ENVIRONMENTAL LICENSING AND SOCIAL PERCEPTION: PATHS TO SUSTAINABILITY

LICENCIAMENTO AMBIENTAL E PERCEPÇÃO SOCIAL: CAMINHOS PARA A SUSTENTABILIDADE

LICENCIAS AMBIENTALES Y PERCEPCIÓN SOCIAL: CAMINOS HACIA LA SOSTENIBILIDAD

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ABSTRACT

Environmental licensing is a key regulatory instrument in Brazil, structured to reconcile economic development and environmental protection, based on the principle of prevention. Regulated by the National Environmental Policy, Complementary Law No. 140/2011, and CONAMA resolutions, the process involves preliminary, installation, and operation stages, and requires detailed studies such as the EIA/RIMA. Social participation and the environmental perception of the population are essential to ensure legitimacy and transparency. The integrated approach, supported by the Theory of Environmental Complexity, allows for the consideration of ecological, economic, cultural, and social dimensions in an interdependent manner, promoting more sustainable and well-founded decisions.

Keywords: Environmental Licensing. Environmental Perception. Sustainability.

RESUMO

O licenciamento ambiental é um instrumento-chave de regulação no Brasil, estruturado para conciliar desenvolvimento econômico e proteção ambiental, com base no princípio da prevenção. Regulamentado pela Política Nacional do Meio Ambiente, pela Lei Complementar nº 140/2011 e pelas resoluções do CONAMA, o processo envolve etapas prévias, de instalação e operação, e exige estudos detalhados como o EIA/RIMA. A participação social e a percepção ambiental da população são essenciais para garantir legitimidade e transparência. A abordagem integrada, apoiada na Teoria da Complexidade

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Ambiental, permite considerar dimensões ecológicas, econômicas, culturais e sociais de forma interdependente, promovendo decisões mais sustentáveis e fundamentadas.

Palavra-chave: Licenciamento Ambiental. Percepção Ambiental. Sustentabilidade.

RESUMEN
La licitación ambiental es un instrumento clave de regulación en Brasil, estructurado para conciliar el desarrollo económico y la protección ambiental, basado en el principio de prevención. Regulamentado por la Política Nacional del Medio Ambiente, por la Ley Complementaria nº 140/2011 y por las resoluciones del CONAMA, el proceso involucra etapas previas, de instalación y operación, y requiere estudios detallados como el EIA/RIMA. La participación social y la percepción ambiental de la población son esenciales para garantizar legitimidad y transparencia. El enfoque integrado, apoyado en la Teoría de la Complejidad Ambiental, permite considerar dimensiones ecológicas, económicas, culturales y sociales de manera interdependiente, promoviendo decisiones más sostenibles y fundamentadas.

Palabras clave: Licenciamiento Ambiental. Percepción Ambiental. Sostenibilidad.

1 INTRODUCTION

Environmental licensing has consolidated itself as an essential instrument of state regulation, with the purpose of making economic development and environmental protection compatible. The National Environmental Policy instituted this mechanism as a form of prior control of potentially polluting activities, organizing its execution through the National Environmental System (Brasil, 1981). Subsequently, Complementary Law No. 140/2011 strengthened cooperation between federative entities in the conduct of licensing processes (Brasil, 2011).

The regulation of the Environmental Impact Assessment occurred through CONAMA Resolution No. 01/1986, which established technical criteria for the preparation of the Environmental Impact Study (EIA) and the Environmental Impact Report (EIR), required for activities that modify the environment. These instruments aim to support administrative decision-making, incorporating detailed environmental and socioeconomic diagnoses (Conama, 1986; Rodrigues, Nikolas Gebrim, Almeida, et al., 2020).

The Environmental Impact Study represents the materialization of the principle of prevention, as it seeks to anticipate damage and propose mitigating measures before the installation of the project. In this sense, environmental licensing is a preventive mechanism and not just a corrective one, requiring technical rigor and institutional responsibility (Milaré, 2009; Almeida; Sertão; Angelo et al., 2014).

However, environmental analysis cannot be restricted to the technical dimension. Social participation, provided for in CONAMA Resolution No. 09/1987, is a fundamental element to ensure transparency and legitimacy to the decision-making process. Public hearings and consultation mechanisms should ensure that society understands and influences decisions related to environmental impacts (CONAMA, 1990; Almeida; Sertão; Soares et al., 2015).

2 METHODOLOGY

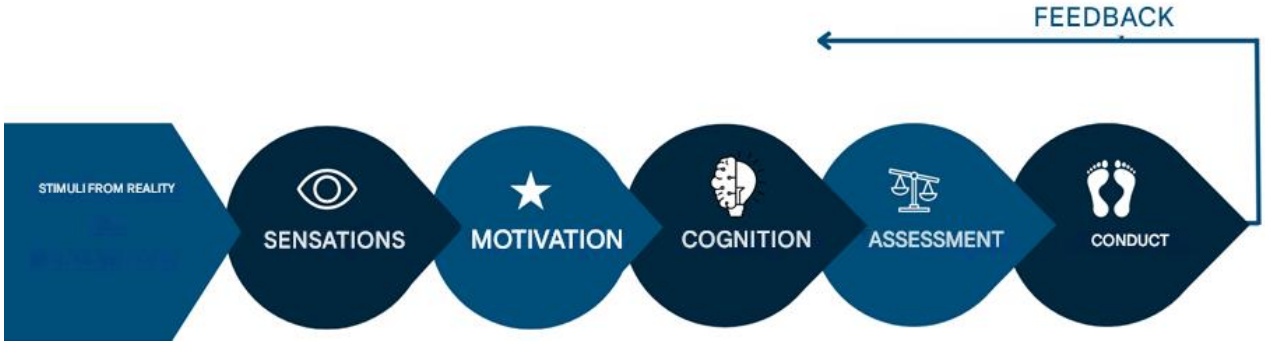
This chapter is based on a qualitative approach, based on a literature review and normative analysis. The main legal provisions that structure environmental licensing in Brazil were examined, as well as theoretical contributions on environmental perception and socio-environmental complexity (Brasil, 1981). The discussion about environmental perception is based on Merleau-Ponty's phenomenology, which understands perception as an experience lived and constructed from the interaction between subject and world (Merleau-Ponty, 1999). In addition, Tuan (1980) emphasizes that perception is a response to environmental stimuli, influenced by values, culture and individual experiences. Byington (2010) adds that the

senses structure the relationship between consciousness and reality, being fundamental for the construction of the environmental experience.

Del Rio and Oliveira (1999) propose that the perceptual process involves interaction between external stimuli, cultural filters and individual interpretation, demonstrating that environmental perception is not purely objective, but mediated by symbolic and social aspects. Thus, studies of environmental perception become relevant instruments to understand the relationship between the population and the territory (Santos, 2018).

Figure 1

Schematic of the perceptual process



Source: Prepared by the authors; based on Del Rio e Oliveira (1999).

The analysis is also based on the Theory of Environmental Complexity, which is based on Morin's (2003) epistemology of complexity. According to the author, complexity presupposes the interdependence between parts and wholes, overcoming fragmented views of knowledge. Leff (2009) broadens this perspective by proposing environmental rationality as an alternative to the dominant reductionist model, defending the integration between scientific knowledge, traditional knowledge and social participation. Recent studies reinforce the need for this integrated approach in the analysis of large-scale enterprises (Rodrigues; Nascimento, 2016; Schoorr; Rogerio et al., 2019; Castro, 2021; Saheb, 2013).

In addition to the technical aspects of environmental licensing, environmental education plays an important role in sensitizing the population, promoting active participation and awareness of the impacts of projects on the environment, strengthening the legitimacy of decisions and the sustainability of public policies. (Brazil, 1999).

3 DEVELOPMENT

The environmental licensing process is structured in three phases: Preliminary License, Installation License and Operating License, according to federal regulations. These

steps aim to ensure that the project meets environmental requirements before, during and after its implementation (Rodrigues; Almeida et al., 2020).

The quality of the EIA/RIMA depends on the careful performance of environmental and socioeconomic diagnoses, prepared by a multidisciplinary team. Inconsistent studies or inadequate communication can compromise technical analysis and generate social conflicts (Almeida; Sertão; Soares et al., 2015)

Environmental education, understood as a continuous process of training individuals and collectivities to understand the interactions between society and nature, plays a complementary role to environmental licensing by promoting awareness, development of skills and active participation of the population in environmental issues. Through the construction of values, knowledge and attitudes aimed at the conservation and sustainable use of natural resources, environmental education strengthens the critical capacity of citizens and expands their contribution to decision-making processes, such as public hearings and social consultations within the scope of licensing, promoting a more conscious, informed and socially legitimized environmental management. This interlocution between education and public participation constitutes an important support for the effectiveness of environmental policies and for the construction of a culture of sustainability. (BRAZIL, 1999; BRASIL, CONAMA, 2004).

The environmental perception of the affected population is an essential component in this context. It corresponds to the way individuals and groups interpret the environment in which they live, being influenced by personal experiences, cultural values and socioeconomic conditions (Merleau-Ponty, 1999; Tuan, 1980; Santos, 2020).

According to Rodrigues (2016), environmental perception studies function as instruments to support public management, contributing to align projects, society and the environment. By incorporating these perceptions into the decision-making process, institutional legitimacy is strengthened and the understanding of social impacts is broadened.

The Theory of Environmental Complexity reinforces this need for integration. For Morin (2003), complexity represents the union between unity and multiplicity, recognizing that environmental phenomena involve interdependent economic, political, cultural and ecological dimensions. Leff (2009) argues that the environmental crisis is also a crisis of rationality, requiring transformation in the way knowledge is produced and the territory is managed.

4 CONCLUSION

Environmental licensing represents an essential instrument of Brazilian environmental governance, structured by a consistent legal framework and based on the principle of prevention. However, its effectiveness depends on overcoming merely bureaucratic and technicist practices.

The incorporation of environmental perception broadens the understanding of impacts, including often overlooked subjective and sociocultural dimensions. At the same time, the Theory of Environmental Complexity offers an epistemological basis for integrating knowledge and overcoming fragmentation.

In the face of contemporary environmental challenges, it is essential to strengthen participatory processes, qualify environmental studies and promote decisions based on integrated environmental rationality. Only through this articulation between science, society and the State will it be possible to build more sustainable and democratically legitimized paths for development.

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