



iema

Instituto de Energia
e Meio Ambiente

Annual Report

Instituto de Energia e Meio Ambiente (IEMA)

2025

Welcome

We present the 2025 Annual Report of the Institute for Energy and Environment (IEMA).

This document provides complete, objective, and transparent information on the actions, projects developed, and results achieved by IEMA from January 1 to December 31, 2025.

In this edition, in addition to presenting the results of our initiatives in 2025, we look toward the future. As it completes two decades of existence in 2026, IEMA reflects on its achievements, considers the challenges ahead, and prepares for a new cycle of action.

We hope you find the report informative.

Solar panels on
buildings in downtown
Rio de Janeiro.



IEMA 20 years: the future now

Twenty years ago, on May 29, 2006, an initiative was born from the desire to incorporate into the Brazilian socio-environmental debate a perspective attentive to urban issues, energy, and infrastructure, connecting these themes to the environmental agenda with scientific rigor and commitment to the public interest. Thus emerged the Institute for Energy and Environment (IEMA).

Two decades later, we enter 2026 with the conviction that we have contributed to consolidating important themes for Brazilian public debate: air quality, greenhouse gas emissions, renewable energy sources, urban mobility, and reduction of negative socio-environmental impacts from transportation. These are agendas that complement and strengthen fundamental historical debates, such as combating deforestation and preserving biodiversity.

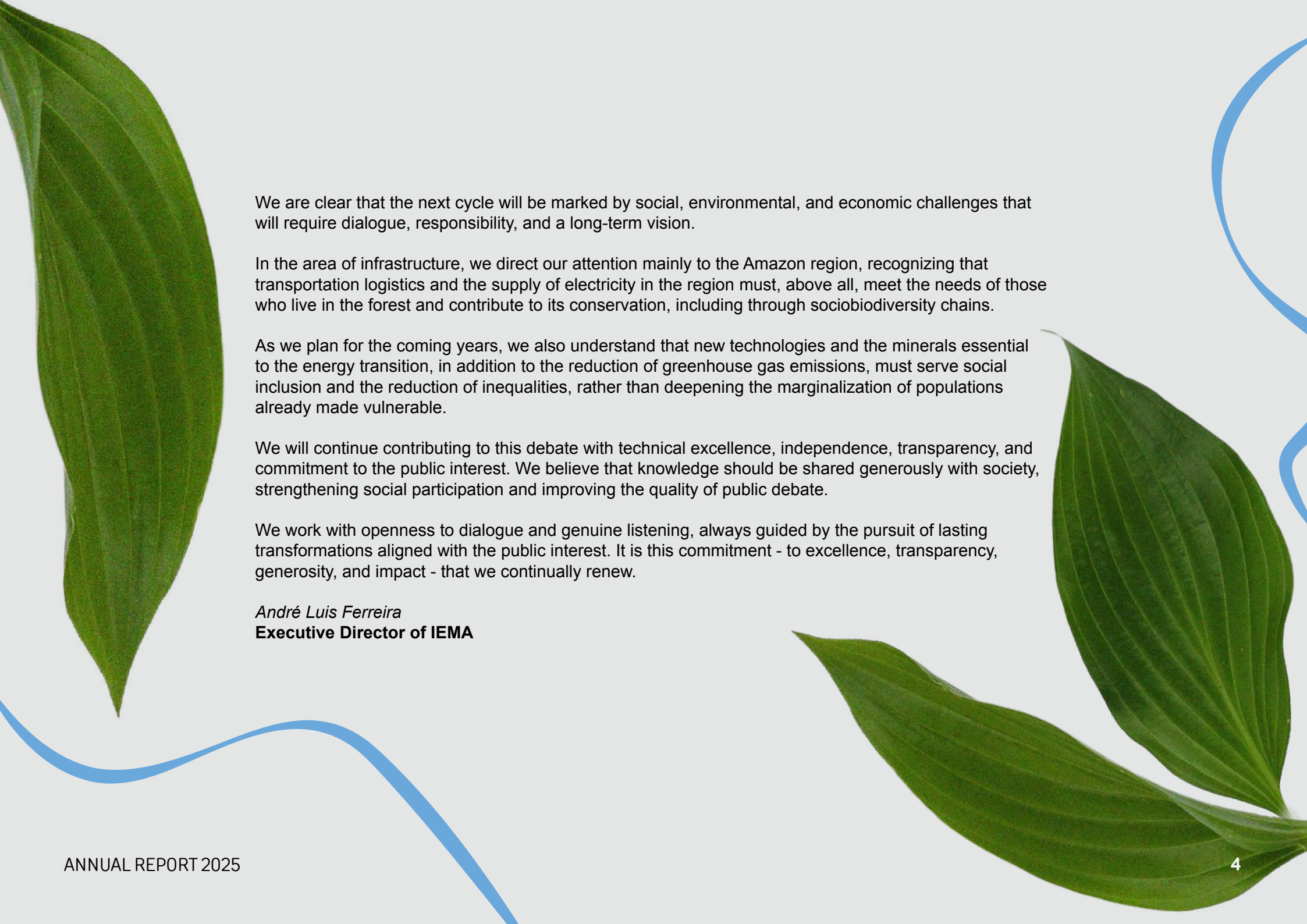
As it completes 20 years, IEMA has established itself as a Brazilian think tank in the areas of energy, transportation, and the environment. We continue looking toward the future with the commitment to contribute, through technical and scientific research and the dissemination of high-quality information, to building a more sustainable, resilient, and socially just country.

This forward-looking perspective guided, throughout 2025, the development of our 2026-2030 Strategic Plan. In a collective and participatory process, IEMA's staff and board members reflected on the progress achieved and the challenges identified in the previous cycle, reviewing guidelines and redefining priorities for the coming years. As a result of this process, we structured our work into five fundamental programs: Clean Air; Just Transition in Transportation; Sustainable Infrastructure in the Amazon region; Just Transition in the Electricity Sector; and Institutional Development. In a multidisciplinary manner, nine cross-cutting lines of action, thematically connected to these programs, will be broken down into targets and objectives to be fulfilled over the next five years.

Boat crossing the
Negro River.

PHOTO: Fabio Rodrigues Pozzebom





We are clear that the next cycle will be marked by social, environmental, and economic challenges that will require dialogue, responsibility, and a long-term vision.

In the area of infrastructure, we direct our attention mainly to the Amazon region, recognizing that transportation logistics and the supply of electricity in the region must, above all, meet the needs of those who live in the forest and contribute to its conservation, including through sociobiodiversity chains.

As we plan for the coming years, we also understand that new technologies and the minerals essential to the energy transition, in addition to the reduction of greenhouse gas emissions, must serve social inclusion and the reduction of inequalities, rather than deepening the marginalization of populations already made vulnerable.

We will continue contributing to this debate with technical excellence, independence, transparency, and commitment to the public interest. We believe that knowledge should be shared generously with society, strengthening social participation and improving the quality of public debate.

We work with openness to dialogue and genuine listening, always guided by the pursuit of lasting transformations aligned with the public interest. It is this commitment - to excellence, transparency, generosity, and impact - that we continually renew.

André Luis Ferreira
Executive Director of IEMA

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in Belém (PA),
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Buildings in the city
of São Paulo, Brazil.

IEMA

The **Institute for Energy and Environment (IEMA)** is a Brazilian organization founded in 2006, headquartered in São Paulo (SP). We work on national projects and in international cooperation in the areas of energy, transportation, and the environment.

Purpose

To strengthen decision-making processes so that transportation and energy systems in Brazil ensure the sustainable use of natural resources with social and economic development.

Values

Generosity: cooperation and knowledge sharing with society.

Excellence: appreciation for scientific rigor and independent thinking.

Transparency: openness and genuine listening.

Impact: focus on lasting transformations oriented toward the public interest.



PHOTO: Deybson Mallony/Pexels

The governance structure is composed of:

General Assembly: sovereign collegiate body responsible for the organization's guidelines and policies.

Board of Directors: deliberative body that supports the Assembly and the Executive Board.

Audit Committee: body responsible for overseeing financial management.

Executive Board: executive and administrative body of the Institute.

IEMA's technical, administrative and financial, and strategic communication teams carry out day-to-day activities and the projects approved by the administration.

Meet the Institute's team of professionals.

2026-2030 Cycle

View of the Juruena River, in the Erikpatsa Indigenous Territory, of the Rikbaktsa People (Mato Grosso, Brazil).



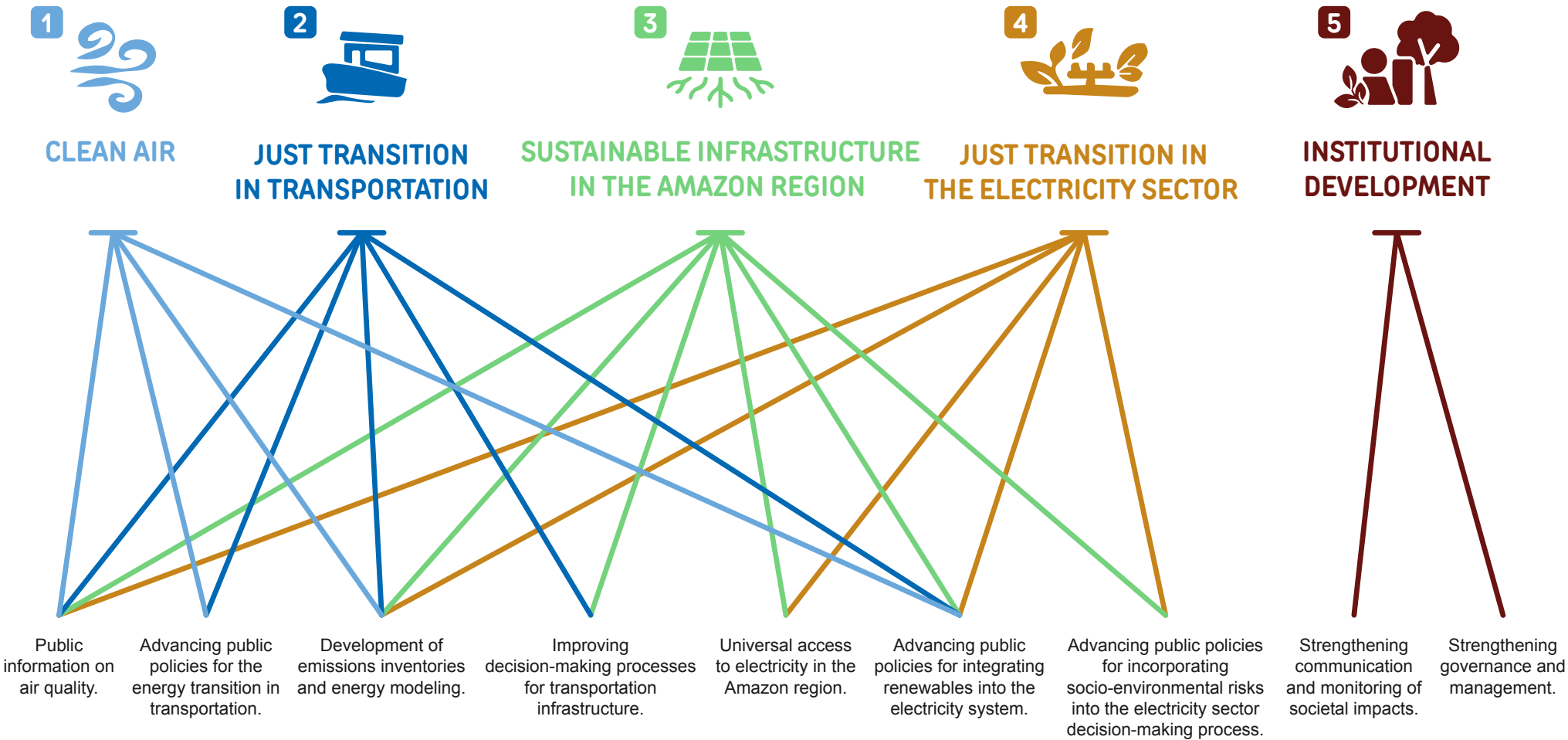
PHOTO: Fernando Frazão/Agência Brasil

The year 2025 marked an important process of updating IEMA's strategic planning. With the closing of the 2020-2024 cycle, we began developing the new 2026-2030 Strategic Plan through a participatory journey that involved the organization's entire team and included guidance and direct action from the Board.

Based on the assessment of results achieved in the previous cycle and the analysis of future challenges and opportunities, also considering ongoing and renewing projects, we reviewed our institutional priorities and redefined our strategic objectives, transforming them into five core programs. These programs now represent IEMA's main pillars of action, linked in a multidisciplinary manner with nine cross-cutting lines of action.

The new strategic plan consists of four thematic and programmatic programs (Clean Air; Just Transition in Transportation; Sustainable Infrastructure in the Amazon region; and Just Transition in the Electricity Sector) and one program - Institutional Development - aimed at strengthening IEMA's institutional capacity. This program brings together actions focused on improving IEMA's corporate governance and management, as well as strengthening communication and monitoring the impacts generated by the organization's work in society.

PROGRAMS



LINES OF ACTION

CREDITS

Meeting of the waters of
the Negro and Solimões
rivers, in Manaus (AM).



PHOTO: Tânia Rêgo/Agência Brasil

Institute for Energy and Environment (IEMA)
Rua Artur de Azevedo, 1212, room 91, Pinheiros,
São Paulo (SP), Postal Code 05404-003.
energiaeambiente.org.br

Coordination and organization
Isis Rosa Nóbile Diniz

Text
Alisson Coutinho

Copyediting
Renata Pires

English version
Edoardo Lobl

Graphic design and layout
ALIS Design, Estratégia e Comunicação
Luana Alice Almeida Pereira
Paula Henderson Lobo
Yasmim Mariana Baia Silva

Cover photo
Kelly/Pexels

Team (2026)
Aline Santana Gallina, André Luis Ferreira, Anton Altino
Schwyter, David Shiling Tsai, Fabio Galdino dos Santos,
Felipe Barcellos e Silva, Gabrielly de Castro Alves, Helen
Sousa, Ingrid Geovanna Leal Graces, Isis Rosa Nóbile Diniz,
João Vitor de Carvalho, Marcelo Testoni, Mariana Calviello
Meira Ramos, Meiriele Alvarenga Cumplido, Mônica Takeda,
Nicole Dejarmes Silva*, Raíssa Gomes, Ricardo Baitelo,
Vinícius Oliveira da Silva.

**worked in 2025.*

Networks of which IEMA is a member
Climate and Clean Air Coalition, Clean Energy Coalition,
Forest Peoples' Connection, Global Gas and Oil Network
(GGON), GT Infraestrutura e Justiça Socioambiental
(Working Group on Infrastructure and Socioenvironmental
Justice), MapBiomass, Nordeste Potência, Climate
Observatory, Open Government Partnership (OGP), and
Energy & Communities Network.



Clean Air

Align air quality in Brazil's large urban agglomerations with the recommendations of the World Health Organization (WHO)

Air quality is one of IEMA's founding priorities and remains central to its work. Since 2006, the Institute has advocated for expanded monitoring as an indispensable tool for public health. Indeed, since 2015 it has maintained the Air Quality Platform, a national reference and official consultation source of the World Health Organization (WHO) for Brazilian data.

The Brazilian scenario, however, still presents critical gaps. The country remains far from the standards recommended by WHO, with low data availability and insufficient monitoring coverage. This is an especially serious problem in the North Region, where most states lack automatic networks for disclosing information.

IEMA has also consolidated its work in producing high-precision technical data on emissions from mobile and stationary sources, as well as in interpreting the national scenario.

The preparation and continuous updating of atmospheric pollutant and greenhouse gas emissions inventories in the transportation and energy sectors is one of the pillars of this area of work. These inventories are essential for advancing climate goals while reducing local air pollution.

In 2025, the Institute continued working to strengthen air quality management, reinforcing the need to expand monitoring. These actions are fundamental to diagnosing the country's air situation and supporting the definition of more effective priorities, targets, and public policies to reduce the problem.

“

"Advances in vehicle emissions-control technologies are important, but, on their own, they are not sufficient to reduce air pollution. Addressing this problem requires an integrated approach involving urban planning, sustainable mobility, enforcement, and environmental monitoring."

*David Tsai,
IEMA project manager.*

"Few states maintain adequate air quality monitoring networks. Without consistent data, it is not possible to know whether the air the population breathes is within safety standards or poses health risks."

*Helen Sousa,
IEMA researcher.*

Road transportation emissions in Brazil

The year 2025 marked the publication of the third version of the [National Inventory of Atmospheric Emissions from Road Motor Vehicles \(base year 2024\)](#), a document prepared by IEMA, under the coordination of the Ministry of the Environment and Climate Change (MMA) and the Ministry of Transport (MT), with support from the Climate and Clean Air Coalition (CCAC). After ten years, Brazil once again has the publication of a detailed portrait of the impact of road transportation on air pollution and greenhouse gas (GHG) emissions in the country.

The inventory, presented to society in December, shows the evolution of emissions data from 1980 to 2024, in a 45-year historical series. The 2025 edition introduces methodological innovations by expanding the estimate beyond regulated pollutants and greenhouse gases to include short-lived climate pollutants, such as methane and black carbon (a component of fine particulate air pollution, PM_{2.5}).

As a complement to the inventory, IEMA launched an open and free tool for the federal government and state governments. [It is an automated spreadsheet for preparing inventories of atmospheric emissions from motor vehicles](#), which enables updating and facilitates the development of these surveys by government agencies.

The data collected and published in the inventory show that policies such as the Air Pollution Control Program for Motor Vehicles (Proconve) were decisive in reducing emissions over nearly four decades, especially those associated with combustion.

Conversely, the document indicates that fleet growth and vehicle use keep emissions at high levels. These impacts extend beyond exhaust-pipe emissions — where pollution-control technologies have advanced significantly: tire and pavement wear already accounts for about half of particulate matter emissions, showing that the challenge goes beyond the engine.

To prepare the inventory, IEMA, MMA, and MT held technical workshops with agencies and public companies. In these meetings, they discussed the methodologies to be used and evaluated preliminary results.

In February, IEMA participated in the [webinar “Inventories of Atmospheric Pollutant Emissions”](#), promoted by MMA. The event aimed to present the initiatives coordinated by the Ministry for the preparation of the third National Inventory of Atmospheric Emissions from Road Motor Vehicles and the unprecedented National Inventory of Emissions from Stationary Sources, under the coordination of the Federal University of Santa Catarina (UFSC), scheduled for completion in 2026.

The theme of more sustainable road transportation was also taken by IEMA project manager David Tsai to the [1st National Seminar of the MelhorAR Program](#), an initiative of the Ministry of Transport aimed at reducing emissions of pollutants and greenhouse gases generated by road freight and passenger transportation vehicles. The event was held in October by MT, Infra S.A., and the National Land Transport Agency (ANTT). On that occasion, Tsai highlighted the need to ensure the collection of consistent and reliable data on air quality in the country.



Museum of Tomorrow, Rio de Janeiro, Brazil.

Tsai also participated in the Climate and Clean Air Conference 2025, whose central theme was “Accelerating Action on Super Pollutants: The Road to COP30”. During the conference, he presented the Institute’s experience in preparing the National Inventories of Atmospheric Emissions from Road Motor Vehicles, highlighting the partnership with the Climate and Clean Air Coalition (CCAC) in developing the new edition of the study.

At the “Climate Emergency Brake” meeting held at the Museum of Tomorrow, in Rio de Janeiro (RJ), David Tsai [emphasized the challenges for reducing methane emissions in Brazil and reinforced the importance of expanding air quality monitoring in the country](#). The initiative was promoted by the Global Methane Hub and Uma Gota no Oceano, with support from Editora Globo, the Climate Observatory (OC), and the Institute for Development and Management (IDG).

IEMA IN THE MEDIA

Diário do Transporte

[Another official study proves that buses are not the villain of pollution: national transportation emissions inventory](#)

Valor Econômico

[Air worsens with climate chance and already costs Brazil US\\$ 1 billion per year](#)

Valor Econômico

[Quote of the Day](#)

Amazônia Press

[North Region continues to have low air pollution monitoring, says IEMA](#)

Santa Catarina Public Prosecutor’s Office

[With investment of R\\$ 3.38 million, FRBL enables stations for air quality monitoring in Santa Catarina](#)

O Hoje

[Goiânia ranks second among capitals with the worst air quality monitoring in Brazil](#)

Canaltech

[Traffic in Brazil is more polluted, but electric vehicles are not to blame](#)

Exame

[Road transportation emissions in Brazil rise 8% despite cleaner technologies](#)

Agência Infra

[Brazil updates road transportation emissions inventory](#)

AIR QUALITY MONITORING REMAINS INSUFFICIENT IN THE NORTH REGION

On the International Day of Clean Air for Blue Skies, observed on September 7, [IEMA published an alert on the lack of information about the air quality situation in Brazil](#). The Institute highlighted the scarcity of air pollution monitoring in the North Region, where most states do not have automatic reference networks for disclosing data.

ARTICLE

The International Day of Clean Air for Blue Skies was addressed in the article “[Breathless](#)”, signed by IEMA’s Communication Coordinator, Isis Diniz, and communication professional Nicole Dejarmes. The text, published on Central da COP, the Climate Observatory’s website about the United Nations (UN) Conference, highlights how the lack of monitoring prevents assessment of the risk to which the population is exposed and the management of emissions based on air quality targets, especially in the North Region, already affected by fires.

PUBLICATION



[National Inventory of Atmospheric Emissions from Road Motor Vehicles](#)
Base year 2024



Low-emission urban mobility

*Promote urban mobility that is
inclusive and has low emissions of
atmospheric pollutants and
greenhouse gases*

Collective, active, accessible, and low-emission urban mobility is crucial to securing the right to the city, improving air quality, and addressing social inequalities. For IEMA, quality public transportation must occupy the center of urban planning, connecting mobility with the promotion of rights, public health, GHG emissions mitigation, and socio-environmental justice.

Throughout 2025, the Institute reinforced the importance of public policies aimed at prioritizing public transportation and adopting cleaner and more efficient technologies.

IEMA's work also highlighted the challenges related to atmospheric emissions from the transportation sector. The resumption of the National Inventory of Atmospheric Emissions from Road Motor Vehicles showed that, despite technological advances in pollutant control, the accelerated growth of the fleet has kept greenhouse gas and air pollutant emission levels high. In addition to vehicular exhaust emissions, the inventory also considers those generated by tire, brake, and pavement wear, reinforcing the need to expand investments in collective and low-carbon transportation systems.

A just energy transition in transportation must go hand in hand with social equity and improving the population's living conditions. To this end, urban and logistics planning must consider direct impacts on local communities, ways of life, and people's health, especially among the most vulnerable populations.



"Reducing urban transportation emissions requires prioritizing public transportation. Measures such as exclusive lanes and traffic-signal priority increase bus efficiency, reduce unnecessary stops, and decrease emissions per passenger transported. The evidence shows that the solution lies in investing in more efficient, attractive, and accessible public transportation systems."

*Felipe Barcellos e Silva,
IEMA researcher.*

Sustainable urban mobility depends on strengthening public transportation

In April, IEMA researcher Felipe Barcellos e Silva participated in the public hearing “[Nova Raposo Movement Seminar](#)”, held to discuss the proposal to restructure the Raposo Tavares Highway. In his presentation, Silva reinforced the need to curb growth in travel by private motorized modes, through the promotion of public transportation and the incorporation of cleaner and more efficient technologies. The meeting took place at the Legislative Assembly of the State of São Paulo (Alesp).

Vehicle traffic near Brasília's
Central Bus Station
(Federal District, Brazil).



PHOTO: Marcello Casal/Agência Brasil

ARTICLE

IEMA researcher Felipe Barcellos e Silva and communication professional Nicole Dejarmes published the article “[With so much deforestation in Brazil, does reducing transportation emissions matter?](#)”, in *Nexo Políticas Públicas*. The text addresses the importance of reducing greenhouse gas emissions from the transportation sector in Brazil, even in the current context in which deforestation emissions dominate the total GHG generated annually in the country.

IEMA IN THE MEDIA

Mobilidade Estádio

[Inequality Map: neighborhoods in São Paulo's south zone offer the worst mobility conditions](#)

Paranaíba Mais

[Sustainable mobility as a pathway to the future](#)



Clean and inclusive energy matrix

*Universalize access to electricity
and reduce negative
socio-environmental impacts from
the expansion of the electricity
system*

In 2025, Brazil announced a historic milestone in its energy trajectory: for the first time in 35 years, the share of renewable sources in the national energy matrix exceeded that of non-renewable sources. In the same period, IEMA highlighted that, although energy consumption grew by 5%, sector emissions increased by only 1%, demonstrating the country's potential to lead an energy transition aligned with global climate challenges.

This progress, however, requires planning and responsibility. The Institute warns that the accelerated expansion of renewable sources, such as wind and solar energy, must be accompanied by measures that ensure greater flexibility and security for the electricity system, reducing dependence on the dispatch of fossil fuel thermal power plants.

More than that, IEMA emphasizes that the energy transition will only be successful if it is also just. This means incorporating socio-environmental safeguards into the expansion of renewable energy sources and promoting the expansion of rights and opportunities for the population. After all, despite advances, thousands of people still live without access to electricity in Brazil, especially in the Amazon region.

The absence of this service compromises basic conditions of dignity and quality of life, limiting access to refrigeration of food, medicines, and vaccines, to lighting, to the internet, and to the supply of drinking water. Understanding this reality and developing solutions suited to the specificities of Amazonian territories are fundamental steps toward universal access to electricity.

Bringing quality energy to the Amazon region and expanding generation from renewable sources are essential strategies for a

reducing social inequalities, strengthening sociobiodiversity chains, and contributing to forest conservation. However, this process must be conducted with robust socio-environmental criteria, ensuring that energy generation and storage respect territories, local communities, and ecosystems.

A just energy transition must combine universal access to electricity for those who still do not have the service or receive low-quality supply with the gradual reduction of fossil fuel use in the energy matrix. This is a strategic challenge for the country, requiring long-term planning, innovation, social participation, and public policies capable of reconciling economic development, social inclusion, and climate action.

“

"The gradual reduction of dependence on fossil fuel thermal power plants is essential for a just energy transition. To achieve this, Brazil needs to invest in solutions that guarantee the security of the electricity system, expand the share of renewable sources, and ensure that this process occurs with socio-environmental safeguards and benefits for the most vulnerable populations."

*Ricardo Baitelo,
IEMA project manager.*

Opportunity for a just energy transition

Accelerating the expansion of renewable energy requires expanding investments in solutions that ensure greater security and flexibility for the electricity system, enabling the expansion of renewable sources and the gradual reduction of dependence on fossil fuels. This process must be conducted with socio-environmental safeguards and prioritize initiatives that promote benefits for vulnerable communities, respecting the territories and rights of their populations.

It is necessary to plan a just economic transition for regions still dependent on the fossil fuel industry, such as municipalities in Rio Grande do Sul and Santa Catarina with coal thermal power plants, ensuring sustainable alternatives for employment, income, and local development.

Thus, IEMA expanded its participation in debate forums on the subject, to advocate its technical positions on the energy transition. In April, we were elected to occupy, in the 2025-2026 biennium, one of the two seats in the subcategory “Electricity and its sources related to the energy transition” in the National Energy Transition Forum (Fonte). The Institute now participates in Fonte in the civil society organizations segment.

In November, IEMA participated in its first activity as a member of Fonte. We contributed proposals for the preparation of the National Energy Transition Plan (Plante), a long-term action plan developed to

implement the objectives of Brazil’s National Energy Transition Policy (PNTE).

The organization also joined, as of April, the Nordeste Potência collective. This is an initiative that proposes a sustainable development plan for the Northeast region, focusing on the energy transition and green and inclusive economic recovery.

Subsequently, we participated in the “Nordeste Potência” meeting, held in Recife (PE) by the Casa Socio-Environmental Fund, Grupo Ambientalista da Bahia (Gambá; Environmentalist Group of Bahia), and Instituto ClimaInfo (ClimaInfo Institute), with support from the Institute for Climate and Society (ICS). The event put the spotlight on the socio-environmental impacts of building wind and solar plants, highlighting the relevance of developing safeguards to support social and environmental justice in the processes of project generation and implementation.

In November, [we carried out a technical visit and community listening process in the settlements of the Prado Complex \(Sítio Ágatha\)](#), in the municipality of Tracunhaém (PE), with the objective of assessing on-site the socio-environmental impacts arising from the installation and operation of the 500 kV Campina Grande III - Pau Ferro Transmission Line (TL). The activity brought to the debate the importance of socio-environmental safeguards in implementing energy transmission infrastructure projects.

Wind energy plant in Icarai, Ceará (CE), Brazil.



CLEAN AND INCLUSIVE ENERGY MATRIX

Riverside houses in
Brazil's Northern Region.



PHOTO: Yasmin Cadore/Pexels

IEMA also expanded its work on the subject through participation in events. In September, it was present at the meeting “[Energy Transition: Impacts on Nature and Community Life Territories in the Sertão of Alagoas](#)”, in Delmiro Gouveia (AL). On that occasion, Institute researcher Meiriele Alvarenga presented the organization's position on the need for socio-environmental safeguards in the expansion of centralized photovoltaic solar energy generation.

This was also the subject of a publication by the Nordeste Potência collective, in which IEMA participated: “[Socio-Environmental Safeguards for Centralized Photovoltaic Solar Energy](#)”. The document compiles more than 50 recommendations for guiding the expansion of solar energy in a socially and environmentally responsible manner, so as to prevent the sector's accelerated growth from causing negative impacts in the areas where projects are installed.

PUBLIC CONSULTATIONS

Throughout the year, IEMA also contributed technical information and recommendations in public consultations promoted by government agencies:

[We emphasized the need for alignment between Brazilian electricity sector regulation, energy policy, and the country's climate targets in Call for Contributions No. 07/2025 of the National Electric Energy Agency \(Aneel\).](#)

[We pointed out the need for a broad review of subsidies for the Brazilian electricity sector and for implementing tariff justice in Public Consultation No. 187/2025 of the Ministry of Mines and Energy \(MME\).](#) The initiative aimed to establish guidelines for applying discounts to tariffs for the use of the electricity transmission and distribution network in the country.

In Public Consultations No. 194/2025 and No. 195/2025, on the guidelines and framework for the 2026 Capacity Reserve Auction (LRCAP), [we recommended that procurement mechanisms consider sustainability, flexibility, cost-effectiveness, and alignment with Brazilian climate targets.](#)

In Public Consultation No. 191 of the Ministry of Mines and Energy, regarding the proposed methodology for selecting areas for the development of offshore wind projects in Brazil's marine space, we contributed by highlighting the importance of participation by representatives of society - especially coastal communities - from the beginning of the methodology development process.

Through our work in the Nordeste Potência collective, we monitored and contributed to the debate on incorporating socio-environmental safeguards into the electricity section of the Brazilian Sustainable Taxonomy (TSB).

[We presented contributions on the economic, social, and environmental impacts of climate action in the Public Consultation on the Climate Plan.](#)

ARTICLE

The article “[A just transition requires reducing demand for oil](#)”, published in the newspaper Estadão by Ricardo Baitelo, IEMA project manager, and Nicole Dejarnes, from the Institute's communication area, analyzes how mobility, electrification, and industrial restructuring can be drivers of an effective energy transition.

Integration of renewables

In 2025, IEMA continued studies and analyses aimed at advancing the integration of renewable sources into the Brazilian energy matrix. These efforts seek to identify opportunities and challenges for better use of these sources in the system, reducing generation curtailment and increasing synergy among them.

The decarbonization of energy matrices around the world necessarily involves understanding and addressing this challenge, especially in Brazil, where the energy matrix already has a high share of renewables. Not only in Brazil, but also in other countries, knowledge gaps and divergent understandings are observed in this debate, which must be overcome to enable the appropriate expansion of renewable sources, accompanied by the gradual reduction of fossil sources.

The research includes assessing the current infrastructure of energy generation sources, including a survey of the state of the art of each source, its costs, and attributes. At the same time, it seeks to identify conditions of complementarity with new technologies, such as battery storage and pumped-storage hydropower plants, in addition to analyzing the role of energy transmission. Finally, it considers the best allocation of resources in light of the increase in generation curtailment, which has become a risk to the recent growth of generation from renewable sources.

IEMA has been conducting a series of interviews with representatives of different segments of the electricity sector, with the objective of gathering a range of opinions and perspectives to develop a comprehensive assessment of how renewable sources are integrated in the sector.

Based on this survey, scenarios will be developed that seek the maximum use of renewable sources through optimization models. The objective is to identify, with the necessary technical depth, the existing gaps in the modeling adopted by the sector and the need to overcome them.

Emissions from thermal power plants grow amid the expansion of renewables

In December 2025, we launched the [5th Inventory of Atmospheric Emissions from Thermal Power Plants](#). The document shows that the 67 fossil fuel thermal power plants connected to the National Interconnected System (SIN) emitted 23.2 million tonnes of carbon dioxide equivalent (tCO₂e) in 2024 (base year of the data collected), [a 29% increase compared to 2023](#).

Total electricity generation in Brazil reached a record level in 2024, driven mainly by solar and wind sources. However, the inventory indicates that the need to maintain the operation of fossil fuel plants to guarantee power and system stability reveals a dependence that poses challenges to the country's decarbonization targets.

The data collected show that total fossil thermal power generation rose from 64 TWh in 2023 to 74.4 TWh in 2024, an increase of 17%. Considering the plants that injected electricity into the National Interconnected System (SIN), the inventoried generation totaled 39.5 TWh, with 75% from 43 natural gas plants, 23% from coal, and less than 2% from fuel oil and diesel oil.

CLEAN AND INCLUSIVE ENERGY MATRIX

Total electricity generation in Brazil in 2024 was approximately 751 TWh, an increase of 43 TWh compared to the previous cycle. This growth was supported mainly by solar and wind sources, responsible for 108 TWh (14%) and 71 TWh (9%) of national generation, respectively.



PHOTO: Ricardo Stuckert/PR

“

"The discussion about the future of thermal power plants goes beyond current emissions. It involves the decisions we are making today about the expansion of the electricity system and the degree of dependence we will have on fossil fuels in the coming decades."

*Raíssa Gomes,
IEMA researcher.*

PUBLICATION



[5th Inventory of Atmospheric Emissions from Thermal Power Plants](#)
Electricity generation, emissions, and list of companies owning fossil fuel thermal power plants in the National Interconnected System.

Universal access to electricity

Access to energy is an indispensable condition for exercising other rights and for promoting dignity, social inclusion, and economic development. A survey conducted by IEMA and published in 2025 revealed that 3,659 schools and 966 Basic Health Units (UBS) do not have grid electricity in the Legal Amazon.

In addition to excluding these populations from access to basic and essential services guaranteed by the Constitution, the lack of electricity creates logistical, economic, and environmental barriers that hinder full civic participation. One of these is the poor conditions for developing sociobioeconomy projects, which generate income for communities while keeping the forest standing.

To understand this scenario and act as an inducer of improvements, IEMA launched, in November 2025, the study “[Mapping the sociobioeconomy: bases for energy inclusion policies in the Legal Amazon](#)”. The study reveals that, in the nine states of the region, more than 84,000 extractivist establishments do not have access to electricity, affecting producer communities, family farmers, and traditional peoples.

The highest rates of electricity exclusion are observed in Roraima, Amazonas, and Pará, where 74%, 66%, and 45% of producing communities, respectively, do not have access to electricity. [These figures underscore the need to guarantee reliable and affordable electricity](#) — one capable of strengthening sociobiodiversity production chains and empowering those who live and work in the forest.

André Luis Ferreira, Executive Director of IEMA, during the launch of Aneel's Energias da Floresta Regulatory Sandbox, held in partnership with IEMA.



CLEAN AND INCLUSIVE ENERGY MATRIX

To contribute to transforming this reality, [IEMA signed, in October 2025, a technical cooperation agreement with the National Electric Energy Agency \(Aneel\)](#). The partnership, the first of its kind between the agency and a civil-society organization, focuses on energy and social inclusion.

The joint work is developed as part of the Projeto Sandbox Regulatório Energias da Floresta ("Energias da Floresta" Regulatory Sandbox Project). The initiative aims to test innovative solutions for the energy access for indigenous peoples and traditional communities of the Amazon region. The initiative may involve government agencies, civil-society organizations, academia, and energy distributors, seeking to improve regulation and public energy policies for the region.

The project is designed to serve extractivist populations, indigenous peoples, Quilombola communities, and other traditional communities, as well as communities living in isolated areas with inadequate service or still without access to the public electricity grid. The initiative is considered the first step toward transforming energy supply into a driver of community autonomy and regional development.

In December, Aneel finalized the proposal for a Normative Resolution (REN) establishing the guidelines for the Regulatory Sandbox. The text was submitted to the agency's board for evaluation, deliberation, and opening of a public consultation. The REN establishes the scope, guiding principles, and fundamental definitions that guide the design, structuring, and development of the initiatives to be implemented within the project.

In the same month, within the context of the Regulatory Sandbox, the Training of Community Energy Agents (ACE) action was carried out in the Tapajós-Arapiuns Extractive Reserve (Resex), in Pará.

A total of 15 Indigenous, Quilombola, extractivist, and riverine participants from different Lower Tapajós territories took part in the activity, which addressed management, maintenance, and sustainable use of solar energy systems in Amazon communities.

The [pilot course](#) was promoted by the Forest Peoples' Connection Network, with support from the organizations of the Energy Working Group, represented by IEMA, Health and Joy Project (PSA), WWF-Brazil, Íon Energia, National Council of Extractivist Populations (CNS), National Coordination for the Articulation of Black Rural and Quilombola Communities (Conaq), and Coordination of Indigenous Organizations of the Brazilian Amazon (Coiab).

IEMA also engaged the Federal Government through a cooperation agreement signed in April with the Ministry of the Environment and Climate Change (MMA), through the National Secretariat of Bioeconomy (SBC), to collect, organize, and analyze data to inform the review of the National Sociobioeconomy Plan. The partnership seeks to strengthen the information bases that support planning and guide the plan's actions.

PHOTO: João Albuquerque



Vinícius Oliveira da Silva took part in the training of community energy agents in Santarém (Pará, Brazil).

Solar panel in the Xingu Indigenous Territory (TIX).



PHOTO: Tauan Alencar/MME

“

"Access to electricity in the Legal Amazon must be treated as a fundamental right and an essential condition for the dignity, food and water security, and sustainable development of forest peoples. Electricity is an indispensable prerequisite for the exercise of other basic rights, and a pathway to better health, education, and quality of life."

Vinícius Oliveira da Silva,
IEMA researcher.

PUBLICATION



[Mapping the sociobioeconomy: bases for energy inclusion policies in the Legal Amazon](#)

Energy & Communities Network

Throughout 2025, a series of initiatives by the Energy & Communities Network (REC), in whose executive secretariat IEMA participates, drove actions aimed at universal access to electricity and the monitoring of public policies.

In March, we participated in the [First Monitoring Meeting of the Light for All Program \(LpT\) in the Xingu Indigenous Territory](#), in the state of Mato Grosso. At the event, held by the Energy & Communities Network (REC), of which we are part, we discussed failures in the implementation of the program and topics such as the Social Tariff for Electric Energy (TSEE), the People's Light program, and the importance of service availability for well-being, quality of life, and sustainable economic development. Participants in the discussions included the Ministry of Mines and Energy (MME), the National Electric Energy Agency (Aneel), the Energy Research Company (EPE), the National Foundation for Indigenous Peoples (Funai), the local energy concessionaire, and representatives of 12 local Indigenous peoples.

The debates enabled the preparation of two documents: the [Letter from the Xingu Indigenous Peoples on the Light for All Program](#) and the [Contribution of the Energy & Communities Network to the Monitoring Meeting of the Light for All Program in Xingu](#).

The Letter was built collectively by representatives of the Indigenous peoples of the region. The document expresses concerns, reports, and proposals related to access to electricity in the Indigenous territories of Xingu. The main topics addressed are: failures in LpT implementation, difficulties in accessing TSEE, risks to family safety, absence of adequate communication channels with concessionaires, and weaknesses in the maintenance of installed systems.

REC's position, expressed in the Contribution, reaffirms its commitment to defending just and inclusive energy policies built on active listening to indigenous peoples and traditional communities. The document is addressed to the bodies responsible for formulating and executing the public policy and proposes concrete pathways to overcome the challenges identified.

In August, the Monitoring and Evaluation Meeting of the Light for All Program in Quilombola Communities in Pará was held in the municipality of Abaetetuba. The event also brought together representatives of government agencies and local authorities. Based on the debates, the following documents were drafted and launched: [Manifesto Letter of the Quilombola Communities of Abaetetuba \(PA\)](#), which details precarious access to electricity in the region, and a [REC technical note](#) on the meeting.

The Network's note calls for the immediate inclusion of families in LpT, with prioritization of schools, health posts, and community centers. The document also highlights the importance of inclusion with tariff justice and compensation mechanisms for communities impacted by the installation of transmission lines in the region.

In November, we developed fieldwork in the Canavieiras Marine Extractive Reserve, on the southern coast of Bahia. The action assessed access to electricity and infrastructure in the communities of Barra Velha, Campinhos, and Peso, with the objective of identifying alternative solutions to be adopted by families and monitoring the progress of the People's Light and Light for All programs in the region. This initiative was carried out with REC organizations, in partnership with the Chico Mendes Institute for Biodiversity Conservation (ICMBio), the Ministry of Mines and Energy (MME), Aneel, and WWF-Brazil.



Fábio Galdino and Vinícius da Silva in the Wawi Indigenous Territory (Mato Grosso, Brazil).

PHOTO: Courtesy/IEMA

As part of this work, the first field test was conducted to operationalize the Light for All application, aimed at identifying and registering residential consumer units eligible for service under the program of the same name. The action was conducted in partnership with the app development team, in addition to representatives of MME and the Ministry of Management and Innovation in Public Services (MGI).

ARTICLE

The text "[Power cut](#)", published on the Central da COP website of the Climate Observatory by author Vinícius Oliveira da Silva (IEMA researcher), denounces the precariousness of access to electricity in Quilombola communities in Pará, which demand that the State provide renewable and quality energy.

Building pathways for access to electricity

In 2025, we participated in a series of meetings, technical events, and seminars that discussed universal access to electricity in Brazil.

Throughout the year, we were present in initiatives of the Forest Peoples' Connection Network, of which we are members of the advisory council. We participated in its second meeting, held in Manaus (AM), where Institute researcher Vinícius Oliveira da Silva addressed the challenges of universal access to electricity in a panel on connectivity and a just energy transition.

At the meeting, the Energy Working Group, co-led by IEMA, defined actions for the active search for beneficiaries and the development of training for community energy agents.

During the year, IEMA also participated in two seminars promoted by the Institute for Energy and Environment of the University of São Paulo (IEE/USP), both in October. The first focused on access to electricity in the Legal Amazon. In it, we highlighted the [importance of integrating public policies addressing the issue in the region](#), through the participation of researcher Vinícius Oliveira da Silva.

[The second, entitled After the Hydroelectric Plants: social and environmental processes that occurred after the construction of Belo Monte, Jirau, and Santo Antônio in the Brazilian Amazon](#), featured IEMA project manager Ricardo Baitelo and researcher Vinícius Oliveira da Silva. Our representatives addressed the challenges of electricity production in the context of climate change and presented alternatives for the electricity sector.

Also in October, IEMA participated in the Technical Seminar on Productive Uses of Energy in Territories, held at the Chico Mendes Institute for Biodiversity Conservation (ICMBio). The objective was to understand the energy demands of cooperatives, associations, and sociobiodiversity and family-farming communities, to guide public policies and adapt service provision to local productive realities.

In November, we were present at the technical visit and community listening process in the Prado Complex, in Tracunhaém (PE), related to the implementation of the 500 kV Campina Grande III - Pau Ferro Transmission Line over local settlements. IEMA worked on documenting and evaluating the work, seeking to highlight the socio-environmental, productive, and territorial impacts resulting from the project. We also worked to strengthen dialogue with the communities involved and broaden understanding of the challenges imposed by large energy infrastructure projects.

We were also present in the participatory development of ARPA Communities, the new cycle of the [Amazon Protected Areas Program \(ARPA\)](#). IEMA researcher Vinícius Oliveira da Silva participated in the initiative's development workshop, which brought together representatives of more than 20 territories in the states of Pará, Amapá, and Maranhão. Among the main consensuses built at the meeting were the need to strengthen community organizations to expand access to public policies, the importance of increasing resilience to climate change, and the guarantee of effective co-management of territories.

CLEAN AND INCLUSIVE ENERGY MATRIX

PHOTO: Fernando Frazão/Agência Brasil

Ajuruteua Fishing Village, located within the Caeté-Taperaçu Marine Extractive Reserve in Bragança (PA), Brazil.



IMA IN THE MEDIA

Agência Brasil

[Organizations criticize extension of subsidies to coal-fired plants](#)

O Eco

[Brazil chooses to follow the coal roadmap](#)

Metrópoles

[Thermal power plants: understand the expensive and polluting model favors in Congress](#)

Um Só Planeta

[The challenge is to replace dispatchable energy, especially thermal energy, says IEMA project manager](#)

Deutsche Welle

[Why Brazil still bets on thermal power plants](#)

Estadão

[A just transition requires reducing demand for oil](#)

Projeto Colabora

[The Amazon region has more than 84,000 extractivist establishments without electricity](#)

Eixos

[Roraima, Amazonas, and Pará lead electricity exclusion among extractivists, says IEMA](#)

Agência Pública

[Authorities and companies announce energy transition in Roraima with exaggerations and omissions](#)

Ecoa/Uoi

[How does electric car battery recycling work?](#)

Ópera Mundi

[Energy transition will only be complete if it guarantees access for the poorest, says expert](#)

TV Cultura/Jornal da Cultura

[Electricity Sector Reform](#)

TV Aparecida

[Red Flag: understand the impact of the tariff on your pocket](#)

Canal Energia

[IEMA proposes chance in the sector financing model via CDE](#)

R7

[Host of COP30 and home to the largest plants, Pará is the state with the most people without energy](#)

Rede de Notícias da Amazônia

[IEMA launches study on energy exclusion in the Amazon region and proposes pathways for productive inclusion](#)

Valor Econômico

[Access to clean energy is unequal in the North Region](#)

Agência Eco Nordeste

[Without safeguards, renewable energies become threats](#)



Sustainable Regional Freight Transport

*Reduce negative
socio-environmental
impacts of freight
transport*

Today's decisions directly shape tomorrow's paths – and this is especially true for freight transport in Brazil. Throughout 2025, we dedicated ourselves to strengthening and institutionalizing decision-making processes related to transport infrastructure in the country.

We know that defining priorities that balance development and sustainability is essential, especially in the Amazon region, a strategic region marked both by deforestation pressure and by the lack of logistical planning that meets the needs of its communities. In addition to responding to export demands, it is essential that transport investments contribute to improving the quality of life of local populations, ensuring access to basic services such as health, education, energy and internal mobility.

When properly executed, logistical planning can also contribute to the outflow and marketing of socio-bioeconomy products, encouraging environmental preservation. In this way, it becomes an instrument of socio-economic development, local value generation and protection for forests. This is a logic opposite to that historically observed, in which disorderly freight transport has acted as a driver of deforestation and social conflicts.

We remain committed to contributing to the construction of a fairer, more transparent Integrated Transport Planning (PIT) process aligned with socio-environmental criteria. In 2025, we participated actively and collaboratively in the preparation of the National Logistics Plan (PNL 2050), one of the main instruments that make up the PIT and guide transport infrastructure planning in the country.

PNL 2050 represents a strategic opportunity to redirect the expansion of Brazilian logistics infrastructure, especially in the Legal Amazon, incorporating socio-environmental criteria, social participation and an integrated vision of territorial development.

Based on dialogue with representatives of the government, Amazon communities, researchers and civil society organizations, the institution argues that the socio-environmental indicators to be included in the PIT should consider not only efficiency metrics and economic cost, but also the direct and indirect impacts on ways of life, ecosystems, territorial rights and local vulnerabilities.

It is essential that this planning be prepared based on structured data, which assist decision-making on which investments should be made. Thus, the availability of objective information serves as input for the assessment and selection of logistics projects by the various actors that participate in the construction of the Plan.

Finally, it is imperative that logistics planning go beyond PNL 2050. To ensure effectiveness and continuity, this process needs to be institutionalized by law, linked to the public budget, and consolidated as a State policy, avoiding discontinuity or the execution of projects without due prior assessment.



"The improvement and institutionalization of decision-making processes in transport infrastructure are fundamental to ensuring civil society participation and reducing impacts such as deforestation and socio-environmental conflicts. To this end, this process must be provided for by law, ensuring that strategic planning instruments, such as PNL 2050, are linked to the public budget and consolidated as permanent State policies. This avoids discontinuities between governments and the execution of projects without due prior assessment of their impacts."

*André Luis Ferreira,
executive director of IEMA (Institute for Energy and Environment).*

Interactive platform for infrastructure projects

In July, IEMA launched the [Interactive map of transport infrastructure planned by the Federal Government](#). The platform brings together, in a single online environment, the main federal transport infrastructure projects focused on the Amazon region. The tool consolidates data from the Multi-Year Plan (PPA), the Investment Partnerships Program (PPI), the Growth Acceleration Program (PAC) and authorized railways, offering an integrated view of the planned investments in the sector.

The objective of this instrument is to increase transparency, facilitate public monitoring of transport infrastructure projects and support local populations in organizing and defending their territories in relation to these works. The platform highlights the Madeira, Tocantins-Araguaia and Tapajós-Xingu logistics corridors.

After all, the [Legal Amazon risks being crossed by an increasingly extensive network of highways, waterways and railways](#), many already under construction, authorized or under study in federal programs.

The database was consolidated based on public information provided by federal government agencies, such as the ministries of Transport and of Planning and Budget; the Civil House; the National Land Transport Agency (ANTT); the Chico Mendes Institute for Biodiversity Conservation (ICMBio); and the National Institute for Colonization and Agrarian Reform (Incra).

Strengthening social participation in transport infrastructure planning

Integrated Transport Planning (PIT), established by Decree No. 12.022/2024, is a continuous and evolving set of plans, updated in four-year cycles, intended to support decision-making in the Brazilian transport system. As a principle, the PIT seeks to guide interventions and investments in the sector, aligning them with national objectives through evidence-based instruments built from multiple perspectives.

Within the PIT, IEMA actively collaborated in the preparation of the National Logistics Plan 2050 (PNL 2050), which guides long-term public and private investments for the sector. The preparation of PNL 2050, led by the Ministry of Transport, opened a strategic opportunity for socio-environmental criteria and risks to cease being considered only in environmental licensing and to begin guiding project selection from the initial stages.

This is the first time that the Federal Government has promoted broad dialogue with civil society to improve transport in the country. During the year, we participated in all phases of preparation of PNL 2050, with attendance at online meetings, in-person meetings and public consultations.

Through data, analyses and coordination with different actors, IEMA seeks to advance the inclusion of socio-environmental criteria in

planning and formalization processes and in improving decisions related to logistics planning, with the objective of strengthening transparency, social participation and the effective consideration of possible impacts on communities and populations across Brazil.

The first phase of preparing the plan was marked by regional in-person meetings, such as in São Paulo (SP) and Manaus (AM). At these events, the public authorities, led by the Ministry of Transport, collected information from representatives of society for the preparation of the freight origin-destination matrix – a tool that indicates where the products transported in the country come from and where they go, developed by Infra S.A. Through this work, the main transport flows to be served by PNL 2050 are outlined.

IEMA monitored this process, defending the relevance of ensuring the prevention of social and environmental risks in logistics projections. [In the debate concerning the Southeast Region, in the São Paulo capital](#), representatives of the Institute were present and emphasized that, in projecting the origin-destination matrix for 2050, [the socio-environmental issues arising from the increase in the area allocated to agricultural and livestock production in sensitive territories, such as the Amazon region, must be considered](#).

[The debate related to the North Region](#) was divided into three: the Amazon region of agricultural and mineral bulk commodities; the Amazon region of the Manaus Industrial Hub; and the "deep" Amazon region, focused on the internal outflow of goods such as medicines, for example.

Public consultations and technical contributions

As part of the public consultations, IEMA participated in all stages. The first took place during the initial phase of surveying and debating the freight origin-destination matrix, at which time the organization [suggested the incorporation of legal limits and public policies aimed at environmental protection.](#)

The remaining contributions were presented in the second phase of preparing PNL 2050, dedicated to diagnosing and analyzing the information and data produced throughout the process. At this stage, the organization [proposed actions to improve the transparency and technical quality of the freight transport simulation model, including the disclosure of specific physical and operational characteristics of each section.](#)

In another contribution, IEMA suggested that the [plan detail the greenhouse gas \(GHG\) emissions of the transport network by section, mode and type of cargo. In addition, it proposed indicating the length, in kilometers, of transport infrastructure that crosses protected areas, such as Quilombola communities' territories.](#)

Subsequently, IEMA sent a [technical contribution](#) to the Ministry of Transport for the [public consultation “Part III: corridors and territorial integration indicators; matrices, loadings and passenger transport indicators.](#) Among the proposals presented are the inclusion of international flows and indicators that represent the modes of transport used in territorial integration corridors.



Contributions to the development of socio-environmental indicators

IEMA remained committed to contributing to the construction of a fairer Integrated Transport Planning (PIT) process aligned with socio-environmental criteria. Based on dialogue with Amazon communities, researchers and social organizations, the organization advocates the incorporation of socio-environmental indicators into planning, covering direct and indirect impacts on ways of life, ecosystems, territorial rights and local vulnerabilities, beyond efficiency metrics or economic cost.

In September, IEMA promoted, in partnership with the Ministry of Transport (MT), the Socio-Environmental Infrastructure Working Group and the Socio-Environmental Institute (ISA), the [“2nd Focus Group Workshop for the National Logistics Plan \(PNL 2050\)”](#). The event opened space for debate and listening to civil society, researchers and public representatives on the socio-environmental criteria presented in the public consultation [“Socio-Environmental and Climate Indicators for the National Logistics Plan 2050”](#), which remained open for contributions for one month.

During the meeting, the socio-environmental indicators that should be prioritized and how they can be effectively used in the planning process were discussed.

[IEMA's stated position](#), both at the workshop and at the XXI National Symposium on Public Works Auditing, held in Manaus (AM), emphasizes alignment between PNL 2050 and the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm). The organization understands that there is convergence between PPCDAm, a federal policy, and PNL 2050, since infrastructure

works can both place pressure on forest areas and support development aligned with conservation.

IEMA's executive director, André Luis Ferreira, also noted the need for transport logistics planning in Brazil to go beyond PNL 2050. The entity's position is that, to be effective, the plan needs to be enacted into law. In this way, its results would become directly linked to the public budget and would be consolidated as State policy, avoiding discontinuities and the execution of projects without prior assessment.

Sunset on the Negro River in Manaus (Amazonas, Brazil).

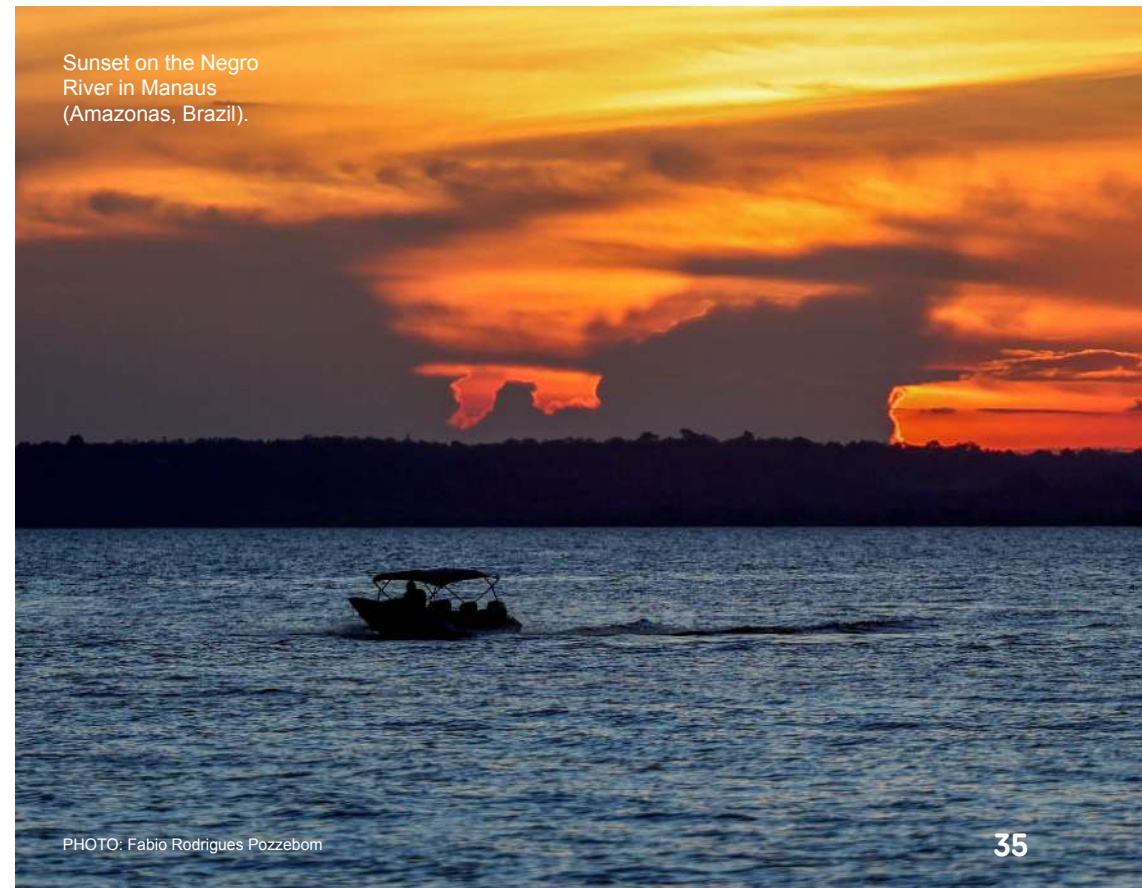


PHOTO: Fabio Rodrigues Pozzebom

Infrastructure for sociobiodiversity products

In this process, in the context of participation in the development of the National Logistics Plan 2050, the [first meeting on infrastructure for sociobiodiversity products](#) also deserves mention. Held at the Office of the Comptroller General of the Union (CGU), in Brasília, and convened by the Ministry of Transport together with civil society organizations, such as IEMA, the event discussed the challenges faced by traditional communities in the Amazon region, Cerrado and Atlantic Forest, emphasizing the importance of including these populations in transport infrastructure planning.

Civil society organizations, cooperatives, Indigenous peoples and Quilombola communities representatives and representatives of different federal government agencies presented the infrastructure difficulties faced and possible solutions to boost the local economy in a way aligned with forest preservation.

IEMA researcher Vinícius Oliveira da Silva presented unprecedented data on the location and quantity of sociobiodiversity products produced in the Legal Amazon. He emphasized that 63% of these products are intended for marketing, while 37% are intended for self-consumption.

The participating entities emphasized the need to include traditional populations in transport infrastructure planning. This inclusion is considered essential for the logistics of products in the sociobiodiversity chain – such as the extraction of açaí, baru nuts and Brazil nuts and pirarucu fishing –, as well as to overcome challenges of access to transport and mobility, a social right guaranteed in the Federal Constitution.

Open government and qualified participation

Throughout the year, IEMA deepened its engagement with the Federal Court of Accounts (TCU), contributing to debates aimed at improving the planning, transparency and governance of transport infrastructure in Brazil. The Institute's participation in workshops, technical panels and monitoring meetings reinforced the importance of incorporating socio-environmental criteria, monitoring mechanisms and meaningful public participation into the sector's planning and decision-making processes.

For example, IEMA participated in the “Domestic Freight Market Workshop”, promoted by the TCU, in Brasília, where the consistency between the goal of increasing railway participation in the transport matrix and the current regulatory framework was discussed. During the event, the results of Ruling No. 2000/2024 – TCU – Plenary were presented, revealing a critical scenario: railway data and investments are strongly concentrated in export operations. This dynamic prioritizes the outflow of commodities, leaving the domestic freight market in second place and increasing internal logistics costs.

In view of this, IEMA called for the formalization of the decision-making process so that planning can identify future bottlenecks and evaluate alternatives through broad social participation.

In June 2025, together with civil-society organizations, IEMA participated in a meeting organized by the TCU to discuss the developments of Ruling No. 438/2024. The focus of the meeting was the Monitoring Report that assessed Integrated Transport Planning (PIT) and the National Logistics Plan (PNL). The meeting sought to build strategies to monitor the Court's determinations, which point

to systemic and recurring failures in the sector. The need was emphasized for civil society organizations, such as IEMA, to be informed in advance about progress on the agenda, ensuring greater transparency, efficiency and alignment of logistics planning with the public interest.

In this same control context, IEMA participated in debates on indicators and monitoring of waterway works in the “TCU Reference Panel”. The operational audit conducted by the body found that waterway interventions lack integrated planning and prioritize freight transport to the detriment of the river’s social function, impairing the mobility of local populations and Riverine communities. The Institute reinforced that the incorporation of socio-environmental variables remains insufficient in the initial phases of planning, which weakens licensing and generates territorial conflicts, especially in the Amazon region.

The pursuit of improving and institutionalizing decision-making processes for freight transport infrastructure, ensuring that social and environmental aspects are always considered, also received support from other government agencies, such as the Office of the Comptroller General of the Union (CGU), as well as civil-society organizations and community movements.

In 2025, IEMA continued to contribute to Brazil's Sixth National Action Plan on Open Government under the Open Government Partnership (OGP), an international initiative that promotes transparency, social participation, and government accountability. In Brazil, the initiative is coordinated by the Office of the Comptroller General (CGU).

For months, IEMA and the CGU held online meetings with the objective of monitoring and debating the progress of the Brazil's 6th National

Action Plan on Open Government, in which both institutions act as responsible parties for specific actions.

IEMA's work focused on Commitment 1 of [Brazil's 6th National Action Plan on Open Government](#): “Instruments to improve transparency and social participation in infrastructure policies”. The commitment is aimed at mapping good practices and creating opportunities for social control in the planning, execution and monitoring of investments in the sector. As a contribution, we provided technical contributions and worked as a link between civil society entities, especially from the Amazon region, the CGU and the other public bodies participating in the initiative.

Within this commitment, IEMA and the CGU are responsible for coordinating Milestone 1, entitled “Mapping of good practices and opportunities for transparency, participation and social control in the decision-making process for planning, executing and monitoring infrastructure investments”. In working meetings, the organizations seek to propose mechanisms that ensure social participation in decision-making processes related to the country’s infrastructure, independent of whichever executive branch is in power.

[We also collaborated on Milestones 2 and 5 of the Commitment. Milestone 2 refers to the proposal of regulatory changes that indicate, for each relevant sector, the phases in which social participation is important and necessary, but is not yet provided for or is insufficient. Milestone 5 concerns the creation of a space for permanent dialogue between government and society on the agenda for improving infrastructure investment plans and projects.](#)

For IEMA, improving and institutionalizing decision-making processes in the field of transport infrastructure are fundamental to ensuring civil society participation and the reduction of deforestation and socio-environmental conflicts. In addition, they are also fundamental to ensuring that socio-environmental aspects guide investments in freight transport, preventing projects, especially those with major impacts, from being discussed only at the environmental licensing stage.

In periodic meetings with the CGU and other civil society organizations, we argued that social participation should be consolidated as a State policy, and not merely a government policy.

In October, the Brazilian commitment to promoting transparency and social participation in infrastructure works received an honorable mention at the [Open Gov Challenge Awards](#), presented in Spain.

Transport infrastructure in the Amazon region

In 2025, IEMA acted to support the active participation of civil society entities in debates for the development of the National Logistics Plan 2050 (PNL 2050), a strategic part of the PIT. Among the field missions in the Amazon region, three were accompanied by IEMA: two on the Madeira River (RO) and one in Santarém (PA).

The first sessions (on the Madeira River and in Santarém) were introductory in nature, focused on presenting PNL 2050 and explaining the transport infrastructure planning process. The aim was to bring the technical debate closer to local realities.

On the second visit to the Madeira River, the discussion on the waterway concession process was deepened. The developments, stages and possible impacts for the populations that depend on the river for mobility, supply and productive activities were detailed.

During this second moment, in Calama, a district of Porto Velho (RO), a meeting was held that brought together several Riverine communities in the region. The activity enabled qualified listening to local demands, clarification of doubts and the strengthening of dialogue between communities and the technical team, promoting greater understanding of how infrastructure projects can directly affect daily life and traditional ways of life.

The initiative reinforces the importance of ensuring informed social participation in planning and concession processes for transport infrastructure in the Amazon region.

View of a riverside area between the Tapajós and Xingu rivers in Santarém (Pará, Brazil).



PHOTO: Courtesy/IEMA

Information sharing and capacity-building

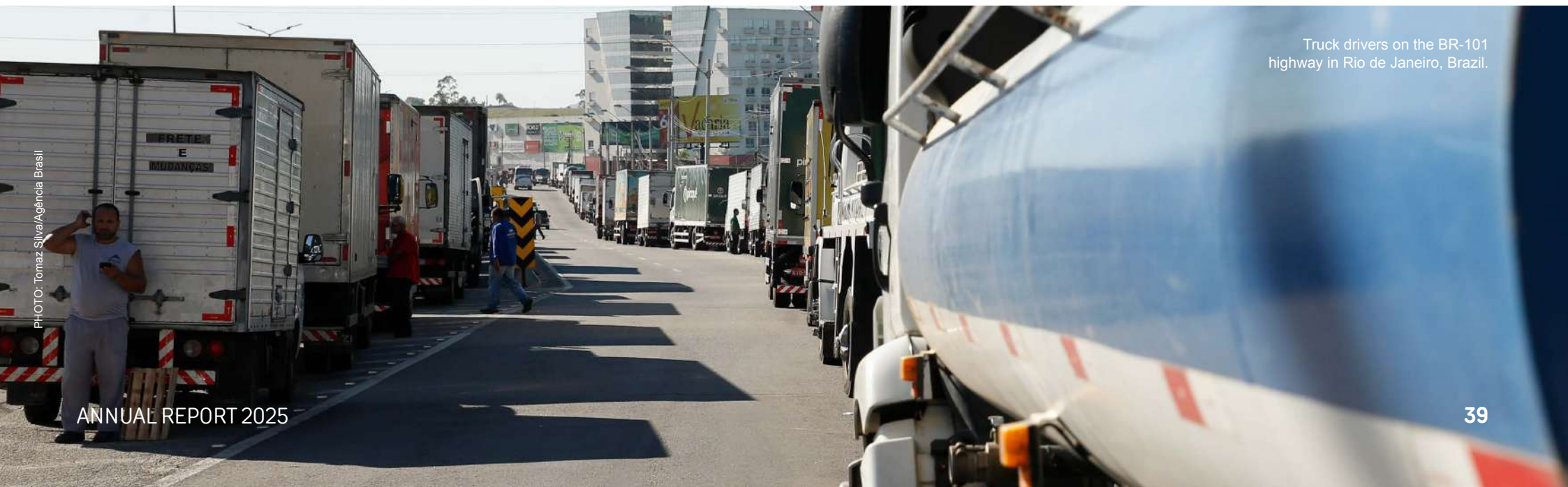
IEMA's executive director, André Luis Ferreira, was invited to address the topic "Analysis of planning, assessment of alternatives and infrastructure project portfolio" in the course [Socio-Environmental Control of Infrastructure](#), promoted by Transparency International in 2025.

In October, IEMA participated in a meeting in Lima, Peru, to share experiences on transport infrastructure in the Amazon region with other organizations that also operate in the region.

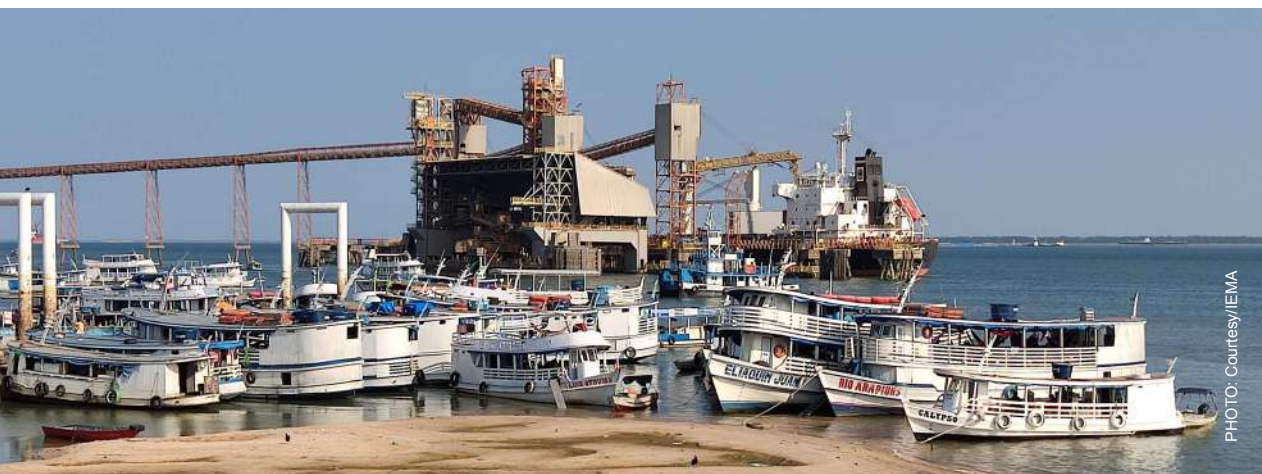
The IEMA team was also present at a two-day online meeting, held in November by WWF (World Wildlife Fund) and the Fundación para la Conservación y el Desarrollo Sostenible (FCDS) with the aim of strengthening dialogue and regional alliances around the development of sustainable transport infrastructure in the Amazon region.

The initiative brought together civil society specialists from different countries of the biome and promoted the exchange of experiences and strategic reflections on the application of the Lineamientos de Infraestructura Verde Vial (LIVV) and Strategic Environmental Assessments (SEA), focused on influencing decision-making processes, sectoral planning, knowledge production and the direction of investments aligned with a vision of sustainable development for the region.

IEMA also participated in the Post-COP Mini-Plenary and the Workshop of the GT Infraestructura e Justiça Socioambiental, held in December, in Brasília (DF). The meeting brought together civil society organizations and specialists to reflect on Brazil's political, economic and socio-environmental context after COP30 and advance the construction of collective strategies for transport infrastructure.



Truck drivers on the BR-101 highway in Rio de Janeiro, Brazil.



Santarém Solid Bulk River Terminal, in Pará, Brazil.

PHOTO: Courtesy/IEMA

ARTICLES

In the publication [“Brazil needs to correct its transport route”](#), in the newspaper O Globo, André Luis Ferreira, executive director of IEMA, argues that the National Logistics Plan (PNL 2050) should combine economic viability and socio-environmental responsibility, transforming regional transport proposals into integrated, participatory and socio-environmentally responsible projects.

The text [“Long-term tactical scheme”](#), published on the Central da COP website, of the Climate Observatory, by Susana Berbert, journalist at O Mundo que Queremos, and Isis Nóbile Diniz, IEMA communications coordinator, highlights the strategic importance of the National Logistics Plan (PNL 2050) for Brazil to achieve the goal of zero deforestation by 2030.

EDUCATIONAL MATERIALS

In partnership with GT Infra, IEMA published educational material explaining how transport infrastructure planning works in Brazil. The initiative seeks to expand society's knowledge and participation in decisions that affect people's daily lives and also the future. See the [booklet “Good practices in transport infrastructure planning”](#), which brings together fundamental criteria to ensure a transparent and efficient decision-making process, taking socio-environmental justice into account.

In another communication action to clarify how society can participate in PNL 2050, IEMA launched, in May, the [infographic](#) “How to participate in planning Brazil's transport infrastructure?”. The material explains the topic in a summarized and objective manner.

In June, André Luis Ferreira was interviewed in the first season of the podcast [“Dialogues for the Development and Infrastructure We Want”](#), by GT Infra. The episode [“Opportunities and challenges of the National Logistics Plan 2050”](#) addresses the progress that the PNL can generate and the importance of social participation in this planning.

IEMA IN THE MEDIA

Estadão do Mato Grosso

[Society should influence the planning of Brazil's transport infrastructure through 2050](#)

Portal Amazônia

[Unprecedented interactive map brings together transport works planned by the federal government in the Amazon region](#)

ABC do ABC

[Lack of investment in infrastructure makes freight transport more expensive in Brazil](#)

Portogente

[TCU report finds that railway infrastructure favors exports of mineral and agricultural commodities to the detriment of domestic supply](#)

InfoAmazonia

[Drought in Amazonas worsens transport challenges and exposes the absence of the State in the construction of the National Logistics Plan](#)

Tecnologística

[Lack of investment in infrastructure increases logistics costs in Brazil](#)

O Eco

[Emissions and transport sections in protected areas should be included in logistics plan](#)



Cross-cutting projects

Biofuels and land use:

pathways to a sustainable energy transition

Sugarcane.



We launched the study [“Biofuels in Brazil: aligning energy transition and land use for a carbon-negative country”](#). Prepared in partnership with the Climate and Energy Working Group (GT) of the Climate Observatory (Observatório do Clima), the study presents scenarios in which it would be possible for Brazil to more than double the production and consumption of biofuels by 2050 without deforestation, with socio-environmental safeguards and recovery of degraded natural areas.

The study reconciles energy planning with land-use planning in the country. Looking ahead to 2050, it concludes that the additional agricultural cultivation required to support biofuel production could occupy between 20 and 35 million hectares (Mha), out of the 56 Mha of degraded pastures available for agricultural expansion in the country. Among the safeguards highlighted are the guarantee of food production, as well as the protection and regeneration of natural areas.

The amount of land required for an expansion of biofuel use, identified by the study, is compatible with the guideline of eliminating deforestation and recovering natural areas advocated by the Climate Observatory.

The study indicates that, for this purpose, it is necessary to invest in higher-productivity crops and technologies, since biofuel production is, in fact, a land-intensive activity. Six scenarios were developed in the work, with different combinations of feedstocks and technologies for the production of ethanol, sugarcane bagasse, biodiesel, green diesel and sustainable aviation fuel (SAF). Four of them fall within the 56 Mha limit.

CROSS-CUTTING PROJECTS

They are:

FOCUS ON SUGARCANE AND MACAÚBA

Additional area required of 21 million hectares in 2050, with 100% of ethanol, green diesel and SAF produced from sugarcane and 100% of biodiesel derived from macaúba.

FOCUS ON MACAÚBA 2050

Additional area required of 26 million hectares in 2050, with 100% of biodiesel, green diesel and SAF produced from macaúba and 100% of ethanol derived from sugarcane.

FOCUS ON SUGARCANE, SOY AND MACAÚBA

Additional area required of 27 million hectares in 2050, with 70% of ethanol produced from sugarcane and 30% from second-crop corn, biodiesel derived from soy and macaúba in equal proportions, and 100% of green diesel and SAF produced from sugarcane.

FOCUS ON SUGARCANE

Additional area required of 34 million hectares in 2050, with 40% of ethanol produced from sugarcane and 60% from second-crop corn, 100% of green diesel and SAF derived from sugarcane, and 100% of biodiesel produced from soybean oil.

All scenarios also include forestry, mainly planted eucalyptus or pine forests, which generate firewood, charcoal or black liquor – a by-product of paper and pulp production.

ARTICLE

In the text “[Biofuels managed responsibly can be part of the solution to climate change](#)”, published on the Eixos portal, the members of the IEMA team, Nicole Dejarnes Silva and David Tsai highlight that the expansion of policies to encourage biofuels requires responses to persistent social and environmental challenges.

IN THE MEDIA

G1

[Brazil can double biofuel production by 2050 without needing to deforest, study indicates](#)

Eixos

[With sugarcane and macaúba, Brazil can more than double biofuel production without deforestation](#)

Terra

[Brazil has potential to take leadership in biofuel production: the secret may lie in macaúba](#)

Ecoa/Uol

[Biofuels: degraded pastures could be Brazil's new green pre-salt](#)

CNN Brasil

[Biofuel production can expand without deforestation](#)

Metrópoles

[How to double biofuel production in the country without deforesting areas](#)

Band

[Increase in ethanol percentage in gasoline boosts corn biofuels](#)

Repórter Brasil

[A bet at COP30, biofuels face sustainability challenges in production](#)

Network action to strengthen the climate agenda

IEMA (Institute for Energy and Environment) is part of the [Climate Observatory \(OC\)](#), a network that brings together more than 130 organizations focused on Brazil's environmental and climate issues, aiming to build a more equitable, prosperous, and sustainable Brazil. The Institute's project manager, David Tsai, is the coordinator of the Greenhouse Gas Emissions and Removals Estimating System (SEEG), Brazil's main independent platform for monitoring greenhouse gas emissions.

During the year, we developed a series of initiatives in partnership with the Climate Observatory. These included studies, technical documents and participation in events that reinforced IEMA's integration with entities working for climate and environmental justice in the country. The main line of work with the OC is SEEG, highlighted in a specific subsection of this report.

In November 2025, the Climate Observatory, with IEMA's participation, launched the [13th edition of SEEG \(Greenhouse Gas Emissions and Removals Estimating System\)](#). The data, covering the period from 1990 to 2024, indicate a reduction in total gross GHG emissions in 2024, directly associated with deforestation control, despite increases in emissions linked to energy generation and industrial processes.

Brazil's gross GHG emissions totaled 2.145 billion tonnes of carbon dioxide equivalent (GtCO₂e), a decrease of 16.7% compared with 2023. This is the largest reduction in the country's climate pollution rates since 2009 and the second largest in the historical series begun in 1990.

Net emissions, calculated after deducting carbon removals by secondary forests and protected areas, fell by 22% in 2024 compared with 2023. It was the second best percentage rate in the history of measurements, behind only 2009, when the reduction was 24%. In 2024, Brazil emitted 1.489 GtCO₂e net, compared with 1.920 GtCO₂e in 2023.

This decline is directly linked to deforestation rates. In 2024, the reduction of deforestation in the Amazon region and the Cerrado led to the largest annual drop in the history of emissions caused by land-use change: 32.5%. Gross emissions in this segment fell from 1.341 GtCO₂e to 906 MtCO₂e (0.906 GtCO₂e), representing 42% of the national total.

In the energy area, the focus of IEMA's work, there was a 0.8% increase in GHG emissions when comparing 2024 and 2023. This increase was not greater because of the historical record for ethanol consumption in the country, which reached 36 billion liters. As a result, the passenger transport sector posted a 3% drop in GHG emissions in the period, even with increased activity. It was the first time since the Covid-19 pandemic that we recorded a decrease in emissions in this segment, from 106 MtCO₂e in 2023 to 103 MtCO₂e in 2024.

In June 2025, the Climate Observatory launched a [new consultation feature within the SEEG platform](#). The tool allows searches broken down by biomes, states and municipalities. Users need only choose the

CROSS-CUTTING PROJECTS

locality to view an automated analysis of its emissions, with texts, charts and tables. The functionality is applied to data compiled in the 13th edition.

Based on the production and analysis of data on greenhouse gas emissions, the Climate Observatory has promoted initiatives aimed at the qualified use of this information. In 2025, three actions stand out in this regard:

In November, during COP30, the OC signed a technical cooperation agreement with Rio Grande do Sul to improve the quality of data on emissions and removals in the state. The cooperation will allow information, methodologies and tools to be shared between the Secretariat for the Environment and Infrastructure (Sema) and the Climate Observatory. IEMA was present.

Another Climate Observatory initiative in 2025 was the launch, in August, of the document “[Bases for Brazil’s proposed 2nd NDC \(2030-2035\) – Addendum: methane emissions](#)”. The report, which uses SEEG data, complements the 2024 study – “Bases for Brazil’s proposed 2nd NDC (2030-2035) by the Climate Observatory” – and presents a new scenario for the agriculture and livestock sector, responsible for more than three quarters of methane emissions in Brazil. The update contributes to the debate on the mitigation ambition for this gas, considering that Brazil has been a signatory to the Global Methane Pledge since 2021.

IEMA NA MÍDIA

Eixos
[Energy transition: Energy increases its share of Brazilian emissions](#)

Globo Rural
[Falling deforestation drove a 16.7% reduction Brazil’s emissions in 2024](#)

Revista Fapesp
[Deforestation and agriculture and livestock determine the size of Brazil’s carbon footprint](#)

Valor Econômico
[Greenhouse gas emissions have largest drop in 15 years](#)

G1
[Greenhouse gas emissions in Brazil have largest drop in 16 years, butt country is still not expected to meet its climate target](#)

ENERGY FUTURE

Beyond SEEG, we participated in the preparation of the study “[The Petrobras we need](#)”, launched in September as part of the Future of Energy series. The document addresses possible scenarios for the Brazilian company’s role in the energy transition.

ACTIONS

In October, IEMA conducted an edition of the Observatory’s series of thematic meetings, “Sextou”. At the event, we presented the results of the study “[Biofuels in Brazil: Aligning Energy Transition and Land Use](#)”, which included participation by the OC’s Climate and Energy WG.

In May, as a member of the OC secretariat and coordinator of SEEG, David Tsai participated in the [XXVI March to Brasília in Defense of Municipalities](#). At the event, he highlighted the importance of monitoring greenhouse gas emissions at the municipal level. IEMA’s project manager showed participants how the production and analysis of this information can underpin the development of more effective public policies to combat climate change.

METHANE

[Brazil leads support for actions to combat methane pollution in Latin America](#). According to a survey commissioned by the Global Methane Hub, 90% of the Brazilian population supports measures to mitigate this gas – the highest rate among the 17 countries assessed.

EFFECT OF CLIMATE CHANGE

In November, MapBiomass, a research network of which IEMA is a technical partner, launched the MapBiomass Atmosphere platform, aimed at understanding the effects of climate change. [At the launch event, David Tsai highlighted the importance of air quality monitoring to guide public policies and mitigation strategies.](#)

IEMA at COP30

In 2025, Brazil hosted, for the first time, the United Nations (UN) Climate Change Conference (COP30), held in Belém (PA) between November 10 and 21. IEMA actively participated in the program, contributing data, analysis and proposals to debates on reducing greenhouse gas emissions in the energy and industry sectors, the technical and environmental challenges of the energy transition, and universal access to electricity in the Legal Amazon. The Institute's work reinforced the importance of a just energy transition aligned with social inclusion, environmental protection and sustainable development.

Before the meeting, we participated in a series of preparatory events for the conference, aimed at civil society entities and academic and government representatives. One of them was the Bonn Climate Change Conference, in Germany, held in June. From Brazil, the [IEMA project manager, Ricardo Baitelo, represented the country on the panel “Institutionalizing Energy Innovations in the Global South”](#). He highlighted the evolution of wind energy and solar renewable energy chains in Brazil, as well as the need to consolidate sector planning and governance in the country, in the face of a history of instability and fragmentation.

In October, at the BRICS Policy Center, an initiative linked to the Institute of International Relations of PUC-Rio (IRI/PUC-Rio), David Tsai participated in “Towards COP30: Brazil’s NDC and the Global Stocktake (GST)”. He discussed the panorama of GHG emissions in Brazil.

IEMA's project manager was also present at the [Tecnoclima Joint Effort toward COP30](#), held in May in Belém (PA).



PHOTO: Fabio Cordeiro

The meeting brought together sectors of society to discuss the role of technology in tackling climate change and to strengthen partnerships, seeking to prepare the path to COP30. Tsai participated in [Panel II – Technology and Climate: Solutions to combat and mitigate climate change](#).

Technical advocacy and participation in the climate conference

COP30 was the sixth edition of the Conference of the Parties with IEMA present. In 2025, the institute presented data and analyses and participated directly in more than **20 activities in the Blue Zone, the Green Zone and partner spaces of the entity**.

IEMA's contributions to the climate conference focused on central themes of its work that are directly related to the COP30 agenda: just energy transition and sustainable development of renewable energy.

CROSS-CUTTING PROJECTS

In the debates, we raised current and relevant aspects such as power system flexibility, the technical and economic challenges for this area, the need to ensure socio-environmental safeguards and the risks of false solutions.

PHOTO: Ubaid Zia



David Tsai at an NZB event, at the Science Pavilion (COP30).

The debates on IEMA's participation resulted in 18 texts. [All events and sessions with direct IEMA participation are gathered in a dedicated page on COP30, available on the website.](#)

IEMA's participation agenda at COP30 also covered the themes of energy policy and fossil fuels. The Institute presented actions for fuel diversification and the modernization of Petrobras's work.

Six months after the start of the Net Zero Brazil project, [IEMA presented progress in building scenarios for Brazil to achieve net-zero emissions](#). The Institute's project manager, David Tsai, participated in the panel "Visualizing net-zero economies to inform action", which took place on November 12 at the Planetary Science Pavilion, in the event's Blue Zone. He showed how the country has significant potential for carbon removals through forest restoration and zero deforestation, provided that it integrates land-use, agricultural and livestock production, and energy policies.

Another relevant theme in the debates with IEMA participation was the socio-environmental risks of extracting strategic minerals for the energy transition, especially in the Amazon region. [The Institute's project manager, Ricardo Baitelo, participated in the panel "Critical minerals and socio-environmental impacts of the energy transition"](#), in the Green Zone, at the Creative Economy Building, on November 18. On that occasion, specialists advocated rigorous social and environmental criteria for the activity, as well as territorial safeguards and greater regulation of investments, to avoid widening inequalities and irreversible impacts.

CROSS-CUTTING PROJECTS

Methane emissions were the theme of the roundtable “From Commitment to Implementation: Accelerating Methane Mitigation in Brazil”, which took place at the Super Pollutant Solutions Pavilion on the 19th. [IEMA researcher Felipe Barcellos e Silva participated in the program](#) and emphasized a still little-known finding: Pará leads per capita methane emissions linked to the use of firewood and charcoal for cooking, which highlights energy poverty in the state.

Representatives of the Institute also participated in strategic debates in programs parallel to COP30. On November 13, at the Zoobotanical Park of the Goeldi Museum, in Belém (PA), IEMA's executive director, André Luis Ferreira, attended the event “[A 360° look at infrastructure in Amazonia: challenges and proposals for socio-ecological connectivity, socio-environmental rights and climate resilience](#)”.

Representatives of civil society, researchers and leaders of local Amazon communities argued that the design of infrastructure interventions in the region should be considered based on local environmental and social specificities, with robust transparency and participation mechanisms. IEMA's executive director warned of the relevance of early integration of risk assessments, strengthening transparency in planning and decision-making processes, social participation and the adoption of safeguards in financing to strengthen sociobiodiversity and climate resilience.

IEMA also participated in and supported the civil society mobilizations that marked the conference, such as the Peoples' Summit boat procession and the Global Climate March.

The COP30 closing text did not bring a consensus decision among the 195 participating countries on the roadmap for the transition away from fossil fuels. Despite including, for the first time, indigenous peoples

Felipe Barcellos e Silva during COP30, at the panel “From Commitment to Implementation – Accelerating Methane Mitigation in Brazil.”



and Quilombola communities in its content, the document did not present this final understanding, which IEMA considered necessary.

[In taking stock of the Conference's results](#), IEMA highlighted the construction of a roadmap proposed by the COP presidency as an initiative to be developed continuously throughout 2026.

In the webinar “[Belém and beyond: the legacy of COP30 for Brazil and the world](#)”, promoted by Um Só Planeta, from Editora Globo, to discuss the results of the international event, IEMA's project manager, Ricardo Baitelo, indicated what the organization understands as pathways and conditions for a just energy transition in the country.

EXPLORE THE TEXTS OF LECTURES AND PRESENTATIONS:

[From measurement to action: transparency in GHG inventories and integration with corporate climate neutrality strategies](#)

[The power of technology in the climate crisis](#)

[Will Brazil fulfill its promise? \(Será que o Brasil cumprirá sua promessa?\)](#)

[Challenges and inconsistencies in Brazilian energy policy](#)

[Visualizing net-zero economies to inform action \(Visualizing net-zero emissions economies to inform action\)](#)

[Sacrifice zones and false transition: impacts of LNG infrastructure and gas-sector riders](#)

[Technical and economic challenges of the energy transition: what barriers need to be overcome and proposed solutions to get there](#)

[Visualizing net-zero economies \(Visualizing net-zero emissions economies\)](#)

[A 360° look at infrastructure in Amazonia: challenges and proposals for socio-ecological connectivity, socio-environmental rights and climate resilience \(A 360° look at infrastructure in the Amazon region: challenges and proposals for socio-ecological connectivity, socio-environmental rights and climate resilience\)](#)

[Just transition to avoid climate hell: fossil fuel projects to cancel and strategies to do so \(Just transition to avoid climate hell: fossil fuel projects to cancel and strategies for doing so\)](#)

[Inefficient subsidies for fossil fuels](#)

[Tropicalization of the energy transition: bio-solutions for sustainability and resilience](#)

[The role of socio-environmental safeguards for renewable energy](#)

[The role of socio-environmental safeguards for a just transition](#)

[Methane seminar: climate emergency brake](#)

[Critical minerals and socio-environmental impacts of the energy transition](#)

[From commitment to implementation: accelerating methane mitigation in Brazil \(From commitment to implementation: accelerating methane mitigation in Brazil\)](#)

CROSS-CUTTING PROJECTS

ARTICLE

In the position paper “[COP30: A new path for the roadmap](#)”, IEMA emphasizes that, although countries did not reach consensus on a roadmap for the transition away from fossil fuels, there were important advances in recognizing Indigenous peoples, Quilombola communities and other vulnerable populations, as well as in strengthening mechanisms aimed at just transition and climate adaptation. The article also highlights the intense mobilization of civil society, such as IEMA's participation in debates, reinforcing the need for Brazil to build its own path to reconcile social inclusion, energy and climate security.

COP30 also hosted the launch of the 2026 edition of the Climate Change Performance Index (CCPI), which analyzed the climate performance of 63 countries and the European Union (EU), responsible for more than 90% of global emissions. Brazil, assessed by representatives of IEMA and the Climate Observatory (OC), maintains an intermediate position in the ranking. The main negative influence identified for the country is the expansion plans for the oil and gas sector and the absence of a timetable for the energy transition away from fossil fuels.

IEMA NA MÍDIA

Valor Econômico

[Country can play a leading role in reducing methane in the energy sector](#)

CBN

[Host of COP30, Pará is the Brazilian state with the most people without access to energy](#)

R7

[Host of COP30 and home to the largest plants, Pará is the state with the most people without energy](#)

Eixos

[Energy poverty exposes blind spot of the COPs](#)

Valor Econômico

[Brazil is in the “pole position” of the energy transition, specialists say](#)

Jornal O Globo

[Energy transition and carbon market | COP30 AMAZON](#)

Globo.com/Um Só Planeta

[See how the Um Só Planeta webinar went: ‘Belém and beyond: the legacy of COP30 for Brazil and the world’](#)

IstoÉ Dinheiro

[Brazil still subsidizes coal-fired electricity while seeking climate leadership at COP30](#)

Agência Pública

[Authorization to drill at the mouth of the Amazon on the eve of COP30 is the start of race for oil](#)



Guajará Bay with Belém Cathedral and the Presépio Fort, Pará, Brazil.

PHOTO: Tania Régio/Agência Brasil



Institutional development

The year 2025 was marked by initiatives aimed at strengthening corporate governance at IEMA. During the cycle, the organization continued building its 2026-2030 strategic plan and advanced in the creation of internal manuals and policies, bringing greater security to the management of topics considered fundamental, such as inclusion, diversity, human resources and harassment prevention.

The launch of these internal normative instruments reflects IEMA's commitment to consolidating a safe work environment. The standardization of these topics brings greater transparency to people management, in addition to ensuring greater well-being for employees.

The health and safety topic also advanced in 2025, with the update of the course on the work of the Internal Accident Prevention Commission (Cipa). IEMA's administrative and financial analyst, Gabrielly Alves, was the Institute's reference professional for this action, in compliance with the specific regulatory standard of the Ministry of Labor and Employment on the topic.

Throughout the year, the Institute's entire team participated in mandatory training related to occupational health. The activity focused on ergonomics, with an approach centered on employees' day-to-day work.

In 2025, the IEMA team continued to work mainly under a telework arrangement. Activities at the Institute's headquarters occurred sporadically and were not mandatory. The organization's physical structure is appropriate for this scenario.



"In addition to its external work, IEMA has strengthened its governance structure and institutional instruments to ensure an increasingly safe, inclusive work environment aligned with best people management practices, while also maintaining transparency, ethics and compliance in financial management."

*Mônica Takeda,
administrative and financial manager at IEMA.*

Expansion of the technical staff

In 2025, IEMA expanded its technical staff with the arrival of new professionals:

- Meiriele Alvarenga Cumplido joined the team with a focus on the analysis of socio-environmental risks, impacts and mapping of renewable energy plants.
- Mariana Calviello Meira Ramos joined the transport planning and modeling team.
- Anton Altino Schwyter joined the team working in energy transition and decarbonization.

RECOGNITION

IEMA, Instituto Pólis and other civil society organizations were honored by the Santo André City Council, in May, with votes of applause – a symbolic legislative instrument to [publicly recognize people or institutions for relevant services to society](#). O texto destaca a contribuição dessas entidades na defesa da Tarifa Social de Energia Elétrica (Medida Provisória nº 1300/2025), que prevê gratuidade ou isenção parcial na conta de luz para populações vulneráveis.

Governance and transparency

Transparency in IEMA's corporate governance is reinforced by objective accountability, submitted to an independent audit and reviewed by the Audit Committee and the Board of Directors. Financial transparency was also strengthened through the preparation of accountability reports provided for in grant agreements for specific projects.

At the end of the year, the Board of Directors held its second ordinary meeting, to deliberate on the election of its own members, the Executive Board and the Audit Committee. At the meeting, the work plan and budget for 2026 were also approved. On the Board of Directors, the terms of Georgia Pessoa, Joseph Ryan and Tasso Azevedo were renewed for another three years. On the Audit Committee, Carlota Aquino was reappointed and Eduardo Bernardes da Silva joined as a new council member.

Communication

Communication is one of the pillars supporting IEMA's institutional objectives and the results expected in its projects. By transforming technical knowledge into accessible, relevant content connected to the different realities of strategic audiences, the area contributes to expanding the organization's influence in public debate, strengthening its credibility and supporting decision-making processes in public policies.

In 2025, the Institute advanced in translating complex themes into narratives capable of engaging different audiences, such as partners, civil society organizations, traditional populations, journalists, opinion leaders and decision-makers. This work made it possible to increase the visibility of evidence produced by IEMA and strengthen engagement around work on transport, energy, climate, and the environment.

INSTITUTIONAL DEVELOPMENT

At IEMA, communication planning guides content production, narrative building and relationships with strategic audiences. The area works in an integrated manner with technical teams to ensure that studies, analyses and proposals produced by the organization contribute effectively to public debate and to advancing socio-environmental change.

Throughout the year, the Communications team had two dedicated professionals. To meet specific demands, the Institute also hired specialized professionals, such as journalists, designers and other freelance consultants, expanding its capacity to produce content and materials. In addition, the team had the support of an agency that carried out actions for the project “Strengthening Participatory Governance for Sustainable, Inclusive and Resilient Infrastructure in the Amazon region”.

The Communications area also worked on monitoring and covering strategic events, raising IEMA's profile in public debate and expanding the reach of its work and positions. Participation in COP30 stands out, consolidating the Institute's presence as a reference in the themes debated at the event. Intensive coverage of the organization's participation was carried out, with the production of releases and posts for social media throughout the conference.

Another product led and produced by the Communications area is IEMA's institutional newsletter. Published every two months, it had [six editions](#) in 2025.

We also maintain an active presence on different social networks:



In 2025, we highlight the holding of two study launches on our YouTube channel: [Biofuels in Brazil: aligning energy transition and land use for a carbon-negative country](#), on October 10; and [Mapping the sociobioeconomy: bases for energy inclusion policies in the Legal Amazon](#), on November 5.

ENERGY & COMMUNITIES NETWORK

As usual on occasions with partners and networks of which it is part, IEMA was present at the first meeting focused especially on communication of the Energy & Communities Network. The event focused on reviewing and updating action strategies.

Dialogue with the press

Media outlets and press professionals are key stakeholders in IEMA's communication work. The entity constantly engages with journalists to present information that contributes to public debate on energy and environmental issues.

This approach focuses on contributing to outlets through content distribution and making IEMA professionals available as sources for the production of news stories, interviews and participation in media debates and events.

INSTITUTIONAL DEVELOPMENT

In 2025, the expansion of content production and publications resulted in an increase in media mentions, with more than 800 media mentions throughout the year.

IEMA also invests in training journalists who work in the areas of environment, energy and infrastructure. For the entity, supporting these professionals so that they have deeper knowledge of the topics means expanding public debate, with gains in critical capacity and quality in coverage of these issues.

In October, IEMA promoted the workshop for journalists “Infrastructure: how the relaxation of environmental licensing rules and the National Logistics Plan 2050 can impact the country’s development”. The meeting opened space for debate on Brazil’s new logistics planning and on how it can avoid potential risks arising from the relaxation of environmental licensing rules in Brazil.

In this context, in August 2025, IEMA’s project manager, David Tsai, participated in the webinar “How to cover the environment with data from the Greenhouse Gas Emissions and Removals Estimating System (SEEG)”, promoted by the Digital Journalism Association (Ajour).

In the same month, the Institute’s project manager, Ricardo Baitelo, presented the challenges of the energy transition in Brazil to journalists from the outlet [Sumaúma](#). He also participated in the panel “Energy transition and opportunities for Brazil”, at a seminar on energy transition and the carbon market promoted by the newspapers Valor Econômico and O Globo and by CBN radio, held in the context of COP30.

In April, on Earth Day, Baitelo participated in the live “[Our Energy. Our Planet](#)”. The project manager discussed ways to accelerate the energy transition and promote clean, accessible and just energy. He highlighted the challenges of decarbonization in Brazil, especially in the transport sector, and the need to include vulnerable populations in the decision-making process for implementing transport infrastructure.

In July, Institute researcher Vinícius Oliveira da Silva presented data to journalists on universal access to electricity, at a meeting organized by [Agência Bori](#) – an organization that acts as a link between scientific production, the press and the public.



A flock of scarlet ibises over the Ajuruteua mangroves in the Caeté-Taperaçu Marine Extractive Reserve, Bragança (Pará, Brazil).

PHOTO: Fernando Frazão

ACTIONS IN NUMBERS

Approximately

840

media placements;

9

publications

2 in English, 3 in partnership and 6
authored exclusively by IEMA;

2

infographics
produced;

7

articles
published
in the press;

18

texts produced
on IEMA's participation in debates,
lectures and discussions in general,
during COP30.

An aerial photograph of a city street featuring a bridge with a decorative geometric pattern on its surface. The scene includes trees, buildings, and vehicles. Three large, light green wavy shapes are overlaid on the image, framing the text. The text 'Supporters and financial indicators' is written in white, sans-serif font on the left side.

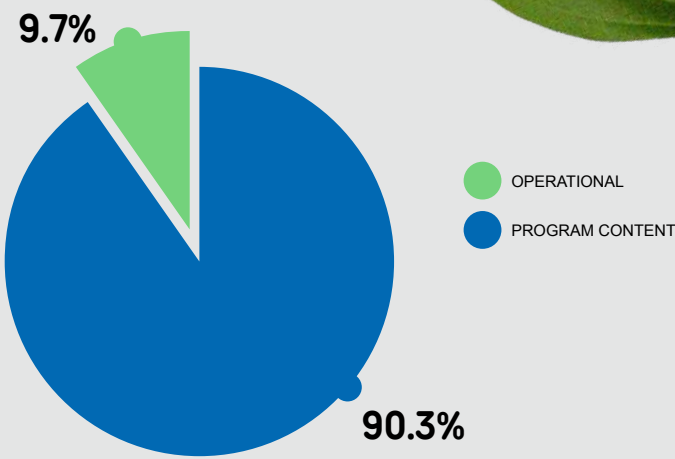
Supporters and financial indicators

SUPPORTERS 2025

Climate and Clean Air Coalition (CCAC, por United Nations)
Charles Stewart MOTT Foundation
Energy Transition Fund (ETF)
Global Methane Hub (GMH, por Windward Fund)
Gordon and Betty MOORE Foundation
Instituto Clima e Sociedade (ICS)
Observatório do Clima (LabOC)
Net Zero Brasil (NZB)

RESOURCE ALLOCATION 2025

	(in BRL)
Staff	4.876.378
Consultants	2.407.488
Travel / Conferences	1.012.678
Occupation / Infrastructure	147.478
General / Taxes	271.551
	8.715.573



BALANCE SHEET

December 31, 2025 and 2024

(in BRL)

ASSETS

2025

2024

CURRENT

Cash and cash equivalents	17.039.919	11.877.856
Prepaid expenses	662	650
Other accounts receivable	5.053.449	9.945.254
	22.094.030	21.823.760

NOT CIRCULANT

Immobilized	66.151	69.801
	66.151	69.801

TOTAL ASSETS

22.160.181 **21.893.561**

LIABILITIES AND NET ASSETS

2025

2024

CURRENT

Suppliers	45.019	27.542
Tax obligations	246.170	189.786
Employment and social security obligations	516.546	429.112
Advance donations	14.439.009	16.805.504
	15.246.744	17.451.944

NET ASSETS

Social Assets	4.395.992	2.864.190
Investment donations	45.625	45.625
Surpluses for the year	2.471.820	1.531.802
	6.913.437	4.441.617

TOTAL LIABILITIES AND NET ASSETS

22.160.181 **21.893.561**

STATEMENT OF INCOME

Years ended December 31, 2025 and 2024

(in BRL)

OPERATING REVENUE

2025

2024

With Restriction

Donation revenue	8.749.658	5.253.407
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Unrestricted

Service Provision	1.600	—
Other revenues	2.744	13.222
Voluntary donations	5.440	6.616
	8.759.442	5.273.245

PROJECT COSTS

Staff	(4.876.378)	(3.917.185)
Consultants	(2.407.488)	(950.253)
Travel	(1.012.678)	(270.300)
General	(400.328)	(246.852)
Tax	(18.701)	(16.291)
	(8.715.573)	(5.400.880)

GROSS OPERATING SURPLUS

	43.869	(127.636)
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OPERATIONAL EXPENSES

Volunteer activities	(5.440)	(6.616)
General and administrative expenses	(40.790)	(19.025)
Depreciation	(22.579)	(17.559)
	(68.809)	(43.200)

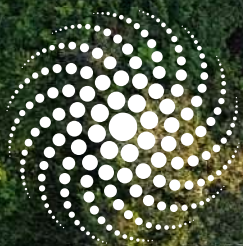
RESULT BEFORE FINANCIAL INCOME AND EXPENSES

	(24.940)	(170.836)
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Financial expenses	(333.577)	(170.614)
Financial revenue	2.830.337	1.873.253
	2.496.760	1.702.638

SURPLUS FOR THE PERIOD

	2.471.820	1.531.803
--	------------------	------------------



iema

Instituto de Energia
e Meio Ambiente

Rua Artur de Azevedo, 1212, room 91, São Paulo (SP), Postal Code 05404-003

Telephone: +55 (11) 3476-2850

energiaeambiente@energiaeambiente.org.br



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