YOUR HONOR, THE FEDERAL JUDGE OF THE COURT OF CURITIBA - PR.

INSTITUTO DE ESTUDOS AMAZÔNICOS - IEA, a private association, established on December 22, 1986 (Articles of Incorporation and CNPJ (National Register of Legal Entities identification number), attached document 02), having as its object the protection of the environment (see Article 2 of the Articles of Incorporation[1], document 02, herein attached), with headquarters at Rua Itupava, 1220, Bairro Alto da Rua XV, in the city of Curitiba, Paraná/PR, CEP 80.045-330, e-mail m.allegretti@uol.com.br, here represented by its signatory proxies in accordance with the attached mandate (document 01), comes in your presence to bring the present **PUBLIC INTEREST CLIMATE CIVIL ACTION** seeking **MANDATORY INJUNCTION** against the **Brazilian Federal Government** (henceforth also referred to as **Union),** a legal entity under public law, represented by the Attorney General Office (Advocacia Geral da União), located at Edifício Sede I, SAS Q 03, L 05/06, Brasília/DF, under the terms of Article 109, I and §2 of the Federal Constitution[2]; Article 1, I and IV[3]; Article 3[4]; Article 5, V, "a" and "b"[5]; Article 8[6]; Article 11[7]; Article 18[8], and Article 21[9], all within Federal Law No. 7.347/1985, as well as Article 81[10] and 103[11], both from

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[1] "***Article 2*** *- IEA aims to support, foster and implement an ecologically balanced, economically viable, socially just and culturally diverse development model, ensuring the conservation of natural resources and maintaining the quality of life of the populations*. (our emphasis).

[2] "***Article 109. The federal judges have the competence to institute legal proceeding and trial of:****:*
I - cases in which the Union, *an autonomous government agency or a federal public company* ***have an interest as*** *plaintiffs****, defendants,*** *privies or interveners, with the exception of cases of bankruptcy, of job-related accidents, and of those subject to the Electoral and Labour Courts;*
§ 2 Cases brought against the Union may be instituted in the judicial section where the plaintiff is domiciled, or where the act or fact giving rise to the suit occurred or where the item is located, or further, in the Federal District.". (our emphasis).

[3] "***Article 1*** *Liability actions for moral and property damage caused to any item listed hereunder* ***are governed by the provisions of this Law****, without prejudice to the popular action:*
I - the environment;
IV - any other diffuse or collective interest". (our emphasis).

[4] "***Article 3 The civil action may have as its object*** *a monetary condemnation or* ***a mandatory or prohibitory injunction***". (our emphasis).

[5] "***Article 5 Legitimate parties to file the main action*** *and the action for provisional remedy:*
V - the association *that, concomitantly:*
a) has been incorporated for at least one (1) year under civil law*;*
b) includes, among its institutional purposes*, the* ***protection of*** *public and social assets,* ***the environment,*** *the consumer, the economic order, free enterprise, the rights of racial, ethnic or religious groups or the artistic, aesthetic, historical, tourist and landscape heritage*". (our emphasis).

Federal Law No. 8.078/1990, and Article 536, Article 537, Article 815 and Article 816, all from the Code of Civil Procedure, based on the **factual, evidentiary and legal grounds** set forth below.

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[6] "***Article 8 To instruct the claim made by the plaintiff in the complaint, the interested party may request any certificates and information deemed necessary from the competent authorities****, which is to be provided within 15 (fifteen) days*". (our emphasis).

[7] "***Article 11. In a lawsuit seeking a mandatory or prohibitory injunction, the court shall determine the enforcement of the performance that is due, or the cessation of the harmful activity, under penalty of specific execution, or of imposition of a daily fine,*** *if such a fine is sufficient or compatible, regardless of the request of the plaintiff*". (our emphasis).

[8] "***Article 18. In the lawsuits covered by this law, no advance payment of attorney's fees, costs and procedural expenses, emoluments, expert fees and any other expenses shall be made, nor conviction of the plaintiff association, except in the case of demonstrable bad faith*** ". (our emphasis).

[9] "***Article 21. The provisions of Title III of the law that instituted the Consumer Defense Code are applicable to the defense of diffuse rights and interests, both collective and individual, insofar as applicable***". (our emphasis).

[10] "***Article 81 The defense of the interests and rights of consumers and victims may be exercised in court individually or collectively.***

Sole Paragraph. The collective defense shall be exercised when involving:

I *- diffuse interests or rights, by which is understood, for the purposes of this code, transindividual rights, of an indivisible nature, held by indeterminate persons and linked by de facto circumstances;*

II *- collective interests or rights,by which is understood, for the purposes of this code, transindividual rights, of an indivisible nature, held by a group, category or class of persons linked to each other or to the opposing party by a basic legal relationship;*

III *- homogenous individual interests or rights, by which is understood such rights arising from a common origin*". (our emphasis).

[11] "***Article 103. In the collective actions covered by this code, the sentence will be judged****:*

I - erga omnes, *except if the claim is dismissed due to insufficient evidence, in which case any legitimate party may file another lawsuit, on the same basis using new evidence, in the hypothesis of item I of the sole paragraph in Article 81;*

II - ultra partes*, but limited to the group, category or class, except in the case the claim is denied due to a lack of evidence, under the terms of the previous sub-paragraph, when dealing with the hypothesis provided for in sub-paragraph II of the sole paragraph in Article 81;*

I - erga omnes*, only if the claim is found valid, to benefit all the victims and their successors, in the hypothesis of item III of the sole paragraph in Article 81*". (our emphasis).

I. ON THE PRELIMINARY FACTS AND TECHNICAL INFORMATION:

I.I. Anthropogenic climate change is proving to be one of the major legal challenges facing contemporary society. The Brazilian society is already experiencing signs of losses caused by the rising sea, intense heat waves (global warming), extensive forest fires, cyclones, large-scale flooding, changes in weather patterns, the spread of diseases linked to poor environmental conditions (for instance, diseases caused by excessive pollution).[12]

As made clear in the report *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, conducted by the International Panel on Climate Change - IPCC[13],

> "*Climate change is a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties (such as temperatures and rainfall) and that persists for an extended period, typically decades or longer (IPCC, 2012)*."[14] (our emphasis).

[12] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[13] International Panel on Climate Change.
[14] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

These climate changes may arise from external processes or forces, or from persistent anthropogenic changes in the atmospheric composition or soil use[15].

In Brazil, the Federal Law that instituted the National Policy on Climate Change - PNMC (Law 12.187/2009), in its Article 2, clauses VIII and II, clarifies, respectively, the concept of climate change and the adverse effects arising from this change:

> "***Article 2*** *For the purposes set forth in this Law:*
> ***VIII - climate change****: a change in the climate directly or indirectly attributable to human activity, which alters the composition of the world's atmosphere and adds to the change caused by the natural climatic variability observed over comparable periods*;
> ***II - adverse effects of climate change:*** *changes in the physical environment or biota resulting from climate change that have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems, on the functioning of socioeconomic systems, or on human health and well-being*;" (our emphasis).

Among the anthropogenic factors that generate harmful climate change to the environment are greenhouse gases (GHG[16]), which, when emitted into the environment in unbalanced proportions (by anthropocentric attitudes), contribute to the

[15] See Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation in https://www.researchgate.net/profile/Tereza_Cavazos/publication/260087697_Chapter_3_Changes_in_climate_extremes_and_their_impacts_on_the_natural_physical_environment/links/00b4952fbaa7cf1e5e000000/Chapter-3-Changes-in-climate-extremes-and-their-impacts-on-the-natural-physical-environment.pdf.

[16] "*Greenhouse gases are the gaseous constituents of the atmosphere, both natural and anthropogenic, which absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted from the Earth's surface, the atmosphere itself, and the clouds. This property causes the greenhouse effect. Water vapor (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4) and ozone (O3) are the main greenhouse gases in the Earth's atmosphere. In addition, a number of entirely man-made greenhouse gases are found in the atmosphere, such as halocarbons and other substances containing chlorine and bromine, addressed in the Montreal Protocol. In addition to CO2, N2O and CH4, the Kyoto Protocol deals with sulfur hexafluoride (SF6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) greenhouse gases*". See https://www.researchgate.net/profile/Tereza_Cavazos/publication/260087697_Chapter_3_Changes_in_climate_extremes_and_their_impacts_on_the_natural_physical_environment/links/00b4952fbaa7cf1e5e000000/Chapter-3- Changes-in-climate-extremes-and-their-impacts-on-the-natural-physical-environment.pdf.

intensification of the greenhouse effect on Earth, greatly destabilizing the climate (climate change).

For this reason, **the generation and conservation of sinks[17] for greenhouse gases** is of crucial importance to reduce the emission of such gases and consequent mitigation of anthropogenic climate change and adaptation thereto.

I.II. In this scenario, **forests act as natural and low-cost instruments[18] to combat harmful climate change to the environment**. This is because they **act as sinks for carbon dioxide (CO2), one of the greenhouse gases most intensely emitted into the atmosphere by human activity**.

However, when cleared, forests ***(i)*** become major sources of greenhouse gas emissions[19], as they return (release) into the environment the gases trapped within them; and ***(ii)*** cease to fulfill their natural role as major carbon sinks.

As explained by CARLOS AFONSO NOBRE, a prominent Brazilian scientist in the area of global warming[20]:

> "*Global deforestation contributes to global warming, as it accounts for about 10% to 13% of global CO2 emissions. At the same time, forests are fundamental to mitigate the effects of climate change and even diminish it, since they are the main element of terrestrial biota that acts as a carbon sink, currently removing about 36% of anthropogenic CO2 emissions from the*

[17] Sinks: process, activity or mechanism that removes greenhouse gas, aerosol or greenhouse gas precursor from the atmosphere. See Article 2, IX, of Federal Law No. 12,187/2009.
[18] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[19] See https://nacoesunidas.org/desmatamento-e-2a-maior-causa-das-mudancas-climaticas-revela-fao/. Date of access: 09/10/2020.
[20] See Curriculum Lattes at http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4780257H0. Date of access: 08/04/2020.

atmosphere, with the Amazon Rainforest contributing around 20% to the carbon sink of the terrestrial biota ".[21]

In Brazil, the amount of **greenhouse gas emissions** is mainly related to **deforestation** rates. According to CARLOS AFONSO NOBRE, Brazil has the highest percentage of protected forest areas (56% of the territory) in Latin America and the Caribbean (LAC), while at the same time presenting the highest deforestation rates in the world[22].

On the subject of forest areas, the same scientist tells us that:

"*Forest area losses due to deforestation and degradation in South and Central America have been estimated on average at 443.4 x ^{106} tC.year^{-1} between 1990 and 2000. This figure increased to an average of 464.8 x 10^{6} tC.year^{-1} between 2000 and 2010 (ACHARD et al., 2014). This forest loss increased the release of CO^2 into the atmosphere to levels above the total that was sequestered (loss = 516.0 ± 69.5; gain = 191.2 ± 18.2; net 324.8 ± 73.5 Tg C.year-1), thus converting the forest from a sink to a source of CO_2 . (GATTI et al., 2014; HOUGHTON et al., 2012; PEARSON et al., 2017).*"[23] (our emphasis).

And the renowned scholar goes on to affirm that:

"Reducing emissions from deforestation and forest degradation (REDD+) is considered a relatively low cost (SOARES-SILHO et al., 2016; STERN et al., 2006) and one that is essential to keep global warming below 1.5°C (IPCC, 2019). In addition, natural forest regeneration or active restoration of degraded and unproductive land is a natural and ecologic solution to deal

[21] Available at https://www.embrapa.br/olhares-para-2030/artigo/-/asset_publisher/SNN1QE9zUPS2/content/carlos-nobre?inheritRedirect=true. Date of access: 13/03/2020.
[22] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[23] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

with the current and future challenges of climate change (REID et al., 2018). [24]*"* (our emphasis).

In this sense, **all possible efforts to preserve the Brazilian forests are of crucial importance to allow for the anthropogenic control of climate change in our country and, evidently, its serious harmful consequences**.

I.III. The **Amazon rainforest,** part of the Legal Amazon,[25] stands out among the main Brazilian forests. This forest plays a key role in the mitigation and adaptation to climate change in Brazil because of the biochemical and biophysical processes resulting from the interaction between the forest and the atmosphere. **This biome**, in addition to regulating the hydrological cycle and rain production in Brazil,[26] also acts as a **large natural carbon sink,** storing on average 60tha^{-1} of carbon above the ground, and sequestering between 430 million to 2 gigatonnes of carbon annually.[27]

[24] See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[25] "*The Legal Amazon corresponds to the area of operation of the Superintendence of Development of the Amazon – SUDAM, delimited in Article 2 of Complementary Law No. 124 of January 3, 2007. The region comprises 52 municipalities in Rondônia, 22 in Acre, 62 in Amazonas, 15 in Roraima, 144 in Pará, 16 in Amapá, 139 in Tocantins, 141 in Mato Grosso, as well as 181 municipalities in the State of Maranhão located west of the 44th Meridian, of which 21 are partially integrated with the Legal Amazon. It covers an approximate area of 5,015,067.749 km², corresponding to about 58.9% of the Brazilian territory. The Legal Amazon contains 20% of the cerrado biome and the totality of the Amazon biome, the latter, the most extensive of the Brazilian biomes, corresponding to 1/3 of the tropical rainforests on the planet*". See at: https://www.ibge.gov.br/geociencias/cartas-e-mapas/mapas-regionais/ 15819-amazonia-legal.html?=&t=o-que-e.

[26] "*The contribution of 9-10% of rainfall to South America and 17-18% to the River Plate Basin are jeopardized if more than 40% of the Amazon is deforested, and the annual rainfall is reduced by 5-10% throughout the Amazon basin (ZEMP et al., 2017), leading to longer dry seasons in southern Amazônia and reducing the flow of moisture to other parts of Brazil (AGUDELO et al., 2019)*". See Answer 24 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

In the words of CARLOS AFONSO NOBRE, which given their importance we transcribe in full, the deforestation of the Amazon forest:

> *"*(...) *can amplify the impacts of climate change extremes, as modeled in eastern Amazonia, resulting in over 3°C warming, and up to 40% reduction in rainfall from July to November, causing a delay in the onset of the rainy season of 0.12 to 0.17 days for every 1% increase in deforestation (LEITE-FILHO; SOUSA PONTES; COSTA, 2019). The interaction of climate and the Amazon rainforest is, therefore, an essential mechanism of climate mitigation for the planet, maintaining a large stock of carbon in the forest and sequestering carbon from the atmosphere, helping to maintain the temperature below 2º C, and for Brazil, mitigating the impacts of global warming by cooling the earth's surface and producing humidity*.[28]" (our emphasis).

In an analysis of the behavior of the Amazon forest over the last twenty years, its atmosphere was found to be drying up due to global warming, burning of biomass and changes in land use (expansion of agriculture and livestock). Also, there has been a reduction in the humidity produced by the forest, an increase in intense droughts and forest fires.[29]

SIRENE[30] (the national registry system for greenhouse gas emissions not controlled by the Montreal Protocol) indicated that from 1994 to 2010,

[28] See Answers 2 and 24 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[29] See Answers 2 and 24 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[30] "*SIRENE is a computer system developed by the Ministry of Science, Technology, Innovation and Communications (MCTIC), whose main objective is to make available the results of the National Inventory of Anthropogenic Emissions by Sources and Removals by Sinks of Greenhouse Gases not Controlled by the Montreal Protocol, as well as to make available information related to other emission accounting initiatives, such as the Annual Estimates of Greenhouse Gases Emissions and the inventory of the Biennial Update Report. SIRENE's mission is not only to provide security and transparency to the process of making inventories of greenhouse gas emissions, but also to support decision-making in policies, plans, programs and projects in the area of climate change – in terms of generating scientific knowledge and adopting mitigation measures. The results of emissions of all greenhouse gases not controlled by the Montreal Protocol (CO2, CH4, N2O, CF4, C2F6, HFC-23, HFC125, HFC134a, HFC143a, HFC152a, SF6, CO, NOx and NMVOC) are presented for the sectors Waste Treatment, Agriculture and Livestock,*

changes in land use and land cover - LUC in the Amazon biome were responsible for about 74% of national carbon dioxide (CO_2) emissions (results still in public consultation, MCTI, 2019).[31] In 2018, "*the deforestation of the Amazon was responsible for 25.7% of the total annual GHG emissions of the country* (...), *and 59% of the emissions due to LUC*."[32]

It is noticeable that **Land Use Change**[33] [34] **is one of the main causes of greenhouse gas emissions**[35] [36], as can be seen in Figure 1[37] below.

Land Use, Land and Forest Use Change, Energy and Industrial Processes". See in: https://sirene.mctic.gov.br/portal/opencms/textoGeral/2018/08/24/sobre.html.

[31] See Answer 2 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[32] See Answer 2 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[33] Article 18, I, Decree 9.578/2018 states: ***"Article 18****. The projection of national emissions of greenhouse gases for the year 2020, which is the sole paragraph of Article 12 of Law No. 12,187, 2009, will be 3,236 million tonCO2eq, composed of projections for the following sectors:*
I - land use change - *1,404 million tonCO2eq*;" (our emphasis).

[34] As pointed out in the Technical Manual for Land Use prepared by the Brazilian Institute of Geography and Statistics - IBGE, the sector Land Use and Forests consists of three subsectors: (i) Conversion of forests into agriculture and cattle-raising activities, i.e., deforestation of native vegetation areas, and regeneration of forests by abandoning cultivated land. Deforestation means CO2 emission into the atmosphere and regeneration, on the contrary, CO2 removal; (ii) Changes in the carbon content of soils caused by land use changes, such as conversion of forests to agricultural and pasture use, and vice versa. These changes depend on several factors: the type of land use and the soil management practices applied, evaluated over a period of 20 years; the application of limestone to combat soil acidity and improve soil fertility; and the conversion of organic soils to agriculture, which causes rapid oxidation of organic matter. The carbon variations are associated to CO2 emissions and removals; and (iii) Planted forests throughout the country, specifically those for industrial use, an activity in continuous expansion and which also results in the increase of stored biomass. In this subsector, there are CO2 emissions and removals, with predominance of the latter. See https://biblioteca.ibge.gov.br/visualizacao/livros/liv81615.pdf.

[35] According to CARLOS AFONSO NOBRE, *in verbis*: "*Scientific observations, local perceptions and model predictions indicate that gradual and extreme climate changes, in particular global warming, are generated mainly by fossil fuel related GHG emissions, energy production and land use (REBOITA et al., 2014; SALAZAR et al., 2015)*. (See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03).

[36] CARLOS AFONSO NOBRE informs us that, "*In LAC* [Latin America and the Caribbean], *the impacts of land use change on GHG emissions are largely associated with the net conversion of forests to other uses, particularly agricultural and livestock crops (ARMENTERAS et al., 2017; FAO, 2017). 24% of global emissions attributed to land use change (22% of total emissions from 2007 to 2016) (IPCC, 2019) come from LAC countries (CAIT, 2017). The main net carbon emission from deforestation comes from biomass burning and soil carbon loss (heterotrophic respiration). Forest conversion is followed mainly by biomass burning, which can represent 11-70% of the rates of emissions from deforestation, released mainly during the Southern hemisphere dry season. The increase in carbon emissions from forest areas has also been related to forest fragmentation, through an increase in the extent of forest edges vulnerable to sources of ignition and fire dispersal (ARAGÃO et al., 2018; BRANDO et al., 2020)*". (our emphasis). See Answer 1 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[37] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

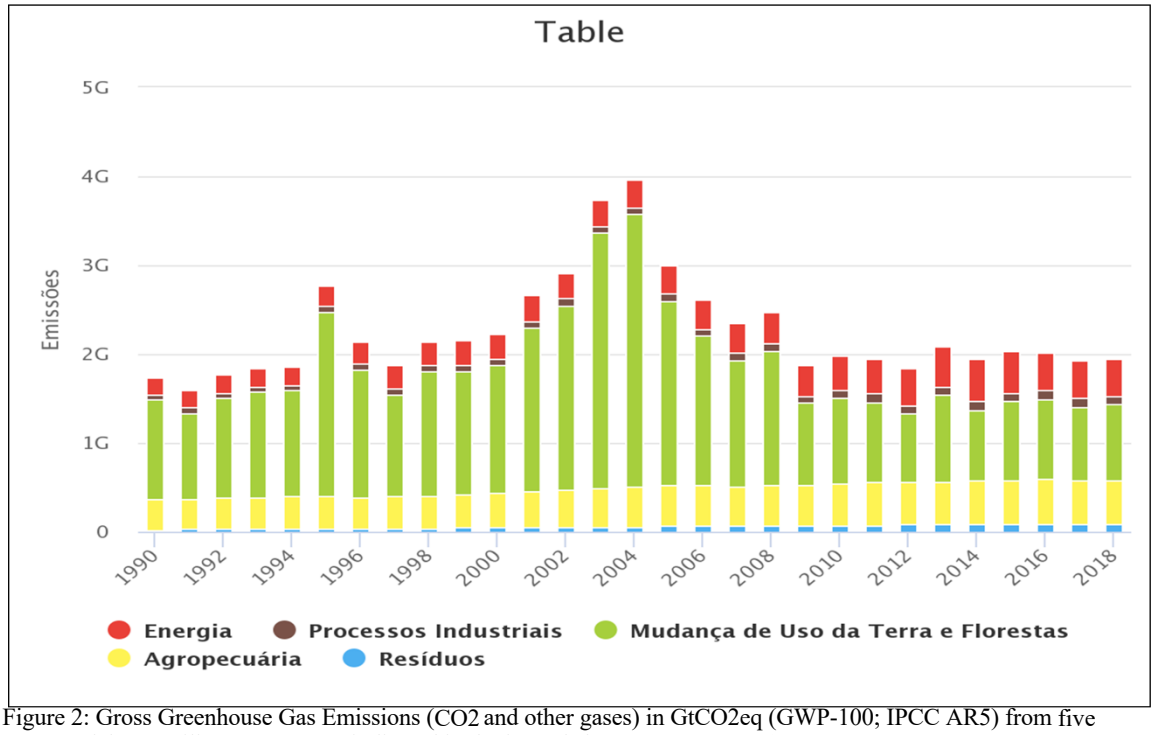

Figure 2: Gross Greenhouse Gas Emissions (CO2 and other gases) in GtCO2eq (GWP-100; IPCC AR5) from five sectors of the Brazilian economy as indicated in the legend, from 1990 to 2018 (SEEG Data, http://plataforma.seeg.eco.br/sectors/). [38]

It should be noted that carbon emissions in the tropics are strongly associated with the deforestation of natural forests for conversion to agricultural uses. As pointed out in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, herein attached (document 03), *in verbis*:

> "*More than 80% of the expansion of agribusiness in Brazil between 1990 and 2011 occurred in the Amazon and Cerrado, which directly, through deforestation, or indirectly, through agricultural management, resulted in high rates of greenhouse gas emissions. During the conversion of the forest into agricultural areas, the burning of trees after deforestation and the decomposition of forest biomass left in the soil cause the release of carbon dioxide and other greenhouse gases."*[39] (our emphasis).

[38] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[39] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

This situation helped Brazil become the 7th largest emitter of greenhouse gases in the world (2.9% of the world total). Between 1990 and 2018, the country emitted (gross emissions) a total of 63 billion tCO2eq (GWP), of which almost 2/3 (63%) were generated by land use changes – LUC, with deforestation as their main source (93% of the total)[40]. In 2018, for example, emissions of 1.9 $GtCO_{2eq}$ represented an increase of 1.4% compared to 2017, reflecting the pace of increased deforestation, as shown in Figure 1, above:

The relationship between increased deforestation of the Amazon forest and the rise in greenhouse gas (GHG) emission rates is technically evident. In 2012 the decline in deforestation rates in the Amazon reached 4,600 km². This resulted in a reduction of GHG emissions of 767 $MtCO_{2eq}$ due to land use change.[41]

On the other hand, between 2017 and 2018, increased gross emissions of GHG strongly correlated with increased deforestation rates in the Amazon forest. In 2018, the deforestation rate was 8.5% higher than the previous year. This generated an increase of 44.5 million tons in greenhouse gas emissions in that biome (even taking into account that this increase was partially offset by a 10.9% drop in Cerrado deforestation)[42].

As explained by CARLOS AFONSO NOBRE, *in verbis*:

> "*Out of a total of 845Mt CO_{2eq} generated in 2018 by land use changes, the deforestation of the Amazon alone was responsible for generating 499 $MtCO_{2eq}$, more than the entire agricultural sector, which in the same period*

[40] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[41] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[42] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03..

generated 492 $MtCO_{2eq}$. In percentage terms, deforestation in the Amazon was responsible for 25.7% of the country's total annual GHG emissions in 2018, and 59% of *emissions by LUC. This number was 0.3% higher than in 2017(ANGELO; RITTL, 2019).* "[43] (our emphasis).

The statements presented here are confirmed by the information contained in Figure 2. This table shows the deforestation rates in the Amazon forest from 1990 to 2018, as well as greenhouse gas emission rates in the same period, all linked to land use change - LUC:

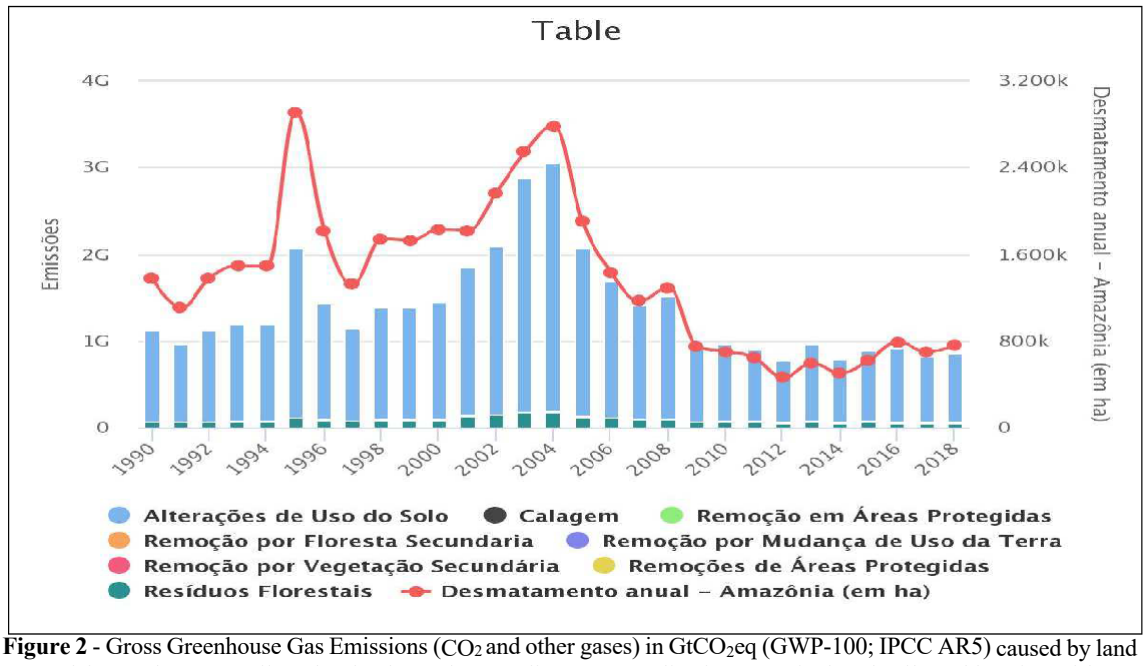

Figure 2 - Gross Greenhouse Gas Emissions (CO_2 and other gases) in $GtCO_2eq$ (GWP-100; IPCC AR5) caused by land use and forest changes attributed to land use changes, limestone application to agricultural soils and burning of forest waste, from 1990 to 2018 (Dados SEEG, http://plataforma.seeg.eco.br/sectors/)[44]

This chart demonstrates that the reduction of greenhouse gas emissions depends, to a large extent, on the reduction of illegal deforestation of the Amazon forest. **In order to reach this objective, the effective implementation of**

[43] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[44] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

national policies and guidelines aimed at combatting deforestation in this biome and, consequently, in areas covered by the Legal Amazon are essential. As described in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03:

> *"The recent weakening of environmental policies by the current Brazilian government, especially in the area of climate change, in terms of command, control and land regularization may jeopardize the national and international commitments signed by Brazil to reduce emissions, as well as the national and global climate balance (ANGELO; RITTL, 2019).*[45] (our emphasis).

Thus, it is **imperative that the Union comply with its social, intergenerational and normative obligations aimed at reestablishing the immediate control of the illegal deforestation of the Amazon forest, in order to achieve climate stability in the country (a fundamental constitutional right).** The reason being that the preservation of this forest plays a key role in reducing the emission of greenhouse gases, while its deforestation will amplify the impacts of extreme climate events originated from climate change, both in relation to the aforementioned biome[46] and in relation to the environmental quality of the country.[47]

As stated by CARLOS AFONSO NOBRE, *in verbis*:

> "*The interaction of climate and the Amazon rainforest is therefore an essential mechanism of climate mitigation for the planet, keeping in stock large amounts of carbon from the forest and sequestering carbon from the atmosphere, thereby helping keep the temperature below 2ºC, and for Brazil, mitigating the impacts of global warming by cooling the soil surface and*

[45] See Answer 4 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[46] "*The eastern Amazon, for example, can heat up more than 3°C, while rainfall from July to November can decrease by as much as 40%, causing a delay in the onset of the rainy season of 0.12 to 0.17 days for every 1% increase in deforestation (LEITE-FILHO; SOUSA PONTES; COSTA, 2019). "*See Answer 5 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[47] See Answer 5 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

> *by moisture production. The interactions of large-scale environmental factors, such as deforestation, global warming, extreme drought events and the associated higher frequency of forest fires (NOBRE et al., 2016; NOBRE; BORMA, 2009) may lead the Amazon rainforest to an inflexion point, initiating a savanization process where the vegetation takes on characteristics of a degraded savannah (NOBRE; SELLERS; SHUKLA, 1991), which may occur by the middle of this century (NOBRE et al., 2016).”*[48] (our emphasis).

Given its importance, it is necessary to emphasize that the reduction and recycling of moisture which take place after forests are cleared generate drier and longer dry seasons, reducing the flow of humidity in the region affected by deforestation. This scenario leads to the phenomenon described as SAVANIZATION OF THE AMAZONIC BIOMA, which seeks to adapt to the new climate reality, that is, reduced humidity. This will be the new reality of the Amazon rainforest if deforestation is left unchecked, as has been happening. This is what CARLOS AFONSO NOBRE explains in the scientific report that supports our complaint (doc. 03):

> “*The reduction in moisture recycling after removal of the forest leads to longer dry seasons in southern Amazon and reduces the flow of moisture to the east of the region (AGUDELO et al., 2019). The air cooling mechanism is more efficient in tropical forests compared to other land cover such as grasses, shrubs and non-irrigated crops (VON RANDOW et al., 2004). The duration of the dry season can be a determining factor for the savanization of Amazonia, i.e., the replacement of a tropical rainforest by more drought-resistant vegetation with distinct functionality (NOBRE et al., 2016; NOBRE; SELLERS; SHUKLA, 1991)”.* [49] (our emphasis).

[48] See Answer 5 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[49] See Answer 7 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

Confirming his technical position on the possible savanization of the Amazon biome, the renowned scholar goes on:

> "*The contribution of 9-10% of the rainfall in South America and 17-18% in the River Plate Basin caused by moisture recycling of the Amazon rainforest will be jeopardized if more than 40% of the Amazon is deforested, and the annual rainfall is reduced by 5-10% throughout the Amazon basin (ZEMP et al., 2017), leading to longer dry seasons in southern Amazônia and reducing the flow of moisture to other parts of Brazil (AGUDELO et al., 2019). Models of vegetation dynamics predict an irreversible savanization process in this region within 30 to 50 years associated with deforestation, climate change and intensified burning, directly affecting economic activities, especially agriculture, and its population (COSTA; PIRES, 2010; NOBRE et al., 2016).* [50]" (our emphasis).

I.IV. For these reasons, the National Policy on Climate Change instituted, as one of its instruments, the *Action Plans for the Prevention and Control of Deforestation in the biomes* (Article 6, III, of Law 12.187/201951). These plans aim to **preserve the natural carbon sinks** (natural deposits) represented by forests and other forms of vegetation, which absorb and capture carbon dioxide (CO_2) from the atmosphere, reducing its presence in the air. One such plan was the **Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm**, as set forth in Article 17, I, of Decree 9.578/2018[52].

This plan aims to **reduce the annual deforestation rates in the Legal Amazon area by 2020** (which includes the Amazon forest biome and 20% of the

[50] See Answer 24 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[51] "***Article 6*** *The following are instruments of the National Policy on Climate Change:*
III - the Action Plans for the Prevention and Control of Deforestation in the biomes;" (our emphasis)
[52] "***Article 17****. For the purposes of this Decree, the following action plans for the prevention and control of deforestation in biomes and sectoral plans for mitigation and adaptation to climate change are considered:*
I - Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm;" (our emphasis).

cerrado biome) **to 80% of the average identified in the years 1996 to 2005, which was 19,625 km², ** as stipulated in Article 19, §1, I, of Decree 9.578/2018[53] and Article 12, Sole Paragraph, of Law 12.187/2009[54] along with Article 18, I, of Federal Decree 9.578/2018[55].

In short, **in the year 2020 the illegal deforestation in the Legal Amazon should not exceed the annual rate of 3,925.06 square kilometers.[56]** The reduction of deforestation in the Legal Amazon region is intended to reduce the emission of greenhouse gases due to land use change, the highest contributing factor to the increase of GHG in Brazil.

It should be clarified that the **first phase** of implementation of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm took place between the years 2004 to 2008[57]. At that stage (before the promulgation of the PNMC), the plan presented the following main objective, *in verbis*:

> "***To promote the reduction of deforestation rates in the Brazilian Amazon,*** *through a set of integrated land use planning and management*

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[53] "***Article 19*** *To fulfill the national voluntary commitment referred to in Article 12 of Law No. 12,187 of 2009, actions will be implemented that aim to reduce between 1,168 million tonCO2eq and 1,259 million tonCO2eq of the total emissions estimated in Article 18.*
§1 *The following actions contained in the plans referred to in Article 17 shall be initially considered for compliance with the provisions of the caput:*
I - reduction of eighty percent of the annual deforestation rates in the Legal Amazon in relation to the average verified between 1996 and 2005;" (our emphasis).

[54] "***Article 12*** *To fulfill the objectives of the PNMC, the country will adopt, as a voluntary national commitment, actions to mitigate greenhouse gas emissions, with a view to reducing between 36.1% (thirty-six integers and one tenth percent) and 38.9% (thirty-eight integers and nine tenths percent) its projected emissions by 2020. (Regulation)*
Sole Paragraph. The projection of emissions for 2020, *as well as the detailing of actions to achieve the objective expressed in the caput, will be established by decree, based on the second Brazilian Inventory of Emissions and Removals of Greenhouse Gases Not Controlled by the Montreal Protocol, to be concluded in 2010*". (our emphasis).

[55] "***Article 18***. ***The projection of national emissions of greenhouse gases for the year 2020,*** *dealt with in the sole paragraph of Article 12 of Law No. 12,187, 2009, will be 3,236 million tonCO2eq, consisting of projections for the following aspects:*
I - land use change - 1,404 million tonCO2eq;" (our emphasis).

[56] This average was derived from the sum of the square kilometers deforested in the Legal Amazon between 1996 and 2005, divided by 10, less 80%. Consult the area of square kilometers deforested between 1996 and 2005 at: http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/rates. Date of access: 13/01/2020.

[57] Available at https://www.mma.gov.br/informma/item/616-preven%C3%A7%C3%A3o-e-controle-do-desmatamento-na-amaz%C3%B4nia. Date of access: 09/01/2020.

actions, as well as monitoring, control and promotion of sustainable productive activities and infrastructure, involving partnerships between federal agencies, state governments, municipalities, civil society entities and the private sector."[58] (our emphasis).

The **second phase** of this plan was implemented between 2009 and 2011[59]. It was at this stage that the plan incorporated the determinations of the National Policy on Climate Change - PNMC, which included the simulation of an **80.5% reduction in deforestation in the Legal Amazon for the year 2020,** considering the average deforestation verified between the years 1996 to 2005, as shown in Figure 3[60] below:

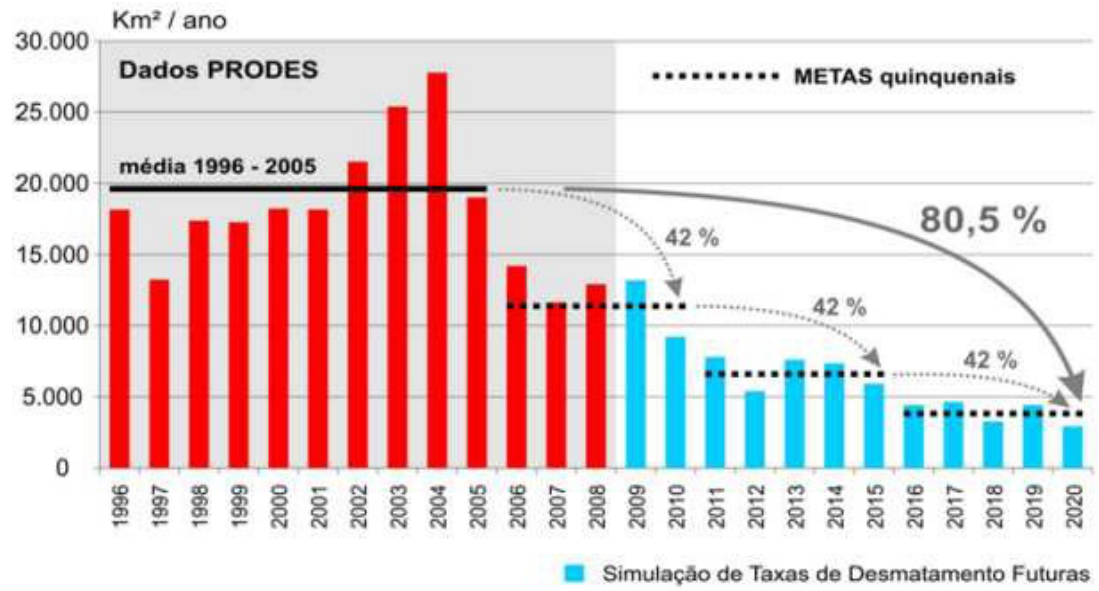


Figura 3. Metas qüinqüenais de redução do desmatamento na Amazônia até 2020 a ser apresentada pelo Brasil na XV Conferência das Partes da Convenção Quadro das Nações Unidas sobre Mudança do Clima.

[58] Available at https://www.mma.gov.br/images/arquivo/80120/PPCDAM_fase1.pdf. Date of access: 16/01/2020.
[59] Available at https://www.mma.gov.br/informma/item/616-preven%C3%A7%C3%A3o-e-controle-do-desmatamento-na-amaz%C3%B4nia. Date of access: 09/01/2020.
[60] See page 27 of the *Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal – PPCDAm – segunda fase.* Available at: https://www.mma.gov.br/images/arquivo/80120/PPCDAm%202%20fase%20_%202009-11.pdf. Date of access:16/01/2020.

The **third phase** of the plan was implemented between 2012 and 2015[61]. The **goal of reducing deforestation in the Legal Amazon by 2020** was presented at this stage, which was **80%** of the average rate between 1996 and 2005. See Figure 4[62], below.

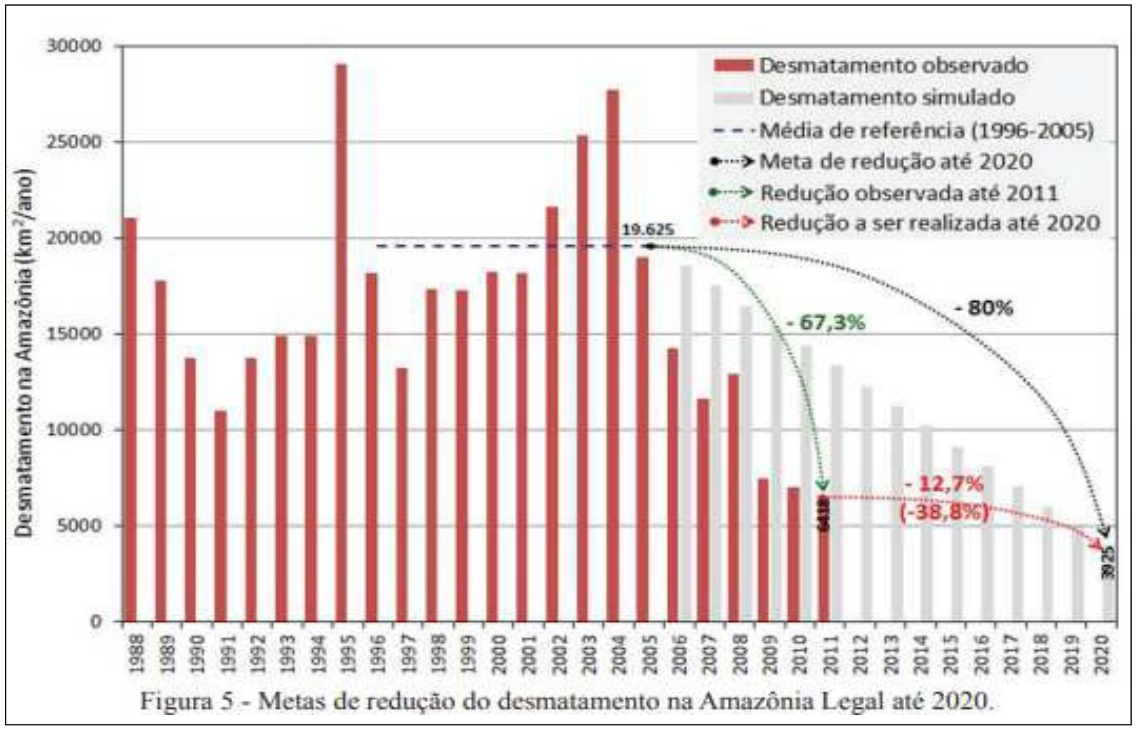


Figura 5 - Metas de redução do desmatamento na Amazônia Legal até 2020.

Currently, this Plan is in its **fourth phase,**[63] covering the period **from 2016 to 2020**. For this stage, the **goal of reducing deforestation in the Legal Amazon region was maintained at 80%** (in relation to the average annual rate in 1996 and 2005) **for the year 2020**, as can be seen in Figure 5[64], shown below.

[61] Available at https://www.mma.gov.br/informma/item/616-preven%C3%A7%C3%A3o-e-controle-do-desmatamento-na-amaz%C3%B4nia. Date of access: 09/01/2020.
[62] See page 35 of the *Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal – PPCDAm* – terceira fase, at https://www.mma.gov.br/images/arquivo/80120/PPCDAm/_FINAL_PPCDAM.PDF. Date of access: 17/01/2020.
[63] See https://www.mma.gov.br/informma/item/616-preven%C3%A7%C3%A3o-e-controle-do-desmatamento- na-amaz%C3%B4nia. Date of access: 09/01/2020.
[64] See pages 53 of the Plano de Ação para Prevenção e Controle do Desmatamento na Amazônia Legal – PPCDAm, quarta fase, at https://www.mma.gov.br/images/arquivo/80120/PPCDAm%20e%20PPCerrado%20-%20Encarte%20Principal%20-%20GPTI%20_%20p%20site.pdf. Date of access: 16/01/2020.

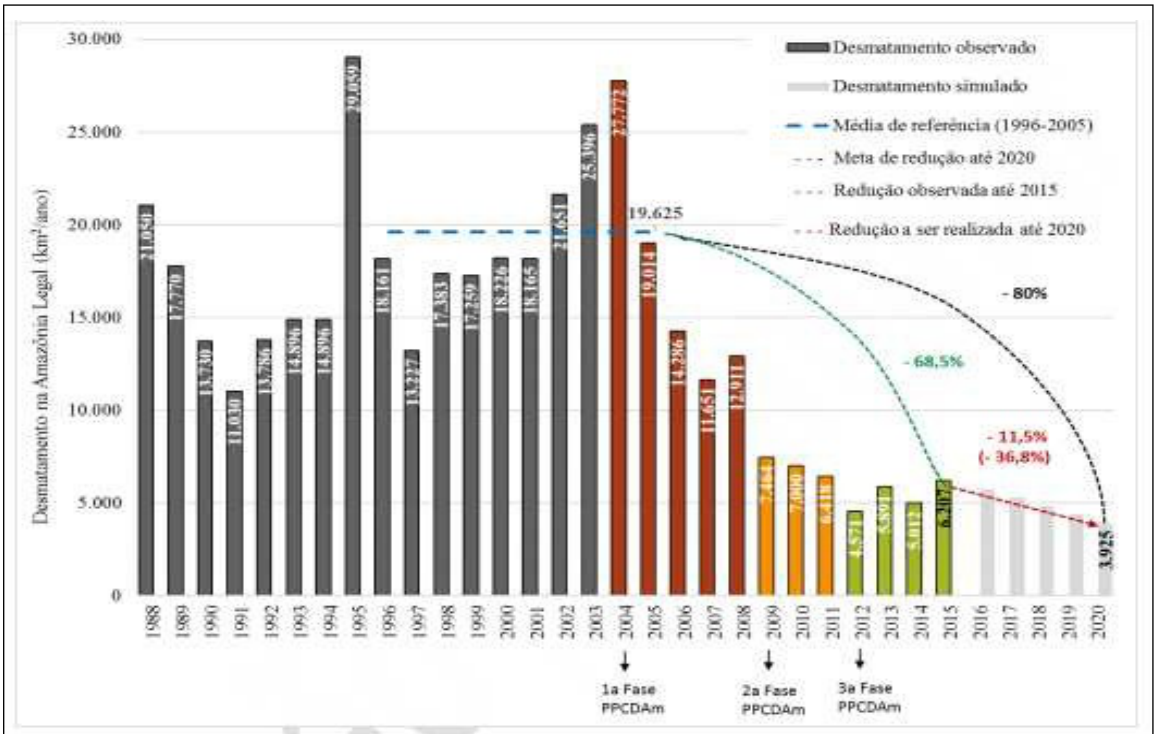


FIGURA 28. TRAJETÓRIA DO DESMATAMENTO E META DE REDUÇÃO ESTABELECIDA PELA PNMC.

Reducing deforestation is one of the most effective ways to reduce greenhouse gas emissions. As can be seen in Figure 5, above, there was a significant reduction in Amazon deforestation between 2005 and 2015. As CARLOS AFONSO NOBRE points out "[the] *decisive factor for the sharp reduction of national emissions by more than 35% between 2005 and 2016 was the vertiginous fall by more than 70% of deforestation in the Amazon*"[65].

As it happens, however, **the expectation of attaining a reduction of deforestation in the Legal Amazon to 3.925,00km² by the year 2020, as** determined in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm and, consequently, by the National Policy on Climate Change - PNMC, **does NOT present a real prognosis of compliance, taking into account the current indicators**.

[65]Available at: https://www.embrapa.br/olhares-para-2030/artigo/-/asset_publisher/SNN1QE9zUPS2/content/carlos-nobre?inheritRedirect=true. Date of access: 13/03/2020.

In an analysis of the annual deforestation rates in the Legal Amazon presented by the *Project for Satellite Monitoring of Deforestation in the Legal Amazon - PRODES*[66], managed by the *National Institute of Space Research - INPE,* we see that since 2012, when deforestation affected an area of 4,571 km², there was a gradual increase of 11.4% on average per year until 2018, as well demonstrated in Figure 6[67] below. Subsequently, there was a sharp increase in deforestation between the years 2018 and 2019, from 7,536 km² to 10,129 km².[68] This represents the second highest deforestation rate observed since 2008, when 12,911km² of forests were deforested.

[66] "Deforestation *in the Brazilian Amazon has been monitored by the National Space Research Institute (INPE) since 1988 through the Project for Satellite Monitoring Deforestation in the Legal Amazon (PRODES). INPE annually discloses the rate of deforestation in the region, that is, the area deforested without considering the deforestation of previous years. This rate is calculated based on the analysis of satellite images, considering the period from August 1 of the previous year to July 31 of the year whose rates will be disclosed (PRODES year). (...) What sets PRODES apart is photointerpretation, that is, the analysis of the deforestation polygons by specialists, and the validation of the satellite image analyses based on field work. Due to this methodological thoroughness, the PRODES system provides an accurate analysis of deforestation in the Amazon, with an error estimate of only 5 to 6%, which is considered very low for this type of analysis*". (our emphasis). See Answer 3 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[67] See http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/rates. Date of access: 22/09/2020.

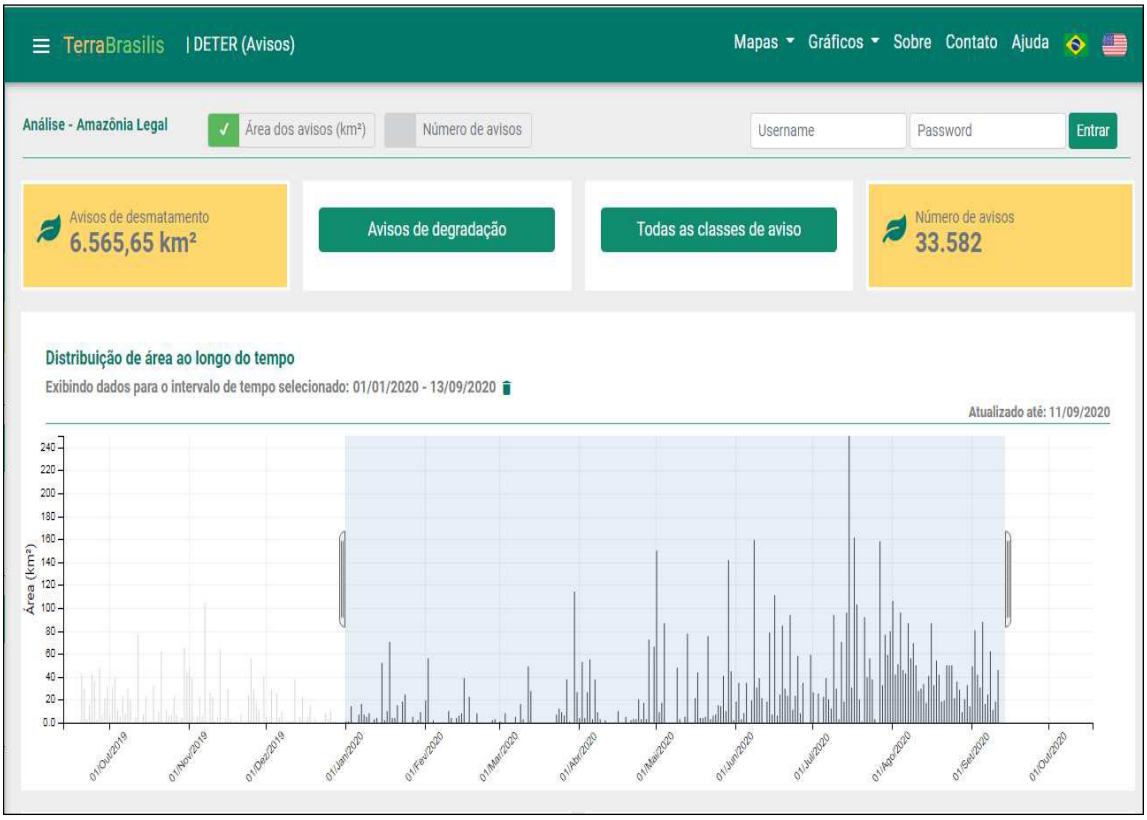
[68] It should be clarified that the annual PRODES data consists of twelve-month series starting in August of one year and ending in July of the following year. Therefore, when we talk about data for 2019, it is the 2019 series that covers the period from August 2018 to July 2019.

In other words, it can be seen in Figure 6 above that 4,571 km² (4.6K consolidated rate) were deforested in 2012 and, from that year on, deforestation rates have only increased, reaching the estimated amount of 10,129 km² (10.1k consolidated rate) in 2019. In fact, it should be noted that, following the enactment of the National Policy on Climate Change (2009), **there has been NO annual deforestation rate in the Legal Amazon compatible with the 3,925.06 km²** target for reducing deforestation by the year 2020. On the contrary, **all rates have been above this level and are currently moving in an upward direction.**

The daily deforestation alerts provided by the *Real Time Deforestation Detection System - DETER*[69], also from the *National Institute of Space Research - INPE*, identified that in the **period from 01/01/2020 to 11/09/2020** there were warnings of deforestation over a total area of **6,565.65 km²** in the Legal Amazon, as shown in Figure 7:[70]

[69] "[The] *Real Time Deforestation Detection System (DETER) provides daily deforestation alerts that support the inspection actions of the Brazilian Institute of Environment and Renewable Natural Resources - IBAMA. DETER was created in 2004 as one of the main measures of the Federal Government to halt deforestation in the Amazon and improve the systems of inspection and punishment of illegal deforestation. Until 2015, DETER was issuing clear-cutting deforestation alerts for areas of at least 25 hectares. However, with the improvement of the methodology and the availability of CBERS-4 satellite images, DETER not only reduced its minimum analyzed area to 5 hectares, but also began to issue important information on forest degradation, which consists of the partial removal of vegetation. DETER classifies forest degradation in three categories: selective logging, degradation resulting from timber extraction and forest fires. The detection of deforestation captured by DETER corresponds to about 60 to 70% of the deforestation mapped by PRODES*". (our emphasis). See Answer 3 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[70] Available at http://terrabrasilis.dpi.inpe.br/app/dashboard/alerts/legal/amazon/daily/. Date of access: 08/04/2020.



In other words, the number of deforestation alerts until 11/09/2020 are already almost twice as high as the annual goal to be reached in 2020. As previously mentioned, based on the technical information obtained from the data contained in the PRODES and DETER systems, we can verify a sharp increase in the rate of illegal deforestation in the Legal Amazon, far above the goal that the defendant has to meet, which justifies the filing of the present civil action. Professor CARLOS AFONSO NOBRE agrees with this position when he states that

> "*After 2012, rates fluctuated between highs and lows reaching 7,536 km² in 2018, 92% above the target. In 2019, with government control being eroded by policies and rhetoric that encouraged illegal deforestation, and with the weakening of command and control mechanisms, deforestation rose to 10,129 km², definitely moving Brazil away from the PNMC target.*"[71]

[71] See Answer 10 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

Thus, it is clear that **the defendant is NOT taking actions to comply with its obligation to reduce the annual rates of illegal deforestation in the Legal Amazon to the (maximum) amount of 3,925.06 km² in 2020,** as it committed itself to in the *Action Plan for Prevention and Control of Deforestation in the Legal Amazon – PPCDAm,* within the framework of the *National Policy on Climate Change - PNMC.*

On the contrary, given the scale of increased deforestation that has occurred in recent years (verified in the information contained in PRODES and DETER), there is a high likelihood that by the end of 2020 the deforestation rates of the Legal Amazon will reach even higher levels than those presented in 2019 (consolidated rate of 10.1k).

It is imperative to reiterate that the reduction of deforestation in the Legal Amazon (which includes the Amazon forest) to the level of 3,925.06 km² by the year 2020 constitutes one of the **specific obligations to be met by the defendant** by compelling force established in the National Policy on Climate Change - PNMC (according to the factual and legal details demonstrated in item *II.III* and *II.IV*, below). Therefore, such normative duty to perform does not depend on whether or not the targets for reduction of greenhouse gas emissions that the defendant assumed for the same period (year 2020) have been met, both in terms of land use change (1,404 million tonCO_{2eq}), and the general rate of GHG emissions in the country.

In other words, **the targets for containing illegal deforestation of the Legal Amazon must be met in their normative terms, regardless of the greenhouse gas (GHG) emission rates generated in the country until 2020**. This is because, as technically demonstrated above, the protection of the Amazon forest biome, which integrates the region of the Legal Amazon, is a measure that is imposed, given the fact that **this forest *(i)*** represents one of the largest sinks of carbon dioxide CO2 in the country; ***(ii)*** is one of the main and more essential instruments of climate change

mitigation at the national level[72]; and ***(iii)*** is the main agent for reducing greenhouse gas emissions, as the reduction of emissions of GHG in the energy and agriculture sectors, for example, would not sufficiently compensate the impacts resulting from the loss of climate regulation ecosystem services generated by the Amazon forest[73].

As explained by Professor CARLOS AFONSO NOBRE in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03:

> "" (...) *if deforestation in the Amazon continues on an upward path, as evidenced by the 34% increase from 2018 to 2019, the reduction of emissions by other sectors of the national economy, especially the energy and agricultural sectors, will not compensate for the impacts caused by the loss of climate regulation ecosystem services provided by the forest, nor for the emissions caused by the conversion of forests to other land uses due to the magnitude of emissions generated by the Land Use, Land-Use Change, and Forestry (LULUCF) sector*. (...) *[T]he expansion of pasture areas into the forest continues to be the largest cause of deforestation in the Amazon, representing 64% of gross carbon emissions from 2010 to 2016 (SIRENE data). In this scenario, the feasibility of GHG emission offsetting mechanisms*

[72] "*The Amazon rainforest plays an essential role in mitigating climate change by regulating the hydrologic cycle and cooling the earth's surface while maintaining a milder climate. High rates of evapotranspiration (ET) from the rainforest are fundamental to the surface energy balance, regulating global and local warming (DAVIDSON et al., 2012; ELLISON et al., 2017), and guaranteeing rainfall recycling in several areas of the South American continent (COE et al., 2017; ELLISON et al., 2017). In other words, the Amazon produces rain and transfers it to other regions of South America*". (our emphasis). See Answer 7 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[73] "*As we compare the distribution of emissions between LULUCF, energy and agriculture sectors in 2008, when deforestation reached 12,911 km², and 2018, when deforestation decreased to 7,536 km², we note that the land-use change sector, given its ability to bring substantial results in reducing emissions, ensures that the increase in emissions from other sectors does not have great impact on total GHG emissions in the country* (...)". See Figure 5, in Answer 8 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

between sectors is unlikely. [74]" (our emphasis).

In addition, it can be seen that the current Brazilian environmental management policy developed by the defendant has been acting to lower the chances of meeting the goal of reducing deforestation in the Legal Amazon for the year 2020. This is evidenced by ***(i)*** the budgetary cuts for public agencies responsible for monitoring and combatting deforestation, which have affected several mechanisms of governance actions to protect forests; (***ii)*** administrative changes in dealing with the enforcement of penalties for illegal deforestation; ***(iii)*** the enactment of guidelines that have decreased areas of protected forests.[75] **In practice, it is evident that urgent measures to reduce deforestation in the Legal Amazon (especially in the Amazon biome) should be adopted. However, quite in contrast, the Federal Government's actions are following a diametrically opposite direction, creating great climatic environmental hazards**.

As pointed out in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020 (attached document 03):

> "*With a growing trend since 2017, deforestation in the Amazon seems to have responded to proposals for changes in land use policies, budgetary cuts for actions to combat deforestation, and the dismantling of agencies responsible for environmental inspection and land demarcation in the Amazon (JOHNSON DE AREA et al., 2019).*"[76] (our emphasis).

[74] See Answer 8 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached ~~document 03~~.

[75] "(...) *in 2012, MP 558 reduced the area of eight UCs in the Amazon, part of them created under the PPCDAm in areas of intense deforestation dynamics, such as around BR-163 in Pará, in Lábrea in Amazonas and Porto Velho in Rondônia (BRAZIL, 2012). Actions to combat deforestation in the Amazon have also suffered budget reductions. A survey conducted by InfoAmazônia highlights that between 2007 and 2010 the Federal Government invested R$ 6.36 billion in actions to combat deforestation, this amount was reduced by 72% in 2011 and 2014, when the government invested only R$ 1.77 billion in the same actions. The most affected sector was the incentive to sustainable activities, which suffered the largest budget reduction (INFOAMAZONIA, 2015)*". See Answer 12 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[76] See Answer 13 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

As if that were not enough, the defendant carried out **drastic budgetary cuts related to the implementation of policies on climate change in the country**. The federal government blocked 95% of the R$ 11.8 million that had previously been earmarked for the program.[77] These governmental actions (aggressive cuts in the climate-related budget and suppression of the competent federal administrative agency to deal with climate issues) **reflect attitudes of the defendant that are NEITHER consistent with the goals of reducing deforestation in the Legal Amazon, NOR with the duties of the Federal Government** signed in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm and the National Policy on Climate Change - PNMC.

The structural measures taken by the defendant demonstrate that it has been **infringing upon a FUNDAMENTAL RIGHT TO CLIMATE STABILITY.** By neglecting its normative obligations to reduce and control the deforestation in the Legal Amazon (mainly in relation to the Amazonian forest biome), the Union is contributing to (***i)*** the increase of greenhouse gas emissions due to land-use change and the country's overall emission rate; (***ii)*** the reduction of climate quality and, consequently, to the quality of life of the Brazilian society; and ***(iii)*** the degradation of the Amazonian biome, a national heritage (Article 225, §4 of CF[78]) that is considered the lung of the world.

[77] See https://oglobo.globo.com/sociedade/ministerio-do-meio-ambiente-bloqueia-95-da-verba-para-clima- 23646502. Date of access: 14/01/2020.

[78] "***Article 225****. All have the right to an ecologically balanced environment, an asset of common use of the people and essential to a healthy quality of life, which imposes on the Government and the collectivity the duty to defend it and preserve it for the present and future generations.*
§ 4 The Brazilian Amazon Forest*, the Atlantic Forest, the Serra do Mar, the Pantanal Mato-Grossense and the Coastal Zone* ***are a national heritage,*** *and their use will be made, in the form of the law, within conditions that ensure the preservation of the environment, including the use of natural resources*". (our emphasis).

Therefore, it is **imperative that the defendant comply with its obligation to reduce, in the year 2020[79], the annual deforestation rates of the Legal Amazon to the maximum rate of 3,925.06 km2**.

This will ensure compliance with the commitments assumed by the defendant in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, found within the scope of the National Policy on Climate Change - PNMC, and, consequently, guarantee the *fundamental right to climate stability for the present and future generations*.

[79] It is worth mentioning again that the deforestation monitored by the PRODES system in the Legal Amazon Region referring to 2020 in fact covers the period from August 2020 to July 2021. See Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

II. ON THE LAW:

II.I. CLIMATE LITIGATION: *legal instrument for the solution of climate conflicts*

Climate litigation encompasses the set of judicial (and administrative) actions that seek to enforce compliance with the fundamental right to climate stability, as a true corollary to *the right of all citizens to an ecologically balanced environment*. In general terms, climate actions can be brought against individuals and/or governments, addressing issues related to "*the reduction of greenhouse gas emissions (mitigation), the reduction of vulnerability to the effects of climate change (adaptation), the reparation for losses due to climate change (loss and damage) and the management of climate hazards (risks)*"[80]

The need to file these claims comes within a scenario of **EMERGENCY and CLIMATE CRISIS** that is affecting humanity on a planetary scale. This instability arises from anthropogenic activities which, given their uncontrolled nature, cause an increase in the concentration of greenhouse gases in the atmosphere. The increased concentration of these gases is generating excessive and accelerated global warming, fully capable of causing ecological imbalance to the environment and affecting the current and future quality of life.

As a consequence of the serious environmental harm caused by anthropogenic climate change, which is occurring on a planetary level, several cities, countries and groups of countries have declared a ***state of climate emergency***[81].

[80] SETZER, Joana. CUNHA, Kamyla. FABRI, Amalia Botter. Panorama da litigância climática no Brasil e no mundo. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. Coordenação. **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo: Thomsom Reuters Revista dos Tribunais. 2019. p. 59.

[81] Among them: Andorra, Argentina, Australia, Austria, Bangladesh, Belgium, Great Britain, Canada, Chile, Czech Republic, European Union, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Lithuania, Maldives Parliament, Malta, New Zealand, Netherlands, Philippines, Poland, Slovakia, South Korea, Spain, Sweden,

In Brazil, the city of Recife/PE decreed the recognition of a Global Climate Emergency[82] through *Decree No. 33,080, dated November 8, 2019*. This Decree, in its first article, recognizes the state of climate emergency as a threat to humanity and defines a safe climate as "*one that allows the survival and prosperity of generations, communities and present and future ecosystems.*" [83] (our emphasis).

In addition, at the national level, the House of Representatives is examining *Law No. 3961/2020*[84], which "[d]*eclares the state of climate emergency, establishes the goal of neutralizing greenhouse gas emissions in Brazil by 2050 and provides for the creation of policies for a sustainable transition*."[85] (our emphasis). Article 2 of this **Project recognizes the state of climate emergency throughout the Brazilian territory**, "*on account of climate change resulting from human activity that alters the composition of the world's atmosphere and increases the concentration of greenhouse gases, threatening humanity and nature as we know them.*[86]*"* (our emphasis).

Therefore, global society presents a consolidated understanding that the anthropogenic climate changes are harmful to life on the planet and therefore

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Switzerland, United States of America and Brazil. See https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/. Date of access: 06/10/2020.

[82] See http://www2.recife.pe.gov.br/node/290225#:~:text=%22O%20Recife%20est%C3%A1%20decretando%20hoje,de%20carbono%20zero%2C%20at%C3%A9%202050. Date of access: 06/10/2020.

[83] "***Article 1*** *The state of global climate emergency that threatens humanity is hereby recognized.*
§1 *In recognizing the global climate emergency, the municipality of Recife joins an international movement with over 1,000 jurisdictions in 18 countries declaring a climate emergency to maintain a safe climate.*
§2 *For the purposes of this decree, a safe climate shall be considered one that allows for the survival and prosperity of present and future generations, communities and ecosystems*." (our emphasis). See https://leismunicipais.com.br/a/pe/r/recife/decreto/2019/3308/33080/decreto-n-33080-2019-declara-o-reconhecimento-a-emergencia-climatica-global. Date of access: 06/10/2020.

[84] See https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2258739. Date of access: 06/10/2020.

[85] See https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2258739. Date of access: 06/10/2020.

[86] "***Article 2*** *The state of climate emergency is hereby recognized throughout the Brazilian territory on account of climate change resulting from human activity that alters the composition of the world's atmosphere and increases the concentration of greenhouse gases, threatening humanity and nature as we know them.*
Sole Paragraph*. The state of climate emergency will begin from the date of publication of this law and will be in effect as long as mitigation and adaptation actions prove urgent and necessary*" (our emphasis). See https://www.camara.leg.br/proposicoesWeb/prop_mostrarintegra;jsessionid=D4DA3C68A1A147DA93A8E4E79D0558DB.proposicoesWebExterno1?codteor=1916833&filename=PL+3961/2020. Date of access: 06/10/2020.

require legal regulating instruments, either for the purpose of mitigating them or adapting to them.

In this scenario, climate litigation constitutes a means to bring about ***i)*** conflict resolution; ***ii)*** enforcement of normative obligations; and ***iii)*** protection of rights related to a balanced environment and a healthy quality of life. In the words of JOANA SETZER, DAMYLA CUNHA and AMÁLIA BOTTER FABBRI, climate *litigation* is made up of (judicial or administrative) measures that can ***(i)*** "*force governments to implement laws and policies aimed at reducing GHG emissions*; ***(ii)*** *hold governments accountable* (...) *for assessing risks and force them to adopt necessary measures to address current and future impacts*; and ***(iii)*** *seek to hold the State accountable* (...) *for damages caused to individuals or groups as a result of extreme climate events resulting from the phenomenon of climate change*."[87]

Corroborating this statement, the report *The Status of Climate Change Litigation - The Global Review*[88] clarifies that climate disputes have the purpose of ***(i)*** compelling governments to comply with their climate legislation, commitments and public climate policies; ***(ii)*** establishing a link between the impacts of resource extraction and climate change and resilience (identification of the causal link); (***iii)*** defining that particular (individual) emissions are the immediate causes of specific impacts which generate adverse climate change; (***iv)*** defining the responsibilities stemming from the failures (or efforts) to take actions to adapt to climate change; and ***(v)*** applying the *public trust doctrine* to climate change (when legally applicable).

It is worth mentioning that national and international courts are already being called on to rule on this type of climate claim.[89] In the international arena, such examples include the lawsuits brought by the NGO Urgenda against the Dutch

[87] SETZER, Joana. CUNHA, Kamyla. FABRI, Amalia Botter. Panorama da litigância climática no Brasil e no mundo. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. Coordenação. Litigância climática: novas fronteiras para o direito ambiental no Brasil. São Paulo: Thomsom Reuters Revista dos Tribunais. 2019. p. 59 and 60.
[88] See http://columbiaclimatelaw.com/files/2017/05/Burger-Gundlach-2017-05-UN-Envt-CC-Litigation.pdf, pg. 14. Date of access: 02/10/2020.
[89] See https://climateemergencydeclaration.org and http://climatecasechart.com. Date of access: 12/08/2019.

Government (Urgenda Foundation v. State of the Netherlands[90]); ***ii)*** the NGO Dejusticia against the Colombian Government (Future Generations v. Ministry of the Environment and Others[91]); ***iii)*** a group of children against the United States Government (Juliana v. United States[92]); and ***iv)*** Gloucester Resources Limited against the Minister of Planning of Australia (Gloucester Resources Limited v. Minister for Planning[93]). The scope of these actions was to demand the implementation of improvements in the management of climate hazards from governments, either by complying with constitutional or infraconstitutional norms, or via the implementation of legal mechanisms for climate mitigation and adaptation.

At the national level, the topic is still approached in a generic way, in lawsuits addressing general environmental matters or human rights. In these claims, issues about climate change are subsumed and treated secondarily. Despite the relative novelty of the topic, the understanding concerning ***(i)*** **the existence of climate change, as a serious phenomenon caused by anthropogenic action** (among them those related to the Legal Amazon) **is already commonplace in the national jurisprudence**, as well as ***(ii)*** its gravity and harmful effects and ***(iii)*** its evident connection with the constitutional order of environmental protection and the quality of human life, and the harmful effects caused by these changes**.**

This is confirmed by the wording of decisions issued by the Superior Court of Justice - STJ, described below:

> "*CIVIL, ADMINISTRATIVE AND CONSTITUTIONAL PROCEEDINGS. REVIEW NECESSARY IN POPULAR ACTION. ARTICLE 19 OF LAW N. 4.717/1965. ACTION PROPOSED BY PERSONS ESTABLISHED IN THE*

[90] See https://www.urgenda.nl/en/themas/climate-case and http://climatecasechart.com/non-us-case/urgenda-foundation-v-kingdom-of-the-netherlands/. Date of access: 12/08/2019).
[91] See http://www.observatoriodoclima.eco.br/jovens-processam-colombia-por-nao-agir-no-clima/ and https://www.dejusticia.org/litigation/gobierno-esta-incumpliendo-las-ordenes-de-la-corte-suprema-sobre-la-proteccion-de-la-amazonia-colombiana/ and http://climatecasechart.com/non-us-case/future-generation-v-ministry-environment-others/ . Date of access: 12/08/2019.
[92] See https://revistagalileu.globo.com/Ciencia/noticia/2018/11/criancas-estao-processando-o-governo-dos-eua-pelo-heating-global.html and http://climatecasechart.com/case/juliana-v-united-states/ . Date of access: 12/8/2019.
[93] See http://climatecasechart.com/non-us-case/gloucester-resources-limited-v-minister-for-planning/. Date of access: 12/08/2019.

*NATIONAL TERRITORY AGAINST A FOREIGN STATE. ARTICLE 105, II, "C" OF THE FEDERAL CONSTITUTION. JURISDICTION OF THE SUPERIOR COURT OF JUSTICE - STJ. PRELIMINARY OBJECTION OF PASSIVE ILLEGITIMACY AD CAUSAM OVERTURNED. CLAIM MADE THAT THE COMPLEMENTARY AGREEMENT BETWEEN THE GOVERNMENT OF THE FEDERATIVE REPUBLIC OF BRAZIL AND THE GOVERNMENT OF THE UNITED STATES OF AMERICA FOR COOPERATION IN THE AREA OF TROPICAL RAINFALL MEASURES MISSION (TRMM) OF THE LARGE-SCALE BIOSPHERE - ATMOSPHERE EXPERIMENT IN THE AMAZON AND THE COMPLEMENTARY AGREEMENT FOR COOPERATION IN THE AREA OF ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHERE-ATMOSPHERE EXPERIMENT IN THE AMAZON (LBA) BE DECLARED NULL AND VOID. IMPOSSIBILITY. NO AFFRONT TO FEDERAL CONSTITUTION. (...) 5 The absence of deliberation of the National Congress did not cause any harm. Indeed, Article 49, I of the Federal Constitution is clear in stating that it is "[...] the exclusive competence of the National Congress to definitively deliberate on treaties, agreements or international acts that entail burdens or commitments that are detrimental to the national heritage". **In this case, it is important to note that the contested agreements deal with studies on the prevention of disasters resulting from the disorderly exploitation of the environment, with a particular focus on the climate issue.** Therefore, **it is beyond doubt that the disputed Agreements do not bear the property of causing injury to the national heritage; on the contrary, they ultimately aim to allow for technological advances in research related to climate change in the Amazon**. 6. Motion to remand denied*". (RO 167/DF, Justice BENEDITO GONÇALVES, FIRST PANEL, sentenced on 11/06/2019, DJe 19/06/2019). (our emphasis).

"*CIVIL PROCEDURE. DECLARATORY ACTION. ENVIRONMENTAL LAW. BAÍA DOS GOLFINHOS. BEACH. COMMON ASSET FOR SHARED USE OF THE PEOPLE. ARTICLES 6, CAPUT AND §1 , AND § 10, CAPUT AND §3, OF LAW 7.661/1988. CLIFF. PERMANENT PRESERVATION AREA. ARTICLE 4, VIII, OF LAW 12.651/2012. LAND BELONGING TO THE NAVY. UNION DOMAIN. NESTING SITE OF SEA TURTLES. PROPERTY OF THE STATE. ARTICLE 1, CAPUT, OF LAW 5.197/1967.*

ILLEGAL CONSTRUCTION. DEMOLITION. PRECEDENT 7/STJ. BACKGROUND OF THE CLAIM. 1. A declaratory action was filed by a hotel against the Federal Government, seeking judicial recognition that the disputed property is not located on a public domain site; alternatively, requesting a declaration that the company has legal title to the area, as well as affirming the illegality of the intention by local authorities to demolish the property. The lower court and the Federal Regional Court of the 5th Region dismissed the lawsuit. (...) 11. ***Endowed with great scenic beauty and fragile by their inherent constitution and topography – often submitted to the action of the sea undermining their base, a risk of abrasion that is aggravated by climate change,*** *not to mention other exodynamic erosive agents (wind, rain) associated with bad weather – these steep cliff walls constitute ancestral and unique monuments of the pandemonic geological history of the Earth and, for this very reason, require the utmost respect and diligent attention from the legislator, the administrator and the courts, especially with regard to the incessant anthropogenic pressure to occupy and exploit them, notably for depredative, disorderly and unsustainable real estate and tourism activities. LACK OF, OR NON-COMPLIANCE WITH, LICENSE FOR BUILDING OR ACTIVITY ON COASTAL ZONE. (...) 18. Special appeal denied*". (REsp 1457851/RN, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 26/05/2015, DJe 19/12/2016). (our emphasis).

"*ADMINISTRATIVE. ENVIRONMENTAL. PUBLIC INTEREST CIVIL ACTION. WATER RESOURCES. PRIORITY GIVEN TO PUBLIC WATER SUPPLY . LAW 9.433/1997. CIVIL LIABILITY OF THE STATE FOR OMISSION OF ENVIRONMENTAL INSPECTION. LAW 6.938/1981. HARM IN RE IPSA TO THE ENVIRONMENT. CONSTRUCTION OF PROPERTY IN HEADWATERS PROTECTION AREA. GUARAPIRANGA RESERVOIR. AREA NON AEDIFICANDI. OBJECTIVE LEGAL LIABILITY AND SUBSIDIARY EXECUTION. CLIMATE CHANGE. 1) This is, at the origin, a Public Interest Civil Action filed by the Prosecution Office of São Paulo against the State of São Paulo and the real estate company Imobiliária Caravelas Ltda. According to the complaint, the second defendant built property in a protection area for headwaters (Guarapiranga dam), along a non aedificandi strip. The Court of Justice recognized the existence of the unlawful structures and ordered their demolition, among other measures.*

IMPORTANCE OF WATER. (...) 4. ***in metropolitan areas, characterized by***

high population density, water is highly valued on account of its growing scarcity, a phenomenon affecting all cities in general and aggravated by climate change*: the available water supply is no longer sufficient even for those "with water", let alone the millions still "without water", the needy or those excluded from this service, so vital to the dignity of the human person. (...) 13. Special Appeal granted.*" (REsp 1376199/SP, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 19/08/2014, Dje 07/11/2016). (our emphasis).

"*ADMINISTRATIVE. LEGAL REGIME OF GROUNDWATER AND AQUIFERS. ENVIRONMENTAL JURISDICTION. WATER SUPPLY. ALTERNATIVE SOURCE. ARTESIAN WELL. ARTICLE 45 OF LAW 11.445/2007. CONNECTION TO PUBLIC NETWORK. PAYMENT OF TARIFF. ARTICLE 12, II, OF LAW 9.433/1997.* ***WATER CRISIS AND CLIMATE CHANGE****. 1) Originally, this is a lawsuit seeking to declare the illegality of a State Decree and Ordinance, thereby authorizing the defendant to use an alternative source of water (artesian well), preventing the imposition of monetary fines and the sealing of the well. LEGAL REGIME OF GROUNDWATER (...) 6. Thus, as assumed in this case, the state does indeed have control of groundwater in the exact terms of Article 20, III, CF/1988, provided it is not federal groundwater, i.e., on land under Federal Union control, extending into more than one state or shared with other countries. Furthermore, even if the groundwater in question were not under state control, the state's environmental jurisdiction would still not be limited, either to legislate from such a perspective, or to exercise its police power to avoid quantitative degradation (overexploitation and exhaustion of the reserve) and qualitative degradation (contamination of groundwater aquifers) of such a precious natural resource for present and future generations. The multiple and overlapping spheres of control are justified by the growing shortage of water, which affects millions of Brazilians in the country's largest cities and countless others in rural areas, an* ***even more worrying situation given the fears of aggravation and public calamity in the wake of undeniable anthropogenic climate change****. (...) CONCLUSION 10. Special Appeal partially heard and, in this part, granted, sentencing the defendant to pay procedural costs and counsel fees".*

(REsp 1296193/RJ, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 28/05/2013, DJe 07/11/2016). (our emphasis).

"*CIVIL AND ENVIRONMENTAL PROCEDURE. APPEAL AGAINST A DIVERGENT DECISION. BURNING OF SUGAR CANE STRAW. PROHIBITION. APPLICATION OF ARTICLE 27 OF THE FOREST CODE. 1. "Article 27 of Law No. 4.771/85 prohibits the use of fire in forests and other forms of vegetation, which covers all types of vegetation, regardless if permanent or renewable crops. This is further corroborated in the sole paragraph of said article, which emphasizes the possibility of obtaining permission from the Public Authorities for the practice of burning in agricultural activities, if the regional peculiarities so indicate" (REsp 439.456/SP, Second Panel, Justice João Otávio de Noronha, DJ of 26/03/2007). It is essential to consider that "[the] burning [of crops], especially in organized or entrepreneurial agroindustrial or agricultural activities, is incompatible with the objectives of environmental protection established in the Federal Constitution and in infraconstitutional environmental norms.* ***In times of climate change, any exception to this general prohibition, besides that expressly provided for in federal law, must be interpreted restrictively by the administrator and the court" (REsp 1000731, Second Panel, Justice Herman Benjamin, DJ of September 8, 2009)****. (...) 3. Appeal against a divergent decision denied*". (EREsp 418.565/SP, Justice TEORI ALBINO ZAVASCKI, FIRST PANEL, sentenced on 29/09/2010, DJe 13/10/2010). (our emphasis).

Even though these rulings did NOT originate from *"stricto sensu" climatic actions* (as is the case of the present complaint), they demonstrate the unanimous opinion of the superior jurisprudence for the necessity of addressing the issues of climate change in a specific and substantiated way, based on existing climatic and environmental norms in our country. **That is the purpose of the present PUBLIC INTEREST CLIMATE CIVIL ACTION and its respective TRANSINDIVIDUAL and INTERGENERATIONAL LEGAL CLAIM.**

The Brazilian COLLECTIVE PROCEDURAL SYSTEM, made up of Federal Laws 7,347/1985 and 8,078/1990, allows for transindividual claims seeking *monetary damages, mandatory or prohibitory injuctions* resulting from harm to the environment and to any other diffuse or collective interest.[94] In this sense, in our legal scenario, a climate lawsuit is procedurally legitimate in seeking ***i) protection*** of the fundamental right to climate stability, in order to prevent living beings from being increasingly exposed to extreme climate events; and ***ii) enforcement*** of the duty of all individuals and governments to mitigate and adapt to anthropogenic climate changes, which are harmful to the maintenance of the quality of life.

In this case, it becomes evident that the illegal deforestation of the Legal Amazon entails ***(i)*** the reduction of natural sinks to contain greenhouse gases; (***ii)*** the release of these gases when forest specimens are suppressed; and, consequently, ***(iii)*** a detrimental contribution to the increase of anthropogenic climate change harmful to the quality of life. This identifies the climatic nature of our claim.

Therefore, as laid out above, **this collective climate action is the appropriate, adequate and essential legal instrument** to seek **compliance with** the **principles**, **objectives, guidelines, instruments** and **goals** established in the ***Action Plan for the Prevention and Control of Deforestation in the Legal Amazon[95] - PPCDAm,*** which is grounded on the *National Policy on Climate Change - PNMC*.

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[94] "***Article 1*** *The provisions of this Law, without prejudice to the popular action, govern actions of liability for moral and property damage caused:*
I *– to the environment; (omissis)*
IV *- to any other diffuse or collective interest*". (our emphasis).

[95] It should be mentioned that the territorial area covered by the Legal Amazon comprises nine Brazilian states (Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, Tocantins and part of the State of Maranhão), which all lie within the Amazon basin and feature Amazonian vegetations. The Legal Amazon contains 20% of the cerrado biome and the totality of the Amazon biome, the latter, the most extensive of the Brazilian biomes, corresponding to 1/3 of the tropical rainforests of the planet.

II.II. ON THE FUNDAMENTAL RIGHT TO CLIMATE STABILITY:

The **Federal Constitution**, in its **Preamble,**[96] clarifies that its inception had as objective the institution of a **democratic state that abides by the rule of law,** aimed at **guaranteeing the exercise of social and individual rights, as well as the right to well-being, development, security, equality and justice**. These rights, which constitute the **supreme values of society**, guide the correct interpretation and application of *constitutional* and *infraconstitutional* norms.

In the words of NELSON NERY JUNIOR and ROSA MARIA DE ANDRADE NERY, *in verbis*:

> "*Not only must the* ***State be called upon to formulate public policies that lead to well-being, equality and justice,*** *but society must organize itself according to those values, so that it may establish itself as a fraternal, pluralist and unprejudiced community* (...). ***In the wake of these supreme values explained in the Preamble to the Brazilian Constitution of 1988, the legal principle of solidarity is affirmed in the current constitutional norms***.[97]" (our emphasis).

The supreme rights set forth in the *Preamble* of the *Federal Constitution* are constitutionally guaranteed in ***Article 1, caput of the Constitution.***[98] Said article lists the basic principles of the **Democratic Rule of Law,** among which is

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[96] "*We, the representatives of the Brazilian People, convened in the National Constituent Assembly to institute a democratic state for the purpose of ensuring the exercise of social and individual rights, liberty, security, well-being, development, equality and justice as supreme values of a fraternal, pluralist and unprejudiced society, founded on social harmony and committed, in the internal and international orders, to the peaceful settlement of disputes, promulgate, under the protection of God, this CONSTITUTION OF THE FEDERATIVE REPUBLIC OF BRAZIL*". (our emphasis).

[97] NERY JUNIOR, Nelson. NERY, Rosa Maria de Andrade. *Constituição federal comentada e legislação constitucional*. 5 ed. São Paulo. Editora Revista dos Tribunais. 2014. p. 184.

[98] "***Article 1*** *The Federative Republic of Brazil, formed by the indissoluble union of the States and municipalities and of the Federal District, is a democratic state that abides by the rule of law and is founded on:*
I *- sovereignty;*

found the **principle of the dignity of the human person**, listed under item III.

As JOSÉ AFONSO DA SILVA explains, *in verbis*:

> *"*(...) ***dignity[99] is an intrinsic attribute of the essence of the human person, the only being that comprehends an internal value, superior to any price, that does not admit equivalent substitution****. Thus, dignity is inherent to and confused with the very* ***nature of the human being****.* (...) *The Constitution, recognizing its existence and eminence, transformed dignity into a* ***supreme value of the legal order*** *by declaring it one of the foundations of the Federative Republic of Brazil constituted in a Democratic State that abides by the Rule of Law.* (...) *Therefore, it* ***is not only a principle of the legal order, but also of the political, social, economic and cultural order****. Hence its nature of supreme value, as it* ***is the basis of all national life****.*[100]" (our emphasis).

In this sense, it is legally correct to affirm that the **dignity of the human person is** the principle on which Brazilian society is built and organized, based on the respectability and dignity of the human being and his peaceful coexistence in the social environment.[101] Accordingly, it reflects the "(...) ***central principle of the legal system****, as a significant* ***interpretative vector****, a true* ***foundational value (valor-fonte)*** *that molds* ***and inspires all the constitutional order in effect in our Country*** *and that translates, in an expressive manner, one of the* ***foundations*** *on which is based the*

II *- citizenship;*
III *- the dignity of the human person;*
IV *- the social values of labor and free enterprise;*
V *- political pluralism.*
Sole paragraph*. All power emanates from the people, who exercise it by means of elected representatives or directly, as provided by this Constitution*". (our emphasis).

[99] In the words of JOSÉ AFONSO DA SILVA, dignity is "*that which is not a relative value, and is superior to any price, an internal value that does not admit an equivalent substitute, it is a dignity, that which has a dignity*". (SILVA, José Afonso da. *Comentário contextual à constituição*. 4 ed, São Paulo. Malheiros, 2007. p. 38).

[100] SILVA, José Afonso da. *Comentário contextual à constituição*. 4 ed, São Paulo. Malheiros, 2007. p. 38.

[101] "HC 82424, Justice MOREIRA ALVES, Rapporteur of the decision: Justice MAURÍCIO CORRÊA, sentenced on September 17 2003, published on March 19, 2004, Court sitting en banc". Available at http://www.stf.jus.br/portal/jurisprudencia/listarJurisprudencia.asp?s1=%28%28DIGNIDADE+DA+PERSON+HUMANA%29%28%28MAUR%CDCIO+CORR%CAA%29%2ENORL%2E+OU+%28MAUR%CDCIO+CORR%CAA%29%2ENORA%2E+OU+%28MAUR%CDCIO+CORR%CAA%29%2EACMS%2E%29%28%40JULG+%3E%3D+20030101%29%28%40JULG+%3C%3D+20041230%29%29+E+S%2EFLGA%2E&base=baseQuestoes&url=http://tinyurl.com/y4puqcvh. Date of access: 26/04/2019.

republican and democratic order embodied in the system of positive constitutional law *among us*.[102]" (our emphasis).

In effect, the Brazilian constitutional legal position is consistent with the international understanding of the protection of human dignity on a planetary level. The 1948 **Universal Declaration of Human Rights**[103] confirms this claim, as its **Preamble**[104] recognizes that **dignity** is essential to all people, and consists of an **inalienable and equal right, fundamental to freedom, justice and peace in the world**.

In order to **guarantee to all people the right to live in dignity**, the *Federal Constitution* has listed **fundamental rights and duties** which, given their **universal magnitude**, prevail over the public, private and state interest. According to PAULO GUSTAVO GONET BRANCO, "[the] *advancement that constitutional law presents today is the result, in good measure, of the* ***affirmation of fundamental rights as the core that protects the dignity of the human person,*** *and of the view that the Constitution is the appropriate place to affirm the* ***norms*** *that* ***assure these claims***.[105]" (our emphasis).

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[102] "*HABEAS CORPUS" - PRE-TRIAL DETENTION - UNREASONABLE DURATION, WITHOUT LEGITIMATE CAUSE - CONFIGURATION, IN KIND, OF EVIDENT OFFENSE TO THE "LIBERTATIS STATUS" OF THE PATIENTS - INADMISSIBILITY - PRECEDENTS OF THE FEDERAL SUPREME COURT – MANIFEST UNFAIR CONSTRAINT – REQUEST PARTIALLY GRANTED - Excessive [pre-trial detention] time, even in the case of a heinous crime (or a similar crime), cannot be tolerated, imposing on the Judiciary, in accordance with the principles enshrined in the Constitution of the Republic, the immediate return of the "libertatis status" to the accused or the defendant. - The prolonged, abusive and unreasonable duration of someone's pre-trial detention offends, in a frontal manner, the postulate of* ***human dignity, which represents - considering the centrality of this essential principle (CF, Article 1, III) - a significant interpretative vector, a true foundational-value that molds and inspires all the constitutional order in effect in our Country and that translates, in an expressive way, one of the foundations on which is based the republican and democratic order embodied in the system of positive constitutional law among us.*** *Federal Constitution (Article 5, items LIV and LXXVIII). EC 45/2004. American Convention on Human Rights (Article 7, paragraphs 5 and 6). Doctrine. Jurisprudence*". (HC 85988, Justice CELSO DE MELLO, Second Panel, sentenced on 04/05/2010, DJe-096 DIVULG 27-05-2010 PUBLIC 28-05-2010 EMENT VOL-02403-02 PP- 00721 LEXSTF v. 32, n. 378, 2010, p. 312-322). (our emphasis).

[103] Available at https://www.ohchr.org/EN/UDHR/Pages/Language.aspx?LangID=por. Date of access: 30/04/2019.

[104] First paragraph of the Preamble: "*Whereas the recognition of the inherent dignity of all members of the human family and of their equal and inalienable rights constitutes the foundation of freedom, justice and peace in the* world;" (our emphasis).

[105] MENDES, Gilmar Ferreira. BRANCO, Paulo Gustavo Gonet. *Curso de direito constitucional*. 13 ed. rev. and current. São Paulo. Saraiva Educação. 2018. p. 135.

Standing out among these rights is the **fundamental** (individual and collective) **right** to an **ecologically balanced environment for present and future generations**, listed in *article 225*[106] *of the Federal Constitution.*[107] This fundamental right agrees and harmonizes with the fundamental (individual and collective) rights and duties (***i)*** to the **inviolability of the right to life**, **freedom**, **equality**, **security** and **property**, set forth in *article 5*[108] *of the Federal Constitution*[109]; and ***(ii)*** to **health**, **food** and **housing,** set forth in *article 6*[110] *of the Federal Constitution*[111]. The rationale behind this is that in order for **ALL to** enjoy *an ecologically balanced environment*, it is **necessary** for *people to be guaranteed a free, equal, healthy life, with full access to*

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106 "***Article 225****. All have the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations*". (our emphasis).

107 The Federal Supreme Court - STF has already formed a consensual opinion that the right to an ecologically balanced environment contained in Article 225 of the Federal Constitution is a fundamental right. This is how the Supreme Court has understood the right, *in verbis*: "***All have the right to an ecologically balanced environment. This is a typical right of the third generation (or very new dimension), which assists the entire human race (RTJ 158/205-206). The State and the collectivity itself have a special obligation to defend and preserve, for the benefit of present and future generations, this right of a collective and transindividual nature (RTJ 164/158-161). The observance of this obligation, which is irrevocable, represents the guarantee that the severe intergenerational conflicts marked by the disregard for the duty of solidarity, which is imposed on all, in protecting this essential good for the common use of people in general, will not be established within the collectivity***". (our emphasis) (ADI 3540 MC, Justice CELSO DE MELLO, sentenced (en banc) on 01/09/2005, DJ 03-02-2006 PP-00014 EMENT VOL-02219-03 PP-00528). (our emphasis).
See also: (STF - MS 22164, Justice CELSO DE MELLO, sentenced (en banc) on 30/10/1995, DJ 17-11-1995 PP-39206 EMENT VOL-01809-05 PP-01155).

108 "***Article 5*** *All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured the inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:*" (our emphasis).

109 "***Fundamental rights are described in article 5 of the Federal Constitution in 'numerus apertus'***". (our emphasis). (NERY JUNIOR, Nelson. NERY, Rosa Maria de Andrade. *Constituição federal comentada e legislação constitucional* 5 ed. São Paulo. Editora Revista dos Tribunais. 2014. p. 226).

110 "***Article 6*** *Education, health, food, work, housing, transportation, leisure, security,social welfare, protection of motherhood and childhood, and assistance to the destitute are social rights, as set forth by this Constitution*". (our emphasis)."

111"*RIGHT TO MATERNITY. CONSTITUTIONAL PROTECTION AGAINST ARBITRARY DISMISSAL OF PREGNANT WOMEN. SOLE REQUIREMENT BEING THE PRESENCE OF THE BIOLOGICAL REQUISITE. PREGNANCY PRECEDING ARBITRARY DISMISSAL. IMPROVEMENT OF LIVING CONDITIONS FOR THE DISADVANTAGED, WITH A VIEW TO ACHIEVING SOCIAL EQUALITY. RIGHT TO COMPENSATION.*
EXTRAORDINARY APPEAL DENIED. ***1. The set of social rights has been constitutionally enshrined as one of the fundamental rights, characterized as true positive freedoms, of mandatory observance in a Social State that abides by the Rule of Law, having as its purpose the improvement of living conditions for the disadvantaged, with a view to achieving social equality, and are enshrined as foundations of the democratic state by Article 1, IV of the Federal Constitution.*** *The Federal Constitution proclaims important rights in its article 6, among them the protection of maternity, which is the rationale for countless other instrumental social rights, such as pregnancy leave and, under the terms of item I in article 7, the right to job security, which includes the protection of the employment relationship against arbitrary dismissal or without just cause of the pregnant woman****. (...) 5. Extraordinary Appeal denied with the establishment of the following thesis: The work stability foreseen in Article 10, inc. II, of the ADCT, only requires the pregnancy to be prior to the dismissal without just cause.***" (RE 629053, Justice MARCO AURÉLIO, Rapporteur of Decision: Justice ALEXANDRE DE MORAES, sentenced (en banc) on 10/10/2018, ACÓRDÃO ELETRÔNICO DJe-040 DIVULG 26-02-2019 PUBLIC 27-02-2019). (our emphasis).

security, property, housing, and food.

And in order for this **set of fundamental rights** to be **effectively promoted, it is** essential that the **environmental, climatic conditions** are **suitable for the maintenance of human life**.

The **climatic instability** caused by anthropogenic activity, among these illegal deforestation, **generates ecological imbalance of the environment which, in turn, precludes human beings from enjoying the basic conditions of a dignified life** (full access to health care, housing, property, food, security, equality and freedom).

These factual and legal grounds confirm that **the right of every citizen to climate stability** is a **fundamental right and a duty implicitly embedded in the federal constitution** (implicit fundamental right). As PAULO GUSTAVO GONET BRANCO explains, *in verbis*:

> "***The catalog of fundamental rights has been growing, according to the specific requirements of each historical moment****. The* ***class of rights*** *considered* ***fundamental is not homogeneous****, which makes it difficult to arrive at an overarching and advantageous material conceptualization that encompasses them all. Nor is the* ***normative structure of the various fundamental rights coincident in all cases***. [112]" (our emphasis).

Moreover, the same author goes on to explain, *"[r]evealing basic characteristics of fundamental rights, however, is not merely an academic pursuit and may* ***prove important in solving concrete problems. The effort is necessary to identify***

[112]MENDES, Gilmar Ferreira. LEITE, Paulo Gustavo Gonet. *Curso de direito constitucional*. 13 ed. rev. e atual. São Paulo. Saraiva Educação. 2018. p. 139.

fundamental rights that are either implicit ***or outside the express catalog of the Constitution***.[113]" (our emphasis).

This position is consistent with the **concept of material openness of the constitutional fundamental rights**, as set forth in *Article 5, § 2 of the Federal Constitution*, thus described:

> "***Article 5*** *All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured the inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:*
> ***§2 The rights and guarantees*** *expressed in this Constitution* ***do not exclude others deriving from the regime and from the principles adopted by it, or from the international treaties to which the Federative Republic of Brazil is a party***". (our emphasis).

INGO WOLFGANG SARLET explains it as follows:

> "***The rule of Article 5, § 2 of the 1988*** *Constitution follows, with some variation, the tradition of our republican constitutional law since the Constitution of February 1891, more in what it says with the literal expression of the text than with its effective ratio and telos. Inspired by the IX Amendment of the U.S. Constitution of 1791, and having subsequently influenced other constitutional orders (especially the Portuguese Constitution of 1911 [Article 4]),* ***the aforementioned rule reflects the understanding that****, in addition to the formal concept of the Constitution (and of fundamental rights),* ***there is a material concept****, in the* ***sense that there are rights which, by their content, by their substance, belong to the fundamental body of the Constitution of a State, even though they do not appear in the catalog. In this context, it is important to emphasize that the***

113MENDES, Gilmar Ferreira. LEITE, Paulo Gustavo Gonet. *Curso de direito constitucional*. 13 ed. rev. e atual. São Paulo. Saraiva Educação. 2018. p. 139.

> ***list of Article 5, albeit analytical, is not of an exhaustive nature***. [114]" (our emphasis).

Corroborating with these commentators, it is imperative to emphasize that the fundamental rights and duties listed in the Federal Constitution have as their *basis the protection of the dignity of the human person* (supreme value of society). **As we have advanced in Brazilian legal history**, these fundamental **rights have been expanded** (such as is the case with the fundamental right to an ecologically balanced environment, which is very recent and has been elevated to a fundamental right of human protection[115]), **seeking to encompass the problems and particularities of each human historical moment,** always **with predominance and perspective on the value of human dignity.**[116]

As LUIS PRIETO SANCHIS states,

> "*Historically, human rights are about life, dignity, freedom, equality and public participation and, therefore,* ***we will*** *only* ***be in the presence of a fundamental right when we can reasonably maintain that the right or***

[114] SARLET, Ingo Wolfgang. *A eficácia dos direitos fundamentais: uma teoria geral dos direitos fundamentais na perspectiva constitucional. 11. ed. rev. atual. Porto Alegre: Livraria do Advogado Editora, 2012. p. 62.*

[115] In this sense, see the excerpt from this decision: "(...) ***the issue of the right to an ecologically balanced environment - third generation right - principle of solidarity. - The right to the integrity of the environment - a typical third generation right - constitutes a legal prerogative of collective entitlement, reflecting, within the process of affirmation of human rights, the significant expression of a power attributed, not to the individual identified in his singularity, but, in a truly broader sense, to the social collectivity itself. While first-generation rights (civil and political rights) - which include classic, negative or formal freedoms - emphasize the principle of freedom and second-generation rights (economic, social and cultural rights) - which are identified with positive, real or concrete freedoms - emphasize the principle of equality, third generation rights, which embody powers of collective entitlement generically attributed to all social formations, enshrine the principle of solidarity and constitute an important moment in the process of development, expansion and recognition of human rights, characterized, as inalienable, fundamental values , given their essential inexhaustible nature. doctrinal considerations***". (MS 22164, Justice CELSO DE MELLO, sentenced (en banc) on 30/10/1995, DJ 17- 11-1995PP-39206EMENTVOL-01809-05PP-01155). (our emphasis). Available at http://www.stf.jus.br/portal/jurisprudencia/listarJurisprudencia.asp?s1=%2822164%2ENUME%2E+OU+22164%2EACMS%2E%29&base=baseAcordaos&url=http://tinyurl.com/za5lnsz. Date of access: 07/05/2019.

[116] MENDES, Gilmar Ferreira. BRANCO, Paulo Gustavo Gonet. *Curso de direito constitucional. 13 ed. rev. e atual. São Paulo. Saraiva Educação. 2018. p. 140.*

institution serves any of these values. [117]" (our emphasis).

And as far as the **right for people to live in an environmentally stable climate compatible with the needs of their human condition, this is undoubtedly a right above any price, that is, a dignified right, fundamental to the human being and his or her own subsistence, both in the present and the future!**

On this subject, JOSÉ AFONSO DA SILVA points out, *in verbis*:

> "***Fundamental*** *human* ***rights'*** (...) *in addition to referring to* ***principles that summarize the conception of the world and inform the political ideology of each legal system****, (...) also* ***designate, at the level of positive law, those prerogatives and institutions spelled out concretely in terms of guarantees for a dignified, free and equal coexistence of all people****. The qualifying term* ***'fundamental' indicates that these are legal situations without which the human person cannot be fulfilled, live alongside others and, at times, even survive****; fundamental rights 'of man' in the sense that* ***they must be not only formally recognized, but concretely and materially be made effective for all, and equally so***.[118]" (our emphasis).

This is the situation of the *sub judice* case, because the climatic environmental crisis that affects the current historical context of Brazilian society (and the international community), factually and legally elevates climatic stability to a SUBJECTIVE FUNDAMENTAL RIGHT, capable of radiating OBJECTIVE and constitutionally implicit DUTIES.

[117] SANCHIS, Luis Prieto. Estudios sobre derechos fundamentales, Madrid. Editorial Debate. 1994. p. 88, apud MENDES, Gilmar Ferreira. BRANCO, Paulo Gustavo Gonet. *Curso de direito constitucional*. 13 ed. rev. e atual. São Paulo. Saraiva Educação. 2018. p. 140.
[118] SILVA, José Afonso. *Curso de direito constitucional positivo.* 37 ed. rev. e atual. São Paulo. Malheiros Editores. 2014. p.180.

The reason for this is that the **climate balance** is the necessary foundation for the **sustainability of dignified life for present and future generations.** Floodings in areas not previously prone to innundation, isolated droughts leading to initial desertification processes, anthropogenic environmental disasters, the suppression of natural greenhouse gas sinks (uncontrolled deforestation being one of its causes), air pollution at humanly unbearable levels, falling food production, diseases linked to climate change, accelerated glacier melting, sea water acidification and temperature rise, gobal sea level rise, once habitable land gradually becoming uninhabitable, all are **latent examples in our national and international daily life**, **reactions from a climate which already finds itself in dangerous imbalance**. We therefore come to the realization that **climate stability** is a **new social need, essential** to the **preservation** of **human life** and **ecological balance**.

We should clarify that the FUNDAMENTAL RIGHT TO CLIMATE STABILITY is structured along a **highly personal or subjective** dimension (individual and collective subjective right), on the one hand, and along an **objective** dimension**,** on the other hand, engendering duties of environmental and climate protection. As we have explained elsewhere, the **rule of law** ensures both subjective protection and objective protection of legal assets. The **subjective dimension** is linked to the notion of **having a right,** while the **objective** legal protection is synthesized in the **notion of duty** (limits that the objective protection imposes on the subjective dimension)[119]. Our position was then to the effect that, *in verbis*:

> "[the] ***right to an ecological balance essential to a healthy quality of life*** [as is the case with the fundamental right to climate stability] ***possesses a double nature, as a fundamental right,*** *on the one hand as a* ***subjective right (of individual defense) without excluding objective (institutional) protection,***

> *with the* ***expansion of its (transindividual) entitlement*** *into 'multilateral' legal relationships*.[120]" (our emphasis).

In other words, "[i]n *conformity with the Brazilian constitutional normative text* (...), *there is a double perspective in the protection of the environment, as a fundamental duty of the state and as a fundamental right, one complementing the other*."[121]

The Superior Court of Justice (STJ) pronounced itself on this issue when expressing its value judgment in relation to *the fundamental right and duty,* as can be read in the decision below:

> "*INTERLOCUTORY APPEAL IN HABEAS CORPUS PETITION. IMMEDIATE EXECUTION OF THE SENTENCE. PRESUMPTION OF NON-CULPABILITY. DEFINING FRAMEWORK. DEFENDANT CONVICTED BY THE COURT OF ORIGIN. JURISDICTIONAL PREROGATIVE. SPECIAL APPEAL BEING HEARD IN THE STJ. NO STAY OF PROCEEDING. NEW STF GUIDELINES. POSSIBILITY. APPEAL DENIED. 1. (...) 2. From such a perspective it is possible to assimilate the new positioning of the Supreme Court, reinforcing the need to also engage in* ***an objective view of fundamental rights when interpreting and applying any legal norm that interferes with freedom, which not only legitimizes eventual and necessary restrictions to the public freedoms of the individual, in the name of a prevailing societal interest, but also the very limitation of the content and scope of fundamental rights – preserving, of course, the essential core of each right – which are now endowed, as a counterpoint, with corresponding fundamental duties***". (AgRg no HC 366.495/RO, Justice ROGERIO SCHIETTI CRUZ, SIXTH PANEL, sentenced on 14/02/2017, Dje 23/02/2017). (our emphasis).

[120] CARVALHO, Délton Winter de. Gestão jurídica ambiental. São Paulo. Editora Revista dos Tribunais. 2017. p.118.
[121] CARVALHO, Délton Winter de. Gestão jurídica ambiental. São Paulo. Editora Revista dos Tribunais. 2017. p.119.

In our case, the FUNDAMENTAL RIGHT TO CLIMATE STABILITY translates, in the **subjective** sphere, effectively into a condition for all persons (the present and future generations) to benefit from a balanced environment (Preamble and Articles 1, 6 and 225, all from the Federal Constitution). In this context, the stability of the climate system is a *sine qua non* requirement for all to benefit from an adequate environment for a dignified life. Herein lies the subjectivity of the FUNDAMENTAL RIGHT TO CLIMATE STABILITY, because not only is it implicit in the Constitution, **but** specifically **listed as a fundamental constitutional right essential to life, health, housing, food, the dignity of the human person and an ecologically balanced environment**.

In the words of JOSÉ JOAQUIM GOMES CANOTILHO,

"(...) *A fundamental subjective right is the legal position belonging to or guaranteed to any person on the basis of fundamental rights enshrined in the Constitution*. [122]" (our emphasis). Considering that the Brazilian Federal Constitution has determined and guaranteed, to ALL, an ecologically balanced environment, the assertion that elevates **climate stability to a subjective fundamental right** is legally correct**,** as it is embedded in the fundamental constitutional rights guaranteed to all people.

In its **objective** dimension, the FUNDAMENTAL RIGHT TO CLIMATE STABILITY consists of a *general constitutional normative expectation*, with the role of determining constitutional environmental duties for the protection of individual and collective subjective fundamental rights.[123] JOSÉ JOAQUIM GOMES CANOTILHO explains that the environment, as a subjective right, is gradually being transferred to the field of fundamental duties. In his words, *"*[t]*he aim is to underline*

[122] CANOTILHO, José Joaquim Gomes. Estudos sobre direitos fundamentais. 1 ed. São Paulo. Editora Revista dos Tribunais. 2 ed. Portugal. Coimbra Editora. 2008. p. 184.

[123] CARVALHO, Délton Winter de. Gestão jurídica ambiental. São Paulo. Editora Revista dos Tribunais. 2017. p. 118, 119.

need to move beyond the euphoria of fundamental rights individualism and firmly establish a community of responsibility among citizens and public bodies to address ecological problems."[124]

Considering its essentiality for the preservation of human life, climate stability, in addition to being a fundamental (subjective) right of all, is also a duty of all, specifically of the State, holder of the power and administrative duty of the Nation. Corroborating our position, JOSÉ JOAQUIM GOMES CANOTILHO states that,

> "*On a practical level,* ***the consideration of the environment as a normative constitutionally enshrined duty or purpose implies the existence of authentic 'legal duties' directed at the State and other public authorities. These legal duties remove the decision of whether or not to protect the environment from the purview of state power. In other words: it is not within the sphere of competence of public authorities to decide whether or not the environment (the natural elements of life) should be protected and defined. The constitutional imposition is clear: 'they must'!*** "[125]

None other is the interpretation of *article 225*[126] *of the Federal Constitution*, which states that THE GOVERNMENT has the DUTY to defend and protect the environment for present and future generations. In the same vein, *article 3*[127] *of Federal Law no. 12.187/2009* establishes that the *National Policy on Climate Change* and its resulting actions are the responsibility of the political entities and public administration bodies.

[124] CANOTILHO, José Joaquim Gomes. Estudos sobre direitos fundamentais. 1 ed. São Paulo. Editora Revista dos Tribunais. 2 ed. Portugal. Coimbra Editora. 2008. p. 178.
[125] CANOTILHO, José Joaquim Gomes. Estudos sobre direitos fundamentais. 1 ed. São Paulo. Editora Revista dos Tribunais. 2 ed. Portugal. Coimbra Editora. 2008. p. 181.
[126] "***Article 225****. All have the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both* ***the Government*** *and the community* ***shall have the duty to defend and preserve it for present and future generations***". (our emphasis).
[127] "***Article 3 - The PNMC and the actions resulting thereof,*** *executed under the* ***responsibility of political entities and public administration bodies****, will observe the principles of precaution, prevention, citizen participation, sustainable development and common but differentiated responsibilities, the latter within the scope of international law, and, as for the measures to be adopted in its execution, the following will be considered*:" (our emphasis).

The constitutional and infraconstitutional rules mentioned above ratify the **objective character of** the FUNDAMENTAL RIGHT TO CLIMATE STABILITY. These rules, given their impositive (cogent) nature, attribute to the Government (Union) the duty to take adequate measures of environmental protection, among them, such measures related to the mitigation of the emission of greenhouse gases and the adaptation to anthropogenic climate changes.

Consequently, on the basis of the doctrinal, normative and jurisprudential elements pointed out above, we can confirm as valid, existing and effective the legal interpretation that the RIGHT TO CLIMATE STABILITY is a FUNDAMENTAL RIGHT and DUTY, implicit in the Federal Constitution and ruled by specific Federal Law. This *status* of fundamental rule derives from the essentiality of this Right to the effective implementation and maintenance of the other fundamental rights that have as their object the protection of ***(i)*** the dignified and healthy human life; and ***(ii)*** the ecologically balanced environment for present and future generations.

II.III. ON THE UNION'S FUNDAMENTAL DUTY TO COMPLY WITH THE OBLIGATIONS ESTABLISHED IN THE NATIONAL POLICY ON CLIMATE CHANGE - PNMC:

Brazil is one of the founding members of the *United Nations.*[128] This Organization was founded in 1945 with the objective of promoting international cooperation aimed at world peace and development.[129] *UN Environment,*[130]one of the many agencies of the Organization, is responsible for ***(i)*** promoting the conservation of the environment and the efficient use of resources in the context of sustainable development[131]; and ***(ii)*** balancing the global climate system to curb the rise of the Earth's temperature caused by the emission of greenhouse gases.[132]

With the formation of this Agency,[133] the United Nations began to implement the *International Climate Change Regime – ICCR*. The framework for *preparing* and *regulating* the objectives of this Regime took place in 1992, in Rio de Janeiro, during the *United Nations Conference on Environment and Development*, also known as the Earth Summit, Rio 92, or ECO/92. In this Conference the first *United Nations Framework Convention on Climate Change* was formalized[134] (internationally

[128] Available at: <https://nacoesunidas.org/conheca/paises-membros/#paisesMembros2>. Date of access: 19/03/2019.
[129] Available at: https://nacoesunidas.org/conheca/. Date of access: 19/03/2019.
[130] Which established the United Nations Environment Programme - UNEP, created in 1972
[131] Available at: https://nacoesunidas.org/agencia/onumeioambiente/. Date of access: 19/03/2019.
[132] REI, Fernando Cardozo Fernandes; GONÇALVES, Alcindo Fernandes; SOUZA, Luciano Pereira de. Acordo de Paris: reflexões e desafios para o regime internacional de mudanças climáticas. **Veredas do Direito**, Belo Horizonte, v.14,n29, p.81-99.Mai./Ago. 2017.Available at: http://www.domhelder.edu.br/revista/index.php/veredas/article/view/996/614. Date of access: 21/03/2019.
[133] The **UN Environment** Agency presents as its objectives: ***(i)*** maintaining the state of the global environment under continuous monitoring; ***(ii)*** alerting peoples and nations on issues and threats to the environment; and ***(iii)*** recommending measures to improve the quality of life of the population without compromising the environmental resources and services of future generations. Available at: https://nacoesunidas.org/agencia/onumeioambiente/. Date of access: 19/03/2019.
[134] In the words of PAULO AFFONSO LEME MACHADO, *in verbis*:
"*The Framework Convention on Climate Change - or, briefly, the Climate Convention - aims to* ***indicate the anthropogenic causes of climate change*** *and* ***the possibility for Party States to influence them****, either by* ***direct measures to restrict emissions of greenhouse gases into the atmosphere****, or by* ***increasing conservation measures and creating sinks and reservoirs of the aforementioned gases*** *in terrestrial and marine ecosystems*." (our emphasis).

known as the *United Nations Framework Convention on Climate Change - UNFCCC*). Brazil ratified the treaty by approving it through *Legislative Decree 1/1994* and promulgating it under *Federal Decree 2.652/1998*.

This *Framework Convention* represented an important step forward in the global effort to find solutions to the climate (and environmental) crisis established on the planet. Thus, as ÉDIS MILARÉ writes, " *Rio 92, with its Summit of Governments and Earth Summit, had an* ***exceptional repercussion****, especially with the three concepts that most mobilized public opinion:* ***sustainable development, biodiversity and climate change***.[135]" (our emphasis).

In 1997, the *Third Conference of the Parties to the United Nations Framework Convention on Climate Change* was held in Kyoto, Japan. On that occasion, the *Kyoto Protocol* was signed, an international climate document whose main objective was to control the emission of greenhouse gases in the atmosphere. Brazil was a signatory of that international agreement, which was approved by the *Legislative Decree No. 144/2002* and promulgated by the *Federal Decree No. 5.445/2005*.

Corroborating ***i)*** the instruments to implement the *International Climate Change Regime – ICCR* ratified by Brazil; and ***ii)*** the constitutional dictates set forth in *Article 225 of the Brazilian Federal Constitution****;*** **the country instituted its *National Policy on Climate Change - PNMC***, represented by *Federal Law No. 12.187/2009.*[136] This Law is presently regulated by *Federal Decree 9.578/2018*.

[135] MILARÉ, Édis. *Direito do ambiente. 9 ed. rev. atual. e ampl. São Paulo. Editora Revista dos Tribunais. 2014. p* 1611.
[136] This Federal Law "*Consolidates normative acts issued by the Federal Executive Branch that provide on the National Fund on Climate Change, as per Law No. 12,114, of December 9, 2009, and the National Policy on Climate Change, dealt with in Law No. 12,187, of December 29, 2009*. (our emphasis).

The *National Policy on Climate Change* presented the Brazilian response to ***(i)*** the international climate commitments ratified and promulgated by the country; (***ii)*** the challenges imposed to society arising from climate change caused by human actions; (***iii)*** the need to foster mechanisms aimed at implementing sustainable development; and ***(iv)*** the constitutional obligation to protect the fundamental right to ***(iv).(i)*** an ecologically balanced environment for present and future generations (*articles 23, VI,*[137] *24, VI*[138] and *225, Federal Constitution*[139]); ***(iv.ii)*** the dignity of the human person (*Preamble and Article 1, III - Federal Constitution)*; (***iv.(iii)*** life, freedom, equality, security and property (Article *5,* [140] *Federal Constitution)*; (iv.***iv)*** health, food and housing (Article *6,*[141] *Federal Constitution);* as well as ***(iv.v)*** the fundamental right to climate stability.

According to ÉDIS MILARÉ, *in verbis*:

> "***Law 12.187****, of 12/29/2009, builds upon the* ***accumulated experience and brings an organic, interdisciplinary and proactive order, in line with what occurs in other countries****.* ***The focus is not only on the quality of atmospheric air, but on the effect of greenhouse gases*** *(notably carbon compounds and methane),* ***on the control of this type of pollution*** *that reaches the upper layers of the atmosphere and, finally,* ***on the consequences of this impact on environmental quality, ecosystems and quality of life***.[142]" (our emphasis).

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[137] "***Article 23****.* ***The Union****, the states, the Federal District and the municipalities,* ***in common, have the power****:* ***VI*** *-* ***to protect the environment and fight pollution in any of its forms***;" (our emphasis).

[138] "***Article 24****:* ***The Union****, the states and the Federal District have the power to legislate concurrently on:*
VI *- forests, hunting, fishing, fauna, preservation of nature, defence of the soil and natural resources,* ***protection of the environment*** *and control of pollution*" (our emphasis).

[139] "***Article 225****.* ***All have the right to an ecologically balanced environment,*** *which is an asset of common use and essential to a healthy quality of life, and both* ***the Government*** *and the community* ***shall have the duty to defend and preserve it for present and future generations****.* "(our emphasis).

[140] "***Article 5*** *All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured the inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:*" (our emphasis).

[141] "***Article 6*** *Education, health, food, work, housing, transportation, leisure, security,social welfare, protection of motherhood and childhood, and assistance to the destitute are social rights, as set forth by this Constitution.*" (our emphasis).

[142] MILARÉ, Édis. *Direito do ambiente.* 9 ed. rev. atual. e ampl. São Paulo. Revista dos Tribunais. 2014. P. 1147.

That *Federal Law*, in seeking to implement national climate protection initiatives, presented a set of measures aimed at ***(i)*** mitigation of anthropogenic triggers leading to climate change that is harmful both to the environment and to human life; and ***(ii)*** adaptation to the effects arising from such climate change (Article 4 of Law 12.187/2009[143]).

The **legal responsibility** (jurisdiction) for the **execution of the objectives** of the *National Policy on Climate Change - PNMC*, listed above, was assigned **to political entities and public administration bodies**, **including the Union,** who **must** observe ***(i)*** the guiding climatic principles indicated in the caput of Article 3 of Law 12.187/2009[144] ***(ii)*** the greenhouse gas (GHG) emission mitigation goals established in article 12 and its sole paragraph of Law 12.187/2009[145], along with the provisions outlined in article 18 of Decree 9.578/2018[146], **among which those related**

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[143] "***Article 4 - The National Policy on Climate Change - PNMC shall seek***:
I *- the compatibility of economic and social development with the protection of the climate system;*
II *- the reduction of anthropogenic greenhouse gas emissions in relation to their different sources;*
III *- (VETOED);*
IV *- the strengthening of anthropogenic removals by greenhouse gas sinks in the national territory;*
V *- the implementation of measures to promote adaptation to climate change at the three (3) spheres of the Federation, with the participation and collaboration of interested economic and social agents or beneficiaries, in particular those especially vulnerable to its adverse effects;*
VI *- the preservation, conservation and recovery of environmental resources, with particular attention to the great natural biomes considered as National Heritage;*
VII *- the consolidation and expansion of legally protected areas and the encouragement of reforestation and the recomposition of vegetation cover in degraded areas;*
VIII *– the development of the Brazilian Emissions Reduction Market - MBRE.*
Sole paragraph*. The objectives of the National Policy on Climate Change shall be in line with sustainable development in order to pursue economic growth, the eradication of poverty and the reduction of social inequalities*". (our emphasis).

[144] "***Article 3 - The PNMC and the actions resulting thereof, executed under the responsibility of political entities and public administration bodies, will observe the principles of precaution, prevention, citizen participation, sustainable development and that of common but differentiated responsibilities, the latter in the international scope,*** *and as for the measures to be adopted in their execution, the following will be considered*:" (our emphasis).

[145] "***Article 12***. ***To achieve the objectives of the PNMC***, ***the country will adopt****, as a voluntary national commitment,* ***actions to mitigate greenhouse gas emissions,*** *with a view to* ***reducing by between 36.1% (thirty-six whole and one tenth percent) and 38.9% (thirty-eight whole and nine tenths percent) its projected emissions by 2020***.
Sole Paragraph. ***The projected emissions for 2020*** *as well as the detailed actions to achieve the objective expressed in the caput will be arranged by* ***decree****, on the basis of the second Brazilian Inventory of Emissions and Removals of Greenhouse Gases not controlled by the Montreal Protocol , to be concluded in 2010*". (our emphasis).

[146] "***Article 18***. *The projected national emissions of greenhouse gases for the year 2020, dealt with in the sole paragraph of Article 12 of Law No. 12,187, 2009, will be of 3,236 million tonCO2eq, composed of projections for the following sectors:*
I - land use change - 1,404 million tonCO2eq;
II - energy - 868 million tonCO2eq;
III - agricultural - 730 million tonCO2eq; and
IV - industrial processes and waste treatment - 234 million tonCO2eq. (our emphasis).

to the reduction of deforestation in the Legal Amazon (Article 19, §1, I of Decree 9.578/2018[147]).

It should be noted that **the attribution of jurisdiction to the Union** to carry out the actions of the Climate Policy was NOT a random choice. **The Union is the public entity with the legal power to carry out acts aimed at protecting the climate balance in Brazil. Should this duty-power not be fulfilled, civil liability will fall on the Federative Entity**.

It is imperative to underscore that the National Policy on Climate Change – PNMC is **a state policy, of a public nature, constituting a legal obligation attributable to the State Entity.**[148] As MARCO ANTÔNIO MORAES ALBERTO and CONRADO HÜBNER MENDES explain, *in verbis*:

> "***Public policies are drafted in the language of 'legal obligations'***. (...) ***the non-fulfillment of legal norms fundamental to their regulation and articulation*** *is identified with the* ***non-fulfillment of legal obligations****, which, in turn, leads to the imputation – including by judicial means – of civil liability to the State. This is the case because* ***the climate policy is not merely a 'government policy', which depends on discretionary choices of groups that may occupy the governmental agency, but a public policy that, as such, is endowed with institutional legal stability capable of normatively constraining governmental dynamics***"[149].

[147] "***Article 19****. In order to meet the national voluntary commitment referred to in Article 12 of Law No. 12,187/ 2009, actions will be implemented that aim to reduce between 1,168 million tonCO2eq and 1,259 million tonCO2eq of the total emissions estimated in Article 18.*
§1 *The following actions contained in the plans referred to in Article 17 shall be initially considered for compliance with the provisions of the caput:*
I *- reduction of eighty percent of the annual deforestation rates in the Legal Amazon in relation to the average verified between 1996 and 2005*;" (our emphasis).
[148] ALBERTO, Marco Antônio Moraes. MENDES, Conrado Hübner. Litigância climática e separação de poderes. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. (coord.). **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo. Thompson Reuters Brasil. 2019. p. 119.
[149] ALBERTO, Marco Antônio Moraes. MENDES, Conrado Hübner. Litigância climática e separação de poderes. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. (coord.). **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo. Thompson Reuters Brasil. 2019. p. 119.

For this reason, the National Policy on Climate Change - PNMC has acquired the *status of* "State Policy", generating "*constitutional, national and international, legal and infralegal legal obligations* for the public administration, *which reflect the 'normative mosaic' that characterizes, in terms of sources, all public policies.*"[150]

In the infraconstitutional domain, the obligations of the Union to comply with the dictates of the National Policy on Climate Change - PNMC are expressed in *Federal Law No. 12,187/2009*, duly regulated by *Federal Decree No. 9,578/2018*.

In the constitutional order, the obligation level of this policy is regulated by *Article 225 of the Federal Constitution*, which established the balanced environment as *i)* a fundamental right of all (Article *225*, *caput*[151]); and *ii)* a legal asset under mandatory protection of the State (Article *225, Article 1*[152]). Such is also the understanding consolidated by the Superior Court of Justice (STJ), as verified by the decision below.

[150] ALBERTO, Marco Antônio Moraes. MENDES, Conrado Hübner. Litigância climática e separação de poderes. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. (coord.). **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo. Thompson Reuters Brasil. 2019. p. 120.

[151] "***Article 225****. All have the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations*". (our emphasis)

[152] ***"§ 1*** *In order to ensure the effectiveness of this right, it is incumbent upon the Government to:*

I *- preserve and restore the essential ecological processes and provide for the ecological treatment of species and ecosystems;*

II *- preserve the diversity and integrity of the genetic patrimony of the country and to control entities engaged in research and manipulation of genetic material;*

III *- define, in all units of the Federation, territorial spaces and their components which are to receive special protection, any alterations and suppressions being allowed only by means of law, and any use which may harm the integrity of the attributes which justify their protection being forbidden;*

IV *- demand, in the manner prescribed by law,an environmental impact study, which shall be made public, prior to the installation of works and activities that may potentially cause significant degradation of the environment ;*

V *- control the production, sale and use of techniques, methods or substances which represent a risk to life, the quality of life and the environment;*

VI *- promote environmental education at all school levels, as well as public awareness of the need to preserve the environment;*

VII *- protect the fauna and flora, with prohibition, in the manner prescribed by law, of all practices which represent a risk to their ecological function, cause the extinction of species or subject animals to cruelty. "*(our emphasis).

"*ENVIRONMENTAL LAW AND CIVIL PROCEDURE. ABSENCE OF VIOLATION OF ARTICLE 535 OF CPC (CODE OF CIVIL PROCEDURE). ENVIRONMENTAL PROTECTION AREA OF RIGHT WHALE. PREPARATION OF HANDLING AND MANAGEMENT PLAN.* ***POSITIVE ASPECT OF THE FUNDAMENTAL DUTY OF PROTECTION. UNION CALLED UPON TO TAKE ACTION WITHIN ITS SPHERE OF JURISDICTION****. STANDING TO BE SUED. DAILY FINES. FEASIBILITY OF IMPOSING FINE ON THE PUBLIC TREASURY. VALUE DETERMINED. PRECEDENT 7/STJ. 1) The alleged violation of Article 535 of the CPC is non-existent as the judicial provision was given to the extent deduced in the complaint, as can be seen from the analysis of the decision under appeal. In fact, the Court of origin partially accepted the motion for clarification to supplement the decision with respect to hearing the mandatory review. 2.* ***Pursuant to Article 225 of the Federal Constitution, the Government has the duty to preserve the environment. This is a fundamental duty, which is not simply a negative command, consisting of not degrading (the environment), but also has a positive provision that imposes on all – Government and collectivity – the performance of actions aimed at recovering, restoring and defending the ecologically balanced environment.*** *3. In this sense, the preparation of the handling and management plan is essential for the preservation of the Conservation Unit, for it is there that the norms which should preside over the use of the area and the management of the natural resources are established, including the implementation of the physical structures necessary for the management of the unit (Article 2, XVII, of Law n. 9.985/2000). 4* ***Therefore, the omission of the Public Authorities in the preparation of a management plan for the Protection Area of the Right Whale puts at risk the very integrity of the conservation unit, and constitutes a violation of the fundamental duty to protect the environment.*** *5 Furthermore, the lower court merely determined that the Federal Government take action within the scope of its jurisdiction, more specifically, by transferring funds so that IBAMA / ICMBio may carry out all administrative procedures necessary for the preparation of the handling and management plan of the Protection Area for the Right Whale, which has been created in an area that integrates the federal public heritage (Article 20, item VII of the Constitution). Therefore, no illegitimacy can be claimed in having the Union as the defendant of the present complaint. 6 This Superior Court has a settled majority opinion concerning the feasibility of imposing a daily fine against the Public Treasury as a coercive means to enforce an obligation. 7 In this specific*

> *case, the value determined for the fines does not seem unreasonable at first sight, wherefore there is no reason to review the decision of the lower court, based on the impediment imposed by Precedent 7/STJ. Special appeal from IBAMA and UNION denied.* (REsp 1163524/SC, Justice HUMBERTO MARTINS, SECOND PANEL, sentenced on 05/05/2011, DJe 12/05/2011). (our emphasis).

As MARCO ANTÔNIO MORAES ALBERTO and CONRADO HÜBNER MENDES clarify, "*by elevating this right to the status of 'fundamental right' and 'irrevocable provision' (Article 60, §4, IV[153]) the Constitution makes it legally protected against any infraconstitutional alteration and even against manifestations from the derived constitutional powers*".[154]

We can therefore see that the Union is mandatorily conditioned to the constitutional norms of environmental protection (fundamental right) in conducting the Brazilian climate policy as it relates to social, human or economic issues of the country. In this sense, the Union's action must be EFFICIENT, aiming at meeting the objectives of the National Policy on Climate Change, applying the instruments to control and mitigate the emission of greenhouse gases.

Accordingly, MARCO ANTÔNIO MORAES ALBERTO and CONRADO HÜBNER MENDES state, *in verbis*:

> ***"***(...) ***the concrete measures to implement the climate policy <u>cannot be understood as discretionary, taken at the own volition of the federal public administration, both because the administration does not have the option to not carry out the climate policy, and because the measures to be chosen and developed by the administration should not only be efficient, but also</u>***

[153] "***Article 60***. *The Constitution may be amended on the proposal of:*
§4º *No proposal of amendment shall be considered which is aimed at abolishing:*
IV *- individual rights and guarantees*". (our emphasis).
[154] ALBERTO, Marco Antônio Moraes. MENDES, Conrado Hübner. Litigância climática e separação de poderes. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. (coord.). **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo. Thompson Reuters Brasil. 2019. p. 122.

> ***justifiable as the most appropriate in view of the intentions that guide them***. *The burden of the public administration has, therefore, two different degrees. On one hand, it is* ***bound to carry out several actions,*** *coordinated within the framework of a state climate policy (climate policy architecture). On the other hand,* ***in the course of these actions, it has the duty of ensuring the efficiency and adequacy of the measures it has concretely developed*** *(climate policy management)*."[155]

Thus, the **partial or total non-performance of legal obligations** contained in the *National Policy on Climate Change* and its respective regulating *Decree* (*Federal Law No. 12.187/2009 and Federal Decree No. 9.578/2018*) will entail ***(i)*** infringement of the dictates contained in ***Article 23, VI*** and ***Article 24***, ***VI of the Federal Constitution*** (already referred to); ***(ii)*** **transgression** of the determinations established in ***Article 225 and §1 of the Federal Constitution*** (previously described); (***iii)*** **violation of the dignity of the human person**[156] (*Preamble* and *Article 1, III, of the Federal Constitution*[157]); (***iv)*** **disobedience** to the fundamental **constitutional social rights** (Article *6, of the Federal Constitution*[158]); and consequently ***(v)*** **violation of** the **fundamental constitutional right to climate stability** (Article *1, III, Article 5, Article 6, Article 225, Federal Constitution*).

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[155] ALBERTO, Marco Antônio Moraes. MENDES, Conrado Hübner. Litigância climática e separação de poderes. In: SETZER, Joana. CUNHA, Kamyla. FABRI, Amália Botter. (coord.). **Litigância climática**: novas fronteiras para o direito ambiental no Brasil. São Paulo. Thompson Reuters Brasil. 2019. p. 130.

[156] While analyzing this matter, the Superior Court of Justice - STJ expressed the view that a balanced environment is essential to the dignity of the human person, as can be seen in this decision: "*ADMINISTRATIVE. ENVIRONMENTAL. WRIT OF MANDAMUS. SOYBEAN CULTIVARS. VARIATION IN HILUM COLOR. ABSENCE OF REGULATORY RULE. OMISSION OF THE MINISTRY OF AGRICULTURE, LIVESTOCK AND SUPPLY. NON-OCCURRENCE. NEED FOR TECHNICAL-SCIENTIFIC STUDIES. LIQUID AND CERTAIN RIGHT NOT EVIDENCED. WRIT OF MANDAMUS DENIED. 1) The plaintiff protests the omission of the authority to regulate the color variation in soybean seed hila. 2)* ***The balanced environment - an essential element to the dignity of the human person - as "an asset for the common use of the people and essential to a healthy quality of life" (Article 225 of the Constitution), is part of the list of fundamental rights. In this aspect, by its very nature, the environment has legal protection supported by specific principles that ensure it special protection.*** *(...)*." (MS 16.074/DF, Justice ARNALDO ESTEVES LIMA, FIRST PANEL, sentenced on 09/11/2011, DJe 21/06/2012). (our emphasis).

[157] "***Article 1*** *The Federative Republic of Brazil, formed by the indissoluble union of the states and municipalities and of the Federal District, is a democratic state that abides by the rule of law and is founded on:*
III *- the dignity of the human person*;" (our emphasis).

[158] "***Article 6 - Education, health, food, work, housing, transportation, leisure, security,social welfare, protection of motherhood and childhood, and assistance to the destitute are social rights, as set forth by this Constitution***". (our emphasis).

In short, the **inefficiency or disobedience of the Union in complying with the obligations contained in the National Policy on Climate Change - PNMC impose the necessary intervention of the Judiciary in** order for the **State omission to be remedied**. That is the case of this complaint!

It is important to clarify that the present lawsuit does NOT go against the PRINCIPLE OF THE SEPARATION OF POWERS, NOR THE THEORY OF PROVISO OF POSSIBILITY ("*Vorbehalt des Möglichen*") because the action is aimed at achieving the implementation of public policy aimed at climate protection and, consequently, at the protection of an ecologically balanced environment for present and future generations. This is the long-held and consolidated understanding of the Federal Supreme Court - STF and the Superior Court of Justice - STJ, as evidenced by the decisions below:

> "*INTERNAL REVIEW ON EXTRAORDINARY APPEAL ON DECISION OF APPELATE COURT. ADMINISTRATIVE.* ***PUBLIC INTEREST CIVIL ACTION****. INDIGENOUS LAND ON THE AMÔNEA RIVER. REGION OF THE HIGH JURUÁ. ASHANINKAS INDIANS. REPEATED INVASION BY BRAZILIAN AND PERUVIAN NATIONALS FOR THE CRIMINAL EXTRACTION OF WOOD FROM THE FOREST. JUDICIAL DETERMINATION FOR INSTALLATION OF PERMANENT POSTS OF FEDERAL POLICE, FUNAI AND IBAMA IN THE VICINITY OF INDIGENOUS LAND.* ***IMPLEMENTATION OF PUBLIC POLICIES BY THE JUDICIARY. POSSIBILITY. VIOLATION OF THE PRINCIPLE OF SEPARATION OF POWERS. NON-OCCURRENCE. PRECEDENTS. STATE OMISSION****. RE-EXAMINATION OF THE FACTUAL AND EVIDENTIARY SET OF RECORDS. INCIDENCE OF PRECEDENT 279 STF. APPEAL FILED UNDER THE NEW CODE OF CIVIL PROCEDURE. NO AWARD OF LAWYER'S FEES IN THE APPEALED CASE. IMPOSSIBILITY TO RAISE FEES IN THIS APPEAL. ARTICLE 85, PARAGRAPH 11, OF CPC/2015. INTERNAL REVIEW DENIED.*" (STF - ARE 947270 AgR, Justice LUIZ FUX, FIRST PANEL, sentenced on 12/03/2019, ACÓRDÃO ELETRÔNICO DJe-060 DIVULG 26-03-2019 PUBLIC 27-03-2019). (our emphasis).

"*INTERLOCUTORY APPEAL IN EXTRAORDINARY APPEAL. FILED ON 10.4.2017.* ***PUBLIC INTEREST CIVIL ACTION. ENVIRONMENTAL PROTECTION AREA.*** *ENFORCEMENT OF LAW CREATING AN ECOLOGICAL PARK. CONSERVATION AND INSPECTION.* ***SEPARATION OF POWERS. NON-EXISTENCE OF OFFENSE****. 1)* ***It is the firm understanding of this Court that the Judiciary can, without this configuring violation of the principle of separation of Powers, determine the implementation of public policies on issues related to the preservation of the ecologically balanced environment for the present and for future generations****. 2. Interlocutory appeal denied by the* ***Court,*** *imposition of the fine provided for in Article 1.021, § 4 of the CPC. Article 85, § 11, CPC is not applicable, as this is an appeal on a public interest civil action*". (STF -ARE 903241 AgR, Justice EDSON FACHIN, SECOND PANEL, sentenced on 22/06/2018, ACÓRDÃO ELETRÔNICO DJe-153 DIVULG 31-07-2018 PUBLIC 01-08-2018). (our emphasis).

"*ADMINISTRATIVE AND CONSTITUTIONAL LAW. INTERNAL INTERLOCUTORY APPEAL.* ***ENVIRONMENT. IMPLEMENTATION OF PUBLIC POLICIES. POSSIBILITY. NO VIOLATION OF THE PRINCIPLE OF SEPARATION OF POWERS****. 1)* ***The Supreme Court has already established that it is possible for the Judiciary, in exceptional situations, to determine from the Executive Branch the implementation of public policies in order to guarantee constitutionally guaranteed rights, without this implying any violation of the principle of separation of powers. Precedents****. 2. The decision of the Court of origin is duly grounded, albeit contrary to the interests of the appellant. 3. interlocutory appeal denied*". (STF - AI 692541 AgR, Justice ROBERTO BARROSO, FIRST PANEL, sentenced on 25/08/2015, ACÓRDÃO ELETRÔNICO DJe-18 7 DIVULG 18-09-201 5 PUBLI C 21-09-2015). (our emphasis).

"*ORDINARY APPEAL IN WRIT OF MANDAMUS. ECONOMIC HARDSHIP OF A POLICE OFFICER OR MILITARY FIREFIGHTER. JUDICIAL DETERMINATION TO APPOINT A PUBLIC DEFENDER TO ACT IN CRIMINAL PROCEEDINGS IN PROGRESS AT THE MILITARY AUDIT COURT OF THE FEDERAL DISTRICT. JURISDICTION OF THIRD SECTION OF STJ TO EXAMINE THE CONTROVERSY. VIOLATION OF THE PRINCIPLE NE PROCEDAT IUDEX EX OFFICIO: NON-OCCURRENCE. INTERFERENCE IN THE ADMINISTRATIVE AUTONOMY OF THE PUBLIC DEFENDER'S OFFICE OF THE FEDERAL DISTRICT RECOGNIZED. REASONABILITY OF THE CRITERIA FOR THE APPOINTMENT OF DEFENDERS ESTABLISHED BY THE SUPERIOR COUNCIL OF THE FEDERAL DISTRICT'S PUBLIC DEFENDER'S OFFICE, DUE TO THE DISPROPORTION BETWEEN THE NUMBER OF DEFENDERS AND THE NUMBER OF ASSISTED DEFENDANTS. PRINCIPLE OF PROVISO OF POSSIBILITY. ARTICLE 98 OF THE ADCT (TRANSITORY CONSTITUTIONAL DISPOSITIONS ACT), IN THE WORDING OF EC 80/2014. ABSENCE OF HARM: POSSIBILITY OF APPOINTING LAWYER AD DOC. 1. - If the court decision designated as the determining factor was handed down in a criminal action file, the jurisdiction to hear the ordinary appeal in a writ of mandamus will be the Third Section of the STJ, even if the solution of the controversy also might require the re-examination of constitutional and administrative matters. 2. -*

The decision of the criminal court to determine the appointment of a public defender for a defendant facing economic hardship, without his or her prior request, does not violate the principle Ne procedat iudex ex officio. This is so because the magistrate's duty to ensure the regularity of the process, so as to avoid procedural nullity, is more prominent in a criminal process, when focused on verifying effective compliance with the constitutional guarantees of due legal process and the right to an adversarial and fair hearing of the defendant who is not duly represented and/or has no financial means to constitute a lawyer. Precedent: RMS 49.902/PR, Justice REYNALDO SOARES DA FONSECA, FIFTH PANEL, sentenced on 18/05/2017, DJe 26/05/2017. 3. ***The Federal Supreme Court has already recognized, on more than one occasion, that it is "licit for the Judiciary, in view of the principle of Constitutional supremacy, to adopt measures destined to effectively implement public policies, if and when a situation of inexcusable state omission is configured, which is qualified as a behavior characterized by great political-legal gravity, for the Government, by means of inertia, also disrespects the Constitution, also violates rights thereon based and also prevents, by the absence (or insufficiency) of concrete measures, the applicability of the postulates and principles of the Fundamental Law****" (AI 598.212 ED, Justice CELSO DE MELLO, SECOND PANEL, sentenced on 25/03/2014, ACÓRDÃO ELETRÔNICO DJe-077, published on 23/04/2014). In the same vein, the following decisions: ARE 1.059.342/SP, Justice Celso de Mello; RE 1.045.984/RJ, Justice Luiz Fux; ARE 1.002.371/RJ, Justice Gilmar Mendes; ARE 901.259/RJ, Justice Cármen Lúcia; RE 417.408-AgR/RJ, Justice Dias Toffoli; RE 1.074.884 AgR, Justice RICARDO LEWANDOWSKI, Sentenced on 29/06/2018, published in electronic process DJe-154 on 01/08/2018, published 02/08/2018; RE 763.667 AgR, Justice CELSO DE MELLO, SECOND PANEL, Sentenced on 22/10/2013, processo eletrônico DJe-246 on 12-12-2013, published 13-12-2013. 4.* ***In other words, the Supreme Court has admitted, in principle, the intervention of the Judiciary to instigate the Government to implement measures necessary for the performance of public policies when confronted with inexcusable omission by the State, this judicial order not being considered a violation against the administrative and managerial autonomy of the***

omitting body. *5. Conversely, the finding that there is an inexcusable state omission requires a case-by-case investigation of the reasons, the reasonability and the proportionality that guided the criteria used in the administrator's decision, in search of nullity and/or misuse of purpose or even unconstitutionality by omission.* ***In this sense, not only the performance, but also the eventual omission of the administrator must be grounded in suitable justifications****. 6.* ***The reasonability and proportionality of the administrator's choice****, in turn,* ***must be confronted with the availability of resources (economic, financial, human and physical) and with the existing or foreseeable factual circumstances in the near future that may influence the effective implementation of public policies****. This type of reasoning, derived from the principle of reasonability, has received, in the precedents of the Supreme Court, the denomination of proviso of possibility*. (...)." (STJ - RMS 59.413/DF, Justice REYNALDO SOARES DA FONSECA, FIFTH PANEL, sentenced on 07/05/2019, DJe 20/05/2019). (our emphasis).

"*ADMINISTRATIVE AND CIVIL PROCEDURAL. PUBLIC INTEREST CIVIL ACTION. IPHAN. RENOVATION OF HERITAGE-LISTED BUILDING. HISTORICAL AND CULTURAL HERITAGE.* ***LEGISLATED PUBLIC POLICIES****.* ***PRINCIPLE OF SEPARATION OF POWERS. MANDATORY INJUNCTION****. CONTEMPT OF COURT. ABSENCE OF A FINE. OBLIGATION OF PENALTIES. ARTICLE 461 OF CPC (CODE OF CIVIL PROCEDURE) 1973. ARTICLE 536, FIRST PARAGRAPH OF 2015 CPC. ARTICLE 84 OF CONSUMER PROTECTION CODE. ARTICLE 11 OF LAW 7.347/1985. LAWYER'S FEES. EXCLUSION FROM CONVICTION. JUDGMENT OF SYMMETRY. ALTERATION OF MANDATORY INJUNCTION. IMPOSSIBILITY. PRECEDENT 7/STJ. 1. The Federal Public Prosecutor's Office initiated investigative proceedings in 2000. In 2003, it proposed a Public Interest Civil Action against the State of Rio de Janeiro, seeking a judicial order to compel that entity to execute, under the orientation of Iphan - Institute of National Historical and Artistic Heritage, the necessary renovation works for the maintenance of a heritage-listed property (Martins Pena State Technical School), on account of its historical and cultural value as the birthplace of the Baron of Rio Branco. We*

have, therefore, witnessed eighteen years of omission and reluctance of the state to comply with the duty of protection. 2. The sentence condemned the State of Rio de Janeiro to the obligation, under Iphan's guidelines, of taking all the measures required to preserve the heritage-listed property. However, the ruling failed to stipulate a deadline and a fine, understanding that, later on, when enforcing the sentence, fines could be ordered, if the defendant was found to not be carrying out the necessary conservation work. The judgment also awarded attorney's fees in favor of the Public Prosecutor's Office. 3. In the Federal Regional Court of the 2nd Region, an appeal was partially granted, determining a period of twelve months to finish the works; but maintaining the award of attorney's fees and the rejection of daily fines. MANDATORY INJUNCTION 4.The Special Appeal does not merit hearing in terms of excluding or altering the obligation imposed by the lower courts, as the evidential records and the appealed judgment would forcibly have to be reexamined. Thus, the impediment of Precedent 7/STJ applies. JUDICIAL PROTECTION OF HISTORICAL AND CULTURAL HERITAGE 5. The State is duty-bound to protect the historical and cultural heritage, even more so the assets it has listed itself for protection. ***This is not an elective matter, but one of duty, and the excuse - easy and commonplace - of funding shortage is not acceptable. We are not confronted here with lax objectives prepared and presented by the administration itself as optional actions inserted in vague and ever-changing government programs. On the contrary, what we have are legislative public policies which, in the same manner as the law, must be obeyed, particularly when the expressed provision is based on the constitutional text****. 6. The historical-cultural memory, an intangible asset, is not the property of the state, and it is only incumbent upon the government, as an intergenerational fiduciary agent, to manage that heritage on behalf of the Nation, if not all humanity, its true owners. Nor does it fall within the scope of discretion or disposal of the Administration, especially when the behavior of the public servant on duty denounces ignorance, insensitivity, relapse or carelessness in the handling of values and works from the past, the spirit or Nature.* ***The administrator is neither the monarch nor the owner of public duty, but a vassal of the law and of the interests of society. It is therefore judicially appropriate to demand from the administrator strict, complete and sincere performance of the duty to protect*** *our historical and cultural heritage.* ***This in no way conflicts with the principle of separation of powers, as the court, in casu, was***

simply applying unequivocal constitutional and legally prescriptive orders, evidently mandatory. *Neither the magistrate, nor the scholar or observer of the Law should fail to recognize the distinction between public policies that are legislated, judicialized on account of infraction, and public policies judicially instituted, deduced or extracted from the generality of the current normative system. DAILY FINES IN PUBLIC INTEREST CIVIL ACTION LAW AND THE CODE OF CIVIL PROCEDURE 7.* ***One of the most evident and essential dimensions of the rule of law is to enforce the authority of the judicial decision, as is the position of courts as guarantors and ultimate arbitrators of the legal system, especially in the protection of collective rights***. *8. (...) CONCLUSION 20. Special Appeals heard in part and, to that extent, partially awarded so as to: a) recognize the violation of Article 11 of Law 7.437/1985 and set a daily fine of R$ 1,000.00 (one thousand reais), starting as of 6 (six) months from the publication of this decision; b) exclude the award of attorney fees against the State of Rio de Janeiro*". (STJ - REsp 1723590/RJ, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 08/05/2018, DJe 26/11/2018). (our emphasis).

"*CIVIL, ADMINISTRATIVE AND* ***ENVIRONMENTAL*** *PROCEEDINGS.* ***PUBLIC INTEREST CIVIL ACTION***. *REQUIREMENTS AUTHORIZING INJUNCTIVE RELIEF. DEGRADATION OF HISTORICAL SITE. NEED FOR REVIEW OF EVIDENTIAL ELEMENTS. NON-APPLICABILITY. PRECEDENT 7/STJ. PRECEDENT 735/STF.* ***THEORY OF THE PROVISO OF POSSIBILITY. DENIED***. *1. The Court of origin granted an interlocutory appeal against a decision rejecting the request for a preliminary injunction in a Public Interest Civil Action, which would allow the state lato sensu (INCRA, Iphan and Fundação Cultural Palmares) to proceed with an anthropological report of the Serra da Barriga plateau population, in the Municipality of União dos Palmares/AL, as well as to finalize the inventory of existing buildings, with the adoption of measures to intensify surveillance in the locality and the effective operation of the Managing Council of the Quilombo dos Palmares Memorial Park. (...) 5.* ***Finally, I emphasize that the STF has consistently decided that the Judiciary, confronted with the delay or inertia of the competent Power, may determine, on an exceptional basis, the implementation of public policies for the fulfillment of duties provided for in the constitutional order, without this constituting an invasion of discretion or an infringement of***

the proviso of possibillity. *6. Special appeal not heard*". (STJ - REsp 1677832/AL, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 06/03/2018, DJe 22/11/2018). (our emphasis).

"*SANITATION. CIVIL PROCEDURE.* ***PUBLIC INTEREST CIVIL ACTION. JUDICIAL CONTROL OF EXECUTIVE ACTS. LEGALITY. STATE POWER AND LEGAL DUTY LIABLE TO JUDICIAL CONTROL***. *LAW 11.445/2007 (WATER AND SANITATION ACT). DEFECTIVE ACTION RULED OUT. 1) This case originates from a Public Interest Civil Action arising from the discharge of waste into a stream in a region where, by governmental omission, a sewage collection network had not been created. An order was sought for the Municipality to urbanize the site with the implementation of sanitary collectors and interceptors in the watercourse, and for Copasa to provide the street with a system of sanitary sewage, all under penalty of a fine. The original decision was annulled by the Appellate Court, on the grounds that the Judiciary does not have the power to determine and define the performance, by the Executive, of major public works. 2.* ***Public Administration is submitted, needless to say, to the rule of law, also in terms of the convenience and opportunity of the administrative act. If the performance of works and activities is technically proven to be essential to protect the health of the population and the environment, the Public Prosecutor's Office and other Public Interest Civil Action collegitimates are entitled to demand them judicially.*** *3.* ***Regarding environmental sanitation,*** *what we have in Brazil today, contrary to the situation prevailing until a few years ago, is no longer the loose abstract option to take action left to the discretion of the Public Administration, but a situation of* ***ope legis, and not ope judicis nature, where the State power has the legal duty to act***. ***Which is why the plaintiff of a Public Interest Civil Action, in such a context, does not postulate the court should invent state obligations, or that it should write or rewrite, as it sees fit, a law that never existed, but should have existed; or a law that indeed does exist, but which neglected to dispose of the matter as, in the personal opinion of the judge, would have been appropriate. What is sought, on the contrary, and that does not seem asking too much, is for the Judiciary to refuse to watch passively – as if it were a puppet institution of legal discourse and practice – as legal duties are openly and with impunity disregarded by the administrator, the recipient of federal, state and municipal rules. 4. The STJ***

> ***reiterates its admission concerning the civil liability of the State for failure to comply with its control and inspection duty with regard to its constitutional and legal obligations to protect the public health and environment***. *As has already been decided by the Second Panel, in the scope of social rights, "**not only was the public administration assigned the task of creating and implementing public policies necessary to meet the constitutionally outlined ends, but also the Judiciary has had its margin of action expanded, as a way of supervising and watching over the faithful fulfillment of the constitutional objectives**" (REsp 1.041.197/MS, Justice Humberto Martins, Second Panel, DJe 16.9.2009). AgRg in REsp 1.136.549/RS, Justice Humberto Martins, Second Panel, DJe 21.6.2010; REsp 604.725/PR, Justice Castro Meira, Second Panel, DJ 22.8.2005; AgRg no. Ag 822.764/MG, Justice José Delgado, First Panel, DJ 2.8.2007; AgRg no. Ag 973.577/SP, Justice Mauro Campbell Marques, Second Panel, DJe 19.12.2008. 5. It is not advisable to prevent, ab initio, the Judiciary from acting in its power and legal duty to verify compliance with the law on the part of the State, thus disallowing the processing of proposed complaints that aim at protecting public health and the environment as a result of supposedly omissive acts. It seems ill-advised, therefore, to dismiss the case without prejudice, based on Article 267, VI, of the Code of Civil Procedure, when the following conditions are present: **legitimacy of the parties, procedural interest and lawful claim**. 6 - Special Appeal granted to annul the judgment under appeal, determining the Court of origin to proceed to judgment on the merits of the claim*". (STJ - REsp 1220669/MG, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 17/04/2012, DJe 18/12/2015). (our emphasis).

In this sense, **the Union is placed under the obligation to perform the administrative acts (normative and material)** *(Article 5, §3 of the Federal Constitution*[159]**) that are efficacious for the implementation of the National**

[159] "***Article 5*** *All persons are equal before the law, without any distinction whatsoever, Brazilians and foreigners residing in the country being ensured of inviolability of the right to life, to liberty, to equality, to security and to property, on the following terms:*
§ 1 *The provisions defining fundamental rights and guarantees are immediately applicable.*" (our emphasis).

Policy on Climate Change - PNMC, **in order to fulfill its legal duty to protect the ecologically and climatically balanced environment**.

Therefore, given this context, there is no doubting **the legitimacy of society to demand from the Union the fulfillment of its climate obligations** (applying the laws and meeting the goals of reducing deforestation in the Legal Amazon region to 3,925.06 km² by the year 2020) **contained in the National Policy on Climate Change - PNMC**.

II.IV. ON THE UNION'S LEGAL OBLIGATION TO REDUCE THE YEARLY ILLEGAL DEFORESTATION RATES IN LEGAL AMAZON TO 3,925.06 KM² BY THE YEAR 2020:

II.IV.I. Article 6 of Federal Law No. 12,187/2009 presented the instruments to meet the objectives of the National Policy on Climate Change - PNMC. Among the instruments listed in this article is the need for the Federal Entity to prepare Action Plans for the Prevention and Control of Deforestation in the biomes.[160]

Aiming to regulate this matter, the Federal Decree No. 9.578/2018 defined the ***Action Plan for Prevention and Control of the Deforestation in the Legal Amazon - PPCDAm*** as the specific plan to reduce and control the deforestation of the Legal Amazon as a mitigation and adaptation to climate change measure, in the terms of Article 17, I[161] in that decree.

The Plan is one of the main instruments for combatting climate change at the national level, acting directly on the land use change - LUC in one of the most important Brazilian biomes, the Amazon forest. The scope of this plan, consisting of four phases, is to reach the goal of **reducing the annual deforestation rates in the Legal Amazon, in 2020, by 80% (eighty percent) of the average deforestation verified between the years 1996 to 2005,** as disposed in Article 19, §1, I of the Federal Decree 9.578/2018.[162]

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[160] "***Article 6 The instruments of the National Policy on Climate Change are****:*
III *- the Action Plans for the Prevention and Control of Deforestation in the biomes;* " (our emphasis).
[161] "***Article 17****. For the purposes of this Decree, the following action plans are considered for the prevention and control of deforestation in biomes and sectoral plans for mitigation and adaptation to climate change:*
I - Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm*;"* (our emphasis).
[162] "***Article 19*** *To achieve the national voluntary commitment referred to in Article 12 of Law No. 12,187 of 2009, actions will be implemented that aim to reduce between 1,168 million tonCO2eq and 1,259 million tonCO2eq of the total emissions estimated in Article 18.*
§1º *The following* ***actions contained in the plans referred to in Article 17*** *shall be initially considered for* ***compliance with the provisions of the caput****:*
I - reduction of eighty percent of the annual deforestation rates in the Legal Amazon in relation to the average verified between 1996 and 2005*;*" (our emphasis).

Considering that the average deforestation for the years 1996 to 2005 was established at the level of 19,625 km^2, reducing 80% of this total **leads to an annual rate of 3,925 km^2 for the year 2020,** according to Article 12 of Law 12,187/2009 and Article 18 of Decree 9,578/2018. **In summary, in the year 2020 the rate of illegal deforestation in the Legal Amazon must NOT exceed 3,925 km^2** (in line with the objective of zero illegal deforestation by the year 2030).

However, as pointed out in the facts, the annual PRODES deforestation rate in the Legal Amazon for the **year 2019** (from August 2018 to July 2019) was **10,129 km²** (consolidated rate of 10.1k, see Figure 6, above). This index represents a 34% increase in deforestation in this region compared to the previous year.[163] In **2020**, the tendency is for the **deforestation rates to increase** at a higher level than the previous year. In fact, **for the second year in a row, deforestation may exceed an area of 10,000 km².**[164]

This projection is made by comparing the data of the annual deforestation rates in the DETER and PRODES systems, shown in Figure 8 below:

[163] See Answer 13 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[164] See Answer 15 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

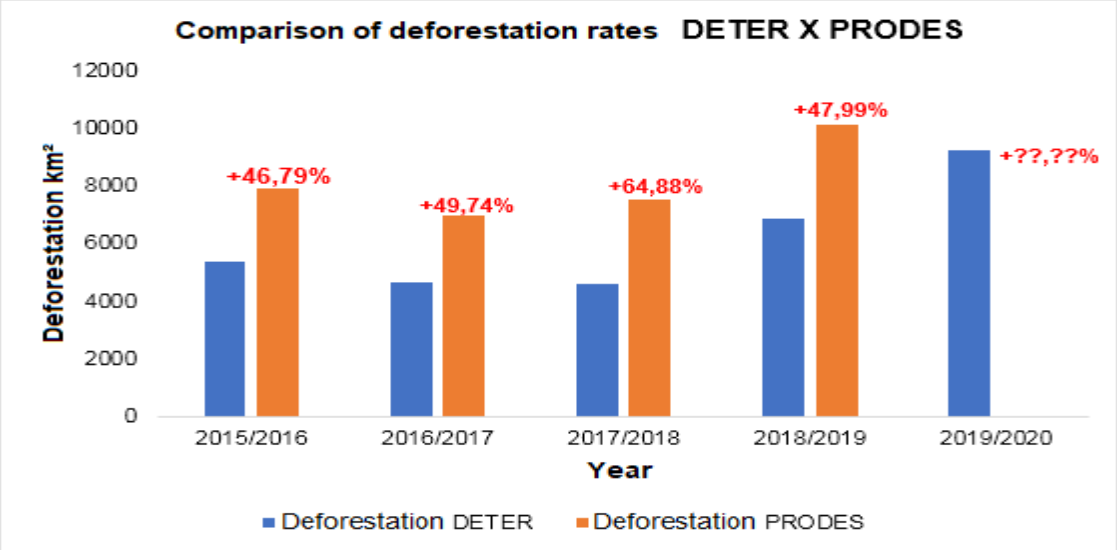


Figure 8: Comparison of deforestation areas measured by the systems PRODES and DETER (2015-2020). Measurements for 2015/16, for example, start in August 2015 and end in July 2016. Notice that the values consolidated by PRODES are always higher than those by DETER (% indicated in red). Deforestation data from both systems are available at http:// terrabrasilis.dpi.inpe.br/.

Figure 8, above, shows that the deforestation alerts detected by the DETER system (blue bars) are always exceeded by the deforestation rates identified by the PRODES system (orange bars). This means that the deforestation alerts historically represent a smaller extent of deforested area than the one effectively affected by deforestation. Reasoning along these lines, it can be affirmed with certainty that the PRODES (orange bars) deforestation rates in 2020 will be higher than those of 2019.[165]

This is because the DETER rates for 2020 have already exceeded the same rates for 2019. In short, as explained in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020:

> "*Data from the PRODES system are more accurate than the DETER system and over the last years (2015/2016 to 2018/2019) it has been observed that the deforestation rates of the PRODES system are on average 52.35% higher than those measured by the DETER system. For the year 2019/2020, it is not yet possible to know the deforestation rate measured by the PRODES system,*

[165] See Answer 15 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

but as there is still a month and a half left for the closing of the reference year (mid-July and August), the tendency is for the consolidated deforestation rate to exceed that measured in the period 2018/2019, which was of 10.129 km², because the deforestation measured by the DETER system until July was already greater than that measured in 2018/2019."[166] (our emphasis).

Furthermore, in addition to the high likelihood that the defendant will NOT reach the goal of reducing illegal deforestation in the Legal Amazon that was pledged in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, there is a tendency that deforestation in 2020 will exceed the rates of the last eleven years. This statement is well represented in Figure 9 below:

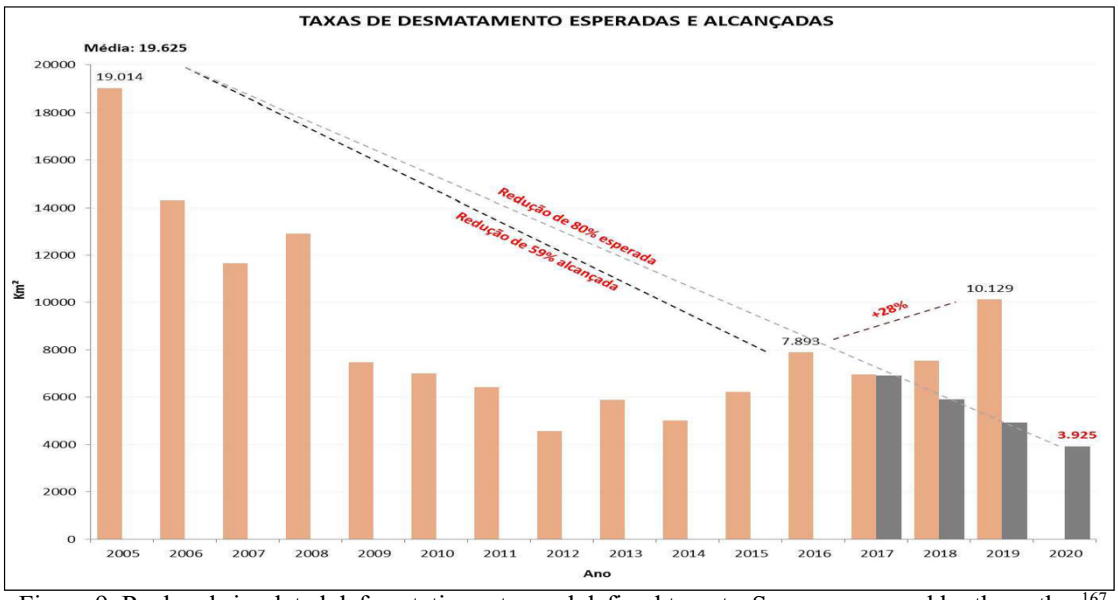


Figure 9. Real and simulated deforestation rates and defined targets. Source: prepared by the author[167].

Figure 9 demonstrates that in the period between 2017 and 2019 the deforestation decrease rates pledged by the defendant (gray bars) were surpassed by the rate of deforestation that actually took place in the Legal Amazon (salmon bars). It is

[166] See Answer 15 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[167] See Answer 17 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

noticeable that starting in 2017 the defendant gradually distanced itself from the targets of the fourth phase of implementation of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm (80% reduction of illegal deforestation). As clarified in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, *in verbis*:

> "*Despite a small decrease in deforestation rates in 2016, the Amazon has seen a new growth pattern since then, which is compromising the Brazilian commitment to reduce deforestation rates and CO_2 emissions. In 2019, the deforestation of 10,120 km² was the highest in the last decade, and was accompanied by high rates of forest degradation and forest fires. The difference between the deforestation rate simulated by the PPCDAm and that recorded for the year 2019 is more than 5,000 km², i.e., the difference between the simulated rate and that observed is greater than the reduction target foreseen for a four-year interval (2016 to 2019)*"[168] (our emphasis).

This confirms that the defendant <u>is NOT acting as legally required</u> in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm and, based on the preliminary technical information presented here (attached document 03), **will NOT achieve its goal of reducing illegal deforestation in the Legal Amazon by the year 2020 to the level of, at most, 3,925 km2.**

This is reinforced by the observations presented in the Supporting Technical Report for the Public Interest Civil Action (attached document 03), in which Professor CARLOS AFONSO NOBRE clarifies that "[according to] the *most recent trend in deforestation rates and the latest data from DETER* [see Figures 8 and 9 above], *Brazil will not reach the target set out in the PNMC for 2020 within the expected period.*[169] " (our emphasis).

[168] See Answer 17 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[169] See Answer 16 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

II.IV.II. It should be clarified that the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm features innovative, comprehensive, interconnected measures that are well suited to the context of deforestation in the Legal Amazon. For example, when the first phase of this plan was implemented (2004 to 2008),[170] ***(i)*** more than 25 million hectares of Federal Conservation Units were created; (***ii)*** over 10 million hectares of indigenous lands were designated; (***iii)*** deforestation monitoring and control mechanisms were improved ; ***(iv)*** activities that involved sustainable practices were stimulated. In this first phase of implementation, the federal government's initiatives were fundamental for the process of positive change in the dynamics of illegal deforestation in the Amazon.[171]

In 2016, when the fourth phase of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) began, the deforestation rate fell by 59% compared to the baseline average (1996-2005 – 19,625 km²). Meeting the 80% reduction target for 2020 would have required the defendant to maintain the determinations of the Action Plan, aiming to decrease deforestation by approximately 1000km² per year between 2016 and 2020.[172] **This gradual reduction of deforestation has NOT taken place**!

What can be seen instead is that the defendant has been cutting budgets and changing priorities in the execution of the plan, as well as advancing political and governmental measures that are contrary to the guidelines, commitments and determinations specified in the plan (PPCDAm). This is gradually undermining the effectiveness of the strategic and operational axes contained in the plan. As a result, meeting the projected targets to reduce illegal deforestation for the year 2020 is currently not feasible[173]. Hence the need to judicially compel the defendant to adopt

[170] See https://www.mma.gov.br/images/arquivo/80120/PPCDAM_fase1.pdf.
[171] See Answer 19 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[172] See Answer 17 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[173] See Answer 19 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

emergency and effective measures to comply with its obligation, in order to stop the illegal deforestation of the Legal Amazon, specifically the Amazon forest.

As reported by Professor CARLOS AFONSO NOBRE in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020:

> "According to *the PPCDAm evaluation report, from 2012 to 2015 all axes experienced a reduction in their response rates, which fell from 98% to 76%. Analyzing all activities not carried out, 45% were found on the axis of support for sustainable activities, 30% in monitoring and inspection and 25% in land and property registration. From 2013 to 2016, more than 40% of the budget allocated for environmental inspection was reduced. The effects began to be felt in 2017, when the number of fines issued by IBAMA fell in all the states of the Amazon, in spite of increasing deforestation*. (...) *What is unique about the PPCDAm is the interconnection between its actions and its axes. Thus, for the plan to work, it is fundamental that all its axes have the resources and infrastructure to function properly, and that the land registration agencies, as well as those that deal with monitoring, inspection and technology transfer and development are fully operational. An aggravating factor caused by the dismantling of the plan at the federal level is that state-level plans created as part of the PPCDAm's action plans depend on federal PPCDAm's monitoring activities to guide and evaluate their actions."* [174] (our emphasis).

At this point it might be worth mentioning that the *Annual Audit Report No. 815084*[175], prepared by the Office of the Federal Controller General (*Controladoria Geral da União*), presented the assessment of the work developed by the

[174] See Answer 19 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[175] "*This Report aims to comply with the Normative Decision - TCU No. 180, of December 11, 2019, which regulates the accounting units that will have their 2019 accounts examined by the Court. Thus, the scope of the audit performed was signed in a meeting with the Agroenvironmental Executive Secretary of the Federal Accounting Court, based on the items listed in Annex II of said Normative Decision". (our emphasis). See attached document 04.*

Executive Secretariat of the Ministry of Environment – MMA.[176] This document, the *Evaluation Report* (attached document 04), presents the results of the analyses carried out on the annual rendering of accounts of the Ministry of Environment - MMA, for the year 2019.

According to this document, the Ministry of the Environment - MMA did not present sufficient data to evaluate the results achieved by that Ministry in 2019. The reasons for this were that the Ministry ***(i)*** prepared a new strategic plan in that year, and abandoned the Strategic Plan originally developed for 2014-2022; ***(ii)*** did not present detailed 2019 targets for the objectives of each thematic program in the Pluriannual Plan – PPA 2016-2019; and (iii) presented a Management Report that did not take into account the objectives, indicators and performance targets that had been defined for 2019.

The Evaluation Report (attached document 04) also identified that in 2019 several and significant changes were made to the regimental structure of the Ministry of Environment - MMA, which discontinued and repositioned several actions on the scale of priorities regarding issues related to the deforestation of the Legal Amazon. These institutional changes prioritized the urban environmental agenda and were at odds with the rural environmental agenda. Among these actions were ***(i)*** the extinction of the Secretariat of Climate Change and Forests, with all strategies regarding climate change being moved to the Secretariat of International Relations; ***(ii)*** the extinction of governance bodies linked to the Executive Committee of the Plans to Combat Deforestation, as well as the National Commission for REDD+ and the National Commission for Recovery of Native Vegetation; and ***(iii)*** the reallocation of actions related to the control of deforestation, promotion of sustainable forest management and recovery of the native vegetation to the Secretariat of Forests and

[176] See Annual Audit Report No. 815084 - MMA - financial year 2019 at https://eaud.cgu.gov.br/relatorios/?colunaOrdenacao=dataPublicacao&direcaoOrdenacao=DESC&tamanhoPagina=15&offset=0#list, doc. 04 attachment.

Sustainable Development. In the terms indicated in the Evaluation Report (attached document 04), *in verbis*:

> "*That decree* [Decree No. 9,759 of April 11, 2019] *extinguished a total of 56 collegiate members of the MMA, as listed by the Ministry to the audit team. In addition, according to the list provided by the Ministry, 22 other collegiate bodies were expressly revoked by decrees issued starting in 2019.*[177]" (our emphasis).

These structural changes carried out in the Ministry of the Environment - MMA in 2019 contributed to the ineffectiveness of actions to combat deforestation in the Amazon forest, as they directly affected the determinations found in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm. Figure 10, below, clearly shows the elevation of deforestation levels in the Legal Amazon in the year 2019.[178]

Figure 10. Deforestation rates in the Legal Amazon from 2012 to 2019 (PRODES data).

[177] See item 1.2 of the Evaluation Report, attached document 04.
[178] See Answer 23 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

As explained by Professor Dr. CARLOS AFONSO NOBRE:

> "*In 2013 the deforestation rate increased by 28% (5,891 km²) compared to 2012 (4,571 km²) and continued to fluctuate until 2018, at an average of 6,581 km² ± 1,081, but seeing a sharp increase in 2019 of 10,129 km². The measures that led to the fluctuations and the abrupt rise of deforestation in recent years are associated with weaker environmental policies to control and combat deforestation, weaker environmental inspection agencies, coupled with the government's rhetoric of amnesty for those who deforest illegally*."[179] (our emphasis).

In addition, the Evaluation Report prepared by the Office of the Federal Controller General - CGU (attached document 04) showed significant budgetary reductions for the programs *2050 - Climate Change*, *2078 - Conservation and Sustainable Use of Biodiversity* and *2083 - Environmental Quality,* between 2016 and 2019*,* which can be seen in Figure *11,*[180] below:

Quadro 2: Execução orçamentária por programa temático de 2016 a 2019.

Programa Temático	Ano	Dotação Atual (A)	Empenhado (B)	Liquidado (C)	Pago	Executado (B)/(A)	Executado (C)/(A)
2050 - Mudança do Clima	2016	22.440.989,00	8.774.009,00	7.188.898,00	7.188.898,00	39%	32%
	2017	16.059.099,00	7.458.921,00	4.363.693,00	4.358.383,00	46%	27%
	2018	8.098.310,00	7.609.953,00	2.118.806,00	2.118.806,00	94%	26%
	2019	10.311.528,00	2.588.621,00	1.293.899,00	1.293.899,00	25%	13%
2078 - Conservação e Uso Sustentável da Biodiversidade	2016	114.554.853,00	77.574.495,00	74.637.171,00	74.637.171,00	68%	65%
	2017	74.809.456,00	65.478.294,00	63.079.849,00	63.047.404,00	88%	84%
	2018	5.606.416,00	4.351.640,00	1.664.595,00	1.664.595,00	78%	30%
	2019	3.214.860,00	2.005.553,00	435.785,00	435.546,00	62%	14%
2083 - Qualidade Ambiental	2016	38.653.611,00	5.041.041,00	519.718,00	519.718,00	13%	1%
	2017	44.718.940,00	26.340.716,00	1.513.849,00	1.513.849,00	59%	3%
	2018	4.393.134,00	3.450.314,00	246.296,00	246.296,00	79%	6%
	2019	6.596.706,00	6.357.478,00	391.736,00	334.800,00	96%	6%

Fonte: Siop. Unidade Orçamentária: 44101 - Ministério do Meio Ambiente - Administração Direta, 44901 - Fundo Nacional de Meio Ambiente – FNMA e 44902 - Fundo Nacional sobre Mudança do Clima.

[179] See Answer 23 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[180] See Item 1.3 of the Evaluation Report, attached document 04.

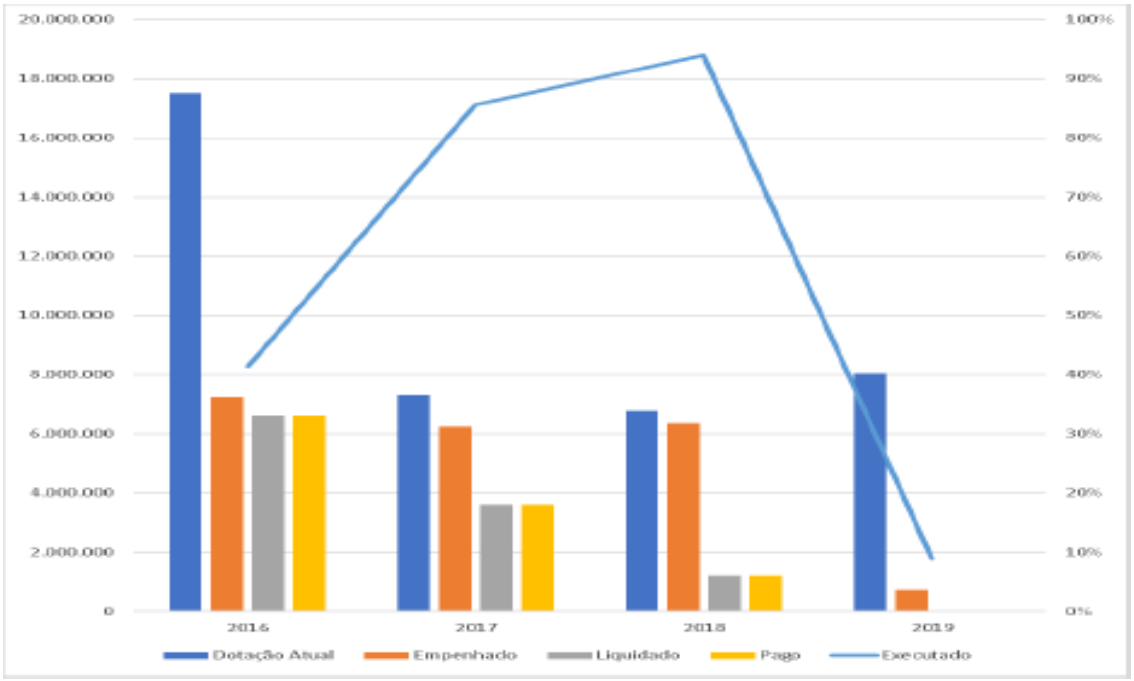
As if that were not enough, the budgetary cuts were also significant in the allocation of resources for the National Fund on Climate Change – FNMC, which has the objective of financing projects, studies and initiatives aimed at the reduction of greenhouse gas emissions and the adaptation to the effects of climate change. As clarified in the Evaluation Report (attached document 04), *in verbis*:

> "*Despite the slight increase in the budget allocation from R$6,778,320.00 in 2018 to R$8,050,000.00 in 2019, in Action 20G4 - Promotion of Studies and Projects for Mitigation and Adaptation to Climate Change, the execution of resources was only 9% that year, while in 2018 it corresponded to 94% of the committed amounts. The reason being, as recorded in the Management Report, that the Climate Fund did not support new initiatives in 2019, due to the revision of the decree establishing the composition of its Managing Committee, which occurred on November 28, 2019, with the publication of Decree 10,143*."[181] (our emphasis).

[181] See Item 1.3 of the attached Evaluation Report, document 04.

Figure 12,[182] shown below, demonstrates the significant decline in the execution of resources for the National Fund on Climate Change - FNMC in 2019:

Figure 12: Budget execution of the National Fund on Climate Change - non-reimbursable resources.



Fonte: Siop. Status da Seleção: Ano: 2016, 2017, 2018, 2019, 2020; Órgão Orçamentário: 44000 - Ministério do Meio Ambiente; Unidade Orçamentária: 44902 - Fundo Nacional sobre Mudança do Clima; Ação:20G4.

In the opinion of the Office of the Federal Controller General - CGU, these executive budget cuts may have originated from the non-adoption of planning instruments and the significant changes in the regulatory structure of the Ministry of Environment – MMA.[183]

Furthermore, the Federal Supreme Court decision ADPF 568[184] determined that **part of the amounts originated from the *Lava-Jato* operation (penalties paid by Petrobrás) should be destined, by the defendant, for initiatives to protect the Legal Amazon,** as follows: ***(i)*** R$ 1,060,000,000.00, duly adjusted for inflation and currency changes, for the prevention, inspection and combat of deforestation,

[182] See item 1.3 of the attached Evaluation Report, document 04.
[183] See item 1.3 of the attached Evaluation Report, document 04.
[184] See http://www.stf.jus.br/arquivo/cms/noticiaNoticiaStf/anexo/adpf568homolog.pdf. Date of access: 05/10/2020.

forest fires and environmental crimes in the Legal Amazon, including along the border, an amount to be distributed as follows: ***(i.i)*** R$ 430,000,000.00, with due adjustments, to be executed in a decentralized manner, in articulation with the Federal Government and the States of the Amazon region (attached document 04); and ***(i.ii)*** R$ 630,000,000.00, with due adjustments, to be executed directly by the Union, through ***(i.ii.i)*** actions such as Law and Order Guarantee (GLO) operations, under the budget of the Ministry of Defense, as per the terms of Article 16-A of Complementary Law 97/1999; ***(i.ii.ii)*** actions under the responsibility of the Ministry of the Environment and the Brazilian Institute of Environment and Renewable Natural Resources - IBAMA; and ***(i.ii.iii)*** actions of Land Regularization and Technical Assistance and Rural Extension, both under the budget of the Ministry of Agriculture, Livestock and Supply.

The amount of R$ 430,000,000.00 was distributed by the defendant as follows: R$ 230.000.000,00 to the Brazilian Institute of Environment and Renewable Natural Resources – IBAMA; R$ 140.000.000,00 to the National Institute of Colonization and Agrarian Reform - INCRA; and R$ 60.000.000,00 to the Ministry of Agriculture, Livestock and Supply - MAPA. These federal agencies were given the task of passing on the amounts distributed to them to the states that form the Legal Amazon.

The amount of R$ 630,000,000.00 was distributed as follows: R$ 50,000,000.00 to the Brazilian Institute of Environment and Renewable Natural Resources - IBAMA; R$ 35,000,000.00 to the National Institute of Colonization and Agrarian Reform - INCRA; R$ 15,000,000.00 to the Ministry of Agriculture, Livestock and Supply - MAPA, and R$ 530,000,000.00 were distributed to the Ministry of Defense. Analyzing the distribution by the defendant of resources destined to protect the Legal Amazon, we can see that the federal agencies acting directly with environmental issues in the country received, in total, only R$ 100,000,000. On the other hand, the Ministry of Defense alone received R$ 530,000,000, in other words, 84% of the total!

It should be mentioned that in 2019 the Ministry of Defense allocated only R$ 36,000,000.00 for GLO Operations to protect the Legal Amazon. The remaining R$ 494,000,000.00 were allocated to the item Protection, Monitoring and Combat of Illicit Acts in the Legal Amazon. In 2020, only those credits that had not been used in 2019 were reopened. This can clearly be seen in Figure 13,[185] below:

TABELA 2

Recursos da Lava Jato direcionados ao Ministério da Defesa

Entre 2019 e 2020

(valores em milhões de reais constantes

UO (Cod/Desc)	Autorizado	Empenhado	Liquidado	Pago	Restos a pagar pagos
2019 - Ação: 218X - OPERAÇÕES DE GARANTIA DA LEI E DA ORDEM					
MINISTÉRIO DA DEFESA	36,00	35,92	13,86	13,82	0,00
2019 - Ação: 21BT - PROTEÇÃO, FISCALIZAÇÃO E COMBATE A ILÍCITOS NA AMAZÔNIA LEGAL					
MINISTÉRIO DA DEFESA	145,39	0,00	0,00	0,00	0,00
COMANDO DA AERONÁUTICA	97,53	0,00	0,00	0,00	0,00
COMANDO DO EXÉRCITO	139,19	85,24	36,85	0,00	0,00
COMANDO DA MARINHA	111,89	0,00	0,00	0,00	0,00
Total de 2019:	530,00	121,16	50,71	13,82	0,00
2020 (Portaria 12.646/2020 - reabertura de créditos)					
2020 - Ação: 218X - OPERAÇÕES DE GARANTIA DA LEI E DA ORDEM					
MINISTÉRIO DA DEFESA	0,00	0,00	0,00	0,00	11,79
2020 - Ação: 21BT - PROTEÇÃO, FISCALIZAÇÃO E COMBATE A ILÍCITOS NA AMAZÔNIA LEGAL					
MINISTÉRIO DA DEFESA	145,39	145,39	0,00	0,00	0,00
COMANDO DA AERONÁUTICA	97,53	0,00	0,00	0,00	0,00
COMANDO DO EXÉRCITO	53,87	38,81	0,77	0,00	75,72
COMANDO DA MARINHA	111,89	54,26	0,79	0,00	0,00
Total de 2019:	408,68	238,46	1,56	0,00	87,50

Fonte: Siga Brasil. Dados corrigidos pelo IPCA, atualizados até 06 agosto de 2020. Elaboração Inesc.

[185] See https://www.inesc.org.br/recursos-anticorrupcao-e-militarizacao-da-politica-socioambiental-na-amazonia/.

II.IV.III. All the ***i)*** dismantling taking place within sectors of the Ministry of Environment - MMA; ***ii)*** relocation of environmental affairs to sectors not specialized in this area; ***iii)*** budgetary cuts and non-utilization of the total budgets for the protection of the Legal Amazon **have culminated in weakening the strategic and operational directives contained in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm**. **As a consequence, we have seen a gradual increase of deforestation in the Legal Amazon, as well as the failure to meet the goals determined in this plan**.

In addition, the defendant's attitudes have also reflected disregard for the environment. This has encouraged further deforestation of the Amazon forest,[186] with several players taking advantage of the failure to enforce the Brazilian environmental policy and the current fragility of environmental governance on the part of the defendant, which encourages a sense of impunity across social sectors.

To make matter worse, the non-fulfillment of the obligations assumed by the Federal Government in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm has demonstrably led to loss of environmental quality in the country and damage to the flora, fauna and native people of the Amazon forest (the indigenous population, for example), who are exclusively dependent on the environmental resources offered by this biome.

As described in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020 (attached document 03):

> "*Aside from a complete standstill of IT* (Indigenous Territories) *demarcations*, *the report from the Indigenous Missionary Council (CIMI, 2019) showed skyrocketing deforestation, which increased by over 50% from 2017 to 2018, while cases of IT invasions have also risen. According to PRODES, in 2019 the deforestation inside ITs reached 490.8 km², with Ituna*

[186] Classified as national heritage, Article 225, §4 of the Federal Constitution.

/ Itatá as the IT with the largest deforested area in the Amazon. It is worth mentioning that in April 2020, after a team of reporters from the weekly television newsmagazine Fantástico followed an IBAMA operation at TI Ituna/Itatá that revealed intense mining activity on the site, the IBAMA agent in charge of that operation was fired by the Minister of the Environment. (...) *Another measure with great impact was MP 886, which in 2019 transferred responsibility for demarcating indigenous lands from FUNAI (National Indian Foundation) to the Ministry of Agriculture, which is now in charge of setting boundaries for indian lands even in areas of agribusiness expansion and conflict. In addition, pressures to open ITs to external economic activities have intensified. In early 2020, PL 191/2020 entered into force, which foresees rules allowing research on mining and potential for hydroelectric exploitation within TIs.*"[187] (our emphasis).

Figure 14, below, clearly reflects the high deforestation rates in Brazilian indigenous lands between 2018 and 2019:

Figure 14: Deforestation, in km², on indigenous lands, between the years 2008 and 2019. Source: PRODES/INPE; data available at http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/legal_amazon/increments.[188]

[187] See Answer 13 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.
[188] See Answer 13 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

The harmful attitudes adopted by the defendant regarding the Legal Amazon directly and indirectly affect the ecological existential minimum of this special region and impact all ecosystems within it, such as indigenous lands, federal conservation units, land reform settlement projects, among other areas under the protection of the federal government.

Furthermore, these attitudes open gaps in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, which affect its full effectiveness and development, while also contributing to the gradual deforestation of the Legal Amazon. Among these gaps we highlight ***(i)*** the absence (non-inclusion) of conservation unit areas and indigenous lands in all axes of the plan as continuous priority targets, both as mechanisms for inspection purposes and in relation to the implementation of incentive actions for sustainable production initiatives for their inhabitants;[189] ***(ii)*** the absence of effective actions to combat deforestation in land reform settlements;[190] ***(iii)*** the absence of continuous monitoring of those municipalities that are no longer included in the list of "priority municipalities", a situation that facilitates illegal deforestation activities in the region[191]; ***(iv)*** the absence of focus and use

[189] "*Starting in 2012, several UCs (Conservation Units) created under the PPCDAm have undergone processes of disappropriation and change of protection status in favor of infrastructure projects such as construction of hydroelectric power plants (MP 558/2012) and railroads for exporting agricultural commodities (MP 758/2016). Another aggravating factor is the high number of properties registered in the CAR (Rural Environmental Registry) that are located inside protected areas. A further complexity involved in these cases is the low rate of land titles in the Amazon. In 2019 the Minister of Environment, Ricardo Salles, suggested the use of the Amazon Fund to reimburse and relocate the landowners within protected areas, which generated strong criticism and objection from the countries that financed the fund (Germany and Norway)*". (our emphasis). See Answer 18 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[190]" "*Even though they are among the leading deforesters, land reform settlements have not received much attention from inspection activities within the PPCDAm. In 2012, the revision of the Brazilian Forestry Code exempted settlements from recomposing their illegally deforested areas. Studies in areas of agricultural expansion have also revealed intense land trade in settlements, involving illegal rent and sale agreements*". (our emphasis). See Answer 18, from the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[191] "*Studies by Arima et al., 2014 and Bizzo and Farias, 2017 show that municipalities follow different patterns of deforestation once they are no longer on the list, which may be due to a number of factors, ranging from government signaling looser environmental regulations to regional socioeconomic contexts. This behavior highlights the need to create monitoring mechanisms for these municipalities as they lie in areas of intense deforestation dynamics and, therefore, are more likely to resume high rates of deforestation*". (our emphasis). See Answer 18 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

of sustainable productive chains[192]; and (v) the absence of technical assistance for the local population, so that production is not tied only to agriculture and livestock, but also to sustainable production using raw materials from the forest itself.[193]

It must be emphasized that the federal government has *i)* technical experience; *ii)* adequate and sufficient resources; as well as *iii)* know-how in fighting and reducing deforestation. An example were the active initiatives of the government during the implementation of the three first phases of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, which signaled the likelihood of attaining the goal of reducing illegal deforestation to a maximum of 3,925 km^2 by 2020. In this sense, it is clear that the scaled down implementation of the fourth phase of the plan and the gradual increase in deforestation of the Legal Amazon have come as a result of the unwillingness and lack of commitment of the government to meet its mandatory climate-related targets. In other words, in spite of the federal government's capacity and expertise to reach its goal of reducing deforestation by 2020, it has made a choice to act negligently so as NOT to reach it.

Therefore, for all the factual and legal reasons presented herein, the Brazilian federal government's obligation to comply with the maximum target of illegal deforestation in the Legal Amazon for the year 2020, namely of 3,925 km^2, is indisputable, as set out in the provisions of Article 6, 12, in Law 12,187/2009, Article 18 and Article 19, §1, I, both from Decree 9,578/2018, as well as the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm.

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[192] "*PPCDAm's actions to encourage sustainable activities have been mainly based on granting credits and adopting technologies aimed at increasing the productivity of traditional agricultural practices. Less attention has been given to the creation of instruments to add value to forest products of great commercial potential, such as seeds, grains, roots and leaves that can be transformed into food products for the cosmetics and pharmaceutical industries*". (our emphasis). See Answer 18 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

[193] "*There is an urgent need to promote the professionalization of local players, especially those linked to sustainable production chains, so that they can acquire technical expertise and business acumen to transform forest products and even raw materials already inserted in the transformation market into final products, thereby guaranteeing employment, income generation and quality of life for communities in the Amazon*". (our emphasis). See Answer 18 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

This is evident because the defendant has repeatedly adopted a set of governmental measures that encourage the continuity of deforestation in the Legal Amazon[194] and which, consequently, contribute to the acceleration and expansion of anthropogenic climate change that is harmful to the Brazilian society and the entire world.

[194] See Answers 20, 21 and 22 in the Supporting Technical Report for the Public Interest Civil Action, dated September 2020, attached document 03.

II.V. ON THE LEGAL ADMISSIBILITY OF APPLYING THE REVERSAL OF THE BURDEN OF PROOF:

All the factual and legal content presented in this complaint confirm that the legal issues dealt with here focus on the **environmental protection of the Legal Amazon**, specifically the Amazon Biome, as well as the **protection of the fundamental right to climate stability for present and future generations**. The objective of this climate class action is to make the defendant comply with its obligation to reduce the deforestation rate in the Legal Amazon, which should not cover an area larger that 3,925 km^2 by the year 2020. This obligation is stated in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, which has its origin and binding force resulting from the National Policy on Climate Change - PNMC.

The context of this Public Interest Civil Action confirms its **environmental and public character with a diffuse scope,** for the protection of the Legal Amazon entails positive consequences for the quality of the environment at the national level, both for present and future generations.

It should be stressed that, in order to file the present class action, the plaintiff found it very difficult to obtain official documents and information of a specific nature on the factual situation, as such data is held in the internal or exclusive possession of the defendant. In the present case, therefore, **the plaintiff finds itself in a weaker position to produce evidence (technical hyposufficiency),** as it does NOT have full access to the elements that make up the body of facts related to the issues addressed in the present lawsuit.

It is important to note that the defendant is a public organism with administrative and executive power at the federal level, with discretion as to the publication of documents and information related to environmental issues in the Legal

Amazon. **This places the plaintiff in a position of technical vulnerability in relation to the Union**.

In this sense, it is **necessary and legally admissible to apply the reversal of the burden of proof to the case in question, in order to** place on the Union the *onus probandi* to factually and technically prove that ***(i)*** it will meet, by 2020, the goal of keeping illegal deforestation of the Legal Amazon to at most 3.925 km^2; ***(ii)*** it has been complying with the adequate actions required in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm (linked to the National Policy on Climate Change - PNMC), specifically with regard to those requirements defined in the fourth phase of the referred Plan; and ***(iii)*** its actions and/or omissions adopted in the Brazilian environmental and climatic governance have not influenced the imbalance and consequent elevation of deforestation rates in the Legal Amazon, nor that they have led to the elevation of greenhouse gas emissions levels.[195]

This evidentiary exception finds its legal basis ***(i)*** on the provisions of Precedent 618 of the Superior Court of Justice – STJ;[196] ***(ii)*** on the provisions of Article 21 of Law 7.347/1985,[197] along with the provisions of Article 6, VIII, of Law 8.078/1990;[198] and ***(iii)*** in the terms called for by the PRECAUTIONARY PRINCIPLE.

Precedent 618 of the Superior Court of Justice clearly determines that the "*reversal of the burden of proof applies to actions of environmental degradation"* (our emphasis). In this case, the fact that the Union does not comply with its goals of containing the illegal and large-scale deforestation that has been taking place in the Legal Amazon does indeed contribute to the environmental degradation of the biomes (Amazon and part of the Cerrado) and, consequently, the quality of the country's

[195] CARVALHO, Délton Winter de. **Dano ambiental futuro**: a responsabilização civil pelo risco ambiental. 2 ed. Rev. Atul. e Ampl. Porto Alegre. Editora Livraria do Advogado. 2013. p. 152.
[196] "***Precedent 618*** - *The reversal of the burden of proof applies to actions of environmental degradation*". (our emphasis).
[197] "***Article 21***. *The provisions of Title III of the law that instituted the Consumer Defense Code are applicable to the defense of diffuse rights and interests, both collective and individual, insofar as applicable*". (our emphasis).
[198] "***Article 6*** *Among the basic consumer rights, are to be found:*
VIII - *the facilitation of the defense of (the consumer's) rights, including the reversal of the burden of proof, in his or her favor, in civil proceedings, when, at the court's discretion, the allegation is credible or when he or she is the weaker (hyposufficient) party, according to the ordinary rules of experience*;" (our emphasis).

climate. Hence the legal admissibility of the precedent to the issue at bar, under the terms of the current understanding of the Superior Court of Justice - STJ, expressed in the decision reproduced below:

> "*CIVIL AND ENVIRONMENTAL PROCEDURE. INTERNAL REVIEW OF SPECIAL APPEAL.* ***PUBLIC INTEREST CIVIL ACTION. REVERSAL OF THE BURDEN OF PROOF.*** *PRECAUTIONARY PRINCIPLE. ADMISSIBILITY.* ***PRECEDENT 618/STJ.*** *ASSESSMENT OF THE PECULIARITIES OF THE SPECIFIC CASE, AUTHORIZING THE REVERSAL. REVIEW OF THE FACTS AND SET OF EVIDENCE. UNFEASIBILITY. INTERNAL REVIEW DENIED. 1 This Appeal rests on Administrative Statement 3 from the STJ, according to which, all appeals filed on the basis of the Fux Code (relating to decisions published as of March 18, 2016), will be subject to the requirements of appeal admissibility in the form of the new Code. 2.* ***This Superior Court admits the reversal of the burden of proof in lawsuits dealing with environmental degradation, under the terms of Precedent 618/STJ, with the ordinary courts being responsible for analyzing the requirements of redistributing the burden of proof.*** *3. Thus, with the court of origin having concluded for the necessity of reversing said burden, altering its conclusions in this special instance would prove unfeasible, as it would require the reexamination of the facts and set of evidence. Decisions: AgInt no AREsp. 1.373.360/PR, Justice GURGEL DE FARIA, DJe 17.10.2019; AgInt no AREsp. 620.488/PR, Justice OG FERNANDES, DJe 11.9.2018; AgInt no AREsp. 779.250/SP, Justice HERMAN BENJAMIN Dje 19.12.2016. 4. Internal Review denied*". (AgInt no AREsp 1580615/PR, Justice NAPOLEÃO NUNES MAIA FILHO, FIRST PANEL, sentenced on 24/08/2020, Dje 31/08/2020). (our emphasis).

In addition, the rules set forth in *article 21 of Law 7.347/1985, along with the provisions of article 6, VIII, of Law 8.078/1990,* also indicate the admissibility and the need to apply the reversal of the burden of proof to the specific case. This is because ***(i)*** it is eminently a matter of protecting rights and diffuse interests

at national level, aiming to defend the fundamental right to climate stability for the benefit of all people (present and future generations); and because, (***ii)*** based on the facts presented in this complaint, supported by the preliminary technical information presented herein (attached document 03), the following becomes evident: (***ii.i)*** the plausibility of the claims made by the plaintiff with the rights it seeks; and ***(ii.ii)*** the technical hyposufficiency of the plaintiff in view of its difficulty to access information and documents that are in the exclusive possession of the defendant. In this context, and as we have previously explained, granting the reversal of the burden of proof is a necessary and legally adequate measure for better clarification of the situation under discussion.[199]

On this issue, the Superior Court of Justice has a consolidated position that corroborates the plaintiff's claim, as can be verified in the decisions below:

> "*ADMINISTRATIVE.* ***ENVIRONMENT. REVERSAL OF THE BURDEN OF PROOF. ADMISSIBILITY. ENVIRONMENTAL PUBLIC INTEREST****. DECISION BY TRIAL COURT IN LINE WITH THE UNDERSTANDING OF THIS COURT.* ***I - In granting the request for reversing the burden of proof, the decision was thus framed (pages 18-19): "II - With regard to the request for reversal of the burden of proof, in light of the public interest attending the diffuse rights to a balanced environment, which directly interferes with the life of the population, I grant the prosecution's request to determine the reversal of the burden of proof in the manner provided for in Article 6, VIII of the CDC****. The Consumer Protection and Defense Code has not restricted itself to protecting consumer interests. Title III of this important law contains procedural provisions that go beyond its own scope and apply to other interests defensible by Public Interest Civil Action. [...] The appearance of legal standing defended by the Public Prosecutor's Office rests on the partial confession of the defendants and the expert reports presented. [...] Therefore,*

[199] When expressing our view on this subject, in another publication, we defended the understanding that the plausibility of the allegations presented by the plaintiff and the position of weaker party (technical hyposufficiency), of the latter, substantiate the application of Article 6, VIII, of the CDC to cases related to environmental matters. This understanding is fully applicable to this case, seeing that the plausibility of the plaintiff's claims has been demonstrated, as well as its technical vulnerability in relation to the defendant. See, CARVALHO, Délton Winter de. *Dano ambiental futuro*: a responsabilização civil pelo risco ambiental. 2 ed. Rev. Atual. e Ampl. Porto Alegre. Editora Livraria do Advogado. 2013. p. 156.

based on the apparent plausibility of the prosecution's allegations, reinforced by the legal provision of the Law that admits applying other legislation for Public Interest Civil Actions, among these the CDC (Article 21 of Law 7347/85 c/c Article 6, VIII of Law 8078/90), I reverse the burden of proof. II - Initially it should be emphasized that the impediment of Precedent 7/STJ does not apply to this case, as the controversy regarding the aforesaid provisions of the federal law and their interpretation has been settled, considering that the reversal of the burden of proof is perfectly appropriate and admissible in light of the environmental public interest discussed in the records. No reexamination of the evidence is required to deliberate on the issue. III - The understanding of the lower court is in perfect harmony with the precedents of the STJ. In this sense: AgInt no AREsp 1100789/SP, Justice ASSUSETE MAGALHÃES, SECOND PANEL, sentenced on 07/12/2017, DJe 15/12/2017; AgInt no REsp 1322449/RJ, Justice SERGIO KUKINA, FIRST PANEL, sentenced on 22/08/2017, Dje 31/08/2017; AgInt no AREsp 846.996/RO, Justice RAUL ARAÚJO, FOURTH PANEL, sentenced on 04/10/2016, DJe 19/10/2016. IV - The opinion of the Prosecution Office was in the same vein (pages 638-642). V – Interlocutory Appeal denied". (AgInt no REsp 1722404/MS, Justice FRANCISCO FALCÃO, SECOND PANEL, sentenced on 07/08/2018, Dje 15/08/2018). (our emphasis).

"*ADMINISTRATIVE. ENVIRONMENTAL.* ***PUBLIC INTEREST CIVIL ACTION FILED BY ENVIRONMENTAL NGO.*** *INSTITUTO RIO LIMPO - IRL. ABSENCE OF PRIOR ASSERTION OF A CONSTITUTIONAL CLAIM. PRECEDENT 282/STF. DAIRY PRODUCER. WATER POLLUTION. CONTAMINATION OF THE MORTES RIVER. WRONGFUL ACT AND CAUSAL LINK DEMONSTRATED. DAMAGE TO THE ENVIRONMENT. DUTY TO REPAIR.* ***BURDEN OF PROOF****. RE-EXAMINATION OF FACTS. PRECEDENT 7/STJ. 1. No violation of Article 333 in the CPC (Code of Civil Procedure) is recognized, as that legal instrument was not analyzed by the originating court. Thus, it cannot be claimed that prior assertion of the issue was made, not even implicity, the absence of which leads, by analogy, to the impediment of Precedent 282/STF: "The extraordinary appeal is inadmissible when the federal issue was not raised in the appealed decision.* ***In any event, if there are minimal***

> ***credible elements of evidence in the environmental Public Interest Civil Action, it is up to the defendant, within the burden that is attributed to him in light of the Code of Civil Procedure (fact that prevents, modifies or extinguishes the right), to prove the opposite, i.e. the absence of damage and causal link (origin of the damage).*** *(...) 6. Special Appeal denied.*" (REsp 1504742/MG, Justice HERMAN BENJAMIN, SECOND PANEL, sentenced on 05/11/2015, Dje 26/11/2019). (our emphasis).

In addition, the reversal of the burden of proof, in this specific case, is also sustained by the PRECAUTIONARY PRINCIPLE. We have clarified in previous positions that, as a general rule, the regulatory system involving risks allows for the absence of direct evidence about the damage caused to the environment. Faced with the scientific uncertainties of environmental damage, applying the PRECAUTIONARY PRINCIPLE is justified as grounds for reverting the burden of proof. As we understand it,

> "[the] *precautionary standard of proof requires 'reasonable grounds', according to the European Commission, which refers to likelihood, meaning therefore 'something less than probability and more than a remote possibility'.* (...) *the standard of proof (degree of proof) in contexts of incidence of 'precaution' must also observe the 'contextual factors' involving a given risk, and there must be 'reasonable satisfaction' of the necessary proof of a likelihood of future damage and its magnitude (serious or irreversible) in order to justify imposing anticipatory measures*."[200] (our emphasis).

Such is **the case of this lawsuit**, as the factual and legal issues presented here are corroborated by (preliminary) technical information, which demonstrates *i)* the plausibility of the plaintiff's allegations; *ii)* the likelihood of current and future climate damage, in view of the increased levels of deforestation in the Legal Amazon; iii*)* the strong evidence that the defendant is failing to comply with its obligations

[200] CARVALHO, Délton Winter de. *Gestão jurídica ambiental*. São Paulo. Editora Revista dos Tribunais. 2017. p. 218.

assumed in the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm, linked to the National Policy on Climate Change – PNMC and, consequently, disobeying the rules determined in it; *iv)* the serious and irreversible environmental climate damage and environmental degradation that has already occurred and that may still take place on account of the omission of the defendant's obligations; and *v)* the impossibility of technical knowledge (scientific uncertainty) about the actual damage that the defendant's attitudes is causing to the environment, either at the regional (Legal Amazon) or national level. In light of this, applying the reversal of the burden of proof based on the PRECAUTIONARY PRINCIPLE is justified.

Such is also the consolidated understanding of the Superior Court of Justice - STJ, which corroborates the position presented herein by the plaintiff, as can be seen in the decisions below:

> "*INTERNAL REVIEW OF SPECIAL APPEAL. CIVIL PROCEDURE. CIVIL AND ENVIRONMENTAL LAW. CONSTRUCTION OF HYDROELECTRIC POWER PLANT. FISHERIES. REDUCTION. PRECEDENT No. 7/STJ. INADMISSIBILITY. OBJECTIVE RESPONSIBILITY. UNDENIABLE DAMAGE. CAUSAL LINK.* ***PRECAUTIONARY PRINCIPLE. REVERSAL OF THE BURDEN OF PROOF. ADMISSIBILITY.*** *1. Special appeal against appelate decision rendered under the Civil Procedure Code of 2015 (Administrative Precedents No.2 and No. 3/STJ). 2. No impediment as to Precedent No. 7/STJ can be found, as the facts have already been outlined in the lower courts, and only the interpretation given to the law for the resolution of the controversy should be reviewed in this court. 3. Law 6,938/1981 adopted the system of objective liability, which has been fully assimilated by the current legal order, whereby the hypothetical discussion of the agent's conduct (whether negligence or intent) is irrelevant to attribute the duty of reparation for the damage caused, which, in the case, is undeniable.* ***4) The precautionary principle, applicable to this case, presupposes the reversal of the burden of proof, thus transferring to the public utility company the task of proving that its conduct did not pose a risk to the environment and, consequently, to the fishermen of the region.***

5. Appeal denied". (AgInt no AREsp 1311669/SC, Justice RICARDO VILLAS BÔAS CUEVA, THIRD PANEL, sentenced on 03/12/2018, DJe 06/12/2018). (our emphasis).

"*CIVIL PROCEDURE. SPECIAL APPEAL. DENIAL OF RELIEF. NONOCCURRENCE.* ***PRECAUTIONARY PRINCIPLE. APPLICATION. PRECEDENTS. REVERSAL OF THE BURDEN OF PROOF.*** *REQUIREMENTS. ANALYSIS. FACTUAL AND EVIDENTIARY REVIEW. IMPOSSIBILITY. NEW EVIDENCE ON APPEAL. INADMISSIBILITY. 1.The STJ Plenary has decided that "appeals filed on the basis of CPC/2015 (relating to decisions published as of March 18, 2016) will be subject to the requirements of appellate admissibility of the new CPC" (Administrative Precedent No. 3). 2. No violation of articles 371 and 489, paragraphs 1, II and IV of CPC/2015 when the lower court addresses the alleged defects in the motion for clarification and issues a reasoned statement, even if contrary to the claim of the appellant.* ***3. The Superior Court of Justice has adopted the position that the precautionary principle presupposes the reversal of the burden of proof. Precedents.*** *4. Factual and evidentiary review is not feasible within a special appeal, pursuant to Precedent 7 of the Superior Court of Justice: "The intention of simple re-examination of evidence does not justify a special appeal. 5. This is a case where the lower court, sovereign in the analysis of the factual circumstances of the cause, has affirmed the presence of the requirements for the reversal of the burden of proof. 6. Introducing new grounds seeking to overrule that decision by means of an interlocutory appeal constitutes new evidence on appeal, which is inadmissible due to preclusion. 7. Interlocutory appeal denied*". (AgInt no AREsp 1373360/PR, Justice GURGEL DE FARIA, FIRST PANEL, sentenced on 14/10/2019, DJe 17/10/2019). (our emphasis).

"*ADMINISTRATIVE AND CIVIL PROCEDURAL LAW. INTERNAL REVIEW OF SPECIAL APPEAL.* ***PUBLIC INTEREST CIVIL ACTION. ENVIRONMENTAL DEFENSE.*** *SUFFICIENTLY SUBSTANTIATED DECISION. REASONS FOR THE APPEAL DO NOT SPECIFICALLY CHALLENGE THE APPEALED DECISION. PRECEDENT 182/STJ.* ***ONUS***

PROBANDI. PRECAUTIONARY PRINCIPLE. *DECISION BASED ON CONSTITUTIONAL GROUNDS. IMPOSSIBILITY, IN A SPECIAL APPEAL, TO REVIEW THE MATTER ON THE MERITS, AT THE RISK OF A CONFLICT OF JURISDICTION WITH THE FEDERAL SUPREME COURT.* ***REVERSAL OF THE BURDEN OF PROOF. POSSIBILITY. ENVIRONMENTAL ISSUES.*** *CONTROVERSY RESOLVED, BY THE LOWER COURT, ON THE BASIS OF THE EVIDENCE IN THE CASE AND THE TERM OF ADJUSTMENT OF CONDUCT SIGNED BETWEEN THE PARTIES. REVIEW. IMPOSSIBILITY. PRECEDENTS NO. 5 AND NO.7 OF THE STJ. OBLIGATION TO UNDERTAKE PAYMENT OF EXPERT FEES. PRINCIPLES OF PROPORTIONALITY AND REASONABILITY. MATTER RESOLVED, BY THE LOWER COURT, ON THE BASIS OF THE EVIDENCE IN THE CASE. IMPOSSIBILITY OF REVIEW IN THE SPECIAL APPEAL. PRECEDENT 7/STJ. INTERNAL REVIEW DENIED. I. Internal review filed against decision published on April 26, 2008, which, in turn, heard an appeal filed against a decision issued under the Code of Civil Procedure – CPC/2015. II. At its origin, this was an interlocutory appeal within a Public Interest Civil Action seeking a mandatory injunction, brought by the Municipality of Bataguassu/MS against the appellant, following a decision that had granted a request for drafting an expert opinion and reversed the burden of proof, imposing, on the appellant, the payment of the expert fees, within five days of presentation of the proposal by the expert. The appelate court dismissed the appeal. III. If the reasons upon which an internal appeal is filed do not specifically challenge the arguments of the appealed decision – specifically as to the sufficient grounds of that judgment – the objection cannot prosper, as to that point, in face of Precedent 182 of this Court.* ***IV. The lower court decided the controversy over the reversal of the burden of proof with an eminently constitutional approach,*** *which makes it unfeasible to analyze the issue, on the merits, in the Special Appeal, at the risk of a conflict of jurisdiction with the STF. Precedents of the STJ (AgRg no AREsp 584.240/RS, Justice BENEDITO GONÇALVES, FIRST PANEL, DJe of 03/12/2014; AgRg no REsp 1.473.025/PR, Justice HUMBERTO MARTINS, SECOND PANEL, DJe of 12/03/2014).* ***V. In its precedents, the Superior Court of Justice has established the position that "the precautionary principle presupposes the inversion of the burden of proof (AgRg no AREsp 183.202/SP, Justice***

> ***Ricardo Villas Bôas Cueva, Third PANEL, sentenced on 10/11/2015, DJe 13/11/2015)"*** *(STJ, AgInt no AREsp 779.250/SP, Justice HERMAN BENJAMIN, SECOND PANEL, DJe 19/12/2016). Thus, considering that the judgment being appealed is in line with the established precedent of this court, the decision under appeal deserves to be upheld, in view of the provisions of Precedent 568 / STJ. (...) VIII. Internal review denied.*" (*AgInt no AREsp* 1151766/MS, Justice ASSUSETE MAGALHÃES, SECOND PANEL, sentenced on 06/21/2018, DJe 27/06/2018). (our emphasis).

It is important to reaffirm that the omission of the defendant in carrying out the scope of actions to reduce deforestation in the Legal Amazon (especially in relation to the fourth phase of the PPCDAm) has directly contributed to the unlikelihood (which in view of the current figures is almost certain) of meeting the target established for the year 2020 (as confirmed by the technical information attached hereto, document 03). This negative attitude has provoked damaging activities ***(i)*** to the biomes that make up the Legal Amazon, specifically the Amazon Biome; and ***(ii)*** to the climate quality of the country, both in relation to the reduction of natural resources that act as carbon dioxide (CO_2) sinks, and to the release of this gas into the atmosphere as a result of deforestation.

Therefore, we can verify the factual and legal elements that confirm the admissibility and necessity of applying the reversal of the burden of proof to the present case, in view of the incidence of *i)* Precedent 618 of the Superior Court of Justice - STJ; *ii)* Article 21 of Law 7.347/1985, cumulated with Article 6, VIII, of Law 8.078/1990; and *iii)* the PRECAUTIONARY PRINCIPLE .

IN VIEW OF THE FOREGOING, WE REQUEST FROM YOUR HONOR:

a) that **the present public interest climate civil action for a mandatory injunction** be **received and processed**, in all its facts, preliminary technical information, legal grounds and requests;

b) that **the defendant be summoned** so that he, if so wishing, may file a defense within the legal period, under penalty of default;

c) that the present public interest climate civil action be **held fully valid**, **and that the defendant be ordered to comply with its legal obligation as stated in the Action Plan for Prevention and Control of Deforestation in the Legal Amazon - PPCDAm,** which is connected to the National Policy on Climate Change - PNMC, **to the effect that by the year 2020,[201] the maximum rate of illegal deforestation in the Legal Amazon MUST NOT EXCEED THE RATE OF 3.925 km^2,** as set forth in Article 17, I, Article 18 and Article 19, §1, I, all from Federal Decree 9.578/2018, and Article 6 and 12, both from Federal Law No. 12.187/2009;

d) that **the measurement of the deforestation rate in the Legal Amazon be carried out by the official data indicated in the PRODES system** (Project for Satellite Monitoring of Deforestation in the Legal Amazon), and that the maximum deforestation rate of 3,925 km^2 for the year 2020 be observed, **considering the period of analysis from August 1, 2020 to July 31, 2021**;

[201] It should be noted that the monitoring of PRODES in relation to the timeframe of the year 2020 in fact refers to the measurements from August 2020 to July 2021.

e) should the defendant not comply with its normative obligations herein demanded, thus exceeding the maximum rate of deforestation in the Legal Amazon of 3,925 km^2 for the year 2020, **that the defendant be ordered to restore the entire deforested area in excess of the annual legal limit,** previously referred to, within one (1) year, or in the shortest period possible, which is to be defined in a specific technical report, based on the best available technology, without prejudice to the other penalties indicated in Article 815 and Article 816, both in the Code of Civil Procedure;

f) that the **defendant** be ordered to **allocate sufficient budgetary resources** to *i)* comply with its normative obligation to reduce illegal deforestation of the Legal Amazon to the limit of 3,925 km^2 in the year 2020; and *ii)* reforest the entire area of the forest that may come to exceed this limit, proportionally; without prejudice to the other penalties indicated in Article 815 and Article 816, both in the CPC;

g) that the **defendant** be ordered to **use all available financial, technical and personnel resources** in order to perform the obligation required in this lawsuit, in the best factually and technically feasible manner;

h) that **INPE (National Institute of Space Research) be appointed as the court's auxiliary body** for submitting information, as well as for monitoring the compliance of the defendant with the ruling;

i) that the **defendant be ordered to pay a daily fine** in the event of noncompliance with the ruling, without prejudice to the other penalties referred to in Article 536, Article 537, Article 815 and Article 816, all in the CPC;

j) that **the defendant be ordered to present, in these records, all the activities, documents, acts and technical information that demonstrate the effective actions being taken in relation to the implementation of its obligation** (pointed out in item "b", above), from the start of implementation of the fourth phase of the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon - PPCDAm (year 2016) to present days;

k) that **the reversal of the burden of proof be applied to the present public interest climate civil action**, under the terms of Precedent 618 of the Superior Court of Justice – STJ, by Article 21 of Law 7.347/1985, cumulated with Article 6, VIII, of Law 8.078/1990; and by the PRECAUTIONARY PRINCIPLE (item II.V above);

l) that the **production of all evidence admitted in law be allowed to proceed,** in particular the hearing of witnesses, inclusion of new documents and other evidence as necessary after the time limit for replying has lapsed;

m) the amount in dispute cannot be estimated.

Respectfully submitted,

Curitiba, October 8, 2020.

Pp.

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