

Access to information on contaminated areas in the State of São Paulo: an analysis from the perspective of Eco-92 Principle 10 and transparency legislation

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Abstract: The Environmental Agency of the State of São Paulo (Cetesb) is the agency responsible for developing actions to control, license, supervise, and monitor potentially polluting activities in São Paulo. As such, it needs to follow specific standards, including those related to ensuring access to environmental information provided for in various legislations, such as federal law no 12527/2011 — known as the Freedom of Information Act (LAI) — and Principle 10 of the Rio Declaration on Environment and Development (P10). By reviewing the literature and analyzing documents on the theme, our research promoted a case study of the Cetesb portal, assessing, in particular, the information available in its menu for the dissemination of data on contaminated areas. We concluded, by a quali-quantitative and descriptive research, that it fails to fully meet Principle 10 since, out of the 13 LAI topics directly associated with the theme, five (40%) were fully met; four, (30%) partially; and four (30%), unmet. The most critical points found concern the non-compliance with active transparency criteria and the lack of mechanisms to encourage participation and social control.

Keywords: Transparency. Access to information. Social control. Principle 10 (P10) of the Rio Declaration on Environment and Development. Environmental Agency of the State of São Paulo.

Research objectives and questions

The main objective of this study is to analyze the portal of the Agency of the State of São Paulo (Cetesb) from the perspective of Principle 10 (P10) of the Rio Declaration on Environment and Development (DECLARAÇÃO, 1922) and other Brazilian standards related to public transparency, especially federal laws 12527/2011 and 13460/2017, by specifically assessing how public data on contaminated areas is disclosed. Whenever necessary, we will also contextualize and show other portals of the São Paulo State Government related to the environment and the normative frameworks, available in Brazil, on access to information and public transparency relevant to the environment, including the elaboration of frameworks ensuring the rapid visualization and comparison of the various aspects listed in these standards, their specificities, validity in the current context, and relevance. We aim to answer the following research questions: 1) “Does Cetesb disclose public information on contaminated areas according to P10 and other transparency standard preconditions?”, and 2) “Do the channels provided by Cetesb encourage popular participation and social control of this theme?”

Theoretical Bases

In general, Brazil effected the guarantee of access to public information by several regulatory frameworks, such as the 1988 Federal Constitution - which states in item XXXIII of article 5 that “all persons have the right to receive, from the public agencies, information of private interest to such persons, or of collective or general interest, which shall be provided within the period established by law, subject to liability, except for the information whose secrecy is essential to the security of society and of the State;” in item II of paragraph 3 of article 37, which provides for “the access of users to administrative records and to information about Government initiatives, with due regard for article 5, items X and XXXIII.” Subsequently, other standards aimed to implement this transparency principle, such as complementary laws 101/2002 (known as the “Fiscal Responsibility Law”, which dictated the rules for the broad disclosure of budgetary and financial information) and 131/2009 (the “Transparency Law”, which, among other measures, set real time as a criterion for requiring the insertion of public data in computerized systems), and Federal Law 12527/2011 (Freedom of Information Act, the main standard related to the theme and one of the main ones in the world²²).

In force for almost ten years, the Brazilian Freedom of Information Act establishes the basic principles for achieving transparency, such as: observing transparency as a general precept and secrecy as an exception; disclosing information of public interest, regardless of requests; and developing the social control of public administration. Therefore, this legislation can expand citizens' possibilities to monitor public management. Moreover, it encompasses information on various topics since they are subordinate to it: the public agencies of the direct administration of the Executive, Legislative (including the Courts of Auditors), and Judiciary Powers and the Public Prosecutor's Office; municipalities, public foundations, public companies, government-controlled private companies, and other entities controlled directly or indirectly by the Union, States, Federal District, and Municipalities; and even non-profit private entities that directly receive, for actions of public interest, resources from the budget or through social grants, management contracts, partnership agreements, adjustments or other similar instruments (BRASIL, 2011).

However, even before the validity of the Freedom of Information Act, there was the issue of a Brazilian federal law that provided for public access to environmental information, the main focus of this study, in line with principles of publicity and transparency (already provided for in the Federal Constitution of 1988 and other laws) and in parallel with discussions related to environmental sustainability and the importance of transparency of data on this subject (especially arising from the United Nations Conference on Environment and Development, held in Rio de Janeiro - Eco-92). Federal Law 10650, of April 16, 2003, obliges organs and entities of direct, indirect, and foundation administration belonging to the National Environment System (SISNAMA), to ensure public access to documents, expedients, and administrative processes dealing with environmental matters and to provide the environmental information under its custody in written, visual, audible, or electronic media (BRASIL, 2003). This standard provides that individuals may have access to such environmental information under a "written request" - thus dealing with what has been called a guarantee of passive transparency.

Unlike passive transparency - which consists in disclosing information under the request of an interested party - active transparency requires the disclosure of public data in computerized systems, regardless of request. Expressly provided for in the 2011 Brazilian Freedom of Information Act,

this criterion was proposed by the 1981 National Environmental Policy - preceding even the edition of the Brazilian Federal Constitution, known as the Citizen Constitution. Established by Federal Law 6938/1981, the National Environmental Policy - later regulated, in some respects, by Law 10650/2003 - provides, in Article 4, for "the dissemination of environmental data and information and the formation of public awareness on the need for preserving environmental quality and ecological balance" (BRASIL, 1981) and, in Article 9, for the annual disclosure, by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), of the "Environmental Quality Report". It also mentions the obligation to guarantee the "provision of information related to the Environment, forcing the Public Power to produce them when non-existent" (Art. 9, BRAZIL, 1981).

The legal frameworks mentioned above converge, some more some less, with the discussions held at Eco 92, a United Nations conference which discussed the concept of sustainable development. Held in Rio de Janeiro, the United Nations Conference on Environment and Development (UNCED) gathered 179 countries for several commitments ranging from combating poverty, protecting, and promoting conditions for human health, protecting the atmosphere, combating deforestation, transferring sustainable technologies, protecting water supplies, and ecologically and healthily managing toxic chemicals to actions in favor of gender equity, among others. Programs and principles are among the agreements signed at the event, some of which are directly associated with the need to expand transparency and access to public information about the environment. Chapter 40, entitled "Information for Decision Making", of "Agenda 21" - an action program which predicted and established a plan for constructing more sustainable societies by gathering different methods - provides that:

In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels. The following two programme areas need to be implemented to ensure that decisions are based increasingly on sound information: (a) Bridging the data gap; (b) Improving information availability. (CNUMAD, 1992)

The document defends the need to gather public data sets that contain information on various variables, such as socioeconomic and pollution ones, to ensure involved agents' correct decision-making. It also mentions the differences observed when comparing "developed" and "developing" countries and reinforces the need for developing sustainable development indicators. Chapter 40 of Agenda 21 (which bears its name precisely because it analyzes environmental issues with a look at the 21st century) also provides for the need to improve data collection and use and methods of analysis, establish a broad structure of information, and strengthen the dissemination of these data. It concludes that, with the cooperation of international organizations, all countries need to "(...)establish supporting mechanisms to provide local communities and resource users with the information and expertise they need to manage their environment and resources sustainably(...)" - and, in this sense, "(...) ensure traditional and Indigenous knowledge and approaches when appropriate." (UNCED, 1992).

Note also that in Eco 92, among the principles listed in the "Rio Declaration on Environment and Development", is Principle 10 (P10). It deals with incentivizing popular participation in environmental issues by guaranteeing access to relevant public information, including on materials and activities offering some kind of risk to communities. In this study, we interpret this Principle as directly concerning strategies to encourage the social control of public administration, later provided for in several federal laws, such as the Freedom of Information Act and the Transparency Law. We also associate it with the requirements for active and passive transparency since the P10 fails to clearly mention whether such access to environmental data would be proactively guaranteed or after interested parties' formal requests. Thus, we understand the text to provide for citizens' use of various mechanisms - whether active transparency of information via unrequested disclosure without request or passive transparency, by which public data is requested - to guarantee their right to access to information and the consequent participation of society.

Principle 10 is cited in full below. It reaffirms the need for establishing a global partnership via cooperation between State and society on the theme:

Principle 10: Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is

held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided. States should facilitate and promote public awareness and participation by making information available to all. (DECLARATION, 1992)

Methodology

From the bibliographical review and documental analysis of the main normative frameworks related to public transparency and access to information, this work will conduct a case study of the official website of the Environmental Agency of the State of São Paulo (Cetesb) from the perspective of Principle 10 (P10) of the Rio Declaration on Environment and Development (DECLARAÇÃO, 1992) and Brazilian transparency standards. For this, we will: 1) construct a comparative framework explaining the main characteristics of each mentioned standard, specifically in their aspects concerning public transparency, access to information, and encouragement of social control and popular participation; 2) list as objective topics, from the comparison chart, the main P10 aspects used to analyze the Cetesb portal. Thus, a descriptive research will be conducted - which, according to Gil (1999), has as its main objective the description of the characteristics of a given phenomenon or a population and the establishment of relations between variables. However, this is also a qualitative study since data percentages will be analyzed and its meanings will be sought based on the perception of the phenomenon within its context (Triviños, 1987).

Results and discussions

Initially, we elaborated a comparison chart (Chart 1) that will summarize the main characteristics of the Brazilian standards of public transparency and their potential adaptation to practices of dissemination of environmental information. Moreover, we will draw a new framework (Chart 2), specifically regarding Principle 10, to explain the main topics of this document directly concerning the laws of access to information - which, thus, can be used in the case study of the Cetesb portal. A theoretical discussion

will follow on the main structural characteristics of the portal, the public documents made available, and the strategies for disseminating information and encouraging popular participation used by Cetesb (drawing a comparative parallel, whenever necessary, with other sites with similar objectives), particularly on public data related to contaminated areas. Finally,

we will show a brief and summarized presentation of the articulation between agents involved in coping with environmental problems and its preservation, concluding this study by systematizing information in a chart (Chart 3) assessing the level of adherence Cetesb shows to transparency principles.

CHART 1 - COMPARISON BETWEEN DOCUMENTS AND LEGAL FRAMEWORKS ON TRANSPARENCY

YEAR	DOCUMENT	FEATURES RELATED TO TRANSPARENCY AND ACCESS TO INFORMATION
1981	Federal Law 6938/1981 (National Environmental Policy)	It generically provides for the dissemination of environmental data and information (without mentioning deadlines and specificities). It mentions the formation of public awareness about preservation (environmental education). It depended on regulations.
1988	Federal Constitution	Provides for access to public information and the principles of advertising and documentary management - without detailing deadlines (lacked regulation)
1992	Principle 10 of the Rio Declaration on the Environment and Development (P10)	Called the participation principle, it advocates the dissemination of public information specifically on environmental issues. It mentions neither requirements nor deadlines. Therefore, it requires regulation. On this subject, see Chart 2
2000	Complementary Law 101/2000 (Fiscal Responsibility Law)	It provides for the transparency of tax management, grouping obligations such as using computerized systems and disclosing revenues and expenditures. It also cites encouraging popular participation and holding public hearings specifically on issues related to budget planning.
2003	Federal Law 10650/2003	It clearly cites the obligation to guarantee access to public documents on the environment and defines criteria for it, such as a 30-day period for granting the requested information (passive transparency). It also provides for the dissemination of information in the Diário Oficial da União - including reports on air and water quality (active transparency).
2009	Complementary Law 131/2009 (Transparency Law)	It alters LC 101 devices, including the mandatory provision of real-time information by online portals (active transparency).
2011	Federal Law 12527/2011 (Freedom of Information Act)	It regulated the 1988 Federal Constitution, establishing criteria for active and passive transparency - including a 20-day period for granting responses to the submitted requests for information, extendable for another ten under express justification.
2017	Federal Law 13460/2017 (Law on the public services user's participation, protection, and rights defense)	It establishes mechanisms to encourage popular participation in public administration, including providing for the creation of ombudsman boards and the establishment of minimum standards of quality in care.

CHART 2 - MAIN TOPICS OF P10 AND PUBLIC TRANSPARENCY LAWS

EXCERPT FROM P10	CHARACTERISTIC	APPLICABLE LEGISLATION
Environmental issues are best handled with the participation of all concerned citizens at the relevant level.	Social control Active participation	1988 Federal Constitution. Federal Laws 12527/11 and 13460/17 Complementary Laws 101/2000 and 131/2009
At the national level, each individual shall have appropriate access to the information held by public authorities concerning the environment, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes.	Active transparency Passive transparency Social control Active participation	Federal Law 12527/11
States shall facilitate and encourage public awareness and participation by making information widely available.	Social control Popular Participation Active transparency Passive transparency	1988 Federal Constitution. Federal Laws 12527/11 and 13460/17 Complementary Laws 101/2000 and 131/2009

1. Information dissemination on contaminated areas and the incentive to popular participation on the Cetesb website

The portal of the Environmental Agency of the State of São Paulo (Cetesb) can be accessed at <https://cetesb.sp.gov.br/> - also available on the official website of the Government of the State of São Paulo (<https://www.saopaulo.sp.gov.br/>) via the “Companies” tab in the lower corner of the site, an area of little prominence. It is, claims the State²³, an “environmental agency responsible for developing actions to control, license, supervise, and monitor potentially polluting activities,” conducting activities aimed at promoting, protecting, and recovering air, water, and soil quality. In this study, we will initially analyze the information specifically related to contaminated areas made available by active transparency (i.e., without the need for prior requests from interested parties) on the Cetesb official portal. Such information is available in a prominent menu called “CONTAMINATED AREAS,” which is located on the right upper corner of the Cetesb portal home page. In this link, we find the “Documentation,” “Legislation,” “Technical opinion,” “Critical contaminated areas,” “List of contaminated areas,” “Convocations,” and “State Fund for the Prevention and Remediation of Contaminated Areas - FEPRAC” submenus.

The main focus of research analysis will be the “List of contaminated areas” submenu. However, for contextualization, we will summarize the other available submenus. In “Documentation,” we find Cetesb technical documents, such as instructions and manuals aimed at professionals working in contaminated area management. In “Legislation,” there is a link to Federal Law 13577/2009 which provides guidelines for protecting soil quality and managing contaminated areas, as well as decrees and resolutions on the subject. The “Technical Opinion” tab shows information and form templates aimed at those interested in obtaining technical opinions from the company on the stages of management of contaminated areas, etc. The submenu “Critical contaminated areas” was inoperative, reading “the content of this page is in update” between 19 and 23 July 2021, during which this research was held. The “Convocations” menu brings information directed to enterprises which have been called to carry out preliminary evaluations and confirmatory investigations, and the FEPRAC, created in 2009.

The submenu “List of contaminated areas” consists of a link that should provide information legible for the lay public unfamiliar with technical terms. We also noted that the inoperability of the “Critical contaminated areas” link (which would potentially complement the information of the menu now analyzed) denotes a serious error since the disclosure of data via active transparency, in clear and accessible

23 <https://www.saopaulo.sp.gov.br/orgaos-e-entidades/empresas/cetesb/>.

formats, is a pre-requisite established in Federal Law 12527/11, and that, if applied, could guarantee part of the effective compliance with Principle 10. Thus, we highlight that the non-availability of information on critically contaminated areas on Cetesb website prevents citizens using public services from having access to such data - not least because the mentioned page fails to even show information about channels from which such information could be requested. To access passive transparency websites, internet users need to go back to Cetesb home page site and scroll to the footer of the portal: an unprivileged area since it is difficult to locate. This is the only way in which the links to contact channels can be found. We will detail this later.

Right at the top of the page, in the “List of contaminated areas” submenu, there is a link called “Explanatory text - 2020”, which directs users to an OCR (Optical Character Recognition tool) pdf file²⁴ - i.e., a more accessible file format which allows use in screen readers, for example - showing data that is potentially editable and searchable²⁵. In this study, we found that all pdfs available on Cetesb portal are in this final format²⁶, thus meeting principles of public transparency. However, we also verified that the explanatory text analyzed herein actually includes a summary of the information collected by the company in 2020 about contaminated and rehabilitated areas in the State of São Paulo. This 12-page long archive even lacks an index, making it difficult for internet citizens to find information since, due to the size of its content, a more accessible format would be essential, such as subdivision into sublinks, for example. Still, we find five graphs and two tables inserted in the middle of the text which can simplify the dissemination of raw data - which, in a first analysis, are complex to the lay public.

But the mere use of OCR pdfs and the insertion of charts and tables fails to fully meet the precepts of transparency laws, especially the Freedom of Information Act. In article 8, item VI, § 3, Law 12527/2011 establishes that websites must “I - contain a content search tool that allows access to information in an objective, transparent, clear, and easily understandable language”; and “II - enable the recording of reports in various electronic formats, including in open and non-proprietary formats, such as spreadsheets, and text to facilitate information

analysis”. In this study, we found that the research form of the Cetesb website has a single field of research for the entire portal, forbidding internet users to perform, for example, an exclusive search in a given area of the site or connecting other variables (multi-field searches), which would facilitate finding the required information since, in many cases, inserting a term in the research field retrieves tens, hundreds, and even thousands of results, making it difficult to locate the sought data. Additionally, it is impossible to record reports in open formats (such as spreadsheets and text files), directly violating the legislation.

At the top of the page, the Explanatory Text describes the technical terms used for classifying the registered areas. Including this information in this file alone forces internet users to keep at least two files open on their screens: one with the searched document and another with the explanatory text to be consulted in parallel to solve any doubts. Including such explanations in the available documents themselves would ensure greater transparency and ease of understanding, avoiding rework. One example is the second document available on this page, called “Areas in process of remediation.” The file has 1463 pages, which, by itself, already hinders users’ searches. Moreover, the inclusion of technical terms without explanation hinders data analysis and interpretation.

Also, regarding the file formats to be made available, the FOIA establishes, in § 3 of Article 8, that websites must “III - enable automated access by external systems in open, structured, and machine-readable formats” and “IV - disseminate in detail the formats used for structuring information” (BRASIL, 2011). This paradigm, called “open data,” “allows citizens to obtain information about government actions, enabling their active contribution in the decision-making process and improving the functioning of the State” (SILVA et. al, 2014). As defined by the Open Knowledge Foundation, “Open data is data that can be freely used, shared and built-on by anyone, anywhere, for any purpose.” (OKF; BRAZIL, apud SILVA et. al, 2014). By disclosing information only in a pdf format without guaranteeing download in other accessible formats and showing the technical data on the structuring of the information provided, the Cetesb portal hinders the availability, access,

24 <https://cta.ifrs.edu.br/ferramentas-ocr-entenda-o-que-sao-como-funcionam-e-qual-sua-relacao-com-a-acessibilidade>.

25 The Cetesb portal also provides other accessibility tools, such as expanding font sizes and changing the site background.

26 We found that the items disclosed between 2002 and 2010 were released in the system from a file compacting software - requiring internet users to have such a system installed on their computers to finally be able to open such public documents in their original PDF OCR format. This fact denotes, in itself, an infringement of the principles of public transparency as it consists of a difficulty for the end user.

reuse, and redistribution of data, and universal participation²⁷, precluding interoperability.

Opening bases with the characteristics described above is relevant because it allows for interoperability, i.e., the collaborative work of different databases by different actors of society. Constructing increasingly better systems and solutions, whether developed in governmental, private, academic or civil society spheres depends on database interoperability.

Clarity about the definition of “open data” also ensures that two or more databases from different sources can be combined without major technical obstacles. It avoids, among other things, the government being a large warehouse of “closed” databases, i.e., serving only for human search, useless for application in larger and complex systems capable of providing solutions, visualizations, services or value for any citizen or group of society. (SÃO PAULO; REUNO UNIDO, 2015, pag. 11)

Also in its Article 8, Law 12527/2011 establishes that public agency websites must “V - ensure the authenticity and integrity of the information available for access”. The standard defines authenticity as the “quality of information that has been produced, expedited, received or modified by a particular individual, equipment or system” and integrity as the “quality of unmodified information, including as to origin, transit, and destination” (BRASIL, 2011, Art. 4). Thus, we find that the Cetesb portal meets this principle, considering that the data provided follow a certain standardization and information structure, showing no evidence of undue manipulation. Moreover, the portal and all its subpages use the SSL (Secure Sockets Layer) protocol, featuring a set of extra security mechanisms, such as encryption and others, which ensures the authenticity of electronic transactions and thus, more security for organizations, according to Rocha, Pedroso, and Soares Junior (2003). To further expand the guarantee of authenticity and data integrity, it would be advisable to use digital certification via public and private keys.

Regarding how up to date the information provided is, we especially use as a reference Article 8, item VI, of the Freedom of Information Act which states that public agencies must “keep updated the

information available for access”. This article can also be complemented by the Transparency Law (Complementary Law 101/2009), which established the obligation to make information available in real time in electronic access means (BRASIL, 2009). According to Decree No. 10,540/2020, the expression “real time” means that the information must be available until the first business day following the accounting record in the adopted system²⁸, an interpretation that, by analogy and extension, also applies to other public documents that can be disclosed according to the precepts of Federal Law 12527/2011. We found that the information on the Cetesb website is annually disclosed since its files and spreadsheets relate to data consolidated in the previous year. Thus, the most recent information is from December 2020, contemplating the periodicity so far put into practice but lacking the adjustments aiming at meeting the concept of real time (first subsequent business day).

Information is disclosed from most recent to oldest (i.e., 2020 data is at the top of the screen, whereas 2002 data, the last of the historical series, is at the bottom close to the footer). We note, however, the lack of uniformity in the historical series: while in the last three years (2020, 2019, and 2018), the set of items available had 16 tables - including “areas in the process of remediation”, “areas rehabilitated for declared use”, “contaminated with confirmed risk”, “contaminated in the process of reuse”, “contaminated under investigation”, among others - data between 2012 and 2017 are composed of 12 items; 2011, eight; 2010, seven; 2009, nine; years for which only four, two or even one file are made available (as with 2002 and 2003). Moreover, the annual release of compiled data, taking place in December, was only so between 2010 and 2020. In the remaining years, this periodicity was different: between 2007 and 2009, data date from November; in 2005 and 2006, data were released in two months: May and November; in 2004, in November; in 2003, in October; and in 2002, in May. These discrepancies violate the laws of transparency, as MOURA (2016) points out:

We note that the importance of efficient monitoring and evaluation systems is perceived for an effective planning, coordination, and evaluation of the proposed goals. There are still difficulties in measuring advances

27 “Availability and access” (data fully disclosed in accessible formats), “reuse and redistribution” (ensuring the mixing of these data with other bases) and “universal participation” (any person should be able to use the data) are taken by the State Government (SÃO PAULO; REUNO UNIDO, 2015) as essential for a data set to be considered open.

28 http://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2020/Decreto/D10540.htm#art19

and setbacks due to the lack of structured evaluation mechanisms with reliable indicators and perennial methodologies which allow the formation of historical series in the agencies responsible for environmental policies. This difficulty, which is not exclusive to the environmental theme, makes the environmental policy performance framework unclear both for managers and external evaluators. Without these accountability and transparency mechanisms, defaulters cannot be held responsible for conducting policies or making decisions effectively. (MOURA, 2016, p. 36)

Federal Law 12527/2011 ensures the mandatory disclosure of information in active transparency. Article 8 states that “It is the duty of public agencies and entities to promote, regardless of requirements, disclosure in a place of easy access, within the scope of their competencies, of information of collective or general interest produced or in custody by them”. At the same time, item II of Article 3 provides that the “disclosure of information of public interest, regardless of requests” is one of the guidelines to be adopted by the Public Power, aiming to ensure the fundamental right of access to information. Passive transparency - guaranteeing channels for formalizing requests for information - is also expressly mentioned in the standard, which provides, in its article 8, item VII, that bodies must “indicate the location and instructions that allow the interested party to communicate, electronically or by telephone, with the body or entity that owns the site”; and its article 11, which allows for 20 days to respond to requests for information to which is impossible to grant immediate access. Such topics, listed in the Freedom of Information Act, can ensure the effectiveness of Principle 10, if fully implemented.

[Active] transparency proves to be the simplest way to access information so as to prevent stakeholders from having to request individually and on a case-by-case basis the information of interest. Initiatives such as the Transparency Portal of the Federal Government, as well as the improvement of information available on the websites of environmental agencies on the Internet, are moving in this direction. (MOURA, 2016, p. 135)

Considering the principle of participation and access, Principle 10 of the Rio Declaration on Environment and Development cites, in several of its passages, the importance of ensuring access to public environmental information. The text expressly states that “each individual shall have appropriate access

to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities.” It also provides that data should be made “available to all.”

After experiencing undemocratic regimes for more than 20 years, the restoration of democracy in many Latin American countries enabled civil society to try and appropriate new participation spaces. Subsequently, there was also a strong change in the socioeconomic structures of these countries, influenced by economy globalization. The Rio-92 Declaration expresses the need for social participation in Principle 10, also called the Principle of Access. People’s access to information is a duty of the State, as is the opportunity to participate in decision-making processes. Access to information comprises judicial and administrative procedures, including the measures taken to compensate for possible damages. (CUNHA et. al, 2013, pag. 70)

On passive transparency, Law 12527/2011 highlights, in article 9, that access to public information will be ensured by the creation of Citizens Information Service (designed to meet access requests, inform the processing of documents, and ensure the respective protocol of requests, including virtually). It also provides for the “holding of public hearings or consultations, [the] incentive to popular participation or other forms of dissemination,” as strategies of social control. Moreover, Complementary Law 101/2000 states, in its chapter called “Transparency, Control, and Supervision”, that “transparency will be ensured by encouraging popular participation and holding public hearings during the processes of preparation and discussion of plans, law of budget guidelines and budgets” (which extends, by analogy, to other public documents). According to Cunha et. (2013, p. 71), the 1988 Constitution also provided for “social participation in the health sector”; and Resolution 1/1986 of the National Council for the Environment “had already anticipated social participation by public hearings to discuss the texts of the Environmental Impact Reports”.

In this case study of the Cetesb portal, we found that the link studied (the menu “Contaminated Areas”) fails to show, in a place of evidence, mechanisms to encourage the participation of society, the lay public. The site shows only in its footer (in the lower corner of the page, difficult to locate) links to the pages of the Ombudsman’s Office and the Citizens Information Service - pages of the Government of the State of

São Paulo which fail to constitute a specific channel for the exclusive reception of demands related to the environment. On the Cetesb home page, in addition to links to the Ombudsman's Office and SIC (arranged in the lower area of the page and with little prominence, as previously reported), we find the menu "SERVICE CHANNELS" highlighted in the upper right area. It contemplates several items to incentivize popular participation, such as "Scheduling an academic visit," complaint channels (including specific ones, such as environmental and black smoke), addresses of state agencies and "how to get there" (Google Maps), as well as Contact Us forms (including the SIGOR - Online Solid Waste Management System), and so on.

On the Cetesb main page, we also found a link in its "Highlights" tab, in compliance with item VI, § 1 of Article 8 of the Freedom of Information Act, which requires agencies to make such disclosure. The link to the channel dedicated to receiving "Black Smoke Complaints" (exclusively intended to receive reports of diesel-powered vehicles) is reproduced in this space. Also on the home page, we found the dissemination of monitoring services, showing results for the quality of beaches, rivers and dams, air and soil; Cetesb Higher School (including a link to information on graduate programs and training courses, e.g., including "investigation techniques of contaminated areas" and "prevention and control of soil and groundwater pollution", both of which collect fees directed to professionals in the area). The information on "Courses and Training," also reproduced in the "Agenda" menu, at the top of the main page, highlights that the Cetesb School was created in 2013, "aiming at strengthening professional performance in the environment" - i.e., such activities are not intended for the lay public and society in general.

Regarding training on environmental issues (and, in this sense, encouraging popular participation), it is noteworthy that the Cetesb website publishes a link to "Publications," including a "Library" that provides integral works with open electronic access, and a research field, facilitating its location by users. Likewise with the Secretariat for the Environment of the State of São Paulo, which has an Environmental Education Coordination - contemplating areas such as "Social Participation" and the "Environmental Education Portal;" spaces that widely disseminate educational materials, including for the lay public, which are undisclosed in any area of the Cetesb portal, thus reducing knowledge possibilities for society. Our research also failed to locate, in any

area or subarea of the Cetesb website, specific links related to the holding of hearings or public consultations - mechanisms expressly mentioned in Law 12527/2011 - which the company fails to serve. Search for these terms in the field of consultation showed only old results. The last public search involved the steel sector and had its data consolidated in March 2020.

The emphasis in the public sphere is very often placed on a single information flow guidance - from officials to citizens - without being provided with feedback channels and no possibility for negotiation. Under these conditions, people have little opportunity to influence the program supposedly designed for their benefit. (ROSSI, 2009, p. 5)

2. The articulation between agents in disseminating information and preserving the environment

The "Explanatory Text", at the beginning of Cetesb "Contaminated Areas" page, concludes that fuel stations stand out in the list of contaminated areas by type of activity, "with 4,523 records (70% of the total), followed by industrial activities with 1,294 (20%); commercial activities with 352 (6%); facilities for waste disposal and accident cases with 208 (3%); and unknown sources of contamination with 57 (1%) (CETESB, 2020, p. 11). The text also states that the "main groups of contaminants found in the registered areas reflect the influence of fuel resale activity, especially aromatic solvents (basically represented by benzene, toluene, ethylbenzene, and xylenes), automotive fuels, polycyclic aromatic hydrocarbons (PAHs), and TPH" (CETESB, 2020, p. 9). By reading the document and analyzing its graphs and tables, we can also conclude that the regions most affected by contamination-generating activities are those comprising Greater São Paulo (the Water Resource Management Unit - UGRHI 6) and the inner state, including the metropolitan area of Campinas (UGRHI 5).

In its summary report, Cetesb states that 51% of the registered areas have been rehabilitated or are under monitoring for closure, thus suitable for "declared use" and no longer classified as contaminated areas. It mentions the activities of the Environmental Board for the Management of Contaminated Areas, and states that "the figures shown in this text demonstrate the efficiency and effectiveness of Cetesb as a management body, and the results obtained come from the actions carried out by the Cetesb technical

staff to develop preventive and corrective actions” (CETESB, 2020, p. 12). It also points out some legal frameworks related to the subject, such as State Law 13577/2009, which outlined the guidelines and procedures for managing contaminated areas; and Decree 59263/2013, which established the mandatory “continuous updating” of the Registry of Contaminated and Rehabilitated Areas - including establishing actions to identify and rehabilitate these areas, and “initiatives to revitalize deactivated or abandoned industrial and commercial regions”. The agency concludes the text by emphasizing the importance of multisectoral action among several agents to solve environmental problems, as follows:

The equation of the issue related to contaminated areas will take place as a result of the mobilization of various society sectors, resting with CETESB the management of the process with the effective participation of state and municipal agencies responsible for health, water resources, and urban planning. As a result of this mobilization and proper management, current problems can be solved or even transformed into actions to encourage economic development and job creation. The success of a contaminated area management program, which already shows very positive results, depends on the engagement of companies that have potential for contamination, investors, financial agents, construction companies, environmental consulting companies, universities, public authorities at all levels (legislative, executive,

and judiciary), and the general population. (CETESB, 2020, p. 12).

It is important to consider that Cetesb activities show limitations and deficiencies. According to Carmo and Hogan (2006), in a study on environmental issues in the Metropolitan Region of Campinas (SP), its incursions have increased over the years and “are important to identify contaminated areas,” “but what has been done in terms of remediation of these areas is still very little,” the researchers point out (2006, p. 603), highlighting that social groups in better socioeconomic conditions can mobilize diverse assets, such as technical, political, and financial ones, thus reducing vulnerability to soil contamination, as is the case, for example, of the region known as Mansões Santo Antônio in Campinas. Thus, the frequent dialogue between various agents - such as supervisory bodies, including Cetesb, the business environment, organized civil society and third sector entities - can contribute to solve environmental problems, such as contaminated areas, and that the broad dissemination of public environmental information influences and enhances such dialogue and social control, as presupposed by Principle 10.

Conclusions

To support our final considerations and the presentation of results, Chart 3 summarizes the main aspects related to access to environmental information listed in this study, signaling whether Cetesb met them.

CHART 3 – THE CETESB PORTAL FROM THE PERSPECTIVE OF PRINCIPLE 10 OF THE RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT (P10) AND THE FREEDOM OF INFORMATION ACT (LAI)

TOPIC	LAI ITEM	CETESB STATUS
Active transparency	1. “disclosure of information of public interest, regardless of requests” (item II of art. 3)	Partially met
	2. “dissemination of answers to the most frequently asked questions by society” (item VI of art. 8).	Met
	3. Website should “contain content search tool that allows access to information in an objective, transparent, clear, easily understandable language” (item I, § 3, art. 8).	Partially met
	4. Website should “enable the recording of reports in various electronic formats, including open and non-proprietary, such as spreadsheets and text to facilitate information analysis” (item II, § 3, of art. 8).	Unmet
	5. Website shall “enable automated access by external systems in open, structured, and machine-readable formats” (item III, § 3, of art. 8).	Unmet
	6. Website must “disclose in detail the formats used for structuring the information” (item IV, § 3, of art. 8).	Unmet
	7. Website shall “ensure the authenticity and integrity of the information available for access” (item V, § 3, art. 8).	Met
	8. Website shall “manter atualizadas as informações disponíveis para acesso” (item V, § 3, art. 8).	Partially met
	9. Website shall “take the necessary measures to ensure the accessibility of content for persons with disabilities” (item VIII, § 3, of art. 8).	Met
Passive transparency	10. Website must “indicate place and instructions that allow the interested party to communicate, electronically or by telephone, with the body or entity that owns the site” (item VII, § 3, art. 8).	Met
	11. The body shall ensure the “creation of information service to the citizen in the organs and entities of the public authorities” (item I of art. 9).	Met
Social Control and Popular Participation	12. “development of social control of public administration” (item V of art. 3)	Partially met
	“II – holding of hearings or public consultations, encouraging popular participation or other forms of disclosure” (item II of art. 9)	Unmet

From the information gathered above, we conclude that the Cetesb portal fails to fully meet Principle 10 of the Rio Declaration on Environment and Development since, of the 13 topics in the Freedom of Information Act directly associated with the theme. Overall, five (40%) were fully met; four (30%), partially; and four (30%), unmet. The worst results were recorded in “Social Control and Popular Participation,” in which, of the two items analyzed, one (50%) was unmet and the other (50%) only partially. Thus, the State fails to fully meet any topic on this theme. Regarding “Active transparency,” in

which, of the nine items consulted, only three were fully attended - representing 33% of total adherence to the theme (percentage identical to “unmet” and “partially met” items). On the other hand, the best results were verified in passive transparency (with 100% of the items met) - a practice that can even guarantee the incentive to own social control and participation by the company, provided that it is tied, for example, to the holding of hearings and public consultations; training and courses for the lay public on environmental education; and the creation of effective channels of active transparency.

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