Improving Public Contracting Processes of Socio-Environmental Studies for Brazil's Land Transportation Projects

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ABOUT CPI

Climate Policy Initiative (CPI) is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has six offices around the world in Brazil, India, Indonesia, Kenya, the United Kingdom, and the United States.

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INTRODUCTION

The Brazilian government is in the process of implementing a broad portfolio of infrastructure investments to address its poor infrastructure. Many of these projects are located in the Amazon, which is the world's largest tropical forest and a vital natural resource that provides essential ecosystem services for the national economy. Given the ecological role of the Amazon region, it is imperative to measure the socio-environmental risks of infrastructure projects and assess the extent to which they can be prevented or mitigated. For these reasons, gaining a better understanding of the processes of contracting environmental studies is relevant to identify bottlenecks and propose strategies that lead to the implementation of more robust projects with less impact and better mitigation measures.

Social and environmental risks of infrastructure are currently assessed by Brazil's public administration during two moments in the project life cycle: during the Technical, Economic, and Environmental Feasibility Studies (*Estudos de Viabilidade Técnica, Econômica e Ambiental* – EVTEA) and during the Environmental Impact Assessment (*Estudo de Impacto Ambiental* – EIA). The quality of EVTEA and EIAs is crucial for the decision-making process of determining whether the administration moves forward with a project and for robust project development.

In this report, researchers from Climate Policy Initiative/Pontifical Catholic University of Rio de Janeiro (CPI/PUC-Rio) summarize an in-depth analysis of the contracting process for EVTEA and EIAs. They provide recommendations on how these processes can be improved. The report finds that the contracting process lacks clarity. The researchers found a lack of transparency in the selection, evaluation, and approval of studies. Additionally, the budgets do not always specify how the money should be allocated, and when they do specify, money is primarily allocated for the diagnostic analysis. This report identifies an opportunity to anticipate part of the analysis to earlier phases on the project life cycle.

KEY FINDINGS

- The lack of transparency in public contracting processes hinders the ability of civil society and academics to monitor how the environmental studies are selected, assessed, and approved.
- The lack of clear criteria in the public notices for EVTEA and EIA contracting hinders a deeper understanding on how the budget is allocated in each of the studies' socio-environmental components.
- Budget allocation mainly in the socio-environmental diagnostic analysis opens an opportunity to shift some of this analysis to earlier phases prior to the environmental licensing in the project life cycle.

RECOMMENDATIONS

- Define clear criteria in the public notices for EVTEA and EIA selection, assessment, and approval.
- Establish upfront in public notices how the budget should be allocated through the studies, indicating the public administration's priorities.
- Shift some of the socio-environmental diagnostic analysis, currently concentrated in the EIAs, to the EVTEA or, ideally, to a new pre-viability phase to be introduced in the project life cycle, to unburden the environmental licensing process, ensure more robust assessments of infrastructure projects, and improve the quality of projects that reach the implementation phase.

REVIEW OF PUBLIC CONTRACTING PROCESSES FOR ENVIRONMENTAL STUDIES

The elaboration of socio-environmental studies may be done internally by the government or by contracting companies. Public contracting cannot be done freely and must comply with specific legislation according to the type of contracting. The four main types of contracting are described in Box 1 and illustrated in Figure 1:

Studies contracted by the Bidding Law, RDC, and RCE, such as preliminary studies, partial reports, and complete reports, are paid upon the product delivery. The contract establishes a financial schedule, and the deadline for the public administration payment begins on the presentation of the product invoice.

Studies contracted by the PMI, on the other hand, are reimbursed. That is, the public notice establishes a cap price that the public administration is willing to pay for the studies, the private parties present the studies already finished, and the public administration chooses the study that best fits its interest. The public administration also may choose more than one study and combine them. Notably, the criteria by which the public administration chooses the final studies for reimbursement is not clear in the public notice.

BOX 1. TYPES OF PUBLIC CONTRACTING

Bid: When contracting services from private parties, the bidding procedure begins with the issuance of a public notice, which must, among other things, describe the service's terms, precise bidding type, and the judgement criteria for submitted proposals (Federal Law no. 8,666/1993).

Bidding types must be one of the following: (i) competition, (ii) submission of price, (iii) invitation, (iv) tender, or (v) auction. Judging criteria for proposals can be: (i) lowest price, (ii) best technique, (iii) combination between price and technique, or (vi) best offer. Biddings are held to contract from projects to technical services, being the latter the focus of this report.

Bidding types and judgement criteria can be correlated. Biddings for "services of a predominantly intellectual nature, in particular for the elaboration of technical studies", must exclusively employ "better technique" or "better price and technique" judgement criteria. The appropriate bidding types for the employment of those criteria are "competition" and "submission of prices".

Differentiated Contracting Regime (*Regime Diferenciado de Contratação* – RDC): RDC constitutes a fast-track bidding type, which was first designed for the realization of major sports events, but then its scope was extended to a number of other public objectives, such as the improvement of logistics infrastructure (Federal Law no.

12,462/2011). The main procedural aspects and the judgement criteria are similar to those bids, and the contracting of socio-environmental studies through the RDC also tend to employ the "better price and technique" judgement criteria.

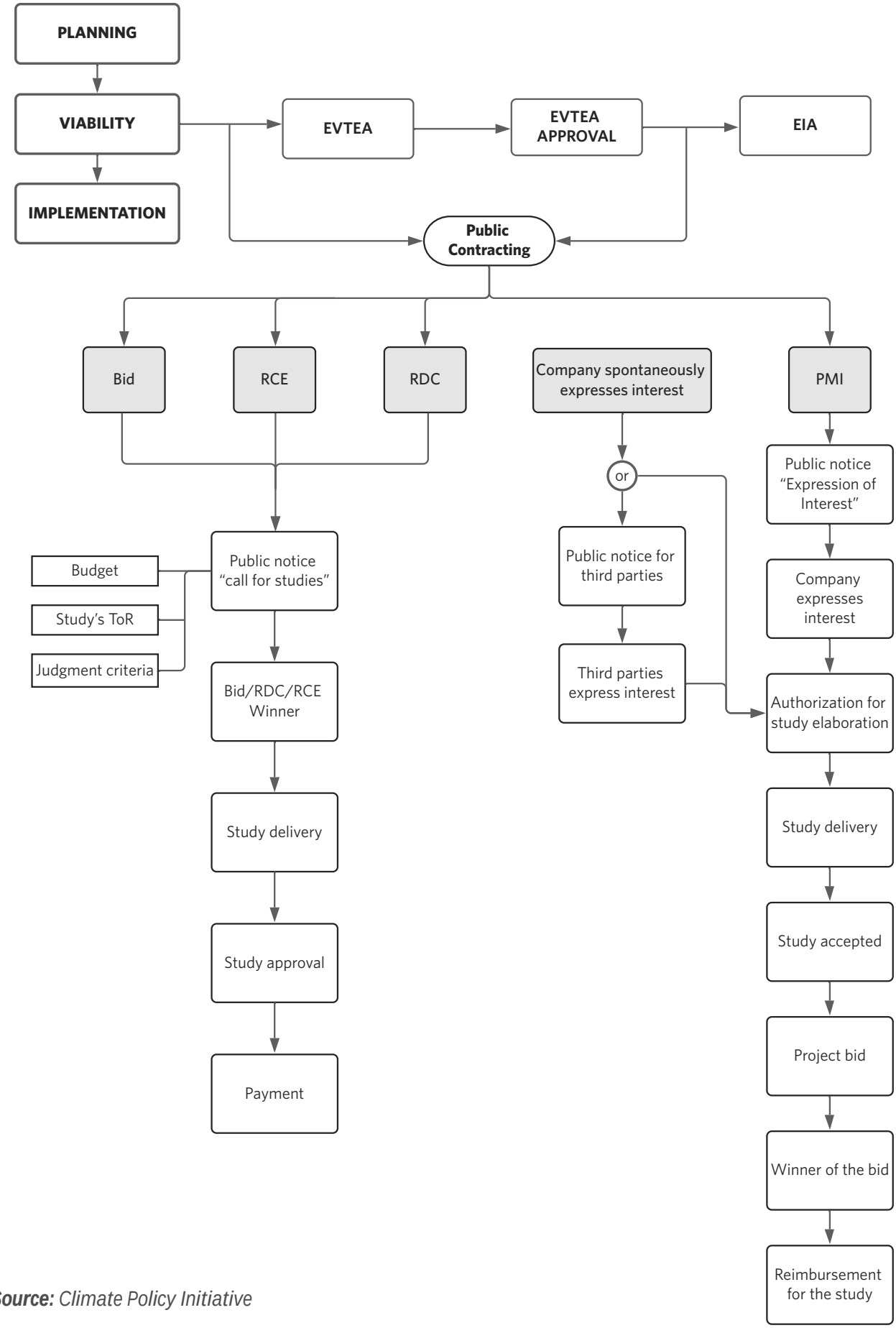
State-owned Corporations Bidding Contracting Regime (*Regime de Contratação das Estatais* – RCE): RCE is a specific bidding regime for public corporations, that has a wide scope of application, covering several needs of such corporations and societies (Federal Law no. 13,303/2016). In comparison with the general Bidding Law (Federal Law No. 8666/1993), the RCE, as well as the RDC, seek to promote greater efficiency in contracting procedures. The RCE seeks this efficiency through provisions such as the adjustment of deadlines and the inversion of phases (compared to the general Bidding Law).

Expression of Interest (*Procedimento de Manifestação de Interesse* – PMI): PMI consists of a public call for "projects, surveys, investigations or studies" aimed to inform potential governmental decisions about privatizations or public-private partnerships (Federal Decree no. 8,428/2015). In the PMI procedure, the public notice describes a given enterprise, and interested private parties present projects, surveys, investigations, or studies on how to execute such enterprise. The government then arbitrates reimbursement values of the study (EVTEA or EIAs)[1] for the winners of the PMI and reimburses upon the delivery of the study.

The contracting of EVTEA often occurs through competitive bidding and the "better price and technique" judgement criteria or PMI. EIAs contracting in turn, often occurs through RDC or RCE.

1 According to the Federal Decree no. 8.428/2015, the reimbursement should not exceed 2.5% of the total investments foreseen by the project's implementation.

Figure 1. Public Contract Process Flowchart



Source: *Climate Policy Initiative*

REVIEW OF PUBLIC NOTICES FOR CONTRACTING EVTEA AND EIA FOR FEDERAL LAND TRANSPORTATION PROJECTS

EVTEA CONTRACTS

CPI/PUC-Rio researchers reviewed projects that issued public notices for feasibility studies of federal concessions for land transportation in the Amazon. Their analysis indicated that the government followed two types of contracting processes: PMI and Bid. Table 1 presents the projects with available EVTEA notices, the year of the notice, the type of contract process set by the government, and the government's established price cap for payment (in case of Bid) or reimbursement (in case of PMI).

Researchers observed transparency and clarity issues in both types of contracting process analyzed.

First, the notices did not specify the deliverables, the payment percentage for the environmental component, or deadlines for the deliverables. Therefore, it was not possible to determine how much was budgeted for the socio-environmental component for the price caps/price of reference mentioned in Table 1 for both types of contracting process.

Second, public notices are not clear about the criteria used by the public administration to select assess and approve the EVTEA. Researchers requested information access, through the Information Access Law (*Lei de Acesso à Informação* – LAI), and only Ferrogrão established a general guideline about how the public administration should select the study.[2]

Third, the price cap (PMI) was not available in the public notice. Railroad Norte-Sul was the only project that specified the price cap through a Relevant Communication (Comunicado Relevante 03/2014/CSF/MT) published by the federal government. In other infrastructure projects, information had to be obtained by CPI/PUC-Rio through LAI. On the other hand, the price of reference in Bid contracting types was released in the public notice.

Finally, even after accessing official documents via LAI regarding the price caps, researchers were not able to identify justifications regarding how the caps were determined. The same was observed in bid public notices.

2 Analytic Hierarchy Process (AHP) is a method of measurement with ratio scales used to address multicriterial decision making. For more information, see: Saaty, 1987.

Table 1. Projects with Notices for EVTEA

Infrastructure Project	Year of the Notice	Type of Contract Process	Price cap (PMI) or Price of Reference (Bid) (R$)*	Price Cap Availability
BR-364 (Rondonópolis/MT and Jataí/GO)	2014	PMI	6,688,332	Requested through LAI
BR-163 (Sinop/MT and Miritituba/PA)	2014	PMI	9,276,413	Requested through LAI
Ferrogrão (Sinop-Miritituba)	2014	PMI	35,000 per bidded km	Requested through LAI
Norte-Sul (Açailândia-Barcarena)	2014	PMI	30,000 per bidded km	Relevant Communication 03/2014/CSF/MT
Norte-Sul (Açailândia-Belém)	2010	Bid	3,789,859	Public Notice
FICO (Porto Velho-Vilhena)	2013	Bid	50,235,258	Public Notice
FICO (Uruaçu-Vilhena)	2009	Bid	17,690,756	Public Notice

*Values without monetary correction.

Source: *Climate Policy Initiative*

EIA CONTRACTS

Public contracting for EIAs is not common in the land transportation sector. Typically, the EIA is done by a private entity hired by the winner of the project's bid. However, there are cases in which the public administration assumes the responsibility to elaborate the EIA.[3] In these cases, the government should contract a private entity do conduct the EIA.

Three out of nine EIA case studies analyzed by CPI/PUC-Rio researchers identified an EIA contracted by the government. In two cases, the government contracted the EIA through RDC, and one through RCE as shown in Table 2.

Table 2. Projects with Notice for EIA

Infrastructure	Year of the Notice	Type of Contract	Price Cap (R$)*
Ferrogrão (Sinop-Mirituba)	2019	RCE	11,357,909
BR-153 (Aliança do Tocantins/TO and Anápolis/GO)	2013	RDC	Confidential
BR-364 (Comodoro/MT and Candeias do Jamari/RO)	2017	RDC	8,714,911

*Values without monetary correction.

Source: *Climate Policy Initiative*

3 There is no rule to determine the cases. Projects qualified by the Investment Partnerships Program (PPI) are encouraged to begin their environmental licensing procedures before the bid (Resolution no. 01/2016, art. 6). Responsibility for EIA elaboration is usually related to the project's environmental risk. Usually, the greater the risk, the greater the chance for the public administration to assume the study.

CASE ANALYSIS OF EIA BUDGETS – THE FERROGRÃO RAILROAD AND HIGHWAY BR-364

Budget analysis helps understand the government's priorities for the contracted studies. CPI/PUC-Rio researchers analyzed two detailed EIA budgets for projects in the Amazon: the Ferrogrão railroad and the highway BR-364.

Table 3 reveals that the largest budget allocation in the EIAs analyzed are linked to the diagnoses of physical, socioeconomic, and especially, biotic environment, comprising 54% of Ferrogrão's EIA budget and 57.6% of BR-364's EIA budget.

The study components related to risk and impact assessment and the proposition of socio-environmental mitigation measures, however, only represent 6% of the budget in both cases.

While some of the diagnostic studies in the EIA require the use of primary sources, involving field research and the production of new knowledge, hence higher costs, other parts can be completed with secondary sources. These components, currently in the EIA, could be anticipated to stages before the environmental licensing, such as to the EVTEA or, ideally, even before in a pre-viability phase.

CPI/PUC-Rio has proposed the creation of a pre-viability phase in the project life cycle that would improve the project selection process and assist in prioritizing projects. This new phase would act as a filter to ensure that only viable projects move forward, avoiding an automatic track between planning and viability phases and would improve the project selection process and assist in prioritizing projects (Chiavari et al. 2020).

This would unburden the EIA, given that the pre-viability phase has a socio-environmental complexity analysis that uses secondary sources in order to determine project feasibility based on three axes: territorial governance, environmental governance, and social governance. This would create more space in the EIA budget to fund impact and mitigation studies, leading to the implementation of more robust infrastructure projects with less impact and stronger mitigation measures.

Table 3. EIA Project Budgets

		FERROGRÃO (PUBLIC NOTICE/2019)		BR-364 (PUBLIC NOTICE/2017)	
Nº	PRODUCT DESCRIPTION	VALUE*	PERCENT	VALUE*	PERCENT
1	Activity planning report	R$ 113,579	1.0%	R$ 86,021	1.2%
2	Field recognition report for fauna studies	R$ 113,579	1.0%	R$ 86,021	1.2%
3	Fauna workplan for IBAMA's ACCTMB	R$ 113,579	1.0%	R$ 86,021	1.2%
4	Archaeological research project for IPHAN's ordinance	R$ 113,579	1.0%	R$ 86,021	1.2%
5	Indigenous workplan for preparing indigenous studies	R$ 113,579	1.0%	R$ -	0.0%
6	Characterization of the project	R$ 227,158	2.0%	R$ 86,021	1.2%
7	Diagnosis of the physical environment	R$ 681,474	6.0%	R$ 430,106	6.0%
8	Diagnosis of the biotic environment – characterization of the ecosystem	R$ 340,737	3.0%	R$ 258,064	3.6%
9	Diagnosis of biotic environment – flora characterization	R$ 795,053	7.0%	R$ 430,106	6.0%
10	Diagnosis of the biotic environment – first fauna campaign	R$ 908,632	8.0%	R$ 516,128	7.2%
11	Diagnosis of the biotic environment – second fauna campaign	R$ 681,474	6.0%	R$ 516,128	7.2%
12	Diagnosis of the biotic environment – third fauna campaign	R$ 681,474	6.0%	R$ 516,128	7.2%
13	Diagnosis of the biotic environment – fourth fauna campaign	R$ 681,474	6.0%	R$ 516,128	7.2%
14	Diagnosis of socio-economic environment	R$ 681,474	6.0%	R$ 430,106	6.0%
15	Archaeological diagnosis	R$ 681,474	6.0%	R$ 516,128	7.2%
16	Environmental liabilities	R$ 227,158	2.0%	R$ 172,042	2.4%
17	Synthesis of the environmental situation in the region, analysis of the environmental impacts and characterization of enterprises' influence; mitigating and compensatory measures and environmental programs	R$ 681,474	6.0%	R$ 344,085	4.8%
18	Technological and location alternatives	R$ 454,316	4.0%	R$ 258,064	3.6%
19	Environmental prognosis, conclusion, bibliography, and glossary	R$ 113,579	1.0%	R$ 86,021	1.2%
20	Environmental Impact Study (EIA)/ Environmental Impact Report (RIMA)	R$ 681,474	6.0%	R$ 516,127	7.2%
21	1st public hearing	R$ 56,789	0.5%	R$ -	0.0%
22	2nd public hearing	R$ 56,789	0.5%	R$ -	0.0%
23	3rd public hearing	R$ 56,789	0.5%	R$ -	0.0%
24	4th public hearing	R$ 56,789	0.5%	R$ -	0.0%
25	5th public hearing	R$ 56,789	0.5%	R$ -	0.0%
26	6th public hearing	R$ 56,789	0.5%	R$ -	0.0%
27	7th public hearing	R$ 56,789	0.5%	R$ -	0.0%
28	8th public hearing	R$ 56,789	0.5%	R$ -	0.0%
29	9th public hearing	R$ 56,789	0.5%	R$ -	0.0%
30	10th public hearing	R$ 56,789	0.5%	R$ -	0.0%
31	Indigenous component study	R$ 681,474	6.0%	R$ 516,128	7.2%
32	Malaria potential assessment study	R$ 340,737	3.0%	R$ 172,042	2.4%
33	Technical advisement and securement of previous licence (*licença prévia* – LP)	R$ 681,474	6.0%	R$ 516,128	7.2%
	TOTAL	**R$ 11,357,895**	**100%**	**R$ 7,139,764**	**100%**

57.6%

54.0%

*Values without monetary correction.

Diagnostic products

Source: *Climate Policy Initiative with data from public notices for Ferrogrão and BR-364*

CONCLUSION

Based on the analysis of the EIA and EVTEA public notices and contracting processes of federal concessions for land transportation in the Amazon, CPI/PUC-Rio advances three recommendations in this report that could improve public contracting of socio-environmental studies: 1) Define clear criteria in the public notices for EVTEA and EIA selection, assessment, and approval; 2) establish up front in public notices how much will be budgeted for each socio-environmental component in the EVTEA and EIAs to provide transparency regarding the public administration priorities; and, 3) shift some analysis of the socio-environmental components, currently concentrated in the EIA, to the EVTEA or, ideally, to the pre-viability phase to unburden the environmental licensing process and ensure more robust studies and the implementation of higher quality projects.

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ANNEX 1

DATA COLLECTION PROCEDURES

CPI/PUC-Rio researchers engaged in a thorough data collection process to identify as much information as possible about federal land transportation projects in the Amazon, focusing on railroads and highway concessions.

The steps below describe the methodology for data collection followed by the researchers.

1. Universe of the data:
    a. Identifying concessions and concession projects of federal highways and railroads to the private sector in the Legal Amazon since 1989.
    b. Gathering project documentation, especially public notices for EVTEA and EIA.
2. Regulatory framework
    a. Listing general procedural statutes and regulations applicable to public contracting.
3. Analysis
    a. Analysis of public notices for environmental studies, focusing on budgeting, and the selection, assessment and approval of studies.

DATA AVAILABILITY

The documents that were reviewed for this report are detailed in Table A1.

Table A1. Data Availability Matrix

	Infrastructure		Notice for EVTEA	Notice for EIA	Project Status
RAILROADS	**Ferrogrão**	Sinop – Mirituba	✔	✔	Approved by TCU
	Ferronorte	Cuiabá – Santarém	✔*	✖	Abandoned
		Itiquira – Rondonópolis	✖	✖	Abandoned
		Aparecida do Taboado – Rondonópolis	✖	✖	Implemented
		Rondonópolis – Lucas do Rio Verde – Sorriso	✖	✖	Conceded, but not implemented
	FICO	Porto Velho – Vilhena	✔	✖	On going EVTEA
		Campinorte – Lucas do Rio Verde	✖	✖	Abandoned
		Mara Rosa – Porto Velho	✖	✖	Conceded, but not implemented
		Uruaçu – Vilhena	✔	✖	Abandoned
	Norte–Sul	Açailândia – Barcarena	✔	✖	On going EVTEA
		Estreito – Babaçulândia	✖	✖	Abandoned
		Açailândia – Estrela D'Oeste	✖	✖	Abandoned
		Porto Nacional – Estrela D'Oeste	✖	✖	Abandoned
		Açailândia – Palmas	✖	✖	Implemented
	Carajás	Pará – São Luiz	✖	✖	Implemented
		RFSP	✖	✖	Implemented
ROADWAYS	**BR–153**	Aliança do Tocantins/ TO and Anápolis/GO	✖	✔	Public Notice
	BR–364	Rondonópolis/MT and Jataí/GO	✔	✖	Implemented
		Comodoro/MT and Candeias do Jamari/RO	✖	✖	Planning phase
	BR–163	Sinop/MT and Mirituba/PA	✔	✖	On going TCU analysis
		MS/MT border and Sinop/MT	✖	✖	Implemented

*Administrative procedure instead of the notice.

✔ Document avaliable
✖ Document not available or inexistent

Planning
Viability
Implementation

Source: *Climate Policy Initiative*

Due to lack of data for all the projects, analysis of contracting processes focused on the projects that have published notices for their studies, notably:

- Ferrogrão
- Ferronorte
- FICO (Porto Velho – Vilhena)
- FICO (Uruaçu – Vilhena)
- Norte-Sul (Açailândia – Barcarena)
- BR-153
- BR-163/230/Miritituba
- BR-364
- BR-364/MT/RO

As showed in Table A1, not all of the above projects have notices for both EVTEA and EIAs, therefore, analyses of the projects were done separately for those which have EVTEA notices and those which have EIAs notices.

Also, whenever the absence of relevant documents or pieces of information was identified, researchers sent official requests, through the LAI, to one or more of the above-mentioned government bodies. LAI requests are detailed in table A2.

Table A2. Information Requested through LAI

Infrastructure	Information Requested	Governmental Entities
BR-163/230/MT/PA	Document establishing the price cap of the EVTEA to be reimbursed; PMI approval and final report	Ministry of Infrastructure
BR-364/060/MT/GO	Document establishing the price cap of the EVTEA to be reimbursed; PMI approval and final report	Ministry of Infrastructure
Ferrogrão	Document establishing the price cap of the EVTEA to be reimbursed; PMI approval and final report	Ministry of Infrastructure

Source: *Climate Policy Initiative*