in obsolete or poorly maintained networks with frequent water cut-offs.

Reports show that **one-third of all rivers in Latin America, Africa and Asia suffer from severe pathogenic pollution.** Severe organic pollution is found in around one-seventh of rivers, and severe and moderate salinity pollution in around one-tenth of all rivers. According to the WHO, at least 2 billion people use a source of drinking water contaminated with faeces.

Lack of means and priority in budgets means that 90% of wastewater is discharged into rivers, lakes and seas untreated or pit latrines, even in urban areas.

The intensive livestock sector ranks top three in water-quality degradation. Public health concerns arise from pathogens, drug residues, hormones, and antibiotics in livestock waste that contaminate water. Intensive farming practices in Rivadavia, Argentina, resulted in water pollution and significant desertification of ancestral Indigenous lands violating the human rights to water, a healthy environment, culture and other fundamental rights.

## C. Geogenic contamination



Geogenic, i.e., natural, arsenic water contamination can occur in certain aquifers depending on the nature of the underlying materials. Between 94 and 220 million people are at risk of progressive arsenic poisoning from their drinking water. Often, in cases of overexploitation, the concentration of **geogenic arsenic rises to severe health levels as deeper water has to be pumped.**



## D. Unsustainable growth of irrigation, over-exploitation of aquifers and over-allocation of use rights

Globally, expanding irrigated agriculture, responsible for 70% of water withdrawals, poses serious sustainability issues.

Abusive groundwater pumping, mainly for irrigation, dries up wetlands and springs, threatening river sources and drinking water during droughts. Deeper pumping costs rise, impacting affordability for the poorest.

Overexploitation worsens vulnerability to climate change, leaving no strategic reserves during extreme droughts.

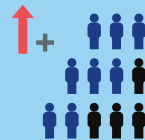




Encouraging an unsustainable growth of demand through over-allocation of concessions and unrealistic planning that does not follow climate change trends, cause problems of quality and availability for domestic supply, mainly in drought cycles.

As a positive reference for applying the precautionary principle, the Victorian Civil and Administrative Appeals Tribunal in Australia denied irrigation licenses due to uncertainty in groundwater availability.

## E. Population growth



The growth of large cities can deplete the water flows in ecosystems. It is crucial to differentiate between water demands for basic needs (domestic and basic food production) and those for economic growth.

Economic activities typically account for around **90% of total water demand, leaving about 10% for urban uses**, including the minimum vital amount for safe drinking water and sanitation, which must be prioritized.

As populations grow and urbanize, informal settlements strain existing infrastructure. Ensuring drinking water requires developing and maintaining supply and sewage networks. **Deterioration of networks leads to significant losses, around 50% in many cities, resulting in frequent cuts and polluting intrusions.** Renewal and maintenance are essential to prevent losses, increase water availability, and ensure water quality for potability.

## F. The commodification of water and the privatization of water management

Considering water as a merely economic good and its commodification can jeopardize the sustainability of ecosystems and the human rights to safe drinking water and sanitation.



Since ecosystems cannot compete in markets, their sustainability is at risk and increases the vulnerability of the most impoverished.

In Cartagena, Colombia, the privatization of water and sanitation services has led the concessionary company to promote major supply works without consultation with affected communities, that have led to the clogging and eutrophication of the Juan Gómez lagoon system, destroying fishing, the food and livelihood base of the Afro-Colombian communities in the territory.



## G. Land and water grabbing

In many countries, land grabbing, often involving water grabbing, entails misappropriations of resources from communities and undermines the sustainability of freshwaters quantity and quality, putting the communities directly affected and downstream populations at risk.

In Borneo, Indonesia, communities along the Sambas and Pewan rivers are victims of **water grabbing by oil palm plantations**, with massive use of pesticides and fertilizers, water is no longer drinkable, and people are ill. Peasant communities in Bajo Aguán, Honduras, suffer similar impacts.



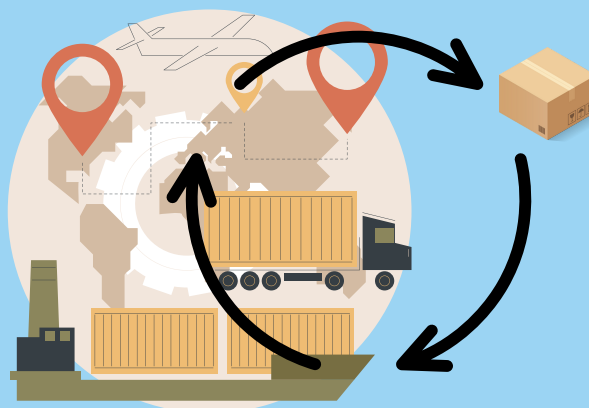
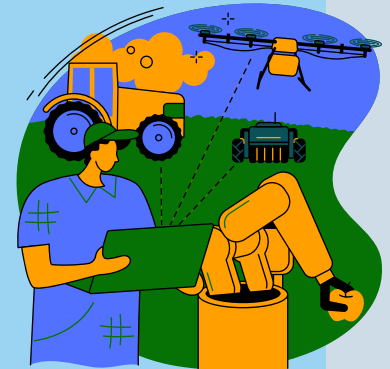
## H. Drainage and dewatering of wetlands

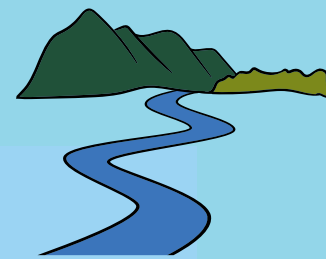
Development often justifies drainage and **desiccation of wetlands**, degrading essential functions of these ecosystems, endangering water supply, fisheries and vital regulating functions for downstream riparian populations at risk of droughts and floods.

The Pantanal, the world's largest tropical wetland in South America, is a vital environment that regulates massive flows to reduce flooding risks and serves as a significant purifier and water reservoir during droughts.

However, increasing cattle ranching, agribusiness, mining, and arson-related fires are causing rapid degradation and shrinkage of this important water reserve.

Additionally, various Hidrovía Paraguay-Paraná projects aim to facilitate fluvial transport but pose serious risks to the Pantanal's ecosystem.





## I. Riverbeds and riparian ecosystems

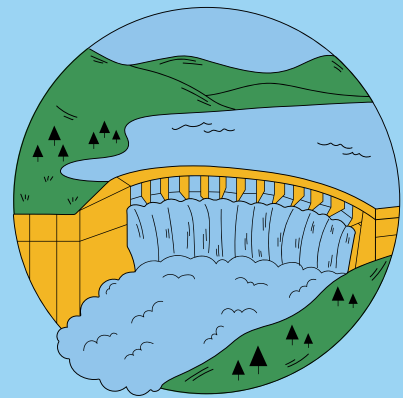
For decades, **river management** has encroached on natural river territories for urban development and activities, leading to embankment construction, channel narrowing, meander removal, and harm to riparian ecosystems. This has dire consequences, including increased flood risks downstream, threatening water and sanitation services.

Traditional engineering approaches to river basin management, like walling channels, have increased catastrophic flooding risks in low-lying basins.

A new approach, "**Give the river a place to go,**" advocates levee setbacks to minimize flood losses. Allowing rivers to expand and gently flood certain areas through dike gates, along with economic compensation agreements for owners, helps mitigate floods.

## J. The impacts of hydraulic megaprojects

In the 20th century, large-scale hydraulic works were central to hydrological planning. However, with a better understanding of their impacts on river ecosystems and affected populations, supply strategies relying on such mega-infrastructure with massive public subsidies are now being questioned.



**The World Commission on Dams' final report (2000) highlighted the forced displacement of 40 to 80 million people due to flooding, worsening their poverty, vulnerability, health, food, and access to water and sanitation.**

Large inter-basin water transfers aim to counter climate-induced drought risks and support irrigation in recipient basins. Yet, droughts span regions, impacting transferring basins too. Consequently, transfers fail during drought cycles due to insufficient flows.

Additionally, grand projects raise expectations, heightening demands; unmet expectations worsen scarcity.

## K. Impacts of climate change

The number of people at **risk of floods will increase from 1.2 billion to 1.6 billion in the next 30 years.**





Over the last 20 years, 90 % of significant disasters were caused by water-related events that climate change will exacerbate, making adaptation strategies based on the hydrological transition crucial.

During floods, nutrients such as nitrates or livestock slurry, solid waste and pollutants on the territory are washed into rivers and lakes, degrading ecosystems and water potability, and affecting sanitation.

Climate change affects groundwater recharge, with heavy rains and rising temperatures hindering it. To enhance aquatic ecosystem resilience to climate change, preserving aquifers, wetlands, and riparian areas is vital, as they serve as natural flood buffers and water storage during droughts.

## IV. Impacts of the Degradation of aquatic ecosystems on the Human Rights to safe drinking water and sanitation



### A. Availability

Generally, as prioritize drinking water over other uses, but this is often disregarded.

For instance, in Tunisia, large-scale irrigation leaves rural areas without water. In Peru, water cuts occur during droughts while mining continues. **This global issue isn't about water scarcity but governance failures in prioritizing domestic use.**

States often misuse resources by over-allocating surface water rights, over-exploiting aquifers, and allowing illegal wells or pollution. Ecosystem degradation worsens water scarcity, especially in droughts, affecting the impoverished.

**Climate change intensifies droughts in arid regions, posing severe water scarcity risks, jeopardizing habitability.**







## B. Accessibility

Human settlements rely on ecosystems like rivers, lakes, wetlands, and aquifers for water. Accessibility issues arise when these ecosystems are disrupted or when communities lack the necessary infrastructure.



**Even with healthy ecosystems, continuous access to clean water and sanitation services in homes, public places, and workplaces is essential.**

Expensive infrastructure is often developed to bring water from distant sources or to treat polluted water, with costs charged to the population. However, they bear no responsibility for the problems created. Such practices are contrary to human rights that state that the available, closest and highest quality flows should have priority for domestic uses.

Sometimes, the available flows in nearby ecosystems are not accessible to specific populations when land and water are grabbed or when water is used as a war strategy, as in Palestine, particularly in Gaza or northern Syria.

## C. Affordability

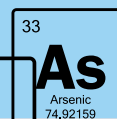
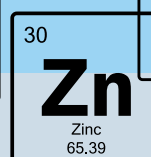
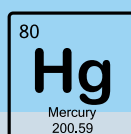
Degraded aquatic ecosystems impact drinking water quality, leading to higher tariffs for fetching water from distant sources or costly treatment. This raises unaffordability risks for the impoverished, who may turn to bottled water due to distrust in tap water. **Unsafe water or expensive purchases from unreliable vendors become common.**

The economic burden on these families is worsened by the time women and girls spend carrying water and caring for the sick, reducing their ability to work, study, and support their families. Impoverished families can spend up to half their income on basic water needs.

## D. Quality and safety

The sources of contamination of aquatic ecosystems are multiple, including microbiological, toxic, pesticide, mining, and industrial contamination.

**In Ghana**, it is estimated that 60% of aquatic ecosystems are polluted with mercury, zinc and arsenic from mining, **leaving many communities without safe drinking water sources and with serious health problems** due to progressive poisoning.





From his global and country-level work, the Special Rapporteur has observed several systematic pollution processes affecting large territories, aquatic ecosystems and public health in all world regions. In this regard, and based on the evidence gathered and observations, he believes **there is a need to consider codifying these egregious and systematic human rights violations into a specific category in international law towards greater accountability and access to effective remedies.**

## V. Intersectionality of poverty, unhealthy aquatic ecosystems and access to safe drinking water and sanitation

The Special Rapporteur examines how ecosystem degradation, poverty, and limited clean water access are linked.

Activities causing pollution often harm drinking water, impacting Indigenous people, African descent, Dalit, and **marginalized communities, mainly in impoverished rural areas.**

Treatment of wastewater is significantly lower in low-income (8%) compared to high-income (70%) countries.

Even in wealthy countries like the US, studies show that race, ethnicity, and language had the strongest relationship to slow and **inadequate enforcement of the Safe Drinking Water Act at the county level.**

Billions right-holders lack representation in global institutions, facing obstacles and persecution when voicing concerns.

In Colombia's Guajira region, the Cerrejón mine depletes and pollutes rivers, worsening poverty, malnutrition, and water scarcity among the Wayuu people. Infant mortality there is over six times the national average.

Based on data of the WHO, **2 billion people could have safe drinking water at \$8 billion, which is \$ 4 per person.** Although an estimate, the order of magnitude puts the costs in a position to cope if budgetary priorities are assumed.

The sources of contamination of aquatic ecosystems are multiple, including microbiological, toxic, pesticide, mining, and industrial contamination.





## A. Persons living in poverty

The overexploitation, hoarding and contamination of aquatic ecosystems enrich those who promote them, bankrupt human rights, and impoverish the most impoverished, closing a vicious cycle as unfair as perverse.

The degradation of aquatic ecosystems reduces essential inputs into the livelihoods of poor people, causes diseases and affects education, increasing school absences due to illness and water retrieving.

**Preserving and recovering the good state of aquatic ecosystems is crucial to breaking the cycle of poverty.**

## B. Women and girls

As indicated above, when nearby water sources dry up or become contaminated, it is mainly **women and girls who are forced to spend more time and risk gender-based violence by having to fetch water further away.**

Likewise, women care for those who become ill due to water contamination, taking time away from working, farming and other activities outside the home and for girls to attend school.

## C. Children

Lack of safe drinking water and poverty leads to the highest **infant mortality rate.**

**Each year diarrhoea kills around 525.000 children under five.**



Children from discriminated, marginalized, and low-income communities are at higher risk. Exposure levels in such communities are often higher and exacerbated by malnutrition.

Contamination by heavy metals in children, who are **even born "pre-contaminated"**, is serious because, as they are not metabolized and are difficult to eliminate, they produce progressive poisoning that can affect them throughout their lives.



## D. Persons with disabilities



Poverty, pollution and lack of water represent a more significant burden for people with disabilities, especially in settlements where community organization is weak.

Waterborne diseases due to viral or bacterial contamination are a substantial cause of disability worldwide.



## E. Persons of African descent

Afro-descendant communities are disproportionately targeted by polluting industries, impacting the aquatic ecosystems where they draw drinking water for domestic use.

Providing safe drinking water entails high, unaffordable costs for many lower-income families, forcing them to consume non-potable water and suffer disproportionate water cuts.

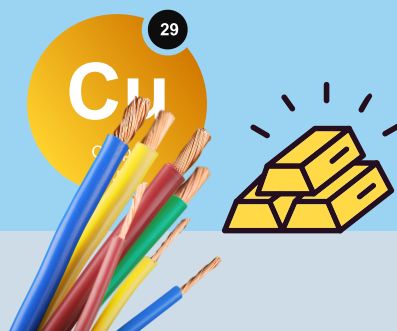


## F. Indigenous Peoples

**Indigenous peoples' poverty and discrimination are aggravated by projects in their territories that pollute or grab their water without consultation or free, prior and informed consent.** They frequently experience harsher circumstances concerning their rights to access water and sanitation.

For example, in Canada, Indigenous peoples experience a disproportionately higher number of drinking water advisories, warning people not to drink water that may be unsafe or is known not to be safe.

In the province of Nueva Vizcaya, Philippines, the Didipio River, which is the source of drinking and irrigation water for the Bugkalot, Ifugao, Ibaloi, and Kankanaey Indigenous peoples, is poisoned by gold and copper mines.



# VI. Options to protect and restore aquatic ecosystems and the human rights to water and sanitation of billions



Technology offers tools to tackle many problems and improve people's living conditions, such as bringing water from distant sources, cleaning up pollution or even buying bottled water. However, it must be remembered that impoverished people do not have the financial means to access these solutions.

They generally rely on the water cycle's complex and efficient natural engineering, powered by free solar energy.

## A. Ecosystems-based solutions under a human rights approach



Understanding green engineering for water cycle management can lead to cost-effective solutions for safe drinking water and climate change adaptation.

Applying a human rights approach rooted in equality, non-discrimination, prevention, precaution, and non-regression principles, while supporting vulnerable communities, can result in more sustainable and fair solutions.

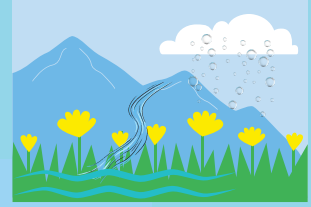


**These ecosystem-based approaches mark an improvement over dominative technocratic methods.** However, there's a risk of twisting this concept into a neoliberal approach that justifies exploiting nature, which should be prevented.

Terms like "nature-based solutions" increasingly lead to privatization and commodification, sidelining those dependent on nature.

- New York and Vancouver adopted such strategies, ensuring safe water at lower costs while preserving ecosystems.
- China's "sponge city" strategy, including floodable spaces and rainwater infiltration, addresses climate change risks.
- Other capitals like Jakarta and Mexico City are reevaluating traditional drainage and groundwater strategies due to subsidence and frequent flooding.

Economic tools like block consumption tariffs, increased tariffs, or the polluter pays principle can promote sustainability and human rights compliance.



## B. The human right to healthy and sustainable rivers and aquatic ecosystems

On July 28, 2022, the UNGA recognized the human right to a clean, healthy and sustainable environment. Recognizing this right is equivalent to the need for the planet to be a safe home for all.

The Special Rapporteur on the environment and human rights moved the debate forward by stressing our dependence on the environment we live, insisting that:

“ *Without a healthy environment, we cannot build a life of dignity for all.* ”

Prioritizing impoverished and vulnerable communities, it makes rivers, lakes, and healthy wetlands a universal right, not a luxury, crucial for drinking water, food, and livelihoods. This perspective also underscores sustainable watershed planning in the face of climate change.

## C. Positive legal and governance alternatives



The human right to a clean, healthy and sustainable environment, derived from a human-centred vision, assumes an ecosystemic approach.

A positive example is the **EU Water Framework Directive**, the central objective of which is to restore the good ecological status of aquatic ecosystems.

The **abundant jurisprudence** of the **Inter-American Commission of Human Rights**, binding on the states involved, takes into account the rights of indigenous peoples, ecosystem health and human rights, with rulings such as that of the Marín gold and silver mine, which affects the Tzalá river and the communities that depend on it.

Also relevant are the numerous cases judged by the **Latin American Water Tribunal**, a peoples' initiative that has worked rigorously on many cases, linking the right to rivers in good condition with the right to drinking water.





The Constitution of Ecuador recognizes rights to nature: total respect for its existence, its life cycles, structure, functions and evolutionary processes, and the right to its restoration.

**Moreover, recognizing governments' responsibility toward future generations is crucial.** Hungary's Constitutional Court, in Decision No. 28/2017, emphasizes intergenerational equity principles, including the management of water ecosystems, preserving options, quality, and access to natural resources.



## D. Recognizing the legal personality of aquatic ecosystems

It is significant that the legal personality of rivers and aquatic ecosystems is recognized in more and more countries: Wanganui River in New Zealand (2017), by national law; Río Atrato and other rivers in Colombia (2017), by the Colombian Constitutional Court; all rivers in Bangladesh (2019), by the Supreme Court and several others. Spain's recent recognition of Mar Menor marked Europe's first acknowledgment of nature's rights.

The wise coherence of indigenous worldviews in their integrated vision of the territory overcomes the traditional fragmented vision that leads to developing specific laws on managing water as a resource, fishing, biodiversity or the river territory when they are interdependent.

### The approach is based on these principles:

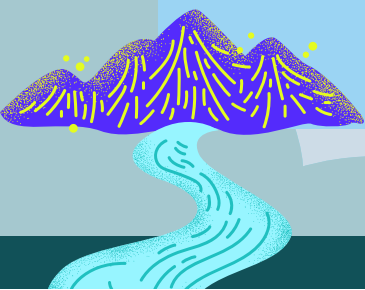
- **Nature's capacity to be represented in court as a new legal entity.**
- **Damage is not necessarily focused on impacts on humans but on nature itself.**
- **Right to compensation for damages.**

Colombia's constitutional court ruling T-622/16 complemented these principles by recognizing biocultural rights that link human rights and the rights of nature.

The UNGA Initiative "Harmony with Nature", from 2009, under the leadership of Bolivia, currently offers thirteen resolutions based on a non-anthropocentric paradigm.

Thus, as Māori Proverb says:

**“ We are the River, and the River is us. ”**



## VII. Conclusions and recommendations

The Special Rapporteur on the human rights to safe drinking water and sanitation proposes the following framework for aquatic ecosystem governance from a human rights-based approach:

- Based on recognizing the human right to a clean, healthy and sustainable environment and the human right to safe drinking water and sanitation, water legislation must be based on an integrated vision of the water cycle that allows for its sustainable management, and on the consideration of water as a common good, accessible to all but not appropriable by anyone.
- Legislation must ensure the transition from traditional approaches to managing water as a resource to new ecosystem approaches that guarantee the sustainability, good condition, and functionality of rivers, lakes, wetlands, and aquifers. On this basis, an effective priority must be established to guarantee in legislation safe and sufficient drinking water and adequate sanitation for the entire population as human rights.
- To the extent that it is about managing a common good on which human rights depend, States must guarantee democratic governance of water under a human rights approach, and therefore transparency, public participation and accountability, both in planning as in management and institutional organization, preventing any intentional or unintentional discrimination.
- Guaranteeing the good state of aquatic ecosystems requires, above all, the effective prevention of toxic contamination, especially protecting river headwaters and aquifer recharge zones, imposing strict surveillance and harsh penal sanctions for crimes against public health, guaranteeing the effective treatment of industrial and municipal discharges, promoting rigorous regulation of activities that generate elevated risks, such as mining and chemical manufacturing, and even prohibiting productive activities that harm public health.
- Diffuse agro-livestock contamination of rivers and aquifers by nitrates, manure, and pesticides must be combated by promoting an agroecological transition towards sustainable food systems that



make it possible to reconcile human and ecosystem health with social well-being, reducing the use of pesticides, integrating sustainable livestock farming and production agriculture and recovering soil fertility.

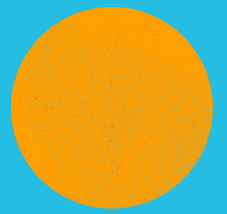
- The sanitation of wastewater must be ensured, not only in large cities with intensive wastewater treatment plants but also in smaller municipalities and rural communities, through extensive but effective systems, manageable and affordable for municipalities and community institutions, as well as providing support in the construction and maintenance of stand-alone systems, such as septic tanks, in dispersed populations. Beyond cleaning up wastewater, States must guarantee the disinfection of water and the maintenance of networks to guarantee the potability of the water supply.
- States must avoid the overexploitation of aquifers, the existence of illegal wells, the over-allocation of water rights and the hoarding of land and water, and avoid unfounded expectations of current or future water availability, guaranteeing the supply of populations and communities in situations of vulnerability and poverty, above any productive use, however profitable it may be.
- States must monitor and hold companies accountable for the degradation of aquatic ecosystems and their impacts on water potability, forcing them to comply with their obligation to repair and compensate for damages through legislation based upon the UN Guiding Principles on Business and human rights.
- Promote transparent and participatory public management models in the river basin, aquifer institutions, and municipal water and sanitation services. In rural areas, community water management is undoubtedly the genuine expression of democratic water governance that many peasant communities and Indigenous peoples have traditionally practised. Therefore, States must recognize and strengthen community water management and institutions, promoting public-community partnership strategies.
- Recognize and respect Indigenous worldviews, practices and knowledge in water management within the framework of the rights recognized by the United Nations Declaration on the Rights of Indigenous Peoples.

- Promoting a participatory and responsible culture requires education, information and training policies on water management for the entire population, with particular attention to children, presided over by the values of caring for others and aquatic ecosystems, from an egalitarian approach between children and girls, men and women.
- It is necessary to develop adaptation strategies based on hydrological, land and urban planning to face climate change which strengthens the environmental resilience of aquatic ecosystems and the social resilience of the population—recovering the good condition of wetlands, riverside ecosystems, and especially aquifers, as strategic drought reserves will be essential to reduce the impacts of droughts and floods. Guaranteeing the human rights to drinking water and sanitation and safe homes against the risk of flooding, particularly for the most impoverished, and developing water supply and sanitation facilities adapted to extreme events of drought and river floods reduce the population's vulnerability.
- To meet SDG 6, States and international Institutions must take on the challenge of making peace with our rivers and aquatic ecosystems, recovering their good condition and ecosystem functionality. Still, it is also necessary to establish a budgetary priority at the national, regional and global levels, to finance the basic infrastructures of communities in extreme poverty.
- The Special Rapporteur is deeply concerned by the growing toxic contamination of rivers, aquifers and drinking water sources and recommends that a debate is opened within the United Nations bodies and human rights mechanisms to define and clarify the criminal typology to be applied to massive and systematic processes of toxic contamination by heavy metals, metalloids and other toxins, such as those that often occur in legal and illegal mining operations and chemical manufacturing.

Finally, the Special Rapporteur supports the recommendations made by the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment in his 2021 report to the Human Rights Council, "Human Rights and the global water crisis: water pollution, water scarcity and water-related disasters" and considers this report complimentary.



UNITED NATIONS  
HUMAN RIGHTS  
SPECIAL PROCEDURES  
SPECIAL RAPPORTEURS, INDEPENDENT EXPERTS & WORKING GROUPS



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

**Pedro Arrojo-Agudo**



[hrc-sr-watsan@un.org](mailto:hrc-sr-watsan@un.org)



[@srwatsan](https://twitter.com/srwatsan)

