



Hydropower exploration in natural areas and environmental licensing procedures in Brazil

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Abstract

The participation of hydroelectric plants in the Brazilian electric energy matrix reached 90% in the 1990s. However, due to the environmental impacts that these projects cause and the insertion from other sources, this participation declined, with prospects of reaching 42% by 2029. In the expansion planned for the hydroelectric sector, most of the projects are located in the Amazon and in small man-made hydrographic basins. In order to make new hydroelectric projects viable, several institutions have proposed modifications and improvements in the environmental licensing processes. Many of the proposed rule changes have the potential to improve, simplify or streamline the environmental licensing process; however, these changes do not face the main restrictions on the installation of new hydropower plants, especially in the Amazon region. Among the proposals of the institutions analyzed, the ones that are most supported are the inclusion of integrated environmental assessment and strategic environmental assessment as a subsidy to the assessment of environmental impact and the licensing process. Often these studies are elaborated, but they are little used or considered for decision making. Another possibility that could be effective would be the one-stop shop that would be responsible for working directly with institutions with jurisprudence on areas such as historical heritage, quilombolas and indigenous peoples. It is understood that it is necessary to advance the current environmental legislation so that it is possible to take advantage of the great hydroelectric potential that the country has and also to maintain the environmental gains achieved in the last decades.

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1. Introduction

Hydroelectric power plants (HPPs) participate in the energy matrix of many countries in the world, as a result of the use of water resources and also because the cost of this energy is one of the cheapest and does not consume fossil fuel. Thus, the hydroelectric plant became a great source of electrical energy. However, with the increasing pressure from society for environmental issues in the early 1970s, a movement began to question the environmental viability of hydropower projects in various parts of the world. Public questioning has narrowed the use of hydropower and significantly reduced its role in the energy matrix in several countries [1].

In Brazil, during the 1970s and 1980s, energy from hydroelectric plants came to represent more than 80% of the electricity consumed in the country. At the end of 2019, the share of hydroelectricity was around 68%.

According to data from [2] the share of hydraulic energy is expected to drop to 42% in the national electric energy matrix by 2029. In other words, despite the inclusion of other renewable sources in the national electric energy matrix, there is still a forecast that the hydropower continue to have an important relative participation in the production of electricity in Brazil.

There is still great untapped potential in the country, compared to other countries in the world, but the best sites are located mainly in sub-basins in the Amazon where, in addition to having great and fragile biodiversity, there is also the presence of restricted use areas such as Conservation Areas (CAs), Indigenous Lands (ILs) and Quilombola Territories (QTs) [3].

According to the long-term and medium-term expansion plan for the Brazilian electric sector (e.g., [4-2]), most economically and energetically viable plants are located in watersheds that have not yet been exploited, for which there is no forecast for the installation of plants with reservoirs to regulate affluent flows, since the environmental restrictions mentioned hinder or prevent the acquisition of environmental licenses.

In these cases, in order to make energy use possible in regions that are not very developed, it is necessary to improve the environmental licensing instruments in force in Brazil.

There are many proposals from various sectors for this. Thus, this article seeks to understand how new hydroelectric projects, in areas with little development and already established legal protection, can develop and what kind of modification in the environmental licensing process can be implemented.

2. Hydroelectric developments in the Amazon and environmental restrictions

Information from [5] estimate that the hydropower potential of Brazil is in order of 246.40 Gigawatts (GW). Of this total, 100 GW are located in the Amazon region.

The large plants built in the Amazon in the 1970s / 1980s (Balbina, Tucuruí and Samuel) were installed mainly in forest areas that did not yet have legal protection, the way they do today, in the form of protected areas.

Due to the impacts observed by these projects, in many cases there was the need of creation of Conservation Areas and Indigenous Lands, in certain areas, as a form of environmental and social compensation for the affected peoples. For example, during the 1980s, to minimize and mitigate the impacts of the construction of the Balbina reservoir (Amazonas), there was discussion for the creation of Conservation Areas. The first Conservation Area in the region was created in 1990 by IBAMA, Biological Reserve of Uatumã, on the left bank of the reservoir, which protected samples representative of the ecosystems of the Uatumã and Jatapu river basins.

In addition to the Biological Reserve, two protected areas for direct use are found in the region of influence of the Balbina Reservoir: APA de Presidente Figueiredo (1990) and Sustainable Development Reserve - RDS of Uatuamã (2004). The creation of these areas proved to be efficient for maintaining vegetation cover, according to a survey by [6].

In 2018, deforestation reached 8% of the area surrounding the Balbina reservoir (considering a radius of 150 km from the dam). The coverage of protected areas was 66% of the area, housing 72% of the remaining vegetation. When deforestation is analyzed by type of area, it was found that 2% of the area of Conservation Areas and less than 1% of Indigenous Lands are classified as deforested.

It is important to note that many of these projects were financed by the World Bank, which at the time also required environmental compensation for the non-mitigable impacts of hydroelectric dams. Among these compensations was the creation of protected areas.

With the return of large hydroelectric projects in the first decade of the 21st century, (as an example of the Belo Monte, Santo Antônio and Jirau HPPs), many protected areas had already been created in or around these developments, thus causing conflict between the proposed hydroelectric generation and the preservation of natural areas. What was observed as a consequence was the great controversy of several unresolved situations in the administrative sphere.

According to the National Energy Plan (NEP) 2030 [4], only 34% of the Brazilian hydroelectric potential expected to be used by 2030 has no direct interference in protected areas, with 45% of this total having a negative impact on Indigenous Lands, 13% in Conservation Units and 3% in Quilombola Areas (Table 1).

Table 1. Characterization of hydroelectric potential in the Amazon region according to socio-environmental impacts.

| Impact | MW | % |
|-----------------------|---------------|-------------|
| No significant impact | 30,031 | 34% |
| Indigenous land | 39,095 | 44.2% |
| Conservation units | 11,751 | 13.0% |
| Quilombola Territory | 2,883 | 3.2% |
| Other Impacts * | 4,520 | 5.1% |
| Total | 88,280 | 100% |

(*) Cities, populated area, Virgin River, flooded area, cost of land with infrastructure of significant importance. Source: [4]

According to Table 2, among the largest hydrographic sub-basins on the Amazon River, most of them have hydroelectric potential with socio-environmental restrictions linked to impacts in protected areas such as Indigenous Lands, Conservation Areas and Quilombos. The restriction index reaches 100% in the hydrographic basins of the Negro, Araguaia, Oiapoque, Purus, Maecuru and Nhamundá.

Table 2. Socio-environmental restrictions on hydroelectric potential by sub-basin.

| Sub-basin (n°) | Potential to seize (MW) | Constrained potential (MW) | Potential with restrictions (%) |
|----------------|-------------------------|----------------------------|---------------------------------|
| Negro - 1 | 4,184 | 4,184 | 100% |
| Nhamundá - 3 | 110 | 110 | 100% |
| Maecuru - 6 | 161 | 161 | 100% |
| Purus - 9 | 213 | 213 | 100% |
| Oiapoque - 8 | 250 | 250 | 100% |
| Araguaia - 14 | 3,095 | 3,095 | 100% |
| Tocantins - 13 | 8,202 | 7,109 | 86.6% |
| Jari - 7 | 1,691 | 1,373 | 81.1% |
| Xingú - 12 | 22,795 | 17,114 | 75% |
| Trombetas - 4 | 6,236 | 4,745 | 76% |
| Tapajós - 11 | 24,626 | 17,841 | 72.4% |
| Branco - 2 | 1,079 | 660 | 61.1% |
| Paru - 5 | 938 | 118 | 12.5% |
| Madeira - 10 | 14,700 | 1,556 | 10.5% |
| Total | 88,280 | 58,529 | 66.3% |

Source: [4]

Figure 1 shows the basins listed in Table 2 with their respective protected areas until 2019. The basins with the greatest restrictions are on the left bank of the Amazon River (eight of them) (Figure 1). Some of these basins already have projects in operation, such as the Jari, Madeira, Tapajós, Xingu, Araguaia and Tocantins basins.

It is important to note that the last National Energy Plan launched in 2007, the data used to analyze CAs and ILs included only Conservation Areas created until 2006. With the largest number of preservation areas instituted after that date, the restriction numbers for some basins may be even greater.

In an analysis made with data referring to 2019, the hydrographic basin of the Paru River (State of Pará), which had 12.5% of potential with restriction in 2007, presents coverage of 55% Indigenous Lands, 10% of Conservation Areas with Comprehensive Protection and 25% considered Sustainable Use.

The watershed of Rio Madeira follows the same pattern, 10.5% restriction in 2007, but in 2019 it had 22% coverage of Indigenous Lands, 12% Full Protection Conservation Areas and 12% Sustainable Use. These figures show that from 2007 to 2019 the trend is for an increase in restrictions in the basins.

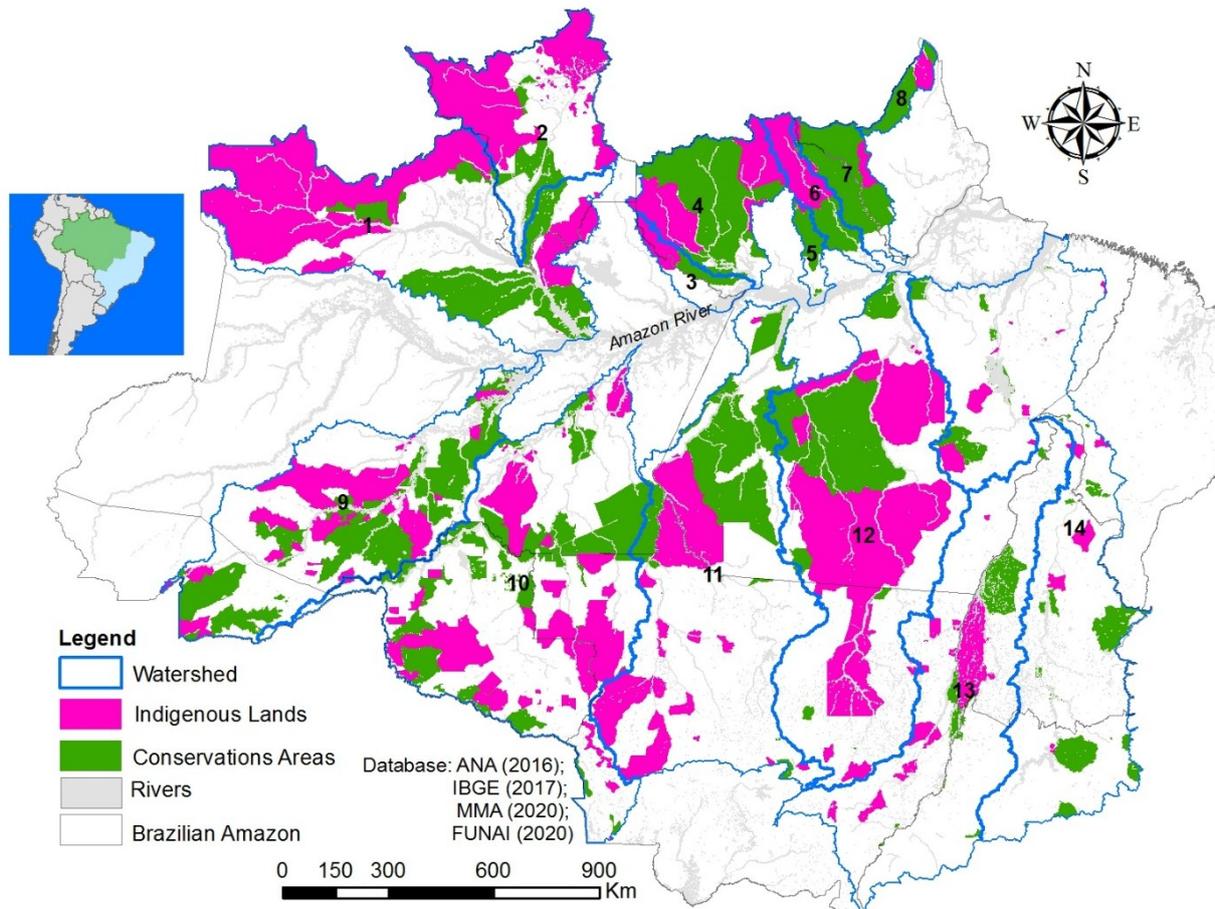


Figure 1. Hydrographic basins with restrictions on hydro-energy use. Source: authors.

Basin notation: 1 (Negro); 2 (Branco); 3 (Nhamundá); 4 (Trombetas); 5 (Maecuru); 6 (Paru); 7 (Jari); 8 (Oiapoque); 9 (Paru); 10 (Madeira); 11 (Tapajós); 12 (Xingu); 13 (Araguaia); 14 (Tocantins)

In the environmental licensing process, Interministerial Ordinance no.60/2015 defines the limits for considering intervention in typologies such as Indigenous Lands and Quilombola Territories. The rules established for intervention in Conservation Areas are established in Federal Law No. 9985/2000, Conama Resolution No. 428/2010 and Joint Normative Instruction No. 8/2019/ICMBIO / IBAMA.

Intervention in indigenous lands or quilombola territories in the Amazon region is considered when the activity or undertaking subject to environmental licensing is located in one of these typologies or has elements that may cause direct socio-environmental impacts, respecting the 40 km limit (measured from the dam axis and respective central body of the reservoir) away from these areas. For other regions of the country, 15 km of distance is allowed to be considered as intervention.

As for the impacts on Conservation Areas in recent years, in order to make the HPPs feasible within these spaces, some of these protected areas have suffered from the process of changing their limits, resulting in the reduction of their area, change of category (usually for a less restrictive one) or even having its creation revoked (e.g., [7, 8]).

In the last 10-year Energy Expansion Plan (EEP), ending in 2029, launched by the Brazilian Energy Research Company [1], the new projects included in the medium-term planning of the electricity sector are medium-sized hydroelectric plants, with power ranging from 100 MW to 1,000 MW. For the Amazon region, only 3 HPPs are expected to start operating by 2029.

However, even after the removal of most of the HPPs planned for the Amazon, the remaining projects in the 2029 Decennial Energy Plan are still close to protected areas.

The Bem Querer project, with 650 megawatts, is located on the Branco River in the state of Roraima, and is considered strategic for Brazilian energy security, as Roraima is the only state not yet connected to the National Interconnected System (NIS). Its operation would reduce energy imports from Venezuela and dependence on combustion-based thermal power plants. The dam axis is located 37 km from the Yanomami Indigenous Land and 16 km from the Caracarái Ecological Station which is a Complete Protection CA.

The 400-megawatt Tabajara plant in the state of Rondônia, on the Jiparana River, can impact cities, conservation areas, indigenous lands and the general population, including riverine communities and fishermen. The dam axis is 4 km from RESEX Rio Preto Jacundá, 10 km from Campos Amazônica National Park and 12 km from IL Tenharim Marmelos.

The 140-megawatt Castanheira plant on the Arinos River in the state of Mato Grosso is located 21 km from the Apiaká Kayabi Indigenous Land.

The withdrawal of these projects from the planning of the expansion of the electric sector is largely due to the observation of factors that, by the current rules, would prevent their installation and that would generate insurmountable obstacles which would be run into in the environmental licensing processes.

Under current rules, the construction of a hydroelectric plant cannot, for example:

- Affect directly Conservation Areas of Complete Protection contrary to Law No. 9985/2000;
- Cause irreversible impacts in natural cavities of maximum relevance, contrary to Decree nº 6640/2008;
- Cause the suppression of primary vegetation or in which is in the middle or advanced stages of the regeneration of the biome of Atlantic Forrest, with specified characteristics and contrary to Article 11 d. The Law No. 11428/2006 – Law of the Atlantic Forrest;
- Cause irremediable losses in goods considered to be historical or cultural heritage, or of scenic beauty, contrary to Article 17 of Decree-Law 25/37.;
- Cause the extinction of a species, contrary to the Convention on Biological Diversity.
- Directly affect demarcated indigenous lands, in the case of energy use and mining, contrary to article 231 of the Federal Constitution of 1988, while this is not an official creation by law

For example, in August 2015, one of the large federal government hydropower projects, São Luiz do Tapajós, the environmental licensing process was filed by National Institute of Environment - IBAMA due to, among other factors, the direct interference in the indigenous land of the Mundurucu people, currently in the process of being demarcated.

A survey of the reasons that led IBAMA to reject requests for prior license for hydropower projects was published by [9].

In Brazil there are a series of proposals to improve current rules, including the norms that regulate the environmental licensing of these enterprises, in order to overcome the impasses that currently prevent or hinder the environmental licensing of infrastructure projects, among which is the construction of new hydroelectric plants.

3. Proposals for the Improvement of the Environmental Licensing Process: A Review of the Positioning of Some Sectors

Given the importance of environmental licensing in the country, especially with regard to the influence of the process on possible delays in infrastructure projects, such as hydroelectric plants, it seemed relevant here to survey what the main organized segments think about a possible improvement of the process, with attention proposals with capillarity to the hydraulic energy sector.

With regard to the electricity sector, especially the hydroelectric sector, a document from the Secretariat of Strategic Affairs of Brazil – SAE [10], considers the importance of introducing the SEA - Strategic Environmental Assessment in the country.

Therefore, this type of approach must focus on the problem of hydroelectricity based on the following steps:

- The environmental possibilities and limitations of the projects (which rivers allow the construction of hydroelectric plants; which options would represent less environmental impact);
- Social demands and impacts (which communities would benefit and be harmed by each option); and
- Economic efficiency (the costs of each choice in relation to its benefit to the country).

In view of the lack of clear rules and the increasing lawsuits, SAE proposes the creation of an Arbitration Committee in Conflicts in Environmental Licensing, linked to National Council of Environment, as a way to preliminarily resolve issues or disputes around the licensing process of a project.

As for the number of steps, SAE's proposal reduces the number of licensing steps to two: Installation License and Follow-up License, with one step prior to the Installation License, which is binding, but is still not a Prior License.

The document warns that the increase in technical discretion on the part of environmental agents, without due legal support, leads to an increase in the contestation of their actions as well as in the judicialization of the process.

In 2011, Instituto Acende Brasil published a document in which it brought to the public a series of questions regarding the operationalization of environmental licensing for works in the Brazilian electricity sector [11].

This document diagnoses the situation imposed on the electricity sector due to the lengthy environmental licensing process in the country. Some reforms are also proposed with a view to the efficiency of the procedure in the country.

The following suggestions for its improvement can be highlighted:

- Define a regulation in order to be exempt from the previous licensing phase some projects and simplification of the Environmental Impact Study (EIA) when the area in question has already undergone an Integrated Environmental Assessment (AAI) or an ecological-economic zoning;
- Creation of a unique process input of environmental licensing where a single institution will be responsible for consultation and articulation with the other institutions (Instituto do Patrimônio Histórico e Artístico Nacional/The National Institute for Historical and Artistic Heritage - IPHAN, Fundação Nacional do Índio/The Nation Indian Foundation - FUNAI, Fundação Palmares/Palmares Foundation, etc.), states and counties.

As for the proposal to use the information from the Integrated Environmental Assessment, many hydrographic basins in the Amazon, such as Jari, Branco and Jurema, already have published assessments, however these documents are little considered in the environmental licensing process, which means that the financial resources for studies and the information contained therein are underutilized.

The one-stop shop would be an alternative to reduce the waiting time for the opinion of the institutions responsible for historical heritage and indigenous and quilombola communities.

The report produced by the National Confederation of Industry - CNI in 2013 - "Industry Proposal for the Improvement of Environmental Licensing" [12], based on a survey carried out among 24 federations of the industry throughout the Brazilian territory, makes a diagnosis of the situation of environmental licensing.

The report points out the lack of or delay in the manifestation of other bodies that are not part of the National Environment System (SISNAMA), and the fact that the legislation requires that they be consulted represents one of the biggest barriers to licensing carried out more quickly.

The difficulty in linking the different databases, as well as the lack of primary information, increases spending and delays licensing procedures.

Sectoral entities have also positioned themselves on the issue of environmental licensing in the country, among them we can highlight the Electric Sector Environment Forum - FMASE, composed of members of companies in the Brazilian electric sector, involved in the generation, transmission and distribution of energy in the country.

In a document sent to the Minister of the Environment in October 2013 [13], the institution alerts to the issue of legal and regulatory security in the environmental licensing process in the country and lists a series of suggestions aimed at improving the process in the country, between them:

- It proposes a one-stop shop for institutions interested in the licensing procedure, with the creation of an entity that brings together professionals from different areas of the government interested in the licensing process and replications of this proposed structure for levels of state and municipal government in the country;
- The interface with the electricity sector would take place at a very preliminary stage where this entity would verify the environmental component of hydrographic basin inventories, thus enabling the choice of better alternatives in environmental terms;
- As for the dam axis location, the document raises the issue of optimum use of the environmental variable in the choice of the best fall arrangement, giving, in a way, greater environmental viability of the hydroelectric projects proposed in the expansion of generation and reduction of potential conflicts.
- The issue of *block* environmental licensing is defended as an alternative for projects of up to 50 MW of power, up to a limit of 200 MW in total, and when they are located in a cascade in a given hydrographic basin.

- Creation of rules of conduct so that public and formal hearings are adapted to the proposed objectives in order to guarantee the effectiveness of the instrument;
- Restrict the possibility of inserting conditions in environmental licenses that are not related to the negative impacts imposed by the installation or operation of the project;
- Guarantee the participation of the entrepreneur in the decision regarding the destination and resources for environmental compensation;
- Consider the Integrated Environmental Assessment (AAI) as an instrument of insertion of the environmental variable in the planning stage of the electric sector for both HPPs and Small Hydroelectric Plants, and not as a condition for environmental licensing.

It is interesting to note that the forum, as proposed by Instituto Acende Brasil, brings an innovative proposal, which is to bring the environmental licensing bodies (in the format of a new one-stop-shop entity) to the discussions of the ten year energy plan and national energy plan in order to insert environmental discussions in the moment when expansion planning begins in the sector.

The work of Duarte and Santos, [14] makes a diagnosis of the relationship between hydroelectric projects and the issue of environmental licensing in the country. Among the main measures to be taken, aiming at the improvement of the models, there are:

- Creation of guidelines for the construction of Term of reference in the environmental licensing process, with minimum performance rules for studies presented by entrepreneurs
- Revision of the multiple license format that should be widely discussed by the relevant political spheres. In January 2014, ABAI - Brazilian Association for Impact Assessment [15] edited a document containing the synthesis of a seminar held in São Carlos / SP aiming to improve the environmental licensing process. Among the indications were:
 - The inclusion of the Strategic Environmental Assessment (SEA) can anticipate relevant aspects through discussions between the actors participating in the environmental licensing process, so that its results are included in the delimitation of the scope of the EIA process;
 - Expand the issue of access to information, as well as encourage reference reports as a way to better define the *baseline* of the region in question;
 - Reinforcement of EIA integration with other environmental management instruments;

The inclusion of SEA which analyzes policies, plans and programs in its scope can also be beneficial to the licensing process, as the document gathers information that supported the AIA's terms of reference as well as the Integrated Environmental Assessment.

Access to information, with greater transparency to society and the populations affected since the beginning of the feasibility studies, is essential so that the populations feel included in the process and it is possible to anticipate conflicts that would arise in later phases, as well as their resolutions.

Among the environmental management instruments is the company's support for the maintenance and effectiveness of the protected areas surrounding the enterprise, as mentioned by [16].

As for changes in legislation in the environmental area, one of the projects currently being discussed in the Chamber of Deputies is the creation of a General Environmental Licensing Law.

Project of Law n° 3.729 / 2004 provides for environmental licensing and regulates item IV of § 1 of art. 225 of the Federal Constitution, which requires, in accordance with the law, for the installation of a project or activity potentially causing significant degradation of the environment, a prior environmental impact study.

Among the various aspects contained in the Project of Law, a few details can be highlighted: the provision of formal incorporation of the SEA as one of the planned instruments for assessing environmental impacts; the establishment of simplified licensing rites; the dispensation licensing for predetermined activities; the establishment of independence of the licensing body in relation to the other bodies involved in the process; the mandatory direct link between the conditions and the environmental impacts identified in the studies; the restriction to only one request for additional information on the part of the environmental agency; incentives for voluntary measures to improve environmental management; and, the definition of deadlines for the issuance and validity of environmental licenses.

The document also consolidates, groups, details and transforms into law rules already established in different National Environmental Council resolutions, in particular Resolution n° 01/86 and n° 237/97.

It is important to note that the bill under discussion has received several criticisms. Pope *et al.* [17] points out that this scenario of instabilities and weaknesses tends to simplify this instrument to the point of total inefficiency, on the part of public institutions, which observe EIA as a barrier to development.

For [18] there are several interested parties that carry out their own studies to support proposed changes to these regulations, for example: National Confederation of Industry CNI [12]; Electric Sector Environment Forum FMASE [13] and Brazilian Association of State Environment Entities ABAI [15]. Such entities represent part of the public sector of environmental regulation and sectors of the economy, tending to influence the political agenda for the adoption of some of the proposals with unclear results.

One of the most controversial proposals of the Project of Law is the Licensing by Adhesion and Commitment (LAC) Art. 3 °:

XIV - environmental license by adhesion and commitment (LAC): license that certifies the viability and authorizes the installation and operation of an activity or undertaking with no significant environmental impact and that observes the conditions provided for in this Law, through declaration of adhesion and commitment of the entrepreneur to the requirements established by the licensing authority;

In this proposal, there is no need for prior approval for the installation and operation of a certain undertaking by the licensing agencies (state or federal), it being up to these bodies to define in all environmental conditions (location, safety procedures, etc.), where later they will be inspected. However, there is a fear about possible political and business pressures on states and municipalities, making them more susceptible in these licenses.

Another controversial point of the proposed law is the one contained in Art. 39, where it is stated that it will no longer be a condition for licensing to consult indigenous and traditional peoples as established by Convention No. 169 of the International Labor Organization (ILO). Only those who already have the Technical Report on Identification and Delimitation (RTID) in their areas will be mandatory to consult. This point sets precedents for licensing without listening to people whose territories do not yet have RTID, the lack of this document is now a reality for several indigenous and quilombola peoples who claim their ancestral territories.

Also by the project, assessments related to the licenses and licenses for use and occupation of land in the municipalities will no longer be required. In the current legislation, the opinion of these bodies is mandatory and decisive in the licensing process.

As stated, [19]: *[...] compliance with obligations related to impacts on local populations is one of the main challenges [...]. This, for different reasons, which include the lack of technical capacity of Organs' licensing agencies to deal with the human dimension, the low effectiveness of the participation mechanisms and the elaboration of diagnoses unable to guarantee the protection of the rights of the impacted populations.*

Thus, as explained above, the proposal to create a General Environmental Licensing Law is quite controversial. There are changes being discussed that have the potential to improve, simplify or speed up the process, others would result in a setback and a reduction in the effectiveness of the instrument, which aims, among other objectives, to make economic and social development compatible with the preservation of the quality of the environment and ecological balance.

4. Final Considerations

The dimension of impacts on large enterprises such as hydropower projects are mitigated to the extent that there is effectiveness in complying with environmental laws and their principles. Aiming at multiple interests, decision making must be based on technical studies and the use of conservation instruments and environmental management, seeking to mitigate impacts and compensate for lost areas.

Many of the proposed rule changes discussed in item 3 of this article have the potential to improve, simplify or speed up the environmental licensing process, however, these changes do not face the main restrictions on the installation of new hydropower projects, especially in the Amazon region, specifically: interference in integral protection conservation units and indigenous lands, as highlighted in item 2.

If changes in these themes are not promoted, the installation of new hydroelectric projects in the Amazon region will become increasingly difficult. These changes must be made with extreme care and precaution, so that they do not cause an environmental setback in the country.

Among the proposals of the institutions analyzed, the ones that are most supported are the inclusion of integrated environmental assessment and strategic environmental assessment as a subsidy to the assessment of environmental impact and the licensing process. Often these studies are elaborated, but they are little used or considered for decision-making.

Another issue that could streamline the process would be the one-stop shop that would be responsible for working directly with institutions with jurisprudence on areas such as historical heritage, quilombolas and indigenous peoples.

As for changes in legislation, despite the simplification of some processes that the General Licensing Law and other sectors propose, it is not possible to advance these proposals if they are less demanding in relation to the environmental issue, especially when the projects are located in sensitive areas or with the presence of legally protected areas such as the Amazon.

Thus, it is necessary to understand and prioritize progress in the current environmental legislation so that the progress with the protected areas established in the country is not lost, and it is possible to take advantage of the great hydroelectric potential that the country has.

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