Country Systems Report 4 | Colombia

Policies and regulatory systems for environmental & social licensing and enforcement

Interim update

22 August 2019

Acknowledgements

The author is grateful to the following individuals who have provided information, expert insights, advice, comments, and feedback to date concerning the environmental licensing process and enforcement in the countries included in the *Country Systems Reports* series:

Miguel Angel Cancino Aguilar, Environmental and Land Use Prosecutor's Office for Mexico City
Miles Scott-Brown, President, The Ciera Group
Manuel Frávega, Undersecretary of Environmental Enforcement and Assessment, Provincial Agency for Sustainable Development (OPDS), Province of Buenos Aires
Juan David Quintero, Director, EEC Environmental Consultants
Hector Villaverde, Independent consultant, Uruguay
Cheryl Wasserman, President and Founder, Environmental Governance Institute International (EGII)

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Country systems report 4 | **Colombia**

Policies and regulatory systems for environmental licensing and enforcement

I. Constitutional and policy framework for sustainable development

a. Constitutional basis for environmental protection

Colombia's Political Constitution of 1991 provides a solid foundation for regulatory oversight of matters that affect the environment, as well as the basis for public participation in the process of assessing the environmental impacts of proposed activities, stating that:

> All people have the right to enjoy a healthy environment. The law will guarantee the participation of the community in the decisions that may affect it. It is the duty of the State to protect the diversity and integrity of the environment, preserve areas of special ecological importance and promote education for the achievement of these purposes.
>
> **Political Constitution of Colombia, Article. 79**

In addition, Article 80 of the Constitution provides that the State will "plan the management and use of natural resources, to guarantee its sustainable development, its conservation, restoration or replacement," adding that the State has a duty to prevent and control factors that cause degradation of the environment, to impose legal sanctions when appropriate, and to force those who cause environmental harm to repair the damage.

b. National policies, plans, and programs on the environment and sustainable development

1. National development planning

At the policy level, environmental and social sustainability objectives must be viewed through the lens of Colombia's top-level national development goals, to which they are subordinate and closely intertwined.[1] In 2018, Colombia's National and Social Policy Board (CONPES) adopted the **National Development Plan 2018-2022** (PND). The PND builds upon a previous four-year plan (2014-2018) and is based on the pillars of legality, entrepreneurship, and equity.[2] It provides a diagnosis of governance weaknesses and establishes a comprehensive roadmap for implementing initiatives and structural governance changes that it deems necessary for achieving Colombia's aspirational goals (summarized in Appendix B). These measures address a wide range of issues that include environmental and social sustainability, green growth, climate resilience, disaster preparedness, and poverty eradication, to name a few. While prescribing measures for advancing Colombia's national agenda, the PND proposes strategies for fulfilling the seventeen Sustainable Development Goals established by the United Nations, which include 169 objectives and sets a 2030 target completion date.

In addition to establishing broad objectives that are national in scope, the PND establishes differentiated agendas or "pacts" for nine geographic regions of Colombia, prescribing strategies

[1] In accordance with Article 339 of the Constitution, the PND establishes long-term national purposes and objectives, medium-term goals and priorities for government action, and strategies and guidelines for economic, social, and environmental policies.

[2] National Planning Department (DPN), *Plan Nacional de Desarrollo 2018-2022, Pacto por Colombia, pacto por la equidad* ("Colombia pact, equity pact"), https://colaboracion.dnp.gov.co/CDT/Prensa/PND-2018-2022.pdf.

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and approaches for energizing the economies in these designated areas based on their characteristics and potential.[3] The agendas for two of the regions (Seaflower and Amazonia) explicitly focus on environmental sustainability as a top-level priority. The PND qualifies the development objectives for four additional regions with the word "sustainable," but emphasizes different priorities for three areas of the country. These agendas are summarized below.

Table 1. Regional pacts under the National Development Plan 2018-2022

Region	Key agendas or themes[4]
Pacífico	Diversity for equity, peaceful coexistence, and sustainable development.
Caribe	Pursuing a transformation for equality of opportunity and equity.
Seaflower region	Promoting environmental stewardship that includes ecosystem protection, drives green growth, and uses alternative energy sources.
Región Central	The center of innovation and the logistics hub for productive national and international integration.
Santanderes	A competitive and sustainable logistics axis for Colombia.
Amazonia	Environmentally sustainable development.
Eje Cafetero & **Antioquia**	Connecting for competitiveness and logistical sustainable development.
Orinoquia/Llanos	Connecting and promoting the sustainable food pantry with the country and the world.
Océanos	Colombia as an bio-oceanic powerhouse

Colombia's previous National Development Plan (2014-2018) was formally adopted in 2015 through Law 1753. The plan was structured also around three pillars (peace, equality, and education) and established five cross-cutting strategies for achieving them.[5] The previous plan framed a sixth strategy—green growth—as a universal, overarching theme that encompasses all sectors and strategies.[6] Like the current PND, the earlier plan established thematic objectives for different geographic regions of Colombia, differentiating the manner in which green growth is emphasized for each region.

Law 1753 directed the National Government to formulate a long-term green growth policy that defines specific goals and objectives, in coordination with the Ministry of the Environment and Sustainable Development (MADS or MinAmbiente). Those strategies were to include research, technological development, and the strengthening of national and regional competitiveness, starting with products and activities that contribute to sustainable development and green growth.

[3] PND 2018-2022, at 986.
[4] As summarized in ANLA's Strategic Sectoral Plan 2015-2018, 22, http://www.minambiente.gov.co/images/planeacion-y-seguimiento/pdf/Plan_Estrategico_Institucional/PLAN_ESTRATEGICO_SECTORIAL_2015-2018.pdf.
[5] PND 2014-2018, Vol. I at 27; The five cross-cutting strategies proscribed in the PND include (1) competitiveness and strategic infrastructure, (2) social mobility, (3) transformation of the countryside, (4) security, justice, and democracy for peace building, and (5) good governance.
[6] PND 2014-2018, Vol. I at 29.

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In addition to its other provisions, the earlier PND called for a gradual phase-in of new market mechanisms to replace those that have had adverse effects on the environment.[7] The green growth objectives established by the prior plan are supported by a **National Green Growth Task Force** (*Misión de Crecimiento Verde*)—an initiative led by Colombia's **National Planning Department** (DNP), which defines comprehensive public policy inputs and guidelines for steering the country's economic development along a green growth pathway.[8] The National Planning Department seeks to strategically involve the private sector in implementing its green growth objectives.

The **Sectoral Strategic Plan 2015-2018** (PES) of Colombia's Environment and Sustainable Development Sector established a framework for managing environmental and green growth priorities, based on the objectives and strategies of the PND, the policy guidelines, and the strategic goals that guide sectoral environmental management.[9] The PES uses a hierarchical approach that prioritizes objectives that are designed to transition Colombia's economy toward sustainable and low-carbon growth, ensuring the sustainable use of natural capital, improving the health of the environment and environmental governance, and reducing vulnerability to disaster risks and climate change.[10]

A related area in which Colombia has adopted national policy principles to guide regulatory promotion and oversight of green growth is the **National Policy for Sustainable Production and Consumption**, which was issued on July 21, 2010.[11] This policy document updated and integrated Colombia's *Cleaner Production National Policy* and the *National Green Markets Plan*, which promote and link environmental improvement and productive transformation to business competitiveness. The document also describes challenges to the implementation of the policy and the lessons learned from previous experiences.

2. Renewable energy policy

In 2014, Colombia enacted Law 1.715 in order to advance the efficient management of energy and integrate non-conventional renewable energies (NCREs) into the National Energy System to meet the country's demand for electricity, to promote sustainable economic development, and to provide power to off-grid areas, as well as reducing greenhouse gas emissions and securing the energy supply.[12] Law 1.715 also establishes mandatory provisions for the use of forestry by-products and solid waste for power generation. Law 1.715 implements an earlier renewable energy policy promulgated by Ministry of Mines and Energy through Resolution 180.919 of 2010—*The Indicative Action Plan 2010-2015*, which was created to promote the rational and efficient use of

[7] Ley No. 1753, Art. 170.
[8] Departamento Nacional de Planificación, *Misión de Crecimiento Verde*, https://www.dnp.gov.co/Crecimiento-Verde/Paginas/Misi%C3%B3n-de-crecimiento-verde.aspx.
[9] ANLA, *Plan Estratégico Sectorial 2015-2018*, http://www.minambiente.gov.co/images/planeacion-y-seguimiento/pdf/Plan_Estrategico_Institucional/PLAN_ESTRATEGICO_SECTORIAL_2015-2018.pdf.
[10] *Id*, at 4.
[11] Política Nacional de Producción y Consumo Sostenible (21 July 2010).
[12] Ley Nº 1.715 - Regula la integración de las energías renovables no convencionales al Sistema Energético Nacional (2014).

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energy and other forms of non-conventional energy (PROURE).[13] The *Action Plan* established the goal that by 2020, Colombia will have an installed capacity of non-conventional energy sources that comprise 6.5% of the total energy supply of the interconnected power grid and 30% of the off-grid energy supply.[14]

3. Policies on climate change and biodiversity

In addition to national policies that address environmental sustainability primarily within the context of economic development activities, Article 170 of the PND 2014-2018 directs ten top-level ministries to formulate and implement sectoral plans that advance climate change adaption and mitigation goals within the framework of the **Climate Change National Adaptation Plan** (CCNAP) and the **Colombian Low Carbon Development Strategy** (CLCDS). The CLCDS establishes quantitative sectoral goals for reducing greenhouse gases for the short-term (2020) and medium-term (years 2025 and 2030). In addition, Colombia has adopted a **National REDD+ Strategy** (ENREDD+) and an **Institutional Strategy for the Articulation of Policies and Actions in Climate Change** (2011). Finally, Colombia enacted a **National Policy on Biodiversity and Ecosystems Services** in 2012, to strengthen the country's regulatory system for conserving wild areas and preserving biodiversity in connection with economic activities that impact the environment.[15]

c. Application of national policy to the prioritization of economic development projects

Central to the PND are three categories of investment projects that the National Planning Department has prioritized for the period from 2015 to 2018. Each category of projects implicates unique sets of environmental and social impacts that must be prevented or mitigated according to sector- and project-specific environmental management requirements that are associated with the environmental licensing instrument.

1. **Projects of National and Strategic Interest** (PINES): Large-scale infrastructure, hydrocarbons, mining, and energy projects. These projects have a high level of impact on the economic and social development of Colombia and involve the participation of a broad range of actors (including the private sector), which must be well-coordinated in order to ensure that they are executed within the prescribed timeframes. This category of activities must meet criteria established in the document **CONPES 3762** and must be approved by the Intersectorial Commission on Strategic Infrastructure and Projects.[16] (See Table 2 below).
2. **Regional Projects**: Short-term projects that are designed to be executed within a 4-year period. The projects were regionally prioritized based on their ability to close economic and social gaps. They were selected through a series of dialogues that contributed to the development of the PND. Dialogue participants included departmental and municipal authorities, social organizations, industry associations, the national Congress, and other actors.

[13] Resolución Nº 180.919 - Plan de Acción Indicativo 2010-2015 para desarrollar el Programa de Uso Racional y Eficiente de la Energía y demás Formas de Energía No Convencionales (PROURE).
[14] Resolución Nº 180.919, Art. 7°.
[15]
[16] CONPES 3762, *Lineamientos de Política para el Desarrollo de Proyectos de Interés Nacional y Estratégicos* – PINES, was published in 2013 by the National Council for Economic and Social Policy (CONPES).

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3. Visionary Projects: Regional investment initiatives that have a long-term time horizon (up the 20 years) due to their scale and complexity (e.g., very large infrastructure projects) and require resources and actions in order to move forward during their pre-investment stages (feasibility studies, economic appraisal, designs, technical structuring, financing, etc.).

In addition to establishing national development priorities, Law No. 1753 of 2015 (through which the PND 2014-2018 was formally adopted) established a **National System of Projects of National Strategic Interest** (SINAPINE), mandating that the government will apply SINAPINE as a public management strategy for comprehensive planning, optimization of procedures and requirements, management, and monitoring of PINES projects.[17]

Table 2. Projects of National and Strategic Interest (PINES)

Streamlining the environmental licensing process for strategically important projects

In 2013, the DNP's National Council of Economic and Social Policy (CONPES) issued a set of policy guidelines and action plans (**CONPES 3762**) for prioritizing and authorizing PINES, a class of projects that include mining, energy, and hydrocarbon activities, as well as other projects of national of strategic importance. In addition, CONPES 3762 prescribed **measures for streamlining and improving the viability of PINES project development.**

Overcoming key impediments

CONPES 3762 identified key impediments that have historically hindered the realization of economic policy goals: cumbersome environmental license application and public consultation procedures, difficulties in land acquisition, and other related challenges that resulted in lengthy timeframes (35 to 78 months) for the process of authorizing projects that were the most critical to Colombia's economic growth and competitiveness.[18] The document also highlighted the fact that administration of the licensing process had suffered from a lack of comprehensive planning, ambiguous procedural requirements, and weak inter-institutional coordination. CONPES 3762 addressed these challenges through an Action Plan that included the measures below:

Outline of CONPES 3762 Action Plan

A. Comprehensive planning with inter-institutional coordination
- Line of Action 1: Inter-institutional groups for comprehensive planning
- Line of Action 2: An integrated and collaborative system

B. Structural measures for optimizing procedures and formalities in all investment projects and special measures for projects of national and strategic interest (PINES)
- Line of Action 1: Environmental procedures
- Line of Action 2: Social Participation and dialogue with communities
- Line of Action 3: Property Management
- Line of Action 4: Legal Management

C: Management, monitoring and inter-institutional coordination of PINES
- Line of action (management, monitoring, and inter-institutional coordination)

[17] Law No. 1753, Art. 49.

[18] CONPES 3762 reported that difficulties in land acquisition, the public consultation process, and the resolution of legal issues had routinely played a role in delaying project development. Of 53 PINES projects identified in a diagnostic evaluation, 80% had encountered environmental issues that were difficult to resolve.

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Since CONPES 3762 was issued, there have been a number of national policy and regulatory developments with respect to the promotion of PINES projects.[19] The **Intersectoral Commission for Strategic Infrastructure and Projects** (CIIPE) was created in 2013 by Decree 2445.

The CIIPE was established to provide coordination and top-level guidance of the various government entities that participate in the structuring, financing, contracting and execution of infrastructure projects, hydrocarbons, mining, energy and other strategic projects of national interest. It is in charge of supporting the management and monitoring of PINES, as well as identifying barriers or procedures that hinder its implementation, so that it can propose procedural changes or alternative solutions.[20]

The CIIPE has an important role in facilitating coordination between all entities—public and private—involved in the regulation, oversight, and implementation of PINES projects. In addition, the responsibilities of the CIIPE include providing advice on a wide range of topics, including socio-environmental issues, land acquisition, public consultation involving affected communities, property taxes, and public service networks in relation to PINES.

[19] The National Development Plan 2010-2014 was in force at the time CONPES 3762 was issued. The PND 2014-2018 built on the progress made during the preceding PND timeframe.
[20] Decree 2445 of 2013, Art. 1.

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II. Legislative and institutional framework for environmental licensing and enforcement

a. Legislative Framework for environmental licensing and enforcement

The legislative foundation for environmental licensing and enforcement in Colombia was established by Law No. 99 of 1993, which reorganized environmental regulatory responsibilities among national, regional, and certain municipal authorities, created the country's National Environmental System (SINA), and recognized environmental impact studies as the fundamental instrument for decision-making in connection with activities that significantly affect the environment.[21] Article 49 of Law 99 introduced the requirement that the developer of any work, industry, or activity that has the potential to cause serious harm or changes to the environment or natural resources must obtain an environmental license before initiating work on the activity.[22] Law 99 further provided that the granting of an environmental license subjects the licensee to a set of legal obligations with respect to preventing, mitigating, correcting, compensating, and managing the environmental effects of the authorized activity.[23] Finally, Title XII of Law 99 instituted a regime of environmental sanctions to be applied in the case of noncompliance.[24]

Since the adoption of Law 99, a significant body of legislation has been developed to provide greater specificity concerning the legal requirements of the ESIA process, as well as the licensing and enforcement issues that arise from it. In 2009, Law 1333 established an elaborated set of rules for imposing sanctions in cases of environmental violations that imposed strict liability on those accused of violations. In 2010, Decree 2820 modified the allocation of roles and responsibilities for a number of regulatory authorities and provided regulatory details for the ESIA and licensing process, including a list of activities for which environmental assessment is mandatory.[25] A year later, Decree 3573 created the National Environmental Licensing Authority (ANLA), a specialized agency whose role is to administer the environmental licensing and permitting process, as well as assuring compliance with environmental legislation and project-specific requirements.

Decree 2820 was repealed and replaced in 2014 by Decree 2041, which provides many of the core regulatory rules currently in force for the execution of ESIA studies and public consultation, the issuance of environmental licenses, and environmental monitoring and enforcement. In 2015, Decree 1076 was promulgated in order to gather and compile the majority of the laws and regulations that govern the ESIA and licensing process (including sector-specific legislation) into a single comprehensive body of legal requirements.

Many aspects of the licensing and enforcement functions performed by environmental authorities are described and defined in the laws that created these institutions and established their roles and responsibilities. This topic is covered in detail in the institutional framework section of this report.

[21] Law 99 of 1993, Arts. 1.11 and 4.
[22] Law 99 of 1993, Art. 49; the ESIA process is also mandatory for any significant *modification* of an existing work, industry, or activity that has the potential to cause serious harm to the environment.
[23] Law 99 of 1993, Arts. 50 and 51.
[24] Law 99 of 1993, Arts. 84 and 85.
[25] Decreto 2820 de 2010, Arts. 8, 9, and 13.

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b. Specialized legislation for Projects of National and Strategic Interest (PINES)

Colombian law establishes special rules for the licensing and regulation of nationally important sectors (mining, energy, and hydrocarbon activities), while also providing sector-specific exemptions with respect to certain requirements, such as repeating the ESIA and licensing process in the case of significant project modifications. In 2015, Decree 2220 was enacted to regulate activities that the CIIPE validates as being of national and strategic interest (PINE), which are included in the provisions of Law No. 1.753 of 2015 (adopting the National Development Plan). In particular, Decree 2220 amends unitary Decree 1076, adding the following criteria for determining which projects are subject to ANLA's exclusive jurisdiction.

For PINES projects that require authorization to *use, exploit, or cause changes to natural resources*, **ANLA has exclusive jurisdiction in the following cases**: [26]

a) If the process of applying for an environmental license or permit has not yet been initiated before a Regional Autonomous Corporation (CAR),[27] the process ***must*** be initiated instead before ANLA.

b) In the case of projects, works, or activities that already have an environmental license or permit, but require the modification of these authorizations or obtaining a new permit, the new application ***must*** be initiated before ANLA.

c) In the case of projects, works, or activities that already have an environmental license or permit, that are in the process of modifying these authorizations or obtaining a new permit before a CAR, the application ***may*** be transferred to ANLA.

d) In the case of projects, works, or activities that are already being processed by a CAR, the application ***may*** be transferred to ANLA.

c. The One Percent Rule

In addition to establishing the legislative foundation for the environmental licensing process, Law 99 introduced a requirement that at least 1% of the total amount invested in any project "that involves the use of water, taken directly from natural sources, whether for human consumption, recreation, irrigation or any other industrial or agricultural activity," must be allocated for and utilized in actions (specified in the environmental license) that support the recovery, preservation, and monitoring of the watershed that feeds the water source used by the project.[28] Decree 1,900 of 2006 (now integrated into Decree 1076) provides that the 1% investment plans required for most ESIA studies must include the specific elements and costs considered in estimating the amount of the investment and in developing the details of the project.[29]

[26] Now integrated into Decree 1076 as Article 2.2.2.3.12.3.; Decisions concerning the harvest of timber from protected forest reserves and the lifting of bans on logging remain the competence of Regional Autonomous Corporations (CARs) and Sustainable Development Corporations (CDSs).
[27] For the purposes of Decree 2220, a Regional Autonomous Corporation (CAR) is defined broadly to also include Sustainable Development Corporations, large urban centers (AAUs), and authorities for other legislatively-defined defined districts.
[28] Law 99 of 1993, Art. 43, Sole paragraph.
[29] Unitary Decree 1706, Art. 2.2.2.3.5.1.

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The 1% rule gives rise to the need for competent authorities to ensure that licensees properly implement prescribed measures for recovering, preserving, and monitoring watersheds, in compliance with the applicable environmental license provisions. Decree 1706 states that for each project that is subject to an environmental license, authorities must verify the efficiency and effectiveness of the environmental management measures, self-monitoring, and contingency plans that project operators carry out, including the 1% investment plan, if applicable.[30]

Applicants for environment licenses must submit proposals for 1% investment programs at the same time as submitting ESIA studies to competent authorities. Each proposal must identify the precise boundaries of the area where the program will be executed, the value of the program (specified in pesos, according to currency valuation for the year in which the proposal is presented), the activities that will be carried out, and the schedule for program execution.[31]

d. Institutional framework for environmental licensing and enforcement

1. The National Environmental System (SINA)

The National Environmental System is a comprehensive, decentralized system for managing, planning, coordinating, and implementing Colombia's environmental policy. SINA is comprised of a set of interrelated components that provide mechanisms by which the State an civil society actors jointly participate in the pursuit of national development goals while maintaining the integrity of the environment and using renewable natural resources sustainably. As defined in Law 99 of 1993, SINA is a set of guidelines, standards, activities, resources, programs, and institutions that allow Colombia's national, regional, and local authorities to implement the general environmental principles listed in Article 63 of that Law.[32]

SINA incorporates the following components:[33]

- **General principles and guidelines**, contained in the National Constitution, Law 99 itself, and the body of environmental legislation that builds on them.
- **Environmental legislation** enacted at the national, regional, and local level.
- **Government institutions** responsible for policy and environmental functions, as designated by legislation.
- **Community and non-governmental organizations** whose work involves environmental issues.
- **Economic resources and funding sources** for environmental management and rehabilitation.
- **Public, private, and public-private entities** that develop and publish environmental information or carry out scientific, research, and technological development activities in the environmental field.

[30] Id. at Art. 2.2.2.3.9.1(1).
[31] Id. at Art. 2.2.9.3.1.4.
[32] Law 99 of 1993, Art. 4.
[33] Ibid.

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2. Environmental authorities

Colombia's **Ministry of Environment and Sustainable Development** (**MADS**) is the national executive management body with top-level oversight of matters pertaining to the environment and renewable natural resources. MADS was created by Law 99 of 1993, which mandated a broad range of ministerial functions. Its primary responsibilities include guiding the sustainable management of the environment, as well as formulating national policies and regulations for environmental restoration, conservation, and protection that do not unduly hinder the development functions of other sectors of the economy.[34] Other key functions of MADS include, among many, responsibility for managing the National Environmental System (SINA), establishing environmental criteria that must be integrated into sectoral policies, and evaluating the economic effects of environmental factors, such as the internalization of environmental costs into the market value of goods and services.[35]

The **National Authority for Environmental Licenses** (**ANLA**) is an autonomous administrative unit that is responsible for administering the ESIA process, ensuring that mechanisms for public participation are properly implemented, granting or denying environmental licenses, and monitoring authorized activities to ensure that they comply with environmental legislation and license-specific requirements.[36] ANLA also has authority to order developers to implement additional preventative environmental measures and impose sanctions in cases of noncompliance or imminent environmental harm. Under Colombia's decentralized governance system, ANLA exercises its oversight authority for activities that are within its jurisdiction—activities that pose a significant risk of adverse environmental impacts (e.g., hydrocarbons) that are expressly reserved to national control by legislation.[37]

Operating in parallel with ANLA are regional environmental authorities, which include twenty-seven **regional autonomous corporations** (CARs) and six **sustainable development corporations** (CDSs), whose jurisdiction covers regional governments (departments) that collectively comprise most of the Colombia's land area, as well as **Urban Environmental Authorities** (AAUs) for municipalities that have a population of over one million inhabitants.[38] In addition, a number of **specialized districts** have distinctive environmental governance arrangements.[39] Under Colombia's decentralized system of governance, each entity has considerable autonomy for establishing regional or local environmental policies, issuing licenses and permits, monitoring compliance, and imposing sanctions for violations, as long as these do not intrude on matters reserved to national jurisdiction. MADS, ANLA, and the environmental authorities for the regional departments listed above collectively comprise the membership of SINA.

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[34] This description is loosely based on a translation of the objectives of MADS, as established in Article 1 of Decree 3570 of 2011, which modified the organizational structure of MADS.

[35] GIZ / UNEP, Colombia – Country profile, http://www.greenfiscalpolicy.org/countries/colombia-country-profile/. (Last accessed 5/1/18); Law 99 of 1993, Art. 4.

[36] Decree No. 3573 (2011) - Crea la Autoridad Nacional de Licencias Ambientales (ANLA), Art. 2°.

[37] A list of activities that are subject to ANLA jurisdiction are enumerated in Decree 2041, Arts. 7, 8 (Compiled in Decree 106, Art. 2.2.2.3.2.2.); Activities subject to CAR/CDS jurisdiction are listed in Decree 1076, Art. 2.2.2.3.2.3.

[38] It is important to note that CAR or CDS may encompass more than one department; Law 99, Art. 36, *Competencias de Grandes Centros Urbanos*.

[39] According to Law 1617 of 2013, municipal districts are organized as territorial entities. Two other types of entities exist: Special Caribbean Districts and areas that meet criteria to qualify as industrial, tourist, seaport, cultural, or historical districts. Both of these districts must have populations that exceed 600,000 residents.

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Table 3. **Hierarchy of environmental authorities** – ESIA, licensing and enforcement [40]		
Level	Territorial entity	Environmental authority
1	**National government**	**Ministry of the Environment and Sustainable Development** (MADS) Formulation of environmental policies and the promulgation of regulations for the restoration, conservation, protection, organization, management, use and sustainable use of renewable natural resources and the environment.[41]
		National Authority for Environmental Licenses (ANLA) Responsible for administration of the ESIA process, environmental licensing, monitoring, and enforcement, as well as the imposition of sanctions.[42] ANLA is also responsible for ensuring adequate public participation and managing information related to proposed projects, environmental licenses, and environmental compliance.
2	**Department**[43]	**Regional Autonomous Corporation** (CAR). CARs have administrative and financial autonomy, as well as a legal mandate to formulate environmental policy within their territory, administer environmental issues, regulate the use of renewable natural resources, and promote sustainable development in accordance with legal mandates and policies established by MADS (including national development or investment planning).[44] A CAR or CDS may encompass more than one district.
		Sustainable Development Corporation (CDS) These entities function in the same manner as CARs, but include in their Charters (in the provisions of Law 99 of 1993) mandates for promoting the development of scientific knowledge and environmental awareness.
	Large Urban Center[45] (Population ≥ 1 Million)	**Urban Environmental Authority** (AAU). These entities have the same functions as CARs, regulate emissions, effluents, solid waste, and hazardous waste disposal, prescribe measures for remediation or mitigation of environmental harm.[46]
3	**Special districts**: port city, tourism, cultural, or historical. (Population ≥ 600,000)[47]	**District Council**, District Mayor, of the Mayor, local mayors, and administrative panels.[48] Referral to ANLA for activities subject to national jurisdiction. Special districts are subject to specialized treatment and have special powers other than those applicable to other municipalities.
	Special districts: Caribbean tourism, seaport zone. (Population ≥ 600,000)	**Public Establishment**, composed of the departmental Governor and representatives from the private sector, non-profit organizations, MADS, the Director of the Marine and Coastal Research Institute, Director of the General Maritime Institute, Director of the CAR applicable to the jurisdiction. [49]
	Municipalities and smaller communities (Population < 1 Million)	**Municipal or local environmental authorities**, if present (For matters not subject to the jurisdiction of the regional entity (CAR or CDS) or ANLA.

[40] Law 99 of 1993, Art. 4 (Paragraph) States that the hierarchy of SINA follows the following order of descending authority: MADS, Regional Autonomous Corporations, departments, and districts or municipalities.
[41] Law 99 of 1993, Art. 2.
[42] Law 3573 of 2011.
[43] The extent to which a district may exercise environmental regulatory powers apart from the corresponding CAR for that region requires further analysis.
[44] Law 99 of 1993, Art. 31.
[45] Referred to as *Grandes Centros Urbanos* in Spanish.
[46] Law 99 of 1993, Art. 66.
[47] Law 1617 of 5 February 2013, Art. 8. The district population must be certified by the National Administrative Department of Statistics (DANE).
[48] Law 1617 of 2013, Art. 4.
[49] Law 768 of 31 July 2002, Art. 13.

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Table 4. National Authority for Environmental Licenses (ANLA) functions

ANLA Functions include:

1. **Granting or denying environmental licenses, permits, and procedures** within the competence of the MADS.
2. **Tracking** environmental licenses, permits, and procedures.
3. **Administering online information platforms**:
   - System of Licenses, Permits and Environmental Procedures (SILA)
   - Comprehensive Window of Online Environmental Procedures (Vital).
4. Ensuring the full implementation **citizen participation** mechanisms mandated by law.
5. Implementing **strategies for the care, custody and proper handling of information** relating to licenses, permits and environmental proceedings.
6. Supporting the **design of regulations** on environmental matters.
7. To advance and complete **investigations, preventive measures, and sanctioning procedures** prescribed in Law 1333 of 2009 or the regulation that modifies or replaces it.
8. **Assuring the collection of fees, taxes, and fines** owed to ANLA.
9. **Ordering the suspension of work or activities**, in cases where MADS uses its discretionary and selective authority on matters assigned to the Regional Autonomous Corporations.
10. Approving administrative environmental **license proceedings for mining and road infrastructure** construction, as well as **forest use permits and concessions**;[50]

In addition, ANLA's functions include resolving jurisdictional conflicts between two or more competent environmental authorities; developing the information management policy that is required to fulfill ANLA's purpose; and assuming the judicial and extrajudicial representation of the Nation in the matters of its competence.

Under ANLA's **General Directorate** are three subdirectorates. The **Subdirectorate for Assessment and Monitoring** has responsibility for the assessment and monitoring of activities that are subject to the ESIA process and which require an environmental license to operate (a separate Subdirectorate is responsible for environmental permits and other types of environmental authorizations). In addition to executing the functions listed in the table above that pertain to the ESIA process, the Subdirectorate for Assessment and Monitoring has the following responsibilities:

- Serving as the Technical Secretariat of the **Technical Advisory Council**,
- Providing guidelines and instructions regarding the licensing process and the compulsory investment of 1% and/or forest compensation requirements,
- Supporting the development and maintenance of the **Integrated Institutional Management System** and following its recommendations, in the area of its competence.

[50] This responsibility refers to permits and concessions for forest use that are the subject of Articles 34, 35 and 39 of Law 99 of 1993.

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National Authority for Environmental Licenses (ANLA)
Organizational Chart

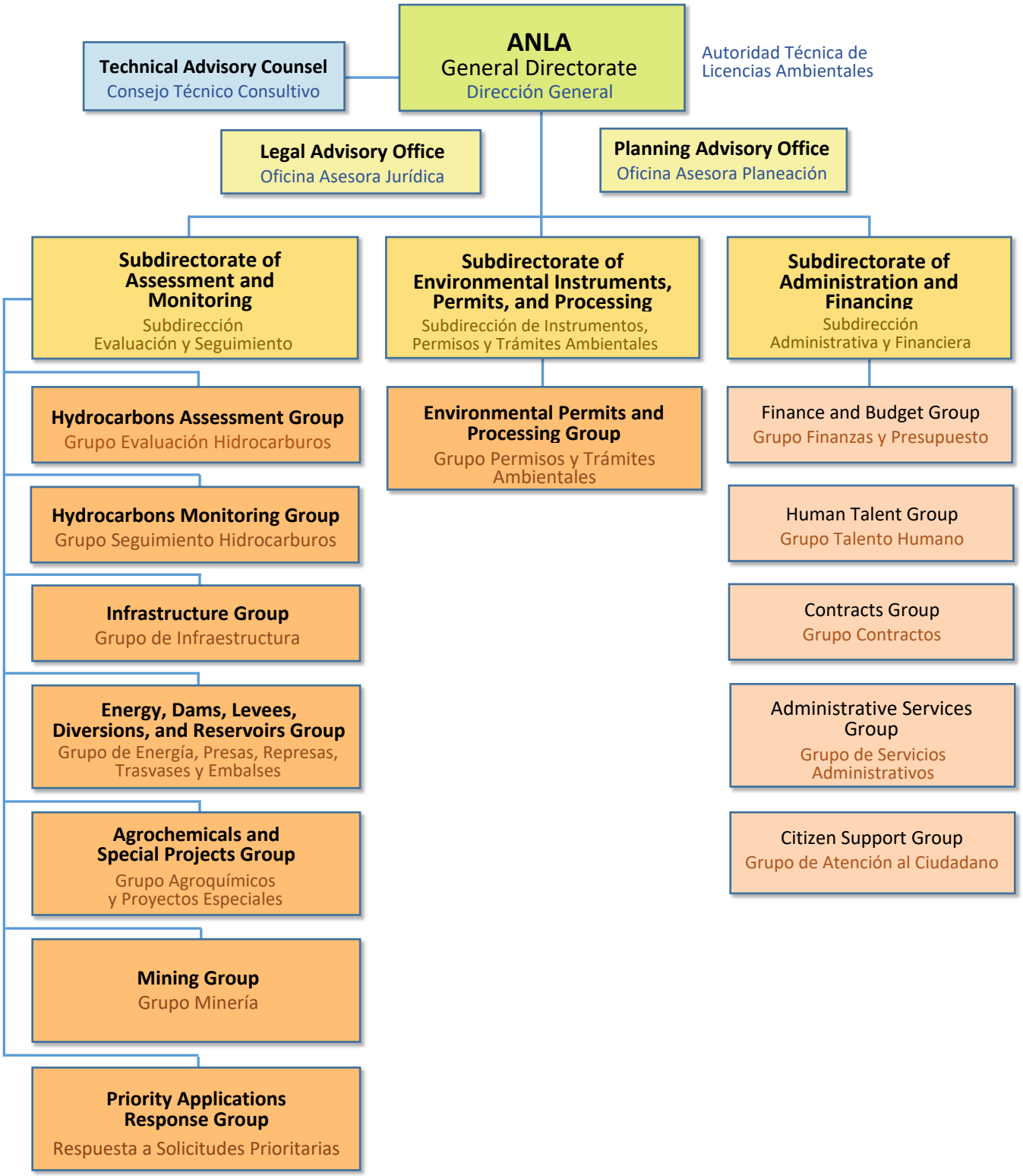

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Table 5. ANLA's Subdirectorate for Assessment and Monitoring – Specialized sectoral groups

Within ANLA's Subdirectorate for Assessment and Monitoring are a number of sector-specific bodies, each of which is dedicated to conducting ESIA review, economic assessment, and monitoring for a specific sector that is subject to ANLA's jurisdiction:[51]

Hydrocarbons Assessment Group and Hydrocarbons Monitoring Group

- **Seismic exploration activities** that involve the construction of roads or will be carried out in marine areas in depths less than 200 meters,
- **Exploratory drilling projects** outside of existing hydrocarbon production fields,
- **Well drilling**, the construction of on-site facilities, the internal transport of fluids via pipelines, internal storage, internal roads and other associated infrastructure,
- **Transport and piping of liquid** & **gaseous hydrocarbons** that are developed outside the fields of exploitation and involve the construction and assembly of infrastructure of pipelines, pumping stations, storage infrastructure, and flow control,[52]
- **Delivery terminals** and liquid hydrocarbon transfer stations,
- **Refineries and accessory structures** construction and operation within a refining complex.

Infrastructure Group

- **Maritime and port sector** (Large seaports, dredging, beach stabilization, and airports).
- **Public works** (Roads, bridges, tunnels, and related infrastructure)
- **National fluvial network** projects (e.g., Diversion or deepening of river channels),
- **Railway construction**,
- **Marine breakwaters and levee** construction; regeneration of dunes and beaches,
- **Drainage projects** - Construction and operation for watersheds covering > 20,000 hectares.
- Projects that affect the **Natural National Park System** and other protected areas,
- Projects reassigned from CARs to ANLA through MADS' use of its discretionary authority.[53]

Energy, Dams, Levees, Diversions, and Reservoirs Group[54]

- **Construction of dams and reservoirs** with a capacity greater than 200 million m^3 of water.
- **Construction and operation of electric power plants** with installed capacity ≥ 100 MW.
- **Exploration projects** and use of **alternative energy sources** with installed capacity > 3MW.
- **Laying transmission lines** of the national electrical interconnection system that are projected to operate at voltages ≥ 220 KV.
- **Nuclear energy** projects.

[51] Resolution No. 909 de 2017 "Through which internal ANLA work groups are created," 2nd Art. Lists functions that are common to all groups other than the *Response to Priority Applications Group*.
[52] This category excludes activities related to the distribution of natural gas for home, commercial, or industrial use
[53] MADS has discretionary authority to transfer the oversight of certain projects from regional autonomous corporations to ANLA under Decree 3573 of 2011, Article 3, Numeral 9.
[54] ANLA (website), *Sector Energía, Presas, Represas, Trasvases y Embalses*, http://portal.anla.gov.co/sector-energia-presas-represas-trasvases-y-embalses.

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Groups within the Subdirectorate for Assessment and Monitoring, Continued

Mining Group – Large-scale mining projects[55]

Responsible for reviewing ESIA studies and EMPs of proposed large-scale mining projects, as well as monitoring mining projects for which ANLA has jurisdiction, including open-pit and underground mining of coal and minerals, and open-pit mining of construction materials.

Capacity thresholds for ANLA jurisdiction:[56]

- **Coal**: When the projected amount extracted is greater than or equal to 800,000 tons / year;
- **Construction materials and clays or non-metallic industrial minerals**: When the projected production is ≥ 600,000 tons/year for clays or ≥ 250,000 m^3/year for other construction materials or for non-metallic industrial minerals;
- **Metal ores and precious and semiprecious stones**: When the total removal of useful and sterile projected material is greater than or equal to 2,000,000 ton/year;
- **Other minerals and materials**: When the projected mineral exploitation is greater than or equal to 1,000,000 tons/year.

Agrochemicals and Special Projects Group

- **Production** of pesticides.
- **Use of pesticides for agriculture, veterinary, public health, industrial, or domestic purposes** (active ingredient and/or formulated product). Exceptions apply.
- The importation and/or production of substances, materials, or products ***subject to controls under international environmental treaties*****,** conventions and protocols of an environmental nature (certain exceptions for GMOs).
- Introduction to the country of **foreign species or hybrids** which may affect the stability of Colombia's ecosystems or wildlife.
- Establishment of **breeding centers for endangered species**.

Response to Priority Applications Group

- **Review preliminary environmental licensing procedures**, including Environmental Management Plans, except for the initial proceedings of environmental technical reports.
- **Review responses to the requests of Control Entities (ECO) and petition rights (DPE)**, except those related to the Environmental Technical Report (DTA).
- **Review responses to routine applications and/or to applications minor changes** (in project environmental management).

[55] The Mining Group is the only group within the Subdirectorate of Assessment and Monitoring that was not established by Resolution 909.
[56] In accordance with Article 8 of Decree 2820 of 2010.

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Subdirectorate for Environmental Instruments, Permits, and Processing
In addition to granting environmental licenses, ANLA is responsible for issuing and assuring compliance in connection with twelve types of permits, which generally pertain to commercial use of natural resources, such as surface water or forest concessions.[57] Other responsibilities of ANLA include supporting the preparation of environmental regulations, collecting fees, fines, and other payments owed to ANLA, resolving conflicts of jurisdiction for authorized projects that are subject to two or more environmental authorities.[58]

The **Technical Advisory Council** is an entity that is attached to ANLA, which advises ANLA on specialized issues that the General Directorate submits for consideration. The Technical Advisory Council issues recommendations in connection with project proposals that require technical evaluation according to the **Technical Classification System** that MADS has adopted.[59] The System is comprised of technical classification criteria and decision-making rules for each criteria, which determine whether ANLA must submit license applications to the Technical Advisory Council. The criteria are for proposed projects, works, and activities that:

- Implicate Ramsar Convention issues pertaining to wetlands.
- Generate transboundary impacts.
- Affect natural hydrological dynamics in watersheds that are stressed by human pressures.
- Involve the forced resettlement of communities.
- Involve the diversion of surface water or the transfer of water between watersheds.
- Involve the construction or operation of a nuclear power plant.
- Affect natural forest zones identified as focus points of deforestation.
- Other projects for which MADS and ANLA consider submission to the Technical Advisory Council necessary.

2. Other government organizations

Intersectoral Commission on Strategic Infrastructure and Projects (CIIPE): This body was created by Decree 2445 of 2013 to provide supervisory coordination and to steer the functions of public entities that participate in structuring, financing, contracting, and execution of PINES projects. The CIIPE also supports and monitors PINES projects, identifies barriers and bureaucratic procedures (red tape), and formulates and proposes solutions. The CIIPE replaced Intersectoral Commission on Infrastructure (CII), its predecessor.

[57] Permits for conducting research related to biodiversity represent an exception to the character of other permit types, which generally pertain to authorized commercial or infrastructure activities. A list of types of permits administered by ANLA are listed in Article 5 of Resolution No. 1086 of 2012.
[58] Decree 3573 of 2011, Art. 13 (7).
[59] Resolution 827 of 2016, Art. 3; Decree 3573 of 2011, Art. 6.

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National Council for Economic and Social Policy (CONPES): CONPES, which was created by Law 19 of 1958, serves as an advisory body to the national government in all matters related to Colombia's economic and social development. It is responsible for fostering cross-sectoral policy coherence by coordinating and guiding government agencies that are in charge of economic and social management by developing and issuing documents that guide the formulation of general policies.[60]

The National Planning Department (DNP) is a technical, administrative body that is responsible for promoting a strategic vision for Colombia that integrates environmental, social, and economic concerns, through the design, guidance and evaluation of Colombian public policies, structured medium- and long-term planning, management and allocation of public investment, and the realization of government plans, programs and projects.

The Ministry of Mines and Energy (**Minminas** or **MME**) is a top-level, national public agency with responsibility for managing non-renewable natural resources of the country and ensuring optimal use of these resources.[61] The MME provides guidance in the use and regulation of these resources in order to guarantee their supply and to ensure the protection, conservation, restoration, of the environment in the areas where resource extraction occurs. The MME is responsible for ensuring that activities in this sector are undertaken in accordance with the criteria of environmental assessment, monitoring, and environmental management, as verified by the competent environmental authority.

The Institute of Hydrology, Meteorology, and Environmental Studies (**IDEAM**) is a public institution whose mission is to provide technical and scientific support to the National Environmental System (SINA).[62] It is responsible for generating knowledge and producing reliable, consistent, and timely information on environmental conditions and the state of natural resources. It is tasked with facilitating the process of defining and adjusting environmental policies and decision-making by both public and private sector entities.

Land Use Integration Committees (**CITs**) are "collegiate bodies" whose creation was mandated Law 614 of 2000. CITs are comprised of competent authorities within a district for the purpose of reaching consensus on the implementation of land use plans and a shared, strategic vision of future development with respect to the land use for their areas.[63] The formation of a CIT is mandatory for two or more municipalities situated within the same department that have a combined area of influence of more than 500,000 inhabitants and whose expansion is merging them together (conurbation) at their peripheries or whose land use characteristics (and the provision of services) make it necessary to articulate shared land use plans. Land use integration committees are responsible for compiling information that is necessary for the fulfillment of their mission and promoting the creation of comprehensive geographic information systems for their area of influence.

[60] OECD (2013a), OECD Economic Surveys: Colombia 2013: Economic Assessment, OECD Publishing, Paris, doi: 10.1787/eco_surveys-col-2013-en.
[61] Ministry of Mines and Energy (MINMINAS), Official website, https://www.minminas.gov.co/en/ministerio.
[62] IDEAM, Official website, Mission statement, http://www.ideam.gov.co/web/entidad/acerca-entidad.
[63] Law 614 of 2000, Art. 2.

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Table 6. Inter-agency coordination

1. Coordinating functions mandated by legislation

Law 99 of 1993 charges Ministry of the Environment (a predecessor to MADS) with performing a central coordinating role in coordinating the planning and harmonious execution of environmental activities by the entities of which the National Environmental System (SINA) is comprised.[64] Those entities include government agencies responsible for policy and environmental functions (including sectoral agencies), as well as community and non-governmental organizations whose work implicates environmental issues.

2. Inter-institutional agencies

In Colombia, a number of inter-institutional agencies have been created by legislation for the purpose of coordinating the various public entities that play different roles in pursuing a common purpose. An example of this is the creation of the Intersectoral Commission on Strategic Infrastructure and Projects (CIIPE) as a linking and coordinating mechanism to help ensure that projects undertaken in economically important sectors are not hindered by poor communication, duplication of effort, and inefficiencies in the hand-off of important tasks between agencies.

The composition of the CIIPE, which includes the ministers from the top-level policy-making agencies that have key roles in advancing national development priorities, may be designed to encourage buy-in and participation by member agencies. Executing agencies that are responsible for day-to-day supervision of projects in their respective sectors are included in CIIPE as invitees, but cannot cast votes in the decision-making process.[65] (Although MADS is a member of CIIPE, ANLA is an invitee. Similarly, the Ministry of Energy and Mines is a member, but the National Hydrocarbons Agency (ANH) has invitee status.)

CIIPE's core coordinating functions include, among others, defining guidelines for the coordination and comprehensive planning of PINES—taking into account environmental, social, and legal criteria—as well as the economic impact of these projects and inter-institutional coordination at the national and territorial levels.[66] CIIPE's mandate also includes serving as a forum for harmonizing agency agendas, promoting inter-institutional agreements, and proposing mechanisms for solutions on matters pertaining to the environment, property, budgets, public participation, and public service networks, among others, in order to support the development of PINES activities. [67] Finally, CIIPE is charged with establishing guidelines and designing strategies for the participation of the municipal, departmental, regional and metropolitan authorities in the development and execution of the PINES projects, as well as increasing public awareness.[68]

[64] Law 99 of 1993, Art. 5.
[65] Decree 2445 of 2013, Art. 3.
[66] Id at Art. 4(7).
[67] Id at Art. 4(8).
[68] Id at Art. 4(9).

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Table 5. Inter-agency coordination *Continued*

3. Inter-agency Agendas and Cooperation Instruments

ANLA has provided a summary of cooperation instruments that have been established by legislation.[69] These consist of the following:

a. **Inter-ministerial Agendas**
This is a strategy for guiding environmental management and allowing the State to guarantee coordination in the exercise of its respective functions in order to fulfill government objectives and commitments.[70]

b. **Inter-administrative partnership agreements** and **special scientific and technological cooperation agreements**
These agreements are used to achieve cooperation in fulfilling administrative functions and jointly providing services, as well as developing, facilitating, or promoting scientific or technological activities.[71]

c. **Cooperation and technical assistance agreements**
These agreements are used to facilitate cooperation and technical assistance for implementing of projects jointly with multilateral lending organizations, foreign governments, or foreign entities.[72]

4. Environmental Roundtables

If approved, Draft Law 117/2017C will establish Environmental Roundtables as forums for inter-sectoral, inter-institutional, and interdisciplinary participation and will create an Environmental Roundtables Network. The Roundtables will be autonomous and inclusive policy-making bodies which aim to contribute to the participatory management of environmental development at the municipal and departmental levels, which seek influence on four fronts:

1. **Direction of public policies and participation** in local planning processes.
2. **Development of solutions and alternatives** for environmental improvement and quality of life in the territories through the engagement of municipalities and coordination with environmental authorities.
3. **Fostering environmental cultural awareness** in the municipalities through environmental education
4. **Strengthening and oversight of the environmental potential** in each territory.

The Roundtables will be a channel for mediation, interaction, intermediation, and monitoring between the communities and the State with the aim of contributing to the construction and participatory transformation of the city with respect to environmental sustainability issues of each of the municipalities.

[69] ANLA, (Official website) *Agendas Interinstitucionales e Instrumentos de cooperación*, http://portal.anla.gov.co/agendas-interinstitucionales.
[70] Law 489 of 1998, Art. 6.
[71] Law 489 of 1998, Art. 95; Law 1150 of 2007; Art. 2, Decrees 393 and 591 of 1991.
[72] Law 1150 of 2007, Art. 20.

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III. Issuance of environmental licenses and the formulation of licensee obligations

a. Overview

At the outset of the ESIA process, the Subdirectorate for Assessment and Monitoring (ANLA) or the corresponding CAR authority oversees a number of preliminary procedural steps that are a distinctive feature of Colombia's environmental licensing system. Decree 1076 of 2015 provides a list of categories of projects for which the environmental authority must make a determination concerning the need to undertake an *Environmental Diagnosis of Alternatives* (DAA), a procedure that is undertaken during the screening process, through which the feasibility of project alternatives are evaluated and compared prior to carrying out the ESIA study.[73]

Certain types of activities, such as oil and gas exploration or petrochemical refineries always require a DAA, which must be performed by ANLA. For other activities, DAAs are required, but the determination of the competent authority is dependent on additional criteria. For example, ANLA is the competent authority for performing DAAs relating to the construction of dams or reservoirs if the quantity of impounded water is more than 200 million cubic meters. Alternatively, if the dam or reservoir will impound a lesser volume of water, the CAR corresponding to the location of the proposed project will have jurisdiction.

Table 7: Environmental licensing instrument

Environmental License (*Licencia Ambiental*) – Authorization to execute a project.

Document that grants or denies a license: Administrative resolution.

Mechanism for legally-binding commitment: The proposed environmental mitigation and preventative measures contained in the final ESIA and environmental management plan become legally-binding environmental performance obligations once the Environmental License is granted.

Term of validity: The useful life of the project, work, or activity.[74]

Issuing agency: ANLA - Activities listed in Decree 1076, Art. 2.2.2.3.2.2.
CAR, CDS, and AAU - Activities listed in Decree 1076, Art. 2.2.2.3.2.3.

b. Global Environmental Licenses for mining and hydrocarbons activities

The developer of a project in the hydrocarbons or mining sectors may apply for a **Global Environmental License** (*licencia ambiental global*) a comprehensive license that encompasses the entire geographical area of exploitation contemplated by the proposed activity.[75] In the case of hydrocarbons projects, for the development of each of the activities defined, it is necessary to present a separate environmental management plan that conforms to the terms, conditions, and obligations established for Global Environmental Licenses. Once authorization is obtained, the

[73] Decreto 1076 de 2015, Art. 2.2.2.3.4.2. prescribes rules concerning the determination of the need for DAA. The process of *determining* the need for an Environmental Diagnosis of Alternatives is referred to as an "NDAA."
[74] Decree 1076, Article 2.2.2.3.1.6. states that the environmental license will be granted for the useful life of the project, work or activity and will cover the phases of construction, assembly, operation, maintenance, dismantling, final restoration, abandonment and/or termination.
[75] Decree 1076, Art. 2.2.2.3.1.4.

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developer does not need to seek approval each time a new step or component activity must be initiated that is subject to environmental monitoring and enforcement. In the case of mining projects, the scope of a Global Environmental License includes the construction, assembly, exploitation, benefit, and internal transportation of the corresponding minerals or materials.

c. Economic valuation of changes and benefits resulting from proposed activities

A second distinctive aspect of the licensing process in Colombia is the use of **Economic Environmental Assessment** (**EEA**) as a tool for performing cost-benefit analysis of project proposals. EEA allows environmental licensing authorities to estimate the monetary value of *changes* that the execution of proposed projects will cause to ecosystem goods and services or to the welfare of affected stakeholders.[76] This analysis allows authorities to consider, in economic terms, factors that are not usually captured by conventional analytical approaches that rely on market pricing, as well as determine the extent to which the project proponent will be able to internalize these costs.[77]

EEA helps environmental authorities select the best alternative for the development of a given project during the DAA phase (screening) of the licensing process, as well as helping them to make informed policy decisions concerning the environmental and social viability of the project. In addition, EEA allows environmental authorities to determine the appropriate level of economic compensation that will need to be provided to adversely affected communities. [78]

Within ANLA, the EEA process is managed by the **Subdirectorate of Environmental Instruments, Permits, and Processing** (*Subdirección de Instrumentos, Permisos y Trámites Ambientales* or SIPTA), which has been involved in the development and refinement of technical guides and tools for performing economic valuations of sectors and projects types.[79] In 2017, through Resolution 1669, the Ministry of the Environment and Sustainable Development adopted a set of *Technical Criteria for Use of Economic Tools for Projects, Works, and Activities Subject to Environmental Licensing*.[80]

In addition to considering the adverse impacts that may result from a proposed project, licensing authorities in Colombia also perform analysis to determine the socioeconomic benefits that the execution of a project is likely to have on the region where the project will take place. For example, a large infrastructure project (such as a new highway) may cause beneficial changes in work opportunities resulting from increased accessibility to a work zone, savings in travel time, increased

[76] ANLA website, *Valoración Económica - Instrumentos Económicos en la Evaluación de Impacto Ambiental*, http://portal.anla.gov.co/valoracion-economica-instrumentos-economicos-evaluacion-impacto-ambiental.
[77] SIPTA-ANLA 2015.
[78] SIPTA-ANLA 2015.
[79] See ANLA, *Valoración Económica - Instrumentos Económicos en la Evaluación de Impacto Ambiental*, http://portal.anla.gov.co/valoracion-economica-instrumentos-economicos-evaluacion-impacto-ambiental (Stating that the economic valuation function is led by the Green Business Office of the Ministry of Environment and Sustainable Development (MADS)).
[80] ANLA (2017), *Criterios Técnicos para el Uso de Herramientas Económicas en los Proyectos, Obras o Actividades Objeto de Licenciamiento Ambiental*, http://portal.anla.gov.co/sites/default/files/comunicaciones/SIPTA/mushe_def_23_06_2017_respuesta_revision_yca.pdf.

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business opportunities, and invigoration of the local economy.[81] In the best cases, these benefits will also translate into increased tax revenue, which may be allocated to improve and protect local ecosystems and watersheds.[82]

Following the final review of the revised ESIA document and the environmental management plan, ANLA or the corresponding regional (CAR or sustainable development corporation authority makes the determination to grant or deny an environmental license.

d. Self-reporting requirements

Under Article 4 of Resolution 1552 (2005) environmental authorities (ANLA or CAR, as applicable) may request that any environmental licensee or user of an environmental management plan (EMP) provide a self-reporting document known as an **Environmental Compliance Report** (ICA), in accordance with the requirements prescribed in the *Environmental Monitoring Manual for Projects* (a set of monitoring guidelines and instructions published by MADS).[83] An ICA provides information on a licensee's compliance with the mandatory measures contained in the EMP, which were prescribed in the administrative act that granted the environmental license. The ICA also provides information on the progress the licensee has made toward completing the mitigation, compensation, and other actions defined in the EMP, as well as information on the effectiveness of the PMA itself.

f. Public consultation and conflict avoidance

1. Public hearings and stakeholder consultation

The Political Constitution of Colombia establishes the right of citizens to be informed of and to participate in decisions regarding activities that may affect their communities.[84] This mandate was elaborated by Decree 2041 of 2014 (now integrated into consolidated Decree 1076), which states that competent authorities will order the holding of the public hearing by means of a motivated administrative act or edict.[85] The Decree states that the purpose of a public hearing is to make "social organizations, the community in general, public and private entities" aware of an application for an environmental license, permit, or concession, or the existence of a project, work, or activity, that may generate impacts, as well as the proposed management measures for preventing, mitigating, correcting and/or offsetting those impacts.[86] It further provides that a public hearing serves as a means of receiving opinions, information, and documents that are contributed by the community and other public or private entities.

[81] ANLA (2018), *Más allá de las cifras: Informe de rendición de Cuentas* (July 2017 – June 2018, 30, http://www.anla.gov.co/Portals/0/Images/Informes-de-rendicion-de-cuentas/Consolidado_18_julio%20de%202018-DocumentoFinal%20-%20230718_3.pdf?ver=2018-07-23-123603-443.
[82] *Ibid*.
[83] Resolution 1552 of 2005, Art. 4; The *Manual de Seguimiento Ambiental de Proyectos* was published in 2002, but the instructions it contains are still valid and are used by environmental authorities and licensees alike.
[84] Political Constitution of Colombia (1991), Art. 79.
[85] Decree 2041, consolidated in Decree 1076, Chapter 4, Art. 2.2.2.4.1.7.
[86] *Id*., at Art. 2.2.2.4.1.1.

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Project proponents are responsible for bearing the costs of holding a public hearing, including the costs of travel for competent environmental authorities who must preside at the hearing and the costs of disseminating information about the proposed project through news media, including radio, newspapers (local and national), and billboards.[87] The competent authorities are responsible for identifying local organizations, residents, and the community where the proponent proposes to carry out a project, as well as informing them of the nature and area of influence of the proposed project.[88] Decree 2041 also provides that, when appropriate, the comments and opinions contributed during the public hearing process (*audiencia pública*) must be evaluated and incorporated into the environmental impact study.[89]

The applicant for an environmental license or permit must make the required ESIA study and related documents available for interested members of the public to consult at least 20 calendar days before the date of the public hearing. The documents must be available at the headquarters of the environmental authority or the agency that acts on its behalf, in whose jurisdiction the development of the project is proposed and on the website of the environmental authority.

2. The right to intervene

Law 99 of 1993 provides that any natural or legal person may intervene through administrative actions (*acciones de tutela*) related to the issuance, modification, or cancellation of environmental permits or licenses, without the need to demonstrate any legal interest.[90] Under Article Law 99 and unitary Decree 1076, a request for a public hearing regarding any administrative decision related to the issuance, modification, or cancellation of an environmental license can be made by the following parties:[91]

- The National Attorney General or the Delegate for Environmental Affairs,
- The Ombudsman,
- The Minister of the Environment (now MADS),
- Other environmental authorities,
- Governors,
- Mayors,
- At least one hundred (100) citizens, or
- Three or more non-profit organizations.

Parties who are interested in intervening by requesting a public hearing must register with the general secretariat or the agency that acts on its behalf within the relevant environmental authorities, districts, or municipalities, using the format that the Ministry of Environment and Sustainable Development designates for this purpose. In all cases, the intervenor must attach a document related to the purpose of the public hearing to their registration.[92]

[87] *Id*., at Art. 2.2.2.4.1.4.
[88] *Id*., at Art. 2.2.2.4.1.7.
[89] *Id*., at Art. 2.2.2.4.1.14.
[90] Law 99 of 1993, Art. 69; Under this provision, the right to intervene (initiate an also extends to matters involving the imposition or revocation of sanctions for non-compliance with environmental laws and regulations.
[91] Law 99, Art. 72 and Decree 330 of 2007, Art. 4, integrated into unitary Decree 1076, Art. 2.2.2.4.1.5.
[92] Decree 1076, Art. 2.2.2.4.1.10.

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Decree 1076 clarifies that while public hearings are used to obtain opinions, information, and documents, they are not forums for debate or discussion.[93] During the administrative procedure for the issuance or modification of an environmental license, permit or concession, the public hearing may only be held starting from the date of delivery of the ESIA study and/or other required documents. In this case, the request for a hearing may only be submitted before the issuance of the administrative act that grants or modifies the environmental authorization.

3. Intervention in the case of existing licensed projects, works, and activities

In cases where ANLA or another competent authority considers that it may be appropriate to grant an intervenor's request for a public hearing during the monitoring phase of an authorized project (during the construction, operating, or decommissioning phase of a project), the authority will evaluate the information provided by the applicant and carry out a site visit to the licensee's premises. [94] The environmental enforcement entities will also be invited to attend. Based on the findings of the visit, the authorities will determine whether it is appropriate to hold a public hearing on the matter.[95]

The competent environmental authority may order a public hearing through an administrative order that is supported by a reasoned justification, or my means of an edict, which must be issued at least thirty business days prior to the anticipated date of approving or denying the environmental authorization, or when an alleged violation of the requirements, terms, conditions, and obligations of an environmental authorization occurs.[96]

In order to hold public hearings during the monitoring phase of environmental licenses or permits, the environmental authority must make a copy of all relevant administrative orders that are related to the purpose of the hearing available to interested parties.[97]

4. Prior consultation with indigenous and traditional black communities

Under Colombian law, when a project, work, or activity involving the extraction of natural resources is proposed in an area inhabited by indigenous or traditional black (descendants of African slaves) communities, a rigorous process of prior consultation (*consulta previa*) must be followed. Colombia is a signatory to ILO Convention 169 on Indigenous and Tribal Peoples, which the country adopted through the passage of Law 21 in 1991, as well as the United Nations Declaration (2007) on the Rights of Indigenous Peoples.[98] The requirement of prior consultation is also included in Colombia's Political Constitution of 1991, which provides in Article 330 that the "*exploitation of natural resources in indigenous territories will be done without detriment to the cultural, social, and economic integrity of the indigenous communities*" and states that the government will encourage participation by representatives of indigenous communities in decisions that are adopted regarding

[93] Decree 1076, Art. 2.2.2.4.1.1.
[94] Decree 1076, Art. 2.2.2.4.1.6.
[95] Ibid.
[96] Decree 1076, Art. 2.2.2.4.1.7.
[97] Decree 1076, Art. 2.2.2.4.1.8.
[98] Ley 21 de 1991, "Por la cual se aprueba el Convenio número 169 sobre pueblos indígenas y tribales en países independientes"; International Labor Organization (ILO) Convention 169 (1989) and United Nations Declaration on the Rights of Peoples Indigenous People, approved by the General Assembly in its 2007 session.

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this exploitation.[99] Measures for avoiding and mitigating detrimental impacts that result from the *consulta previa* process, once approved, become performance obligations that must be monitored and enforced.

Prior consultation (*consulta previa*) with indigenous and Afro-Colombian communities is overseen by the **Ministry of the Interior** through its **Prior Consultation Directorate** and differs in many respects from the public consultation process (*consulta popular*) that is mandated for proposed projects in most other circumstances. The procedural process for prior consultation requires project developers to participate in at least three consultative events before they may initiate the ESIA process. In fact, Colombia's Regulation on prior consultation by indigenous and black communities (Decree 1320 of 1998) provides that these communities must be given the opportunity to actively and effectively participate in the preparation of ESIA studies, through the contribution of input that informs the elaboration of these documents.[100] The set of mutually understood outcomes of this process are memorialized in a prior consultation agreement (*Convenio de Consulta Previa*).

Although prior consultation provides important opportunities for communities to assert their interests and concerns, the process also results in protracted procedural timeframes and logistical impediments. It is important to note that, while the prior consultation process allows indigenous and black communities to actively and effectively participate in decisions on project viability that are adopted by competent authorities, the Constitutional Court has repeatedly held that consultation does not constitute veto power on the part of the communities.

Prior consultation with indigenous and black communities involves a series of distinct steps that have been formalized by Decree 1320 and further clarified by Colombia's Constitutional Court (Decision T-376 de 2012, Par. 7. and most recently in Decision T-713:17 in 2017). These steps consist of the following:[101]

1. Certification of the presence of ethnic communities

Project proponents must first ascertain whether minority ethnic groups are present in the locations where the proposed activities will be carried out.[102] In order to make this determination, they must contact the Prior Consultation Directorate of the Ministry of the Interior, which will provide a certificate stating whether or not minority ethnic groups are present in the area of influence of the proposed activities. If ethnic groups are not present, the project application process may proceed

[99] The constitutional mandate for this enhanced consultation process is also embedded in Article 76 of Law 99 of 1993; Decree 2613 of 2013 adopted an Interinstitutional Coordination Protocol for Prior Consultation.

[100] Decree 1320 of 1998, Art. 5.; Decision T-002/17 (2017), by Colombia's Constitutional Court clarified the *active* aspect of ethnic community participation, affirming that this required far more than simple notification concerning proposed project details and that communities be given the chance to assert a position concerning the viability of the project.

[101] Decree 2613 of 2013, Through which the Interinstitutional Coordination Protocol for prior consultation is adopted.

[102] In Decision T-002/17, the Court clarified that "the concept of the direct area of influence includes both the ethnic communities that overlap physically or geographically with the area of influence of the project work or activity, and those surrounding tribal peoples that, even though they are outside the strict perimeter of the project, work, or activity, adjoin it, because the diffused territorial limits that some communities maintain with their habitat can be harmed socially, economically, environmentally, and culturally."

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along its normal course. Conversely, if ethnic groups are present at the proposed project location (or directly neighboring areas), the prior consultation process must be initiated.

2. Coordination and preparation[103]
The project proponent and the Prior Consultation Directorate must invite the participation of all interested parties through a public notification process that includes not only the potentially affected ethnic communities, but also environmental and land use authorities, enforcement bodies, and other third-party stakeholders. The notification must contain a brief summary of the project or activity to be carried out, in order that potential participants have an accurate idea of what will be discussed during the prior consultation process. The notice must also include a timetable indicating the times, timeframes, and deadlines for registering to participate in the consultation. Prior to initiating contact with the communities potentially affected, the Prior Consultation Directorate may hold a **coordination meeting** between the different public entities and organizations involved in order to formulate a work plan and optimize the resources for the realization of the process.[104]

3. Preliminary consultation
The purpose of this phase is to identify the local government bodies and community representatives, as well as to create public awareness of the project and to organize a methodology for the consultation. Once it is certain that all interested parties who will participate in the prior consultation have registered, spaces are reserved for conducting discussions and open dialogues. During this phase, the participants are given the opportunity to state how they will be directly affected by the proposed project and offer counterproposals. This process aims to facilitate consensus and convergence on a viable agreement that satisfies—to the extent possible—the interests of each of the participants. This step ends with the preparation of a **preliminary agreement** (*preacuerdo*), which contains the results of the constructive dialogue and clearly defines:

- Measures for managing the project, based on the identified impacts,
- Conditions of implementation that will be carried out within the project's area of influence,
- Responsibilities, duties, and obligations of each of the parties involved in the process, and
- Preliminary outline of possible agreements and commitments.

The Pre-consultation step must be completed within the timeframe established in the notification or a timeframe that the parties consider appropriate, given the complexity or magnitude of the project.

4. Consultation and notarization of the agreement
The principal *consulta previa* deliberative meeting is convened. Once the parties reach consensus on the obligations agreed upon during this phase, a finalized **prior consultation agreement** (ACP) must be prepared. The agreement must be in writing, signed, and notarized by the competent environmental authority (ANLA or CAR, for projects that require an environmental license), under

[103] This stage of the consulta previa process was described in detail in Decision T-002/17, but differs in some respects from the procedures prescribed in Decree 1320.
[104] Decision T-002/17 reiterated consistently-held, prior constitutional jurisprudence: Simple notifications, informational meetings, or public hearings, are not adequate for and do not supplant the requirement of prior consultation.

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the supervision of the Prior Consultation Directorate and the competent enforcement bodies.[105] The parties must strictly adhere to the terms of the agreement unless waived by mutual consent. [106]

5. Monitoring compliance with the prior consultation agreement

Compliance with the agreement must be verified by a **Monitoring Committee**, which under the direction of the Prior Consultation Directorate. The Committee may make periodic requests that project developers comply with the agreement. In addition, the Monitoring Committee can request the competent enforcement agency to carry out a protective action in the event of an objectively verifiable, recurring breach of the agreement that threatens the existence of the ethnic community.

6. Closure of the prior consultation process

Once compliance with the agreement has been verified, an action must be taken to close the prior consultation process by mutual consensus. In case of noncompliance with the agreement, the prior consultation process cannot be closed until a final compliance monitoring actions verify that there is total compliance with the prior consultation agreement. At that time, the parties to the agreement may sign a memorandum stipulating to the closure of the process.

[105] For projects that will be subject to an environmental license, the Regional Autonomous Corporations or ANLA must perform the notarization, which demonstrates the formality of the agreement to other authorities and third parties.

[106]The Court advised that the parties to prior consultation agreements establish terms and guarantees in case of eventual default by one of the parties.

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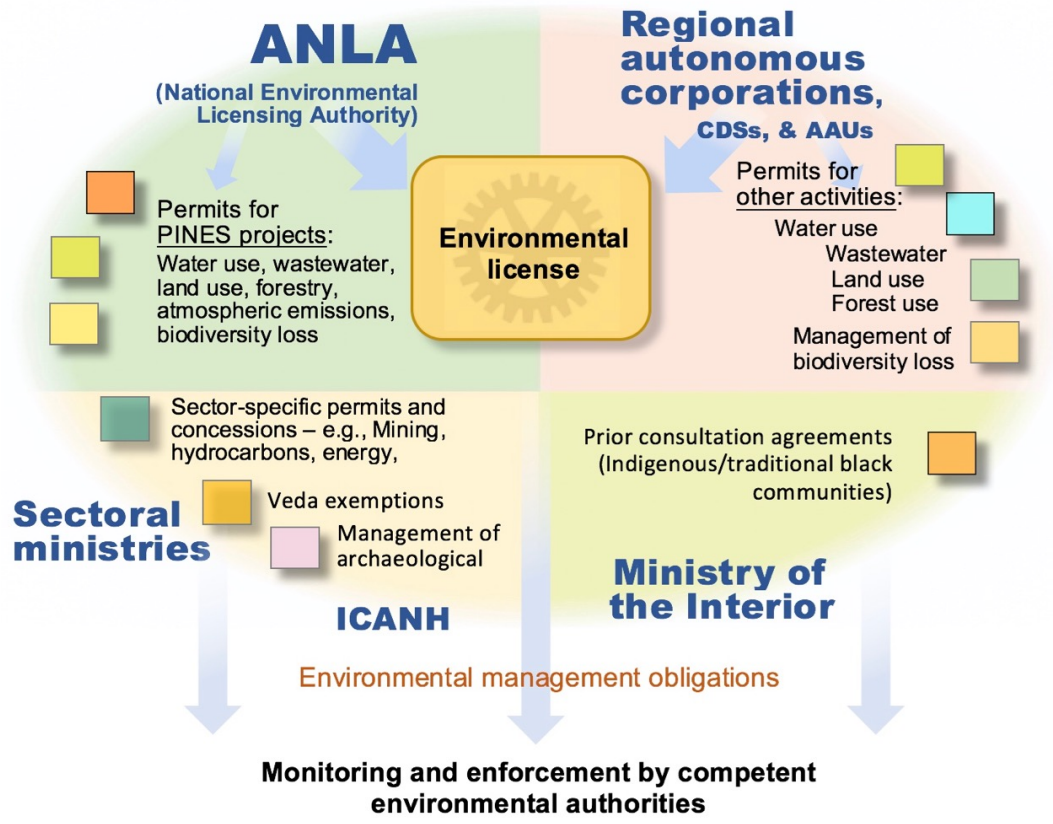
IV. Permits and other authorizations that accompany the licensing process

a. Overview

In Colombia, most projects and activities that are subject to the ESIA process also require permits, concessions, authorizations, and/or other types of clearances for natural resource or land use, in addition to the environmental license itself. In some cases, these authorizations may be granted by the same environmental authority that has issued the environmental license. Very often, however, authorizations and clearances must be obtained from sectoral or other authorities independently from, and not in coordination with, the environmental licensing process.

Sectoral permits and other authorizations—particularly those issued by government entities other than environmental authorities—not only impose additional procedural burdens on project developers, but also require compliance with a variety of performance measures that authorities must verify during execution of their projects. Monitoring and verifying compliance with these obligations involves actions by other institutions that must be considered in order to obtain a complete picture of enforcement issues arising licensing and permitting process.



Issues related to the additional authorizations that developers must secure before initiating work on their projects include, but are not limited to, those listed in the following table and described in greater detail below:

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Table 8. **Additional permits and authorizations** for activities subject to the ESIA process [107]	
Natural resource use or issue regulated by the authorization or permit	Competent authorities
Land use plans Requirements: Conformity of the project proposal with the applicable Land Use Management Plan (POT/PBOT/EOT) for the region, district, or municipality where the project is situated.	Regional, district, and municipal governments
Watershed plans Requirements: Conformity of the project proposal with the applicable Watershed Management Plan (POMCA) for the region, district, or municipality where the project is situated.	IDEAM, ANLA, CAR/CDS regional watershed authorities
Use of natural resources Project developers must secure media-specific (e.g., air, surface water, groundwater, forests) resource use permits and/or concessions and comply with the requirements imposed by these authorizations.	ANLA, CAR/CDS regional authorities, AAUs
Compensation for biodiversity loss Approval required for compensation measures to ensure no net loss of biodiversity resulting from project implementation.	MADS or CAR/CDS regional authorities
Protected species of forest flora Removal of / impact on protected species (Exemption from *veda* ban)	MADS/DBBSE [108]
Archaeological and cultural heritage Requirements: An Archaeological Management Plan must be submitted as part of the EMP for projects where artifacts may be found; Licensees must immediately notify ICANH if artifacts are found on the project site.	ICANH

b. Compatibility with land use requirements

Colombia's framework legislation on land use regulation, Law 1454 of 2011, defines land use development planning as "an instrument of planning and management of territorial entities and a process of collective development of the country, which takes place in a progressive, gradual and flexible manner."[109] In addition, Law 1454 states that land use planning should aim to achieve appropriate political and administrative organization for regional land use governance, economic competitiveness, social justice, and environment sustainability.[110] Although Law 1454 does not directly impose requirements on project developers, regional and local land use ordinances that implement the Law's mandate establish parameters with which proposed projects, works, and activities must comply.[111]

Article 2 of Law 1454 affirms the national goal of decentralized government, stating that the purpose of land use planning is to "promote capacity for decentralization, planning, management

[107] This table presents a representative selection of environmental media, and stakeholder concerns for which permits or other types of authorization are required. It is not a comprehensive list.
[108] DBBSE is the Spanish acronym for *Dirección de Bosques, Biodiversidad y Servicios Ecosistémicos*.
[109] Law 1454 of 2011, Art. 2.
[110] Ibid.
[111] Law 1454 establishes requirements that districts and municipalities (rather than project developers) must follow. However, these macro-level requirements are manifested at the project level in the form of regional and local land use ordinances that impose constraints on uses that are permissible for specific project sites.

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and administration" for government entities responsible for comprehensive land use planning. In addition, Article 2 provides that land use planning will promote the transfer of competences and decision-making power of the central or decentralized government bodies at the national level to the relevant bodies at the territorial (regional or municipal) level, with a corresponding allocation of resources, while "recognizing the geographic, historical, economic, environmental, ethnic, and cultural diversity and regional and national identity."

Land Use Development Plans

In Colombia, a **Land Use Development Plan** (*Plan de Ordenamiento Territorial* or "**POT**") is the instrument that allows municipal government entities to prescribe permissible uses for zones and other subdivisions of land that they designate within their geographical boundaries, which place rules and constraints to specific project sites. Procedures for developing and adopting Land Use Development Plans were established by Law 388 of 1997 and its implementing regulations. Article 9 of Law 388 are three types of POTs, based on the population of a municipality:

- Land Use Development Plan (POT): Municipalities with more than 100,000 inhabitants.
- Basic Land Use Development Plan (PBOT): Municipalities between 30,000 and 100,000 inhabitants.
- Basic Scheme for Land Use Development (EOT): Municipalities with less than 30,000 inhabitants.

Like strategic impact assessment, a POT is structured on a macro-level perspective of land use issues, assessing environmental and social sustainability and risk factors in the aggregate, from a temporal and spatial vantage point. A POT not only takes into consideration the probable cumulative impacts that will result from multiple activities over the course of a mid- to long-term time horizon, but also strategically considers *where*, within a municipality or district, activities that pose environmental risks should be allowed to occur.[112] These aspects of a POT have direct bearing on the licensing process, since they prescribe the types of activities and permissible impact *intensity* that project developer may propose for a given location.[113] Article 20 of Law 388 states that "no public or private agent may carry out urban actions that do not comply with the provisions and contents of land use plans." For rural areas within an area subject to a Land Use Development Plan, a POT may designate conditions for environmental protection, conservation, and improvement of areas where agriculture, forestry, or mining activities are carried out, imposing conditions that must be incorporated into the environmental license.[114]

c. Permits and concessions for the use of natural resources (general)

A variety of permits and concessions are required for projects whose implementation will entail using or causing impacts to renewable natural resources. Securing permits for the use of natural resources requires lead time that project developers must incorporate into their logistical plans, as part of the broader process of obtaining an environmental license. In most cases, Regional Autonomous Corporations and Sustainable Development Corporations are competent for granting these authorizations, which address specific types of environmental media or issues (e.g., air,

[112] Law 338 of 1997, Art. 13(3) states that the designation of specific areas for the conservation and the protection of natural features, historical sites, and cultural resources complements legislation (which may address these in a more generalized manner).
[113] Law 388 of 1997, Art. 15(2).
[114] Id at Art. 14(2).

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surface water, groundwater, forests, and wastewater discharge).[115] In addition, large urban centers (having more than one million inhabitants) have the same permit-granting authority as CARs for activities within their borders.[116]

There are, however, a number of important exceptions in which ANLA is competent to grant permits and concessions that are incidental to the environmental licensing process. As described earlier, specific rules of competency apply to PINES projects, as defined in Decree 2220 of 2015. In addition, MADS may exercise its discretionary authority (under Article 5 of Law 99) in cases "when circumstances warrant," through which it may transfer certain cases to ANLA control that would otherwise be subject to jurisdiction by CARs.[117] In other cases, the determination of ANLA versus CAR jurisdiction may depend on the scale of the activity or its impacts. For example, in the case of mining projects, competency for the granting of permits (or licenses themselves) is determined by thresholds of production or removal of raw materials, as illustrated in the table below.

Table 9. Competency for granting environmental permits and extraction thresholds*

Materials	ANLA	CAR
Coal	Projected exploitation ≥ 800,000 tons/year	Projected exploitation < 800,000 tons/year
Construction materials and clays or non-metallic industrial minerals	Projected production ≥ 600,000 tons/year for clays or equal to 250,000 m^3/year for other construction materials or for non-metallic minerals.	Projected production < 600,000 tons/year for clays or < 250,000 m^3/year for other construction materials or for non-metallic minerals.
Metallic minerals and precious/semi-precious stones	Total removal of useful and sterile material projected to be ≥ 2,000,000 tons/year	Total removal of useful and sterile material projected to be < 2,000,000 tons/year
Other minerals and materials	When exploitation of minerals is projected to be ≥ 1,000,000 tons/year	When exploitation of minerals is projected to be < 1,000,000 tons/year

*Table reproduced from National Mining Agency (ANM) document.[118]

Developers must apply for permits and concessions before the start of exploration (extractive industries) or project implementation (other sectors). The information and documentation that developers must provide to ANLA or to the applicable CAR when applying for a permit or concession varies according to the type of authorization. In addition to the activities listed in the section below, activities involving the extraction and distribution of water for domestic or commercial use also require water-related permits and concessions.

Activities that require permits and concessions for the use of renewable natural resources are specified in Decree 1076 of 2015, Article 2.2.3.2.7.1., which includes, among others, industrial activities, thermal or nuclear power generation, mining and processing of minerals, oil extraction,

[115] Law 99 of 1993, Art. 31(9) provides that CARs have authority "to grant concessions, permits, authorizations, and environmental licenses required by law for the use, exploitation or mobilization of renewable natural resources or for the development of activities that affect or may affect the environment," including "permits and concessions for forest exploitation [and] concessions for the use of surface and underground water."
[116] Law 99 of 1993, Art. 66.
[117] Law 99 of 1993, Art. 5(16).
[118] Agencia Nacional de Minería (ANM), *Tramites Ambientales*, Available at https://www.anm.gov.co/sites/default/files/DocumentosAnm/permisos_ambientales.pdf.

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transport of minerals and substances, injection for geothermal power generation, kinetic energy generation, hydroelectric power generation, irrigation, and forestry.[119]

Frequently required permits and concessions:

1. Permits for the prospecting and exploitation of groundwater sources[120]

   Authorization for prospecting and exploration that includes drilling test holes in order to locate groundwater sources for later exploitation, on private property or vacant land.

2. Concession for groundwater sources

   Authorization for the *use* of groundwater sources.

3. Concession for surface waters

   Authorization for the use of public waters or its conduits for a prescribed time period, (generally ten years, depending on the activity).[121]

4. Atmospheric emissions permit

   Authorization for *any* activity that involves a fixed or mobile source that emits substances into the air within the permissible limits established in the applicable environmental regulations. These permits authorize the *normal* level of emissions, as long as the concentration of pollutants in the area where the emission occurs does not exceed permissible limits, or cause higher concentrations of air pollutants in *other* areas due to displacement.

5. Permit for forest exploitation

   Authorization for the extraction of products from a forest, including timber that has been cut to make room for activities outside of the forest sector. The permit applies from the time timber is cut to the moment of transformation into another product. Developers of extractive industry activities, such as mining or oil drilling must apply for the permit before undertaking exploration.

   There are three categories of forest use permits: single use, continuous use, and domestic use.[122] Activities outside of the forest sector generally correspond to the single use category, where timber is cleared only once in order to use land for a different purpose. Permit applicants must demonstrate, through technical studies of the forest soil, that the forested land is better suited for a different use, or alternatively that there are compelling reasons that the land should be used differently to address a public and social interest.

6. Wastewater discharge permit

   Authorization to undertake final disposal of liquid waste generated in the course of carrying out an activity, after the waste has been treated.[123]

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[119] Decree 1076, Art. 2.2.3.2.7.1. Elaborates a full list of activities subject to permits.

[120] Art. 2.2.3.1.1.3. of Decree 1076 defines groundwater as water "in the sub-strata and the hidden below the surface of the ground or the seabed that flow outward in a natural way, such as sources and springs captured at the upwelling site or those that require works such as wells, filtering tunnels, or similar."

[121] Decree 1541 of 1978, Arts. 32 and 33.

[122] Decree 1076 of 2015, Art. 2.2.1.1.3.1.; Under the provisions of Art. 2.2.1.1.5.7. of Decree 1076, for single forest use permits, developers must be present a statistical inventory in the application materials with a sampling error not exceeding fifteen percent (15%) and a confidence level of ninety-five percent (95%).

[123] Requirements for obtaining a wastewater discharge permit are found in Decree 1072, Section 5, Art. 2.2.3.3.5.1.

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d. Watershed management, water use concessions, and wastewater discharge permits

Many types of activities that are subject to the ESIA requirement require the use of water in their production processes and also involve the generation of wastewater, the quantity of which is dependent on the sector and type of activity. In Colombia, the management of watersheds and water use are driven in parallel by national policy and legislation, as well as through direct oversight at the regional level, through the Regional Autonomous Corporations.[124] A developer of a project that is subject to the ESIA process usually must also apply for one or more types of water use permit through the CAR or CDS that has jurisdiction in the district where the project will be implemented. The issuance of a water use concession or wastewater permit obligates the concession or permit holder to abide by mandatory water management requirements which are subject to monitoring and enforcement by the competent environmental authorities.

1. Water use policy, plans, and legislation

Water regulation in Colombia has its basis in Decree-Law 2811 of 1974 (the Renewable Natural Resources Code), which governs the management of natural resources, and Decree 1541 of 1978, which established rules for water allocation and designated the CARs as the competent authorities for issuing permits and developing regional procedures for the oversight of water use. In addition, Decree 1541 provided a system for the prioritization of (competing) water uses and formulas for calculating the amount of water that can be allocated to permit applicants.[125]

On the national level, planning for water use are an integral part of formulating regional development strategies and priorities for six regions under Colombia's National Development Plan 2014-2018. These strategies and priorities is based on diagnoses concerning the distinctive opportunities and challenges faced by each region and are intended to complement, not interfere with, the autonomy of each of Colombia's districts (regional political subdivisions).

In 2010, the precursor for MADS issued the **National Policy for the Comprehensive Management of Water Resources** ("PNGIRH," by its Spanish acronym), whose principal goal is ensuring the sustainable use of water resources. The PNGIRH established a set of objectives, strategies, goals, indicators, and lines of action for fulfilling its goal. Colombia's **National Water Resources Plan** (PHN) is comprised of three phases and was drafted to provide prioritized set of programs, projects, and activities for operationalizing the lines of action of the PNGIRH.[126] The content and structure of Phase II of the PHN (currently in force) was formulated recognizing the distinctive differences and problems of each region of the country.

A **Watershed Management Plan** (**POMCA**) is the principal instrument through which regional governments plan the coordinated use of soil, waters, of the flora and fauna and the management of water resources at the watershed level. Although POMCAs impose constraints on regional and

[124] For certain types of activities, such as Projects of National or Strategic Interest (PINES), ANLA has jurisdiction for issuing all permits related to the environment and natural resources (in accordance with Law 1753 of 2015, Art. 51).
[125] Decree 1541 of 1978, article 37, integrated into Decree 1076 as Article 2.2.3.2.7.6.
[126] The three phases correspond to three time intervals - Short-term: 2010-2014, medium-term: 2015-2018, and long-term: 2019-2022.

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local government watershed management efforts rather than directly on specific projects, POMCAs have an important effect on the granting of individual permits and concessions during their execution phase. This is because the specific water use management measures and wastewater treatment systems that CARs approve for individual permits must be compatible with water management instruments and standards formulated in the POMCA.[127]

2. Prioritization of activities for water allocation

Legislative rules governing access to water were established in the Renewable Natural Resources Code, which regulates the management of renewable natural resources, and Decree 1541 of 1978, which prescribes criteria that the Regional Autonomous Corporations must consider in granting water use permits and concessions and formulating water allocation procedures that implement this legislation.[128] The provisions of both laws were incorporated into Decree 1076 of 2015.

The Renewable Natural Resources Code aims to harmonize human development with environmental preservation, while serving the interests of present and future citizens.[129] With respect to the utilization of water resources, the Code articulates the central principle that water regulations should balance economic and social interests, converging on the general interest of the community.[130] This principle is implemented in Decree 1541, Article 41, which establishes a default order of priorities that authorities must consider in making decisions concerning water allocation:[131]

a) Use for human, collective, or community consumption, whether urban or rural;
b) Use for individual domestic needs;
c) Community agricultural uses, including aquaculture and fisheries;
d) Individual agricultural uses, including aquaculture and fisheries;
e) Hydropower generation;
f) Industrial or manufacturing uses;
g) Mining uses;
h) Community recreational uses, and
i) Individual recreational uses.

Decree 1541 also provides that the competent environmental authority may vary the default order of priorities at its discretion, taking into account specific economic and social needs of the region and the following factors:[132]

a) Rainfall, temperature, and evaporation characteristics;
b) Current and projected demand for water in sectors that account for regional water use;
c) The economic and social development plans approved by the competent authority;

[127] MinAmbiente (2014), *Guía técnica para la formulación de los Planes de Ordenación y Manejo de Cuencas Hidrográficas*, 16, 69, http://www.minambiente.gov.co/images/GestionIntegraldelRecursoHidrico/pdf/cuencas-hidrograficas/GUIA_DE_POMCAS.pdf.
[128] The objectives of the POMCAs corresponding to each CAR's jurisdiction constitute additional factors that it must take into account.
[129] Decree-Law 2811 of 1974, Art. 2.
[130] Silvia Milena Corrales Marín (2015), *Las Concesiones de Agua: Una Revisión con Criterios de Equidad y Eficiencia*, Universidad del Valle, Cali, Colombia, 26, 27 http://bibliotecadigital.univalle.edu.co/bitstream/10893/9077/1/CB-0530156.pdf.
[131] The order of priorities (Art. 41) was compiled in Decree 1076 of 2015 as Article 2.2.3.2.7.6.
[132] Decree 1541, Art. 2., compiled in Decree 1076 of 2015 as Article 2.2.3.2.7.7.

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d) The preservation of the environment, and
e) The need to maintain sufficient reserves of water resources.

Two national surveys provide context for national water allocation priorities in Colombia. A 2015 survey by WAVES and the World Bank reported that approximately 57% of all water demand in Colombia is derived from agricultural uses.[133] In addition, a 2005 census by the National Administrative Department of Statistics (DANE) estimated that approximately 15% of national water consumption is used for domestic needs and that 73% of rural families use water for subsistence farming and other productive activities.[134]

3. Activities that must obtain water use concessions

Article 36 of Decree 1541 establishes the types of activities that require a developer to obtain a water use concession in order to acquire the right to use water from a source on or near the property where the project is to be implemented.[135] The obligation to secure a concession from competent authorities—generally a Regional Autonomous Corporation—applies to all natural and legal persons of the public or private sector and applies to both surface water (visible and easily accessible) or groundwater (hidden water that must be accessed through a well, pipe, or other perforation).[136]

Developers must obtain a water use concession to engage in the following activities:

a) Domestic supply in cases where [water] must be diverted;
b) Irrigation and forestry;
c) Supply of drinking troughs when [water] must be diverted;
d) Industrial use;
e) Thermal or nuclear generation of electricity;
f) Mining exploitation and mineral treatment;
g) Oil exploitation;
h) Injection for geothermal generation;
i) Hydroelectric generation;
j) Direct kinetic generation;
k) Wood flotation [transport of timber to a mill];

[133] WAVES/World Bank (2015) *Cuenta Nacional del Agua*, Wealth Accounting and the Valuation of Ecosystem Services, https://www.dane.gov.co/files/investigaciones/pib/ambientales/cuentas_ambientales/cuenta-del-agua/Presentacion-Cta-de-Agua-2012pr.pdf.

[134] Silvia Milena Corrales Marín (2015), *Las Concesiones de Agua: Una Revisión con Criterios de Equidad y Eficiencia*, Universidad del Valle, Cali, Colombia, 6 http://bibliotecadigital.univalle.edu.co/bitstream/10893/9077/1/CB-0530156.pdf; DANE (2005), Censo Nacional.

[135] The legislation on water concessions recognizes that developers may seek to prospect for, or extract, water sources on nearby properties to which they have legal access, such as by ownership, tenancy, leases, or easements.

[136] Law 99 of 1993 designates CARs as the as the competent authorities for issuing and enforcing permits for the use of natural resources (note that this has been changed for PINES projects); Decree 1541 of 1978, Art. 36 has been compiled in Decree 1076 of 2015 as Article 2.2.3.2.7.1.; Groundwater is defined in Article 2.2.3.1.1.3. as waters that are "in underlying layers and the hidden below the surface of the ground or the seabed that emerge in a natural way, such as the springs and sources that are captured in the site, or those that require works such as wells, filtering tunnels, or similar for their delivery."

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l) Transport of minerals and toxic substances;
m) Aquaculture and fisheries;
n) Recreation and sports;
o) Medicinal uses, and
p) Other similar uses

Applications for water use concessions

When applying for water use permits and concessions, project developers must submit a variety of substantive information concerning their proposed activities to the competent permitting authorities. In addition to submitting personal data (name, address, identity papers, nationality, etc.), the applicant must provide a range of substantive information when applying for a water use permit, such as:[137]

- **Name of the source** from which the diversion of water is requested, or the intended location of its use;
- **Location of discharge** where the wastewater will be directed;
- **Level of water use**, expressed in liters per second;
- **Information on the systems that will be utilized** for the collection, diversion, conduit, restitution of surpluses, distribution, and drainage, as well as on investments, the amounts thereof, and timeframes within which they will be made;
- **Easements** - Whether the requested water use will require the establishment of easement or for the construction of the projected works;
- **Term** (period of time) for which the concession is requested;
- Data needed for concessions with special characteristics;[138]

In granting water use concessions, government authorities do not guarantee water availability or flow rate. The water supply used to satisfy the demands of concessions is subject to the availability of the resource.[139] In addition, the chronological order in which concessions have been granted does not confer priority water use rights. In the event of shortages, concessions will be supplied on a pro rata basis.

Once a water use concession has been approved, the competent environmental authority will issue a resolution that must include the information in the table below.[140]

Table 10. **Minimum contents of a resolution authorizing a water use concession**
a. Name of the **n**atural or legal person to whom the concession is granted.
b. Name and location of the properties which will benefit from the concession and the locations where water will be used, diverted, and returned to the environment.
c. Name of the source of the water supply

[137] Decree 1076 of 2015, Art. 2.2.3.2.9.1.
[138] This item addresses projects that have specialized needs related to water use, such as irrigation for crops, water as a coolant for the refrigeration of machinery, industrial uses that require applicants to attach a feasibility study, and water used for electric power generation.
[139] Decree 1076 of 2015, Article 2.2.3.2.7.2.
[140] Decree 1541 of 1978, Art. 62 (Decree 1076, Art. 2.2.3.2.9.9.).

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d. Quantity, purpose, method, and timing of the use of water that is granted.
e. Term (duration) and conditions for extension of the concession**.**
f. List of the works that the permit holder must construct for use of the water, as well as the return, treatment, and protection of remaining water, indicating the studies, designs, documents, and timeframe.
g. Obligations of the concessionaire regarding water use, environmental and water quality preservation.
h. Guarantees for ensuring compliance with the concessionaire's obligations.
i. Amount of fees.
j. Process for transferring possession of the works that were implemented to capture and divert water to the competent environmental authority at the end of the concession, as well as obligations and guarantees for their maintenance and timely reversion.
k. Applicable requirements In the case of noncompliance by the concessionaire with obligations**.**
i. Causes for the imposition of sanctions and for the declaration of expiration of the concession.

4. Wastewater discharge permits

Most activities that are subject to an environmental license requirement must utilize a water source (surface water or groundwater) for some aspects of production and create wastewater that must be discharged in some manner. If the introduction of substances or waste products into a water source is an unavoidable part of any of the activities listed above, an application for a wastewater discharge (*vertimientos*) permit is also required, which must be made conjointly with the water use concession or permit application, or made subsequently, if the need to discharge wastewater arises after the granting of the water use concession.[141]

Applications for wastewater discharge permits

An applicant for a wastewater permit must provide a significant amount of substantive information concerning the generation of wastewater and its treatment and disposal, in addition to personal data, such as the following:[142]

- Description and georeferenced location of the wastewater discharge site.
- Cost of the project, work, or activity.
- Source of water supply and the watershed in which the source is located.
- Characteristics of the activities that will generate wastewater.
- Identification of the water body or channel receiving the discharge
- Discharge flow rate expressed in liters per second
- Anticipated frequency (days/month), duration (hours/day), and timing of the discharge (continuous or intermittent).
- Description of the wastewater treatment system and an approved risk management plan.
- Environmental assessment of the wastewater discharge.
- Summary of the environmental considerations that have been taken into account in granting of the wastewater permit.
- Technical standard that discharged wastewater must fulfill.

[141] Decree 1076, Art. 2.2.3.3.5.1. states that "Any natural person or whose activity or service generates discharges into surface waters, marine waters, or soil must request and process the respective permit for wastewater discharge before the competent environmental authority."
[142] Decree 1076, Art. 2.2.3.3.5.2.

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Once a wastewater permit has been approved, the competent environmental authority must clearly specify the management requirements and restrictions that apply to permitted wastewater discharge in order to ensure that compliance with the permit can be monitored. The required content of a wastewater permit includes the provisions in the table below:

Table 11. **Minimum contents of a resolution authorizing a wastewater permit**
1. Name and identification of the permit holder (Natural or legal person)
2. Name and location of the property, project, work, or activity, which will benefit from the permit.
3. Description, name, and geo-referenced location of the sites where wastewater will be discharged
4. Source of the water supply indicating the watershed to which it belongs.
5. Characteristics of the activities that generate the wastewater
6. Summary of the environmental regulatory considerations that have been taken into account for the granting of the environmental permit.
7. The wastewater standard that must be fulfilled and technical conditions applicable to the discharge.
8. Term (duration) for which the discharge permit and conditions for its renewal are granted.
9. List of the works that the permit holder must construct for the wastewater treatment, approval of the treatment system, and the ***deadline*** for construction and entry into operation of the treatment system.
10. Obligations of the permit holder regarding the use of water, for environmental preservation, and to prevent the deterioration of water resources and other related resources.
11. Approval of the **Risk Management Plan for Wastewater Discharge**.
12. Approval of the **Contingency Plan for the Prevention and Control of Spills**.
13. Obligation to pay for environmental monitoring services and the remuneration rate.
14. Authorization to occupy a water channel for the construction of the infrastructure for delivering wastewater into the body of water.

5. Combined use permits

Developers are frequently required two or more types of water use permits. The competent environmental authority may require the holder of a concession for surface water and groundwater to obtain a combined permit, in order to limit the combined usable flow rate.[143]
Imposition of combined use of surface and underground water.

In the case of Projects of National or Strategic Interest (PINES), Law 1753 of 2015 provides that ANLA has comprehensive and exclusive jurisdiction for issuing all environmental licenses and related environmental permits for PINES projects.[144] Developers of PINES projects must initiate all new projects and project modifications, including applicable permits and concessions, though ANLA.

6. Requirements applicable to specific sectors

5.1 Oil and natural gas

[143] Decree 1076 of 2015, Art. 2.2.3.2.16.22.
[144] Law 1753 of 2015 (Adopting the National Development Plan 2014-2018), Art. 51.

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In applying for water concessions for oil or gas projects, developers must submit a feasibility study of the project as a whole to ANLA when applying for a water concession.[145] Developers of oil and gas projects must also secure an additional, special concession for the reinjection of water for the secondary recovery of oil or natural gas, which is separate from the concession required for oil and gas exploration and exploitation of oil or natural gas.[146] The holder of this concession is obligated to prevent the contamination of groundwater bodies from reinjected water, which is generally combined with other substances. In addition, environmental provisions of the Petroleum Code and other sector-specific legal and regulatory provisions apply.

5.2 Mining

Like oil and gas projects, developers of mining projects must submit a feasibility study of the project as a whole to ANLA when applying for a water concession. In addition, water concessions for use in mining pipelines must be requested from the competent environmental authority, independently of concessions related to the exploitation and extraction of minerals.[147]

5.3 Industrial activities

Developers of factories or other industrial facilities also must submit a feasibility study of the industrial project as a whole when applying for a water concession.[148] In addition, they must construct and put into operation an wastewater treatment system that conforms to specifications and deadline specified by the competent environmental authority in the document that grants the concession. [149] The issuing authority may temporarily suspend the water use concession or declare the concession to be expired if these conditions are not met. If the industrial facility must use water to refrigerate machinery, the application must provide precise data on the amount of water that will be required and a description of the process to be used in determining the flow rate of water drawn from a river or stream source, as well as the cleaning procedures to be followed, the frequency, the place and site where the wastewater will be discharged.[150]

5.4 Agriculture

When applying for water use concessions for agricultural projects, in addition to other requirements, applicants must commit to the construction and maintenance of adequate drainage systems to prevent erosion, collapse, and salinization of the soils.[151] The competent environmental authority may also impose, as a condition of the concession, the obligation to join a regional wastewater collection network and contribute to the expenses of its construction, maintenance, and operation.

7. Performance requirements applicable to concession and permit holders

[145] Oil and gas projects are PINES and therefore subject to ANLA's comprehensive and exclusive licensing and permitting jurisdiction under Decree 1753. Since ANLA is the entity receiving and reviewing the ESIA study, it is not known if the submission of the feasibility study separately for the water concession is duplicative now that Decree 1753 is in force.
[146] Decree 1076 of 2015, Art. 2.2.3.2.10.16.
[147] Decree 1076, Art. 2.2.3.2.10.14.
[148] Decree 1076, Art. 2.2.3.2.10.4.
[149] Decree 1076, Art. 2.2.3.2.10.5.
[150] Decree 1076, Art. 2.2.3.2.10.5.
[151] Decree 1076, Art. 2.2.3.2.10.2.

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Law 1541 of 1978 specifies a number of environmental management requirements and prohibitions that concession and permit holders must follow. Article 2.2.3.2.20.3. Land and obligations on water conservation practice, protective forests and soils.

Holders of concessions for hydrocarbons and mining projects are required to provide written notice to the competent environmental authorities (ANLA, in the case of hydrocarbons) immediately if they discover an underground channel or source of water during the course of exploration or drilling and provide any available technical information on the discovery.[152]

Operators of mining activities that have obtained water use concessions must abide by the provisions of Articles 146 and 147 of Decree 2811 of 1974. Article 146 states that mining operations are subject to the following permit conditions, in addition to other water use requirements or those related to the extraction of minerals:

a. Maintaining clean water channels where mining tailings or waste are discarded, in order that the water channels are not blocked, do not overflow, or become contaminated;
b. Not impeding the navigation;
c. Avoiding harm to aquatic life.[153]

Article 147 requires mining operations to avoid contaminating the water necessary for human consumption, for use by a public facility, or for use by agricultural or industrial enterprises.

Developers that have been granted wastewater permits must adhere to the approved wastewater discharge management plans upon which the discharge permit was issued. In addition to project-specific wastewater discharge requirements, permit holders must insure that wastewater effluents do not contain prohibited concentrations of substances that pose public health risks.[154] Article 2.2.3.3.4.1. of Decree 1076 contains a list of maximum permissible thresholds for concentrations of minerals, substances, pesticides, and other chemicals.[155]

7.1 Compliance Plans

If the competent environmental authority determines that, on the basis of information provided by a wastewater permit applicant or resulting from a technical site visit, that a wastewater management plan is not environmentally viable, it may require the applicant to submit a Compliance Plan.[156] The environmental authority may make this determination based on the anticipated characteristics of the wastewater, the treatment measures proposed, and/or the water channels or ground where the proposed wastewater discharge would take place. The Compliance Plan must apply best practices for wastewater management that ensures compliance with the applicable wastewater standard. It must also include objectives, periods for evaluation, and indicators for measuring the effectiveness of monitoring, management, and results.

In the administrative resolution informing the permit applicant of the need for a Compliance Plan, the permitting authority must include: (1) the terms of reference for the preparation of the first

[152] Decree 1076, Art. 2.2.3.2.17.7.
[153] Article 2.2.3.2.24.1 of 1076 establishes similar prohibitions against harming ecosystems, flora, and fauna.
[154] Decreto 3930 de 2010, Art. 24 was compiled in Decree 1076 as Art. 2.2.3.3.4.1.
[155] Ibid.
[156] Decree 1076, Article 2.2.3.3.5.12.

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stage of the Plan, (2) the wastewater discharge requirements that will apply, and (3) the deadline for the presentation of the first stage of the plan.[157] The applicant has only one opportunity to submit a Compliance Plan and may not receive an extension from the competent environmental authority, except in the case of a force majeure event.[158]

8. Collection of water use taxes

Law 99 of 1993 and Decree 155 of 2004 authorize CARs to collect a water use tax from both public and private sector entities that hold concessions or permits.[159] Decree 155 provides a detailed description of the formula that environmental authorities must use to calculate the water use fees for each entity subject to their jurisdiction that holds a water use concession.

Article 12 of the Decree states that the amount of the fee for each user is comprised of the product of the fee rate for the utilization of water (*TU*), expressed in pounds per cubic meter (pesos/m^3) and the volume of water captured (*V*) expressed in cubic meters that has been adjusted by the opportunity cost, according to the following formula:

$$VP = TU * \left[V * F_{OP} \right]$$

VP equals the amount of the fee for a relevant billing period and F_{OP} is the Opportunity Cost Factor. The opportunity cost factor is calculated taking into account whether the user of the water makes, or does not make, constructive use of the water, generating opportunity costs for other users downstream from the user, who must forego some amount of water consumption if there is a finite supply. The value of the opportunity cost factor is calculated according to the following formula:

For projects that return some quantity of water that has been captured back to its original source, the opportunity cost factor consists of the net water consumption (the amount of water captured minus the amount of water returned), divided by the amount of water captured. For all other cases, the opportunity cost factor equals one (1).

[157] Ibid.
[158] Article 2.2.3.3.5.12. at Paragraph 1.; "Force majeure" as defined in the terms of Law 95 of 1890.
[159] Law 99 of 1993, Arts. 29, 30, and 43; Decree 155 of 2004 is entirely devoted to the calculation of taxes for water use.

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e. Compensation for biodiversity loss

In Colombia, developers who propose to undertake an activity that is subject to ANLA jurisdiction must address biodiversity loss resulting from their proposed project during the licensing process, utilizing a methodology prescribed by MADS to determine the extent of compensation measures that will be needed to ensure no net loss of biodiversity as a result of their project.[160] The methodology is detailed in the ***Manual for Assigning Compensation for Biodiversity Loss*** published by MADS, which was adopted by Resolution 1517 of 2012 as the mandatory tool for determining compensation requirements for proposed activities subject to the ESIA process.[161] Biodiversity compensation is an important element of the environmental licensing process, which involves significant planning, procedural steps, and the commitment of resources, which developers must take into account when formulating project plans.

The *Manual* elaborates a system consisting of measures and a strategy for implementing compensation for biodiversity loss that cannot be avoided, corrected, mitigated, or substituted. The *Manual* specifies that appropriate compensation measures ensure the effective conservation or restoration of one or more *ecologically equivalent areas*, where it is possible to implement a new category of environmental management, a conservation strategy, or the improvement of conditions favorable to biodiversity in areas transformed by compensation actions.[162]

In the planning stage, developers must follow a three-stage process in elaborating compensation measures for loss of biodiversity. During the first stage, the developer must use the online **Tremarctos-Colombia** screening tool to perform preliminary assessment of the impacts resulting from a proposed project. The *Tremarctos* tool provides recommendations on compensation measures that the developer will need to undertake if an environmental license is granted.[163] During the next stage, the developer uses the *Manual* to develop final compensation plans as part of the licensing process. During the third stage, both ANLA and the developer must monitor compliance with the compensation measures that become mandatory requirements when the environmental license is issued.

The *Manual* states the developer must identify the natural ecosystems and secondary vegetation in the area of influence of the project, according to the *General Methodology for Presenting Environmental Studies* published by the Ministry of the Environment, Housing, and Land Use Development (now MADS). The *Manual* specifies methods of prevention and areas of exclusion (from use as compensation areas), as well as methods for mitigation and restoration.

The determination and quantification of compensation measures for loss of biodiversity must address three fundamental considerations:

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[160] Colombia's system for requiring compensation for biodiversity loss was mandated by Decree 2820 of 2010 and Resolution 1517 of 2012; The Directorate of Forests, Biodiversity, and Ecosystems Services is the department within MADS responsible for matters pertaining to biodiversity.

[161] Resolution 1517 of 2012, Second article; MADS (2012), *Manual para la Asignación de Compensaciones por la Pérdida de Biodiversidad*, Annex 3 (Sectors subject to the biodiversity compensation requirement), http://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemicos/pdf/gestion_en_biodiversidad/180912_manual_compensaciones.pdf.

[162] MADS (2012), *Manual*, at 11.

[163] Ibid.

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a) **Size of the land area** of the compensation.
b) **Location** of the compensation site(s).
c) **How to compensate** and the type of actions to implement.

Determining the area required for compensation

The methodology for determining the size of the area required compensation uses a series of calculations that involve the use of four compensation factors—numerical scores that are assigned for each of four criteria concerning the ecosystem to be affected:

1. **Degree to which the affected ecosystem is representative** of the national system for protected areas.
2. **Biological rarity** of the affected ecosystem.
3. **Retentiveness** of the original, pristine state of the affected ecosystem.
4. **Level of annual transformation** that will occur.

The sum of these factors are combined to determine the **total compensation factor**—a number that is used to represent the national significance of the area that will be affected. Each of the four factors above are defined in detail in the ***National List of Compensation Factors for Natural Terrestrial Ecosystems***.[164] The *Manual* provides a detailed set of instructions for applying the compensation factors based on geographic location, type, and magnitude of project impacts.

Selection of compensation sites

The *Manual* states that developers should aim to conserve areas that are ecologically equivalent to those potentially affected by the proposed project and represent the best opportunity for effective conservation. These include areas within the **Portfolio of Priority Areas for Conservation** developed by MADS or the **National System of Protected Areas**, where biodiversity compensation is viable from the standpoint of the area, conditions, and landscape context, and where a conservation strategy can be adopted for the useful life of the project.

The ecologically equivalent area selected for compensation must meet a variety of criteria which include, among others, the following criteria:[165]

a. **Same type of natural ecosystem** affected.
b. **Equivalent to the size or area** of the area of fragmented ecosystem affected by the project.
c. **Equal or superior condition and landscape context**, to the fragmented ecosystem affected by the project.
d. **Equal or superior species richness** to the fragmented ecosystem affected by the project.
e. **Located within the area of influence** of the project.

Other criteria include a tiered system of preferences for the compensation site if it cannot be located within the project's area of influence. The next allowable siting of the compensation is within the same hydrological sub-area as the project, as close as possible to the area impacted. If

[164] MADS, *Listado de Factores de Compensación*, http://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemicos/pdf/gestion_en_biodiversidad/Listado_factores_de_compensacion.pdf.
[165]

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that cannot be achieved, then the compensation must be implemented in the surrounding hydrological subzones, as close as possible to the area impacted. In addition, priority will be given to ecologically equivalent areas within the municipality where the project is located.

The search for ecologically equivalent areas can be performed by using geographic information systems or other online mapping tools specified by MADS. More than one site may be used for compensation.

Selection of methods for compensation

The third consideration in making compensation plans is the type of action that will be implemented to satisfy the compensation requirement, which must be executed *at least* as long as the useful life of the project. Due to the wide variation among project locations and characteristics, the viability of each compensation plan involves a project-specific analysis that environmental authorities must undertake on a case-by-case basis. Depending on the circumstances, compensation can be achieved through one or more of the actions described below. Developers must consult with the competent environmental authorities concerning proposed compensation plans and undertake efforts to create public awareness of the compensation plans in the communities that will be benefited by them.

The *Manual* provides that the following types of compensation activities may be used to satisfy compensation requirements:

A. The creation, expansion, or improvement of *public* areas that comprise the National System of Protected Areas (SINAP)[166]

Compensation actions in this group may include any of the following:

- Financing of the process of declaration of protected area.[167]
- Purchasing land and funding improvements for the creation, expansion, or rehabilitation of areas protected areas, which comprise SINAP.
- Financing the design, implementation, and monitoring of the management plan for a protected public area, including administrative expenses.

B. The creation and expansion of *private* protected areas that comprise SINAP or Civil Society Natural Reserves[168]

Compensation actions in this group may include any of the following:

- Financing and execution of the declaration process of a protected area.

[166] The creation, expansion or improvement of public protected areas must be duly registered and implemented in accordance with Decree 2372 of 2010, which defines protected areas and their permitted uses.
[167] For areas of land to be officially declared (designated) as conservation areas by competent environmental authorities under Decree 2372, environmental studies must first be undertaken, which must demonstrate representativeness, irreplaceability, ecological integrity, and the degree to which it is threatened, in addition to socio-economic criteria.
[168] According to Article 17 of Decree 2372, a Civil Society Natural Reserve is part or all of the area of a property that conserves a sample of a natural ecosystem, is sustainably managed, and is set aside for the long term for sustainable use, preservation, or restoration by the will of its owner.

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- The purchase of land for the creation and expansion of private protected areas.
- Design, implementation, and monitoring of a management plan for a private protected area.

C. Voluntary conservation agreements or incentives for conservation measures.

This category includes the maintenance and conservation of natural areas, conservation easements, or other measures, carried out among the principal of the project and the owners, possessors, or tenants of the properties.

The principal of the project may carry out any of the following options:

- Development of conservation agreements.
- Covering payments for conservation agreements throughout the useful life of the project as an economic conservation incentive, whereby the project executor allows the owners, possessors, or tenants of the land the discretion to make voluntary decisions on the use of the land for conservation and/or restoration.
- Execution of the monitoring plan for conservation agreements throughout the useful life of the project.

f. Removal or disturbance of protected forest flora subject to veda

A developer who proposes to implement a project in an area that may contain legislatively-protected species of forest vegetation must first apply to the competent environmental authority for a permit that provides an exemption from a ban (*veda*) on the removal or disturbance of those species during project execution.[169] The exemption (*levantamiento de veda*), which may be partial or temporary, must be secured in addition to other authorizations that are incidental to obtaining the environmental license.

When applying for a *veda* exemption permit, a developer must carry out a detailed survey to identify the varieties, specific locations, and population counts of protected species within the project's area of influence. Bans on the removal, disturbance, or harvesting of specific flora species have been imposed through a number of pieces of national legislation. Due to the level of detail required (see inset below), a *veda* study often constitutes a lengthy procedural step for which a developer must commit significant financial resources, lead time, and technical staff hours.

According to the **Directorate of Forests, Biodiversity, and Ecosystems Services** (DBBSE), a body within MADS, developers must apply for a veda exemption through the Online Single-window for Environmental Procedures (VITAL). There is no fee for the processing of applications for veda exemption permits, which take an average of 62 working days. The process of applying for a veda exemption culminates with the competent authority issuing an administrative resolution, which grants or denies the *levantamiento de veda* authorization.

[169] Decree 2041 of 2014, Art. 24, Par. 5 (incorporated into Decree 1076 as Article 2.2.2.3.6.3., Par. 5); MADS, *Levantamiento de Veda de Flora Silvestre*, http://www.minambiente.gov.co/index.php/tramites-minambiente/levantamiento-de-veda-de-flora-silvestre#informaci%C3%B3n-general-del-tr%C3%A1mite (Stating that a veda may be national or regional in scope).

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Table 12. **Required contents of technical report - Application for veda exemption**
After performing a survey of protected species in the project area of influence, developers must provide MADS with the following information: [170]
Description of the project, including activities that affect plant species that are subject to a ban.
Coordinates of location and area of intervention where the removal of vegetation cover and impacts on flora included in a national ban will be carried out.
Biotic characterization of the intervention area. For Bromeliads, Orchids, Mosses, Hepatics, Anthocerotals, and Lichens species, sampling must be carried out.
100% census of the trees and arborescent ferns included in a national veda (scientific names, total height, support for the taxonomic identification of the species, phytosanitary status, and coordinates of location).[171]
Approximate taxonomic identification of species level and taxonomic group (with certificate issued by a herbarium or a professional, with their qualifications, as well as support for the identifications made - photographs, protocols used, etc.)
Proposed management measures for the affected species of bromeliads, orchids, mosses, liverworts, anthocerotals, and lichens, as well as for the affected individuals of arboreal species included in a national ban, that are designed to the conserve the species and their genetic stock. The management measures must include the following: ○ Objectives and goals, ○ Activities and actions to be implemented, ○ Monitoring plan ○ Monitoring of the appropriate indicators in order to assess the effectiveness of the measures, and ○ Schedule of activities.
Cartographic inputs in digital format (Shapefile), with the geographic location of the (tree) hosts or sampling points for each individual of each tree species included in the veda.

g. Protection of archaeological and cultural heritage

Project developers who contemplate undertaking an activity in any part of Colombia, an important consideration in the planning process is the possibility that archaeological and other cultural artifacts may exist in the proposed project site. Under Colombian law, developers—through the use of expert archaeological consultants—must proactively conduct a mandatory scientific study of potential artifacts.[172] The principal tool for this analysis is the **Preventative Archaeological Program** (PAP). A PAP is process that developers must undertake to determine the existence of

[170] Information from MADS website.

[171] If individual trees, saplings, and arborescent ferns are found in a national ban they are included in the survey if they are at least 10 cm in diameter at chest height (DAP > 10cm). A characterization of natural rate of regeneration should be presented in the area of influence of the project.

[172] Decree 1530 of 2016 establishes rules for carrying out a Preventative Archaeology Program to determine the existence of archaeological assets in the area of influence of the proposed project.

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archaeological assets or sites within the project's area of influence, identify and characterize the findings of the study, and assess levels of expected impacts on archaeological heritage.[173]

The findings of the PAP are used to formulate an **Archaeological Management Plan**, which must be approved by the **Colombian Institute of Anthropology and History** (ICANH) as a precondition to initiating work on the project.[174] The project developer (natural person or corporation) is responsible for compliance with all the phases of the Preventive Archeology Program the development and implementation of the Archaeological Management Plan. When undertaking the PAP and preparing and carrying out the management plan, developers must use the services of qualified professionals with archaeological expertise who are registered with ICANH and must supervise all interventions to protect archaeological finds.[175]

Elements of the Preventative Archaeological Program

ICANH has established a set of requirements for executing a Preventive Archeology Program, which is composed of three phases:[176]

1. Prospecting activities:
   During this phase, the developer's archaeological expert(s) must explore the area of direct impact of the project. The expert must take samples in the field and analyze them in a laboratory in order to determine the archaeological characteristics of the area, the status of any existing conservation measures at any archaeological sites identified, and any relevant information that advances the understanding of ancient societies. The expert must also identify and evaluate the foreseeable impacts on archaeological heritage, for which appropriate management measures can be proposed.
2. Presentation of the Report and Formulation of the Archaeological Management Plan:
   The developer must be present a report documenting the findings of the prospecting phase that includes detailed information of the procedures carried out in the field and in the laboratory, as well as a presentation of the results obtained. Based on these findings, the developer's expert(s) must draft an Archaeological Management Plan, which specifies the levels of intervention planned for the studied area and the archaeological actions required before and during the execution of the project.
3. Execution of the Archaeological Management Plan:
   This phase may involve undertaking some or all of the following activities, based on the findings of the prospecting phase:

[173] Decree 1080 de 2015 (Art. 2.6.2.24, Par. 3 states that the PAP is required for proposed projects that are subject to an environmental licensing requirement or occupy an area larger than one hectare and require an urbanization, subdivision or construction license.
[174] Decree 1080 of 2015, Art. 2.7.2.2.; Decreto 1530 de 2016, Art. 1.
[175] Decree 1530 of 2016, Art. 2., Par. 1.; ICANH created the National Registry of Archaeologists through Resolution 139 of 2017 and established requirements for evaluating the qualifications of archaeological professionals.
[176] ICANH, (15 February 2018), *Programa de Arqueología Preventiva -PAP-*, This description is taken largely intact from ICANH, with minimal paraphrasing, http://www.icanh.gov.co/servicios_ciudadano/tramites_servicios/tramites_arqueologicos/programa_arqueologia_preventia_pap.

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- **Recovery:** Actions for the recovery of artifacts must be carried out prior to the start of project implementation, from stratified settings that have minimal disturbance, or whose characteristics allow controlled excavations to recover archaeological information that allows characterizing an archaeological setting or which enhance the archaeological knowledge pertaining to an identified site.
- **Monitoring:** Archaeological monitoring activities involve the ongoing presence of archaeological experts during the process of removing soil from the layers in which the presence of archaeological materials is anticipated. The presence of these experts is maintained to ensure that archaeological sites that were not identified during the survey are not affected. The methodology used for the expert supervision should be followed in case archaeological artifacts are discovered during the soil removal.
- **Public archeology programs**: These programs must include activities for creating public awareness, training, and promotion of efforts to protect archaeological heritage. The developer must establish a strategy for providing training to the personnel responsible for carrying out the project at the beginning and during project implementation. In addition, the results of the Archaeological Management Plan should be publicized to communities in the project's area of direct influence. ICANH states that other dissemination strategies should be considered in order to reach a wider audience.
- **Registration and tenure:** From the outset of the Preventive Archeology Program, a destination must be selected for receiving archaeological finds that may be recovered at the project site. The location must comply with the security, conservation, and disclosure conditions that are required to safeguard the artifacts and there must be an entity that is willing to ask ICANH for permission to take custody of the artifacts. The registration and possession of the movable assets obtained during the archaeological interventions must be arranged with the ICANH Heritage Group.

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V. Monitoring and enforcement of environmental license requirements

a. Overview

1. Compliance monitoring by ANLA and regional authorities

Law 99 of 1993 provides a general mandate for environmental authorities to carry out compliance assurance functions in connection with activities subject to an environmental license that is subject to an environmental license.[177] Decree 2041 of 2014 (now incorporated into unitary Decree 1076) implements this mandate, charging environmental authorities with carrying out a range of monitoring and enforcement functions in order to ensure compliance by developers of activities subject to environmental licenses.[178]

Procedures for monitoring and inspections are described only in generalized terms in Decree 1076, but are elaborated in detail in the **Environmental Monitoring Manual for Projects** ("Monitoring Manual"), a document whose provisions are mandatory through the operation of Article 2.2.2.3.9.4. of Decree 1076.[179] In addition, MADS has created forms for each component task of compliance verification and inspections (*visitas de seguimiento*, in Colombia), which must be filled out by teams of specialists that are assigned to monitor and perform inspections of licensed facilities. The forms provide a high level of standardization, which is designed to ensure consistency in the reporting of environmental compliance data and maintain focus on core tasks during environmental inspections.

According to the Monitoring Manual, environmental monitoring focuses on verifying that a beneficiary of an environmental license, work, or activity has fulfilled the commitments made before the competent environmental authority.[180] The Manual characterizes these commitments as a set of environmental tasks to be performed by the licensee, which give rise to a corresponding set of objectives from the perspective of the environmental authority. Those objectives are stated as:

- **Performance of EMP programs** - Verification of the compliance status of the environmental management programs of which the EMP is comprised.
- **Verification of compliance with permits, concessions, or environmental authorizations** for the use and/or exploitation of natural resources.
- **Compliance with administrative orders** - verification of the status of compliance with the requirements of administrative orders.
- **Analysis of the trends in the quality** of the medium [e.g., air, surface water, or ecosystem] in which the project is developed.
- **Analysis of the effectiveness** of the programs that make up the EMP, of the programs prescribed through administrative orders, and of administrative proposals for environmental management revisions.

[177] Law 99 of 1993, Arts. 50 and 51.

[178] Decree No. 1076 (2015), Art. 2.2.2.3.9.1. (*Decree 2041 of 2014, Art. 39*) assigns environmental compliance and enforcement responsibilities to MADS (through ANLA), the Regional Autonomous Corporations and certain municipalities and districts.

[179] Article 2.2.2.3.9.4. of Decree 1076 states that "environmental authorities shall adopt the criteria defined in the Manual of Environmental Monitoring of Projects issued by the Ministry of Environment and Sustainable Development."

[180] Ministry of the Environment (2002), *Manual de Seguimiento Ambiental de Proyectos: Criterios y Procedimientos*, 35, http://portal.anla.gov.co/manuales-y-guias.

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2. Composition of environmental monitoring teams

In Colombia, the first step that ANLA or other competent authorities must take in verifying compliance by a project developer or other licensee is to compose an Environmental Monitoring Team (*Equipo encargado de Seguimiento Ambiental* or "ESA") that is responsible for carrying out a range of monitoring tasks in connection with the licensed entity.[181] The selection of the team participants are based on the characteristics of each activity and are designed to ensure the "maximum capacity of relevant knowledge and necessary interdisciplinary skills," since very few individuals have the adequate breadth of knowledge in all subject areas applicable to any given project.[182] The Monitoring Manual provides a list of potential areas of expertise from which ESA members may be drawn, under the general headings of *physical*, *biological*, and *socioeconomic*.

3. Advance preparation: conducting background research on licensees

After an ESA is assigned to monitor a specific licensee, the Monitoring Manual specifies that the ESA must conduct background research before undertaking the compliance verification process. The Manual emphasizes that background information relating to a project, work, or activity provides the basis on which to plan and execute environmental monitoring of a project, stating that ESA members should acquaint themselves with the following:

- **Administrative orders** and other information related to the project.
- **Information on the project, site, or licensee** provided by other sources and authorities.
- **The ESIA study**.
- **Consultation with the licensee's legal representative** to exchange concepts, legal background of the project, and new municipal, regional, or national legislative developments.
- **Information supplied by the agency** charged with performing the monitoring.
- **Consultation with the environmental information system** – Examine other projects in the same sector, other projects in the area of influence, environmental characteristics, and possible conflicts with communities.
- **Results of public participation procedures** carried out during the ESIA process.
- **Complaints by the community** concerning other licensed entities.

The Monitoring Manual describes the importance of considering the entire realm of obligations that are applicable to each licensee. These include not only environmental license and environmental management plan (EMP) requirements, but also obligations arising from other administrative orders, prior consultations, and public hearings.[183] The Manual emphasizes the importance of analyzing and conceptualizing the performance of environmental management programs *as they are intended to be put into practice*, stating that this involves a systemic approach, requiring each ESA team to have the tools and criteria necessary for determining the effectiveness of the EMP and other management programs.

[181] Monitoring Manual, at 26.
[182] Manual, 6. Conformación de equipos de seguimiento ambiental (ESA), 28.
[183] Monitoring Manual, at 27.

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4. Review of the Environmental Compliance Reports

A preliminary step in the compliance verification process is the review of the Environmental Compliance Reports (ICAs), which are presented to the environmental authority by consultants hired by the licensee to perform internal compliance verification and prepare ICAs.[184] The review of the report provides the ESA with information that authorities use to help verify that licensees have fulfilled the commitments they made—at the time they became beneficiaries of an environmental license—to implement the measures specified in the EMP.[185] The Monitoring Manual states that the review of each ICA is critical, since those reports elaborate in detail the specific environmental management tasks that the ESA must verify.

According to the guidelines of the Monitoring Manual, the ESA must verify the accuracy and timeliness of presentation of the Environmental Compliance Reports and supporting documentation in order to determine:

- Progress made in implementing the EMP,
- Compliance with environmental license and EMP obligations,[186] and
- The effectiveness of the EMP.

Environmental monitoring staff must fill out two forms during the review of an ICA (Forms SA-2a and SA-2b), which used to capture the findings of the review and ensure that the monitoring team maintains focus on the relevant aspects of the review.

5. The process of planning inspections

Once the review of an ICA has been completed, an ESA may plan a monitoring visit (inspection) to the project being monitored if it is called for by the circumstances (e.g., a complaint) or by the rules that establish the frequency of routine inspections. ESA team members, as well as an attorney assigned to a case, must meet to exchange information that can be used to support the inspection planning process and to fulfill the following objectives:

- Plan and allocate the respective responsibilities of each team member.
- Identify documentation that should be reviewed or taken to the project site.
- Discuss legal issues relevant to the project or the area to be inspected.

The outcomes of each planning meeting must be chronicled in Form VS-0. Five additional forms are used to address different aspects of the inspection. They must be partially completed during the planning process in order to ensure that the site visit is executed in an efficient manner.

In addition to the forms that have been prepared, the ESA must plan to bring the following items to the inspection site: diagrams, thematic plans, blueprints, cameras, monitoring equipment, and other tools for collecting samples. The team must also coordinate the date of each inspection with the competent environmental authority that has composed the ESA, recognize the surrounding

[184] Monitoring Manual, 35.
[185] Monitoring Manual, at 111.
[186] The Monitoring Manual states that those who review an ICA must determine whether the ICA is adequate and consistent, and that each ICA provides support for reported compliance data that is sufficient for the monitoring team to decide whether to conduct non-routine on-site inspection or recommend the opening of an investigation.

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areas of the project site, implement the internal administrative logistical procedures necessary to procure the resources necessary for the inspection, and communicate the timing of the inspection with the licensee.

Table 13. **Reporting Forms used during the planning and execution of inspections**[187]	
Form	**Specific topic covered**
VS-0	Programming of the inspection visit.
VS-1a	Verification of the state of compliance with programs that comprise the environmental management plan
VS-1b	Verification of the state of compliance with programs that constitute part of the environmental management plan, if applicable.
VS-2	Verification of the permits, concessions, or environmental authorizations for using or exploiting natural resources.
VS-3	Verification of the state of compliance with administrative orders.[188]
VS-4	Review of significant environmental impacts and unforeseen impacts.

6. Carrying out on-site inspections

After an inspection has been planned, the ESA may proceed to undertaking the field visit to the activity that is subject to the license. During the inspection, the ESA must finish completing the remainder of the forms that were initiated during the planning process. The general objectives of the inspection and methods used are presented in the table below.[189]

Table 14. Inspection objectives, methods, and reporting

Inspection objectives Verify and corroborate data reported in the licensee's Environmental Compliance Report (ICA) or obligations arising from the EMP or administrative orders with respect to:	**Methods used during the inspection**				**Form used during the inspection visit**
	Visual inspection of the project site	**Interviews**	**Measurements**	**Review of documents provided by the developer's consultants**	
State of compliance with programs that comprise the EMP	x	x		x	VS-1a
State of compliance with programs that constitute part of the EMP (if applicable)	x	x		x	VS-1b
Permits, concessions, or environmental authorizations for using and/or exploiting natural resources	x	x	x	x	VS-2
State of compliance with requirements of administrative orders	x	x		x	VS-3
Review of significant and/or unforeseen environmental impacts	x	x	x	x	VS-4

[187] Manual, pages 74-74.
[188] This refers to administrative orders other than the orders that grant the environmental license.
[189] The format and contents of Table 7 are reproduced from Table F-1 of the Monitoring Manual.

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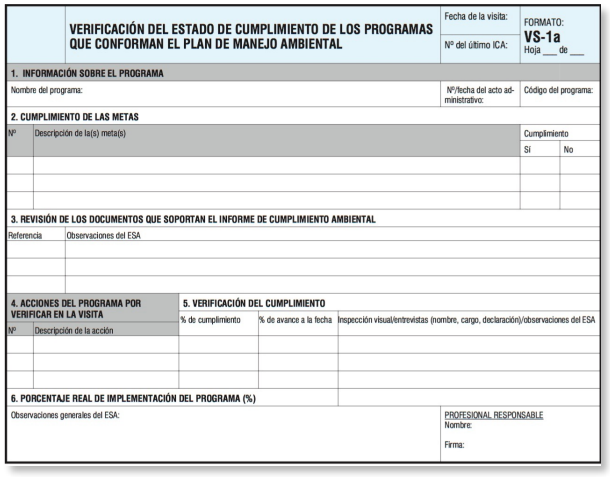
According to the guidelines of the Monitoring Manual, inspection visits must proceed according to the following steps, which are designed to maintain focus on the monitoring priorities:

1. **Informal meeting** – This includes the ESA, the regional or local environmental authority (when necessary), and the licensee or his/her representative. During the meeting, the objectives and scope of the inspection are clearly spelled out.
2. **Visual inspection of the site, interviews, and measurements** – The ESA team is not permitted to provide judgments or the results of inspections to the communities where they are carried out. The team may interview staff or entities that represent the community, such as town leaders or planning boards. The ESA is strongly urged to seek explanations concerning all the activities and productive processes used on the site. This supplementary information is used to identify activities not included in the ESIA study or in the Environmental Compliance Report (ICA).
3. **Review of documents that support the Environmental Compliance Report** – The ESA must review documents that have been used in formulating the licensee's ICA, including the following:
   a) Results of laboratory analyses
   b) Minutes of meetings held with the community
   c) Records of complaints received
   d) Auxiliary forms used by the party responsible for environmental compliance on behalf of the licensee
   e) Forms used in the field by environmental inspectors
   f) Other materials that are considered necessary

7. Recording the findings of site visits in the inspection forms

After performing an inspection, an ESA team must enter a variety of qualitative and quantitative information related to the licensee's environmental performance into Compliance Verification Forms VS-1a through VS-4, each of which captures information on a separate aspect of compliance. Forms VS-1a and VS-1b are used to record the percentage of compliance and percentage of completion of specific action items in the environmental management plan, according to what the team has observed in the field. The forms are also used to record overall progress made towards completion of all measures in the environmental management plan. Form VS-3 also focuses on measuring progress and is used if administrative orders have been ordered (e.g., if special preventative measures have been ordered as a result of unforeseen negative impacts).



VERIFICACIÓN DEL ESTADO DE CUMPLIMIENTO DE LOS PROGRAMAS QUE CONFORMAN EL PLAN DE MANEJO AMBIENTAL

Fecha de la visita:

Nº del último ICA:

FORMATO: VS-1a Hoja ___ de ___

1. INFORMACIÓN SOBRE EL PROGRAMA

Nombre del programa: | Nº/fecha del acto administrativo: | Código del programa:

2. CUMPLIMIENTO DE LAS METAS

Nº	Descripción de la(s) meta(s)	Cumplimiento	
		Sí	No

3. REVISIÓN DE LOS DOCUMENTOS QUE SOPORTAN EL INFORME DE CUMPLIMIENTO AMBIENTAL

Referencia	Observaciones del ESA

4. ACCIONES DEL PROGRAMA POR VERIFICAR EN LA VISITA		5. VERIFICACIÓN DEL CUMPLIMIENTO		
Nº	Descripción de la acción	% de cumplimiento	% de avance a la fecha	Inspección visual/entrevistas (nombre, cargo, declaración)/observaciones del ESA

6. PORCENTAJE REAL DE IMPLEMENTACIÓN DEL PROGRAMA (%)

Observaciones generales del ESA:

PROFESIONAL RESPONSABLE
Nombre:
Firma:

Forms VS-2 (permits, concessions, and other authorizations additional to the environmental license) and VS-4 (significand and/or unforeseen environmental impacts) require the ESA to record quantitative data on

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measurements made during the inspections. VS-2 also includes a list of important observations that must be made concerning:

- Location of sites for the use or exploitation of natural resources
- Area where the use takes place
- Unauthorized points of emissions, discharges, dispositions or uses
- Nature of emissions (fixed or mobile), types of waste, and plant species exploited.
- Method of use (e.g., wastewater treatment system, method of solid waste disposal, etc.)
- Use period (temporary or permanent occupation)

Table 15. Indicators and measurements reported during inspections - Forms VS-2 and VS-4[190]

Indicator or quantitative measurement:	VS-2	VS-4
Significant environmental impact that is going to be measured.		X
Parameter or indicator to be measured at the point of use of a natural resource or point source of pollutant emission or waste discharge.	X	X
Unit of measure corresponding to the indicator.	X	X
Sampling method used by the ESA inspection team.	X	X
Method used for the analysis of the sample	X	X
Location of the sampling points, indicating the corresponding reference numbers used on the location plan (map) of sampling points.	X	X
Measured quantitative value of the indictor that is recorded.	X	X
Fulfillment or noncompliance of the measurement schedule by the licensee		X
Entity responsible for the measurement or the reference (or report) from which that value was taken		X

b. Delegation of environmental monitoring functions

National and regional environmental authorities may delegate the environmental monitoring tasks to other authorities in connection with activities that are subject to mandatory environmental license and EMP obligations.[191] Under the provisions of Law 489 of 1998, environmental (and other) authorities may delegate functions to entities with which they collaborate or to authorities with related or complementary functions. Article 14 of Law 489 requires that delegation among government entities must be accompanied by delegation agreements in which the rights and obligations of the delegating and delegate entities are established. The agreement may designate the official or department within the delegated entity to which the functions will be assigned.

Law 489 provides that environmental authorities of Regional Autonomous Corporations (CARs) and Corporations of Sustainable Development can delegate their competencies to other authorities that have technical, economic, administrative and operational capacity to exercise the delegated

[190] Manual, pages 85-88.
[191] Decree 1076, Art. 2.2.2.3.9.7. *Delegation among environmental authorities*.

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functions capacity. Subsequent rulings by the Constitutional Court indicate that there are limits to delegation of administrative powers that must be further examined.[192]

c. Environmental enforcement Programs and the selection of enforcement priorities

In Colombia, a variety of methods are used to prioritize monitoring tasks and inspections of licensed facilities. Reports published by ANLA designate sectors that have been prioritized for inspections in recent years, including agrichemicals and special projects, hydrocarbons, infrastructure, energy, and mining.[193] Additional research is needed to determine the correlation between the sectors that are prioritized for *investment* under the National Development Plan 2014-2018 and the sectors prioritized for *monitoring and inspections*.[194] For example, ANLA has designated the agrichemical sector as a high monitoring priority, but it is unclear if that sector fits into one of the three high-priority investment categories listed in the National Development Plan (such as regional projects).

An alternative system of prioritization is contained in the Monitoring Manual, which prescribes a set of criteria and conditions for prioritizing inspections. (Presented on the following page).

Criteria for prioritizing inspections, as described in the Monitoring Manual:[195]

a) **Importance of environmental impacts**, as determined by the conditions and characteristics of the project (according to the ESIA study).
b) **Degree of environmental sensitivity** in the area where the project is located (according to the ESIA study).
c) **Existence or frequency of complaints** filed by the community or by other public or private sector entities (received by the competent environmental authority).
d) **Nature of the environmental impacts** that may occur or that have occurred due to non-compliance with prescribed environmental management measures or the presence of unforeseen impacts during execution of the project.

A more recent ANLA planning document issued in October, 2017, describes an alternative set of criteria for prioritizing inspections of projects and activities that hold environmental licenses:[196]

a) Entities that were not inspected during the previous annual planning period.
b) Entities that were granted environmental licenses within the past year, based on the date that project execution commenced.
c) Entities for which modifications to the applicable monitoring and control instruments were made within the past year.
d) Authorized mining operations, including permits that may be eligible for new monitoring efforts, due to the relatively few number of licensed projects compared with other sectors.
e) As a result of environmental complaints.
f) As a result of unforeseen operational incidents.

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[192] See e.g., Constitutional Court Opinion C-702-99 of 20 September 1999.
[193] ANLA (2018), *Más allá de las cifras: Informe de rendición de Cuentas* (July 2017 – June 2018, 139, http://www.anla.gov.co/Portals/0/Images/Informes-de-rendicion-de-cuentas/Consolidado_18_julio%20de%202018-DocumentoFinal%20-%20230718_3.pdf?ver=2018-07-23-123603-443.
[194] PND 2014-2018, Vol. II, Annex I, at 1015, *Investment initiatives for the period 2015-2018*.
[195] Monitoring Manual at 28, 29.
[196] ANLA (17/10/2017), *Seguimiento a Instrumentos de Manejo y Control Ambiental*, http://portal.anla.gov.co:93/sites/default/files/Comunicaciones/sgc/licenciamiento/segumiento_licencias.pdf.

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g) As part of regional environmental inspection planning.

h) Entities that enforcement authorities have designated as requiring inspections.

i) Projects that are in the decommissioning and abandonment stage.

The Monitoring Manual also states that the decision to conduct inspections is subject to several ***conditions*** that the competent environmental authority must evaluate:

a) Availability of the necessary financial and material resources.

b) Availability of qualified officials who are trained in environmental monitoring tasks.

c) The other (competing) tasks that the environmental authority must perform.

d. Performance indicators for inspections

At the present time, the principal indicator used by ANLA for measuring the performance of monitoring functions (performed by Environmental Monitoring Teams) is the number of inspections carried out, per year, of sectors that ANLA has prioritized. In theory, this statistic carries significant weight, since each inspection that is reported implicitly encompasses each of the systematic procedural steps prescribed for inspections (as described above), which are then chronicled in detail by completing and filing the reports, using standardized forms required for this purpose. This systematized recording process is matched with an organized body of records for each environmental license, including the details of inspections that have been performed. Additional study is needed to confirm the high level of integrity of statistical data that the process suggests.

Table 16. Inspections performed by ANLA July 2017 – June 2018 [197]

Sector	Number
Agrichemical / Special projects	1,226
Hydrocarbons	352
Infrastructure	200
Energy	133
Mining	90
Total	**2,001**

e. Environmental sanctioning regime

Law 99 of 1993 established a foundation for the imposition of sanctions for violations of environmental laws. This mandate was amended and clarified by Law 1333 or 2009, which established Colombia's current regime for preventative measures (in cases of imminent environmental harm), restorative measures, and sanctions (punitive measures). Article 1 of Law 1333 states that with respect to environmental matters, the offender's fault or fraud is presumed, which will result in the prescription of preventive measures.[198] The competent authority will impose

[197] ANLA (2018), Supra note 86, at 94.
[198] Ley 1333 de 2009, Art. 1.

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permanent sanctions on offending project owners who cannot rebut the presumption of fault or fraud.[199]

When inspections or complaints (by members of the public) show that project operators have violated the requirements of their licenses or permits, Colombian law provides that ANLA or the competent regional authority will respond in two ways: (1) through preventative measures to preclude further environmental harm (injunctions), and (2) the imposition of fines or other sanctions. Cases of noncompliance that occur within ANLA's jurisdiction result in a coordinated response. ANLA's **Office of Legal Advisor** (*Oficina Asesora Jurídica*) initiates injunctions and sanctioning proceedings, receiving technical assistance from the Subdirectorate for Assessment and Monitoring and/or the Subdirectorate for Environmental Instruments, Permits, and Procedures.

The Subdirectorates play an important role in laying the groundwork for enforcement in connection with activities that are subject to an environmental license or permit. In accordance with their mandated roles under Decree 3573 and their jurisdictional competence, the subdirectorates prepare administrative acts (orders) that provide the bases for investigations, injunctions, and the imposition of sanctions. For example, the Subdirectorate for Assessment and Monitoring has the expertise to identify specific technical performance requirements that were violated.

Title V of Law 1333 elaborates a range of injunctions and sanctions that can be prescribed in cases of noncompliance. The measures imposed are a function of the severity of the infraction or the amount of environmental damage.[200] Article 32 states that preventative measures are to be used to achieve immediate results when stopping further environmental harm is an urgent matter. Sanctions, which are punitive and serve as a deterrent for noncompliance, can be executed concurrently with preventative measures.

Article 36 of Law 1333 provides that ANLA may impose the following preventative measures (injunctions), according to the severity of the infraction:[201]

- Written warnings
- Preventive confiscation of products, components, means or implements used to commit the infraction.
- Preventive seizure of specimens, products, and by-products of wild fauna and flora.
- Suspension of work or activity when harm or danger can be caused to the environment, natural resources, scenery, or human health; or when the project, work or activity has been initiated without a permit, concession, authorization or environmental license or executed in violation of the applicable terms.

Article 41 establishes the following sanctions, which ANLA may impose according to the severity of the infraction:[202]

[199] *Id*.
[200] Decreto 1333, Arts. 37 and 40.
[201] Ley 1333, Art. 36.
[202] Ley 1333, Art. 41.

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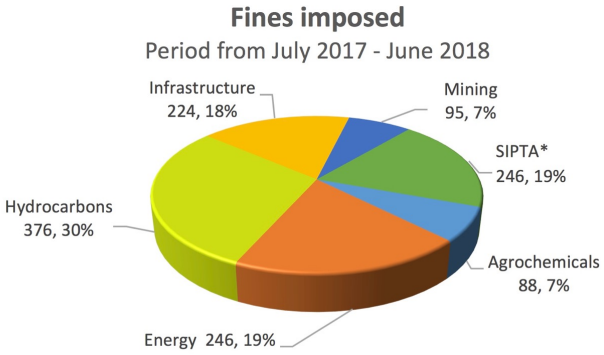
1. Daily fines of up to 5,000 monthly salaries—the equivalent of 3,906,210,000 Colombian pesos (approximately $1.4 million USD).[203]
2. Temporary or permanent closure of the establishment, building or service.
3. Revocation or expiration of environmental license, authorization, concession, permit or registration.
4. Demolition of work at the expense of the offender.
5. Permanent confiscation of specimens, exotic wild species, products and by-products, elements, and means or implements used to commit the infraction.
6. Restitution of specimens of wild fauna and flora species.
7. Community work, according to conditions established by the environmental authority.

Decree No. 3678 (4 October 2010) strengthens Law 1333 by specifying the criteria that environmental authorities must consider when imposing the preventative measures and sanctions. Article 2 of the Decree states that environmental authorities may only impose one principal sanction, which may be accompanied by up to two accessory sanctions.[204] Article 3 provides that any administrative act that imposes a sanction must be based on the technical report in which clearly articulates the justifications—in terms of the time, manner and place. Resolution No. 2086 (28 October 2010) provides additional clarity by elaborating a methodology that is specific to the imposition of daily fines. Articles 3 and 4 specify the criteria and a formula, respectively, in calculating the level of fines:

B: Wrongful benefit obtained by the violator
á: Temporal factor (duration of the impact in days)
i: Degree of environmental impact and/or risk assessment
A: Aggravating and attenuating circumstances
Ca: Associated costs
Cs: Socio-economic capacity of the violator

*Amount of fine = B + [(á*i)*(1 + A) + Ca]* Cs*



Each of the above inputs, in turn, is defined with precision in Resolution 2086 in order to ensure the even application of sanctioning regime and to significantly reduce the enforcement authority's discretion in setting the amount of fines.

For example, the wrongful benefit obtained by the violator (B) is determined by a formula that uses the following inputs: the direct revenue realized by the violator, the costs avoided by the violation, the delays avoided by the violation, and the detectability of the specific type of violation. The sanctioning authority is responsible for determining whether the detectability was low, medium, or high, and must assign a coefficient of .40, .45, or .50 respectively to the wrongful benefit formula. The other inputs for determining the level of the fine are defined with similar precision.

[203] One monthly salary is defined as 781,242.00 Colombian pesos for 2018; See, e.g., http://www.salariominimo2018.com.co/salario-minimo-diario-vigente-colombia-2018/.
[204] Decreto Nº 3.678 - Criterios para la imposición de las sanciones ambientales, Art. 2, Par. 1.

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Article 2 of the Decree states that environmental authorities may only impose one principal sanction, which may be accompanied by up to two accessory sanctions.[205] Article 3 provides that any administrative act that imposes a sanction must be based on the technical report in which clearly articulates the justifications—in terms of the time, manner and place—of noncompliant acts that give rise to the sanction, providing details on the degree of environmental impacts, the aggravating and/or mitigating circumstances, and the socio-economic capacity of the offender.[206]

The preventative measures and sanctions defined in Law 1333 are not confined to ANLA, but must be imposed by regional environmental authorities as well. For example, Resolution No. 200 of the CAR of Orinoquia establishes criteria and formulas for calculating fines in that jurisdiction, in a manner similar to Resolution 2086. At the municipal level, Decree 1076 also provides that the mayoral offices of cities and districts may impose summary fines (*cobros coactivas*) for infractions by virtue of authority granted to them by Law 1066 of 2006.[207]

f. Compliance promotion through eco-labelling

In 2005, MADS created the "Colombian Green Seal" (*Sello ambiental colombiano* or "SAC") eco-label in order to recognize enterprises that produce environmentally sustainable goods and increase the number of ecologically competitive enterprises in domestic and international markets. The Green Seal, which is regulated through Resolution 1555 (2005) and Resolution 542 (2008), is issued jointly with the Ministry of Commerce, Industry and Tourism.[208] The Green Seal program is voluntary and is granted by an independent certification body that is accredited by the National Accreditation Body (ONAC) and authorized by ANLA.

In order to qualify for use of the Seal, an enterprise that produces goods or services must meet pre-established requirements for its category. To ensure the Seal's credibility, independence, and economic sustainability, the program is supported by a management structure that adheres to the provisions of the National Quality Subsystem and ISO 1402 Standards, relating to ecological labels and declarations.[209] MADS employs the following monitoring and control measures to ensure that each participating enterprise maintains a qualifying level of environmental performance: (a) semi-annual reports presented to MADS by certification bodies, (b) information provided by the national accreditation body on the accreditation status of the enterprise, c) periodic audits by the certification bodies, and d) visits by MADS to the enterprise, which check for ongoing compliance with legal requirements, the enterprise's use of the Seal in advertising, its advertising claims, and other considerations.[210] Civil, commercial, or penal sanctions may be imposed for violations of the terms of the Seal.[211]

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[205] Decreto Nº 3.678 - Criterios para la imposición de las sanciones ambientales, Art. 2, Par. 1.
[206] Decreto Nº 3678, Arts. 3 and 4.
[207] Decree 1076, Art. 2.2.5.14.1.5.
[208] Resolución Nº 1.555 (2005) - Reglamenta el uso del Sello Ambiental Colombiano; Resolución Nº 542 (2008) - Procedimiento de autorización a organismos de certificación para otorgar el Sello Ambiental Colombiano.
[209] MADS, Sello Ambiental Colombiano, http://www.minambiente.gov.co/index.php/component/content/article?id=366:plantilla-asuntos-ambientales-y-sectorial-y-urbana-19.
[210] Resolución Nº 1.555, Art. 5.
[211] Resolución Nº 1.555, Art. 34.

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VI. Information systems and technology tools for case management and monitoring

a. National environmental information systems

ANLA is responsible for administering a suite of national-level information systems for planning, managing, and tracking data pertaining to activities that impact the environment. Collectively, these systems comprise the **Environmental Information System of Colombia (SIAC)**.[212] One component of SIAC, the **Environmental Planning and Management Information System (SIPGA)**, serves a generalized purpose, bringing together a comprehensive set of actors, policies, procedures, and technologies for becoming familiar with and evaluating Colombia's environmental management processes.

The **Comprehensive Online Window of Environmental Procedures (Vital)** is a centralized, nation-wide system through which all administrative procedures can be channeled and aggregated for environmental licensing, environmental management plans, permits, concessions, and environmental authorizations, as well as information on each of the participating actors and stakeholders, allowing improved efficiency and effectiveness.[213]

The **System of Licenses, Permits, and Environmental Procedures (SILA)** is a software platform for the internal use of environmental authorities for the management of administrative procedures. It allows consultation and download of documents sent by project applicants, the issuance of Administrative Acts, the issuance of office requirements, and the scheduling of technical visits.[214]

The **Single Registry of Environmental Offenders** (RUIA) was established according to a mandate in Law 1333.[215] RUIA contains records for all violations, including the type of infraction, the location where the infraction occurred, the administrative act that imposed the sanction, the date of the sanction, the competent environmental authority that undertook the investigation, the date of execution or compliance with the sanction, the name and identification of the offender, and the offender's legal representative.[216]

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[212]

[213] The creation of VITAL was mandated by the Single Regulatory Decree of the Environmental and Sustainable Development Sector (Decreto Único Reglamentario del Sector Ambiente y Desarrollo Sostenible) No. 1076 de 2015 - Sección 10 – Artículo 2.2.2.3.10.1.
http://www.anla.gov.co/sites/default/files/comunicaciones/presentaciones/consulta_solicitudes_vital.pdf

[214] Sistema de Información para la Gestión de Trámites Ambientales ,
http://www.minambiente.gov.co/index.php/tramites-minambiente/sila.

[215] Ley 1333, Arts. 57-59, and its regulation, Resolución Nº 415, Reglamenta el Registro Único de Infractores Ambientales (RUIA).

[216] Ley 1333, Art. 57.

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VII. Cost recovery and funding for licensing and enforcement tasks

a. Budget allocations

Article 4 of Decree No. 3573 provides that ANLA's resources are comprised of appropriations from the national budget, assets transferred from MADS and other agencies that are derived from the approval of licenses and permits, funds from the National Environmental Fund, the proceeds from foreign and domestic loans to the National Government for the administration and management of ANLA, resources obtained from national and international technical cooperation, donations, and other revenue sources.[217]

Table 17. Investment and budget allocations by institutional goals[218] (Stated in millions of Pesos)

ANLA task or function	Institutional goals for 2018	Allocated resources (2018)
Environmental assessment & monitoring (environmental licenses)	SGS 2018*	$ 42,095
Site visits for assessment and inspections (environmental licenses)	SG 2018**	$ 3,900
Responding to priority requests for information that is additional or complementary to ANLA's core functions	APG†	$ 2,120
Hearings, summons, and other meetings related to core functions	APG	$ 1,100
Environmental assessment & monitoring (environmental permits)	APG	$ 6,008
Site visits for assessment and inspections (environmental permits)	APG	$ 140
Regionalization	APG	$ 1,470
Geographic information system	APG	$ 1,803
Other environmental management or control instruments	APG	$ 1,670
Legal requirements and imposition of environmental sanctions	APG	$ 6,209
Records Management System	APG	$ 2,000
Integrated Management System	APG	$ 478
Communication strategy	APG	$ 182
Technology	APG	$ 5,411

***SGS 2018** = Synergy Goals (includes indicators for environmental assessment and enforcement)

****SG 2018** = Synergy Goal (Includes indicator for enforcement and Action Plan Goal 2018

†**APG** = 2018 Action Plan Goal.

b. Cost recovery mechanisms and internalization of enforcement costs

Law 344 of 1996, as amended by Article 96 of Law 633 of 2000, mandates that "Environmental authorities must cover the cost of the services of monitoring [compliance with] environmental licenses, permits, concessions, authorizations or other environmental control and management instruments established by laws and regulations."[219]

[217] Decreto Nº 3573 - Crea la Autoridad Nacional de Licencias Ambientales (ANLA), Art. 4.
[218] ANLA (2018), *Más allá de las cifras: Informe de rendición de Cuentas* (July 2017 – June 2018, 151, http://www.anla.gov.co/Portals/0/Images/Informes-de-rendicion-de-cuentas/Consolidado_18_julio%20de%202018-DocumentoFinal%20-%20230718_3.pdf?ver=2018-07-23-123603-443.
[219] Ley 344 de 1996, Art. 28.

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Table 18. **ANLA projected revenues: fees, interest, and fines for 2018** [220]		
Source	**Colombian Pesos**	**US Dollars***
Environmental Assessment (fees)	23,452,859,084	7,618,779
Regular Monitoring (fees)	45,875,935,118	14,903,027
Coercive Monitoring (fees)	1,400,000,000	454,797
Fines (Regular and Coercive)	2,500,000,000	812,138
Coercive interest	212,467,645	69,021
Interest on Fines	379,406,509	123,252
Photocopies	12,595,405	4,092
Total revenues	**$ 73,833,263,761**	**$ 23,985,105**

*Currency conversions: www.xe.com, 22 October 2018.

Table 19. **ANLA revenues: fees, interest, and fines 2017-2019** [221] (Millions of Pesos)			
Revenue source	**2017**	**2018**	**2019***
Environmental Assessment (fees)	22,751	23,453	24,960
Inspections (fees)	39,066	45,875	51,155
Fines and sanctions	3,165	3,900	3,900
Punitive interest	241	212	212
Interest on Fines	25	379	379
Photocopies	**27**	12	12
Total revenues	**65,278**	**73,833**	**80,620**

*Projected figures

ANLA Resolution 324 of 2015 establishes fees for the government services of environmental assessment and the monitoring at the national level.[222] Under unitary Decree 1076, all monitoring fees collected must be used solely to support government monitoring tasks in connection with environmental licenses and EMPs.

The amount of the fee payable by the owner of a licensed and/or permitted project is dependent on the *value* of the project (amounts invested), as well as the costs of operation. An itemization of the components of these costs are contained in Articles 5 and 6 of the Resolution, which clarify that these costs include any expenditure "that makes economic benefits for the owner possible." For monitoring services, each project owner must report the value and operating costs annually, during the first ten days of January. The reporting must take into account the itemized cost components

[220] ANLA (2018), *Más allá de las cifras: Informe de rendición de Cuentas* (July 2017 – June 2018, 155,
[221] ANLA (2018), *Más allá de las cifras: Informe de rendición de Cuentas* (July 2017 – June 2018, 156.
[222] Resolución Nº 324 - Tarifas para el cobro de los servicios de evaluación y seguimiento de licencias, permisos, concesiones, autorizaciones y demás instrumentos de control y manejo ambiental. The Resolution contains tables indicating the number of annual monitoring visits needed for different categories of projects, the number of days per visit and the number of man-months.

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listed in Articles 5 and 6. Project owners must pay the service fees through the Comprehensive Online Window of Environmental Procedures (Vital).[223]

According to the formula provided in Law 633 of 2000 and elaborated in Resolution 324, the total costs of assessment and monitoring are determined by adding ANLA's labor fees (the fee rate multiplied by the pro rata *months* of labor that ANLA personnel dedicate to monitoring a licensed facility plus the sum of ANLA land-based travel expenses, ANLA's administrative expenditures, and the cost of airfare, according to the following formula:

Total = (Fee rate x Dedicated months of labor) + (Airfare + Administrative costs + Other travel expenses).

The CARs have similar fee arrangements in accordance with the same national mandate. For example, Resolution No. 183 of the autonomous regional corporation of Caldas sets fees for recovering the costs of environmental licensing and monitoring, which are congruent with the national fee structure.

c. Environmental funds

1. The National Environmental Fund (FONAM)

The National Environmental Fund was created by Law 99 of 1993 as a financial support instrument for the implementation of environmental policies and managing renewable natural resources by MADS.[224] According to its mandate, FONAM is intended to stimulate decentralization, foster the participation of the private sector in sustainable use of the environment, and strengthen environmental management by territorial entities that have environmental responsibilities. Law 99 states that in fulfilling that purpose, FONAM will finance:

> "the execution of activities, studies, investigations, plans, programs and projects, of public utility and social interest, aimed at strengthening environmental management, preservation, conservation, protection, improvement and recovery of the environment, and the proper management of renewable natural resources and sustainable development."[225]

MADS is responsible for the management and administration of FONAM, with its Cabinet Council serving as the decision-making body in matters relating to the management and administration of the fund. Under Article 89 of the Law 99, the principal criterion that must be considered in using the Fund to finance projects at the regional level is the per capita income of the populations that will benefit from the project, in order to prioritize the poorest areas. The Cabinet Council is responsible for defining FONAM's administrative, financial, and operational policies, adopting regulations for the use of the Fund, approving the projects that be financed with its resources, approving annual investment plans, and formulating procedures for monitoring the Fund's sub-accounts.[226] Decree

[223] Resolución Nº 324, Arts. 10 and 11.
[224] Law 99 of 1993, Arts. 87 and 88.
[225] Id at Art. 88.
[226] Decree 4317 of 2004 – the Regulation for the National Environmental Fund, Art. 3; The approval of projects financed by FONAM referred to in this article are funded by the Line of Financing for Environmental Investment Projects. The subaccounts of this line are intended for the financing or co-financing of projects with ordinary

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3573 of 2011 (creating ANLA), states that FONAM will transfer to ANLA the financial resources needed for its annual operation.

2. The Environmental Compensation Fund (FCA)

The Environmental Compensation Fund facilitates the distribution of resources among the regional corporations (CAR and CDS), which benefits the fifteen corporations having the fewest opportunities for generating revenues, including the Sustainable Development Corporations. The Fund's income consists of amounts transferred by the CARs, 20 percent of which are received as transfers from the electricity sector, with 10 percent derived from their own revenues, except for the percentage of property taxes that are earmarked for the environment and revenues derived from inter-administrative contractual relationships.[227]

d. Environmental guarantees

In Colombia, environmental guarantees are required for certain activities during the decommissioning, closure, and abandonment phase of a project. Article 40 of Decree 2041 (2014) establishes procedural requirements for the operators of licensed activities which must be carried out at least three months in advance of this final phase.[228] In anticipation of project closure, licensees must submit an environmental study to the competent environmental authority, which includes not only dismantling and abandonment plans, but also the costs of implementing the activities contained in the plans, as well as other pending obligations to be fulfilled.

Once the dismantling and abandonment plans have been submitted to authorities, the owner of the project must obtain an insurance policy or financial guarantee within five business days that covers the costs of the activities described in the plan and which is established in favor of the competent environmental authority.[229] The licensee is required to renew the policy annually for three years after the end of the dismantling and abandonment phase to cover unanticipated problems arising from the closure or deficiencies in final restoration. A copy of the guarantee must be provided to the environmental authority. The extent to which the guarantee requirement is actually implemented and enforced in practice is not clear from desk study.

investment resources or external loans. Its purpose is to support the formulation and implementation of the country's environmental policy.

[227] MinAmbiente (website), Environmental Compensation Fund – FCA, http://www.minambiente.gov.co/index.php/component/content/article?id=346%3Aplantilla-areas-planeacion-y-seguimiento16.

[228] Decree 2041 of 2014, Art. 11 (now integrated into unitary Decree 1076 as Art. 2.2.2.3.9.2).

[229] Ibid.

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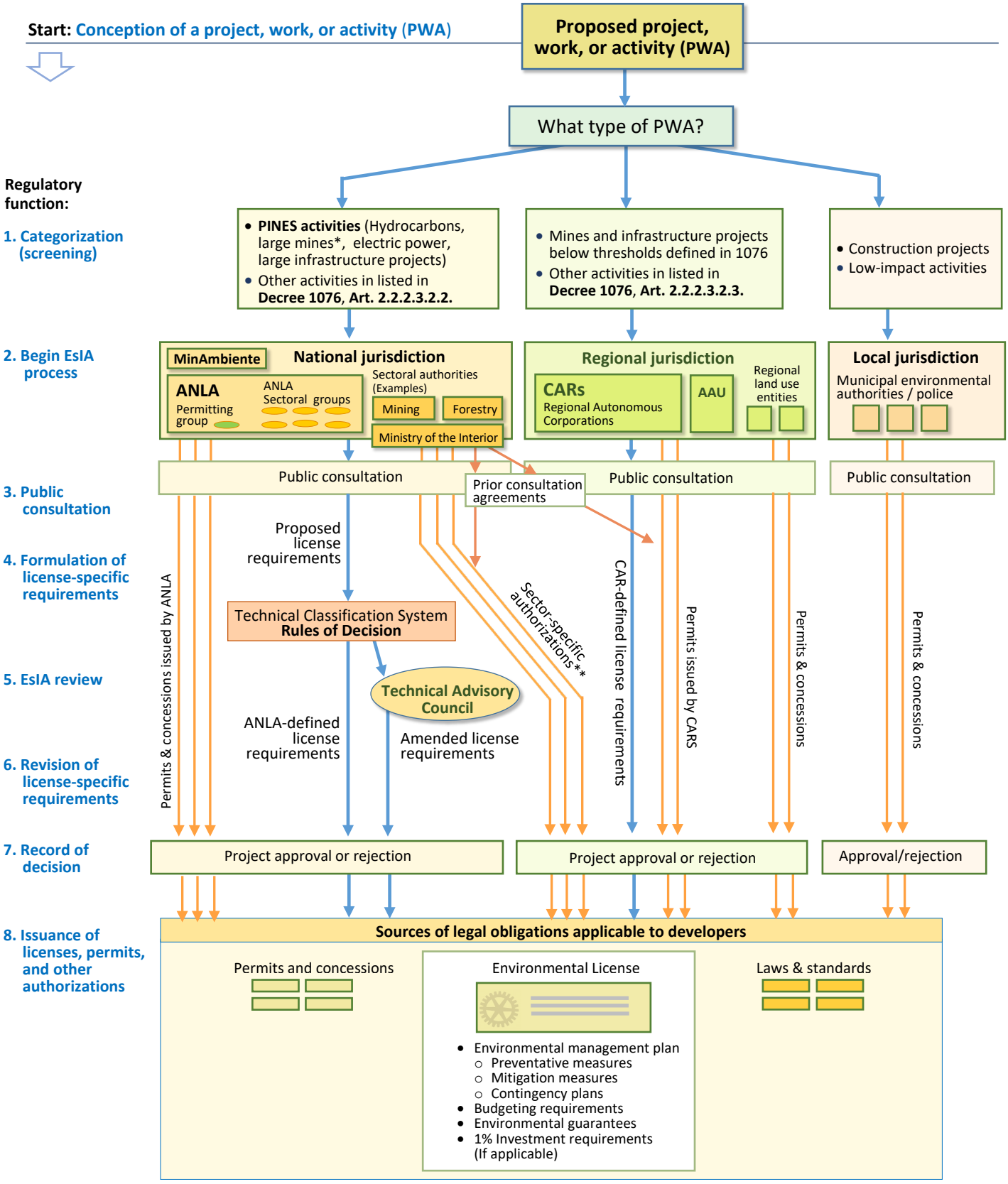
Appendix A.1. Flow chart – Environmental licensing in Colombia
Gaps and Challenges



*"Large mines" refers to mines specified in Decree 1.076, Art. 2.2.2.3.2.2., Par. 2., which exceed volume and/or weight thresholds.

**Sector-specific authorizations also include Veda exemptions and archaeological management plans.

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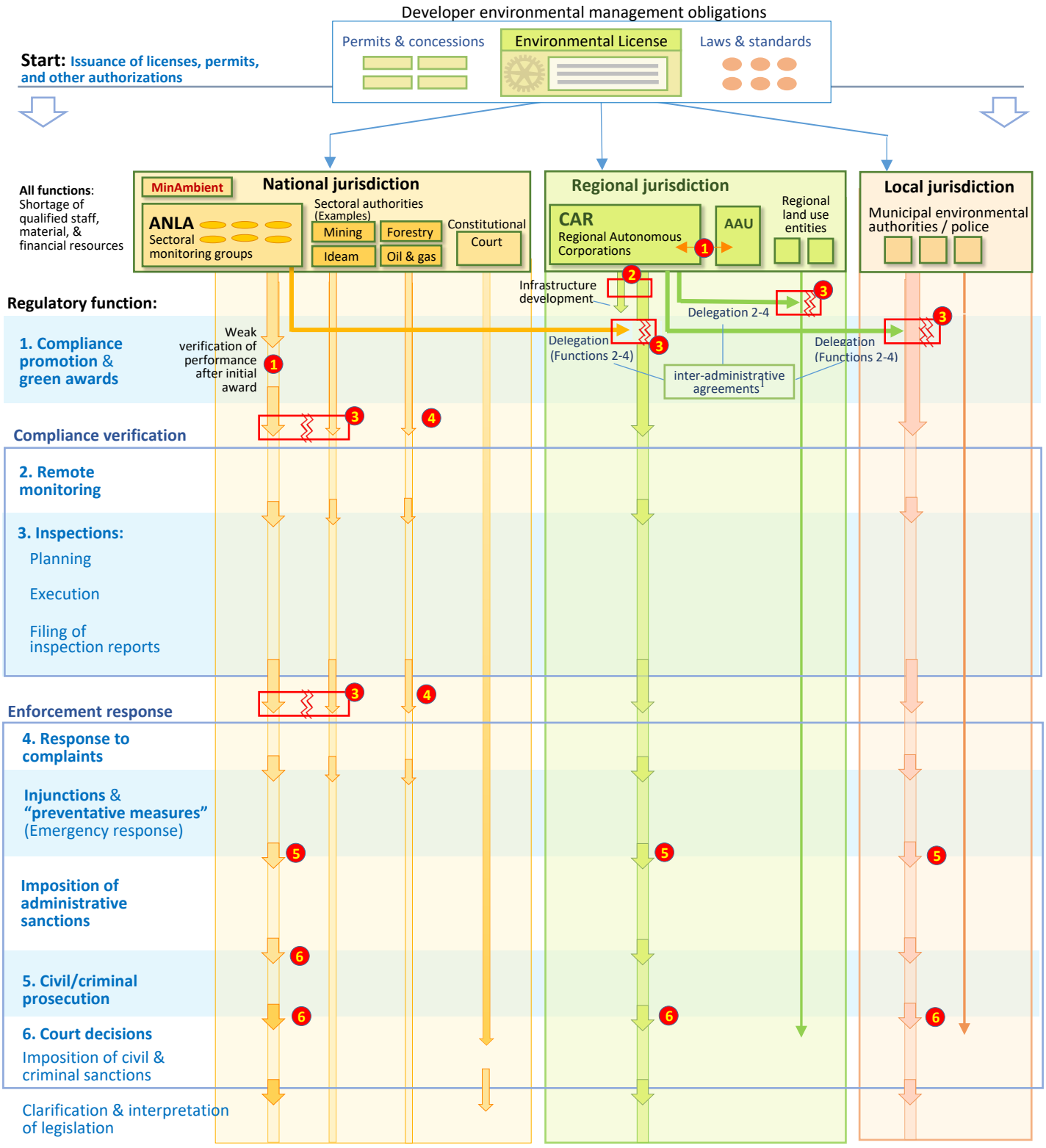
Appendix A.2. Flow chart – Environmental monitoring and enforcement in Colombia
Gaps and Challenges



1: Jurisdictional conflicts, fragmentation, and duplication of efforts between CARs and AAUs. (Source: 2014 OECD report).
2. Potential conflict of interest: CARs may propose & implement infrastructure projects while providing environmental oversight of them.
3. Weak inter-agency coordination
4. The number of forest concessions vastly outweighs staffing and resources; [i] Decree 1076, Art. 2.2.2.3.9.7., *Delegation among environmental authorities*.
5. Sanctions are not sufficiently large to act as a deterrent; lack of political will to impose sanctions; premature return or inadequate enforcement of environmental guarantees.
6. Evidence collected may not be adequate or admissible.

Appendix B - Challenges related to environmental licensing and enforcement functions in Colombia

The recently-released National Development Plan 2018-2022 (PND) highlights a number of key challenges that currently hinder effective management of environmental issues (including climate resilience, disaster preparedness, and biodiversity preservation) and the avoidance of socio-environmental conflicts. These observations are summarized in the following section.

1. Inadequate budget allocations

During recent years, the annual allocation of funding for environmental management has been less than 0.5% of the national budget, an amount that is grossly inadequate for MADS, ANLA, and other environmental authorities to fulfill their mandates. The PND states that this makes it difficult to implement effective environmental management within sectoral and land use entities.

The funding of environmental oversight tasks by regional autonomous corporations is another area of weakness. The PND's diagnostic summary states that there are problems with the transparency, implementation, and allocation criteria for National Treasury resources, resulting in inadequate funding for CAR functions. In addition, a lack of coordination in the allocation of the national budget has impacted the development and execution of the investment projects by SINA entities, resulting in poor compliance with national and regional environmental policies. The PND attributes this to the sheer variety of resources administered by the CARs, the variety of sources that fund CAR operations, and the fact that each CAR executes its budget according to its own budget manual, each of which contains differentiated rules and guidelines.[230]

2. Similar multi-agency coordination systems that lack integration

The PND points out that three similar systems for coordinating government institutions were designed to address separate approaches to environmentally sustainable land use and have distinctly different agendas. These include the National Environmental System (Sina), the National System for the Management of Disaster Risk (SNGRD), and the National Climate Change System (Sisclima).[231] The PND observes that a lack of integration between the three systems has hindered the adoption of an overarching, comprehensive vision for resilient and sustainable land use.[232]

Despite the formation of SINA (via legislation) as a coordinating framework, the execution of environmental licensing and enforcement functions has been significantly undermined by a lack of coordination among SINA entities, a problem that is manifested by overlapping responsibilities among government agencies that result in duplication and fragmentation of tasks and parallel efforts. This is particularly true with respect to coordination between ANLA and other national entities, as well as between ANLA and executing agencies at the regional or municipal level. The PND states that the creation of multi-agency coordination systems have yet to result in inter-institutional synergies that yield more effective patterns of environmentally sustainable development.

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[230] (CGR, 2018); PND at 431.

[231] The Spanish names of these institutions are *Sistema Nacional Ambiental* (Sina), *Sistema Nacional para la Gestión del Riesgo de Desastres* (SNGRD), and *Sistema Nacional de Cambio Climático* (Sisclima).

[232] PND at 431.

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3. Lack of institutional coordination in responding to socio-environmental conflicts
Destructive activities such as the illegal extraction of minerals, deforestation, and environmental degradation have caused acute socio-environmental conflicts related to the use, occupation, possession, and access to natural resources in rural areas. The PND notes that these conflicts have resulted in court decisions calling for more effective inter-agency and inter-sectoral coordination that facilitate concerted responses by government and nongovernment actors. Efforts to address weaknesses in the environmental oversight of conflict-prone activities (e.g., mining, fossil fuels, biomass, and water management) will not be effective unless capacity and funding are enhanced for *both* the environmental and sectoral authorities responsible for regulating each activity.[233] The decisions have also called for measures that encourage environmentally awareness and informed citizen participation that is appropriate for the type of land use.

The PND's diagnostic asserts that there are certain sectors for which fragmentation and institutional weaknesses are especially problematic. Specifically, it notes that there are environmental leadership voids in the forestry sector, as well as the "bioeconomy"[234] and management of solid waste. Similarly, the PND states that increasingly prevalent natural disasters, such as flooding and droughts, are creating heightened levels of social stress in connection with water resources. These will require new paradigms for inter-sectoral planning mechanisms and strengthened inter-agency coordination at the highest levels of government.

4. Ineffective coordination of information systems
The PND states that the sectoral and environmental information systems currently in use have significant weaknesses in terms of interoperability, scope, timing, frequency of updates, and the timeliness of information. In particular, it states that a lack of coordination between components of the Environmental Information System of Colombia (SIAC) and the information systems of the CARs creates a critical disconnect, despite advances that the country has made in modernizing its hydro-meteorological and environmental monitoring networks and its use of satellite data.[235]

The Institute of Hydrology, Meteorology and Environmental Studies (Ideam) has borne significant financial overhead costs through its operation of state-of-the-art monitoring systems, which generate critical data needed for informed decision-making concerning land use and the potential impacts of new proposed activities.[236] These costs can only be justified—and resources properly allocated—if Sina entities can achieve new synergies through more effective coordination.

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[233] PND at 434; Pérez-Rincón, M. A. (2016). *Caracterizando las injusticias ambientales en Colombia. Estudio de caso para 115 conflictos socioambientales*. Cali: Universidad del Valle. https://censat.org/es/publicaciones/caracterizando-las-injusticias-ambientales-estudio-para-115-casos-de-conflictos-socioambientales-2

[234] The PND defines the bioeconomy as economic activities that efficiently and sustainably manage biodiversity, genetic material, and biomass to generate new products, processes, and value-added services, based on knowledge and innovation.

[235] PND at 435.

[236] *Id*.

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Similarly, the National Administrative Department of Statistics (DANE) has developed a system for environmental accounting based on satellite data, which measures interrelationships between the environment and the economy in both physical and monetary units. However, the PND states in the long run, the development of meaningful indicators for measuring green growth will only be possible if institution-specific procedures can be standardized for use across all sectors.

Additional challenges have been recognized in the PND, by the OECD's 2014 Environmental Performance Review for Colombia, and a number of other sources.[237] These challenges include:

5. Narrowing the scope of activities subject to robust monitoring and enforcement
In recent years, there has been a progressive narrowing of the types of activities that are subject to a full EsIA and environmental licensing process—the principal mechanism for establishing environmental performance requirements that can be effectively monitored and enforced. This has created a significant potential for adverse environmental impacts.

6. Diversion of licensing, monitoring, and control fees to the National Treasury
Although licensees are required to pay fees for the government costs of monitoring, these funds are often treated as a national revenue source and are transferred to the National Treasury, where they are not available to fulfill their intended purpose. (CGR, 2018). The same situation exists with respect to other environmental enforcement instruments, such as administrative fines.

7. Built-in conflicts of interest and challenges to the integrity of CAR functions
Several factors may compromise the integrity of functions carried out by regional autonomous corporations. Although MADS has responsibility for overseeing and coordinating CAR activities, Colombia's Constitution grants CARs a high level of autonomy, making it difficult for MADS to challenge CARs' objectivity and decision-making discretion. In addition, CARs play multiple roles that can present inherent conflicts of interest and hinder objective assessment of impacts during the licensing process.[238] Under Law 99 of 1993, CARs may propose and sponsor infrastructure projects within their departments, which they then have responsibility for evaluating as neutral decision-makers. Moreover, CARs have a governance structure that makes them prone to capture by private sector actors in their jurisdictions.

[237] OECD (2014), OECD Environmental Performance Review, Colombia, Available at http://www.oecd.org/environment/country-reviews/oecd-environmental-performance-reviews-colombia-2014-9789264208292-en.htm.
[238] OECD (2014) at 49.

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Appendix C - Objectives and strategies for strengthening environmental governance outlined in the National Development Plan

This final section summarizes institutional and regulatory changes that have been prescribed in the National Development Plan 2018-2022 to address systemic weaknesses and challenges identified in the plan's diagnostic analysis.

A. Key objectives

The PND proposes four key objectives for achieving modern environmental institutions and managing socio-environmental conflicts:

1. **Strengthening the institutional and regulatory frameworks** for the sustainability and financing of the environmental sector.
2. **Strengthening articulation and coordination mechanisms**.
3. **Implement a strategy for managing and monitoring socio-environmental conflicts** over access to and the use of natural resources, based on educational and participatory processes that nurture development of an environmental culture.
4. **Improve information management and interoperability** among the different sectors.

B. Key strategies

Strategies for Objective 1: **Strengthening the institutional and regulatory frameworks for the sustainability and financing of the environmental sector.**

a) Reforming, strengthening, and funding the regional autonomous corporations (CARs)

- Drafting new legislation to reform and strengthen the CARs: The legislation will aim to make CARs more transparent and effective in environmental management of their regions and in their use of financial, technical, and administrative resources. It will include provisions for depoliticizing CAR functions, strengthening their monitoring and enforcement role (and external oversight of this function), and fostering greater integration between the Sina, SNGRD, and Sisclima systems, including better coordination with ANLA and Ideam.
- Funding: MinAmbiente (MADS) will evaluate environmental sector funding mechanisms to identify new revenue sources, establish accountability mechanisms, improve the distribution of existing funding among Sina entities, and permit the allocation of larger budgets to the CARs.
- Reform of fiscal incentives: MADS will evaluate the impact and efficiency of fiscal incentives for improved environmental performance, promoting changes to those that are ineffective, inefficient, or counterproductive.
- Revenues from fines: MADS will reinforce the sanctioning regime and broaden monetary sanctions that increase the financial and technical capacities of environmental authorities.

b) Strengthening the process for issuing environmental licenses, permits, and other environmental control instruments

- Lead an Environmental Licensing Mission: These efforts aim to produce a set of strategic recommendations for improving the effectiveness of the licensing instrument. With the support

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of the Sina research institutions,[239] the Mission will develop an environmental licensing effectiveness index (consistent with OECD recommendations) that will be reported regularly.

- Improve the effectiveness of the environmental licensing process and the evaluation of permits and other environmental control instruments through the following measures:
    - Coordination between environmental authorities and the Sina research institutes
    - Emphasis on preventive approaches for environmental management and the monitoring of compliance with environmental authorizations
    - Public and accessible information
    - Promotion of regional monitoring networks
    - Modernization and development of income improvement strategies
    - Systematization and integration of procedures
    - Streamlining of procedures through robust technical instruments, single-window platforms and the promotion of citizen participation
- Strengthen procedures for evaluating and issuing environmental authorizations:
- Streamline procedures for obtaining environmental authorizations from ANLA and MinAmbiente, particularly those necessary to obtain tax benefits for environmental investments.

Strategies for Objective 2: **Strengthening articulation and coordination mechanisms**

a) Articulation and coordination mechanisms

In order to achieve better integration between Sina, SNGRD, and Sisclima, top-level agencies should take advantage of the opportunities posed by common agendas in order to optimize existing mechanisms and create ad hoc intersectoral bodies to address specific challenges as they appear.

- Strategic intersectoral agendas as a coordination, dialogue, and collaboration mechanism: MinAmbiente will establish strategic intersectoral agendas as a permanent mechanism for linking the environmental sector with the other sectors, strengthening environmental regulation and transforming these sectors within the framework of green growth. This measure aims to facilitate risk and climate change management (including the fulfillment of nationally determined contribution (NDC) commitments) and allow PND goals to be monitored effectively.[240]

  MinAmbiente will also launch a strategy for streamlining and harmonizing policies, procedures, permits, standards, planning instruments, and land use ordinances to improve the environmental performance of sectors and land use plans.

b) Adjustments for institutional strengthening

Institutional arrangements for sustainability will be strengthened through the following actions:

- Modernization of comprehensive water management: MinAmbiente will undertake an initiative for modernizing water management and related institutional mechanisms from a supply and

[239] The "Sina research institutes" refers to IDEAM, the Alexander von Humboldt Biological Resources Research Institute, the Marine and Coastal Research Institute (INVEMAR), the Amazonian Institute of Scientific Research (SINCHI), and the John von Neumann Pacific Environmental Research Institute (Law 99 of 1993, Art. 16).
[240] See UNFCCC (Website), *The Paris Agreement and NDCs*, https://unfccc.int/process/the-paris-agreement/nationally-determined-contributions/ndc-registry (Stating that the Paris Agreement requires each signatory country to declare Nationally Determined Contributions (reductions in greenhouse gas emissions) that they intend to pursue).

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demand perspective. The effort will be undertaken in coordination with the Ministry of Housing (MinVivienda) and with the support of the National Planning Department (DNP) and other ministries. The effort will also optimize watershed planning and management.

- Creation of a Solid Waste Planning Unit by the Ministry of Housing (MinVivienda) and MinAmbiente in order to support a circular economy (recycling and zero net waste).
- Strengthening the capacity of the environmental research institutes: MinAmbiente will strengthen the financial, technical, technological and administrative capacity of the environmental research institutes[241] to disseminate up-to-date, reliable, and interoperable information for decision-making, education, and a sustainability-oriented culture.
- Integration of Green Growth Policy: The DNP will integrate the agenda of the Green Growth Policy into the **National System of Competitiveness, Science, Technology and Innovation** (SNCCTI), and in coordination with Colciencias, will launch the **Inter-Institutional Commission of Bioeconomy**, which will formulate and guide the implementation of a national strategy for the development of bioprospecting and biotechnology projects, with a regionalization component.
- Developing the forest economy: The Ministry of Agriculture (MinAgricultura) and MinAmbiente will design and implement institutional modifications needed for development of the forestry economy, integrating sustainable natural forest use and commercial plantations.

Strategies for Objective 3: **Implement a strategy for managing and monitoring socio-environmental conflicts**

This strategy aims to prevent and transform socio-environmental conflicts among sectors and between sectors and communities. It also aims to strengthen governance that can facilitate structured dialogue that increases environmental awareness and citizen participation.

a) Education for environmental transformation

- Implementing an effective communication strategy: A communication strategy will be implemented that incorporates the orange economy[242] and environmental education that shifts consumption habits towards sustainable practices and products, as well as increasing the social value of nature, land ownership, and an understanding climate impacts. The strategy also includes campaigns for reinforcing environmental culture at the business and family level.
- Ongoing dialogue and collaboration between the environmental and productive sectors, strengthening environmental oversight and orienting sectors toward green growth.
- Creating a National Policy for the Protection and Well-being of Domestic Animals and Forests This will consist of strategies and programs for responsible forest use and treatment of animals.

[241] There are five research institutions in the Sina system: The Institute of Hydrology, Meteorology and Environmental Studies (Ideam); the Alexander von Humboldt Institute for Research on Biological Research; the Amazonian Institute for Scientific Research (SINCHI); the Jhon von Neumann Institute for Pacific Environmental Research, and the José Benito Vives de Andréis Institute for Marine and Coastal Research (Invemar).

[242] Inter-American Development Bank (13 July 2017), News Release, IDB states that it uses the term "orange economy'" to describe "cultural and creative industries, which include activities such as architecture, audiovisual arts, digital services, fashion, graphic and industrial design, handcrafts, music, and software." IDB states that In 2015, these industries generated over $124 billion in revenues, providing employment to more than 1.9 million people in Latin America and the Caribbean. https://www.iadb.org/en/news/news-releases/2017-07-13/orange-economy-innovations-in-lac%2C11841.html

b) Participation that contributes to the prevention of socio-environmental conflicts

- Promotion and strengthening of public hearings and citizen committees managed by the CARs This will be carried out by MinAmbiente in coordination with the CARs and the Prosecutor General at the national level.

c) Managing socio-environmental conflicts

- Regional centers of dialogue: Five regional centers of dialogue will be created as bodies for facilitating, linking, participation, cooperation, and reflection for the purpose of identifying, prioritizing, and discussing socio-environmental conflicts.
- Proposal for the education and specialization of environmental courts and judges: MinAmbiente will propose measures for increasing the aptitude and technical capacity of judges and courts to prevent and resolve socio-environmental and economic conflicts, including training for judges.
- Enhancing environmental management in indigenous and rural areas: The Ministry of the Interior will lead efforts to strengthen dialogue and joint work with indigenous authorities, Afro-Colombian communities, and rural citizens on conservation and environmental management in the territories, particularly on problems related to use, occupation, and land tenure.

d) Compliance with judgments related to the illegal extraction of minerals, deforestation, and environmental degradation

- Creation of the *Intersectoral Commission for Judicial Affairs*: This inter-sectoral body will focus on mineral extraction, deforestation, and environmental degradation
- Public entities linked to the judiciary will allocate resources for compliance with judicial orders that are related to mineral extraction, deforestation and environmental degradation.

Strategies for Objective 4: **Improve information management and interoperability among the different sectors**

These measures aim to provide timely, pertinent, and reliable information that enables State entities, the private sector, and civil society to respond to the challenges of sustainable development and comply with OECD recommendations:

a) Consolidation of the Environmental Information System of Colombia (SIAC)

- MinAmbiente will strengthen and improve access to SIAC in several ways:
  - Updating policy guidelines and the protocol for data and information management.
  - Developing and implementing the CARs' **Environmental Planning and Management Information System**, from the perspective of business architecture and opening of data.
  - Guaranteeing easy access by sectors, territories, and civil society to SIAC, in order to articulate the thematic subsystems with those of the CARs (including the VITAL Single Window).
  - Facilitating interoperability, data collection, and information, for generating and reporting environmental indicators and financial mechanisms, as well as reporting the status, stressors, and response indicators that explain changes in the quality and use of natural resources.
  - Implementation of information transfer protocols and technological improvements that are necessary to integrate the sectoral information systems with the SIAC.
- The Sina research institutes will strengthen the generation of information for decision-making by designing and implementing strategies that facilitate the provision and sale of services, allowing them to diversify their revenues and improve administrative, financial, and technical capacity.

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b) Providing information and statistics management to strategic sectors

In order to provide data that will permit assessment of progress toward green growth:

- Integration and strengthening of forestry information systems: This will guarantee the interoperability of forestry information systems. In addition, Ideam will consolidate a national information, monitoring, and reporting system on forestry restoration that is coordinated with the National Forest Information System (SNIF) and other systems, as well as strengthen the capacity of the Forest and Carbon Monitoring System to monitor deforestation in real time.
- Information system for the comprehensive management of solid waste: MinVivienda will establish the foundation for the design and implementation of this system.
- Capacity for satellite-based environmental accounting will be consolidated by DANE, which will formulate the conceptual framework and methodology for the satellite accounting for the bioeconomy and flow of materials (in production processes).
- A performance index for green growth will be developed by DNP, permitting the identification of regional opportunities to advance Colombia's sustainability agenda.
- Regional and sectoral research and capacity development programs: These will be implemented by MinAmbiente (in coordination with the Sina research institutes and with the support of Colciencias) allowing it to generate and adjust the information necessary to monitor and report the status, trends, and context of Colombia's natural assets.

c) Integrated and easily-accessible information on environmental issues, disaster risks, and climate change

- Mechanisms for easy access to information: Multiple agencies will collaborate on developing mechanisms through which sectors, regions, and civil society will have access to information on the management and state of natural resources, the progress achieved by green growth policies, and risk management for natural disasters and climate change.
- Integration of sectoral data in generating an inventory of greenhouse gas (GHG) emissions Ideam, with MinAmbiente support, will implement a capacity building program that allows the incorporation of sectoral information into GHG emissions inventories, within the framework of Sisclima and the National System of Greenhouse Gas Inventories (SINGEI).

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