

GENERAL ASPECTS ON THE RIGHT TO ACCESS ENVIRONMENTAL INFORMATION IN BRAZIL

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There is no doubt that environmental protection has become a subject of utmost importance in the last decades and especially in recent years, though the discussions on this matter are still recent, whether considering the national or the international scene.

Indeed, the leading moment for discussing the international juridical frame for environmental protection was the 1972 Stockholm conference, followed by three others, held at Rio, in 1992, in Johannesburg, ten years later, and again in Rio de Janeiro, in 2012.

Each and every of these moments contributed to the moulding and consolidating of the international juridical frame for environmental protection, by the means of principles and norms with direct consequences to the national States' juridical framework - a brief overview of the introduction and the evolution of environmental norms within each country shows a clear connection with the international framework.

Anyway, considering the fundamental principles and norms of Environmental Law, there is the right to a healthy environment, defended by the prevention and precautionary principles, but also by other ones. That's the case of the access to environmental information, the participation in decision-making processes that affect the environment as well as the access to justice. These are indeed presented as fundamental rights.

This becomes evident from the 1998 Aarhus Convention (UNECE, 1998), an international norm that has these three rights as its pillars and aims at guaranteeing the right to a healthy environment. Due to its importance as an international norm, this Convention became global since 2014 and has even emulated a negotiation process for a regional text concerning these pillars and their implementation in the Latin America and the Caribbean region¹.

¹ For further information on this process, see <https://www.cepal.org/es/organos-subsidiarios/reunion-comite-negociacion-principio-10-america-latina-caribe>, access on February 15th, 2018.

It is also on the international scene where both the European and the Inter-American Court of Human Rights² have recognized that the procedural right to environmental information must be not only recognized but also implemented and respected by National States norms and procedures, in order to guarantee the fulfillment of the right to a healthy environment itself – and its connection to the very right to life is also an undeniable fact.

Within this scenario, Brazilian environmental legislation states that the right to a healthy environment and its *operational pillars* — that are the access to environmental information, the opening of decision-making processes for public participation and the access to justice – are included among the preceding fundamental rights. These are guaranteed at the constitutional level, where there is a public duty of publicity as a general rule, as well as by specific legislation, like the 2003 Brazilian Environmental Information Act, a norm that can be easily held as *an Aarhus descendant* (BRAZIL, 2003) — even though Brazil has not adhered to this Convention.

Considering this juridical framework, it is interesting to have a look on how the first pillar of the Aarhus Convention, the fundamental right to environmental information, is being implemented in Brazil, under the light of its juridical framework and of Information and Communication Technologies (ICT) instruments.

The approach to this subject will be made in three major parts: the first one, dedicated to the right of having environmental information and how it is presented in Brazil; the second one will present the links between ICT and the right of accessing environmental information; as for the third part, it concerns how environmental information and ICT can be an excellent support for public policies, though there are various barriers for using this kind of instrument, on the one hand, as well as for delivering environmental information, on the other hand.

A) The Access to Environmental Information

When it concerns the right of accessing information, Brazilian 1988 Constitution ensures it to everyone, as long as it is necessary to the exercise of a professional activity (art. 5, XIV); it is also guaranteed that everyone who needs to access personal information that is kept in public files may use a judicial procedure called *habeas data*, in the case of a negative answer from the Administration (art. 5, LXXII); and, in another perspective, the very Administration must obey the principles brought by article 37, *publicity* figuring among them — which means that all administrative acts that do not concern information protected by law (national interest, national security, intellectual property...) or

² Following the Consultative opinion OC-23/17 from November, 15th, 2017 (IACHR, 2017).

aren't considered as part of an internal deliberation process must be made public by all means (BRAZIL, 1988)³.

As for environmental information, it cannot be dissociated from the right to the environment, affirmed by the head of article 225: "Everyone has the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations." (BRAZIL, 1988)

There are indeed countless environmental problems that affect more and more people and economic activities, whether in cities and in rural areas. That is the case of extreme weather events all over the world, which is becoming more frequent, due to climate change.

Regarding the right to the environment, that demands not only a passive — but also a proactive — status to all that are entitled to it, each and every one must act, in order to give his share of contribution to sustainability. It is an action that demands environmental education and awareness as a process to be reinforced. Furthermore, one must consider that: "Environmental information aims not only at the history of the facts, but mostly at constructing people's knowledge, so that they can verify what is going on and what could happen. Being informed, they will have the possibility of deliberating about intervening or not, because the lack of knowledge leads to civic blindness." ⁴ (P. LEME MACHADO, 2017, p. 238).

That is why the access to environmental information is of utmost importance for the very participation of the population in defending their right to the environment - as well as the environment in its complexity. It's important to stress in this way that although environmental information is a technical issue, it must be understandable for all and rapidly provided, as Leme Machado stresses: "The fact that environmental information transmits technical data does not put away the obligation for this information to be clear and understandable for the public that receives it."⁵ (2006, p. 91).

Indeed, how could anybody *defend and preserve* their right to the environment when not provided with adequate environmental

³ Article 5. All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured of inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms: *XIV* – access to information is ensured to everyone and the confidentiality of the source shall be safeguarded, whenever necessary to the professional activity; *LXXII* – *habeas data* shall be granted: a) to ensure the knowledge of information related to the person of the petitioner, contained in records or data banks of government agencies or of agencies of a public character; b) for the correction of data, when the petitioner does not prefer to do so through a confidential process, either judicial or administrative; Article 37. The governmental entities and entities owned by the Government in any of the powers of the Union, the states, the Federal District and the Municipalities shall obey the principles of lawfulness, impersonality, morality, publicity, and efficiency, and also the following: [...]”.

⁴ Translated from Portuguese by the authors.

⁵ Translated from Portuguese by the authors.

information or not being aware of the weight of environmental issues? Moreover, how can the public, whether directly concerned or not by a specific environmental problem, for example, be aware that there are means of obtaining environmental information for defending the threatened environment and their life quality?

In this way, if each and every sphere of the Government (Federal, federate states and municipalities) must obey the publicity principle,⁶ which means full transparency of governmental acts, this is certainly also valid for the Environmental Administration.

As a matter of fact, Brazilian Constitution, in its article 225, 1st paragraph, fourth line, states that the Government must demand, “for the installation of works and activities which may potentially cause significant degradation of the environment, a prior environmental impact assessment, which shall be made public” (BRAZIL, 1988). In other words, and along with the presumption of specific norms, the publicity of an EIA demands that not only the technical studies but also a non-technical report must be made available to the public (whether concerned or not by the *works and activities* above mentioned).

Information and participation of every person involved is also present when it comes to analyze the urban impacts of a given activity, by the means of the neighboring impact assessment. This instrument aims at assessing the positive and negative effects of a construction/activity to the quality of life, considering the impacts on urban density, urban equipments, the use and the occupation of soil, the increase/decrease on real estate prices, traffic, public transportation, ventilation and illumination, urban landscape, natural and cultural heritage⁷.

Another element connected to environmental information within the 1988 Constitution is the fact that promoting “environmental education in all school levels and public awareness of the need to preserve the environment” is part of the Government’s obligations concerning the right to the environment (art. 225, 1st paragraph, sixth line).

Environmental information is also present in the cases of suppression or modification of nature conservation units (like National or State Parks) or the localization of a future nuclear facility: in both situations a specific law is needed, which presumes a minimum of publicity concerning their elaboration and discussion processes. When it comes to conservation units, federal law is clear in demanding public hearings both for their creation and modification - an instrument of public participation that demands, obviously, previous public information.

In this way, as previously mentioned, even if Brazil hasn’t adhered to the 1998 Aarhus Convention, the elements concerning the right to access information, public participation and access to

⁶ Affirmed by article 37 (BRAZIL, 1988).

⁷ Following article 37 of the Brazilian City Statute (BRAZIL, 2001).

justice in environmental matters may be clearly found in this country's norms.

Concerning specifically the right to environmental information and following the Aarhus experience, there is the Law 10.650/2003, a text that stresses the right to have an enlarged access to environmental information. The Brazilian norm states in its article 2, § 1, that “any individual, regardless of proving a specific interest, will have access to the information concerned by this Law [...]”, as well as that author and industrial rights are protected (BRAZIL, 2003). Accordingly, P. Leme Machado states, that “Environmental information interests to *any individual*. The one who asks for information doesn't need to prove, whether before or after, what are the reasons for demanding it. The requester doesn't need to invoke or make reference to the possibility or to the effective violation of a right. [He] doesn't need to prove a social and/or environmental damage. Everyone has the legitimacy to request information.”⁸ (2017, p. 232)

Under the example of the (then) European Convention and its widening on environmental information access, the norm affirms that everyone has the right to have information on: a) environmental quality; b) policies, plans and programmes that may be harmful to the environment; c) pollution and forest recovery; d) risk and damage situations; e) toxic and dangerous substances; f) biological diversity, and; g) GMO's⁹.

The list provided by this Act is not hermetic: Public Administration must then provide a wide access to environmental information, even if the theme directly concerned does not appear in this list. Leme Machado indicates, however, the need and the importance of establishing a list of subjects, since the Administration is left with less discretion to determine whether to give publicity to environmental matters or not: “[...] As one can see from the wide list of themes, past, present and future environmental matters must be informed [to the population]. Thus, questions [...] may be object of information by all concerned public organism¹⁰. (P. LEME MACHADO, 2017, p. 237)

It is also important to stress that Brazilian environmental legislation has built several *microsystems* of environmental information following the 1981 National Environmental Policy Act (BRAZIL, 1981), such as the National Environmental Information System, as well as information systems related to water, sanitation, forests, protected areas, pesticides, soil, urban risk areas and so on¹¹.

Even if the right to participate in decision-making processes as well as the right to have access to justice in environmental matters aren't part of this approach, it is important to illustrate how they are guaranteed at the constitutional level. Public participation

⁸ Translated from Portuguese by the authors.

⁹ Genetic modified organisms.

¹⁰ Translated from Portuguese by the authors.

¹¹ Further information on P. Leme Machado (2006).

appears in the cases where it is necessary to promote public hearings previous to an environmental-related decision — in an authorization process, for example.

As for the access to justice, it is guaranteed by a civil demand that may be proposed by anyone — named people’s legal action — in order to assert compliance with environmental norms¹².

Once considered these elements, it is time to take a look on how present are ICT in Brazil, especially concerning the aim of accessing environmental information.

B) The ICT and the Right to Access Environmental Information in Brazil

Data¹³ are not wrong, nor exaggerated when it comes to the access to ICT by Brazilian population.

Indeed, following the National Telecommunications Regulatory Agency (ANATEL), the country has more cell phones than inhabitants: there are 242 million cell phones for something like 208 million Brazilians. Within this universe, there are as much as 198 million smartphones, an amount that raised in a rate of as much as 17% since last year, with the tendency of raising up to 18% in 2018, leading to the proportion of one smartphone per inhabitant in Brazil.

As for household internet connections, there has been a constant increase since 2007, and 5,5% more connexions over the last 12 months, summing up 28 million points of access in the whole country. Concerning the hardware used in these internet connexions, there were around 166 million notebooks, desktop computers and tablets in use until December 2017, a raise of 5% since 2015. These data put Brazil ahead other countries, with the average of four computers for each group of five inhabitants. The proportion of one computer per inhabitant will be probably attained by 2022¹⁴.

These numbers do not correspond to a universal and efficient access to internet, though, either from a smartphone or from one’s personal computer at home¹⁵. Indeed, the numbers provided by the International Telecommunications Union (ITU)

¹² 1988 Federal Constitution, articles 225, 1st paragraph, fourth line (already quoted in the text) and 5, LXXIII: “LXXIII – any citizen is a legitimate party to file a people’s legal action with a view to nullifying an act injurious to the public property or to the property of an entity in which the State participates, to the administrative morality, to the environment, and to the historic and cultural heritage, and the author shall, save in the case of proven bad faith, be exempt from judicial costs and from the burden of defeat;” (BRAZIL, 1988).

¹³ All of these data may be found in the internet site of ANATEL, anatel.gov.br, access on October, 20th, 2017.

¹⁴ These data were provided by a research conducted by Fernando Meirelles from the FGV, that may be found on the following internet site: <http://caesp.fgvsp.br/sites/caesp.fgvsp.br/files/pesti2017gvciappt.pdf>, access on October 20th, 2017.

¹⁵ For more information, see <http://www.anatel.gov.br/dados/controle-de-qualidade>, access on October, 20th, 2017.

demonstrate that roughly 60% of Brazilians have access to internet¹⁶.

In fact, when the quality of internet access is considered, on the one hand, and the costs for having this service provided, on the other hand, it is difficult to conclude that the number of smartphones, desktops, laptops and tablets that exist in Brazil correspond to a *connected society*.

Data from the same ANATEL demonstrate that when it comes to attaining the agency's goals fixed for cell phone and internet connexion services, numbers do not raise upon 69,3% and 64,5%, respectively. Consumer complaints go along with this low fulfilling of the established goals: in 2016 there were 1,855 complaints for cell phone services and 581,000 complaints for household internet services¹⁷. Regarding consumer's satisfaction, on the last survey made by ANATEL these very services had an average rate of 6,7 points out of 10, household internet connexion being the worst evaluated among the others¹⁸.

ICT data also points out that telecom services in Brazil are very expensive. Internet household access is limited both by the lack of proper infrastructure in certain cities and regions as well as by the cost of having access to the service. As a result, internet household connexion attains more than 80% in classes A and B, falling to 49% in class C and as low as 16% in classes D and E¹⁹.

When it comes specifically to environmental information and ICT there are some aspects to be considered from the point of view of how Brazilians use this kind of technology.

Certainly, even if 60% of Brazilians are indeed connected to the Internet, data show that almost 80% of these connections aim merely at consulting e-mails, followed by message exchanging, and accessing social networks. Less than 20% of internet access concern the participation to online fora — where one could find, for example, hypothetic public consultations within an environmental impact assessment or even the discussions concerning a new masterplan for the city.

As for e-government, data is still very alarming, because most Brazilians consult governmental web pages in the search for personal information and data, as well as some practical institutional information, like the opening times or the telephone number of the considered administration. The participation in fora where matters of public interest are discussed is about 10% of all the accesses.

¹⁶ ITU. Brazil Profile. Available on <http://www.itu.int/net4/itu-d/icteye/CountryProfile.aspx>, access on October 21st, 2017.

¹⁷ Data available on <http://www.anatel.gov.br/consumidor/reclamacoes-na-anatel2/servicos>, access on October, 20th, 2017.

¹⁸ The survey results are available on <http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=346855&assuntoPublicacao=null&caminhoRel=null&filtro=1&documentoPath=346855.pdf>, access on October 20th, 2017.

¹⁹ Data available on <http://agenciabrasil.ebc.com.br/geral/noticia/2016-09/328-milhoes-de-domicilios-nao-tem-acesso-internet-preco-e-maior-barreira>, access on October 21st, 2017.

Public administration itself is mostly absent in using e-government platforms or in providing discussions on the web. Data show that something like 18% of Brazilian government platforms were used for polls, 11% for online public consultations, 10% for discussions forums/communities and as little as 8% for online voting - in public participation processes (BARBOSA, 2016, p. 427-428). Indeed:

In the case of Brazil, the ICT Electronic Government 2013 survey (CGI.br, 2014) seems to portray a similar scenario. The survey, conducted with public managers and public organization technicians, showed that approximately 55% of federal, 53% of state and 40% of local government organizations provided online public consultation tools. Polls were made available on 29% of federal, 23% of state and 25% of local government organization sites, while online discussion forums were present in 19%, 17% and 10%, respectively. These figures alone lead to the impression that the Brazilian government, at all levels, is reasonably supportive of e-participation. Citizens seem to have numerous forms of contacting, interacting with and even guiding their rulers.

On the other hand, research dedicated to investigating and analyzing e-democracy and electronic government projects indicate a different scenario. In practice, there are few effective online consultation, deliberation or polling tools. A more detailed examination of what defines participation reveals that there are few truly relevant initiatives that combine institutional design of such instruments with practical effectiveness, expressed through the empowerment of citizens. Even though Brazil presents some exemplary cases of e-democracy, they remain exceptions in the national scenario and aim at other democratic values, such as transparency and following up with representatives [...] (SAMPAIO; CARREIRO, 2016, p. 268).

This reality goes along with the perception, among public agents, that public information must be held only by the Administration due to the fact that information held in paper format is still a current reality in the Brazilian public sector.

There are, thus, real barriers concerning the full access of the population to ICT services and then, to environmental information - whether provided by using these technologies or not.

C) Accurate information and environmental policies

It is always essential for those who deal with data to analyze them within a context, to insert them in a specific reality, to compare these data, to question methodologies used for obtaining the data provided.

As an example, a recent speech of the Brazilian President at the opening of the UN General Assembly has led the country's environmentalists to make a strong protest, even though the President was not lying. He just said that the Amazonian deforestation rate had shrunk in more than 20% over the last years.

As a matter of fact, he didn't lie, but he picked up official and non-official data for a specific period of time and then, when finding out that these mixed-methodology-data would provide a "positive agenda" for the country (and for his own image) onto the international scene, *voilà*, the speech would be a success! He did this, even if preliminary data lead to a raise in about 58% of deforestation in the Amazonian region for 2017²⁰.

Another element to be considered in the case of environmental data - in this case, deforestation —, is the fact that there has always been a great focus directed exclusively to the Amazonian rainforest, when the second largest Brazilian biotope - the Cerrado —, has an impressive deforestation rate if compared to the Amazonian rainforest: official data show that this biotope has lost 52% more area in 2015 than the latter.

People don't talk that much, though, about the Cerrado, a fact that reinforces the need for comparing environmental data in a broader view.

The deforestation rates in Cerrado lead us to consider the methodological problem for obtaining them, an issue that is clearly perceived comparing the differences among data that brought here: following official data, Brazil still had 64% of Cerrado in 2004 - the year of the first comprehensive study made by the Brazilian Geography and Statistics Institute (IBGE). By the time, many NGO's argued, supported by WWF data, that no more than 19,15% of this biotope was still in good conditions.

As for the deforestation rate, it was estimated in 1,5% per year, following the Nature Conservancy, and of 0,25%, according to academic research data, conducted by the Federal University of Goiás²¹.

In face of this mix of information, what can be considered as *good* or *bad* environmental information? How easy is it to disinform the population, by manipulating data or simply by mixing different methodologies for obtaining these data?

As an example of the information that leads to disinformation, there's the *Renca* case in Brazil.

It is known that this country has the largest biodiversity in the world, scattered in different biomes all over the country. The Amazon Rainforest, the largest Brazilian biome, is the most visible onto the international scene. It occupies more than 50% of the total area of Brazil and expands to its neighboring countries,

²⁰ Information available on <http://www.bbc.com/portuguese/brasil-41327981>, access on October 21st, 2017.

²¹ Information obtained on the internet site http://www.oei.es/historico/divulgacioncientifica/reportajes_024.htm, access on October 21st, 2017.

being mega diverse and the largest tropical rainforest on Earth. This rainforest is irrigated by the biggest fluvial chain in the world, with 15% of the available freshwater on the planet.

The modification on the Amazonian forest — especially because of the expansion of agriculture and livestock, but also by illegal timber and mining — leads to direct impacts on precipitation patterns in Brazil, as well as in other parts of the world. Not to mention the biodiversity loss and the damages caused to traditional populations.

It is in this context that the Federal Government implemented in 2004 a public policy aiming specifically at reducing the Amazon deforestation. In spite of the effectiveness of this program, deforestation rates have seen a continuous increase in the last years, due to changes in budget — as a result of the economic crisis — as well as the promulgation of the 2012 Brazilian Forest Act (BRAZIL, 2012).

Since the deforestation rates for 2016 and 2017 follow this trend, at the end of August of the latter year, a presidential decree authorized private companies to begin exploration in a federal mining reserve — the National Reserve of Copper and Associates (RENCA) — with an area as large as Belgium, with 47,000 square meters, across the Brazilian states of Pará and Amapá.

Although it is a mining reserve, whose main objective is to guarantee sovereignty over strategic mineral resources, allowing its wide exploration would drive great devastation to the Amazon Rainforest.

Indeed, within the area of the *Renca* there are eight environmental protected areas, three of them with severe limitations in the name of their natural characteristics — Brazilian legislation provides a special category of protected areas, the Integral Protection Conservation Units, where economic exploration is not allowed — and the other protected areas where sustainable use is authorized. Among these conservation units, figures the State Forest of Paru — the biggest protected area in the country — and the Tumucumaque Mountains National Park - the widest among the federal environmental reserves²².

There are also two indigenous reserves in the area, where mining exploration is forbidden.

Therefore, if mining exploration should be authorized in the RENCA, the Amazon Rainforest would suffer great environmental degradation even in these protected areas, especially because this specific region is not yet explored. The mineral reserves there comprehend not only copper but also gold, platinum, iron, manganese, nickel and rare metals, like niobium and molybdenum. Considering this, mining would drive considerable resources — and people — to this region, with great impacts on the forested and indigenous areas, whether they are

²² Following “Quer compartilhar, mas não sabe o que é a Renca? Entenda aqui”, Folha de São Paulo, published on August, 30th, 2017, available at <http://www1.folha.uol.com.br/ambiente/2017/08/1914282-quer-compartilhar-mas-nao-sabe-o-que-e-a-renca-entenda-aqui.shtml>, access on February, 10th, 2018.

protected or not, for the simple reason that human movements and settlements are barely controllable — especially in such a remote region.

It occurs that Brazilian population protested against mineral exploration in the RENCA, which put pressure on the Federal Government, leading to publish another decree, stating that the exploration would neither take place in environmental protected areas, nor inside the indigenous reserves. This decree however did not convince the people, that were suspicious about a future reduction on the protected areas, with the support of the National Congress — which is constituted by a great part of the agribusiness sector²³.

Therefore, even with the new decree, public pressure continued, inducing the Brazilian president to suspend this norm for a period of 120 days, in order to discuss the exploration project with the population. Finally, after more than one month, the Federal Government had to cancel the decree that made exploration in this area possible.

This is a good example of citizen participation, mainly by social networks, and in the name of environmental protection, even though common sense information led to a huge disinformation: people simply could not tell the difference between a *mineral* and a *natural* reserve, because of the way that this issue was presented by the Federal Government.

The reliability of the information sources, as well as public awareness, are thus essential elements for anyone to be able to interpret and use environmental information properly.

The information provided must also be the latest available, in order to allow that anyone that has access to it may have a clear and real-time panorama of the state of the environment. In this way, it is pointless to publish or to deliver outdated environmental information, by the simple fact that it is worthless under the light of prevention and precaution, essential Environmental Law principles.

Even if the National Environmental Information System (SINIMA) was presented by the 1981 National Environmental Policy Act (BRAZIL, 1981), it is still not effective, something that can also be seen throughout the other environmental information microsystems.

There is though the National Environmental Authorization Portal²⁴. It works quite well, providing data from each and every Brazilian Federate State, with tools that allow anybody to find out if the company “A”, “B” or “C” is functioning properly under Environmental Law - in other words, if this or that activity is indeed authorized by the Public Environmental Administration.

²³ In a universe of 513 deputies, there are 207 from the agribusiness and 23 from the mining sector, not to mention the 226 coming from the construction industry. A complete analysis of this composition is available at <https://exame.abril.com.br/brasil/biblia-boi-e-bala-um-raio-x-das-bancadas-da-camara/>, access on February, 1st, 2018.

²⁴ <http://pnla.mma.gov.br>, access on October 10th, 2017.

The problem with this kind of tool in a continental and federal country like Brazil is that all the information needed to feed this portal is provided by each one of the 5,560 Municipalities, the 26 Federate States and the Federal District. And, furthermore, this information must be really up to date, even if environmental authorizations may last from one to ten years, depending on the activity to be considered and the legislation concerned — at the federal, the states', or the municipalities' level.

That is why this portal is an interesting tool but it should be handled carefully, because data obtained must be confirmed locally, where information was generated.

CONCLUSION

The access to environmental information is indeed a fundamental right under Brazilian legislation, figuring as an instrument for guaranteeing another fundamental right, that is the right to a healthy environment. That is why it is considered as a procedural right and constitutes one the positive obligations for each and every National State, under the light of recent decisions from international courts — the November 2017 consultative opinion from the IACHR being an interesting example.

Environmental information is delivered through different forms, but always aiming at education and awareness, the central points to form new values in society, in order to respect the natural environment and all forms of life, as well as the cultural environment and its values.

The outspread of such information leads to human and social behavior transformation, demanding individual and collective responsibility. It involves a wide perspective, that includes individual behavior, but also the need for modifications in social behavior, governmental planning and action, as well as production and consumption patterns.

Environmental education could thus include a network structure to create an environmental consciousness, such as seen in the case of RENCA in Brazil, where there was an effective public pressure through the social networks — thus by the means of ICT — generating a significant response against the government action, forcing it to reconsider its decision and draw a great setback for environmental protection.

To this purpose, population awareness is a fundamental key to put pressure on governments in order to avoid setbacks in environmental protection.

The implementation of this right relies greatly on ICT, especially in a society that is becoming more and more connected to the Internet and dependent on this kind of technology. Therefore, ICT must not be apart when it comes to having real-time access to environmental information, which is needed mostly in urgent cases, preventing thus environmental damage.

Anyway, whether for prevention, planning or repressive actions, ICT provides interesting tools for implementing the right to a

healthy environment. It must be stressed, though, that it is not the panacea, but a tool for obtaining and diffusing environmental information, which demands a prior deep analysis so that it can be up to date, accurate and reliable.

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