

VENEZUELA

UN Report

Universal Periodic Review

Twelfth Session of the UPR Working Group, October 2011

Introduction

1. MOVIMIENTO POR LA CALIDAD DEL AGUA is a non-governmental, non-profit, organization; established in 2010 in Venezuela with a mission to develop public awareness in the preservation, use and disposal of water resources, ensuring the quality of drinking water human population is supplied by exercising social control agencies of the Venezuelan state and promoting actions aimed at their preservation for future generations. AGUACLARA is a non-governmental, non-profit organization registered in 2000 dedicated to achieving better quality of life through environmental education, emphasizes the chemical pollution of water and the environment in general. ALIANZA NACIONAL DE USUARIOS Y CONSUMIDORES "Anauco" is an associate non-profit organization registered in Caracas, duly registered with at the Chacao Municipality of Miranda State of the Bolivarian Republic of Venezuela as of September 11, 2003, under No. 20, Volume 19, First Protocol, also registered in the Instituto Nacional Para la Defensa de las Personas en el Acceso a los Bienes y Servicios (INDEPABIS) and member of the Red Internacional de Usuarios y Consumidores AUSBANC organization which to date comprises 40 organizations in 13 countries. ROTARY CLUB VALENCIA is a non-governmental, non-profit, organization registered in 1938, which is governed by the international principles of Rotary International, whose main purpose is to serve others, promote integrity and understanding, goodwill and peace through fellowship activities from business leaders, professionals and community leaders.
2. This report is based on research conducted by the MOVIMIENTO POR LA CALIDAD DEL AGUA , involving the denial of the right of access to potable water as a result of environmental health problem affecting the Venezuelan states that make up the Valencia Lake and the Rio Pao, watersheds (State of Carabobo and Cojedes) in the Midwest, and includes the following areas:
 - a. The problems in the system of water supply and the denial of access to free information on the parameters of drinking water for human consumption.
 - b. The current situation and the role of the Venezuelan state in the Pao-Cachinche pollution.
 - c. Plant non-functioning sewage treatment plants located in Valencia lake watershed.
 - d. The Venezuelan Government negative to recognize the presence of toxic elements in the water supplied by the Central Regional Water Supply.
 - e. Recommendations.

a. The problems in the supply system and the denial of access to free information on the parameters of drinking water for human consumption.

3. The city of Valencia, Carabobo state capital, is the third largest number of people in Venezuela, with an estimated population of 3 million people in its metropolitan area. The services of potable water supply, wastewater collection and treatment of them are under the administration of the state enterprise Hidrológica del Centro (HIDROCENTRO). The water consumed in Valencia has its origin in the Pao-Cachinche, which at the same time, the receiving end of 80% of sewage from the city of Valencia, in such a way that a cycle of re-permanent use of sewage as a source of supply, which is a high risk to public health in. The aggravation of this situation is that all wastewater treatment plants operating under management and functional HIDROCENTRO are in complete state of disrepair.
4. During 2009, 2010 and 2011 have been numerous protests and complaints from both individuals and many communities and NGOs throughout the city, regarding the poor quality of water delivered to households, it found a high turbidity, offensive odor and the presence of suspended solids, or conversely, water with a white color with a strong chlorine smell, causing itching and irritation of skin, mucous membranes of eye, nose and throat and even suffocation in the population. Additionally, during the first half of 2010, the state company applied HIDROCENTRO strong rationing water supplies, reaching in some sectors, providing a frequency of only 1 day a week.
5. MOVIMIENTO POR LA CALIDAD DEL AGUA, by signing more than 1,300 people affected by both strong rationing water supply for the actions of water quality on the mucosa of the eyes, nose and throat and itchy skin after shower, decided to formally request HIDROCENTRO, the Ministry of Popular Power for the Environment, Carabobo State Prosecutor's Office, the Ombudsman and the Supreme Court of Justice of the Bolivarian Republic of Venezuela, the monthly publication of the values of bacteriological parameters, organoleptic and physical-chemical to ensure potability as set out in the Health Standards for Drinking Water in Venezuela and the World Health Organization, under rights established in Articles 65 and 66 of the Organic Law Provision of Potable Water and Sanitation, which oblige the hydrological Venezuela to make public these parameters and the right to free access to information guaranteed in Article 28 of the Constitution. At the time of writing this report, and having one year after the first application, and having exhausted all legal appeals procedures in the legislation in force, none of the institutions of the Venezuelan state has responded and has not been made Studies of public knowledge to ensure the drinking water supplied.

b. The current situation and the role of the Venezuelan state in the Pao-Cachinche pollution.

6. Pao-Cachinche is located in the north central region of Venezuela (9 ° 53'N, 68 ° 08'W), on the border between the states of Carabobo and Cojedes, 30 km south west of the city of Valencia, downstream Chirgua ,Paito ,Pirapira and Paya rivers. Constitutes the main source of water supply in the city of Valencia and the states of Aragua and Tinaquillo City in Edo. Cojedes.

7. In 2007, the Venezuelan state, without performing the corresponding environmental impact assessment according to standard Environment Ministry, decided to divert the waters of the Rio Cabriales, which is contaminated with sewage discharges from the city of Valencia and previously flowed into Lake Valencia, to the reservoir Pao-Cachinche, untreated wastewater previously, thus providing a pollution load to the reservoir at a rate of approximately 2,000 liters per second. This action is an environmental criminal offense as defined in Article 28 of the Criminal Law of the Environment of Venezuela.
8. Also in 2007, the Venezuelan state, without any environmental impact assessment standard, initiated the transfer of water unfit to be drinkable by conventional methods from the Valencia Lake to the Pao Cachinche through a pumping system located along the same lake in the municipality's Guayos, Edo. Carabobo, with capacity of 5,000 liters per second. Lake Valencia, is a body of water that has accumulated in the last fifty years chemical contamination product of intense industrial and agricultural activity that takes place in its watershed area as well as organic and bacterial contamination due to lack of water purification systems served in the towns and villages located within fifteen (15) coastal municipalities thereto. The diversion of the waters of Lake Valencia without any pretreatment is a major source of water pollution-Cachinche Pao Reservoir, which has dramatically accelerated and intensified level of pollution. This action is an environmental criminal offense as defined in Article 28 of the Criminal Law of the Environment of Venezuela.
9. From January 2010 Pao-Cachinche has presented the development and population explosion of aquatic plants including lemna (*Lemna* sp.) and bora (*Eichhorniacrassipes*), which covered large areas of it, which are the response nature to the advanced hypertrophic state. These aquatic plants hinder or cancel out the horizontal movement of water and thus prevent the free transfer of atmospheric oxygen to water. Additionally, below this layer of lemna and bora as the only species prevalent microscopic cyan bacteria (*Oxyphotobacterias*), producers of cyan toxins at the time of contact with chlorine during the treatment process. The presence of uncontrolled population of cyan bacteria in the reservoir is still present during the subsequent purification process carried out in difficult conditions on the "Alejo Zuloaga" facility. These cyan bacteria, when in contact with chlorine killed by breaking their cell walls, spilling into the water around the protoplasmic content, which happens to the distribution network of the Central Regional Water Supply precipitating in any instance where the fluid velocity allows decanting, happening, usually in their own homes or pipe in the water storage tank where it is carried home after putrefaction of the organic matter. Hence, the community observes and report poor organoleptic quality of water.
10. In 2004 the Institute of Experimental Biology, Central University of Venezuela, with financial support from HIDROCENTRO concluded that the Embalse Pao-Cachinche had come to the hypertrophic condition. Their study concluded:

"Physical and chemical properties: Pao-Cachinche was characterized throughout the study period, the presence of a stable thermal stratification, the presence of permanent conditions of hypoxia and anoxia from the 7-10m depth and high concentrations of nutrients in the water, which allowed its classification as a hypertrophic water body (Table I, Gonzalez et al., 2004)."

c. The inoperability of Sewage Plants watershed of Lake Valencia.

11. In addition to the main sources of pollution of the reservoir: the diversion of polluted river "Cabriales" and the transfer of polluted water from Lake Valencia to the Pao-Cachinche (both the product of decisions of the Venezuelan state) and wastewater product use of the inhabitants and industries in the metropolitan area of Valencia, have been emptying since at least March 2009, without proper treatment to allow safe discharge to the water body. It is important to note that all treatment plants, potable water in the country are operated by the state centralized HIDROVEN. Official values show that during several occasions in 2010 and in 2011 the quality parameters of effluent from the Wastewater Treatment Plant (WWTP) "Mariposa I", "Mariposa II" and "Los Guayos" (whose discharges are to stop the Pao-Cachinche) and the WWTP "Taiguaiquay" violated many times the maximum allowed by Presidential Decree No. 883 published in the Official Gazette of Venezuela No. 5021 relating to the "Standards for the Classification and Control Quality of Water Bodies and Liquid Effluent discharges or, in some parameters reaching values up to 710% higher than the norm. This situation is a product of the highest degree of deterioration of physical infrastructure Treatment Plant Wastewater, becoming the state-owned HIDROCENTRO another source of pollution of reservoir environmental criminal offenses as set out in Article 28 of the Criminal Law Environment of Venezuela.
12. Due to population growth of the urban conurbation of Valencia, due to its special status as their source of water for human consumption is also a receiving body of wastewater produced in the city, the Venezuelan state had to finish the year 2007, an expansion of the WWTP "La Mariposa", which would provide a processing capacity of more than 1,400 liters per second, which to date has not been completed, despite having been budgeted in 2005. As a result, current flow of approximately 1,000 liters of water per second, overflows from the WWTP "La Mariposa", and flows into the reservoir Pao-Cachinche without any treatment.
13. There is also evidence that the Water Treatment Plant "Alejo Zuloaga", which is responsible for treating the raw water from the Pao-Cachinche for water treatment and distribution to the population, pollutants discharge by-products of the treatment process (high aluminum concentrations) directly without effluent treatment in the Pao-Cachinche, constituting another environmental criminal offense as defined in Article 28 of the Criminal Law of the Environment of Venezuela.

d. The presence of elements in toxic concentrations in the system of drinking water.

14. Since September 2007, the water delivered to the Metropolitan Area of Valencia, as well as some municipalities of Aragua and Carabobo and Tinaquillo in Cojedes State, contains concentrations of residual chlorine and aluminum does not meet national or international standards, and therefore under the WHO criteria, is not potable. Facing the refusal to supply information by HIDROCENTRO, MOVIMIENTO POR LA CALIDAD DEL AGUA in conjunction with independent certified laboratory, conducted research on water quality in different parts of the distribution network of the Central Regional Water Supply System I, in the metropolitan area of Valencia. Studies conducted during May and June 2010 showed

that water supplied for human consumption contain concentrations of aluminum and chlorine residual at levels much higher than the maximum allowed in the "Health Standards for Drinking Water Quality", representing a potential risk to health of consumers and demonstrating its not drinkable, according to the criteria of the World Health Organization.

15. Residual Chlorine regard to the "Health Standards for Drinking Water Quality" provides that at any time and anywhere on the network must have a minimum concentration of 0.3 mg / l maximum of 0.5 mg / l. The study showed that 78% of the samples analyzed were outside the norm, being 33% sub-chlorinated, arriving to find a total absence of residual chlorine, and 45% hyper chlorinated, measuring concentrations of up to 3.55 mg / l, i.e. a 710% higher than the maximum allowed. The absence of residual chlorine in the water puts at risk those who consume it, water can be a means of transmission of various diseases. This could explain the increase of almost 100% morbidity from diarrhea registered by the Instituto Carabobeño de Salud – INSALUD (Carabobo state government institute), where in 2009 there were 5,989 cases of diarrhea per 100 thousand inhabitants in children under 1 year, and only in the first quarter of 2010, there were 10,509 cases of diarrhea per 100 thousand inhabitants in children under 1 year.
16. The presence of residual chlorine in concentrations much higher than the maximum allowed, is also a public health risk due to chlorination byproducts, such as the formation of Trihalomethanes, Chloroform - CHCl_3 , Bromoformo - CHBr_3 , are considered carcinogenic by the WHO when ingested in high concentrations for long periods of time, existing epidemiological studies in other countries where there is evidence of positive correlations between intake and the incidence of bladder cancer, colon and rectum in stocked populations (Sarmiento, A. Et al . 2003).
17. With regard to the presence of aluminum in the water, the study found that 78% of the samples have concentrations exceeding the maximum allowable values, reaching peaks above to find more than 335% the values considered safe for health. This situation is disturbing to the inhabitants of Great Valencia, because of the potentially toxic metal status and causes nerve damage to the central nervous system, causing dementia, memory loss, apathy and severe tremors, among other effects. The Report of the World Health Organization, 1997 (Environmental Health Criteria, 1997) on aluminum Environmental Health Criteria (CSA), which reveals a positive correlation between the aluminum present in high concentrations in drinking water and degenerative diseases like Alzheimer's. However, it is necessary to mention that there is still no consensus in the international medical community about whether this positive correlation is the result of a causal link.
18. Against a set of scientific evidence on non-potable water supplied for human consumption in the states of Carabobo, Aragua and Cojedes, the Venezuelan state through its Vice-Ministry of Water and Environment Ministry has not recognized the problem, refusing to make public the official reports made by the Ministry as well as environmental impact studies which became necessary after the diversion of the waters of Lake Cabriales and Valencia. Additionally, the Ombudsman's Office through its highest authority, Gabriela Ramirez, has threatened to classify crime reports made by the water pollution "for causing anxiety among the population" with penalties of up to 3 years imprisonment.

e. Recommendations.

19. Permanently cease and dismantle the system of pumping from Lake Valencia to Cachinche Pao.
20. Comply with the ruling of the Supreme Court. 2006 and 2007 relating to the payment of damages and the eviction of the inhabitants of the 1,040 houses severely threatened by rising water levels of Lake Valencia, Aragua state in Urb. La Punta y Mata Redonda, and seek an alternative to the exit of surplus water accumulating in the lake of Valencia.
21. Rehabilitation Treatment Plant Wastewater "La Mariposa" and "Los Guayos", which currently have a high state of deterioration, and Purification Plant "Alejo Zuloaga".
22. Complete Plant Wastewater Treatment "La Mariposa II", which should be completed in 2007 and all other works planned in the framework of management plan referred to in the Emergency Decree in Lake Valencia N ° 3498. February 23, 2005.
23. Complete the remaining sewage collection network in the Gran Valencia.
24. Implement an alternative system and aeration than Pao-Cachinche. In the reservoir should not be extending the current aeration system, as announced by the commission to resolve the problem of water quality. The aeration that is being used at this time creates turbulent flow upward resuspended phosphorus from the bottom of the reservoir, which is a macronutrient that promotes the formation and development of algae, dominated by cyanobacteria.
25. Reengineering of the processes of purification plants "La Mariposa" y "Los Guayos". These facilities deserve to be expanded urgently in hydraulic capacity - health and include nitrogen removal process to prevent it continue reaching Cachinche Pao.
26. Complete equipment of twelve (12) sand filters Water Treatment Plant Enrique Baldó Soules, in order to complete the work as originally conceived the project.
27. Promote environmental education relating to all issues related to knowledge and preservation of water resources within and outside the classroom, aimed at the general public and training of facilitators through community networks spread the message. It requires the support of organized communities, government agencies, newspapers, radio and television.
28. Giving effect to the provisions of Article 66 of "Law for the provision of Potable Water and Sanitation" and is published fortnightly faithful and the media, regional movement, the scientific and technical studies on water quality standards within the parameters established in the Official Gazette No. - 36,395 on "Health Standards for Drinking Water Quality" dated 13/02/1998.

29. Be made known to the public the quality of effluent treatment plants “La Mariposa” “Los Guayos” as well monthly in regional media or appended or inserted in the monthly bill for water and sewage.
30. Update and adapt to international standards the parameters of the "Health Standards for Drinking Water Quality" and other regulations and decrees that regulate discharges to water bodies, as well as the values of the effluent treatment plants.
31. Legislate on the use of agrochemicals in agriculture. Apply large doses of pesticides, herbicides; weed killers, etc. without certain knowledge of the chemical components involved in its formulation, or the impact on the health of both humans and wildlife.
32. Implement the Stockholm Convention on Persistent Organic Pollutants
33. Prohibition of manufacture and marketing in the country of non-biodegradable detergents.
34. Legislating on the disposal of domestic solid waste and the commercial sector that cause severe damage to aquatic ecosystems and aquifers. The mayor should put into force as soon as standards and sanctions on the implementation of the classification of household and commercial waste by their nature: 1.- paper and paperboard, glass 2.-, 3.- Organic, 4.- 5.- metal and hazardous waste residues or part here of paintings of all kinds to polish, hair dyes, varnishes, lacquers, hydrocarbons, organic solvents, dielectrics, plastics, energy-saving bulbs, syringes, broken mercury thermometers, batteries nickel - cadmium and in general all waste which is presumed to cause damage to water bodies and aquifers to reach the landfill.
35. Enforcing the Hazardous Waste Act.
36. Develop more sanitary control of drinking water bottling especially those of 20-liter bottle of the quality in terms of physicochemical, microbiological and organoleptic sometimes the consumer does not know the time of purchase.
37. Increased surveillance and monitoring in compliance with Decree No. 3,219 in environments all wastewater generators located in the upper and middle Rio Pao and Lake Valencia, especially breeding and slaughtering of pigs, cattle and poultry. Special mention pollution presents the Caño La Yuca for discharges of all types among which the pig farming and housing developments and Jose Leonardo Chirinos Trapichito.
38. Increased surveillance and monitoring in the implementation of the decrees No. 2289 on "Rules for the Control of Hazardous Materials Recovery and Waste Management. Decree No. 2635, by which gives the partial amendment of Decree No. 2289 dated December 18, 1997 published in Official Gazette No. 5212 Extraordinary dated 12 February 1998, with Rules for the control of the recovery of hazardous materials and hazardous waste management (Official Gazette Extraordinary No. 5245, dated 08/03/1998).

39. Restore natural wetland condition was intentionally removed in 2000 and is known as the lagoon of El Paito. The Paito wetland was shared by Cabriales River and Caño La Yuca and there stirred a lot of organic pollution that now reaches Cachinche Pao.
40. Recognize that land invasions have caused the worsening health situation - environmental occupants and the Pao - Cachinche therefore should not continue to happen, if you bring order and environmental sanitation in these basins.
41. Modernize the disposal of solid waste, landfills true for the purpose of eliminating prevailing unsanitary landfills in the open and recognize that Bellorin and La Guásima Landfills are a source of contamination of aquifers and surface waters in Bejuma Municipalities and Libertador. Worth noting that the Environmental Committee of the National Assembly demonstrated by laboratory tests in October 2009 that two wells were contaminated with landfill leachate "La Guásima".
42. Enable Council Hydrographic Region referred to in the Water Law published in Official Gazette No. 38595 dated January 2, 2007 as the first step to the elaboration of the Integrated Management of Watershed of Valencia Lake and Rio Pao. With this legal instrument would give a crucial step in solving the problems associated with pollution of all the packing of the Central Regional Water Supply System. Hydrographic Region Council provides public participation in solving environmental problems by facilitating communication with community work.
43. Stop threats to NGOs that do work and social control, by the Ombudsman and other government agencies.