SCHEDULE V

FORM OF BORROWER'S ENVIRONMENTAL AND SOCIAL REPORT

ENVIRONMENTAL AND SOCIAL COMPLIANCE REPORT (ESCR)

Klabin S.A.
PUMA Pulp Mill
Forest plantations
Transport operations
Port operations

Brazil

Reporting Period: January 2021 to June 2021

Report completion date: AUGUST 10TH, 2021

• 1 ENVIRONMENTAL AND SOCIAL MANAGEMENT

1.1 Report Preparer

To be completed by Klabin´s authorized representative	Name and Title: Francisco Cesar Razzolini – Executive Director Phone:+55 11 3046-5975 Email: fcrazzolini@klabin.com.br Name and Title: Marcos Paulo Conde Ivo – Chief Executive Officer and Investor Relations Officer Phone: +55 11 3046-9912 Email: mivo@klabin.com.br
Klabin company information	Office physical address: Av. Brigadeiro Faria Lima, 3600 – Itaim Bibi – 04538-132 – São Paulo, SP Web page address: www.klabin.com.br

I certify that the data contained in this Environmental and Social Compliance Report completely and accurately represents Klabin operations during this reporting period. I further certify that analytical data summaries[1] incorporated in Chapter 5 are based upon data collected and analysed in a manner consistent with the monitoring guidance presented in the IFC general environmental, health and safety guidelines[2] and IFC EHS guidelines for pulp and paper mills[3].

_____ _____

Francisco Cesar Razzolini Marcos Paulo Conde Ivo

[1] Raw analytical data upon which summaries are based should not be submitted with this Environmental and Social Compliance Report but must be preserved by PUMA/Klabin and presented to the Facility Agent upon demand.

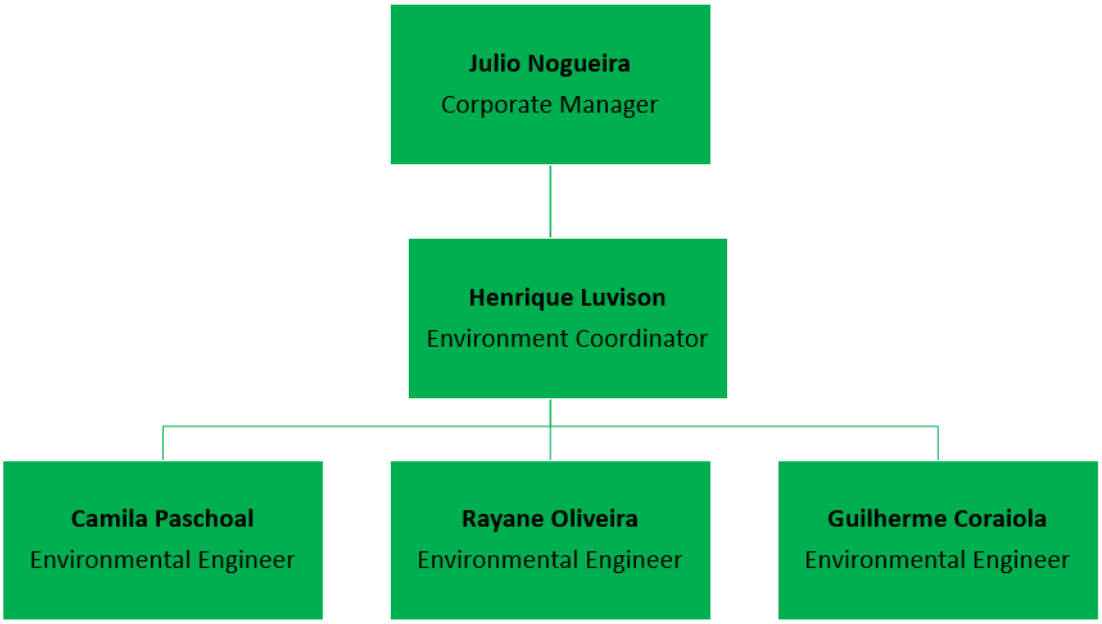
[2] https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p

[3] https://www.ifc.org/wps/wcm/connect/2310ee34-7432-4546-8898-03372c9b51e2/Final%2B-%2BPulp%2Band%2BPaper%2BMills.pdf?MOD=AJPERES&CVID=jkD2FLw

1.2 Environmental, Social and Health and Safety Responsibility Chart

Please name the individuals in the company who hold responsibility for environmental, social and health and safety performance (e.g. Environment Manager, Occupational Health and Safety Manager, Community Relations Manager) and give their contact information (Name, Address, Telephone Number, Fax Number, E-mail Address). Include Team Chart/Organogram in Annex.

Organogram – PUMA II Project

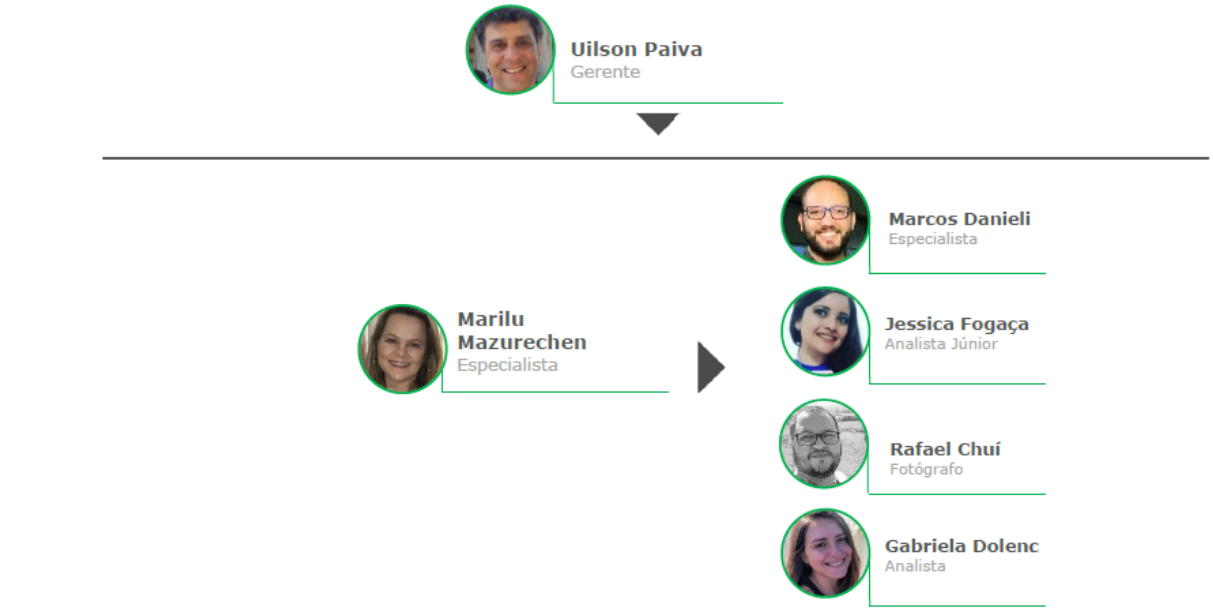


Corporate Manager **Julio Nogueira** Address: Faz. Apucarana Grande s/n – Ortigueira - PR Telephone Number: (42) 99973-4445 E-mail Address: julio@klabin.com.br
Environment Coordinator **Henrique Luvison** Address: Faz. Apucarana Grande s/n – Ortigueira - PR Telephone Number: (42) 99919-9364 E-mail Address: hlsilva@klabin.com.br
Environmental Engineer **Camila Paschoal** Address: Faz. Apucarana Grande s/n – Ortigueira - PR Telephone Number: (42) 99158-9139 E-mail Address: camila.paschoal@klabin.com.br

Environmental Engineer **Rayane Oliveira** Address: Faz. Apucarana Grande s/n – Ortigueira - PR Telephone Number: (42) 99153-0416 E-mail Address: rayane.ioliveira@klabin.com.br
Environmental Engineer **Guilherme Coraiola** Address: Faz. Apucarana Grande s/n – Ortigueira - PR Telephone Number: (42) 99135-3352 E-mail Address: guilherme.coraiola@klabin.com.br

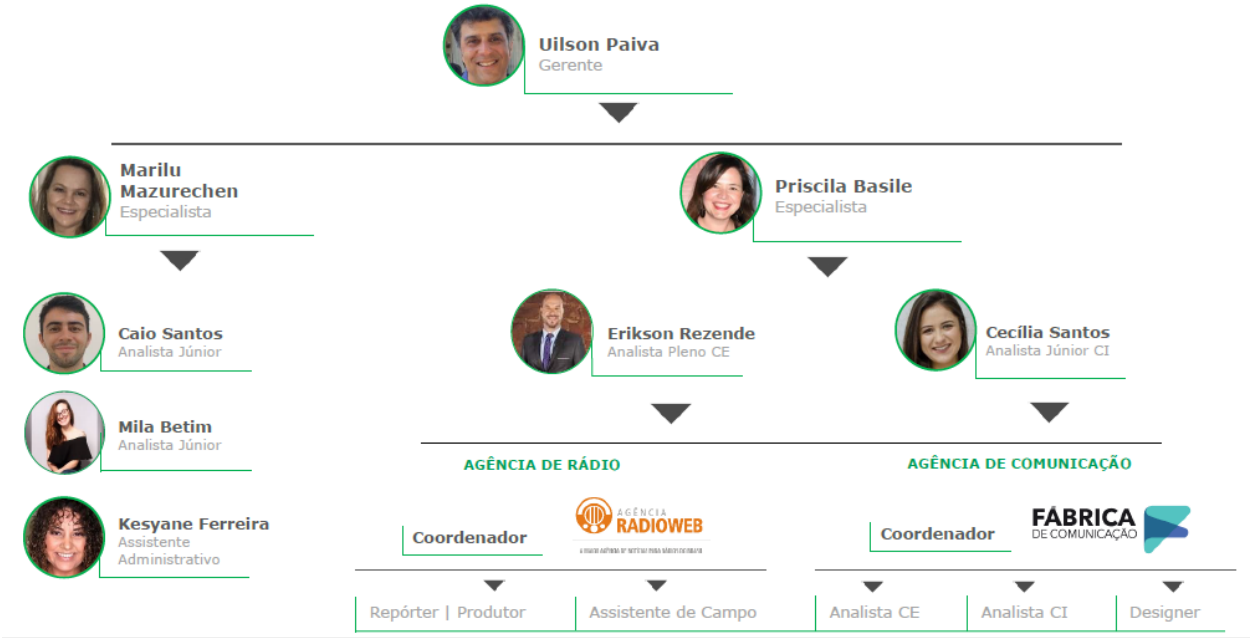
SOCIAL RESPONSIBILITY AND RELATIONS WITH THE COMMUNITY

BASIC INDIGENOUS ENVIRONMENTAL PLAN – PBAI



*Samantha Paiva, Engenheira Florestal

PUMA II – COMMUNICATION, SOCIAL RESPONSIBILITY AND RELATIONS WITH THE COMMUNITY



1.3 Summary of Current Status

Describe the project status and level of business activity. Describe any significant changes since the last report in the company or in day-to-day operations that may affect environmental and social performance. Describe any management initiatives (e.g. ISO 14001, ISO 9001, OHSAS 18001, FSC or equivalent Quality, Environmental and Occupational Health and Safety certifications).
In case the Project is still under construction the inclusion of a short narrative on overall physical progress for the reporting period: i) engineering; ii) procurement, iii) civil construction. Use graphics/charts e.g. general progress curve, actual/estimated manpower needs, etc

The project did not have a good overall evolution in the period. Ahead, MP27 showed the impossibility of reaching its startup on 7/15/21, motivated by the unavailability of some Finnish specialists for commissioning and startup. The new adjusted date is 7/21/21 to start the process of placing fibers in the forming fabric. For the other work fronts, the evolution was good, with advances in assemblies, but loss in the commissioning activity. The Recovery and Power, Evaporation, ETE boilers, with the change in the start date of PM27, had their start dates also changed;

The advance was lower than planned, with an overall realized of 87.90% against the planned 90.25%, representing a negative deviation of -2.35%, compared to a negative deviation of -2.12% in the previous month . Electromechanical assembly and civil construction recovered part of the negative deviation. The negative impact comes from the commissioning.

	Geral	Construção Civil	Montagem Eletromecânica
Planejado:	90,25%	94,18%	90,01%
Realizado:	87,90%	91,52%	85,67%
Desvio:	-2,35%	-2,66%	-4,34%
Desvio anterior:	-2,12%	-3,12%	-6,19%

Considering the processes and facilities necessary for the production of paper:

• Overall advance was lower than planned, with an overall realized of 93.44% versus planned of 95.58%, representing a negative deviation of -2.14%, compared to a negative deviation from the previous month of -1. 76%. Electromechanical assembly achieved a better performance with an realized advance of 94.42% against a planned 99.42%, representing a negative deviation of -4.70% against a negative deviation of -6.95% in the previous month. The negative impact was from the commissioning activity;

	Geral	Construção Civil	Montagem Eletromecânica
Planejado:	95,58%	100,00%	99,12%
Realizado:	93,44%	99,17%	94,42%
Desvio:	-2,14%	-0,83%	-4,70%
Desvio anterior:	-1,76%	-1,08%	-6,95%

- • Causticizing/Lime Oven, Wood Preparation and BOP continue with good evolution;

- • MP27 with delays in the completion of assembly and lack of specialized technicians for commissioning changed the plan to start production tests in 6 days;
- • Fiber Line suffered in the advance with the temporary transfer of labor to PM27, but with the change of departure date there are no major concerns;
- • Power and Recovery Boilers with better advancement according to priority systems. CDR carried out the chemical washing and will start the blowing process as early as the beginning of next month;
- • Evaporation, with better progress in the period;
- • ETE with a slower pace than planned, due to labor shortages. Klabin is displacing labor groups from other companies to improve the progress of assemblies. A first plant release step, with grating and primary clarifier is released;
- • During the period, partial tests of the various process plants were intensified;
- • Highlights of the period: the Complementary Tertiary Treatment plant at Puma I went into operation, Wood Preparation Line 5 carried out a wood chipping test, a new cooling cell in the Utilities area carried out the test with water and the new Coordinators' Room was released for use. of manufactures;
- • The climate was good for carrying out the work;
- • At the end of the month, the number of registered workers is 9,428, against 9,946 in the previous month, registering an initial reduction in the workforce. The movement to demobilize workers intensified in the period;
- • In managing the pandemic, there was an important reduction in positive cases in the contingent of workers, a behavior similar to the cases in the region. In the period, 307 new cases were registered, against 447 in the previous month. At the end of the month there were 42 positive workers on leave;
- • Due to the program of blowing boilers and high pressure steam lines, the release of the Recovery Boiler for the burning of liquor will take place after PM27 and other processes are ready, so a plan was developed and the start of paper production without the new boilers, using part of the capacity of the Puma I (recovery and steam system). This should be the way to start paper production and adjust the various new processes before the CDR is cleared to burn liquor.
- • Engineering: The engineering activities of the suppliers continue to be developed as planned, with the exception of the areas of the Distributed Control System (DCS) which present advances below expectations;
- • Purchasing: Purchasing activities from suppliers continue to be carried out, at the moment, below plan, with emphasis on the areas of BOP Klabin – Earthworks, Log Yard and Street Arrangement;
- • Manufacturing and Transport: The Manufacturing/Transport activities of suppliers continue to be developed as planned, with the exception of the Causticizing and Furnace, Gasification, Distributed Control System (DCS) and BOP – Civil Package areas, which present advances below expectations;
- • Civil Construction: The civil construction activities of the suppliers continue under development, at the moment, below plan, with emphasis in the areas of Paper Machine 27, Recovery Boiler, Power Boiler, Causticizing and Furnace, Evaporation, Gasification, ETE, BOP – Package 2, BOP – Turbogenerator Package, BOP Klabin – Earthworks, Log Yard and Roadway, BOP Klabin – Roller and Building Deposit and Solid Waste Treatment Plant;
- Electromechanical Assembly: Assembly activities continue under development.
- Electromechanics of suppliers, at the moment, below plan, with emphasis in the areas of Paper Machine 27, Recovery Boiler, Power Boiler, Causticizing and Furnace, Evaporation, Feeding System for Gasification, Wood Preparation, Fiber Line, ETAC, ETE, Distributed Control System

(DCS), Turbogenerator, BOP – Package 1, BOP – Package 2, BOP – Pipe Rack Package, BOP – Turbogenerator Package and BOP – Civil Package;

- Commissioning: The Commissioning/ECA activities of the suppliers continue under development, at the moment, below the plan, with emphasis in the areas of Paper Machine 27, Recovery Boiler, Power Boiler, Causticizing and Furnace, Evaporation, Wood Preparation, Fiber Line, ETAC, ETE, Power Distribution, Turbogenerator, BOP – Package 1, BOP – Package 2, BOP – Pipe Rack Package, BOP – Turbogenerator Package and others.
- Training: Training activities for suppliers are still under development, at the moment, below what was planned, with emphasis on the areas of Turbogerador;

CURVA GERAL E MAPA DE PROGRESSO DO PROJETO - PUMA II (Fase I)

Area	Weight	Deviation	WeightedDeviation
Puma Project II – Phase 1	**100,0%**	**-2,35%**	**-2,35%**
Recovery Boiler	**10,0%**	- 4,77%	- 0,478%
Power Boiler	**4,8%**	- 7,09%	- 0,342%
Paper Machine 27	**22,3%**	- 0,83%	- 0,185%
Effluent Treatment	**3,0%**	- 5,36%	- 0,161%
Evaporation Plant	**6,8%**	- 1,92%	- 0,130%
External Container Yard	**3,3%**	- 3,06%	- 0,102%
Balance of Plant	**8,6%**	- 1,18%	- 0,102%
Fiberline	**7,5%**	- 1,29%	- 0,096%
Turbogenerator	**1,0%**	- 8,62%	- 0,086%
BOP Klabin – Earthwork, Log Yard and Streets	**1,6%**	- 4,07%	- 0,065%
White Liquor Plant	**5,5%**	- 1,15%	- 0,064%
BOP – Pipe Rack	**4,6%**	- 0,91%	- 0,042%
Solids Residues Treatment Plant	**0,5%**	- 5,99%	- 0,027%
Wood Yard	**5,0%**	- 0,52%	- 0,026%
BOP- Turbogenerator	**2,5%**	- 0,85%	- 0,022%
Gasification Feed System	**0,5%**	- 3,95%	- 0,020%
BOP – Package 1	**0,1%**	- 11,01%	- 0,010%
BOP – Package 2	**0,8%**	- 1,20%	- 0,010%
Boiler Water Treatment Plant	**1,4%**	- 0,68%	- 0,009%
Upgrade MC25 and MC26	**1,5%**	- 0,50%	- 0,007%
Power Distribution	**1,2%**	- 0,13%	- 0,002%
BOP – Industrial Restaurant	**0,2%**	-	-
ETE 1 – Complementary Tertiary Treatment	**0,3%**	-	-
5º Effect A – Evaporation Plant I	**0,5%**	-	-
Water Treatment	**0,4%**	-	-
Fiberline 1 – Capacity Increase	**1,5%**	-	-
PIMS	**0,1%**	0,06%	-
Dedicated Systems	**0,1%**	0,16%	-
Chlorine Dioxide Plant	**0,4%**	0,50%	0,002%
Distributed Control System	**0,6%**	0,50%	0,003%
Gasification	**2,0%**	0,60%	0,012%
BOP Klabin – Rolls Storage and Auxiliaries Buildings	**0,6%**	8,25%	0,050%

HISTOGRAMA DA OBRA

1.4 Status Of The Environmental, Social, Health & Safety Management System (ESH&S-MS)

- Status of Corrective Action Plan [only where applicable]
- Status of Environmental & Social Action Plan [Short narrative on progress towards closing key activities as per priority milestones. Include entire ESAP with updated 'status' fields as Annex]
- Environmental Management and Indicators

The ESAP update is available at the link with the documents https://klabin-my.sharepoint.com/:f:/g/personal/dolima_klabin_com_br/EsgZ9hb7nDVAh4kI3EVlkcQBgc7_Q_4Crr9lzXWM77274Q?e=qDdbCo

1.5 Status of Relevant Permits

Include table of Relevant Permits as per Schedule IV of the Loan Agreement

Ref.	Scope of permit (aspect)	Project component	Official permit name	Granted by (Institution)	Issue date	Expiration date
					dd/mm/yyyy	dd/mm/yyyy
1	Water	Puma I and Puma II	Grant - 2812/2019	Paraná Water Institute	16/07/2019	29/03/2026
2	Effluent	Puma I and Puma II	Grant - 289/2016	Paraná Water Institute	04/03/2016	04/03/2022
3	**Operation Permit**	Puma I and Phase 1 of Puma II	LO-A 227393	Paraná Environmental Institute	10/06/2021	05/04/2025
4	Preliminary Permit	Phase 1 and 2 of Puma II	LP-A 148370	Paraná Environmental Institute	30/09/2018	19/09/2020
5	Preliminary Permit	Phase 2 of Puma II	LP-A 217482	Paraná Environmental Institute	26/01/2021	26/07/2021
6	Installation Permit	Phase 1 and 2 of Puma II	LI-A 157633	Paraná Environmental Institute	26/05/2020	29/06/2026
7	Installation Permit	Phase 2 of Puma II	LI-A 226943	Paraná Environmental Institute	06/04/2021	29/01/2024
8	**Operation Permit**	Waste Management Center Expansion	LO-A 176409	Paraná Environmental Institute	14/07/2021	20/02/2024

• 2 SIGNIFICANT ENVIRONMENTAL AND SOCIAL EVENTS

Personnel are required to report all environmental and social events[4] that may have caused damage; caused health problems; attracted the attention of outside parties; affected Klabin´s labour or adjacent populations; affected cultural property; or created liabilities for Klabin.

Attach photographs, plot plans, newspaper articles and all relevant supporting information of any significant environmental or social event.

Please report on the following topics, expanding or collapsing the table where needed.

So far, there were no significant environmental and social events during this report period.

Date of event	*Event description*	*Affected people/environment*	*Reports sent to local regulatory agencies*	*Corrective actions (including cost and time schedule for implementation)*

• 3 GENERAL INFORMATION AND FEEDBACK

Provide any additional information including the following:

1. In detail, describe print or broadcast media attention given to Reporting scope of companies during this reporting period.

2. In detail, describe interactions with non-governmental organizations (NGOs) or public scrutiny of Reporting scope of companies.

3. Describe Reporting scope of companies' public relations efforts.

<u>External Communication – Press, divulgation and monitoring</u>
Klabin considers press as a fundamental relationship public for communication with its different stakeholders. In Project Puma II, the journalists' service structure includes several activities – such as release production and support to press professionals, monitoring of all published information about the Project and related subjects (as well as information about the Puma Mill).
A structured team is responsible for media monitoring (clipping), which consists on reading the daily news from main regional media vehicles, in addition to radio stations, websites and Internet blogs. For this reason, there is the possibility of giving a prompt feedback to the media vehicles in the case of the publication of

[4] Examples of significant incidents: chemical and/or hydrocarbon materials spills; fire, explosion or unplanned releases; industrial injuries; fatalities including transportation; ecological damage/destruction; local population disruption; disruption of emissions or effluent treatment; legal/administrative notice of violation; penalties, fines, or increase in pollution charges; negative media attention; chance cultural finds; labor unrest or disputes.

divergent information. Every time a divergent new is divulgated, the communication team gets in touch with the press to avoid expectations or negative wishes of the community by receiving non-official information.

Releases

In this report's period, there were 10 press releases divulgated to local press. In majority, notes consisted on information about the IPS Index at Campos Gerais, the students' graduation at the Technical Courses in Mechanics and Pulp and Paper (offered by Klabin/Project Puma II), actions in partnership with the public sector (education and public management) and regarding dengue's control in Ortigueira. Also, information about Puma II demobilizations and adjacent constructions' interferences on the region's day-by-day (roads maintenance and charges transportation).

RELEASES	DATA
"TG-3 garantirá energia elétrica para toda a fábrica e para o mercado"	20/jan
"Campos Gerais ganha Índice de Progresso Social com resultados dos Municípios disponíveis em site"	22/jan
"Klabin forma cerca de 80 alunos da região em cursos de Mecânica e Celulose e Papel"	17/fev
"Klabin apresenta para Prefeitura de Ortigueira programas de apoio ao planejamento e educação"	26/fev
"Cargas especiais devem chegar a Ortigueira entre os dias 3 e 11 de maio"	1/maio
"Klabin aprova escopo da segunda máquina de papel do Projeto Puma II"	6/maio
"Obras avançam e desvio da PR-340 para a construção de trincheira do Pátio de Containers não será mais utilizado"	11/maio
"Ortigueira apresenta redução de 99,2% de casos de dengue"	13/maio
"Projeto Puma reduz 1.800 trabalhadores em maio"	18/maio
"Klabin realiza obras de melhoria no acesso à Unidade Puma, na Estrada da Campina"	23/jun

Besides proactive press releases, there is reactive media treatment. The company might be called to clarify any theme of interest of the journalists, or its spokesperson might be invited to speak about a Project Puma II related theme in the media vehicles. In the period between January and June of 2021, Social Responsibility and Community Affairs Manager Uilson Paiva went to a radio program to speak about actions regarding dengue's control in Ortigueira in partnership with Forrest Innovations Brasil, and the students' graduation at the Technical Courses in Mechanics and Pulp and Paper, sponsored by Klabin and Project Puma II:

ENTREVISTAS	DATA
Rádio Placar – Entrevista Klabin e Forrest sobre combate à dengue em Ortigueira	01/mar
Rádio T – Entrevista Uilson Paiva sobre formatura dos alunos no Curso Técnico em Mecânica e Celulose e Papel (Programa T News)	08/mar

Media Monitoring (clipping)

Everything that is divulgated on the media is monitored daily – news classification by themes: the ones that mention Project Puma II directly, the ones the in any form might quote Klabin (or Puma Mill), and the others that bring relevant subjects for the region (health, public security, environmental issues, etc.).

A group of workers in Klabin, related to Project Puma II, receives the clipping weekly with an abstract of week news about the Project and relevant subjects, aiming the comprehension of the published subjects' inter-relation. A number of 62 media vehicles, 45 websites, 7 radios, 10 newspapers, more than 40 influencers and 20 WhatsApp Groups are monitored daily – except the ones that have different periodicities. Summary of weekly report and press performance report from January to June 2021 in annex.

Klabin and support to Municipalities in the Covid-19 pandemic scenario

Since the beginning of the health global crisis, Klabin engaged in the fight against Covid-19 by increasing its compromise of social responsibility and people care, especially in the operations' area of influence. For example, Klabin integrates since March of 2020 the Covid-19 Inter Sectorial Committee, formed by the Municipal and State Secretariat of Health, Municipal Council of Health and the city hospitals (Instituto Doutor Feitosa e Hospital Moura). In the daily meetings there are discussions related to regional infrastructure and follow up of the pandemic situation.

Klabin is aware of the importance of its social role in a difficult moment and, in 2020 and 2021, designated R$ 12.5 million to the fight against Covid-19 in Paraná State. The actions focus on the health and social assistance areas, in addition to other sectors impacted by the crisis, especially in the regions of Klabin's forestry and industrial operations. Its main investment was related to the works and equipment acquisition that allow the Campaign Hospital in the Regional Hospital installations in Telêmaco Borba. Ten new Intensive Care rooms and 40 other nursery rooms that benefited seven municipalities of the region (Telêmaco Borba, Ortigueira, Imbaú, Curiúva, Reserva, Tibagi and Ventania).

Klabin also donated respirators, medicines and other equipment to region's public hospitals (Regional and Instituto Dr. Feitosa) and Paraná State Health Secretariat, helped in the hiring of professionals and distributed Covid-19 testing, oxygen concentrators, masks, hand sanitizers and other equipment for municipal administrations, neighboring communities and health professionals. More information about the Campaign Hospital and general donations available in the following links:

Campaign Hospital:

- *https://klabin.com.br/sala-de-noticias/press-release/klabin-entrega-as-obras-do-hospital-de-campanha-de-telemaco-borba/*

General Donations 2020:

- *https://klabin.com.br/sala-de-noticias/press-release/doacoes-da-klabin-para-combater-a-covid-19-no-parana-somam-r-2-milhoes/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-apoia-terras-indigenas-de-ortigueira-e-cooperativas-de-reciclagem-no-combate-ao-coronavirus/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-realiza-novas-doacoes-para-combater-o-coronavirus-no-parana/*

- *https://klabin.com.br/sala-de-noticias/press-release/klabin-doa-10-respiradores-para-o-hospital-regional-de-telemaco-borba/*

General Donations 2021:

- *https://klabin.com.br/sala-de-noticias/press-release/klabin-entrega-cinco-mil-testes-ao-parana-e-transfere-mais-profissionais-de-saude/*
- *https://klabin.com.br/sala-de-noticias/press-release/parceria-entre-governo-e-klabin-garante-mais-5-leitos-de-uti-em-telemaco-borba/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-reforca-seu-compromisso-social-e-destina-mais-9-respiradores-com-monitores-para-cidades-dos-campos-gerais/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-reforca-seu-compromisso-social-e-apoia-a-compra-de-medicamentos-e-de-bombas-de-infusao-no-parana/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-amplia-doacoes-para-o-combate-a-covid-19-no-parana/*
- *https://klabin.com.br/sala-de-noticias/press-release/klabin-firma-parceria-com-o-governo-do-estado-do-parana-para-doacao-de-mais-de-95-mil-medicamentos-para-intubacao/*

Project Puma II and the pandemic

During the year of 2020, Project Puma II communication efforts and company's relations with the region communities were related to contention measures of Covid-19 dissemination among the workers and the population.

After its interruption in March, the Project Puma II constructions continued during the year of 2020 without any demobilizations. After protocol implementation by the State and Municipal Governments, Klabin worked along with the Covid-19 Inter Sectorial Committee and Ortigueira City Hall.

For the work continuity, Klabin developed a robust protocol of health and security and presented to the Covid-19 Inter Sectorial Committee, Ortigueira and Imbaú City Halls. Covid-19 testing in the worker's city of origin, seven days social distancing and new testing before accessing the site, daily temperature measurement of all workers, ozone tunnels in the site entrance and exit, Covid-19 ambulatory are examples of the protocol actions. In addition, the company implemented a daily "active search" in Project Puma II – health professionals checking temperature and measuring symptoms or workers that have been in contact with asymptomatic people. In case of any sign of contamination, the worker would be forwarded to the ambulatory and, if necessary, secluded. The protocol is also applied in the workers' residential, restaurants and transportation (buses and vans), along with intense communication efforts.

4 REPORTS TO ILLUSTRATE COMPLIANCE WITH HOST COUNTRY REGULATIONS AND INTERNATIONAL ENVIRONMENTAL POLICIES AND GUIDELINES

4.1 Noise

PUMA/Klabin is required to monitor point source air emissions as specified in the relevant environmental permit. Monitoring should take place while the pulp mill is operating.

PUMA/Klabin is required to monitor sound pressure levels as specified in the relevant environmental permit. Monitoring should take place while the pulp mill is operating and compared with the background levels defined in the project's ESIA/EIA.

MONITORING SITES	COORDINATES	
	UTM X (m)	UTM Y(m)
P1	526836	7320893
P2	525480	7320143
P3	524504	7319320
P4	524536	7316963
P5	527670	7316371

Location of noise monitoring point

MONITORING SITES	RECEPTOR	UNITS	LIMITS NBR 10151		LIMITS IFC Guidelines		LIMITS Adopted by the Project		MEASURED VALUES 1Q 2021	
			DAYTIME	NIGHTTIME	DAYTIME	NIGHTTIME	DAYTIME	NIGHTTIME	DAYTIME	NIGHTTIME
P1	Residential	dB	55	50	55	45	55	45	51	48
P2	Residential	dB	55	50	55	45	55	45	52	41
P3	Industrial	dB	70	60	70	70	70	60	63	58
P4	Industrial	dB	70	60	70	70	70	60	57	53
P5	Residential	dB	55	50	55	45	55	45	47	42

Measured values 2Q 2021 – Noise monitoring campaign conducted 06/16/2021 through 06/26/2021 – Waiting for report

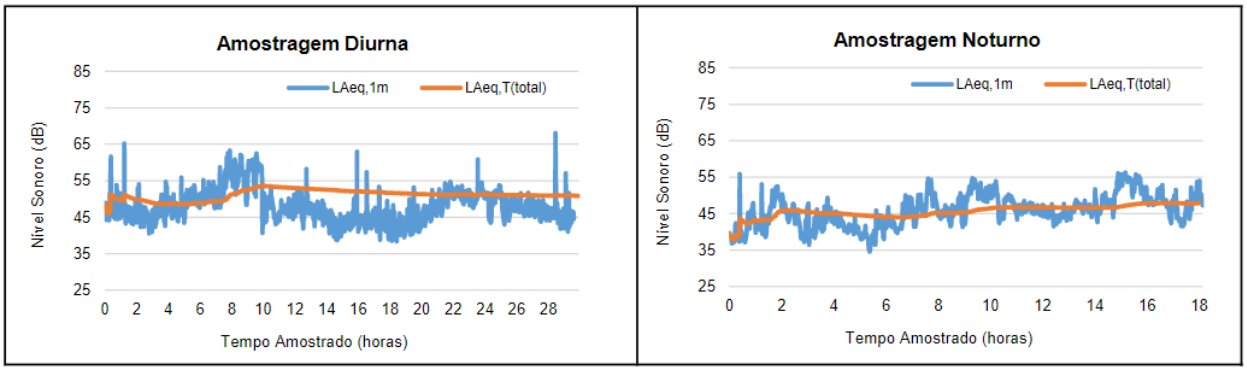
We are monitoring and participating in municipal discussions, where there is a plan to change the noise class in this region, moving it to the industrial zone, where the current noise limits would be within the standards.

Measured values 1Q 2021 – P1

AMOSTRAGEM	DATA / HORA AMOSTRAGEM	Nível de Pressão Sonora (dB)					
		L10 (1, 2)	L50 (1, 2)	L90 (1, 2)	LAeq,T (período)	TEMPO DE MEDIÇÃO (horas)	LAeq,T(48h) (1, 3)
DIURNO	18/03/2021 12:07	53	47	43	51	30,00	**55**
NOTURNO	18/03/2021 22:00	52	46	40	48	18,00	
(1) Incerteza de Medição do valor amostrado (dB) =				*Diurno*	*4*	*Noturno*	*4*

(2) Nível de pressão sonora excedido 10%, 50% e 90%, respectivamente, do período de medição.
(3) Nível de pressão sonora contínuo equivalente ponderada em A e integrado em um intervalo de tempo T.

Figura 1 - Histogramas dos níveis de pressão sonora equivalentes de cada segundo ($L_{Aeq,inst}$) e integrado no período total da coleta ($L_{Aeq,T(total)}$) no período diurno e noturno, respectivamente.



Critical review:

Daytime measurements – This increase in the period 6 to 10 was not repeated in the period from 22 to 26, both reflect the sampling from 8 pm to 10 pm, showing that it is a characteristic condition of the location due to the flow of vehicles, animal sound and not the factory operation, because the behavior is not repeated.

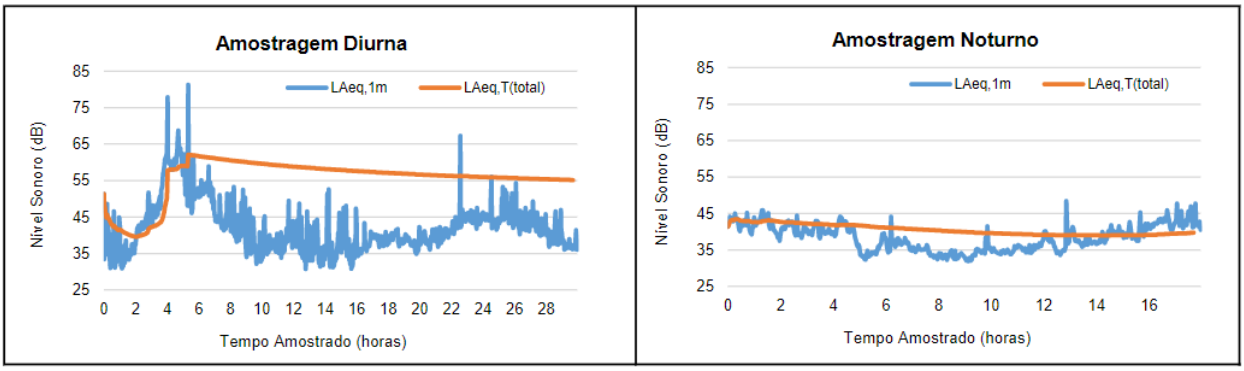
Nighttime measurements – In the period from 8 to 9, the result is due to the increase in vehicle traffic, part of them being related to the factory's operation and part of the local residents. Peak between 14 and 16 occurred around 4 am, it was not repeated in the previous period (6), showing that it is some particular interference in the region, animal sound or any vehicle. We have no record of significant deviation in the process, verified in the PI - System, that justify the deviation in noise in the analyzed period.

Measured values 1Q 2021 – P2

AMOSTRAGEM	DATA / HORA AMOSTRAGEM	Nível de Pressão Sonora (dB)					
		L10 (1, 2)	L50 (1, 2)	L90 (1, 2)	LAeq,T (período)	TEMPO DE MEDIÇÃO (horas)	LAeq,T(48h) (1, 3)
DIURNO	17/03/2021 11:01	48	40	35	52	30,00	**52**
NOTURNO	17/03/2021 22:00	44	40	34	41	18,00	
		(1) Incerteza de Medição do valor amostrado (dB) =		*Diurno*	*4*	*Noturno*	*3*

(2) Nível de pressão sonora excedido 10%, 50% e 90%, respectivamente, do período de medição.
(3) Nível de pressão sonora contínuo equivalente ponderada em A e integrado em um intervalo de tempo T.

Figura 1 - Histogramas dos níveis de pressão sonora equivalentes de cada segundo ($L_{Aeq,inst}$) e integrado no período total da coleta ($L_{Aeq,T(total)}$) no período diurno e noturno, respectivamente.



Critical review:

Daytime measurements – This increase in the period 4 to 6 and 23 they are influenced by vehicle traffic in the region, non-frequent exceedance in others periods, showing that it is a characteristic condition of the location.

Nighttime measurements – During the sampling period, the results shows that it is a characteristic condition of the location, lower than the numerical standards.

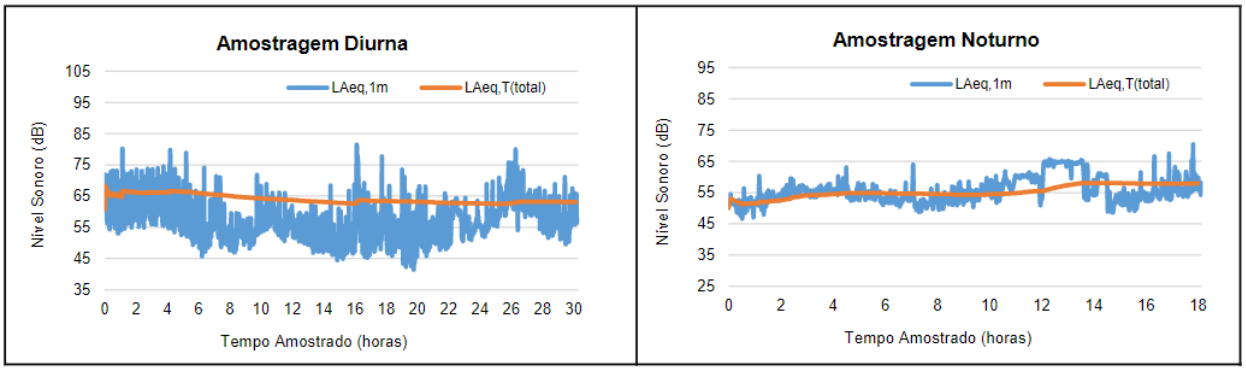
We have no record of significant deviation in the process, verified in the PI - System, that justify the deviation in noise in the analyzed period.

Measured values 1Q 2021 – P3

AMOSTRAGEM	DATA / HORA AMOSTRAGEM	Nível de Pressão Sonora (dB)					
		$L10^{(1,2)}$	$L50^{(1,2)}$	$L90^{(1,2)}$	$LAeq,T_{(período)}$	TEMPO DE MEDIÇÃO (horas)	$LAeq,T(48h)^{(1,3)}$
DIURNO	20/03/2021 12:45	66	56	49	63	30,00	**62**
NOTURNO	20/03/2021 22:00	61	55	51	58	18,00	
(1) Incerteza de Medição do valor amostrado (dB) =				*Diurno*	*5*	*Noturno*	*3*

(2) Nível de pressão sonora excedido 10%, 50% e 90%, respectivamente, do período de medição.
(3) Nível de pressão sonora contínuo equivalente ponderada em A e integrado em um intervalo de tempo T.

Figura 1 - Histogramas dos níveis de pressão sonora equivalentes de cada segundo ($L_{Aeq,inst}$) e integrado no período total da coleta ($L_{Aeq,T(total)}$) no período diurno e noturno, respectivamente.



Critical review:

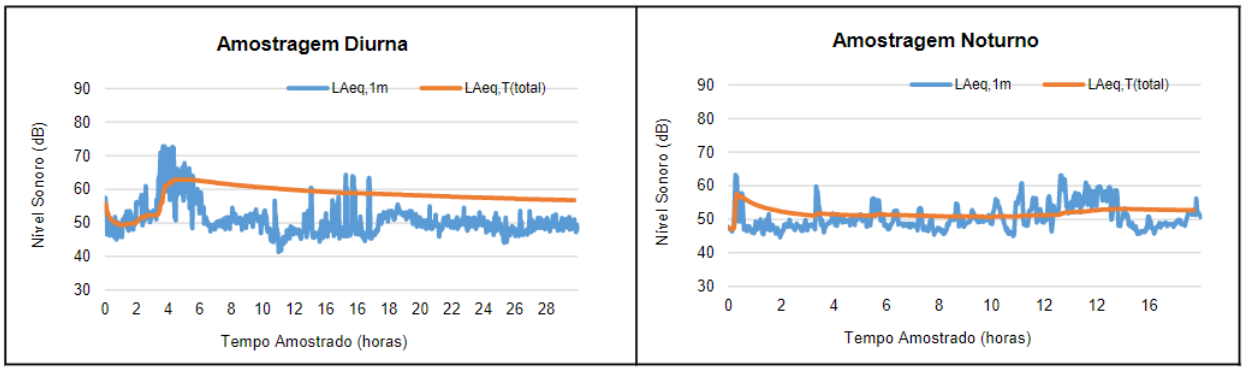
Daytime measurements – This increase in the period 2, 7 and 26 they are influenced by vehicle traffic in the region, in others periods showing that it is a characteristic condition of the location and steakhouse activities.
Nighttime measurements – The values showing that it is a characteristic condition of the location, they are influenced by sound from domestic and wild animals.
We have no record of significant deviation in the process, verified in the PI - System, that justify the deviation in noise in the analyzed period.

Measured values 1Q 2021 – P4

AMOSTRAGEM	DATA / HORA AMOSTRAGEM	Nível de Pressão Sonora (dB)					
		L10(1, 2)	L50(1, 2)	L90(1, 2)	LAeq,T(período)	TEMPO DE MEDIÇÃO (horas)	LAeq,T(48h) (1, 3)
DIURNO	19/03/2021 11:53	53	49	45	57	30,00	**56**
NOTURNO	19/03/2021 22:00	56	50	47	53	18,00	
	(1) Incerteza de Medição do valor amostrado (dB) =			*Diurno*	*3*	*Noturno*	*3*

(2) Nível de pressão sonora excedido 10%, 50% e 90%, respectivamente, do período de medição.
(3) Nível de pressão sonora contínuo equivalente ponderada em A e integrado em um intervalo de tempo T.

Figura 1 - Histogramas dos níveis de pressão sonora equivalentes de cada segundo ($L_{Aeq,inst}$) e integrado no período total da coleta ($L_{Aeq,T(total)}$) no período diurno e noturno, respectivamente.



Critical review:

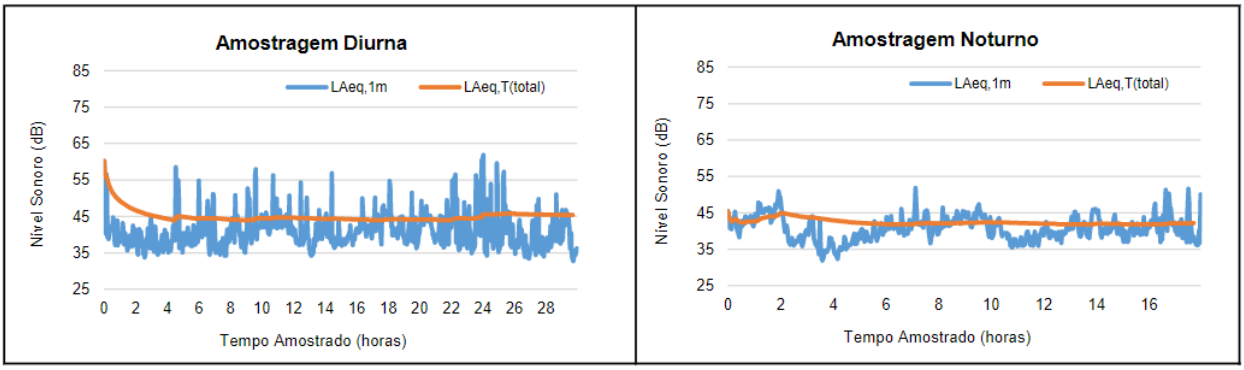
Daytime measurements – This increase in the period 3 to 5 they are influenced by vehicle traffic in the region, in others periods showing that it is a characteristic condition of the location and waste management center activities.
Nighttime measurements – The values showing that it is a characteristic condition of the location and waste management center activities, the values are lower than the numerical standards during the majority of the sampling period.

Measured values 1Q 2021 – P5

AMOSTRAGEM	DATA / HORA AMOSTRAGEM	Nível de Pressão Sonora (dB)					
		L10 (1, 2)	L50 (1, 2)	L90 (1, 2)	LAeq,T (período)	TEMPO DE MEDIÇÃO (horas)	LAeq,T(48h) (1, 3)
DIURNO	16/03/2021 11:20	48	39	35	47	30,00	50
NOTURNO	16/03/2021 22:00	44	36	33	42	18,00	
		(1) Incerteza de Medição do valor amostrado (dB) =		Diurno	4	Noturno	4

(2) Nível de pressão sonora excedido 10%, 50% e 90%, respectivamente, do período de medição.
(3) Nível de pressão sonora contínuo equivalente ponderada em A e integrado em um intervalo de tempo T.

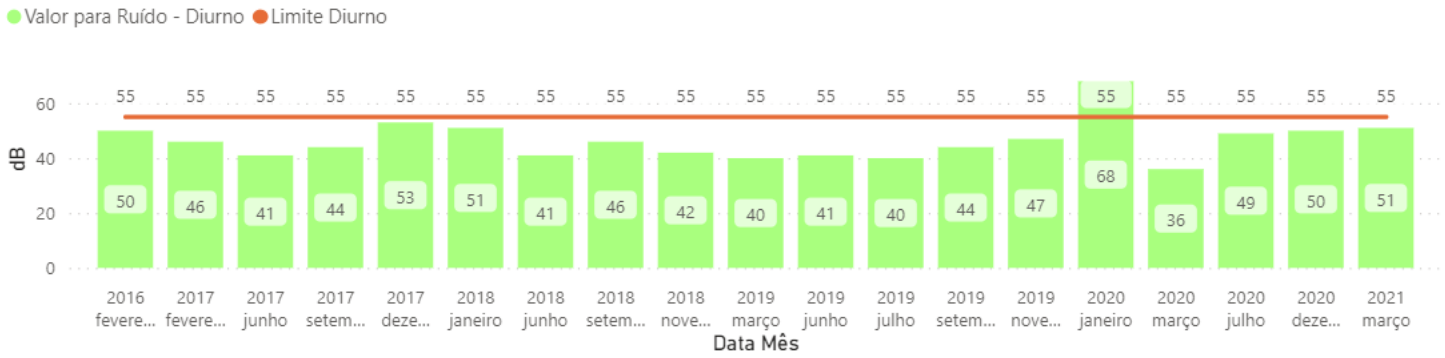
Figura 1 - Histogramas dos níveis de pressão sonora equivalentes de cada segundo ($L_{Aeq,inst}$) e integrado no período total da coleta ($L_{Aeq,T(total)}$) no período diurno e noturno, respectivamente.

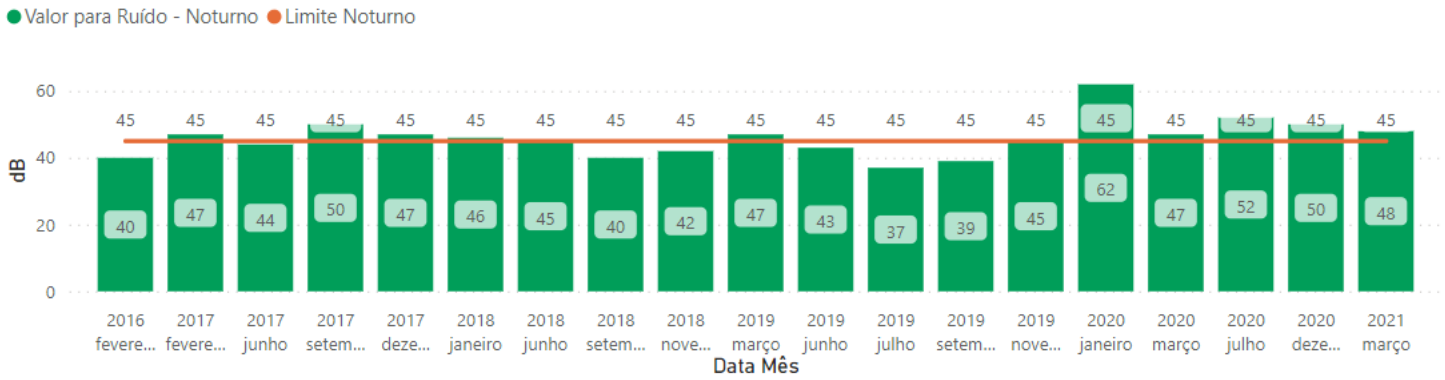


Critical review:

Daytime measurements – In the period from 8 to 9, the result is due to the increase in vehicle traffic, part of them being related to the factory's operation and part of the local residents.
Nighttime measurements – they are influenced by sound from domestic and wild animals, the values are lower than the numerical standards during the majority of the sampling period.

Noise monitoring - SITE 1: César Mouro Residence

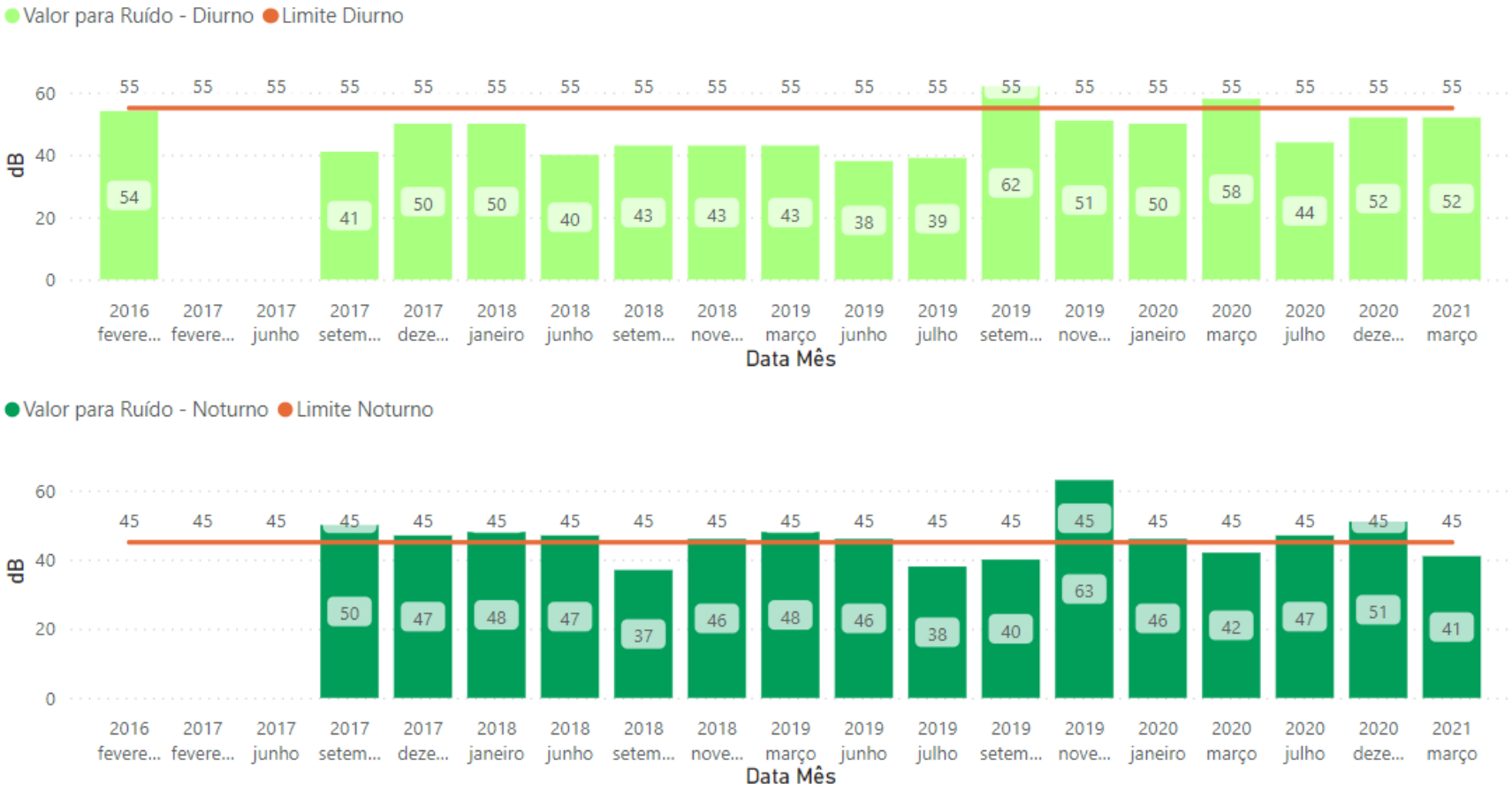




Critical review:

Daytime measurements – monitoring campaign conducted in January/2020 showed values above the limit, non-frequent exceedance in others campaigns.
Nighttime measurements - they are influenced by vehicle traffic in the region and sound from domestic and wild animals.
The identified noise is not a reflection of production or design operations, looking at the trends, we have no record of a significant rise or change in this impact.
From September/2019, we are monitoring conducted with 48 hours by the methodological IFC Guidelines – Noise management. The monitoring campaign conducted in the march/2020 was obtained using a different methodology (5-minute sampling time) because the landowner did not provide extended access to the monitoring team due to preoccupation to be exposed to Covid-19.

Noise monitoring - SITE 2: José Zito Residence



Critical review:

Daytime measurements – monitoring campaigns conducted in September/2019 and March/2020 showed values above the limit, these values can be attributed to the Local agricultural activities, non-frequent exceedances in others campaigns.

Nighttime measurements - they are influenced by vehicle traffic in the region and by local agricultural activities.

The identified noise is not a reflection of production or design operations, looking at the trends, we have no record of a significant rise or change in this impact.

From September/2019, we are monitoring conducted with 48 hours by the methodological IFC Guidelines – Noise management.

Noise monitoring - SITE 3: Steakhouse

Critical review:

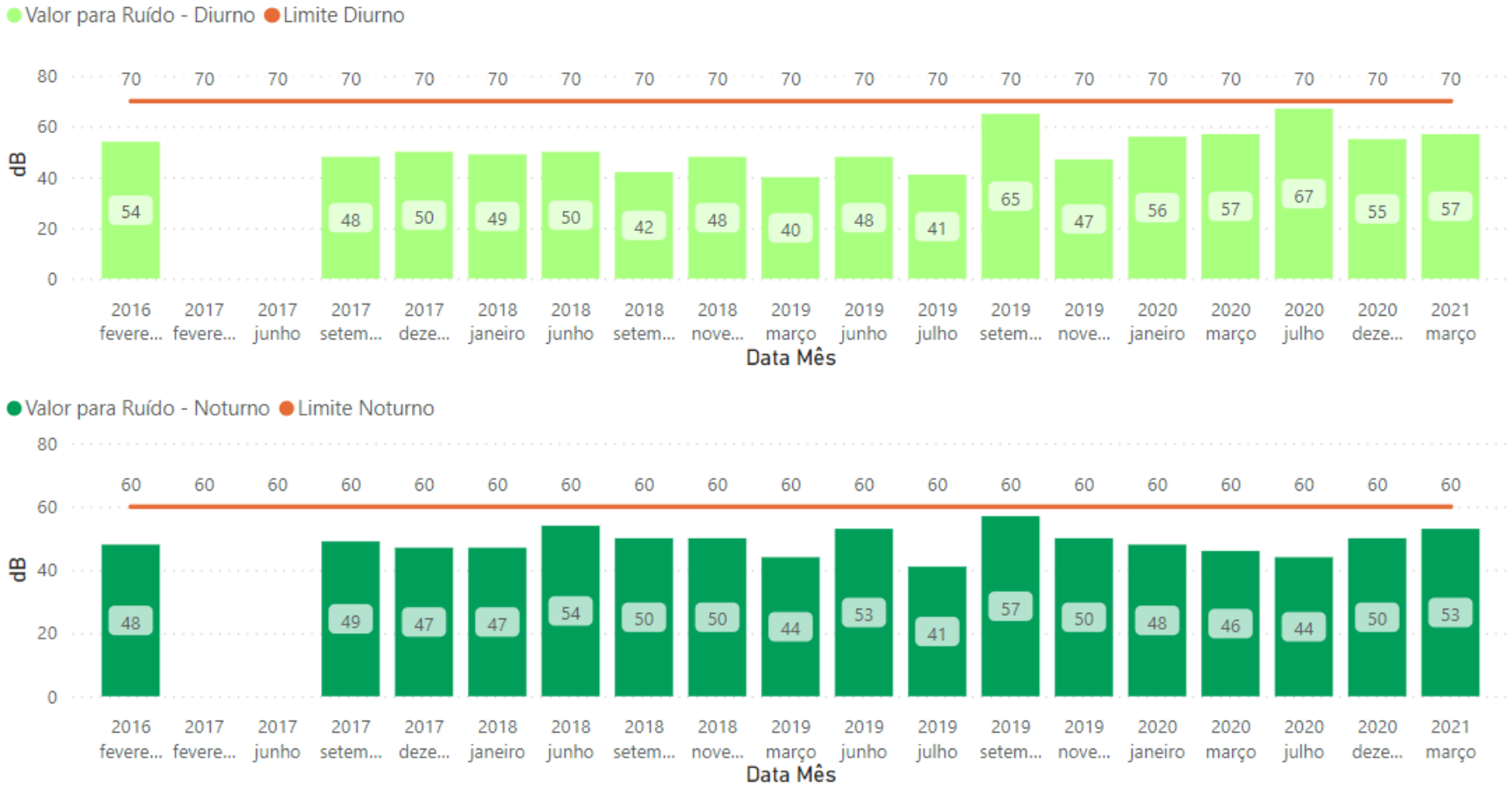
Daytime measurements – monitoring campaign conducted in January/2020 showed values above the limit, non-frequent exceedance in others campaigns.

Nighttime measurements - they are influenced by vehicle traffic in the region and from steakhouse parking.

The identified noise is not a reflection of production or design operations, looking at the trends, we have no record of a significant rise or change in this impact.

From September/2019, we are monitoring conducted with 48 hours by the methodological IFC Guidelines – Noise management.

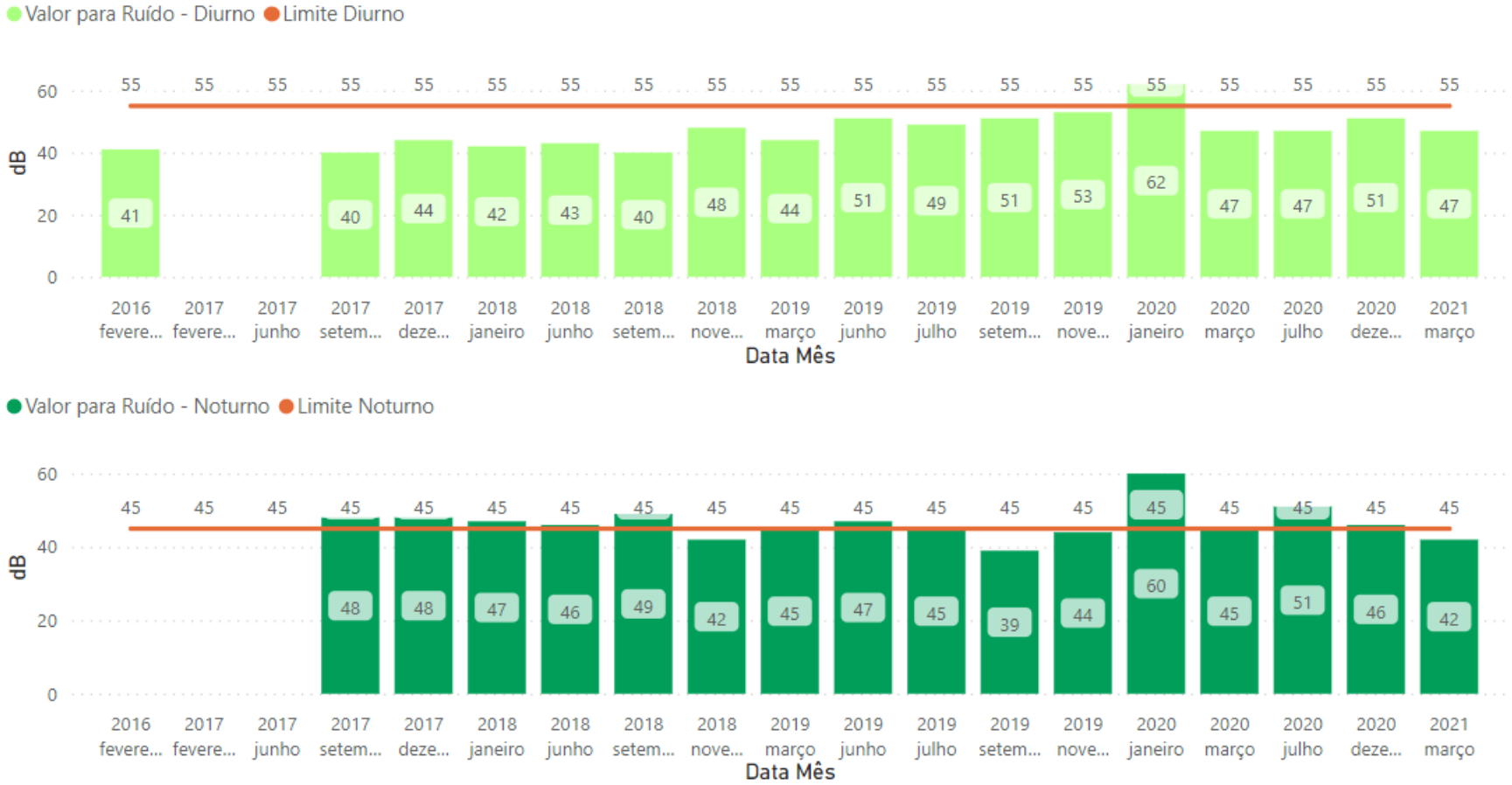
Noise monitoring - SITE 4: Waste Treatment Plant



Critical review:

These monitoring site doesn't have values above the limit, looking at the trends, we have no record of a significant rise or change in this impact. From September/2019, we are monitoring conducted with 48 hours by the methodological IFC Guidelines – Noise management.

Noise monitoring - SITE 5: Condominiun



Critical review:

Daytime measurements – monitoring campaign conducted in January/2020 showed values above the limit, non-frequent exceedances in others campaigns.

Nighttime measurements - they are influenced by vehicle traffic in the region.

The identified noise is not a reflection of production or design operations, looking at the trends, we have no record of a significant rise or change in this impact.

From September/2019, we are monitoring conducted with 48 hours by the methodological IFC Guidelines – Noise management.

4.2 Point Source Air Emissions

PUMA/Klabin is required to monitor point source air emissions as specified in the relevant environmental permit. Monitoring should take place while the pulp mill is operating.

Point Source Air Emissions Monitoring[5] - Reporting Period january/2021 through june/2021						
Sampling frequency (if not continuous, define sampling frequency below)	*Pollutant*	*Unit*	*Numerical Standard Adopted by the Project*	*PUMA/Klabin´s Performance, Average for the reporting period*	*Maximum*	*Minimum*
Recovery Boiler						
Semiannual	PM	mg/Nm3	100	62,62	69,14	52,84
Semiannual	SO_2	mg/Nm3	100	1,57	1,58	1,56
Semiannual	NOx	mg/Nm3	470	177,73	196,21	159,09
Semiannual	TRS	mg/Nm3	15	1,31	1,33	1,29
Semiannual	H_2S	mg/Nm3	-	-	-	-
Biomass Boiler						
Semiannual	PM	mg/Nm3	100	35,53	31,39	39,54
Semiannual	SO_2	mg/Nm3	-	1,54	1,55	1,53
Semiannual	NOx	mg/Nm3	500	163,70	174,02	151,28
Semiannual	TRS	mg/Nm3	-	-	-	-
Semiannual	H_2S	mg/Nm3	-	-	-	-
Lime Kiln I						
Semiannual	PM	mg/Nm3	100	41,76	49,90	34,41
Semiannual	SO_2	mg/Nm3	-	30,70	35,91	19,53
Semiannual	NOx	mg/Nm3	470	223,76	249,97	200,64
Semiannual	TRS	mg/Nm3	30	5,89	8,76	5,89
Lime Kiln II						
Semiannual	PM	mg/Nm3	100	85,70	91,13	77,67
Semiannual	SO_2	mg/Nm3	-	25,45	27,62	21,44
Semiannual	NOx	mg/Nm3	470	452,43	476,51*	427,10
Semiannual	TRS	mg/Nm3	30	9,07	9,15	8,94

Please report valid limits from the Brazilian environmental permit and measurement results to the table below.

[5] Provide a scaled facility map showing the precise location of all discharge points.

Please provide in the table below the amount of absolute emission during the reporting period of each given parameter divided by amount of pulp produced in same period of time.

Parameter	Unit	PUMA/Klabin Pulp Mill's performance[6]	IFC guideline[7]
Amount of produced pulp	ADt	828.931,90	
TSP	kg/ADt	0,5	0,5
SO2 as S	kg/ADt	0,003	0,4
NOx as NO2	kg/ADt	1,156	1,5
TRS as S	kg/ADt	0,017	0,2

4.3. Ambient Air

Ambient Air refers to any unconfined portion of the atmosphere and is also termed open air or surrounding air. Ambient monitoring is carried out for a variety of reasons, including assessment of environmental problems and evaluation of interventions.

PUMA/Klabin is required to monitor ambient air at subsequent defined locations. Monitoring should take place while the pulp mill is operating.

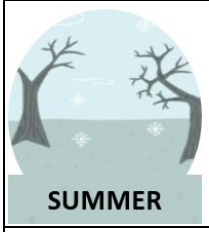
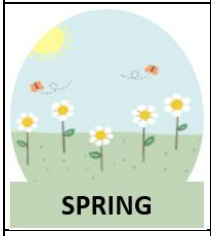
Please fill in valid ambient air quality limits from the Brazilian environmental permit and measurement results to the table below. If there is more than one ambient air quality monitoring place, each monitoring place needs a table of its own.

MONITORING SITES	COORDINATES	
	UTM X (m)	UTM Y(m)
P1	535.013,88	7.308.093,07
P2	523.760,76	7.296.052,88
P3	507.675,72	7.321.976,19

[6] Report average figures for the reporting period.

[7] IFC. 2007: Environmental, health and safety guidelines for pulp and paper mills. Page 30.

Location of ambient air quality monitoring points

Air Quality Monitoring Campaigns	
Seasons of the year	Monitoring Period
	04/19/2018 through 05/30/2018 – Completed 05/24/2019 through 06/24/2019 – Completed 06/01/2021 through 06/18/2021 – Waiting for report
	09/06/2019 through 09/22/2019 – Completed
	10/16/2018 through 11/17/2018 – Completed 12/01/2020 through 12/18/2020 – Completed
	03/11/2020 through 03/27/20 – Completed

The objective is attend seasonal variations that represent all typical weather conditions experienced in the region.

The air quality monitoring methodology, conduct the monitoring in each sampling location for a period of five days:

Site 1: Telêmaco Borba

Site 2: Imbaú

Site 3: Ortigueira

The methodology and the location of the sampling points were presented to the Paraná Environmental Institute at the PCA. The report is sent after campaign.

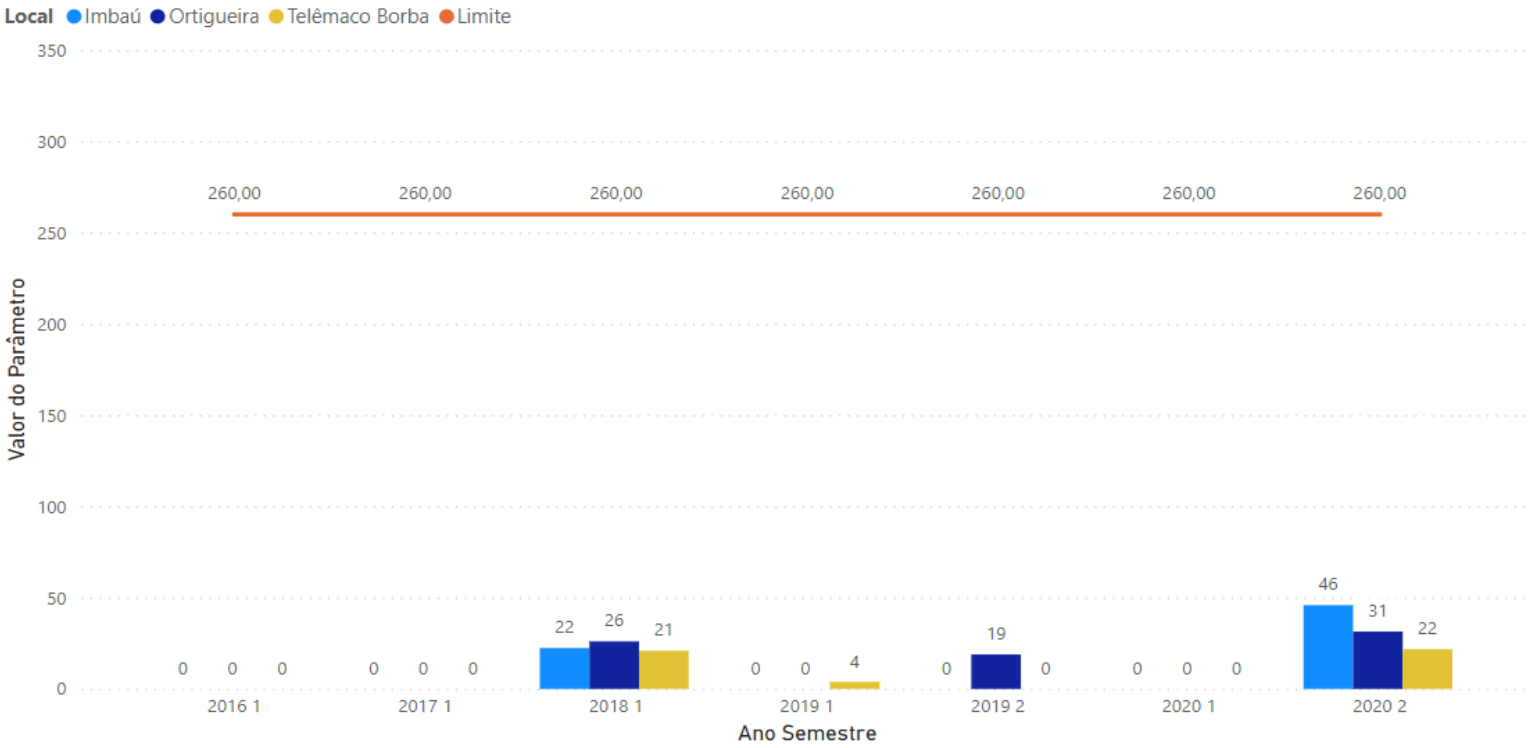
The Table below presents the results of air quality monitoring realized during the general stop and demonstrate compliance in all parameters.

Brazil Ambient Air Quality Limits (CONAMA 491/2018)							
NO_2 - 1h (µg/m3)	SO_2 - 24h (µg/m3)	PM_{10} - 24h (µg/m3)	$PM_{2,5}$ - 24h (µg/m3)	TSP - 24h (µg/m3)	TRS - 1h (µg/m3)	O3 - 8h (µg/m3)	CO - 8h (ppm)
260	125	120	60	240	N/A	140	9

Site	Date	MEASURED VALUE								
		NO_2 - 1h (µg/m3)	SO_2 - 24h (µg/m3)	PM_{10} - 24h (µg/m3)	$PM_{2,5}$ - 24h (µg/m3)	TSP - 24h (µg/m3)	TRS - 1h (µg/m3)	O3 - 8h (µg/m3)	CO - 8h (ppm)	Air Quality Classification (IQA)
Site 1 Telêmaco Borba	12/01/2020	<L.Q.	<L.Q.	13,9	-	26,1	<L.Q.	-	0	**Good**
	12/02/2020	24,3	<L.Q.	13,1	6,7	27,5	<L.Q.	36,1	0	**Good**
	12/03/2020	-	71,6	11,5	5,5	21,4	<L.Q.	30,3	0	**Good**
	12/04/2020	84,4	50,6	9,1	4,1	13,1	<L.Q.	33,6	0	**Good**
	12/05/2020	-	<L.Q.	7,3	2,7	9,7	<L.Q.	33,8	0	**Good**
Site 2 Imbaú	12/14/2020	-	<L.Q.	20,3	8,2	50,1	<L.Q.	36,6	0	**Good**
	12/15/2020	-	29,6	34,6	9,6	124,5	<L.Q.	30,1	0	**Regular**
	12/16/2020	57,8	43,8	25,9	8,0	89,5	<L.Q.	29,4	0	**Regular**
	12/17/2020	93,0	<L.Q.	13,2	6,1	25,9	<L.Q.	33,7	0	**Good**
	12/18/2020	78,5	<L.Q.	20,5	7,8	42,1	<L.Q.	31,2	0	**Good**
Site 3 Ortigueira	12/07/2020	55,3	<L.Q.	8,8	3,7	18,8	<L.Q.	39,1	0	**Good**
	12/08/2020	29,7	46,0	16,4	6,4	28,4	<L.Q.	39,5	0	**Good**
	12/09/2020	-	42,0	13,1	5,2	22,3	<L.Q.	34,5	0	**Good**
	12/10/2020	39,3	<L.Q.	16,4	6,2	30,8	<L.Q.	36,0	0	**Good**
	12/11/2020	32,7	43,7	14,2	6,3	30,2	<L.Q.	40,0	0	**Good**

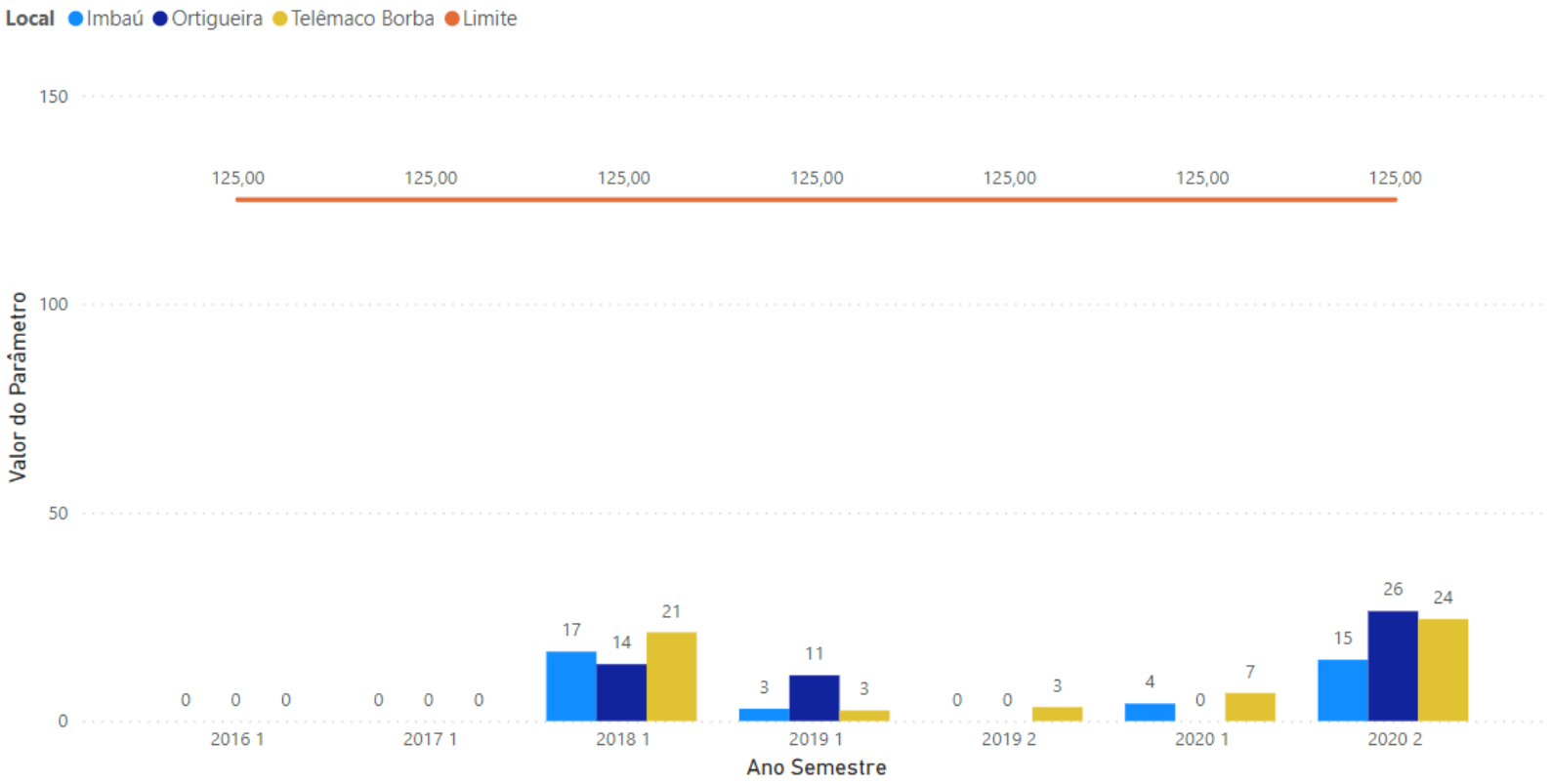
Critical review:
This monitoring campaign conducted during the general stop and they are influenced several sources of local emissions, in the surroundings of sites, which are the causes of the concentrations recorded. We have no record of significant changes comparing with other campaigns.

The results of the monitoring campaigns are shown in the graphsAmbient air quality monitoring – NO2



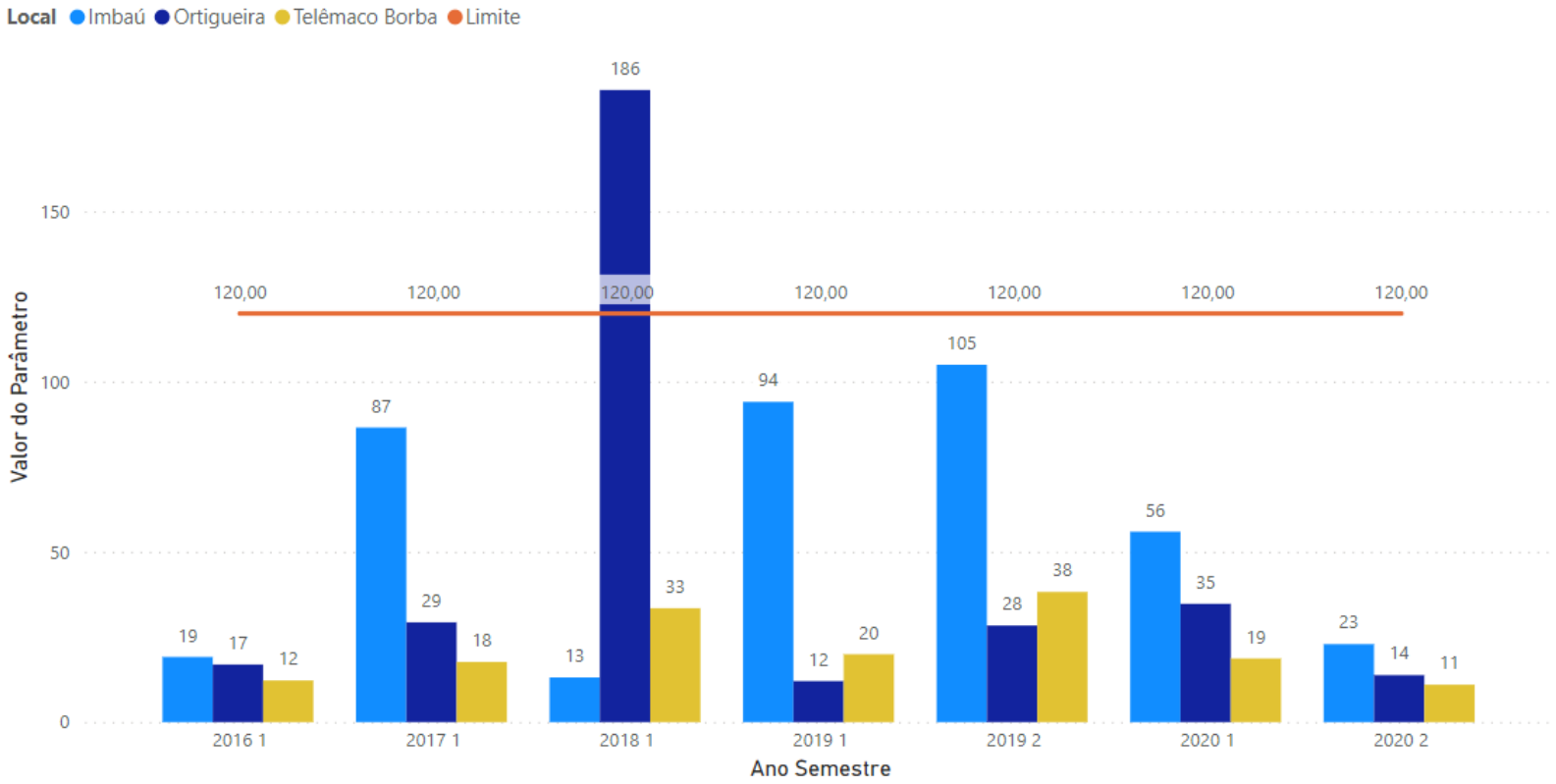
Critical review:
The results for the NO2 parameter demonstrate compliance in all campaigns.

Ambient air quality monitoring – SO2



Critical review:
The results for the SO2 parameter demonstrate compliance in all campaigns.

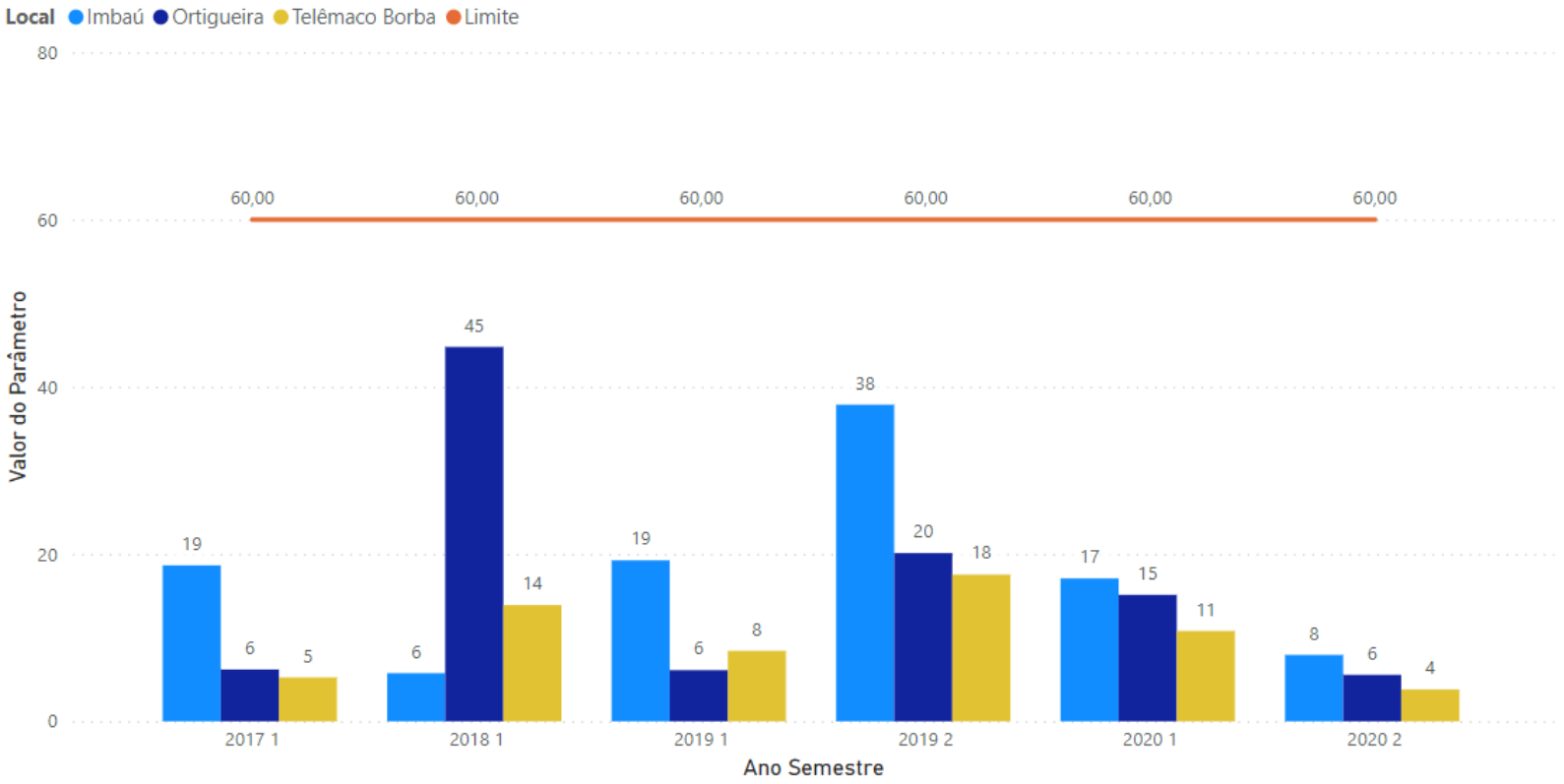
Ambient air quality monitoring – PM10



Critical review:

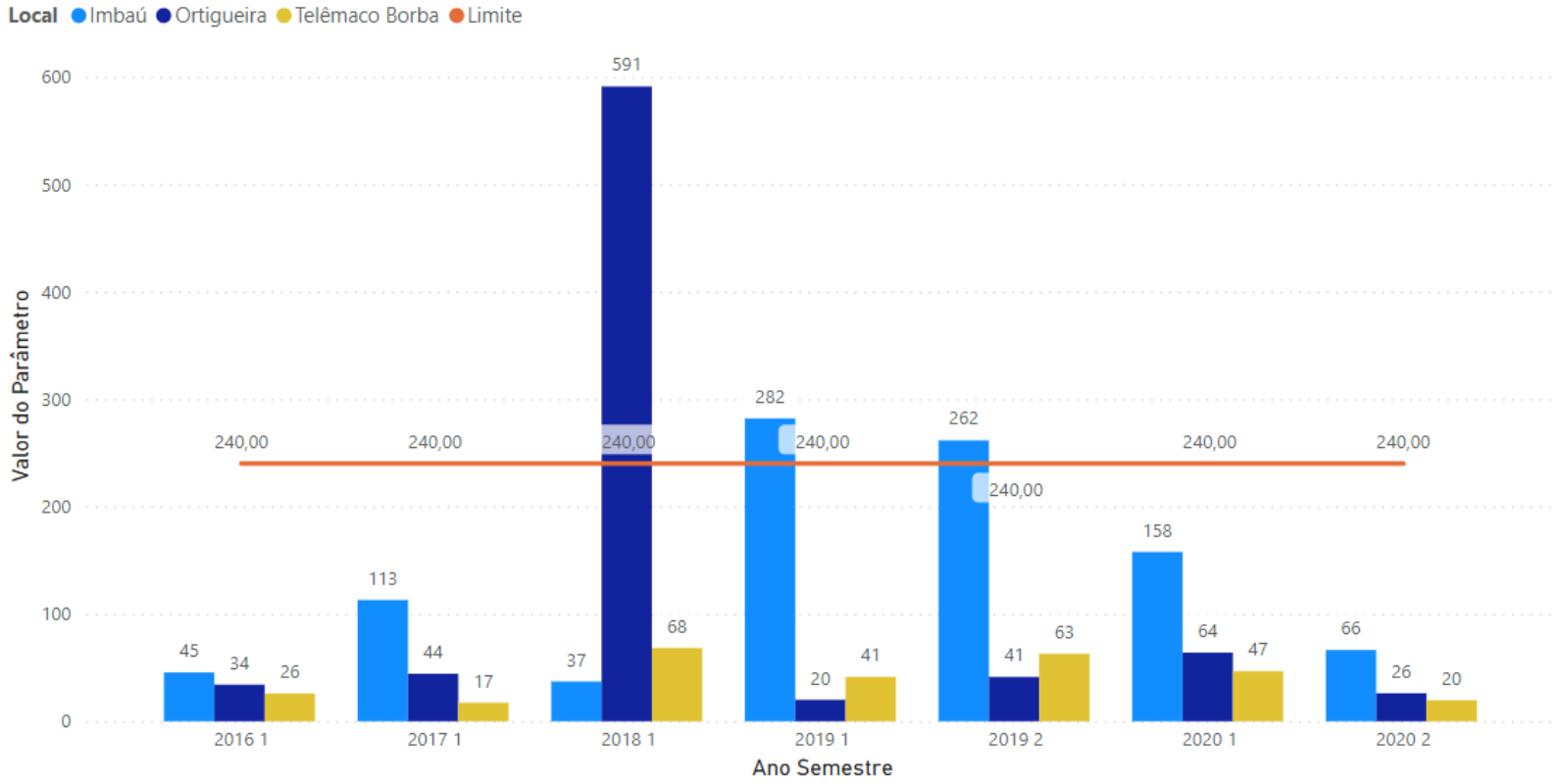
The result of monitoring conducted in 2018, the synoptic conditions were characterized by dry and stable weather, unfavorable to the removal and dispersion of atmospheric pollutants. Under these conditions, the natural emissions of particulates tend to increase, and consequently the concentrations of PTS and MP10, as was the case of the samplings carried out in the period. In fact, numerous overshoot of PTS, overshoot in fewer MP10, and no overshoot of MP2.5, indicate that the origin of the particulates is predominantly from natural (non-industrial) sources. In other monitoring campaigns, the results demonstrate compliance.

Ambient air quality monitoring – PM 2,5



Critical review:
The results for the PM 2,5 parameter demonstrate compliance in all campaigns.

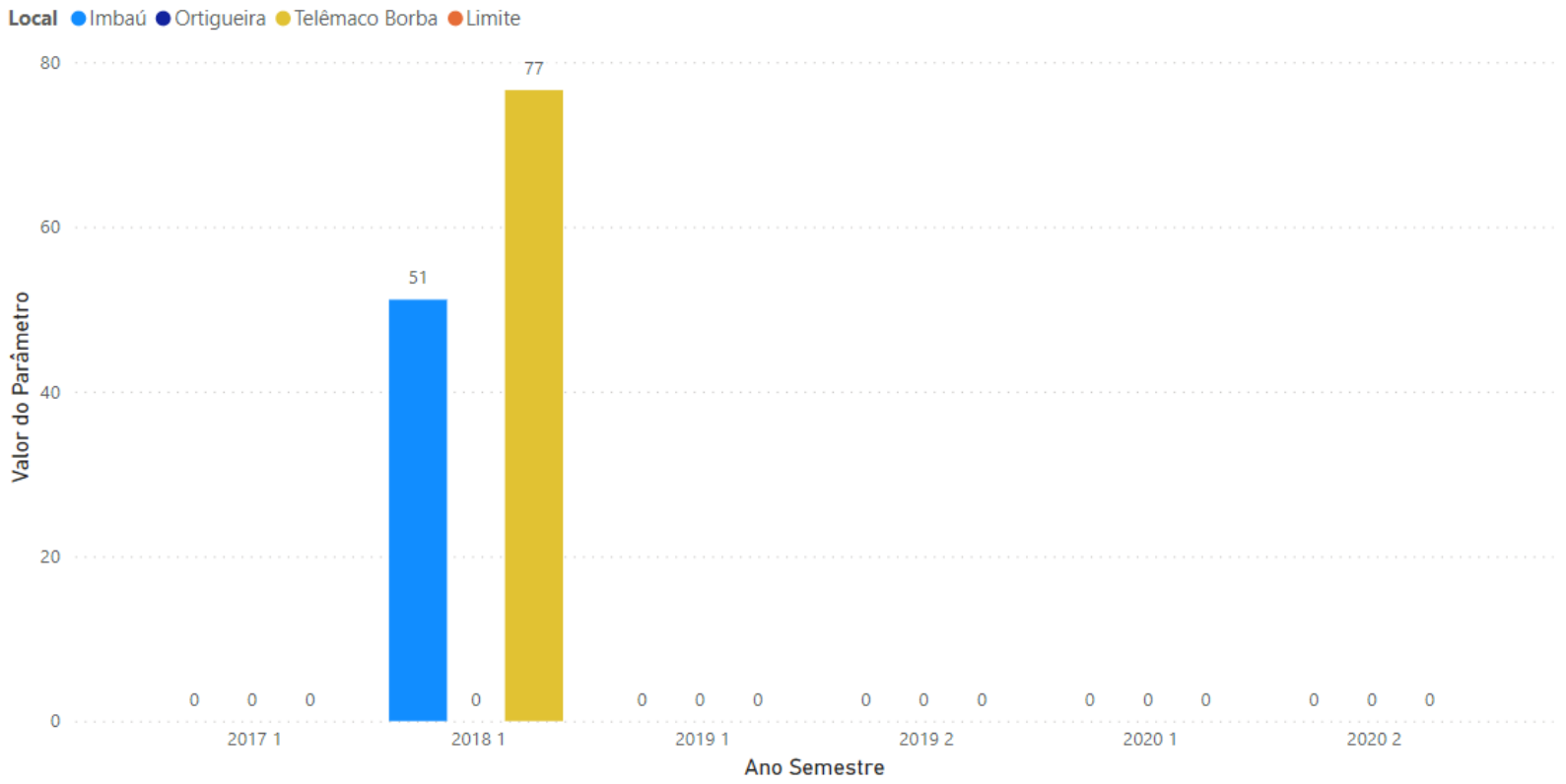
Ambient air quality monitoring – TSP



Critical review:

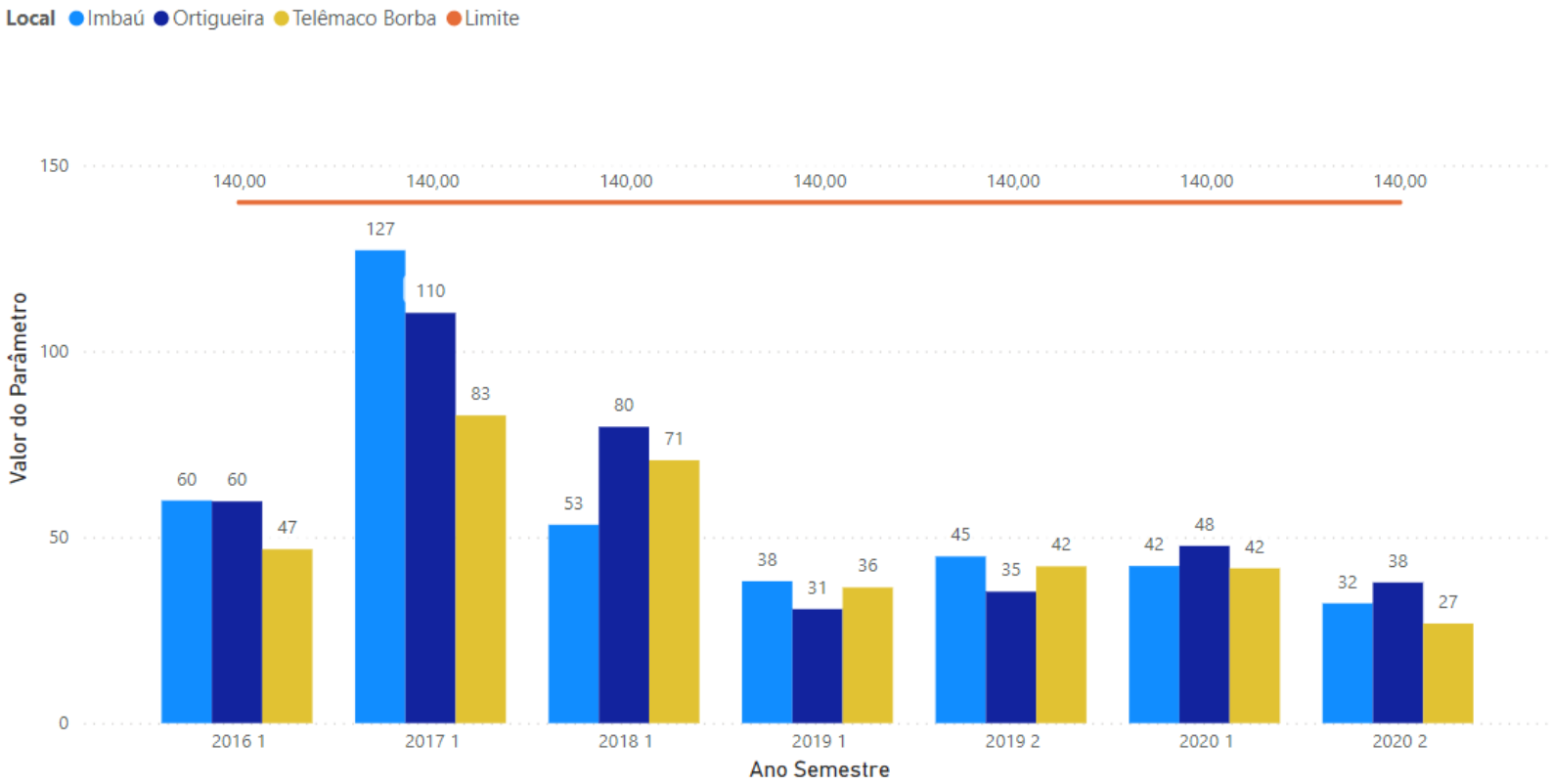
The result of monitoring conducted in 2018, the synoptic conditions were characterized by dry and stable weather, unfavorable to the removal and dispersion of atmospheric pollutants. Under these conditions, the natural emissions of particulates tend to increase, and consequently the concentrations of PTS and MP10, as was the case of the samplings carried out in the period. In fact, numerous overshoot of PTS, overshoot in fewer MP10, and no overshoot of MP2.5, indicate that the origin of the particulates is predominantly from natural (non-industrial) sources. In other monitoring campaigns, the results demonstrate compliance.

Ambient air quality monitoring – TRS



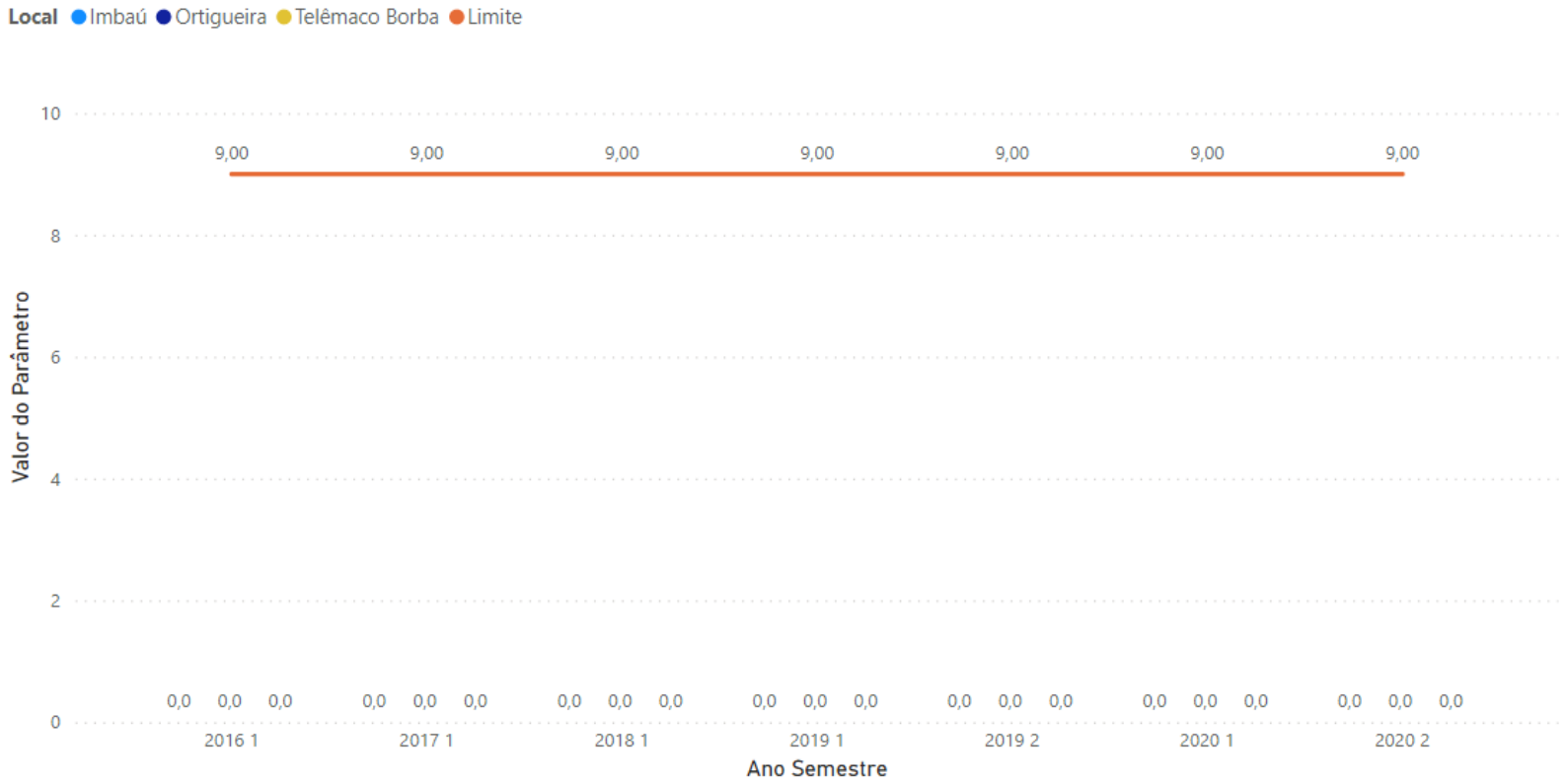
Critical review:limit is not applicable for the TRS parameter, however in recent years the results are lower than the quantification limit for the method used.

Ambient air quality monitoring – O3



Critical review:
The results for parameter O3 demonstrate compliance in all campaigns.

Ambient air quality monitoring – CO



Critical review:
The results for parameter CO demonstrate compliance in all campaigns.

4.4. Liquid Effluent

Liquid Effluent refers to all types of liquid waste which is discharged from the pulp mill site. Types of liquid effluent include process, sanitary, storm water, leachate and thermal discharges. PUMA/Klabin is required to monitor liquid effluent at agreed discharge points. Monitoring should take place when the facilities are both operating and under construction.

Please fill in valid limits from the Brazilian environmental permit and measurement results to the table below. Each discharge monitoring place needs a table of its own.[8]

*** Reporting Period January/2021 through June/2021**

Sample Frequency (samples/year or continuous)	*Parameter*	*Unit.*	*Numerical Standard Adopted by the Project (please indicate units)*	*PUMA/Klabin´s Performance Average (please indicate units)*	*Maximum*	*Minimum*
Fortnightly	pH	-	6 -9	7,2	7,6	6,40
Fortnightly	Flow	m3/h	7400	4581	5339	2693
Fortnightly	Temperature increase	°C	Max. 40	24,0	25,9	20,07
Fortnightly	COD	mg/L	230	187,0	246,0*	124,00
Fortnightly	BOD_5	mg/L	30	18,9	38,5*	3,70
Semiannual	AOX	mg/L	-	<0,0405**	***	***
Fortnightly	Total Phosphorus	mg/L	0,30	0,1	0,3	0,03
Fortnightly	Total Nitrogen Ammoniacal	mg/L	20	0,5	1,8	0,10
Fortnightly	TSS	mg/L	100	26,5	36,6	5,00
Semiannual	Dioxins/furans	µg/L	-	< 0,00001563**	***	***

[8] Please provide a scaled map showing the precise location of all monitoring points.

Please provide in the table below the amount of absolute emission during the reporting period of each given parameter divided by amount of pulp produced in same period of time.

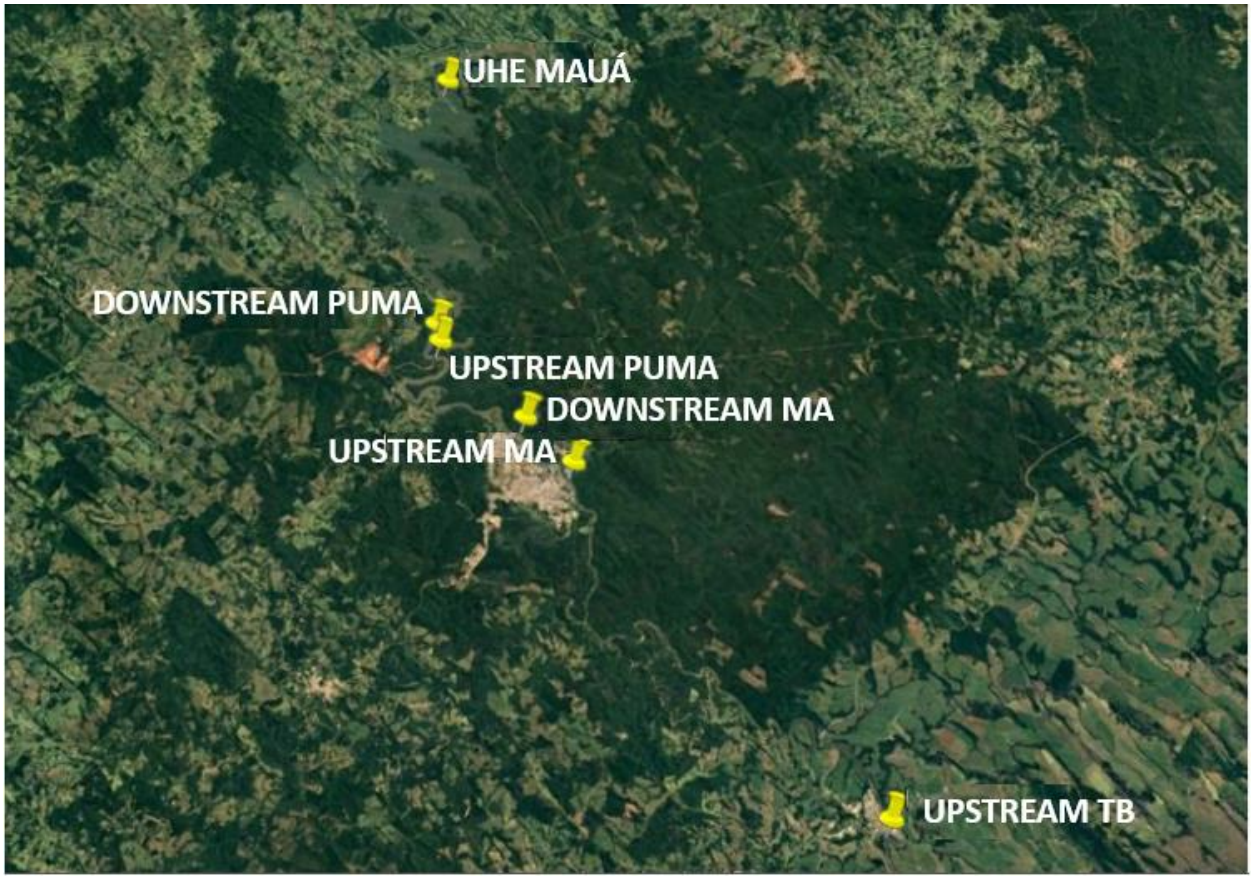
Parameter	Unit	PUMA/Klabin pulp mill's performance[9]	IFC guideline (bleached pulp)[10]
Amount of produced pulp (bleached)	ADt	828.931,90	-
Flow[11]	m3/ADt	23,87	50
pH		7,2	6-9
TSS	kg/ADt	0,63	1,5
COD	kg/ADt	4,46	20
BOD5	kg/ADt	0,45	1
AOX	kg/ADt	0,001	0,25
Total N[12]	kg/ADt	0,01	0,2
Total P	kg/ADt	0,002	0,03

4.5. Ambient Surface Water Quality

PUMA/Klabin is required to collect representative samples of ambient surface water from Tibagi River and submit these samples for laboratory analysis. Representative samples of ambient surface water should be collected to establish upstream (unaffected) sampling points surface water quality and downstream (or affected sampling points) surface water quality. Do not make composite samples. Monitoring should take place both during construction and operation..

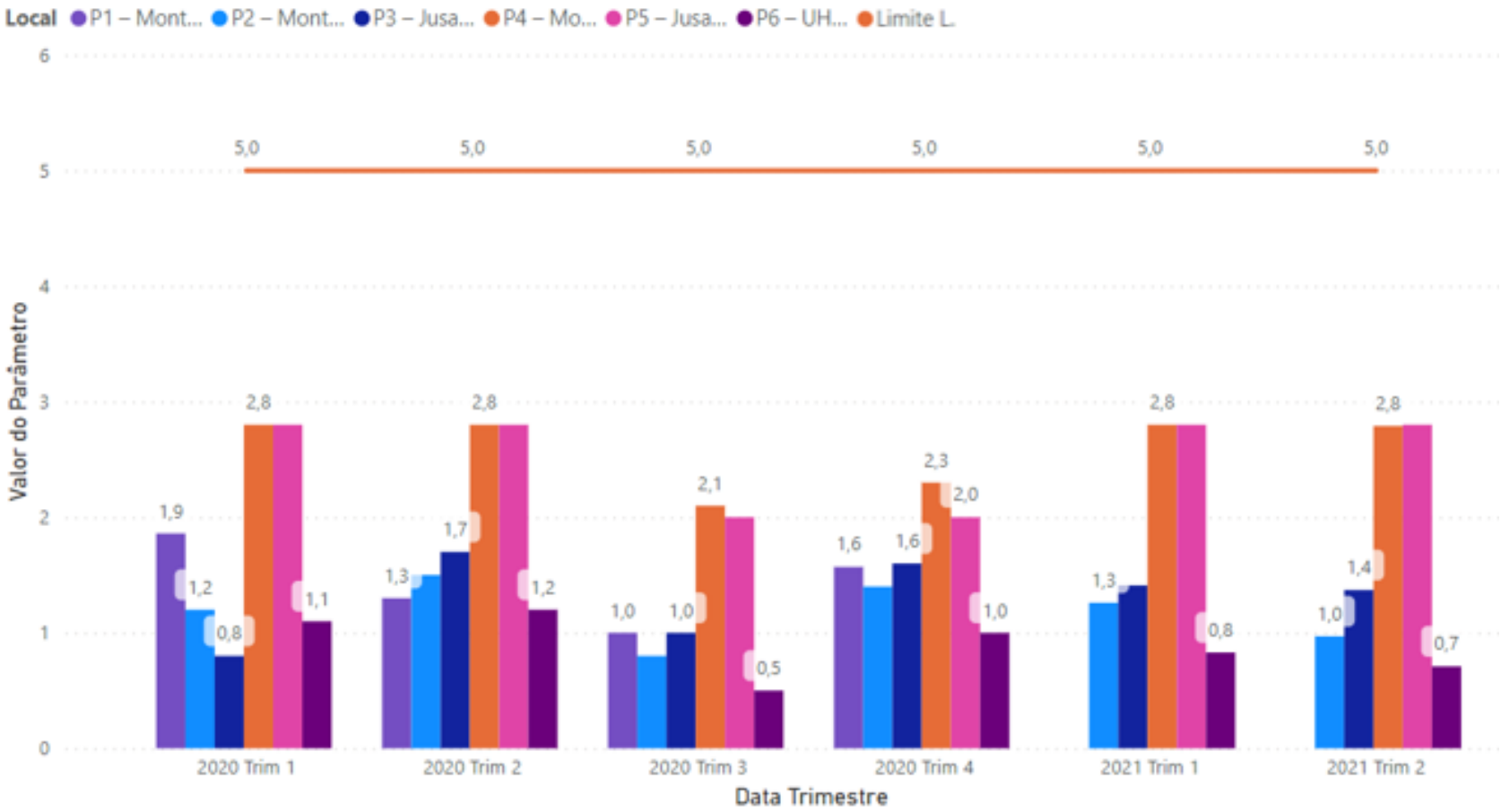
Please provide Brazilian maximum levels in Brazilian units in the table below. Individual tables are needed for each monitoring point.

[9] Report average figures for the reporting period.
[10] IFC. 2007: Environmental, health and safety guidelines for pulp and paper mills. Pages 26 and 29.
[11] Cooling water and other clean water are discharged separately and are not included
[12] Any nitrogen discharge associated with the use of complexing agents should be added to the figure of tot-N.



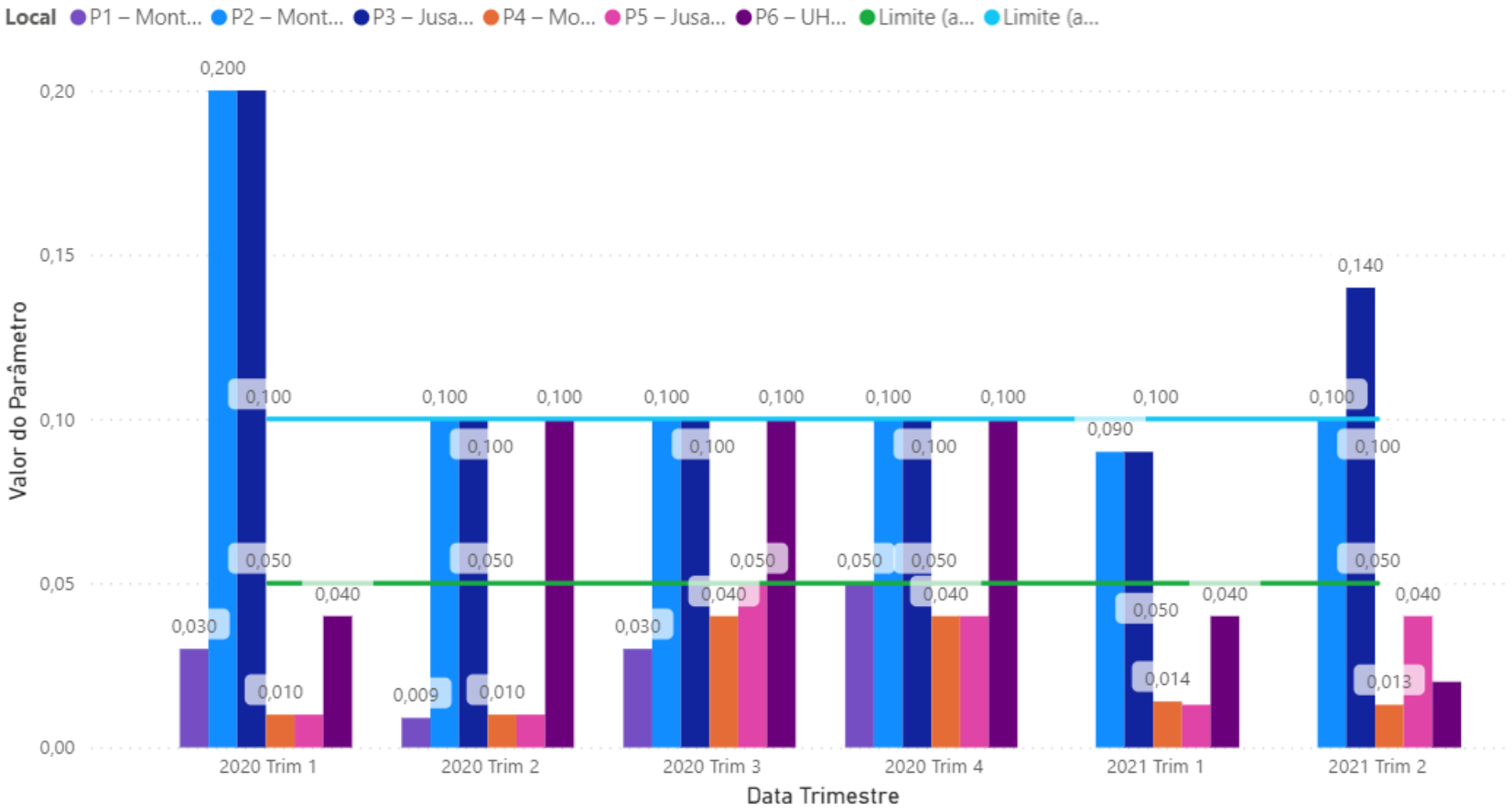
Location of ambient surface water monitoring points

BOD
(mg/l)



Critical review:
The results for parameter BOD demonstrate compliance in all campaigns.
The results in P1 are provided by UHE Tibagi and until closing of this report, they have not been made available.
Looking at the trends, we have no record of a significant rise or change in this impact.

Total Phosphorus
(mg/l)



Critical review:

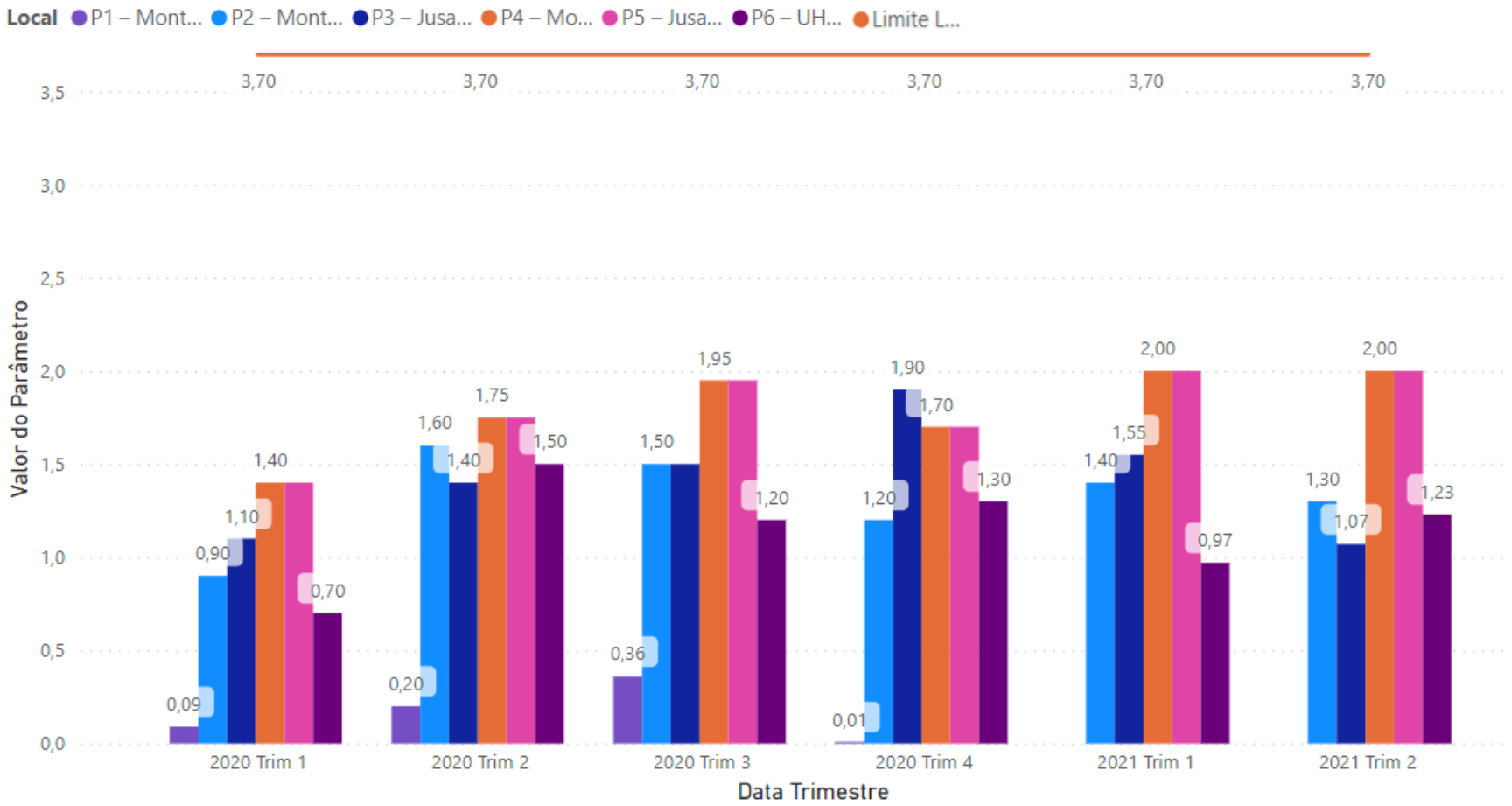
The result for parameter Total phosphorus was above the Brazilian regulatory limits for points upstream and downstream of Monte Alegre in 1Q 2020 and downstream of Monte Alegre in 2Q 2021, these value can be attributed to the municipal sewer release, not impacted by Monte Alegre effluent contribution.

The limit of 0.10 mg/L is valid for Monte Alegre (lotic River) and 0.05 for Puma (intermediary River).

The results in P1 are provided by UHE Tibagi and until closing of this report, they have not been made available.

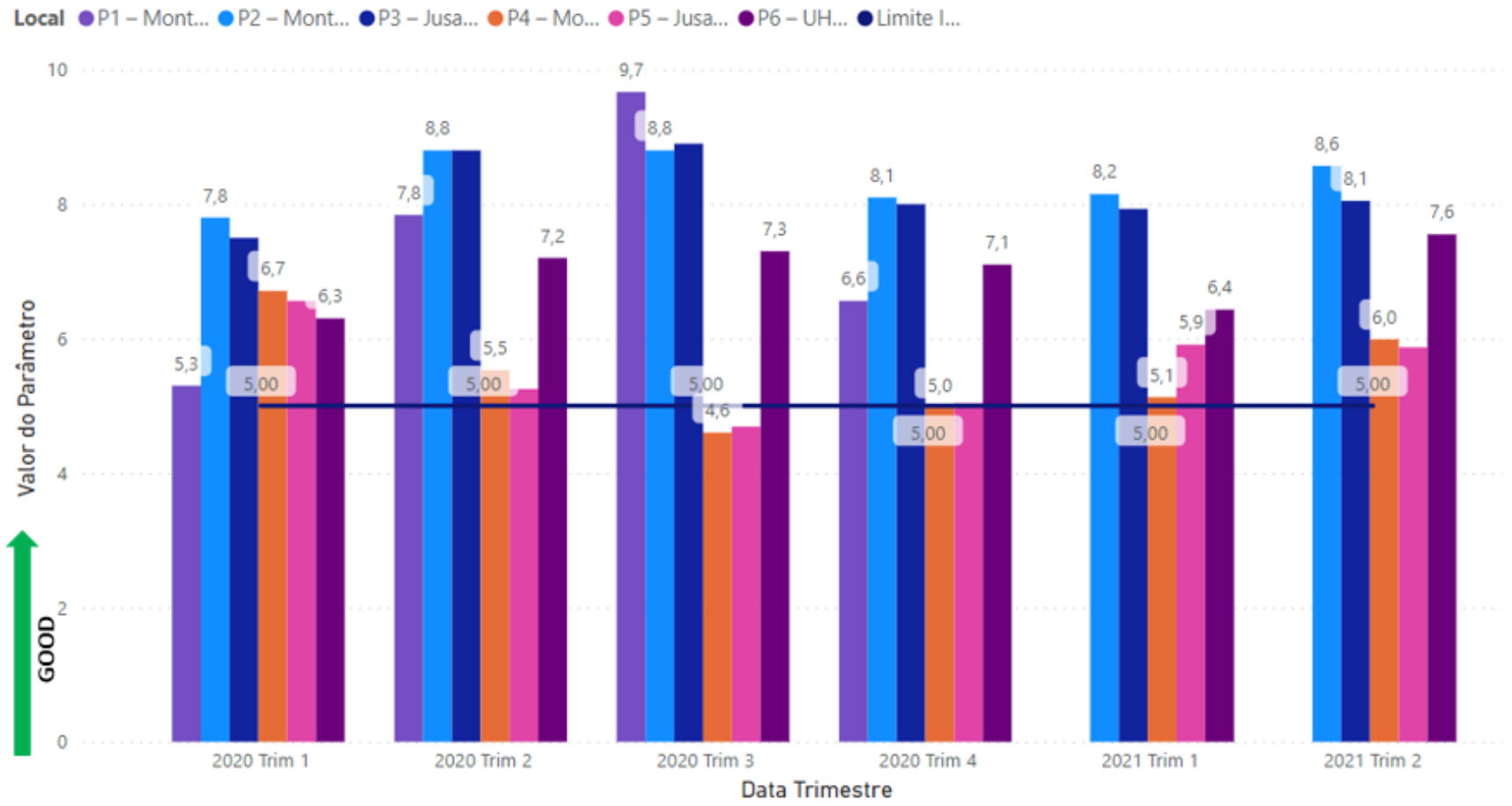
Looking at the trends, we have no record of a significant rise or change in this impact.

Total Nitrogen
(mg/l)



Critical review:
The results for parameter Total Nitrogen demonstrate compliance in all campaigns.
The results in P1 are provided by UHE Tibagi and until closing of this report, they have not been made available.
Looking at the trends, we have no record of a significant rise or change in this impact.

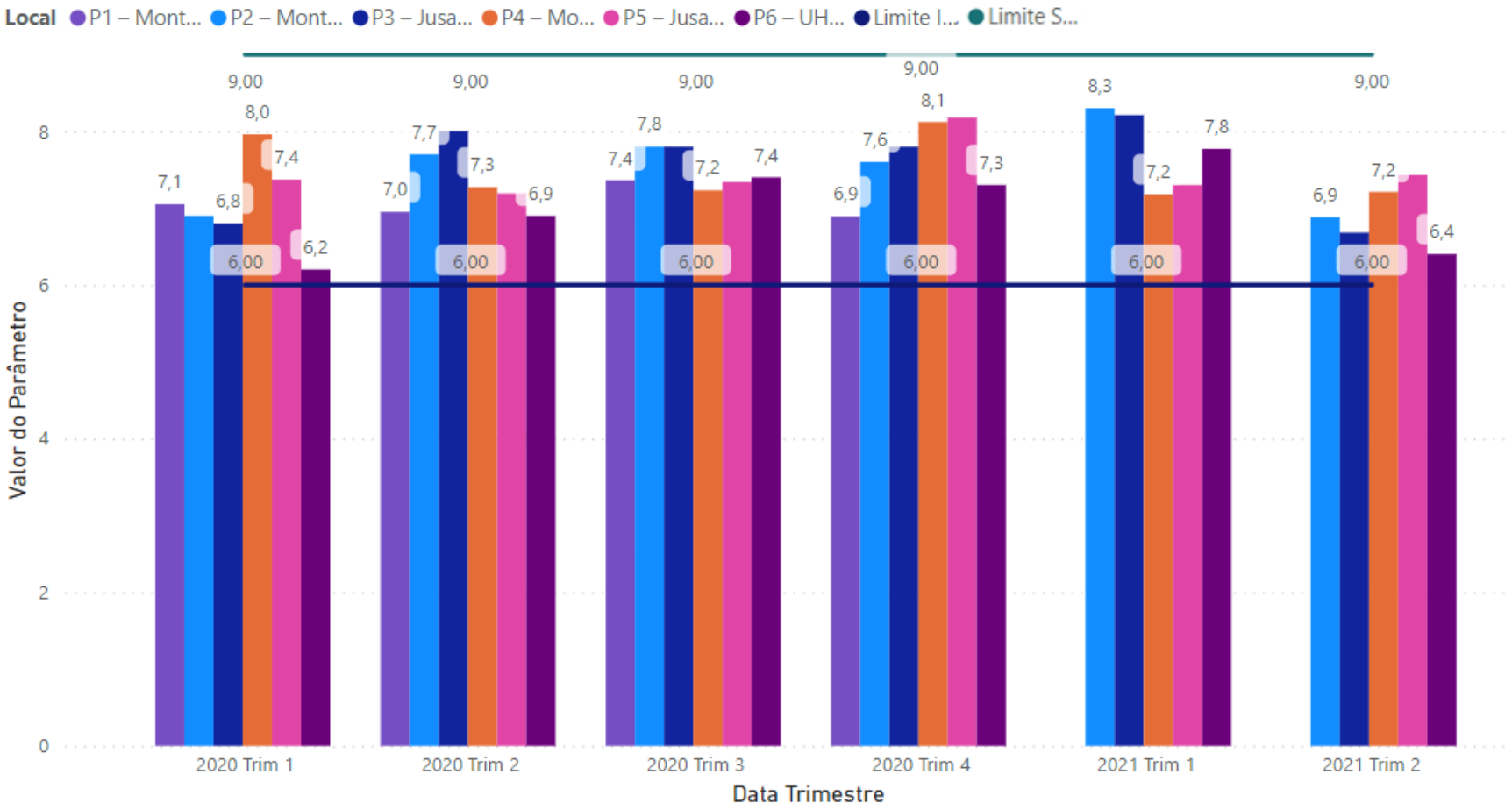
Dissolved Oxygen
(mg/l)



Critical review:

The result for parameter Dissolved Oxygen was below the Brazilian regulatory limits for points upstream and downstream of Puma in 3Q 2020
This shows that there is a contribution from the municipality or rural area between Monte Alegre and Puma. In other monitoring campaigns, the results demonstrate compliance.
The results in P1 are provided by UHE Tibagi and until closing of this report, they have not been made available.
Looking at the trends, we have no record of a significant rise or change in this impact.

pH



Critical review:
The results for parameter pH demonstrate compliance in all campaigns.
The results in P1 are provided by UHE Tibagi and until closing of this report, they have not been made available.
Looking at the trends, we have no record of a significant rise or change in this impact.

The parameter "Iron" is present in the natural composition of the soil in the region, being identified before the construction of the factory, depending on the climatic conditions due to seasonality, it is presented in concentrations above the reference limits.

The presence of "Antimony" was identified at one of the points, however, in the production process there is no use of products containing this element in its composition, we will be following new tests to check if the element will still be present or if it may have been by some interference during the chain of custody on sampling.

All these data are reported to the environmental agency.

Parameters	CONAMA 420	Units	P1	P2	P3	P4	P5	P6	P7	P8	P9
			Upstream of Product Area	Near to Chemical Plant	East Pluvial Lagoon	Near to Causticizing	Near to Biomass Boiler	Upstream of Wastewater Treatment Plant	Near to Emergency Lagoons	Near to Secondary Decantador	Near to Waste Segregation Plant
Alumínio	3500	µg/L	173	1417,4	403,2	546	3303,7	Dry	Dry	2881,8	926
Antimônio	5	µg/L	5	5	9,8	5,5	5	Dry	Dry	5	5
Arsênio	10	µg/L	8	8	8	8	8	Dry	Dry	8	8
Bário	700	µg/L	4,4	23,4	145,2	62,3	54,9	Dry	Dry	23,3	81,9
Boro	500	µg/L	5	5,5	5,4	5	10,5	Dry	Dry	6	5
Cádmio	5	µg/L	1	1	1	1	1	Dry	Dry	1	1
Chumbo	10	µg/L	10	10	10	10	10	Dry	Dry	10	19
Cobalto	70	µg/L	5	5	5	5	5	Dry	Dry	5	5
Cobre	2000	µg/L	5	5	5	5	5	Dry	Dry	5	5
Cromo	50	µg/L	5	5	5	5	5	Dry	Dry	5	5
Ferro	2450	µg/L	307,1	2962,1	338,2	642,4	1823,3	Dry	Dry	3148,1	1577
Manganês	400	µg/L	10,2	34,2	243,4	45,6	242,1	Dry	Dry	64,4	42,7
Mercúrio	1	µg/L	0,2	0,2	0,2	0,2	0,2	Dry	Dry	0,2	0,2
Molibdênio	70	µg/L	5	5	5	5	5	Dry	Dry	5	5
Níquel	20	µg/L	6	6	6	6	6	Dry	Dry	6	6
Nitrato (como N)	10000	µg/L	246,3	-	-	-	117,5	Dry	Dry	72,3	-
Prata	50	µg/L	5	5	5	5	5	Dry	Dry	5	5
Selênio	10	µg/L	7	7	7	7	7	Dry	Dry	7	7
Zinco	1050	µg/L	5,4	5,4	5	5	8,4	Dry	Dry	5,4	10
Benzeno	5	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Estireno	20	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Etilbenzeno	300	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Tolueno	700	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Xilenos	500	µg/L	1,5	1,5	1,5	1,5	1,5	Dry	Dry	1,5	1,5
Benzo(a)antraceno	1,75	µg/L	0,005	0,005	0,005	0,005	0,005	Dry	Dry	0,005	0,005
Benzo(a)pireno	0,7	µg/L	0,005	0,005	0,005	0,005	0,005	Dry	Dry	0,005	0,005
Dibenzo(a,h)antraceno	0,18	µg/L	0,005	0,005	0,005	0,005	0,005	Dry	Dry	0,005	0,005
Fenantreno	140	µg/L	0,005	0,005	0,005	0,005	0,005	Dry	Dry	0,005	0,005
Indeno(1,2,3,cd)pireno	0,17	µg/L	-	-	-	-	-	Dry	Dry	-	-
Naftaleno	140	µg/L	0,005	0,005	0,005	0,005	0,005	Dry	Dry	0,005	0,005
MonoClorobenzeno	700	µg/L	-	-	-	-	-	Dry	Dry	-	-
1,2-Diclorobenzeno	1000	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
1,4-Diclorobenzeno	300	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Triclorobenzeno	20	µg/L	1	1	1	1	1	Dry	Dry	1	-
Hexaclorobenzeno	1	µg/L	0,001	0,001	0,01	0,001	0,001	Dry	Dry	0,001	0,01
1,1-Dicloroetano	280	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
1,2-Dicloroetano	10	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
1,1,1-Tricloroetano	280	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Cloreto de Vinila	5	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
1,1-Dicloroeteno	30	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
1,2-Dicloroeteno (cis+trans)	50	µg/L	1	-	-	-	1	Dry	Dry	1	-
Tricloroeteno	70	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Tetracloroeteno	40	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
Diclorometano	20	µg/L	-	-	-	-	-	Dry	Dry	-	-
Clorofórmio	200	µg/L	-	-	-	-	-	Dry	Dry	-	-
Tetracloreto de Carbono	2	µg/L	0,5	0,5	0,5	0,5	0,5	Dry	Dry	0,5	0,5
2-Clorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
2,4-Diclorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
3,4-Diclorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
2,4,5-Triclorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
2,4,6-Triclorofenol	200	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
2,3,4,5-Tetraclorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
2,3,4,6-Tetraclorofenol	10,5	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
Pentaclorofenol	9	µg/L	0,2	0,2	0,2	0,2	0,2	Dry	Dry	0,2	0,2
Cresóis Totais	175	µg/L	0,3	0,3	0,3	0,3	0,3	Dry	Dry	0,3	0,3
Fenol	140	µg/L	0,1	0,1	0,1	0,1	0,1	Dry	Dry	0,1	0,1
Di(2-etilhexil)ftalato	8	µg/L	-	-	-	-	0,2	Dry	Dry	0,2	-
Dimetil Ftalato	14	µg/L	-	-	-	-	0,2	Dry	Dry	0,2	-
Aldrin + Dieldrin	0,03	µg/L	0,002	0,002	0,002	0,002	0,002	Dry	Dry	0,002	0,002
Endrin	0,6	µg/L	0,001	0,001	0,001	0,001	0,001	Dry	Dry	0,001	0,001
p,p'-DDT + p,p'-DDD + p,p'-DDE	2	µg/L	0,003	-	-	-	0,003	Dry	Dry	0,0023	-
HCH Beta	0,07	µg/L	-	-	-	-	-	Dry	Dry	-	-
Lindano (g-BHC)	2	µg/L	0,001	-	-	-	0,001	Dry	Dry	0,001	-
PCB´s (soma 7/lista holandesa)	3,5	µg/L	-	-	-	-	-	Dry	Dry	-	-

4.6. Solid Waste Management

PUMA/Klabin is required to monitor methods of collection, storage, handling, recycling, reuse and/or disposal of solid waste, and report these methods and measured quantities here during both construction and operational phases. Please complete the information below with information i) from the pulp mill and associated operations and ii) from the mill's port terminal.

GENERATION OF SOLID WASTE – PUMA I								
Solid Waste Type	*Mounth Quantity (tonne)*						*Method of Storage, Handling and/or Treatment*	*Method of Recycling, Reuse or Disposal*[25]
	Jan	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*		
Sand	130,09	107,23	190,34	209,33	631,07	317,74	Dumpster	Recycling
Biomass	27,96	8,23	3,06	1,42	3,67	9,1	Dumpster	Composting
Sweep Biomass Wood Stock	507,03	780,03	1447,32	2734,38	1210,1	1005,2	Dumpster	Composting
Lime Gray	266,96	200,3	189,98	463,63	94,31	92,3	Dumpster	Agricultural and forestry use
Sulphate Ashes	0	0	0	0	2,8	0	Dumpster	Agricultural and forestry use
Biomass ash	1311,8	1229,64	1346,91	1123,76	1005,99	1307,35	Dumpster	Agricultural and forestry use
Burnt Lime	200,14	347,38	346,5	300,91	339,47	341,49	Dumpster	Agricultural and forestry use
Dregs	1486,69	1044,64	1144,31	1239,28	1325,06	1070,21	Dumpster	Agricultural and forestry use
Grits	222,2	189,83	323,78	237,58	319,17	303,63	Dumpster	Agricultural and forestry use
Caustic Mud	854	33,03	442,12	2218,84	439,47	197,09	Dumpster	Agricultural and forestry use
Sand Sludge - PMAD	101,37	83,47	95,86	77,9	90,86	97,81	Dumpster	Recycling

GENERATION OF SOLID WASTE – PUMA I								
Solid Waste Type	*Mounth Quantity (tonne)*						*Method of Storage, Handling and/or Treatment*	*Method of Recycling, Reuse or Disposal*[25]
	Jan	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*		
Primary Sludge (Fiber Disposal)	1045,16	1358,73	2668,25	1391,45	1600,34	1513,15	Dumpster	Recycling
Secondary Sludge (Biological)	5828,01	3911,67	6162,05	4868,62	5073,94	3570,59	Dumpster	Composting
Tertiary Sludge (Chemical)	1905	1402,557	1235,93	1252,88	2104,2	2441,31	Dumpster	Agricultural and forestry use
Pinus Reject - Stick	0	0	0	0	0	0	Dumpster	Energy use
Pinus Reject - Knot	141,32	71,41	44,53	18,01	30,84	161,52	Dumpster	Energy use
Eucalyptus Reject	96,86	46,15	42,66	49,7	57,3	51,4	Dumpster	Energy use
Eucalyptus Tailings	43,69	30,28	24,25	8,39	10,4	42,45	Dumpster	Energy use
Wood	11,87	16,782	18,96	9,37	5,5	8,71	Dumpster	Reuse and Energy
Metal	19,452	11,89	11,9	10,74	8,58	6,98	Dumpster	Recycling
Organic waste	7,3	10,7	9,0	5,8	18,2	5,5	Dumpster	Recycling
Paper	12,9	33,7	42,1	6,4	3,4	8,0	Dumpster	Recycling
Plastic	7,2	32,7	36,8	4,5	2,8	3,9	Dumpster	Recycling
Junk Waste	62,62	28,18	0	69,92	24,68	42,03	Dumpster	Landfill
Ground	5,95	19,56	0	0	0	0	Dumpster	Reuse
Inert / Concrete / Rubble	13,74	57,08	0	13	13,89	23,9	Dumpster	Reuse

GENERATION OF SOLID WASTE – PARANAGUÁ PORTS								
Solid Waste Type	*Mounth Quantity (tonne)*						*Method of Storage, Handling and/or Treatment*	*Method of Recycling, Reuse or Disposal*[25]
	Jan	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*		
Non-recyclable	2,02	2,75	4,02	2,74	1,14	0,96	Dumpster	Private landfill
Recyclable	0	0,3	0,9	0,95	0,3	0,32	Dumpster	Recycling

Solid Waste Type	**GENERATION OF NON-HAZARDOUS SOLID WASTE – PUMA II PROJECT**								
	Month Quantity (tonne) Solid Waste Type								
	Jan	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*	Total 1 SEM 2021	Method of Storage	Method of Treatment
Organic	79,65	88,86	105,64	128,69	104,15	142,28	649,27	Dumpster	Composting
Non-recyclable	36,27	31,28	33,82	47,65	57,31	78,28	284,61	Dumpster	Private landfill
Paper	53,28	57,38	64,83	86,36	69,90	90,40	422,15	Dumpster	Recycling
Plastic	61,55	56,73	62,61	61,98	58,25	69,69	370,81	Dumpster	Recycling
Metal	32,82	22,56	13,88	37,82	21,26	37,51	165,85	Dumpster	Recycling
Wood	224,23	306,76	173,95	231,50	240,39	195,60	1.372,43	Dumpster	Biomass
Glass	0,007	0,003	0,979	0,035	0,10	0,10	1,224	Steel Drum	Recycling
Concrete	384,39	515,69	711,05	999,36	259,03	590,39	3.459,91	Dumpster	Reuse
Total per Month	872,19	1.079,26	1.166,76	1.593,39	810,39	1.204,25	6.726,25	-	-

Critical review:

The generation of waste is within the normal range, as expected by the project.
We always prioritize recycling and reuse.

4.7. Hazardous Materials Management

Hazardous materials are those materials that represent an excessive risk to property, the environment or human health because of their physical and/or chemical characteristics. Examples include explosives, toxic or flammable gases, flammable liquids and solids, oxidizing substances, radioactive materials and corrosive substances.

PUMA/Klabin is required to monitor methods of collection, storage and disposal of hazardous materials[13], and report these methods and measured quantities here. Please refer to the IFC General Environmental, Health and Safety Guidelines / Hazardous Materials Management for additional information. Please complete the information below with information from the pulp mill and associated operations. and ii) from the mill's Paranaguá port terminal.

Hazardous Materials Management Summary – Puma I			
Hazardous Material *(Name and Number UN/CAS)*	*Class or division*[14]	*Generation January-June 2021 (tonne)*	*Maximum Quantity Stored on Site (tonne)*
Hazardous Waste Produced			
Chemical Product Packaging (Paints, Solvents And Resins) – IBAMA n° 15 02 02	9	1,935	50,00
PPE's IBAMA n° 15 02 02	9	0,863	
Fluorescent lamps IBAMA n° 20 01 21	2	0,060	
Flammable Liquids (Paints, Solvents, Glues and Fuel) IBAMA n° 20 01 13	3	1,199	
Stacks IBAMA n° 16 06 04	6	0,060	

[13] Hazardous materials include ignitable, reactive, flammable, radioactive, corrosive and toxic substances.

[14] UN classification (1. Explosives; 2. Gases; 3. Flammable liquids; 4. Flammable solids; 5. Oxidizing substances; 6. Toxic and infectious substances; 7. Radioactive material; 8. Corrosive substances; 9. Miscellaneous hazardous materials.)

Hazardous Materials Management Summary – Puma I			
Hazardous Material *(Name and Number UN/CAS)*	*Class or division*[14]	*Generation January-June 2021 (tonne)*	*Maximum Quantity Stored on Site (tonne)*
Various Contaminated Solids (Tows, Cloths, Filters And Etc) IBAMA n° 15 02 02	9	213,064	
Soil Contaminated with Oil and Grease IBAMA n° 19 13 01	9	0,400	
Electronic Scrap IBAMA n° 16 02 16	6	11,0	

Parameters *(Same Parameters as Above)*	*PUMA/Klabin´s Method of Storage, Handling and/or Treatment*[15]	*PUMA/Klabin´s Method of Disposal*[16]
Hazardous Waste Produced		
Chemical Product Packaging (Paints, Solvents And Resins) – IBAMA n° 15 02 02	Steel Drum	Private Solid Waste Landfill
PPE's IBAMA n° 15 02 02	Steel Drum	Private Solid Waste Landfill
Fluorescent lamps IBAMA n° 20 01 21	Steel Drum	Decontamination

[15] State how hazardous materials / waste is stored on site (e.g. drums, bins, and other containers) and handled (including transported). Provide additional sheets as needed to fully describe disposal, organizations involved in management, locations of facilities, facility permits and agency authorizations.

[16] Report on method of disposal for hazardous waste used only.

Parameters *(Same Parameters as Above)*	*PUMA/Klabin´s Method of Storage, Handling and/or Treatment*[15]	*PUMA/Klabin´s Method of Disposal*[16]
Flammable Liquids (Paints, Solvents, Glues and Fuel) IBAMA n° 20 01 13	Steel Drum	Private Solid Waste Landfill
Stacks IBAMA n° 16 06 04	Steel Drum	Private Solid Waste Landfill
Various Contaminated Solids (Tows, Cloths, Filters And Etc) IBAMA n° 15 02 02	Steel Drum	Private Solid Waste Landfill
Soil Contaminated with Oil and Grease IBAMA n° 19 13 01	Steel Drum	Private Solid Waste Landfill
Electronic Scrap IBAMA n° 16 02 16	Steel Drum	Private Solid Waste Landfill

Hazardous Materials Management Summary – Paranaguá Ports			
Hazardous Material *(Name and Number UN/CAS)*	*Class or division*[17]	*Generation January-June 2021 (tonne)*	*Maximum Quantity Stored on Site (tonne)*
Hazardous Waste Produced			
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	9	1,61	5

Parameters *(Same Parameters as Above)*	*PUMA/Klabin´s Method of Storage, Handling and/or Treatment*[18]	*PUMA/Klabin´s Method of Disposal*[19]
Hazardous Waste Produced		

[17] UN classification (1. Explosives; 2. Gases; 3. Flammable liquids; 4. Flammable solids; 5. Oxidizing substances; 6. Toxic and infectious substances; 7. Radioactive material; 8. Corrosive substances; 9. Miscellaneous hazardous materials.)

[18] State how hazardous materials / waste is stored on site (e.g. drums, bins, and other containers) and handled (including transported). Provide additional sheets as needed to fully describe disposal, organizations involved in management, locations of facilities, facility permits and agency authorizations.

[19] Report on method of disposal for hazardous waste used only.

Parameters *(Same Parameters as Above)*	*PUMA/Klabin´s Method of Storage, Handling and/or Treatment*[18]	*PUMA/Klabin´s Method of Disposal*[19]
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	Steel Drum	Industrial Solid Waste Landfill

Puma II Project

Parameters *(Same Parameters as Above)*	*PUMA/Klabin´s Method of Storage, Handling and/or Treatment*[20]	*PUMA/Klabin´s Method of Disposal*[21]
Hazardous Waste Produced		
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	Steel Drum	Industrial Solid Waste Landfill

Hazardous Materials Management Summary – Puma II Project *(tonne)*									
Hazardous Material *(Name and Number UN/CAS)*	*Class or division* [22]	*Jan*	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*	*Total*	*Maximum Quantity Stored on Site*
Hazardous Waste – Generation									
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	9	23,75	19,54	26,19	27,87	32,94	33,70	163,99	50,00
Hazardous Waste – Disposal for Industrial Solid Waste Landfill									

[20] State how hazardous materials / waste is stored on site (e.g. drums, bins, and other containers) and handled (including transported). Provide additional sheets as needed to fully describe disposal, organizations involved in management, locations of facilities, facility permits and agency authorizations.

[21] Report on method of disposal for hazardous waste used only.

[22] UN classification (1. Explosives; 2. Gases; 3. Flammable liquids; 4. Flammable solids; 5. Oxidizing substances; 6. Toxic and infectious substances; 7. Radioactive material; 8. Corrosive substances; 9. Miscellaneous hazardous materials.)

Hazardous Materials Management Summary – Puma II Project *(tonne)*									
Hazardous Material (Name and Number UN/CAS)	*Class or division* [22]	*Jan*	*Feb*	*Mar*	*Apr*	*Mai*	*Jun*	*Total*	*Maximum Quantity Stored on Site*
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	9	0	0	0	0	24,83	41,81	66,64	-
Hazardous Waste – Disposal for Co-processing									
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	9	18,68	29,03	18,23	35,43	0	0	101,37	-
Hazardous Waste – Storage									
Miscellaneous hazardous materials (IBAMA nº 17 09 03)	9	9,49	0	7,56	0	8,11	0	0	50,00

Storage 2020 - balance of 4,42 tonne for disposal in 2021 .

Critical review:
From may/2021, the method of disposal for hazardous waste is Industrial Waste Landfill, because of the co-processing shutdown by the cement company.
We are developing a new supplier for hazadours waste treatment for co-processing.

4.8. Forest Plantation Management

Provide summarized information on forestry activities (e.g. harvesting volumes/species, new hectares planted/reformed) for the reporting period.

		Area acquired/secured during the reporting period (No. hectares)	Total land area	% of area under forest plantation	% of area under forest plantation that is certified	Type of FSC and any other relevant certificate(s)
Plantation under proprietary management	Klabin	2.119	339.482	44%	91%	FM and CoC FSC and Cerflor/PEFC
	Vale do Corisco	0	48.586	49%	98%	FM and CoC FSC and Cerflor/PEFC
	Sapopema*	905	27.984	62%	70%	FM and CoC FSC and Cerflor/PEFC
Plantation under Third Party management	Figueira*	0	15.524	73%	96%	FM and CoC
	Forest Fostering Program	469,46	38.746	59%	2%	FM and CoC
Total		3.493,85	470.682			

*Sapopema and Figueira is the agreements for the association with a Timber Investment Management Organization ("TIMO") to constitute a Specific Purpose Vehicle Company ("SPV"), whose main objective shall be the exploitation of the forestry activity in the State of Paraná.

Amount of wood raw material processed in **Puma industrial complex** during the reporting period:

	Quantity	Unit
From plantations managed by Klabin – FSC certified	2.453.625	Ton
From plantations managed by Klabin – not FSC certified	00	Ton
From third parties – FSC certified	439.109	Ton
From third parties – not FSC certified	395.842	Ton
Number of third parties	123	

Please report any significant fires that have occurred.
A total of 139 hectares of forests were impacted by fires between January and June 2021. Klabin invests in fire prevention through the construction of firebreaks and through training of specialized team in property protection. Currently, it has 102 employees in the field dedicated to property protection.

Please provide copies of post-certification audits.

Attached are the public reports of FSC audits (info.fsc.org)

• 5 SOCIAL AND ECONOMIC IMPACT MANAGEMENT / COMMUNITY DEVELOPMENT

5.1 Labor Relations and workforce development

Please report separately i) the pulp mill and associated facilities, ii) pulp mill's Paranaguá port, iii) eucalyptus and pine plantation operations and iv) transport operations in the chapters "Workforce", "Worker's organization" and "Workers' grievance mechanism".

PUMA II

Workforce

Type of employee	*Total Number for Reporting Period*	*Category of employee Total Number for Reporting Period*	
Direct employees	169	Men: 112 Female: 57	Management level: 33 (director, managers, coordinators and consultants/specialists) Workers: 136
Contracted employees[23]	10	Men: 10 Female: 0	Management level: 10 Workers: 0
Supply Chain employees[24]	N/A	Men: Female:	Management level: Workers:

Worker's organization

Workers organization	*Description*
Trade unions or worker organizations/committee in workplace	SINTRAPAV – Represents workers of the industry of Heavy Construction sector SINTRACON – Represents workers of the Civil Construction sector

[23] Contracted directly by the Klabin

[24] Employees hired through sub-contractors and/or intermediaries, including plantation, transport and shipping operations.

Workers organization	*Description*
Meetings with workers' organization representatives in workplace	• Number of meetings: 04 • Name of Trade union or worker organization: The above mentioned. • Frequency of meetings: Whenever required by any of the parts
Collective bargaining agreements	• Collective Bargaining Agreement signed on: 06/24/21 • Parties signing agreement: Both labor unions above mentioned and the main contractors in the site. • Number of employees covered under collective bargaining agreement: Around 8,000.

Workers' grievances

TYPE OF GRIEVANCE	RECEIVED		INVESTIGATED		RESOLVED	
	Direct employees	Contracted employees	Direct employees	Contracted employees	Direct employees	Contracted employees
Overtime Pay	0	15	0	15	0	15
Food	0	123	0	123	0	123
Benefits	0	112	0	112	0	112
Internet Connection	0	5	0	5	0	5
Covid & Covid protocol)	0	8	0	8	0	8
Leadership	0	135	0	135	0	135
Transportation	0	78	0	78	0	78
Infrastructure (repair in general)	0	47	0	47	0	47
HR Department	0	35	0	35	0	35
Sexual Harassment	0	1	0	1	0	1
Mobbing	0	1	0	1	0	1
Theft	0	3	0	3	0	3
Non-payment for local suppliers	0	10	0	10	0	10
Other	0	61	0	61	0	61
Payment	0	21	0	21	0	21

- Has there been a state inspection on labor or occupational health and safety matters during the period now reported? Please describe. What corrective action has been taken/will be taken by the Company if any is required?
  No.

- Have there been court cases brought by employees or trade unions based on alleged labor law violations during the period now reported? Please describe. What corrective action has been taken/will be taken by the Company if any is required?

No.

- In relationship with the whistle-blower policy, has any kind of information or activity that is deemed illegal, unethical, or not correct within the organization has been denounced/exposed? Please describe. What corrective action has been/will be taken by the Company if any is required
  No.

- Has there been labor unrest, strikes or other industrial disputes during the period now reported? What corrective action has been taken/will be taken by the Company if any is required? Please describe in the following table.
  Does not apply.

Date of event	*Event description*	*Affected people/environment*	*Reports sent to local regulatory agencies*	*Corrective actions (including cost and time schedule for implementation)*

Local workforce development

Summarize actions to strengthen participation of local labor and report the following statistics:

- Permanent and Temporary (part-time jobs) provided (#) from local region or state of Parana.
- Indirect Permanent and Temporary (part-time jobs) provided by Contractors (#)

LOCAL WORKFORCE EMPLOYMENT	
Telêmaco Borba	2230
Ortigueira	596
Imbaú	293
Other cities from Paraná	1447
Other States	4816
Foreigners	46
TOTAL ON SITE	**9428**

EMPLOYMENT PER GENDER		
Men	8768	93%
Women	660	7%

- Community member enrolled/trained (#)
  No activities were carried out in terms of professional qualification due to the restrictions imposed by the protocol for covid-19 prevention and combat, as recommended by the State authorities.

- Scholarships awarded (#)

SCHOLARSHIP AWARDED AND EMPLOYED AT KLABIN				
COURSE	Scholarship Awarded		Graduated students Employed	
	Women	Man	Women	Men
Specialization in Pulp & Paper Technical Course	54	14	50	13
Pulp & Paper Technical Course	10	19	2	12
Technical Mechanical Course	5	25	3	20

5.2 Community Relations

Please describe specific activities undertaken by the Company to address any such potential negative impact of the project on the local community, that are not covered by the Chapter 8 Progress on implementing the environmental and social action plan (ESAP) – i.e. activities and/or resolutions of the Anthropic Monitoring Committee, etc.

Have there been any grievances lodged by members of the community or local authorities against the Company? Please describe. What corrective action has been/will be taken by the Company if any is required.

Provide a summary of grievances lodged by members of the community – including its method such as phone calls, notification to personnel, written complain - directly to Klabin and how the issues were managed.

Antropic Monitoring Program and Committee

The **Anthropic Monitoring Program's main objective is to monitor the socioenvironmental and economic impacts** in the cities of Ortigueira Telêmaco Borba and Imbaú, Project Puma II's Direct Influence Area (AID).

In order to assist the monitoring and support the implementation of preventive and mitigation measures, at the end of 2013, during Project Puma I, the Anthropic Monitoring Committee was created. The Committee is composed of Klabin members and municipal representatives of the Secretariats of Social Assistance, Health, Education and Finance of the three municipalities of AID, State Regional of Health, State Regional Nucleus of Education and Secretariat of Public Security, Public Prosecutor, as well as other institutional representatives, such as members of the City Council and local trade associations.

The Anthropic Monitoring Committee's goal is to **analyze and act** on identified impacts that may occur related to the **possible population growth** in the municipalities, due to migration of labors or people seeking for job opportunities.

In Project Puma I, the Anthropic Monitoring Committee meetings occurred monthly until October of 2016. After this, its members defined to change the frequency – once every four months. This situation kept until May of 2019, when the monthly meetings started to occur again, after the announcement of Project Puma II. The members of the Committee decided, in a workshop in 06/19/2019, the indicators to be monitored monthly that may indicate impact due to workers' temporary migration. From January to June of 2021, there were 5 Anthropic Monitoring Committee meetings, as described below:

Date	*Description*	*Public (Including Klabin's staff)*	*Location*
02/25/21	Anthropic Monitoring Committee Meeting	25	Remote Meeting (via Microsoft Teams)
03/25/21	Anthropic Monitoring Committee Meeting	16	Remote Meeting (via Microsoft Teams)
04/29/21	Anthropic Monitoring Committee Meeting	17	Remote Meeting (via Microsoft Teams)
05/27/21	Anthropic Monitoring Committee Meeting	20	Remote Meeting (via Microsoft Teams)
06/24/21	Anthropic Monitoring Committee Meeting	15	Remote Meeting (via Microsoft Teams)

As informed in the lasts ESCR, the first meetings of 2020 have occurred in the Puma Mill in order to maximize participation, considering its location (right in between the three Municipalities). Between March and May of 2020, due to the pandemic scenario and the World Health Organization's (WHO) recommendations, there were no face-to-face meetings. In spite of this, data and information continued to be monitored and shared by e-mail. As soon as the members adapted to the remote work conditions, the Committee decided to have its first remote meeting in June – the formula continued until the end of 2020 and initial meetings of 2021 were remote as well.

02/25/2021 Meeting – Remote (Microsoft Teams):
The first meeting of 2021 consisted on a presentation of the Committee to its new members (Ortigueira and Imbaú City Halls have new administrations and Secretariats). Klabin staff explained how the virtual meetings are hold and Committee's methodology. About 25 people logged in, such as municipal secretariats and officials of Ortigueira, Telêmaco Borba and Imbaú City Halls, Health and Educational Regional Nucleolus, the Civil and Military Police Forces and the Commerce and Industry Association of Telêmaco Borba (ACITEL).
The meeting consisted on data presentation and evaluation in the 5 macro themes of each Municipality (health, security, education, finances and social assistance) during the year of 2020. No significant changes or impacts observed, only the ones caused by the pandemic scenario, especially in Social Assistance and Education sectors.
Meeting report in annex.

03/25/2021 Meeting – Remote (Microsoft Teams):
About 16 people logged in, such as municipal secretariats and officials of Ortigueira, Telêmaco Borba and Imbaú City Halls, Health and Educational Regional Nucleolus and the Civil and Military Police Forces.

The meeting consisted on data presentation and evaluation in the 5 macro themes of each Municipality (health, security, education, finances and social assistance). No significant changes or impacts observed. Also, the potential work in partnership with Childhood Brasil regarding the GBV (and other violence) network engagement was mentioned.
Meeting report in annex.

04/29/2021 Meeting – Remote (Microsoft Teams):
In the third remote meeting of 2021, about 17 people logged in, such as municipal secretariats and officials of Ortigueira, Telêmaco Borba and City Halls, the Health and Educational Regional Nucleolus and Military Police Force.
The meeting consisted on data presentation and evaluation in the 5 macro themes of each Municipality (health, security, education, finances and social assistance). No significant changes or impacts observed.
Meeting report in annex.

05/27/2021 Meeting – Remote (Microsoft Teams):
In the fourth remote meeting, about 20 people logged in, such as municipal secretariats and officials of Ortigueira, Telêmaco Borba and Imbaú City Halls, the Health and Educational Regional Nucleolus and Civil Police Force.
The meeting consisted on data presentation and evaluation in the 5 macro themes of each Municipality (health, security, education, finances and social assistance). No significant changes or impacts observed. Giuliana Netto (Arcadis) participated as a listener in order to know how the meetings are held.
Meeting report in annex.

06/24/2021 Meeting – Remote (Microsoft Teams):
The fifth remote meeting of the year. About 15 people were present at the meeting, such as municipal secretariats and officials of Ortigueira, Telêmaco Borba City and Imbaú Halls and Civil and Military Police Forces.
The meeting consisted on data presentation and evaluation in the 5 macro themes of each Municipality (health, security, education, finances and social assistance). No significant changes or impacts observed.
Meeting report in annex.

Have there been any grievances lodged by members of the community or local authorities against the Company? What corrective actions have been taken?

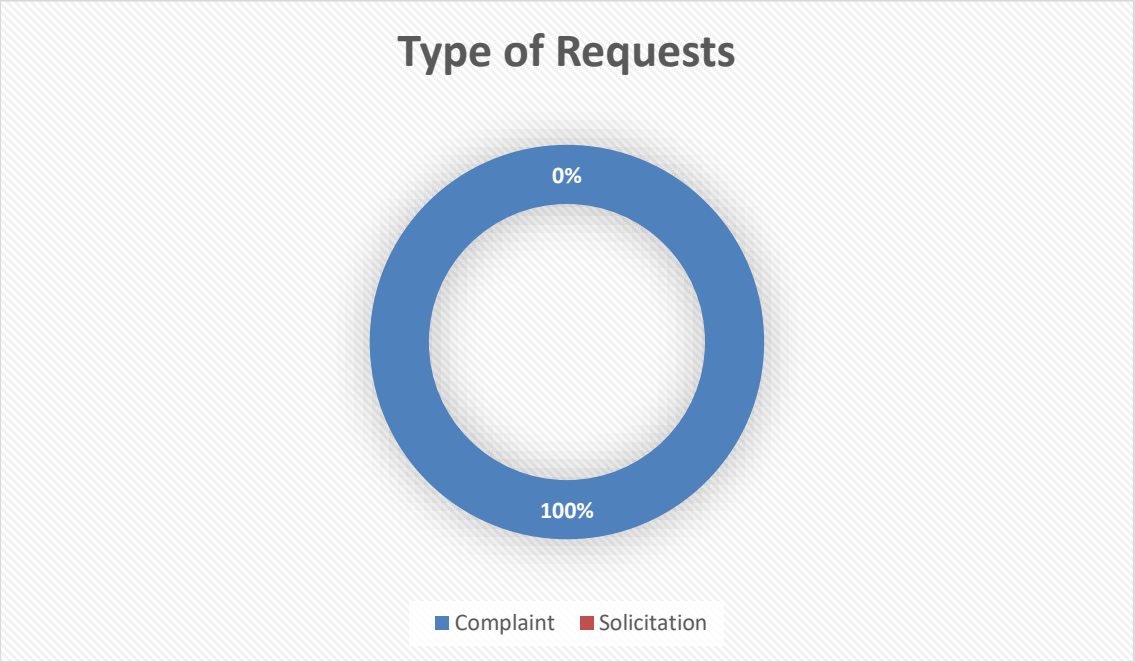
Besides the ones received through Klabin Ombudsman, there were no formal grievances by member of the community or local authorities against the Company.

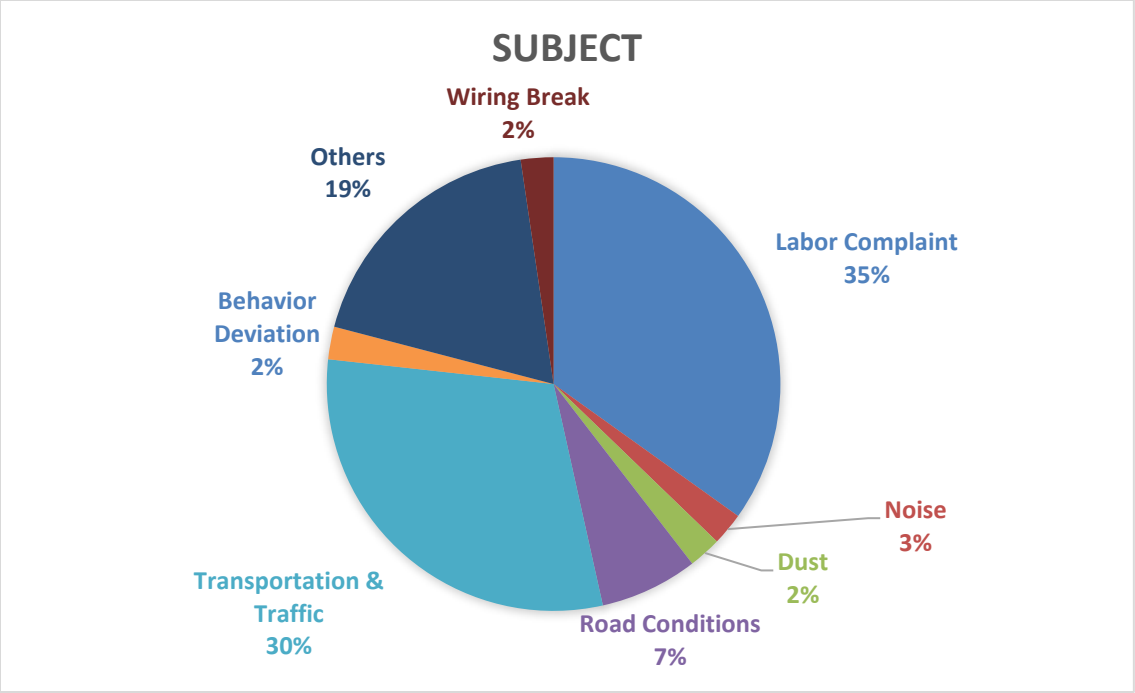
Provide a summary of grievances lodged by members of the community directly to Klabin and how the issues were managed.

Klabin Ombudsman and summary of grievances
The ombudsman consists in a group of communication tools in which the objective is to develop the company's dialogue and relation with the population of its area of influence – considering the Puma and Monte Alegre mills, Forestry and the projects (such as Puma II).
The requests received by e-mail (faleklabinpr@klabin.com.br), phone calls (0800 728 0607) or Social Media (Facebook and WhatsApp) are monitored periodically in order to provide quick response and avoid conflicts of information.
Complaints related to Puma Mill and Project Puma II received from the community from January 1 to June 30, 2021:

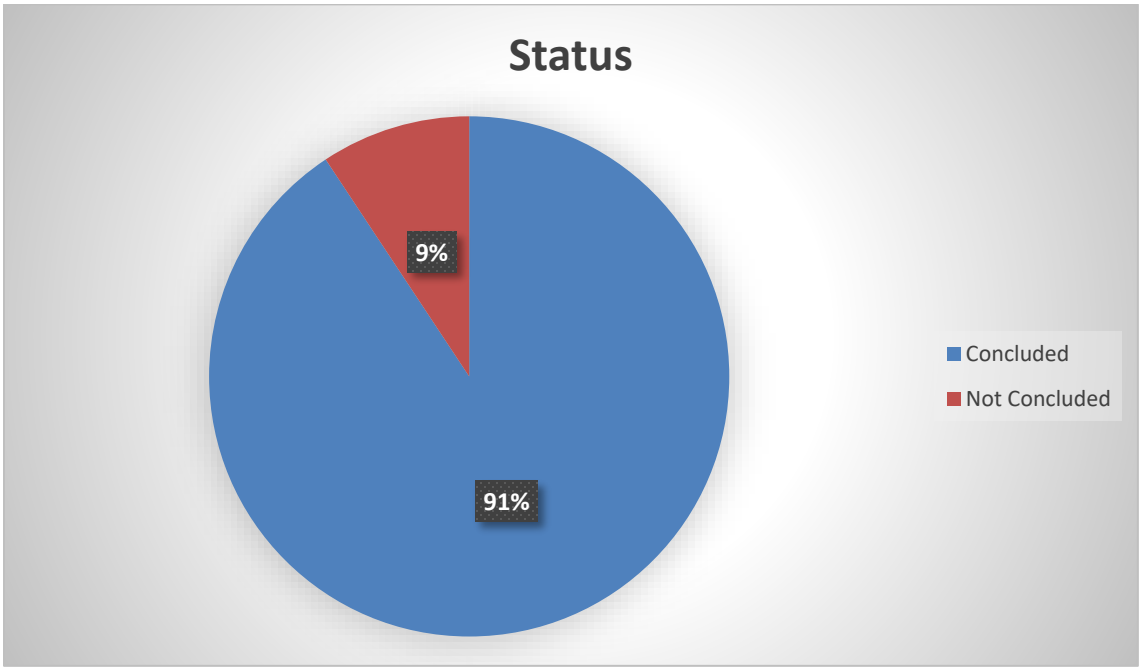
Channel	*Total*
Phone Call – 0800 (toll-free)	37
E-mail	1
Social Media (WhatsApp Message)	5

The description and subjects related to the requests received through the ombudsman are described as below:





All demands related to Puma Mill and Project Puma II and Klabin were answered to claimants, as long as it was possible to identify the contacts. Additionally, all demands were forwarded to the responsible sectors for the appropriate measures – such as notifications for the dangerous drivers, for example. Evidences are archived with the Social Responsibility and Community Relations team and their effectiveness evaluated.



There are four demands not concluded, one related to a labor complaint, one to a road maintenance situation and two related to dangerous driving. Regarding the first one, Klabin's Human Resources team and is handling the situation regarding accommodations inspection. In the second situation, Klabin's Civil, Road Maintenance and Social Responsibility and Community Relations teams are working along to solve the

demand. The dangerous driving situations are also being handled by the designated area. Klabin Ombudsman reports are available in annex (Puma I and II).

How is the information about the operations and/or environmental performance of the mill disseminated among the local community? Please describe.

The information about the operations and/or environmental performance of the mill is disseminated among the local community in different ways such as:

Meetings with the Communities

Trimestral meetings with the neighboring rural communities (Campina dos Pupos, Volta Grande, Colônia Augusto Vitória, Lageado Bonito) and urban areas of Ortigueira, Telêmaco Borba and Imbaú (members of associations, Municipal Councils, religious leaders, etc.). The reunions objective is to present the Project Puma II, clarify questions and identify community demands.

The meetings would occur during the year, but due to the pandemic scenario and the World Health Organization's (WHO) recommendations, they had to be postponed. Klabin Staff maintain direct contact with stakeholders via telephone, WhatsApp and other communication channels. Remote meetings were not an option due to unstable internet connection, especially in the rural area. In addition, there are the Anthropic Monitoring Committee meetings – which contains members of the City Halls and Municipal Councils. Two of the public sector's responsibilities in the Committee are to bring demands and repass information to their citizens.

Klabin na Comunidade and presence in events

Event organization (Klabin na Comunidade) and presence in municipal events. The two relationship actions have the objective to bring information about Klabin's activities (including Project Puma II), as well as clarify questions about any kind of issue/theme – that include presenting the projects and actions in the social, environmental and local development areas.

Events were supposed to start in March, but all of the predicted ones during the year were canceled due to the pandemic scenario and the World Health Organization's (WHO) recommendations.

Klabin na Comunidade Magazine

Summary of all programs, projects and actions developed in the Campos Gerais region, in the State of Paraná – one edition per year. In December 2020, 34.000 editions were issue and distributed in 9 municipalities in Klabin's operational area – including Ortigueira, Telêmaco Borba and Imbaú. The majority was through random mail distribution, and the other part of the edition handled personally during the last month of the year – taking all the precautions regarding Covid-19.

In this last edition, there is a summary of all the Project Puma II's actions during the year of 2020. As soon as the Project is the largest private investment in Paraná's history and it has a big repercussion, Klabin has provided information about its development and operations, especially after the issues regarding the pandemic situation. In addition, there is information about many of the Project Puma II's social programs and actions such as Matas Sociais, SPI (Social Progress Index), Public Management Support, Semeando Educação, GBV Prevention Plan and others.

PDF Version in annex.

Minuto Klabin (Radio) and Puma Radio

Minuto Klabin is a radio program once every two weeks in 10 local radios and a website in the Campos Gerais area, especially in Ortigueira, Telêmaco Borba and Imbaú, Klabin's biggest area of influence. The program is 1 minute long with information about economic, environmental and social company activities.

The frequency and time of its propagation is determined by contract between Klabin and each one of the radio companies.

Puma Radio is a customized and exclusive platform for Project Puma II workers. It is an effective communication channel with the workers involved in the construction, and the Communications, Social Responsibility and Community Relations team develop its content, in a partnership with Agência Radioweb, experienced company in the segment of internal radios. Its content is divided in the following format: notes about public security, environment, public utility, forestry, etc., newsletters about Project Puma II and musical requests.
The Puma Radio is available in the Social Center, Project's refectories, and in the Capital do Papel and Jardim Bandeirantes residential areas (in the refectory and leisure areas).

How is information about the operations and/or environmental performance of the mill disseminated among the local community? Please describe.

5.3 Community Development

Please provide details of such initiatives supported by the Klabin Community Development Plan or other institutions related to the PUMA Klabin project, that are not covered by the Chapter 8 Progress on implementing the environmental and social action plan (ESAP).

Examples of community development, outreach and socio-economic performance to be taken into account in the reporting are as follows:

- New business created in the region (area of indirect influence) as a result of the Project (#)
- Contribution to community development (spending on health, education, security, recreation: US$)
- Contribution to community development facilities (#)
- Complains received and resolved satisfactorily by government and community and any other case that hasn't been resolved and their nature (#)
- Narrative with actions to monitor spontaneous settlements (e.g. new occupations are identified/registered and communicated to local government), as well as to collaborate with information for the territorial development plans under development/implementation by the municipalities.
- Narrative with actions to strengthen local clinics and/or area hospitals
- Narrative with targeted actions to educate and raise awareness of potential safety risks; accident analysis, prevention, etc.
- Brief summary over purchases from local suppliers (industry and services/ US$ and/or tons/units, etc)
- Taxes and other payments transferred to government (US$)
- Programs designed to address women (# and US$)
- Women beneficiated by Project programs and activities (#)
- Programs designed to address indigenous peoples (# and US$, and if at all possible differeciate by gender)
- Indigenous people beneficiated by Project´s programs and activities (#)

Please report the status/progress related with the road safety program. Please list and describe the measures/actions that Klabin has and/or will be implementing to upgrade safety measures in its own and contractor truck fleet. If applicable, please also list/describe the improvements achieved during the reporting period.

Matas Sociais

Since 2015, the program helped more than 500 properties in Telêmaco Borba, Ortigueira, Imbaú and Reserva. It supports the familiar agriculture and helps small rural producers in all the production steps, since environmental adequacy to products commercialization in local markets. Also offers capacitation actions involving agricultural management, organic production and environmental education, among others.

After an interview with the participants, more than 70% of them affirmed that their income raised after the participation in Matas Sociais – 45% of those noticed an increment of 20 to 60% in their properties' income. In addition, half of them affirmed their network is now bigger and show better sales performance and production raise – registered in 57% of the consulted properties. Nowadays, their production is found in schools, Klabin Mills restaurants, and in local markets. There is a highlight in environmental issues as well: the utilization of pesticides reduced for 66% of the producers that now seek for new alternatives with the help of Matas Sociais' consultants.

In 2019, the program started in the Municipalities of Sapopema, Curiúva, São Jerônimo da Serra, Tibagi e Cândido de Abreu. There were several planning meetings, institutional articulations and engagement actions in the new Municipalities to define communities, associations or cooperatives to participate in the program. After the diagnosis, planning and field actions started – at least 100 new properties will be participating.

Because of the pandemic scenario and social distancing matters, Matas Sociais had to adapt its actions. Locals were the agricultures sold their products closed or reduced its number of clients. The solution was to invest in technology: face-to-face meetings turned into remote meetings and a successful product delivery system was developed. In addition, a Podcast called "A Voz do Matas" was created and information is shared in the Matas Sociais agricultures' virtual group.

In 2020, Matas Sociais expanded to Santa Catarina State as well. Program actions continued aiming local and communities' development in 2021, including the expansion to other municipalities of Paraná and Santa Catarina. Program's results in 2020 and partial results in 2021 are available in annex.

Semeando Educação

The program offers consultant services to public schools directors and teachers, sharing methods and tools to improve the scholar management indicators, including formations about leadership and school community participation. Created in 2017, the program includes 31 public State schools in the Municipalities of Ortigueira, Telêmaco Borba and Imbaú, that registered a 23% improvement in the Basic Education Development Index (IDEB) after its implementation. Since 2019, the focus is on the Municipal public schools. In total, 11 thousand students, 65 schools and a thousand teachers impacted by Semeando Educação.

In March of 2020, after the Covid-19 pandemic, municipal schools of Paraná and other Brazilian States had their activities suspended. In this reason, the work's scope in face-to-face activities had to be reformulated. In April, while the teachers were still on recess, Klabin had meetings with the Municipal Secretariats of Education in Ortigueira, Imbaú and Telêmaco Borba to think of emergency actions facing the new scenario. There was the development of a new scope of action, with synchronous and asynchronous activities for the teachers – such as home study and online meetings – to eliminate questions regarding the use of digital tools and proposal formats to use with the students in the e-learning modal, sharing good actions and examples as a way to inspire them. Resources such as e-books, website tips, videos, and other activities presented to the teachers, as well as examples on how to assist the students' parents to organize home study. There was the intense participation of the school assistants and coordinators as well, in order to synchronize and optimize all actions regarding the difficulties of the period.

In 2021, the work continued with its new scope, and expanded to other 11 municipalities: Tibagi, Reserva, Sapopema, Curiúva, Rio Branco do Ivaí, Ventania and Jaguariaíva (Paraná), Otacílio Costa, Correia Pinto and Lages (Santa Catarina) and Goiana (Pernambuco). Information about the program is available at its website [https://semeandoeducacao.klabin.com.br/].

Public Management Support

Support to the Municipalities of Ortigueira, Telêmaco Borba and Imbaú in the elaboration of their Plurennial Plan (Article 165 of the Federal Constitution) in the 2018-2021 period, in partnership with specialized consultant company. Its actions are monitored periodically through meetings with all the Government Secretariats and its results presented to the Mayor for decision-making.

The support was extended to Sapopema, Curiúva, Reserva and Tibagi in 2019 and its goal is to find the balance in the public accounts and capacitate municipal management teams.

In 2020, two new ways of supporting the Municipalities were implemented. A new Mobility Plan was developed in Ortigueira in order to improve transportation planning and the citizens' quality of life. It will be integrated to the Director Plan and other sectorial plans of Sanitizing and Social Interest Habitation.

In addition, an emergency support for all seven Municipalities was developed, aiming the crisis management caused by the pandemic scenario – it monitors risks and impacts of the situation and proposes actions based on the epidemiologic situation, stakeholders engagement, and maturity levels (regarding governance, communication, assistance and economic impacts) of each Municipality.

The program expanded to other municipalities in 2021, aligned with the new administrations that won at the 2020 Elections – the elaboration of their Plurennial in the 2021-2024 period started as well.

Território Empreendedor

In partnership with SEBRAE, Klabin offers opportunity of qualification for a total of 128 new entrepreneurs and business, as well as existing ones, in the municipalities of Ortigueira, Telêmaco Borba and Imbaú.

Território Empreendedor's actions focus in three pillars (Qualification, Entrepreneurship and Management) that provide to its public activities and experiences that contribute to organization and improvement of micro and small businesses, from their conception to new markets opening and innovation. All of programs orientations and solutions are based on the UN's SDG (Sustainable Development Goals). Program report of 2020 available in annex.

Support to Qualification in Forestry Operations

Investment of R$ 23 Million (construction, technical laboratories, engineering executive projects for building, library and equipment's' adaptation).

Klabin announced in 2019 a partnership with Paraná State Government and the Municipality of Ortigueira in the creation of the Forestry and Agricultural Professional Educational State Center in Ortigueira, the first technical school focused in the formation of forestry operators and heavy-machines mechanics in Brazil. Based on school models in Finland and Sweden, the new institution will have capacity for 800 alumni.

The project is located in the facilities that previously were designated to Project Puma I workers, but now exclusive for the community use. The company also supported their partners in the technical area and its specialized instructors will support the initial activities and in the contact with the main forestry equipment producers and other industries in the sector seeking future partnerships.

Paraná State Governor Carlos Roberto Massa "Ratinho" Júnior, Klabin's CEO Cristiano Teixeira and Lourdes Banach, Mayor of Ortigueira inaugurated the Forestry and Agricultural Professional Educational State Center on January 31, 2020.

As well as the majority of the educational institutions, the Forestry and Agricultural Professional Educational State Center and its professors and students had to adapt the educational method motivated by the pandemic situation. Although the dropout rate was 25%, it was lower than in other professional education centers.

Currently, there are 121 active students in three technical courses (Agribusiness, Forestry Operations and Maintenance of Heavy Machinery). For the year of 2021, 157 students registered. Courses started in February in a hybrid model – part of the students in the classroom and part online.

Project MuDança

Since 2015 Klabin supports Project MuDança, at Casa da Criança Padre Lívio Donati, in Ortigueira. MuDança helps in physical, cultural and emotional development of 70 children and teenagers from 10 to 15 years-old, besides contributing to their social inclusion.

Artistic Gymnastics Project in Telêmaco Borba

Partnership with Municipality of Telêmaco Borba that guarantees sports development, contributing in the physical and cultural formation of young people in the region. There are 100 girls from 5 to 14 years-old training for free.

Klabin supports the Project in the gym's infrastructure management, such as bars, carpets, fans and other resources. Besides this, hires the coach, Juliano Fulas, and collaborates in external events by paying hotel, transport, Food and Beverages expenses.

Social Educative Project Encantos do Imbaú

The Project is hold by the Serviço e Convivência e Fortalecimento de Vínculos in the Centro de Convivência do Idoso of the Municipal Secretariat of Social Assistance of Imbaú. Klabin's supports it by hiring the professional musicians that conduce the elderly coral and the guitar, flute, percussion and keyboard lessons for 200 participants. Even though in times of social distancing measures, the project is still going, the professors and students are in touch through online lessons and classes, contributing to sociocultural interaction, creativity, motor coordination and musical language development.

Bacia Escola Ribeirão Três Bocas – Jaguariaíva

The public supply of the municipality of Jaguariaíva is carried out through water abstraction from three sources, one of which is the Três Bocas watershed, owned by Klabin. The watershed area covers 489 ha, of which 287 ha are for planted forests and 119 ha for conservation.

The location and characteristics of the Três Bocas watershed are ideal for carrying out the hydrological monitoring of PROMAB/IPEF, while bringing together exceptional conditions for the implementation of the Bacia Escola project, taking into account the proximity to the city and the presence of institutions education, in addition to the performance of the municipality's sanitation company (SAMAE).

The Bacia Escola project, inspired by the work developed in the Brazilian Geological Service in Rio Catu, State of Bahia, has been an opportunity to generate and share knowledge as a study and experience area for different audiences especially for elementary school students (material elaboration and interpretive trails), as well as technical schools and universities. It is a contribution to the democratization of knowledge combined with the generation of shared value, which is one of the goals of companies in the search for sustainability.

The Indigenous Basic Environmental Plan (PBAI)

The Indigenous Basic Environmental Plan (PBAI) of the Indigenous Component Study (ECI) of the Indigenous Lands (TI) of Queimadas and Tibagy-Mococa of Klabin S.A.'s Industrial Complex in Ortigueira, State of Paraná, was elaborated attending FUNAI's recommendations after the ECIs and is composed by four programs:

1. Program of Impact Monitoring in the Physical and Anthropic Environment;
2. Program of Revitalization of the Kaingang Education and Culture;
3. Program of Kaingang Ecological Corridors;
4. Program of Revitalization of the Kaingang Production Activities.

It is in course since 2017 Scholarship Management actions in University, Technical and Qualification Studies. Currently, there are 24 students, 14 from TI Queimadas and 10 from TI Tibagy-Mococa. The majority of students is female (15). By the beginning of 2020 there were meetings with the students contemplated by the scholarships and the TI leaderships.

In 2019, 5 students from TI Tibagy-Mococa were the first ones graduated: Renato concluded his Bachelor's Degree in Dentistry at Ponta Grossa State University – UEPG, being the first indigenous person to finish this major at this university. Janaína, Zaqueu, Adriele and Adriana concluded their Degree in Education. Four of the five are currently working at their communities (Renato is also working at TI Queimadas as a dentist). In 2020, due to the pandemic situation, there were no graduations, although Elizeu Koku is close to finish his Technical Course in Nursery – he will probably be the first student from TI Queimadas to do so.
In addition, in 2019 there was the inauguration of the infrastructure work in both Indigenous Lands (TI): one sports court, 2 computer rooms and 2 multimedia rooms, 1 playground and an artesian well in each community school. Besides this, an outdoor gym in each TI. In December of 2020 there was a new installation of the electrical facilities at the computer and multimedia rooms at TI Tibagy-Mococa.
In March of 2020, according to World Health Organization (WHO) and FUNAI's recommendations, the visits to Indigenous Lands (TI) were suspended. Only essential services were allowed, according to official document number 419 (article third, paragraph 5th). Klabin's teams worked in actions regarding the Program of Revitalization of the Kaingang Education and Culture in 2021 (Scholarship Management actions). Klabin has developed some actions at the location regarding Covid-19 prevention: PCR testing at the communities in September and December of 2020, mask and food supplies donations in 2020 and 2021. A summary of all PBAI's actions during the current year is attached to the ESCR.

• 6 DATA INTERPRETATION AND CORRECTIVE MEASURES

Provide the following information for monitoring data which exceed Brazilian or IFC maximum levels. This refers to data presented in Chapter 5. Provide the information in the table for each parameter exceeded.

Monitoring parameter that exceeds Brazilian or IFC guidelines	*Cause for monitoring parameter exceeding*	*Corrective action plan and responsibility*	*Completion date*	*Cost/USD*	*%Complete/ Status*

• 7 PROGRESS ON IMPLEMENTING THE ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)

Please report on progress to implement the actions specified in the ESAP attached as Schedule III in the Loan Agreement. Report on actions which are of on-going character and actions that have not been completed before the reporting period of this Environmental and Social Compliance Report.

Item #	Basis of Applicable Requirements	Key Aspect	Key Corrective Actions	Evidence / Product	Priority	Deadline for Completion	Progress Status

When applicable the Progress Status should include responsible of the conducted and pending actions.

7 Progress on Implementing the Environmental and Social Action Plan (ESAP)

Please report on progress to implement the actions specified in the ESAP attached as Schedule III in the Common Terms Agreement. Report on actions which are of on-going character and actions that have not been completed before the reporting period of this Environmental and Social Compliance Report.

Item #	Basis of Applicable Requirements	Key Aspect	Key Corrective Actions	Evidence / Product	Priority	Deadline for Completion	Progress Status
6 11 6		Operating Procedures and Techniques	Review land acquisition procedure to include risk mitigating measures when the area is located within a predefined buffer of an indigenous or traditional community.	Updated land acquisition procedure.	CLOSED.	Six Months After Closing	CLOSED.
8 2 8		Organizational Capacity and Competency	Analyze the social team's staffing needs (e.g. projected workload, team skills set, etc.) for the next five years to ensure it is adequately staffed and has the appropriate expertise.	Analysis of social's team workload and updated staffing plan.	CLOSED.	Three Months After Closing	CLOSED.
13 14 13		Management Programs and ESMS	Present updated social baseline for PUMA II and associated Social Investment Plan activities.	Scaled/Updated Social Investment Plan	HIGH	Three months after Closing	In partnership with Fundación Avina, Interação Urbana, Cidadela Editora, Diferencial Pesquisas and

							IPARDES, Klabin developed a Puma II social baseline for 12 municipalities of its area of influence, through the application of the Social Progress Index (SPI) methodology. Results presented to the municipalities in a live event in January 2021. SPI Final presentation and updated social baseline for PUMA II in annex.
18 6 18		HR Management (Contractors Management)	Develop disciplinary procedures, and procedures to respond and investigate sexual harassment and gender-based violence (GBV) complaints. Assure mandatory training for contractors' workers and management. Assign a team of qualified individuals to handle sexual harassment and GBV complaints using a survivor-centered approach and ensuring confidentiality.	Documented procedures Communicating/training plan Evidence of conformation of a dedicated team to investigate/follow-up sexual harassment/GBV incidents.	HIGH	One Month after Closing	Social Responsibility and Community Relations team is aligned with the Integrity team to work along in the documented procedures. Integrity Channel's detailed procedures in annex. The GBV Prevention Plan started its actions in September. One of the primary actions was to capacitate 25 staff (including Corporate Integrity Channel and Puma II's Canal do Trabalhador) in GBV prevention, active and emphatic listening and non-violent communication in order to have a survivor-centered approach.

							Evidence of GBV Prevention Plan actions in 2020 and 2021 – available in annex.
26 9 24		HR Management (Gender Based Violence and Sexual Harassment)	Engage the services of specialized organization(s) to implement GBV prevention programs for target groups (children, adolescent groups, sex workers, etc.) in the Project area and in hotspots along transportation corridors. Identify, across the Project's area of influence, gaps in psychosocial, medical, police and judicial response services to GBV survivors and present them to the Anthropic Monitoring Committee to provide support and continuously find ways of strengthening these services.	Engagement with third-party GBV specialized organization(s) and/or networks.	HIGH	One month after Closing	Klabin is working along with Childhood Brasil on engaging the public sector and the GBV prevention network. Scope of work, new schedule and contract available in annex. In addition, Klabin has some of the GBV Prevention Plan actions developed in order to strengthening the services (such as qualifications, communication plans and donations). Everything presented in the previous Anthropic Monitoring Committee meetings.
28 3 26		Human Resources	Confirm hiring of anthropologist to be in charge of the implementation of the Indigenous People action plan (PBAI).	TOR and contract of anthropologist.	CLOSED.	Three Months after Closing	CLOSED.

29 12 27		Organizational Capacity and Competency	Put in place communication/ training to prevent discrimination and harassment of traditional groups and communities (indigenous and non-indigenous) by Klabin's and contractor's personnel engaged in PUMA II as done for PUMA I.	Anti-discrimination /anti-harassment campaign.	CLOSED.	Three Months after Closing	CLOSED.
30 13 28		Organizational Capacity and Competency	Strengthen communication/ training regarding procedures of relationship with traditional groups and communities (indigenous and non-indigenous) – mainly for drivers and workers in patrimonial security.	Updated communication/training plan.	MEDIUM	Three Months after Closing	New communication and training plan developed and approved by communication team and consultant Zezé Zachia, considering remote methods applicable to drivers and patrimonial security (in annex). Klabin and contractors Workers' Integration Welcome folders in annex.

• 8 GHG EMISSIONS

In case (and subject to any more stringent obligations that are imposed by any Brazilian law or regulation) the Project has emitted over 25,000 tonnes of carbon dioxide (CO2) equivalents during its operation on the Reporting Period, please report greenhouse gases (GHG) emission amounts (Scope 1 and Scope 2 emissions separately)[25] applying the GHG Protocol methodology. Please report fossil and wood based emissions separately

- Annual report;
- The 2021 emissions inventory is still in progress.

[25] Quantification of GHG emissions will be conducted by the client in accordance with internationally recognized methodologies and good practice, for example, the GHG Protocol.