

Human Right to Water: Public Policies and Warranty of Adequate Food in Brazil

Maria Goretti Dal Bosco, Federal Fluminense University, Brazil
João Vitor Martins Lemes, Universidade Federal de Goiás, Brazil

The North American Conference on Sustainability, Energy & the Environment 2014
Official Conference Proceedings

Abstract

This work intends to approach the human right to water, established as an essential component of the adequate food, knowing that the lack of drinking water covers more than 1.4 billion people around the world, according the United Nations (UN), 36 million of them only in Latin America, as data from World Bank in 2014. In Brazil, although it is provided implicitly in several written rights, such as the right to life, to food and to a balanced environment, the right of access to drinking water is worrying. Although it owns 60% of the Amazon Basin, which drains by a fifth of the volume of freshwater in the world, more than 55% of Brazilian cities may have deficits in water supply in 2015, according to data the National Water Agency (ANA), what has been happening in recent years so frequently in big cities like São Paulo. This study also aims to evaluate the treatment given by the Brazilian government to the warranty of the access of the water as a way to provide food security to people with less purchasing power. To achieve this goal, we will seek to discuss the adequate nutrition as a social right already enshrined in the Brazilian Constitution since 2010, having in the water the essential component for an adequate alimentation and to the assurance of the access to this right and ensuring access to that right under the public policies of the Brazilian government. Keywords: Human right to water; adequate food; public policy; food security

iafor

The International Academic Forum
www.iafor.org

Introduction

Although it has been subject of declaration of the United Nations in 1992, the human right to water is still not officially contemplated in the most important statements of rights of the Planet. The absence of legal provision contributes to the Nations fail to consider the priority of supply, in a very serious moment in the world where the lack of access to safe drinking water still reaches over 1.4 billion people, according to the United Nations (UN), while 2.5 billion people are still without access to improved sanitation and only 63% of the population has access to sanitation in good conditions, according to the United Nations Children's Fund (UNICEF) report.

As a component of human nutrition, water must be understood as essential to the adequate satisfaction of the nutritional needs of the human being and, therefore, treated with the same level of demand for a dignified survival. In this respect, it should be addressed by the public policies of governments, endowed with drinkability and continuous supply.

In Brazil, where there are still thousands of people without access to safe drinking water in cities and in rural areas, the possibilities of natural uptake are reduced every year, due to weather problems and the lack of sufficient investments to improve the area.

This study examines the potential and the regulatory legislation of the water in Brazil, and public policies aimed at providing potable water in sufficient quantity in the context that is considered indispensable to nutrition and, therefore, part of the human right to adequate food.

I. Human Right to Water - The Construction of a New Right

The rights of man are historical rights born in certain circumstances (Bobbio, 1992), characterized by struggles in defense of new freedoms against old powers, and born gradually, not all at once, neither once and for all. The world produced through the ages almost a dozen normative documents of protection of human rights until the emergence of the Universal Declaration of Human Rights in 1948: still in the Middle Ages, Magna Carta (1215), and later, the Petition of Right (1628), the Habeas Corpus Act (1679) and the Bill of Rights (1689); after this, the Virginia Declaration of Rights (1776), the Declaration of the Rights of Man and of the Citizen (1789); and in the twentieth century, the Declaration Of Rights Of The Working And Exploited People (1918), at the beginning of the Soviet Union. Consequence of the Declaration of 1948, the UN General Assembly redacted the International Covenant on Social, Economic and Cultural Rights and the International Covenant on Civil and Political Rights, prioritizing the principle of freedom (1966), then the Vienna Declaration and Programme of Action (1993) and the Rome Statute, later responsible for creating the International Criminal Court (1998) (Comparato, 2010)

However, in all these documents, the right to potable water was not specifically included, although the Universal Declaration of Human Rights refers in art. 25, the right to a standard of living that will ensure health and well being to the family, including food, among others (UNITED NATIONS, 2014).

The concern of the United Nations on this issue led the organization to, among other actions, edit, in 1992, the Universal Declaration of Water Rights, considering water as part of the heritage of the planet and assigning to everybody the responsibility for its conservation, and in 2010, the Organization issued a Resolution declaring as a human right clean and safe water and sanitation (UNITED NATIONS, 2014).

Although it seems to be infinite to human, animal and plant life, because it covers two thirds of Earth's surface, the sufficiency of water for the Planet has been reason for restlessness and insecurity to keep the biological balance of humans. Lack of access to safe drinking water still reaches more than 1.4 billion people worldwide, according to the United Nations (UN), and they are 36 million only in Latin America, where 45% of water is lost before reach the consumer, according to data collected by the organization with the World Bank (World Bank, 2014).

The future seems even more uncomfortable: World Energy Council estimates that water consumption in Latin America must raise 330% until 2050, due to the increase of energy generation expected in 550%, with a similar situation in Africa, where energy production will grow 700% and the water use 500% in the same period. The demand for water will increase due to the cooling of nuclear plants and fuel extraction and refining besides hydroelectric power plants (WORLD ENERGY COUNCIL , 2014).

A report from the United Nations Children's Fund (UNICEF, 2012) in 2012 found that only 63% of the world population has access to sanitation in good condition. That number is expected to reach only 67% by 2015, according to estimates of the organ, far from the 75% targeted by MDG (Millennium Development Goals). Worldwide, the agency estimates that 2.5 billion people are still without access to an improved sanitation.

In Brazil, 19 million people who live in urban areas don't reach drinking water. Another 21 million people that live in rural areas also don't access clean water. Furthermore, only 46% of Brazilian households are endowed with sewage collection service (FUNASA, 2010).

Therefore, it is notorious that one of the main and most serious environmental problems the world faces, because it is extremely limiting, is the shortage of drinking water, which, together with bad distribution, the unconscious use and several forms of pollution leads the impairment of life on Earth. The desertification and water shortages are the most serious problems to be faced by Third World countries this decade, when one fifth of the world's population humanity today no longer has access to drinking water (SANTOS, 2001). Therefore, it is a reality that shows the emergence and thus requires the regulation of a new fundamental right: the right of access to drinking water.

The right to water is provided implicitly in many of the rights protected by laws such as the right to life, to enjoy a standard of living adequate for health and human welfare, to protection against diseases and to access to food. All of these rights already ensured in the legal system reinforce the need for States to recognize water as a fundamental human right. In the globalized world, international debates have emphasized the importance of recognizing access to water as a right of the person in

equitable access to a minimum quantity, once it is indispensable as a condition for accessing other human rights, such as, right to good quality of life, to health and welfare, as well as to civil and political rights.

Some Latin American countries already provide the right to water in their Constitutions. This is the case of Ecuador, whose 2008 Constitution (ECUADOR, 2008) contemplated the so-called "Good Living" (as they call in their native indian language, Sumak Kawsay) as the new basis of the ethics of development, characterized by values such as sovereignty, legal equity, equality and the rights of nature (WOLKMER ET AL, 2012). The document registered in its 3rd. article, the guarantee of the right to water, among others, as an obligation of the state towards its citizens. Bolivia has equally included in its 2009 Constitution, the guarantee to every one of the fundamental right to water, prohibiting the concession or privatization of its exploration and distribution (bolivia, 2009).

In Brazil, although it is provided implicitly in several positivized rights, such as the right to life, to food and to a balanced environment, the right to drinking water is not provided in the law explicitly.

1.2. Human Right to Adequate Food (HRAF)

Established since the Universal Declaration of Human Rights, the right to food was the object of the United Nations Special Rapporteur on the Right to Food in 2002, which is taken as a human right inherent to everyone, who should have regular, permanent and unrestricted access (UNITED NATIONS, 2014). Food can be defined as any solid or liquid substance which can be ingested by a person using it to satisfy their physiological needs (NUÑES SANTIAGO, 1992). Internationally, the International Covenant on Economic and Social Rights recognizes by its States Parties the fundamental right of all people to be protected from hunger, assuming these States the task of promoting actions to improve the production, conservation and distribution of food.

In Brazil, the Federal Constitution inserted the right to food in its 6th. article, by the Amendment number 64 of 2010. Before that, the HRAF was implicit in other constitutional provisions such as the right to health, to the minimum wage, to social assistance, to education, to school feeding, to land reform, among others. There is also in article 1st. III, human dignity as one of the fundamental principles of the Federative Republic of Brazil.

The report of the National Council for Food and Nutrition Security (CONSEA), in 2010, states that the HRAF is realized when every person has guaranteed and uninterrupted access to adequate and healthy food for own and sustainable means. The strategies for achieving the HRAF are many and presuppose the guarantee of other human rights. It is responsibility of the United Federation States the obligations to respect, protect, promote and provide human rights, since it is up to them to guard and the execution of the state budget. Thus, the obligation to ensure the realization of the HRAF implies in allocating public budgets and implement universal public policies that include progressively (and primarily) the population vulnerable to hunger and poverty.

1.3. Water as a component of the adequate food

Water is indispensable as an essential component to adequate food. Great part of food contains high levels of water, but its consumption can't be ignored, considering only food, because water is necessary to every body function. The lack of water causes more intense effects in the body to perform certain tasks than any others. It is the most present inorganic constituent living matter: about 60% of a man's weight is constituted by water and in certain aquatic animals, this percentage reaches 98% (VON SPERLING, 1992).

The body has no conditions to storage water, so the amount of water lost must be replaced to ensure the proper functioning of the body and the maintenance of health. It is also because of this that the nutrition without the consumption of water does not complete the requirements of the body, being insufficient just the water contained in certain kinds of food. Water carries nutrients such as amino acids, glucose and vitamins, and is the medium in which all chemical reactions occur, having among its functions in humans to maintain the (internal) core temperature during exercises (GOWDAK, 2010). The water, therefore, includes all the items that make up an appropriate diet and can't be divorced from this, so that the access to clean water and food in good quality implies in achieving the basic needs of life's maintenance in human beings.

II. Water Geography in Brazil

Brazil boasts a privileged position in relation to water resources in the world. The country holds 12% of the fresh water on the planet, considering the average annual flow of its rivers, 180 thousand cubic meters per second. Brazil holds 60% of the Amazon basin, which flows around a fifth of the volume of freshwater in the world. But the amount varies according to the region.

It means that even in areas of high river water availability, such as the Amazon (74% of total) there are periods of drought. Even more serious is the situation of the semiarid part of some regions in which the phenomenon of drought has great influence on water availability and life quality. The Amazon region holds 73.6% of the national surface water resources and only 5% of the population (BRAGA JÚNIOR ET AL, 2008)

2.1. Drainage basins

A drainage basin or watershed is an area of natural uptake of precipitation water that converges the flow to a single exit point. It consists of a set of surface sections and a drainage network formed by streams of water that converge to result in a single bed in its discharge, or to the point where all the discharge converges the basin (TUCCI ET AL, 1997).

The country has eight major river basins and it is divided into 11 regions, as envisaged in the resolution n. 32/2003, of the National Water Resources Council, comprising the basins of each region. Brazilian states have different divisions for their territories for the purpose of water resources management, applying different criteria.

São Paulo has 22 units of river management, Paraná, 15, Minas Gerais, 36, among others.

Studies of the National Water Agency (ANA) in 2004 on demand and availability of water, demonstrated the existence of serious problems of supply for several uses, from high demands on the availability of water and courses whose quality is compromised by pollution. This increases the marginal cost in order to answer urban demands in metropolitan areas, especially in face of the need to bring water to the needy region of neighbor watersheds. At least two metropolitan regions in Brazil, São Paulo and Rio de Janeiro use water to their populations that are brought from transpositions of neighbor basins.

Thus, the water management in Brazil faces the challenge of managing the demand as well as increasing the supply and assurance of provision in hydrographic areas with low water availability, added with the need for better quality and reduced domestic and industrial pollution. In the field of the industrial pollution the system of control has reduced the rates through fines, but the same does not occur with domestic pollution produced by sanitation companies, which do not take the account of treating more than 15% of the sewage toilets before discard them in urban rivers. In addition, the country struggles with diffuse source pollution, in urban and rural areas, also a problem yet to be solved (BRAGA JÚNIOR ET AL, 2008).

2.2. Groundwater

Brazil has underground water reserves yet to be exploited. It owns a part of the Guarani Aquifer, the largest source of fresh groundwater border in the world. The Guarani Aquifer System spreads over an area of approximately 1.1965 million sq. km. It is located in east central portion of the South American continent, and it is distributed through the territory of four countries: Argentina, Paraguay, Uruguay, and Brazil, where it is located the largest portion, 71% of the total, equivalent to approximately 840 800 sq. km.

The aquifer is dispersed across eight Brazilian states: Mato Grosso do Sul, Rio Grande do Sul, São Paulo, Paraná, Goiás, Minas Gerais, Santa Catarina and Mato Grosso. The sandy rocks are intersected by basaltic rocks and the sandy part has between 200 and 800 feet thick, reaching up to 1,800 feet deep, emerging in various parts of the region which it stretches. This depth causes a significant variation in water temperature, emerging in places at 65 degrees Celsius and in others in ambient temperature, hovering near 20 degrees Celsius (RIBEIRO, 2008).

2.3. Water crisis

Although it holds a privileged position in the world due to its water potential, more than 55% of Brazilian cities may have deficits in water supply in 2015, according to data from a study conducted in 2011 by the National Water Agency (ANA), what has been happening in recent years so frequently in big cities like São Paulo. The study shows that 84% of the cities require urgent investments to adapt their production systems of drinking water, and 16% need new springs (ANA, 2014). The same study shows that investments in the Southeast and Northeast regions are over 16.5 billion dollars and the lack of works in fountains and distribution systems may cause a

breakdown in the supply of the region, which must focus 72% of the Brazilian population in 2025.

The water supply and sewerage services in the great Brazilian urban concentrations present precarious conditions, due to the excess of domestic and industrial pollution, occurrence of contamination of water sources when there are urban flooding, besides the increasing demand for water (TUCCI ET AL, 2000). This leads to a severe reduction of water levels in the near future. The table in the result of the deficient management by local authorities and the absence of integrated perception of the environment, which leads to degradation of the quality of people's lives, aggravating the diseases and creating a collapse of the activities of trade and industry (PESCE ET AL, 2000).

There is water shortage in many cities of the country, caused by reduced levels of the sources of supply. São Paulo, the largest city in Brazil, with an estimated population of 43.6 million inhabitants, faces one of the greatest periods of water restrictions in its history. The authorities do not assume but consumers perceive important changes in the quality and quantity of water reaching to their homes (IDEC, 2014).

III. Public Policies of Access to Water and the Warranty of Adequate Food in Brazil

3.1. Treatment and distribution of water policy

Drinking water reaches Brazilians' homes in urban areas through the supply made by government-owned corporations in cities and states, but in some of them, this task falls to private sanitation companies. The water is taken from natural springs, in adequation to quality potability standards required by Brazilian rules, and then transported to the cities and towns, according to their needs.

3.1.1. Brazilian legislation

Brazil has one of the most advanced legal systems of the world with regard to water management. The Brazilian Water Law (Law No. 9433/1997), which created the National Water Resources Policy, considers water as a public good and as a limited resource and endowed with value. Among other things, the Act disposes about the granting of rights of use of natural water resources for the economic activities that require large amount of water.

The National Water Resources Policy (PNRH), established by the Water Law, established as a main objective, to ensure to current and future generations the necessary water availability, in appropriate standards of quality for the respective uses in addition to prevention and defense against critical hydrological events and sustainable development, promoting the rational and integrated use of water resources.

The Act also establishes standards to ensure civil, criminal and administrative supervision, including the obligation to compensate damages, responsibility for criminal acts and fines. But still forms of realization of the fundamental right to water are to be instituted, imposing positive benefits to the State, are such, basic sanitation,

provision of safe drinking water in sufficient quantity and the assurance that in situations of scarcity, priority use of water resources will be effectively for human consumption and watering livestock.

The Water Resources Policy also established the position of the "paying user", which affords the payment for the use of waterways to launch effluents (liquid discharges), as industries or cities that throw their effluents in rivers or lakes. Payment is made according to the type and quantity of effluent released. The user also has to respect the rules that ensure the preservation of national water resources, classified by the National Environmental Council (CONAMA) in nine classes of freshwaters, brackish and salt marshes throughout the national territory, as are its main uses.

3.1.2. National Sanitation Plan

Approved at the end of 2013, the National Council of Cities, the National Sanitation Plan (PLANSAB) provides an integration of basic sanitation services, four components: drinking water supply, sanitation sewage, street cleaning and solid waste management, and drainage and management of urban storm water. As ensured in the Law of National Guidelines of Sanitation (Law 11,445/2007), the PLANSAB should be reviewed annually and revised every four years.

It is the first Plan built in a democratic and participatory way between government, society and public and private agents operating in the water sector, and the representation of the United Nations in Brazil. There was a participation process coordinated by the Ministry of Cities and an Interagency Working Group (GTI) established by the Presidency of the Republic, and also approved by the National Health Council (CNS), the National Water Resources Council (CNRH), National Environmental Council (CONAMA) National Council of Cities (Concidades).

The goal is to invest 508.5 billion reais in works of drinking water supply, collection and treatment of sewage and waste, and in actions of drainage in the period from 2014 to 2030. Investments shall be afforded in 59% by the Federal Government, with the remaining 41% under the responsibility of state and local governments, providers of sanitation services, private sector and international organizations, among others. The PLANSAB expects to achieve in the next 20 years 99% coverage in drinking water and 92% in sanitation, besides the universalization of collection of solid waste in urban areas and the lack of landfills or open dumps across the country sky BRASIL, MINC, 2014).

3.2. Access to water and assurance of adequate food

The access to clean drinking water is still poor in Brazil, more in some regions than in others, considering the factors regularity, quality and quantity. Data from the Brazilian Institute of Geography and Statistics (IBGE) show that the water supply in permanent households was 81.4% in 2010 (IBGE, 2014), with the goal of reaching 84% in 2015, which is already impaired by the lack of investments, pollution and inadequate management that compromises springs. Inequalities between peripheral regions and major cities persist and it can be observed numbers slightly above 30% of water supply and sanitation among the poor.

It is verified that the progress in the access to improved drinking water sources in Brazil is very slow compared to population growth and other indexes. In the period from 1991 to 2010, the raise in the number of people with access to treated water supply per household was only 13%, jumping from 68 to 81% in urban areas and there are still 33 cities across the country that do not count on network water supply. In the same period, the Brazilian population grew twice, 26%, from just over 140 million to over 190 million people.

The United Nations, in the United Nations Special Rapporteur on the Right to Food (UNITED NATIONS, 2014), refers to the availability, quality and accessibility of food to meet the requirement of an adequate feeding. The Organization refers to the economic and physical accessibility and stability of the food supply. It is considered that people should have access to resources needed for an adequate nutrition throughout all the year and it has to be available to all people, whether healthy or sick, infants, prisoners, among others, and for those living in areas of difficult access, as armed conflicts, natural disasters, wars and indigenous villages. Moreover, it implies in availability and access to food in a stable manner, on a regular and ongoing way throughout the year.

Despite of that, and all the legal structure the country has in relation to water as a component of adequate nutrition, public policies that aim to guarantee these rights in Brazil are still not enough to prevent that a relevant part of the population be deprived of such access, because even when there is supply, in many regions of the country it has no accessibility and quality throughout the whole year.

During periods of drought the supply is reduced and the quality is compromised. Data from National Statistics Institute, show that in the other regions, the supply is available for only part of the population, and in others, this service simply does not exist yet.

Conclusion

The study served to demonstrate that, although water is an essential component to the adequate food, its regulation as a human right is far from being realized. Under the provision of drinking water in the world, it was found a worrying situation, especially in Brazil, where there are large amounts of water, but in remote areas, far from urban centers, where access is still precarious in many cities.

Not only in Brazil, but in a considerable part of Nations, it is seen that the Millennium Goals, established by the United Nations regarding to improving the supply of potable water, will not be achieved. Holder of most of the Guarani Aquifer, one of the world's largest underground reservoirs, and even with investments in public policies in recent years, including the establishment of the National Basic Sanitation Plan, Brazil still needs to invest large sums to equip sufficiently the system of collection, treatment and supply of drinking water for its inhabitants.

The Brazilian government has not, therefore, achieving the obligation to ensure the human right to adequate food, once water, one of its main components, is not yet available to all the inhabitants.

References

- BANCO MUNDIAL. *O que faz o mundo perder 260 bilhões por ano?* Disponível em: <<http://blogs.worldbank.org/latinamerica/es/o-que-custa-ao-mundo-us-260-bilh-es-por-ano>>
- BOBBIO, N. *A era dos direitos*. Rio de Janeiro: Campus, 1992, p. 5.
- BOLÍVIA. CONSTITUCIÓN POLÍTICA DEL ESTADO PLURINACIONAL, 2009.
- BRAGA JÚNIOR, B.; FLECHA, R.; PENA, D.; KELMAN, J. Pacto federativo e gestão de águas. *Estudos Avançados*, v. 22, n. 63, São Paulo, 2008. Dossiê Água.
- BRASIL. AGÊNCIA NACIONAL DE ÁGUAS (ANA). Disponível em: <<http://www2.ana.gov.br>>
- ECUADOR. CONSTITUCIÓN DE LA REPÚBLICA. 2008.
- BRASIL. FUNASA. *Sistema Nacional de Informação sobre Saneamento Básico – 2010*. Disponível em: <http://www.funasa.gov.br/site/wp-content/uploads/2013/05/marcelo_de_paula.pdf>. Acesso: 10.07.2014.
- BRASIL. MINISTÉRIO DAS CIDADES. Plano Nacional De Saneamento Básico – Plansab. Disponível em: Acesso em 15.07.2014. <<http://www.mma.gov.br/cidades-sustentaveis/item/485-plano-nacional-de-saneamento-b%C3%A1sico>>.
- COMPARATO, F.. *Afirmção histórica dos direitos humanos*. 7. ed. São Paulo: Saraiva, 2010, p. 57 e ss.
- GOWDAK, M. et al. Nutrição aplicada à atividade física. In:
- NEGRÃO, C.; BARRETO, A. (Org.) *Cardiologia do Exercício: do Atleta ao Cardiopata*. 3. ed. Barueri-SP: Manole, 2010.
- IBGE – Instituto Brasileiro de Geografia e Estatística. Estimativa Censo Demográfico 2010. Disponível em: <<http://www.ibge.gov.br/estadosat/perfil.php?sigla=sp>>
- IDEC LISTA EVIDÊNCIAS DE RACIONAMENTO DE ÁGUA EM SP E COBRA ALCKMIN, ARSESP E SABESP. *Revista Carta Capital*. 30.07.2014. Disponível em: <<http://www.cartacapital.com.br>>
- NUÑES SANTIAGO, B. *Derecho alimentario*. Buenos Aires: Abeledo-Perrot, 1992.
- PESCE, S.; WUNDERLIN, D. *Use of water quality indices to verify the impact of Cordoba City (Argentina) on Suquia River*. *Water Res.* 2000; 34(11):2915–26.
- RIBEIRO, W. Aquífero Guarani: gestão compartilhada e soberania. *In Estudos Avançados*. São Paulo, n v. 22, n. 64, dez.2008.

SANTOS, B. *Crítica da razão indolente: contra o desperdício da experiência*. 3 ed. São Paulo: Cortez, 2001, p 24.

TUCCI, C.; HESPANHOL, I.; CORDEIRO NETTO, O. *A gestão da água no Brasil: uma primeira avaliação da situação atual e das perspectivas para 2025* [relatório]. Global Water Partnership: 2000. Disponível em: <<http://www.bvsde.paho.org/bvsacd/cd17/cenarioges.pdf>>.

TUCCI, C. *Hidrologia: ciência e aplicação*. 2.ed. Porto Alegre: ABRH/Editora da UFRGS, 1997. (Col. ABRH de Recursos Hídricos, v.4).

UNICEF. *Progress on Drinking Water and Sanitation 2012*. Disponível em: <<http://www.unicef.org/media/files/JMPreport2012.pdf>>

VON S. *Princípios Básicos do Tratamento de Esgotos*, DESA-UFGM, Belo Horizonte, 1996.

WOLKMER, M. O “novo” direito humano à água. In WOLKMER, A.; LEITE, J. (Orgs.). *Os “novos” direitos no Brasil*. São Paulo: Saraiva, 2012, p. 215.

WORLD ENERGY COUNCIL. Disponível em:< <http://www.worldenergy.org/>>