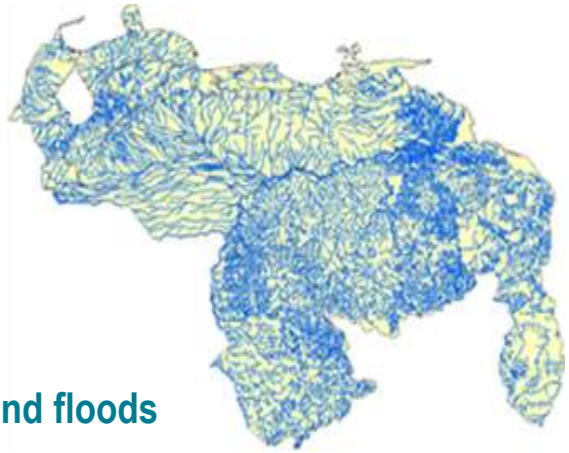
COMPLEX HUMANITARIAN EMERGENCY IN VENEZUELA

RIGHT TO WATER

National Report
October 2018

Venezuela is immersed in a Complex Humanitarian Emergency that impedes, among other rights, access to drinking water and sanitation[1]. The country has more natural fresh surface water resources than necessary to supply all its population of close to 32 million people[2] [3]. However, the dismantling of the entire institutional and physical structure of the sector has compromised the quality of the sources of supply, the treatment and purification of water, distribution, sanitation and health, hydroelectric production, even the very reduced industrial and food production the country has today: in short, it is endangering the lives of Venezuelans in all areas.



Damages and losses caused by water: lack, pollution and floods

1. Today 82% of the population, the equivalent of 28,621,000 people, does not receive water on a regular basis. That which is received sporadically, is of doubtful quality or not potable.
2. Lack of maintenance of aqueducts, drinking water distribution networks and household connections, causes losses of 5,400 liters per second of already-treated water.
3. Wastewater collection through the sewage disposal service has been drastically reduced. In 2011, a collection of only 30% of the population's wastewater was recorded.
4. 75% of public health care centers do not receive water on a regular basis, or do not receive it at all. The national hospital network does not have a reliable water supply and has severe sanitation problems.
5. Educational facilities in all levels -basic, middle, high school, and universities- also suffer the consequences of deficiencies in the water service, have sanitation problems, and are being affected by the floods.
6. Natural sources of fresh water are being damaged. The river basins that produce raw water are being logged, contaminated and intervened, both outside and inside the National Parks System, with the consequent reduction of their flows.
7. The reservoirs are in eutrophic condition and silted, as well as biologically, physically and chemically polluted, with a clear deterioration of the quality and quantity of their waters.
8. The institutional and physical structures of the government agencies responsible for water management have been dismantled. Cases of corruption and misappropriation of public monies in the execution of works are constantly reported.
9. The government agencies in charge of hydrological services and infrastructure are without supervision, without resources, not complying with their responsibilities. Conventional water treatment plants are not able to purify raw water due to the high levels of pollution.
10. Water distribution networks receive no maintenance. Pumps, valves and pipes have already reached their useful life, and there are no resources for replacing them.
11. There is no maintenance of sanitation networks (sewage and grey water collection networks). Pumps, valves and pipes have reached expiration date of their service lives and there is no possibility of replacing them. Treatment plant maintenance has been abandoned; plants have been left to completely decay.
12. There is widespread contamination of superficial and underground water bodies by oil and mining activity (some of it historical), agro-toxics and open-air garbage dumps. The pollutants are reaching places that were supposed to be pristine, as well as the Caribbean Sea and the Atlantic Ocean.

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The destruction and contamination of watersheds and aquifers obstructs access to water sources, even in spaces supposedly "free of contamination" such as rural areas or the Orinoco watershed itself and the Venezuelan Amazon rainforest. In these "green lungs", present day deforestation rate is one of the highest in the world. They are being transformed into places of destruction of life, impacting populations, ethnic groups and biodiversity that are already vulnerable. The deforestation and mining - legal or illegal - that are being carried out south of the Orinoco, considerably contribute to the growth of Malaria, Dengue, Zika and Chikunguya vectors, and are causing severe pollution of water, soil and atmosphere due to the use of mercury (Hg) and cyanide (CN-)[4 5].

The life of the country and its citizens is being affected by: a) the destruction of its basins, b) the water shortages induced by poor management, c) floods and d) contamination of its waters. The infrastructure of the network of hydro-meteorology monitoring stations, an indispensable tool of any drinking water supply plan and risk assessment, is also very much diminished. Absolutely predictable events, intensified by climate change, are rarely reported and not adequately attended. This condition is deepened because Venezuela depends energetically on the Guri reservoir, which generates more than 65% of the electricity consumed in the country. Currently 9 of its 20 turbines are out of order, with no plans to repair them. The diagnosis is reserved. Blackouts of more than 12 hours have been affecting a large part of the national territory. If the Guri hydroelectric plant stops working, it would make the Complex Humanitarian Emergency much worse.

13. The network of hydrometeorology monitoring stations has been reduced to a level where it is unable to warn about risk threats (floods or droughts), nor provide the necessary information for planning and/or decision-making.

14. The lack of weather information has foreseeable impact on food production. The farmers and livestock breeders are one of the sectors that have been seriously affected by the dismantling of the hydrometeorology monitoring system.

15. The country's hydroelectric infrastructure has received no maintenance for more than 10 years. The margin for operating capacity with which it was built has already been surpassed. At the moment, there is no real possibility of replacing any of its infrastructure or its institutional capabilities. Present day personnel lack the required qualifications for proper operation, and hiring new personnel is impossible.

16. The Lake of Valencia is a fresh-water reserve. Today: a) It is a domestic, industrial and agricultural sink, therefore extremely contaminated. b) Its rising waters have already displaced some 3,600 people, and approximately 2,000 inhabitants live below the lake's water level. They are barely protected by a wall built to stop a large-scale flood, but water and time are exceeding the design calculations and wall life. c) As the lake level rises and the risk of an absolutely avoidable tragedy increases, government responses have been ineffective.

What is the right to water? The human right to clean drinking water includes access, for each individual, to a sufficient, regular and adequate supply of potable water for personal and domestic use; water that is safe and of acceptable quality; and at a bearable cost that guarantees health and satisfies demand for cooking and hygiene needs. It also includes the right to the water resources, not only as natural resources, but also as social and cultural assets, that must be conserved, managed and protected to provide a sufficient and equitable water supply in a manner appropriate to dignity, life and human health, and sustained for current generations and future ones; The right to live in a human habitat free from health risks from unsafe and/or contaminated water, guaranteeing that natural water resources and aquatic ecosystems are protected from harmful substances, pathogenic microbes and vectors of diseases; And the right to have no interruptions or arbitrary or unjustified disconnection of water services or facilities and disproportionate or discriminatory price increases. (CESCR: General Comment No. 15 on the right to water, 2002)

RIGHT TO WATER

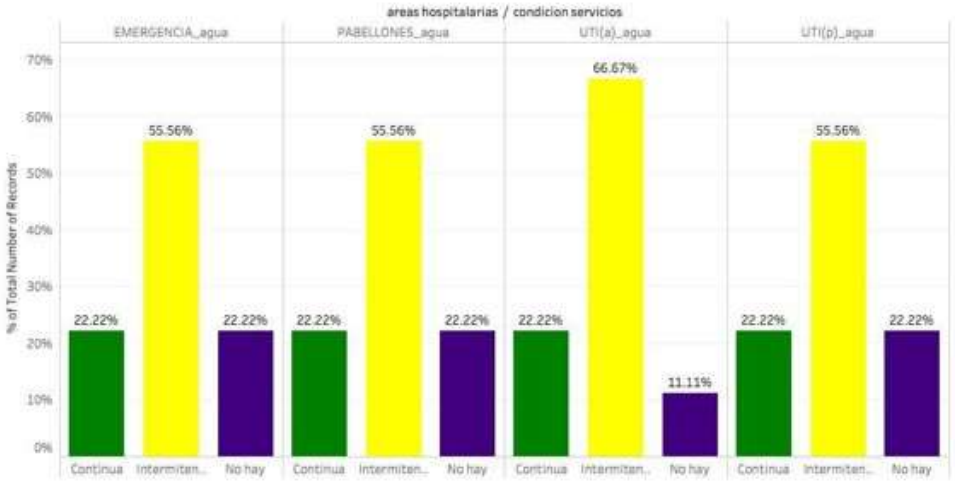
1) Today 82% of the population, the equivalent of 28,621,000 people, does not receive water on a regular basis[6]. That which is received sporadically, is of doubtful quality or not potable[7]. By the contrary, in 1998, 87% of the population received drinking water continuously and regularly. Today's situation forces users to store water in a variety of containers, a practice that enables the growth of vectors of diseases such as Zika, Dengue and Chikunguya. Additionally, it makes a necessity the hiring of informal water suppliers (tanker trucks), who provide water with no quality guarantee whatsoever and at a very onerous cost, especially for low-income users. This adversity means that, at present, the quality of life for 82% of Venezuelans is increasingly precarious. The rhythms of everyday[8] life rotate around the arrival of the precious liquid, which is usually an uncertain event. Lack of water was the cause of 260 of the more than 3,000 demonstrations regarding public services that occurred nationwide during the first semester of 2018. At the top of the list of demonstrators were the 5,327,360 inhabitants of the State of Miranda and the Capital District[9].

2) Lack of maintenance of aqueducts, drinking water distribution networks and household connections, causes losses of 5,400 liters per second of already-treated water[10]. A large part of this network is more than 50 years old. That enormous amount of lost water - due to broken pipes, illegal connections and other causes derived from the deterioration of the infrastructure - is lost to the users, who at the same time are already subjected to rationing, in many cases extreme (up to 30 days without receiving water). The rationing situation, which affects 82% of the population, implies a clear decrease in the quality of life for the said population. Additionally, water leaks may go for many days, sometimes weeks and months, without repair (if at all), time enough for water to cause road damage and landslides, adding other problems, especially in areas of steep slopes and unstable terrains which are often the sites of informal dwellings. According to the Civil Protection Agency, landslide events form 72% of the incidents, while the remaining 28% is distributed among floods, terrain settlements and others[11].

3) Wastewater collection through the sewage disposal service has been drastically reduced. The latest information available from the National Institute of Statistics, INE, dating from 2011, indicates that sewage waters are collected from only 30% of the population, around 9,000,000 people. If from that year until now there has been no replacement of pipes or new works, it is easy to surmise that 7 years later the situation can only have worsened. In 1998, 84% of the wastewater was collected, and 48% of that amount was treated. Thus, the same can be inferred with the treatment plants. In the 2011 statistics, the percentage of treated water was not mentioned. If 7 years later there has been no improvement, we can conclude that nowadays there is simply no treatment for what little is collected, if anything at all. The inadequate provision of drinking water and the deficiency of sewage and sanitation systems affect the sanitary and hygiene conditions of the population, and promote the appearance of water-transmitted diseases. According to the official epidemiological bulletin, between 2015 and 2016, there was an increase of 26.2% in cases of diarrhea in children under 5 years of age (from 676,388 cases to 853,698 cases), with a 2016 rate of 781.05 cases per 100,000 inhabitants. In the case of viral Hepatitis A, in 2015 the cases reached 5,850, and in 2016 they decreased to 4,305. The national morbidity rate for this disease reached 13.88 cases per 100,000 inhabitants. It was considered an epidemic situation in Zulia, Táchira, Miranda, Yaracuy, Carabobo and Aragua and a state of alert for Falcón and Vargas. In the 52nd week of 2016, the epidemic situation was evident in Falcón, Trujillo, Guárico and Delta Amacuro, and a state of alert for Zulia, Barinas, Lara, Cojedes, Aragua and Vargas[12]. Most experts agree that cases are under reported and that official statics do not represent reality.

4) 75% of public health care centers do not receive water on a regular basis, or do not receive it at all. The national hospital network does not have a reliable water supply and has severe sanitation problems. 55% of public health care centers do not receive water continuously and a further 25% does not receive it at all[13].

Water Provision in the Surveyed



- Specifically, in the J.M. De Los Ríos Pediatric Hospital, a type IV reference hospital located in Caracas, reports indicate that: "70% of deaths are due to sepsis, respiratory infection and diarrhea...", and "The most serious problem is the system of sewage pipes, which are percolating in 30% of the hospital area. The Oncology service is closed because sewage from upper floors is filtered to its level, located under Emergency and Intensive Care. The three water tanks that supply the entire building of the J.M. De Los Rios Hospital are contaminated (confirmed by physical-chemical and bacteriological tests), because around the tanks, which have broken covers, there are feces of animals, and when it rains everything that is in the basement and sub-basements is dragged to the tanks[14].

- The CONVITE A.C. Report indicates: "A notorious example is the bacterial infection that occurred in the Hospital J.M. De Los Ríos, due to the contamination of hemodialysis equipment, which were supplied water with decomposing materials, causing a grave *Klebsiella Pneumonae* infection that led to the death of several children." Similar situation was reported in the oncology unit at the Hospital of Maturin: "To the lack of maintenance and abandonment of equipment, it must be added the lack of proper cleaning of the health center spaces, both public ones and private ones such as operating rooms. Add to all those ills the recurring sewage spills, and it becomes clear that patient death is to be expected. Many of the hospital closures are due to collapses of the infrastructure, or, what is worse, contamination. Sewage invaded the blood bank of the hospital, preventing the continuation of the treatment of hemodialysis patients. In the case of the J.M. De los Rios, it is known, after the very unfortunate deaths of several children, that the main reason for the occurrence of the *Klebsiella Pneumonae* outbreak was the lack of maintenance of the osmosis plant, which filters the water used in dialysis for the children. Despite constant complaints from health professionals and hospital patients, the competent authorities remain aloof"[15].

5) Educational facilities in all levels-basic, middle, high school, and universities- also suffer the consequences of deficiencies in the water service[16], have sanitation problems, and are being affected by the floods. The 2018-2019 school year begins with extensive floods in several states. The schools of those states do not escape this situation. The deteriorated sanitation system that is still in place does not work under floods. Press reports reveal that in the State of Bolívar, there are at least 14 schools used as shelter centers for families from flooded villages[17].

6) Natural sources of fresh water are being damaged. The river basins that produce raw water are being logged, contaminated and intervened, both outside and inside the National Parks System, with the consequent reduction of their flows. The largest hydrographic basins of the country are located in the states of Amazonas, Bolívar and Delta Amacuro. "From 2000 to 2013, deforestation reached around 4,150 km2. This represents 47% of accumulated deforestation until the year 2000. As of August 2000, annual loss per sub-period has been increasing, contrary to the tendency to reduction in the rest of the Amazonian basin"[18]. To the north of the Orinoco there are estimates suggesting that from 2001 to 2017, Venezuela lost 1.83 million hectares, equivalent to a 3.2% loss since 2000[19]. The states with the highest percentage of forest loss were Zulia, Barinas, Portuguesa, Falcón, Anzoátegui, Lara, Guárico, Táchira and Trujillo[20]. The National Parks System was created to protect the fresh water sources of the country, for that reason the Constitution expressly orders their care and preservation[21].

7) The reservoirs are in eutrophic condition and silted, as well as biologically, physically and chemically polluted, with a clear deterioration of the quality and quantity of their waters. Ill-conceived projects of diverting water courses that receive untreated wastewater, to help fill up reservoirs, are causing pollution and eutrophication of the later. These are two examples:

- Water from the Tucutunemo River is being diverted to the Guárico River and Camatagua Reservoir, causing accelerated eutrophication[22] [23];
- Water from the Cabriales River is going into the Pao River basin, causing severe deterioration of water quality in the Pao-Cachinche Reservoir[24].

Bad management of reservoirs has allowed the proliferation of aquatic plants that increase the rate of evaporation and promote acute reduction of water quality due to accumulation of organic matter. Two examples are:

- Proliferation of Eichhorniacrassipes (Common Water Hyacinth, Bora) in the La Mariposa Reservoir, with the consequent deterioration of water quality[25];
- Proliferation of Pistiastratiotes (WaterLettuce) in La Pereza Reservoir, affecting water quality of this important source for Caracas and surrounding suburbs, and consequently the city's population[26].

Plans to expand and increase water services to cities are stagnant: in the last 15 years, HIDROVEN, the main government agency in charge of national planning of water services and resources, has not even considered building a single new dam[27].

8) The institutional and physical structures of the government agencies responsible for water management have been dismantled. Cases of corruption and misappropriation of public monies in the execution of works are constantly reported. From 2014 to 2018, the official agency in charge of water resources and services has undergone the following transformations: First, the Administration eliminated the Ministry of the People's Power for the Environment. (This was originally the first ministry of the environment ever created in Latin America) Then, what was once a ministry was demoted into a vice-ministry - the Vice-Ministry of "Ecosocialism, Housing and Habitat". Then, the vice-ministry was subsumed into the Ministry of the People's Power for Ecosocialism and Water. Now the Administration split his later ministry, to finally nominally have two: the Ministry of Ecosocialism and the Ministry for Water Care[28].

Adding to all those disruptions, since 2014 the presidency of HIDROVEN, the agency responsible for the production of drinking water, has changed hands several times[29]. Thus, bad administration has become the other type of bad management affecting the reservoirs. There have been reports of corruption and mismanagement of funds in the administration of some reservoirs. An investigation by the Comptroller's Commission of the National Assembly found that administrative irregularities in the construction of the Yacambú-Quibor Hydraulic System (file 1467) were so grave, that the system ended up not even half finished. In consequence, the Assembly sentenced the government officials involved with a political sanction[30], as the Supreme Court has shown no interest in pursuing the matter.

9) The government agencies in charge of hydrological services and infrastructure are without supervision, without resources, not complying with their responsibilities. Conventional water treatment plants are not able to purify raw water due to the high levels of pollution. Treatment plants were left without funding or maintenance for years, and ended up dismantled. These conventional water-purifying plants were built 50 years ago, under conventional technical parameters because the water presented low levels of contamination. Even in 1995, Decree 883 shows that we still had an easily treatable water: waters type 1A and 1B[31]. The levels of pollution of the raw water have increased considerably and the plants are not able to make the contaminated raw material that reaches them drinkable. Water is not being treated properly, violating the established norms. Meanwhile, the watersheds and sources of raw water continue to deteriorate, the regulations have not changed, and the treatment plants have not been modified. The result is only one: There is no drinking water in the country[32].

10) Water distribution networks receive no maintenance. Pumps, valves and pipes have already reached their useful life, and there are no resources for replacing them. Some old pipes have been replaced for new ones in some parts of the network, but the useful life of the entire network has already expired. The network was created in 1943 by the National Institute of Sanitary Works, INOS, an agency of the Ministry of Public Works, that was in charge of urban water supply and sanitation for more than 40 years. Constructions was calculated for a useful life of some 40 years. After that time was completed, no overhaul has been planned. Small partial replacement work has been undertaken sporadically, only in response to emergencies, but not the large-scale maintenance required for extending its usefulness.

11) There is no maintenance of sanitation networks (sewage and grey water collection networks). Pumps, valves and pipes have reached expiration date of their service lives and there is no possibility of replacing them. Treatment plant maintenance has been abandoned; plants have been left to completely decay. In 1998, 84% of the water in the sanitation system was collected and 48% was treated. In 2018 both the collection capacity and the treatment capacity have been lost. An example of the mismanagement and lack of planning in sanitation works is the Guaire River Project, which began in 2005. It was granted a loan from the Interamerican Development Bank of US$ 300 million, plus an additional US$70 million were assigned in the National Budget. In spite of all this financial support, 13 years later 80% of the works are yet to be done, only 20% has been completed[33].

12) There is widespread contamination of superficial and underground water bodies by oil and mining activity (some of it historical), agro-toxics and open-air garbage dumps. The pollutants are reaching places that were supposed to be pristine, as well as the Caribbean Sea and the Atlantic Ocean[34]. Oil extraction activity has contaminated bodies of water such as Lake Maracaibo and the rivers close to all the oil industry sites in the country. South of the Orinoco, gold mining has led to mercury (Hg) and cyanide (CN^-) pollution of the rivers, while the floods have washed away the red mud lagoons produced by Bauxilum[35], North of the Orinoco, agriculture has been responsible for polluting rivers and lakes with agro-chemicals, including some that are prohibited by international conventions ratified by Venezuela[36] ,in direct violation of both national and international laws[37].

13) The network of hydrometeorology monitoring stations has been reduced to a level where it is unable to warn about risk threats (floods or droughts), nor provide the necessary information for planning and/or decision-making. The institutions that aid in risk situations, such as urban and forest firefighters and the Civil Protection agency, lack most of the necessary equipment to intervene in any eventuality. In 2014, the National Academy of Physical, Mathematical and Natural Sciences was already warning of the urgent need to: "Create an information system that allows users to be informed in real time of the meteorological situation in the country and its possible consequences"[38].

14) The lack of weather information has foreseeable impact on food production. The farmers and livestock breeders are one of the sectors that have been seriously affected by the dismantling of the hydrometeorology monitoring system. According to the National Federation of Cattle Breeders, FEDENAGA, the 2018 draught has killed more 51.000 cattle. Lack of water has left the breeders without forage grasses or fodder to feed their animals. Recently, Carlos Albornoz, President of FEDENAGA, sent this tweet: "We are calling for solidarity from all cattle breeders in Venezuela, to join in trying to create alternatives: From those areas with forage surpluses (and we understand the difficulties involved), to make bails, and those who can, transport them to crisis areas to try to palliate the situation"[39]. Additionally, "Dairy farmers in some areas of the country have declared that they were able to produce up to 15 liters of milk per cow per day, but production has decreased to 7 liters"[40]. This year, the drought lasted so long that the deaths already add up to more than 51,000 cattle between the states of Aragua, Anzoátegui, north of Bolivar, Cojedes, Carabobo and Guárico. Another hard-to-deal-with calamity. There is a death toll of around a 1,100 cattle per day in Venezuela"[41]. And the draught is not the only problem affecting the agricultural sector in the country. There is a long list of troubles and complications that have almost destroyed food production.

15) The country's hydroelectric infrastructure has received no maintenance for more than 10 years. The margin for operating capacity with which it was built has already been surpassed. At the moment, there is no real possibility of replacing any of its infrastructure or its institutional capabilities. Present day personnel lack the required qualifications for proper operation, and hiring new personnel is impossible. According to the report presented by the Mixed Commission of the National Assembly during the 2010-2015 period, the government made a huge expenditure (US$ 42 billion) on new electricity infrastructure. Despite this investment, there are no improvements in the service. "The national government is aware that 45 percent of the Guri turbines are out of service". "Of the 20 turbines installed, 5 were out of order due to lack of maintenance and spare parts; today the inoperative turbines total 9." "Recovering the 9 turbines can take three years. And that is only possible if we can count in the country with qualified personnel, with the financial resources and with the participation of the foreign companies that are in charge of supplying the spare parts and repairing or repowering those types of machines. Corpoelec does not count with any that"[42].

16) The Lake of Valencia is a fresh-water reserve. Today: a) It is a domestic, industrial and agricultural sink, therefore extremely contaminated. b) Its rising waters have already displaced some 3,600 people, and approximately 2,000 inhabitants live below the lake's water level. They are barely protected by a wall built to stop a large-scale flood, but water and time are exceeding the design calculations and wall life. c) As the lake level rises and the risk of an absolutely avoidable tragedy increases, government responses have been ineffective. Meanwhile the lake inexorably raises its level and with it the risk of an absolutely avoidable tragedy. From 1999 to 2009 Bs. 747.766.208 were "invested" to "solve" the problem of the lake[43], but nothing was solved.

In the international legal system, the State has the following obligations: To guarantee a water supply and management system that arrives in a sufficient, regular and suitable manner to each household, educational institution, health center and workplace, with facilities and services at reasonable distances and sufficient outlets to avoid prohibitive waiting times; To regulate and effectively control water resources, avoid contamination and inequitable extraction, damage or destruction of natural sources and water distribution systems (irrigation networks, cisterns and wells); To accept international humanitarian assistance that provides access to water resources and financial and technical support facilitated by other States and international organizations in cases of humanitarian emergencies. (CESCR: General Comment No. 15 on the right to water, 2002)

Data sheet

This report on the Complex Humanitarian Emergency regarding the Right to Water in Venezuela is the product of an interdisciplinary methodology that brought together multiple informed stakeholders to share, contrast and produce data on the situation of the right to water in Venezuela, emphasizing the scale, intensity and severity of the damages to the population due to the loss of the country's hydrological capacities. Participants included organizations of professionals on the ground, base communities, researchers and academics, as well as organizations dedicated to the defense of the right to water. Several work sessions were held, in order to document the most relevant problems and events in recent years. In these sessions, a wealth of information was collected, including empirical data, scientific research, official statistics and available journalistic reports.

The following organizations participated in preparing this national report: Fundación AguaClara, Coalición Clima 21, Aguas Sin Fronteras, Mesas Técnicas de Agua de la Red de Organizaciones de Baruta del estado Miranda y la asociación civil Fuerza Ecológica de Calabozo (FECOLCA). Civilis Human Rights provided support in the construction and development of the methodology of the working groups within the framework of its mandate to strengthen civil society in the field of human rights.

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[21] There are 43 National Parks and 22 Natural Monuments in Venezuela. The main purpose for their creation was the protection of the country's watersheds, biodiversity and, in a few cases, its frontiers. These protected areas produce 80% of the country's fresh surface water. In our Constitution, Title VII: *On National Security*, Chapter II, Article 327, expressly order their preservation.
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[24] González, E.J. & M.L. Matos. 2012. *Manejo de los Recursos Hídricos en Venezuela. Aspectos Generales*. In: B. Jiménez-Cisneros & J.G. Tundisi (Eds.). ISBN: 978-607-9217-04-4. Diagnóstico del Agua en las Américas. Red Interamericana de Academias de Ciencias – Programa de Aguas, Foro Consultivo Científico y Tecnológico, AC. México: 437-447.
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[26]In: https://www.lapatilla.com/2017/03/26/200-mil-vecinos-podrian-verse-afectados-por-falta-de-mantenimiento-en-embalse-la-pereza/ Consulted on Oct. 2018.
In: http://www.caraotadigital.net/regionales/fallas-en-embalse-la-pereza-encendio-la-alerta-entre-vecinos-del-municipio-sucre/ Consulted on Oct. 2018.
[27] González et al, 2015. Op Cit.
[28] Creation of the Vice-Ministerio del Poder Popular para Vivienda, Hábitat y Ecosocialismo: Decree 1.227. Gaceta Oficial 40.489 of 3/09/2014. Creation of the Ministerio del Poder Popular para Ecosocialismo y Aguas: Decree 1.701. Gaceta Oficial 40.634 of 08/04/2015. Creation of the Ministerio del Poder Popular para la Atención del Agua: Decree 3.466. Gaceta Oficial Extraordinaria 6.382 of 15/06/2018. One curious fact is that the "National Water Industry, S.A.", INASA, was created on June 13th, 2018 in the Gaceta Oficial 41.418, just two days before the most recent change of Ministry. To this day, that so-called industry is not operational.
[29] **Resolución Nº 001** of 6/21/2018: designation of E.B. Vásquez Figuera as President of C.A. Hidrológica Venezolana, (HIDROVEN). Gaceta Oficial N° 41.424. This Resolution was corrected with Resolución N° 003 of 6/26/2018, Gaceta Oficial N° 41.427, through which the Minister of Popular Power for the Attention of Water, E.B. Vásquez Figuera, is also designated President (In Charge) of HIDROVEN.
Resolución N° 167 of 4/23/2018: designation of J.G. Márquez Ramírez as President (In Charge) of HIDROVEN, Gaceta Oficial N° 41.382.
Resolución N° 011 of 2/16/2017: designation of M. Lagos Couselo as President of HIDROVEN. Gaceta Oficial N° 41.097.
Resolución N° 343 of8/20/2015: designation of S.V. Tineo as President of HIDROVEN. Gaceta Oficial N° 40.728.
Resolución Nº 042 of 1/29/2015: designation of R.A. Molina Peñaloza, as President of HIDROVEN. Gaceta Oficial N° 40.591.
[30] Informe de la Comisión de Contraloría de la Asamblea Nacional de la República Bolivariana de Venezuela 2015-2016.
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[32] In: http://efectococuyo.com/cocuyo-chequea/ministerio-de-ecosocialismo-incumplio-71-de-obras-de-manten
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[35] Corporación Venezolana de Guayana; Bauxilum C.A which deals with bauxite, alumina and aluminum.
[36] International Agreements such as the Stockholm Convention on Persistent Organic Pollutants: www.wipo.int , and the Strategic Approach to International Chemical Management, SAICM: www.saicm.org.
[37] The Constitution, the Ley Penal del Ambiente (Criminal Law for the Environment), the Ley de Aguas (Law of Waters), and others.
[38]In: http://www.aguaclara.org/talcual/ambiente20140818.pdf
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[40]In: http://talcualdigital.com/index.php/2018/06/28/produccion-ganadera-cae-50-en-2018-y-desata-una-crisis-en-el-sector/ Consulted on Sep. 25th., 2018.
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[42] Asamblea Nacional de la República Bolivariana de Venezuela. Comisión Mixta para el Estudio de la Crisis Eléctrica en el País, *Informe Final.* 15 de enero 2017.
[43] Contraloría del Estado Carabobo. Actuación fiscal: Auditoria de Gestión Ambiental en la Cuenca Hidrográfica del Lago de Valencia. Ejercicio económico 2009.