

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

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SUMMARY OF FINDINGS and RECOMMENDATIONS

From 18 to 29 July 2022

The present version is based on the official report A/HRC/54/32/Add.1





Itinerary



General background



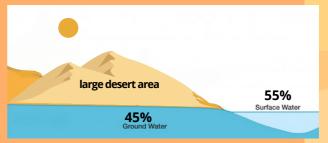
Geoclimatic context and availability of water resources

Tunisia is among one of the most water-scarce countries in the world and is strongly impacted by climate change.

It has different climatic regions, ranging from a relatively humid area in the far north, where there are rivers with permanent water flows (82 % of surface flows and 55 % of the renewable groundwater), to a **large desert area** covering the south of the country (where rivers are ephemeral).

Of the country's limited water resources, **55 % is surface water** and **45 % is groundwater**.

Deep aquifers (58 % of the country's deep aquifers) contain non-renewable fossil water.



Not all renewable flows are strictly speaking available, as ecological flow regimes in rivers need to be preserved and exhaustive pumping of groundwater can lead to salinization and aquifer degradation.

Over recent decades, developments in certain regions have been mainly supplied by groundwater. Significantly, most of those groundwaters, mainly located in the south of the country, are non-renewable fossil reserves. Tunisia has relied on groundwater to cover the growing demand for water in urban areas and for irrigation. The result is the accelerated and uncontrolled development of thousands of drilled wells, most of which are unmetered.

It is estimated that out of a total of 140,000 wells, 90,000 are illegal.

Tunisia has a long legacy of methods to deal with the scarcity and uneven distribution of its water resources. Traditional and even ancestral techniques serve for collecting, storing and transferring flows.

Tunisia opted in the 1970s to build large dams in the north and a large water transfer system along the coast as far as Sfax, following development trends.

Those large dams still supply water to Tunis today and have promoted urban development, tourism and irrigation along the coast, particularly in the northeast of the country.



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Population distribution, economic activity and unsustainable overexploitation

Tunisia has approximately 12 million inhabitants.

The overwhelming majority of Tunisia's population is located in the northern half of the country.

In 2021, an estimated:

- 69.9 % of the total population lived in urban areas
- 30.1 % in rural areas
- Urbanization is expected to grow at 1.34 % per annum between 2020 and 2025.

Agriculture, which supports 35% per cent of the Tunisian population, has undergone a profound transformation with the massive expansion of irrigation, from a few thousand hectares in the 1970s to more than 435,000 ha today. In 2020, there were 260,000 families in need and 630,000 families with low or no fixed income.



The poverty rate is 26 per cent in rural areas and 10.1 per cent in urban areas.

Growth in demand has surpassed the sustainability of the country's aquatic ecosystems, particularly of most aquifers. Simultaneously, coastal aquifers are suffering salinization, due to marine intrusion, a problem which is likely to worsen as sea-levels rise. Of concern is the situation in the Gabès-Jeffara area where, following the massive use of water in the industrial processing of phosphates since the 1970s, water sources have dried up. The natural and cultural heritage of the oasis of Gabès, which deserves protection as a world heritage site, is thus disappearing.

In Meknassy and Nasrallah illegal irrigation wells compromise the human rights to safe drinking water and sanitation of the rural population in already water-scarce environments.

Developing new dams will have little potential to provide a solution, given current climate change perspectives.

The government has increased water rates to curb excessive water consumption with higher increases for the most intensive users and the most prosperous economic sectors.

Risks and impacts related to climate change

With climate change it is necessary to foresee a sharp decrease in available water flows, which will increase water scarcity crises. The intensification and lengthening of multi-annual drought cycles due to climate change will lead to severe water scarcity risks, rendering some areas uninhabitable.

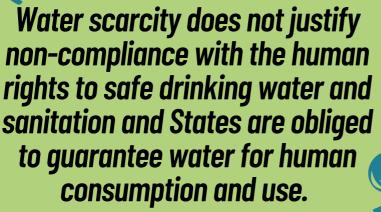
Water demands should adapt to this trend. The Special Rapporteur considers it fundamental for Tunisian decision makers to consider the following matters:

- the drastic reduction in average water surface flows due to the decrease in average rainfall and to the increase in evapotranspiration of plant masses with increasing temperatures;
- clogging of water reservoirs will be more significant and intense because of increased erosion due to severe storms and fires:
- reduced infiltration of water into aquifers, owing to reduced mean precipitation and reduced infiltration in heavy rainfall events;
- · accelerated desertification of territories;
- higher water consumption for irrigation as temperatures rise; longer and more intense drought cycles;
- the salinization of coastal aquifers caused by the rise in sea level.

Regarding this last point, during his visit, the Special Rapporteur was able to see how the salinization of aquifers in the south of Tunisia could affect the availability of drinking water in communities.

In the context of the accelerated deterioration of the aquifers, the de facto priority currently given in Tunisia to the productive uses of water sources linked to powerful economic sectors is risking the human rights to drinking water and sanitation of many rural communities.







According to international human rights norms, States should reserve the best available water quality for human use, regardless of how profitable water use for production or other uses could be.

Legal, policy and institutional framework

A. Institutional framework

Tunisia has a well-developed institutional water system, with a remarkable heritage of waterworks and wells primarily dedicated to irrigation.

 National Water Distribution Utility (SONEDE): public institution, manages drinking water under the Ministry of Agriculture, Water Resources and Fisheries, supplying drinking water to the entire urban population and 51 per cent of the rural population thorough the ample hydraulic infrastructures concerning surface water and numerous wells.

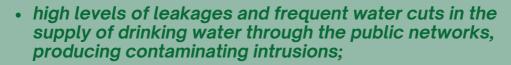
For the remaining 49% of the rural population, drinking water is handled by the Agrarian Development Groups (GDA), also under the responsibility of the Ministry of Agriculture, Water Resources and Fisheries through the regional commissions for agrarian development (CRDAs).



2,500 GDA, community-based organizations, manage irrigation and drinking water for 1.275 million people, most of them living in situations of poverty and vulnerability.

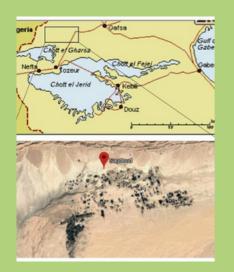
Issues faced by GDAs:

 high cost of electricity leading to non-payment and resulting in electricity cuts and, therefore water cuts; Electricity costs represented more than 70 per cent of the expenditures of the groups. Due to these problems, in many communities the boards of agrarian development groups were vacant since no one wanted to take part.



 discontent and protests of local actors due to widespread perceived non-compliance with the law that establishes the priority of drinking water over productive uses, such as irrigation by large producers and phosphate mining.





The **Sagdoud oasis**, near the **Redeyef phosphate mine**, has had **no water supply for seven years** due to the poor state of the pipes. At the time of the visit, the health centre at the oasis was closed due to the lack of water.

The community had offered to renovate the pipeline and build a well with their own labour, but the Government had rejected this, arguing that fixing the pipeline was the responsibility of the State, not of the population.

The Special Rapporteur was informed that three quarters of the oasis population has left their homes due to the difficult living conditions.

National Sanitation Office (ONAS) manages sanitation under the Ministry of the Environment. The he National Sanitation Office is responsible for the construction and management of sewerage networks and sanitation facilities in urban areas.

There is no effective regulation regarding sanitation in rural areas and the rural population does not receive adequate support.

Rural families addressed sanitation individually through toilets, septic tanks and cesspits that often lacked adequate design and maintenance, increasing the risks of contaminating their drinking water.

The Special Rapporteur evaluated as positive the emergence of a process of administrative decentralization, even though the process was incomplete, particularly in terms of water and sanitation.



B. Legal framework

Tunisia is a party to several international human rights treaties which stipulate the right to an adequate standard of living, including the rights to water and sanitation and the principle of non-discrimination.

Tunisia has not ratified the International Convention on the Rights of All Migrant Workers and Members of Their Families, nor the Optional Protocol to the International Covenant on Economic, Social and Cultural Rights.

The **new 2022 Constitution** explicitly includes the right to water, in article 48:

"The state must provide clean water to all on an equal basis and must preserve water resources for future generations". The human right to sanitation is not included.

The Special Rapporteur considers that, while it is positive that the State assumes responsibility for the provision of water under the principles of availability, sustainability and non-discrimination, for the human right to water to be fulfilled, the State should also guarantee quality and affordability.

The **1975 Water Code**, the overarching legislation regarding the water sector, includes a provision regarding quality and acceptability (despite not clearly defining the right to water). Article 97 of the Water Code determines that:

"Water intended for consumption must not contain harmful quantities of chemical substances or germs harmful to health. It must be free of pollution and have organoleptic characteristics that render it acceptable".

On 2021, a draft law to replace and update the Water Code was presented, after consultations with experts, regional governments and civil society that included very positive developments, like the provisions regarding the human rights to water and sanitation in rural areas, the measures proposed concerning access to information and climate change adaptation strategies related to water. The consideration of the draft law was postponed.

The decentralization process may have positively affected the human rights to safe drinking water and sanitation of those living in rural or remote areas. In the Special Rapporteur's experience, water and sanitation are best managed at the territorial level.



C. Policy framework and hydrological planning

As established in pillar 5 of the country's strategic guidance document, water is a priority for the Government based on "promoting green growth for sustainable development". Multiple water and sanitation policies seek to ensure the sustainable availability of water resources by 2050.

All these policies aim principally to increase water resource availability by expanding the water infrastructure, namely by developing supply-side strategies instead of prioritizing demand management and ecosystem

conservation strategies. From the Special Rapporteur's point of view, this is a strategic error and unsustainable, as has already been demonstrated in other countries, by fuelling demand expectations far beyond the availability that can ultimately be generated.

A de facto priority of water use for large-scale irrigation, mining, and industry over drinking water in rural communities exists. For instance, in Meknassy rural communities denounced the overexploitation of aquifers by irrigation promoted by large investors who are granted drilling and pumping licences, while similar permits for water for rural communities are denied. This goes against prioritizing water for personal and domestic use and preventing hunger and disease. It even transgresses Tunisian law itself, which also establishes this priority.

In that context, the Special Rapporteur hopes that the "Eau 2050" strategy will be an opportunity for reflection for the Government to take up the challenge of restoring the good state of aquatic ecosystems, adjusting demand management strategies to the expected lower availability of water, and promoting a legal framework that guarantees human rights, paying special attention to rural communities.



D. Human rights to safe drinking water and sanitation in Tunisia

A. Drinking water availability

Tunisia has made remarkable efforts to reduce poverty and increase access to water supply, sanitation and hygiene services, with 4 million people gaining access to water and improved sanitation between 1990 and 2015. Unfortunately, the pandemic has increased poverty and the World Bank estimates that pre-pandemic levels will not be recovered until 2024.

The National Water Distribution Utility states that the drinking water supply rate to the Tunisia population was:

• 98.3 % in 2020, including 100% in urban areas and 94.7 % in rural areas.

However the availability of safely managed water is significantly lower than the rate of access.

- 650,000 people still do not have water in their homes (mostly in rural areas) and are supplied by public water sources.
- 300,000 people do not have public water sources near their homes, so they rely on springs, wells or water vendors.

 Those 300,000 people represent about 2% of the national population and live mostly in the centre-west and north-west regions.

Continuity issues: although water services are certainly available to most of the population these services are frequently subject to cuts Water shortage issues or breakdowns lead to increasingly frequent and prolonged water cuts, and several water networks are getting old. When prolonged and frequent also affect the quality of the water.

B. Accessibility

According to a recent study:

- 75.4% of households in rural areas of Tunisia have running water on site,
- 14.8 % spend less than 30 minutes to access the nearest water point.

When running water does not reach the homes or accessing water services is intermittent, women walk long distances to public fountains and wells or buy water from private vendors and transport it to their homes.

Although Tunisia has achieved a high household coverage rate, problems of potability and increasingly frequent and prolonged water cuts are **leading women to fetch water**, especially in rural areas, aggravating the poverty and the vulnerability.



During his visit to **Nasrallah**, the Special Rapporteur exchanged views with a group of women, some of them elderly, who were fetching water by hand from a deep well.

They explained that the water was not drinkable but that they used it for domestic work.

The women bought water for drinking and cooking from street vendors at high prices and although it was better than the water from the well, there was no guarantee that it was safe to drink.

C. Affordability

Water rates for 51% of the population served by the National Water Distribution Utility (based on consumption blocks):

- An average family's monthly cost to be paid for reasonable consumption represents less than 1% of the minimum wage (403 dinars). Including fees from the ONAS for sanitation services, tariffs for water and sanitation do not exceed 2% of the minimum monthly salary.
- Rural communities (51% of the rural population) benefit from a fixed tariff equivalent to the first bracket of urban supply (0.200 dinars per m³), whatever the volume consumed. Unfortunately, the low prices guaranteed by the National Water Distribution Utility tariff system are accompanied by a lack of confidence in the quality of the potable water supply.

Water rates for the population not served by the National Water Distribution Utility:

- GDA rates: on average, 0.730 dinars, varying between 0.5 and 1.25 dinars per m³. The difference between the National Water Distribution Utility rates for the lowest brackets and the rate charged by the GDA for 49% of the rural population is enormous.
- Where the GDA do not function, households are forced to rely on informal vendors or alternative solutions, with costs varying widely, from around 5 to 25 dinar per m³.

Across the country, and especially in rural areas, even though there is connected water in households, the perceived deterioration of its quality pushes more and more families to **buy bottled water**, with all the negative repercussions that this implies for their family budgets. **Bottled water sales increased from 2.25 billion litres in 2019 to 2.7 billion litres in 2020**.

Tunisia is thus ranked fourth worldwide in terms of consumption of bottled water, with an annual average of 227 litres per person per year.



D. Quality and safety

On criteria that takes into account access to safely managed water:



indicators relating to ensuring

- overall 57.2 % of homes have safely managed water
- 64.9 % in urban areas
- 40.5 per cent in rural areas.

The indicators are:

- the water comes from an improved water source
- the water source is within the concession
- water from the source is available when needed
- the water is free of faecal and chemical contamination

The Special Rapporteur notes that improved sources of water and higher connection rates are the fruits of a huge national effort that must be recognized.

Among those connected to a water supply network 29.1% suffer from frequent water cuts and/or receive water of poor microbiological and/or chemical quality. These problems are much worse in rural areas, where only 40.5 % of the population have access to safely managed water at home.

Drinking water contamination problems have different origins:

- level of wastewater treatment
- the efficiency of chlorination and potabilization processes
- the contamination of aquifers by industrial, mining and agricultural discharges
- the pollution in the networks related to their obsolescence and frequent water cuts

Faecal contamination of water bodies, especially aquifers, is of concern.

There is inefficiency of disinfection operations.

The population under moderate, high or very high risk of faecal contamination, *such as E.coli*, of water received in households reaches 28.9%:

- 23.1% in the urban population, and
- 41.8 per cent in rural areas.



The national average **rate of bacteriological** non-compliance registered in 2020 for the water managed by the National Water Distribution Utility is:

• 10.1 %

with high rates in regions such as Ben Arous (57%)

- Gabès (39%)
- and Tozeur (100%).

One of the critical reasons for the high proportion of drinking water not managed safely is due to contamination in the networks and to water cuts, due to the obsolescence of the pipes.

The pressure drops during water cuts in networks with significant losses due to leaks, leading to polluting intrusions that jeopardize water potability when the supply is restored.

In all the regions and municipalities the Special Rapporteur visited, people expressed general discomfort over the water cuts, complaining about the perceived quality of the water in their homes, which, according to them, was not drinkable, often cloudy and sometimes with a bad smell.



E. Human right to sanitation

The rates of availability of sanitation services are lower than those of water services.

According to World Bank data:

86% of people in Tunisia have access to safely managed sanitation.

250,000 people practise open defecation.

900,000 people were using unimproved sanitation.



It is important to note that the human right to sanitation implies decent, hygienic and safe toilets and adequate wastewater treatment. In dispersed communities, individual septic tanks or similar solutions need to be correctly designed and maintained to avoid contamination of local water sources and aquifers by sewage infiltration.

Small towns and villages need sewerage systems and extensive, affordable and easy-to-manage sanitation plants. In the case of larger urban areas, intensive sanitation plants are necessary, in addition to sewerage systems to prevent contamination of the aquifers that provide drinking water.

Wastewater treatment remains an issue in Tunisia:

58% of wastewater discharged annually in Tunisia (140 million m³) is treated in 61 treatment plants.

In Gabès, these treatment plants are often overloaded, suffer frequent breakdowns and have to treat industrial discharges along with wastewater. This frequently results in a significant degradation or breakdown of their effectiveness. This model does not seem to be effective.

Rural communities and the dispersed population lacked support in the design and supervision of the septic tanks and cesspools constructed by each family to ensure their proper installation and maintenance.

Staff of the ONAS and officials in the different regions visited explained to the Special Rapporteur that the staff reduction being carried out by the National Sanitation Office, combined with the process of privatization of the management of the sanitation plants, has led to a degradation of the service.



F. Participation and access to information

The rural areas, comprising 49% of the country, suffer from a lack of information and inadequate sanitation coverage.

Despite technical capacity and data availability, management remains inefficient, non-transparent, and non-participatory due to administrative complexities and centralized systems.

GDA offer community management in rural areas, but they lack adequate support from the State and autonomy to contribute effectively. Women's participation in public life has improved in Tunisia, but it remains a challenge in rural areas, where women are underrepresented in GDA.

The lack of access to water and sanitation has led to peaceful protests across the country.

In 2022, 423 peaceful protests related to water issues were recorded, often met with violent repression and criminalization by the authorities. The lack of dialogue and response to the population's demands exacerbates the situation, instead of seeking solutions.

G. Drinking water and sanitation in schools



During his visit, the Special Rapporteur witnessed first-hand the state and availability of school toilets He noted that the toilets were often damaged and dirty and that there were often no toilets for girls. When they were available, there was a lack of water. Also there were no facilities for girls to manage their menstruation.

The Special Rapporteur noted that menstruation, as a shameful taboo, was still not included in the school curriculum. All of this penalizes girls disproportionately in dropout rates.

In a meeting during the visit, the Minister of Education indicated to the Special Rapporteur that:

1,415 elementary schools were not yet connected to the national water supply network, of which 461 had problems with a regular supply of drinking water.

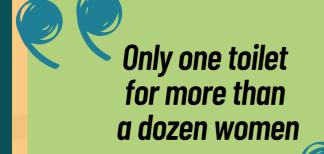
The Minister said that promoting drinking water in schools was among the ministry's priorities during the next school year.

H. Groups in situation of particular vulnerability

The Special Rapporteur visited and meet:

Migrants in Médenine and listening to the stories of refugees and asylum-seekers, both women and men, the Special Rapporteur wishes to point out that the Government is responsible for providing adequate living standards for these populations.

A women's detention centre, where he witnessed how the detainees were provided with **only one toilet for more than a dozen women,** with low water pressure and in a crowded space in high temperatures.





I. Public investment



Disparities across the country:

in 2015, total expenditures per capita on water, sanitation and hygiene were:

- around \$66 in urban areas
- only \$38 in rural areas.

The considerable efforts made to expand the water and sanitation networks require systematic budgetary commitments for their long-term maintenance and for replacing the supply networks that have become obsolete.

Local governance and community based management

Regarding rural areas, the Special Rapporteur considers the community management of water and sanitation as the appropriate model of democratic governance that should be promoted in rural communities.

The extensive network of GDA should be seen as a social and political asset that the Government should strengthen by making the necessary financial and technical means available to rural communities.

In addition, having identified the problem of high electricity costs as one of the reasons that led to the collapse of manygda, this could be an opportunity to promote a transition to solar energy (or wind energy where the right conditions exist) to guarantee drinking water in rural communities and lower the operating costs of those groups.



Conclusions and recommendations

There is an urgent need for Tunisia to end the overexploitation of aquifers and promote sustainable planning adapted to climate change under a human rights approach. Given the progressive reduction of water availability due to climate change and the current overshoot of consumption over and above the renewable availability of resources, a rigorous application of the precautionary principle and moderation of productive ambitions is required. Also, human rights to drinking water and sanitation must be guaranteed priority over productive uses.

The Special Rapporteur recommends:

Strengthening hydrological planning from the perspective of climate change, moving from supply-side strategies to sustainability-based strategies and demand management;

The closure of illegal wells and the installation of meters to guarantee not only the sustainability of the aquifers but also reserves for extraordinary drought cycles;

Promoting the creation of aquifer user associations with the participation of the agrarian development groups in the control and management of aquifers, both in quantitative (pumping) and qualitative (possible contamination) aspects;

Guaranteeing the primacy of drinking water over productive uses, avoiding pumping licences that could lead to cuts in the supply of drinking water.

The Special Rapporteur recommends that supply networks be renewed and the potability of drinking water guaranteed, especially in rural areas. Obsolescence and the lack of network maintenance, together with the high level of leaks, is the main reason for the frequent water cuts and the contamination of drinking water in the networks through leakage points, especially in rural areas.

The Special Rapporteur recommends:

Promoting a network renewal plan and prioritizing its financing, especially for rural communities;

Promoting regulations that guarantee budget allocations for the systematic maintenance and renewal of the water networks;

That the State guarantees, free of charge, at least two litres of drinking water per person per day, employing tanker trucks and cisterns in rural communities, with special priority for schools, as long as the public networks do not guarantee drinking water;

In urban neighbourhoods, as long as drinking water is not guaranteed in the networks, promoting a municipal bulk drinking water service at cost price, distributed throughout the commercial food network, much cheaper than bottled water and avoiding plastic waste. That could include a home service for persons with disabilities under the direction of municipal social services.

The Special Rapporteur recommends that sanitation as a human right is developed and guaranteed. Ensuring the human right to sanitation is essential to preserving the potability of the water supply and the health of the population, especially in rural areas.

The Special Rapporteur therefore recommends:

Promoting a specific rural sanitation programme for all communities, especially those not reached by the National Sanitation Office, involving the agrarian development groups, providing them with funding and strengthening their capacities in the design, construction and maintenance of septic tanks in dispersed rural populations;

Promoting sewerage networks and well-designed extensive sanitation plants, with no energy costs, in rural municipalities of up to 5,000 inhabitants and providing decentralized technical staff to strengthen municipal and community capacities;

Strengthening the National Sanitation Office in terms of financing and personnel, in order to be able to recover the public management of sanitation plants as strategic elements of national interest and develop tertiary systems in urban intensive sanitation plants that allow for the reuse of wastewater:

Prioritizing urban supply over the mining sector by building wastewater treatment plants at both Gabès and Redeyef and supplying the mining and processing industries by reusing the water from those plants.

In terms of the governance of drinking water and sanitation, the Special Rapporteur recommends that the current public and social approach to water management, with an affordable rate system for blocks of consumption, should be improved by promoting the participatory governance of water and sanitation services, involving municipalities, rural community systems and the general public. This requires progressive reforms that promote the decentralization of competencies in the management of drinking water and sanitation services, and the strengthening of community management based on the agrarian development groups in rural areas. Unfortunately, following the Special Rapporteur's visit, the incipient decentralization process that was under way seems to have been reversed.

The Special Rapporteur recommends:

Opening a process of reflection and public debate on what works or does not work in the agrarian development groups to reform and empower community-based management, paying special attention to women's participation;

Prioritizing the transition to solar (or wind) energy for pumping water in rural areas, lowering the operating costs of the agrarian development groups and promoting the technical training of young people locally to maintain and manage those technologies;

Giving agrarian development groups in rural communities the possibility to make investments and contribute their work on the water systems they manage, which will enable community ownership to motivate greater community participation;

Reconsidering the process of decentralization of water and sanitation services, and developing it progressively but coherently, as municipal competences, with adequate regulation and national support. Maintaining hydrological planning as a centralized competence in the management of large infrastructures, and in the planning and management of river basins and aquifers with the objective of guaranteeing their sustainability;

Reinforcing sanitation as a national priority, as well as the staffing of the National Sanitation Office, and subjecting the privatization process to a public audit to draw conclusions and reverse the privatization promoted so far, if appropriate, in line with the traditional social approach to public water management in Tunisia;

Progressively transitioning to solar energy for groundwater pumping, giving priority to rural communities, for intensive urban sanitation treatment plants and even, if necessary, for seawater desalination on the coast;

Promoting transparency and citizen participation in the management of water and sanitation services at all levels, with special attention paid to the equal participation of women;

Providing spaces for dialogue and mediation around water conflicts, avoiding their judicialization and the criminalization of protesters and water defenders, as part of a national dialogue on the water challenges posed by climate change;

Regarding the next water code, the Special Rapporteur would like to highlight the high level of social participation achieved in the proposal presented to the parliament in 2021. For that reason, he hopes and recommends that, following the withdrawal, under pressure from civil society organizations, of the most recent draft presented, the participatory spirit and the contents of the 2021 draft will be taken up again.



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