



ENVIRONMENTAL SUSTAINABILITY DIPLOMACY: TRANSPARENCY OF INTENTIONS AND TRUST FOR MORE EFFECTIVE INTERNATIONAL COOPERATION

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ABSTRACT

This article intends to review some indispensable issues. First, to highlight the importance of trust and transparency as a foundation for international cooperation coordinated by environmental diplomacy for sustainability. Second, to share some recent concrete cases of the fight against the illegal trade of Brazilian tropical timber and the need for international cooperation for an effective protection of the Legal Amazon. Third, the measures that are being taken by Brazil to avoid the continuity of this illegality. We conclude that trust and transparency are essential elements for a more effective international cooperation. In this sense, we expect that foreign countries, including EU member states, will spare no effort to fight this illegal trade that has such a negative impact on forests, biodiversity, climate and people. In this way, it is desired that bonds of trust between Brazil and the EU will be strengthened with the firm intention of maintaining cooperation agreements, as well as joint and synchronized actions for the protection of the Legal Amazon.

Keywords: Diplomacy; environment; trust, transparency; cooperation; protection; Amazon.



DIPLOMACIA DE SUSTENTABILIDADE AMBIENTAL: TRANSPARÊNCIA DE INTENÇÕES E CONFIANÇA PARA UMA COOPERAÇÃO INTERNACIONAL MAIS EFETIVA

RESUMO

Este artigo pretende rever algumas questões indispensáveis. Primeiro, destacar a importância da confiança e da transparência como base para a cooperação internacional coordenada pela diplomacia ambiental para a sustentabilidade. Em segundo lugar, compartilhar alguns casos concretos recentes da luta contra o comércio ilegal de madeira tropical brasileira e a necessidade de cooperação internacional para uma proteção efetiva da Amazônia Legal. Terceiro, as medidas que estão sendo tomadas pelo Brasil para evitar a continuidade dessa ilegalidade. Concluímos que a confiança e a transparência são elementos essenciais para uma cooperação internacional mais efetiva. Nesse sentido, esperamos que os países estrangeiros, incluindo os estados membros da UE, não poupe esforços para combater este comércio ilegal que tem um impacto tão negativo nas florestas, na biodiversidade, no clima e nas pessoas. Dessa forma, deseja-se que os laços de confiança entre o Brasil e a UE sejam fortalecidos com o firme propósito de manter acordos de cooperação, bem como ações conjuntas e sincronizadas para a proteção da Amazônia Legal.

Palavras-chave: Diplomacia; meio Ambiente; confiança, transparência; cooperação; proteção; Amazonas.

1 INTRODUCTION

Among criticisms, controversies and debates – not always proactive – on environmental protection issues related to the Amazon rainforest, illegal deforestation and wildfires, environmental sustainability diplomacy¹ assumes an extremely relevant role in order to clarify existing doubts, and to avoid the continuation of current (as well as the emergence of new) conflicts related to this theme.

One of the criticisms made by the European Union to Brazil concerns the lack of clarity regarding the Brazilian Government's actions for the preservation and protection of the Amazon. On its turn, Brazil expresses doubts as to what can be the

¹ Nowadays, “the biosphere presents unique challenges to the world’s diplomats. Trained to operate in the realm of military might and economic influence, these women and men are now faced with an array of environmental issues which defy traditional diplomatic solutions” (Dorsey, Kurk, 1991).



real intentions of certain European countries in addressing these issues – which only results in the intensification of controversies².

In order to clarify dilemmas and peacefully reach the objectives sought by all countries and blocs involved in negotiations, environmental diplomacy is a key element, indispensable for an effective international cooperation to be built based on mutual trust – marked by clear communicative actions, and by a firm commitment between all those involved in this process.

Over the years – due to globalization – the old paradigms have changed, and “international legal cooperation ceases to be exclusively an act of courtesy between States and, if it could previously be seen as a threat to sovereignty, today it presents itself as essential to its own maintenance” (MJ/DRCI, 2013).

Therefore, the function of international cooperation in diplomacy has broadened. Before, it was preponderantly justifiable mainly for the maintenance of the peace and the progress of humanity. Today, international cooperation is also essential for the exercise of sovereign functions by the States (*ibidem*), be it for the guarantee of individual, collective and diffuse rights; for the maintenance of public security; to fight organized crime; for the stability of the economic-financial system; for environmental reasons, etc.

Brazil's concern with controlling the many interests that permeate the economic exploitation of its natural resources is understandable. Nevertheless, it is essential to communicate its governmental actions regarding environmental protection with greater clarity, so that they can obtain recognition and greater credibility in the international scenario – which is paramount for the success of international cooperation on environmental issues.

This article contains three main sections. The first section deals with trust and transparency as major foundations of international cooperation. The second section presents three recent, concrete cases of Brazil's fight against the illegal trade of native wood, highlighting the need for international cooperation to help Brazil protect the Amazon. The third section mentions some of the measures taken by the Brazilian

² It is known that “on the European side, agricultural sectors in countries such as France, Ireland and Poland were traditionally opposed to the opening of the European market to greater competition with South American products” (Bruno Theodoro Luciano, 2020). In light of that, the Mercosur-European Union Agreement can be considered as a triumph of multilateralism over protectionism (MERCOSUR, 2020, p. 1).



government to avoid the aforementioned illegal trade, which so harms the environment, the local population and the country's economy – in addition to impacting regional and global climate patterns.

2 TRUST AND TRANSPARENCY: FOUNDATIONS FOR INTERNATIONAL COOPERATION

In a globalized world, where the actions taken within the borders of each sovereign state can have either positive or negative consequences for the entire international community of states, it is essential that there are good mechanisms of international cooperation between them: both regional and global, both bilateral and multilateral ones³.

In spite of the recognition that “cooperation requires actors to convince others they have both the ability and the incentive to behave as promised” (Leeds, 1999, p. 982), it is common knowledge that “domestic political structures vary along several dimensions that should affect the abilities of states to make credible commitments and the willingness of states to enter into international agreements” (Leeds, 1999, p. 986). For this very reason, we bet on the diplomatic dialogue as the best way to establish consensus, transparency of intentions and trust in inter-state relations, in the face of all cooperation agreements and international treaties signed.

According to Luhman (1996, p. 20), trust and transparency underlie international cooperation. For him, international cooperation rests upon mutual trust between cooperating states, “whose need is generated by social complexity as a result of the intense mutability of human relationships across time and space, and whose usefulness stems from the significant increase of possibilities for experiences and

³ According to Guido Soares, *lato sensu* cooperation refers to joint actions carried out between all the States or by a certain number of States, with a specific purpose in mind; whether on a bilateral or multilateral level, or as the result of a duty instituted by an unwritten rule (international custom). On the other hand, *stricto sensu* cooperation is considered a specific duty, stipulated in international treaties or agreements (written rules), which require that a single State, a group of States or the entire international community take action in cases of emergency or accident, in accordance to the obligations concerted in those international acts (SOARES, Guido Fernando Silva, 2003).



actions” – which tends to increase transparency, “especially among states with democratic models” (Medeiros, 2011).

We understand that dealing with international environmental cooperation is to deal with issues involving sovereignty, the environment and global interest. However, as explained by Antonio Augusto Cançado Trindade, it is necessary to identify which matters are the reserved domain of States, and which matters demand the need for cooperation and interdependence between nations (Cançado Trindade, 1981). For him, interdependence is enshrined and framed by law itself, at the same level of independence.

Therefore, in order for there to be a fruitful international cooperation between States and other international players, the limits and duties imposed must be considered within the sphere of interdependence and, at the same time, of state independence. International cooperation must take place with respect to national sovereignty and with the purpose of establishing relationships based on trust, and on the transparency of intentions and of actions. In other words, discourse and action must align⁴.

It is in this sense that environmental diplomacy works, in order to guide countries into bringing together their interests – sometimes predominantly economic – towards socio-economic and environmental sustainability⁵. Currently, as stated by Philippe Sands, “the obligation to cooperate is laid out in practically all international environmental agreements of bilateral or regional application, as well as in global instruments” (Sands, 2003, p. 250). However, for the relationship between stakeholders to be fruitful, it is essential “that international cooperation accepts the ethical value of environmental protection” (Rossit, 2006, p. 158).

⁴ Brazil has been regulating cooperation between countries in several laws of its legal system, such as in the Law on Environmental Crimes (Law 9.605/98); in Law 9.613/1998, which deals with money laundering; and in Law 11.343/2006, which creates the National System of Public Policies on Drugs (Sisnad).

⁵ The Principle of International Cooperation first came up in the Stockholm Declaration of 1972. On its Principle 24 it says that “all countries, large and small, must engage with spirit and cooperation and on an equal footing in international issues relating to the protection and improvement of the environment”. It also affirms “It is essential to cooperate to control, prevent, reduce and effectively eliminate the harmful effects that activities carried out in any sphere may have on the environment, through multilateral or bilateral agreements, or by other appropriate means, respecting the sovereignty and interests of all states”. Later on, in the Rio-92 Declaration, such principle is reaffirmed on its Principle 7, adding to the text the notion of “Common but differentiated responsibility”.



Overall, international relations are permeated by delicate issues that require care to avoid heated, thoughtless and intense assertions, which can knock out years of proactive negotiations. To avoid such undesirable setbacks, criticism should always be constructive, exhorting and placed within the sphere of truth and mutual respect. Conversely, when using untruths or half-truths permeated by threats and retaliation, confidence of intentions can immediately turn into mistrust of real intentions – which is detrimental to all actors involved.

Tension has always been present in international relations. That is why diplomacy exists: to reconcile divergent interests and bring peace and harmony between countries. It can be said that “the ideal and adequate is to structure communication in a dialogic perspective with interaction. This is so because one cannot think that Communication is only disclosure; one must think about shared power, dialogue and transparency to inform facts and knowledge” (Pressler, *et al*, 2014).

Lately, on the international stage, Brazil has been heavily criticized for the way it has conducted its environmental policy – a situation aggravated by illegal deforestation and by the recent fires in the Amazon and Pantanal biomes. Such problems are linked to several factors, such as extremely dry seasons in those regions, the lack of awareness of the population on the conservation of the forest, in addition to arson. In the case of the Pantanal, we must add the peculiarity of the so-called “peat fire” (underground fire that is difficult to notice) that took place. All this associated with the delay of a synchronized action between state governments and the federal government to fight the forest fires allowed these to spread quickly in those regions (BBC / Brasil, 2020), causing irreparable losses.

During this time, issues such as the suspension of the Amazon Fund⁶, threats of non-implementation of the Mercosur-European Union Agreement⁷ and of

⁶ We must highlight that the Amazon Fund is a pioneer financing initiative taken by Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+). Regarding project support, the Amazon Fund ended 2019 with a portfolio of 103 supported projects (for combating deforestation and for the sustainable use of the forest), of which 27 are concluded. Its administration in Brazil is made by the National Bank for Economic and Social Development (BNDES), in cooperation with the Ministry of the Environment (MMA). Donations to the Amazon Fund can be made by governments and companies. Among its main donors are Norway and Germany. (Brasil/Fundo Amazônia. Relatório, 2019).

⁷ The trade agreement between the European Union and Mercosur seeks economic, environmental and political objectives. In addition to a trade section, it includes a section on policy and cooperation. In terms



suspending the purchase of Brazilian goods were raised by some European countries, if Brazil did not realign its domestic environmental policies with ratified international agreements – mainly the Paris Agreement (UNFCCC, 2015).

However, in light of all the criticism made to Brazil (some pertinent, others not so much), the efforts and actions taken by the Brazilian government for the protection of Brazilian biomes (especially of the Amazon rainforest) seem to have been disregarded or not sufficiently valued by the international community. The same seems to be true about the federal government's efforts to fight against the illegal trade of Brazilian wood, which is one of the main reasons behind the illegal deforestation in the so-called Legal Amazon⁸ – an area that covers a larger extent than that of the Brazilian Amazon itself.

It can be said that “the illegal production and trade of tropical timber is one of the main drivers of environmental degradation worldwide, leading to loss of habitats and biodiversity, greenhouse gas (GHG) emissions, human rights abuses and corruption” (BvRio Institute, 2017). In this regard – despite the recognition that, in the case of Brazil, a large part of the illegal timber remains within the domestic market – the gravity of the fact that there is an illegal international timber trade that supplies the markets of countries in Europe, North America and Asia cannot be denied or mitigated. Nevertheless, we must acknowledge that international efforts have been made to tackle illegality in the timber sector, in terms of legislative requirements (*ibidem*)⁹.

Even in 2015, Greenpeace had already denounced that illegal Brazilian wood arrived with impunity in Europe (Greenpeace, 2015). By the way, that was happening in countries that often severely criticize Brazil for deforestation.

of aspects related to environmental policy, it can be highlighted that “the agreement provides for high standards of sustainability according to European criteria, to prevent future exchanges of goods from occurring at the expense of environmental or labor standards. Another important element of this trade agreement is the protection of human rights and of indigenous communities” (Gregosz, 2020, pp. 49-51).

⁸ Legal Amazon: according to Law 12.651, of May 25, 2012, it comprises the States of Acre, Pará, Amazonas, Roraima, Rondônia, Amapá and Mato Grosso, and the regions located to the north of the 13° S parallel, of the States of Tocantins and Goiás, and west of the 44° W meridian, in the State of Maranhão.

⁹ In this sense, one can highlight in terms of legislative requirements, the US Lacey Act 20083, the EU Timber Regulation, and amendments to Australia's Illegal Logging Prohibition Act have made trading illegal timber a punishable offense. Also running in parallel there are initiatives such as the EU Forest Law Enforcement, Governance and Trade (FLEGT) and TREE (BvRio Institute, 2017). We can also highlight The Japanese Clean Wood Act (EUFLEGT facility).



In the document “*Environmental Crime Programme (eds). Green Carbon, Black Trade: Illegal Logging, Tax Fraud and Laundering in the Worlds Tropical Forests*”, INTERPOL states: “One of the greatest challenges in combating illegal logging is understanding how illegally logged, procured, processed or manufactured wood products are laundered and spread to markets in the US, the EU, China and Japan, which together receive over 80 per cent of the world’s illegally logged wood” (UNEP/INTERPOL, 2012).

It should be noted that, in this document, Brazil appears as one of the countries that supply the main bilateral routes for illegal timber (UNEP/INTERPOL, 2012, pp. 54-55)¹⁰.

Also in this regard, data from the Chatham House Report Executive Summary (2015), “*Tackling Illegal Logging and the Related Trade What Progress and Where Next?*”, show that “most illegal timber comes from three producing countries”. However, they warn that other countries have much higher shares of illegal production. The vast majority of illegal timber in 2013 came from Indonesia (about 50%), Brazil (25%) and Malaysia (10%). They claim that in the case of Brazil, investing in governance is crucial to reduce illegal logging (Chatham House Report, 2015).

For an effective environmental sustainability diplomacy to exist – one in which international dialogue is at the service of nature and of human beings – it is crucial that all players involved be transparent about their objectives and goals, making them compatible with their official public discourse. That is indispensable to create bonds of trust, to strengthen cooperative actions to fight the illegal trade of tropical wood from Brazil.

Although we can acknowledge worthy efforts and significant advances made by different national legislations – which are important to give practicality to the confrontation of the problem, we must highlight that the isolated actions of individual countries will not suffice to effectively dismantle the criminal and corrupt structures set up over the years in the global market of tropical timber.

¹⁰ According to the Unep/Interpol document, some ways to launder illegally logged wood include: (1) mixing illegally logged logs with legal logs by exceeding cutting quotas on-site; (2) mixing illegal logs with legal logs by transporting illegal timber from an illegal cutting site to a legal forest operation; (3) using permits or logging concessions in one area to cut in a different area using road transportation to hide the origin; (4) mixing illegally logged timber with legal logs at a sawmill or pulp mill, sometimes exceeding its official capacity, etc (UNEP/INTERPOL, 2012).



This article argues that, in order to eradicate the illegal trade of tropical wood, it is paramount that all countries involved in the international market of timber and its by-products (both buyers and sellers) engage in a serious international cooperation. Such inter-state cooperation is necessary for the exchange of expertise and for the planning of joint actions, to reinforce internal and external inspection, and to remedy any existing gaps in legislation, in trade policy standards and in commercial control infrastructures.

3 CONCRETE CASES OF THE BRAZILIAN GOVERNMENT IN THE FIGHT AGAINST THE ILLEGAL TRADE OF TROPICAL WOOD, AND THE NEED FOR INTERNATIONAL COOPERATION TO BETTER PROTECT THE AMAZON

In this section, we present three concrete and recent cases of government operations against the illegal trade of Brazilian tropical wood, as well as a brief overview of the Brazil-European Union relationship, demonstrating the need for cooperation between them for the effective protection of the Amazon.

These three federal government operations were executed by the Brazilian Federal Police, in partnership with the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama), and with the Federal Public Ministry (MPF). Often, they were also carried out in joint action with the Armed Forces of Brazil, the Chico Mendes Institute (ICMbio) and the Indian Foundation (Funai).

The first operation was called “Archimedes” (Phases I and II). The second operation was called “Handroanthus”. The third operation was called “Exodus” (Phases I and II).

4 OPERATION ARCHIMEDES

The Archimedes operation had two phases. It started with an alert issued by the Federal Revenue Service and by the Brazilian Institute of the Environment and Renewable Natural Resources (Ibama), which found an unusual increase in the traffic



of wood going through the port of Chibatão, in the city of Manaus (MPF, Arquimedes, 2019). They found out that the only inspection carried out on the containers being transported there was limited to the analysis of invoices, despite being known that timber shipments must always have a Document of Forest Origin (DOF). This raised strong suspicions about irregularities taking place in the inspection process, and about the wood going through the ports of Manaus. In light of that, on December 14, 2017, the Federal Police, Ibama and the Brazilian Internal Revenue Service launched the first phase of this operation, in which 444 containers from 63 companies were seized with a cargo of suspected illegal wood.

The authorities found that illegal wood was bound for other Brazilian states, and for export to North America, Asia and Europe. Later on, other containers were added to those initially seized, totaling 479 cargo units. According to information from the Federal Police, a large volume of wood was seized (about 10,000 cubic meters), whose logs, if lined up, would cover the distance of 1,500 kilometers (MPF, Arquimedes, 2019).

The first investigations led to the second phase of Operation Archimedes (referred to as Operation Archimedes II), which began on April 25, 2019. It dismantled a vast illegal logging scheme in the Amazon, a complex corruption network – involving the Amazonas Environmental Protection Institute (IPAAM) and the direction of the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) in the state of Amazonas. It also involved loggers, forestry engineers, civil servants, holders of sustainable forest management plans (PMFS) and related investigators.

In order to prevent the occurrence of new cases of corruption such as those pointed out by Operation Archimedes II, shortly after the outbreak of the second phase, the Federal Public Ministry (MPF) indicated ten emergency measures to the management of the Environmental Protection Institute of Amazonas (IPAAM). Those ten emergency measures were meant to protect and safeguard the integrity of documentary evidence that might be important for investigation, as well as to establish a program of certification and implementation of compliance in the administrative and environmental plans of that environmental agency. Among them, there were internal control measures and independent external monitoring (audits) endowed with



suitability and technical capacity, in order to implement a restructuring and modernization plan for that body.

Aiming the dismantling of the commerce of illegal wood, in parallel to the investigation at the state level, the Federal Public Ministry in Amazonas initiated (still in the first phase of Operation Archimedes) a series of international cooperation deals with the American Department of Justice and the Embassy of the United States of America in Brazil. These deals with the USA sought to exchange information on the application of the Lacey Act¹¹ and the implications of possible environmental crimes committed in Brazil that might carry international consequences.

In response to the negotiations, the Federal Justice in Amazonas authorized, on April 24, 2019, the sharing of evidence from the operation with the United States Department of Justice, via the Legal Institute for International Cooperation, accepting a request from the Federal Public Ministry and from Federal Police.

Currently, the aforementioned international legal cooperation (Mutual Legal Assistance Treaty) is being proposed by Brazil to enable greater efficiency in the execution of tasks by law enforcement authorities in both countries, as well as to enable the repatriation of wood illegally exported, to guarantee the expansion of, and to make the ongoing investigations in Brazil more efficient (MPF/Amazonas, 2019). Now, it is expected that the same kind of international cooperation might take place with other wood-buyer countries, countries that import Brazilian forest products.

Still as a result of the Archimedes II operation, there are (within the scope of the Brazilian Judiciary) public actions filed by the Federal Public Ministry against those companies responsible for the practice of environmental irregularities that were identified during the investigation, as well as criminal actions against people involved in the crimes revealed by Operation Archimedes – civil servants included. The defendants will respond, according to their participation in the illegal scheme, for the practice of crimes of corruption and fraud of environmental licensing in various situations.

¹¹ The U.S. Lacey Act Amendment of 2008 was enacted to reduce the global demand for illegally obtained timber products (USDA, by Zoe Hoyle, 2014).



5 OPERATION HANDROANTHUS (GLO)

In December 2020, the Brazilian Federal Police confiscated more than 130 thousand cubic meters of illegal wood (*ipê*, *maçaranduba*, *cumarú*, *angelim*, etc.) in the State of Amazonas. The wood came from the State of Pará, transported in rafts across the rivers of that region. The investigation, which culminated with a seizure in the Mamuru and Arapiuns rivers, began after the identification of a load originating from illegal deforestation in Parintins, in the State of Amazonas.

Illegal timber (in logs for export) was identified by the Federal Police, accompanied by the Federal Public Ministry (MPF), in the so-called Operation Handroanthus GLO¹² (MPF, 2020). *Handroanthus* is the scientific name of the ipê tree – currently the most exploited species in the Amazon region, according to consolidated data from Operation Archimedes. This police apprehension was only possible due to the use of technological monitoring instruments that provided information on the origin of this log loading, such as the analysis of satellite images via the Planet Lab system (MJ, 2020)¹³ – which led the Federal Police to fly over the area where the logs were found, in the State of Pará.

Among other species of native trees, a large increase in the extraction of ipê trees was noticed, calling the attention for the need of putting it in the list of forest species threatened with extinction or in a situation of alert by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). To this end, the Ministry of the Environment, the Ibama, the Botanical Garden of Rio Janeiro and other institutions are collecting data and identifying studies on the topic to meet the requirements of the Federal Public Ministry, which should subsidize the measures adopted with a view to tackling illegal deforestation in the Amazon.

¹² GLO stands for “Guarantee of Law and Order”.

¹³ In addition to images from the PRODES satellite (INPE), the Federal Police has also used images of satellites from the American company Planet Lab Inc. (an American private Earth imaging company). They generate high-resolution satellite images, with daily coverage capacity over the entire national territory. Thus, it will be possible to identify frauds in works of engineering, the traffic of narcotics, and environmental crimes, such as frauds in forest management, the selective cutting of wood, and the early detection of fires, deforestation and irregular mining (MJ, 2020).



6 OPERATION EXODUS

Due to the massive territorial dimensions of the Amazon rainforest, to difficulties of access and to difficulties of aerial view (because of the dense forest coverage), criminals bet and persist with the illegal exploitation of Amazonian raw materials even in indigenous lands and in areas of environmental preservation.

However, thanks to new technology developments and to increasingly improved real time satellite images, joint operations to fight the illegal trade of forest raw materials (such as the illegal trade of Brazilian wood) have been increasingly successful. Such was the case of Operation Exodus¹⁴, which unfolded in two phases.

In July 2020, the Federal Police, via Operation Exodus and Operation Green Brazil 2, acted against illegal deforestation and illegal commercialization of timber extracted in indigenous lands, in the State of Rondônia.

In the first phase of Operation Exodus (PF, Op. Êxodo I, 2020), the Federal Police carried out 7 temporary arrest warrants and 32 search-and-seizure warrants, all issued by the 3rd Federal Court of Justice of Porto Velho (capital of Rondônia). This operation took place in several cities of that state, such as Vilhena, Chupinguaia, Espigão do Oeste, Ji-Paraná, Cacoal, Colorado do Oeste and Pimenta.

The successful dismantling of the illegal practice was possible because Operation Green Brazil 2 took place in parallel with Operation Exodus – which had the joint participation of the Federal Police, the Military Police of Rondônia, IBAMA and FUNAI. The operation carried out an incursion into the Tubarão-Latundê indigenous reservation, to identify areas destroyed by criminals, as well as to comply with arrest warrants (Ibiden).

The investigation carried out by the Federal Police aimed at dismantling, in Vilhena, a criminal organization dedicated to the illegal extraction of wood from indigenous lands; in particular, from Tubarão-Latundê, in the municipality of Chupinguaia. The police found that, for the illegal removal of hardwoods (such as ipê, peroba, cherry-tree, jequitibá, angelim and sucupira), they practiced repeated frauds that sought to give a lawful appearance to their illegally exploited forest products.

¹⁴ The operation received this name in reference to the criminals' practice of migrating from one indigenous land to another, during the exploitation of wood, in order to make it difficult for the agencies responsible for environmental protection to identify their whereabouts.



In addition to the deforestation of preservation areas, they practiced several other crimes, such as the insertion of false data into systems, fake identification, money laundering and criminal organization – often using false credits in IBAMA's systems to sell products, seeking to circumvent control (Ibiden). All criminals were arrested in the act, and sent to state prisons, where they remained at the disposal of the Federal Court.

Operation Exodus II, launched in November 2020, blocked the criminals' bank accounts. It has also suspended the activity of 12 logging companies, investigated for illegal wood extraction in indigenous lands, in Rondônia. Besides that, the 3rd Federal Court of Justice in Porto Velho granted the preventive arrest of one of the investigated entrepreneurs, once it was proven that, days after his release, even after his previous arrest in Operation Exodus, he returned to commit environmental offenses, representing a threat to public order (PF, Op. Êxodo II, 2020).

The environmental damages determined by the expert survey exceed the amount of R\$ 50 million, while the blocked amount is approximately R\$ 6 million for each of the 12 companies and 7 of the individuals investigated, with the blocking of several assets occurring concomitantly, in addition to the suspension of business activities for a certain period (Ibiden).

It should be noted that, in addition to fighting illegal logging on indigenous lands, there was (and still remains) a concern with the preservation of the indigenous communities themselves, because of the risk of contamination with COVID-19 and other diseases that could be brought by the illegal presence of non-indigenous people in Indian reservations.

7 INTERNATIONAL COOPERATION TO BETTER FIGHT THE ILLEGAL TRADE OF BRAZILIAN WOOD

Many issues can lead to illegal deforestation, such as illegal logging, mining, illegal advances into environmental preservation areas, natural disasters, urbanization, among others. However, the illegal trade of native Brazilian tropical timber is one of the main reasons for the deforestation of the Amazon forest.



Foreign countries should not be held responsible for the illegal deforestation that has occurred in the Legal Amazon, since the inspection, control and monitoring of wood and other exported Brazilian forest products are the responsibility of Brazilian authorities. Not least because it is known that most of the illegally harvested wood remains in Brazil, to supply the domestic market. However, as previously mentioned, both Greenpeace (2015) and Interpol (2012) have already denounced the existence of an illegal market for Brazilian tropical wood in Europe, North America and Asia.

With a view to more effective international cooperation to combat illegal deforestation, it is important that tropical timber importing countries, even if only indirectly involved in this trade (through companies and operators that carry out activities in their territories), act strongly to prevent these actions from continuing.

Regarding the European Union (EU), a major partner of Brazil, amid the severe criticism it has made to Brazil, one should expect that it demanded from its member states a greater commitment and rigor in the application of EU standards incorporated into their legal systems – such as the Regulation No. 995/2010 (on timber), the Directive 2008/99/EC (on environmental crimes), among other relevant standards. All in order to intensify the EU's actions to combat deforestation at the international level.

The EU has an important regulatory instrument for combating the illegal timber trade, which is Regulation (EU) No. 995/2010 of the European Parliament and of the Council (of October 20, 2010), in force since 2013. It stipulates the obligations of operators who place timber and timber products on the market, and prohibits the marketing in the European Union of timber and derived products originating from illegal logging.

Although the aforementioned regulation has considerable objectives, there are vulnerable points that are susceptible to irregularities. These points are: (i) the due diligence system¹⁵ is only required of first importers, thus excluding other timber buyers and retailers in the rest of the supply chain (becoming more limited than other international regulations)¹⁶; (ii) the scope of the regulation is too narrow; and (iii) it

¹⁵ According to the EU Regulation nº 995/2010, Consideration nº 17, the due diligence system comprises three elements inherent in risk management: access to information, risk assessment and mitigation of the risk identified.

¹⁶ The U.S. Lacey Act (2008) covers the entire supply chain. All parties are equally liable under the law, not just the first placer into the U.S. market (Euflegt, 2012). According to the WWF, the Lacey Act is different from other existing or proposed laws and policies in consumer countries because, “while the



offers too much freedom to member states to implement their own sanctions regimes (Levashova, 2012), creating differences in terms of regulatory sanctions among EU member countries.

The EU Biennial Report itself, for the period from March 2015 to February 2017 (COM/2018/668, final), considers that “while progress is evident, continued efforts are needed to ensure uniform and effective application of the EU Timber Regulation (EUTR) across all countries”¹⁷. The Report points out that a significant discrepancy in the number of inspections has been observed in a number of EU countries; in some, the number remained relatively low compared to the number of operators, and arguably well below the level needed to have a truly deterrent effect on irregularities across the sector. It warned that further efforts should be made to ensure that the scope and quality of inspections have a more consistent approach across the EU (COM/2018/668, final).

The EU Biennial Report for the period 2017-2019 (COM/2020/629, final), meanwhile, reports that (in the reporting period) the number of inspections carried out on domestic operators remained about the same as in the previous period (2015-2017), while inspections of importing operators increased. However, in overall terms, it infers that the penalties imposed for EUTR violations, expressed as a percentage of the total inspections carried out, would have decreased. It warns that while progress is being made, continued efforts are needed to ensure uniform and effective enforcement of the EUTR across the EU member-states, as uneven enforcement can have implications for both the effectiveness of the legislation and to level the playing field for market operators. The report also states that “in several countries, the number of inspections has remained relatively low compared to the number of operators, and it is doubtful that such a low number of inspections can have a truly deterrent effect on the whole sector” (COM/2020/629, final).

Lacey Act is rooted in the same concept of reducing demand for illegally sourced wood, it is distinct from the EU's or other countries' national or voluntary schemes. The Lacey Act is a fact-based statute rather than a document-based statute” (WWF. the U.S. Lacey Act, 2009). See also: UK Aid - “Comparison of illegal logging laws in the European Union, the United States, Australia and Japan” (s/d).

¹⁷ The report also showed that most of the penalties applied relate to European domestic timber and that the percentage of timber imported from third countries is 25%. (Relatório Bial para o período de março de 2015 a fevereiro de 2017. Relatório da Comissão ao Parlamento Europeu e ao Conselho) – (COM/2018/668, final).



In order to remedy any legal loopholes, and to create greater accuracy on timber imports, the EU has established that commodities covered by Regulation No 995/2010 of the European Parliament and of the Council (EUTR) should be brought within the scope of the proposal set out in Regulation No. 2019/1020 of the European Parliament and of the Council, in accordance with the FLEGT Action Plan, of the EU Timber Regulation, so as to introduce Union rules on mandatory supply chain due diligence for products posing a risk to forests (Report (EU) 2020/2006 - INL)¹⁸.

According to the authors of the article “*European Union Timber Regulation Impact on International Timber Markets*”, only with the arrival of the first FLEGT-licensed shipments in Europe will the success of EUTR be properly judged: “For now, further attention needs to be focused on the stakeholder’s interpretation of the EUTR, the problems they face, and on providing viable solutions for facilitating a smooth and effective implementation of the regulation” (Alexandru, *et al*, 2014).

Although we acknowledge the importance and necessity of the existing regulatory instruments to tackle the illegal trade of timber – such as the US Lacey Act 20083, the EU Timber Regulation, amendments to Australia’s Illegal Logging Prohibition Act, The Japanese Clean Wood Act, and the Brazilian legislation that provides for the protection of native vegetation, among others – it is a fact that there may still be weaknesses and gaps to be filled. For that reason, we propose that joint actions of cooperation be taken between countries and blocks, in order to remedy the possible vulnerabilities, signing continuous technical partnerships to exchange expertise in inspections and more efficient controls, as well as applying stricter sanctions and improving their internal models, in order to finally eradicate the illegal trade of tropical timber.

¹⁸ The 2020/2006 Report (INL) contains recommendations to the European Commission on an EU legal framework to halt and reverse EU-driven global deforestation. To this end, it calls for a more ambitious policy approach and urges the Commission to submit a proposal, accompanied by an impact assessment, for an EU legal framework based on due diligence, reporting, disclosure and third-party involvement requirements, accountability and penalties for failure to comply with obligations imposed on all companies that first place commodities and commodity derivatives which pose risks to forests and ecosystems on the Union market, as well as in the access to justice and access to redress for victims of breaches of those obligations. The report also considers it necessary to impose traceability obligations on traders on the Union market, in particular in what regards identifying the origin of commodities and its by-products at the time they enter the Union internal market, in order to ensure sustainable value chains that are not linked to deforestation. The report and further stresses that the same legal framework should apply to all financial institutions authorized to operate in the Union that finance companies that harvest, extract, produce, process or market commodities and their by-products that are associated with risks to forests and natural ecosystems.



Regarding the need to adopt mechanisms to prevent the commercialization of illegal timber, it does not matter how much Brazilian wood is imported by EU member countries – if little or much. The international discourse of concern about deforestation in the Brazilian Amazon and in the Cerrado must be minimally compatible with the commercial practices carried out by all countries that import Brazilian wood, forest products and by-products, as well as other raw materials extracted from tropical forest areas.

8 ENVIRONMENTAL PROTECTION MEASURES TAKEN BY BRAZIL IN THE LEGAL AMAZON

Despite all international criticism regarding Brazil's role on the preservation of the Amazon, we must realize that over the years Brazil has undertaken a series of measures to deal with it. These measures involve actions to control illegal deforestation, curtail the illegal trade of native wood, control wildfires, etc. It is worth mentioning that, under the scope of the Paris Agreement¹⁹, Brazil has committed to zero illegal deforestation by the year 2030.

It should be noted that Brazil has the greatest interest in preserving its forests and biodiversity, since illegal deforestation results in negative impacts that mainly affect its own environment, climate, economy and, consequently, its own people – in addition to harming the legal timber traders who observe strict sustainable forest

¹⁹ By way of normative production for the implementation of Nationally Determined Contributions (NDCs) to reduce national greenhouse effect gas emissions, and to adapt to the impacts of climate change, Brazil has implemented, among other things: the national policy on climate change; the Forest Code; the National System of Conservation Units; the National Solid Waste Policy; the Climate Change Adaptation Plan; the National Climate Change Adaptation Plan (2016); the National Emissions Registry System (SIRENE); etc. In compliance with the general goals, particular targets were established, such as: the Prevention and Control Plan for the Legal Amazon; the Action and Prevention Plan for the Control of Deforestation and Burning; the expansion of Conservation Units (in the Legal Amazon), with the creation of the National Park of Religious Fields (2016); and the implementation of the National Control System of Products of Forest Origin. In the fight against forest fires, Brazil has implemented Federal Forest Brigade programs, the Integrated Management Policy project, the Integrated Fire Management and improved the Real-Time Environmental Degradation Detection System. It has also undertaken improvements in the radar deforestation monitoring system in the Amazon, and met other targets in the Cerrado, among many other actions to comply with the Climate Agenda, with the Brazilian Forum on Climate Change (2017).



management standards. These, by the way, end up suffering the adverse effects of the unfair competition represented by the illegal trade of tropical timber²⁰, making it difficult even, in some cases, for them to adhere to international certifications²¹.

In answer to all this, and to monitor the actions to combat fires, as well as preventive and repressive actions against environmental crimes (among which is the illegal trade of Brazilian tropical timber), the National Council of the Legal Amazon (CNAL) was created by Decree No. 10,239/2020. This Council is responsible for coordinating and monitoring the implementation of public policies related to the Legal Amazon (GovBr/CNAL, 2020).

In order to implement the government plan developed by the National Council of the Legal Amazon (CNAL), Operation Green Brazil was created via Presidential Decree no. 10. 341/2020. The decree authorizes the employment of the Armed Forces in the guarantee of Law and Order (GLO), in subsidiary actions on the border strip, on indigenous lands, in environmental conservation units and other federal areas located in the 9 states of the Legal Amazon, with the objective of carrying out preventive and repressive actions against environmental crimes, targeting illegal deforestation and wildfires (GovBr/Op. Verde Brasil, 2020). Such actions will count with joint efforts by the Armed Forces, public agents, the Brazilian Institute of Environment and Renewable Natural Resources (Ibama), the Chico Mendes Institute (ICMBIO), the Federal Police (PF), the Federal Revenue (RF), the National Public Security Force and the Military Police (PM), and the Indian Foundation (Funai).

Operation Green Brazil 2 produced very significant results. The data is as follows: The police seized 2,231 vessels, 990 vehicles and tractors, 751 kg of drugs, 506,136 m³ of wood; it issued 335 notices of arrest; it destroyed 843 vehicles with mining engines, rafts, tractors, excavators, agricultural machinery, among others. 5,480 fines were applied totaling R\$3,352 billion. 105,131 inspections were carried out by naval and land patrols, and 16,435 fire spots were fought through inspections and

²⁰ The article “Fake legal logging in the Brazilian Amazon” confirms that “the major competitor of legal logging is illegal logging, which pushes market timber prices down and undermines the necessary investments for reduced impact logging and enforcement of no-go zones” (Brançalion, Pedro et al, 2018).

²¹ According to the “Forest Stewardship Council” (FSC/Brasil), currently Brazil has 7,628,406 of FSC certified hectares in the forest management modality, and involves 145 management operations, among native and planted forest areas. Although there is all this difficulty, the country ranks 6th in the total ranking of the FSC system, and in the chain of custody modality, it has 1067 FSC certificates.



searches during 354 days of uninterrupted action to combat environmental offenses and fire spots in the Amazon (GovBr/Ministério da Defesa, 2021).

To support Operation Green Brazil 2, the “Guardians of the Amazon” phone app was created. Its purpose was to make possible the denunciation of environmental crimes of deforestation, fires and illegal mining in the region. This tool facilitated the interaction between the local population and environmental inspection bodies, helping in protecting the forest. Through this tool, citizens were able to register, with photos and geographic coordinates, the exact location of a fire, and denounce the location of environmental crimes. In this way, the information could be passed on to the inspection body, so that the necessary measures could be taken. The reports could be anonymous or, for those who preferred, they could register with the guarantee that they would not have their data exposed²².

With the end of Operation Green Brazil 2, after 11 months of operation, the Amazon Plan (2021-2022) will begin in its stead. It anticipates for strategic actions to monitor and combat environmental and land crimes (GovBr, 2021).

The Brazilian government, although much criticized abroad for its difficulty in communicating its proactive actions to protect the Amazon, has now sought to communicate more clearly its pro-environment actions in diplomatic negotiations, including in those with the European Union – which is going to be essential for the continuity of the Mercosur-European Union Agreement (FGV/EESP, 2020).

It is important to highlight that, behind environmental diplomacy, there is an entire institutional staff working for environmental protection, such as the governmental bodies and institutions that, together with the Ministry of the Environment, work in full compliance with national laws and regulations, and with international treaties, drawing up plans, setting goals and actions to improve monitoring and inspection in the field of environmental protection. These bodies have worked to make Brazil's proactive environmental actions more effective at the national level and more credible abroad, to those countries and blocs that cooperate with Brazil, such as the countries that finance the Amazon Fund, the European Union and foreign companies interested in purchasing sustainably developed Brazilian goods.

²² The app has two parts: Mobile Application, for use by the population, and Web Module, restricted to inspection bodies, which can access complaints made by users, have access to information about hot spots received via satellite, view deforestation alerts, reports and graphs.



Through its institutions, in defense of its sovereignty, for the protection of its national territory and its natural resources, Brazil has been taking steps to prevent harmful actions for the environment (such as the illegal trade of tropical wood) from happening.

Having made these considerations, we now analyze some specific actions related to the traceability of Brazilian tropical wood, which, for decades, has been illegally imported by countries in Europe, Asia and North America.

As previously seen, through Operation Archimedes, Operation Handroanthus and Operation Exodus, carried out by the Federal Police, a large criminal scheme for the illegal sale of Brazilian tropical wood was dismantled. This only was possible because of control and inspection mechanisms associated with new technologies applied to existing forest management and control systems in Brazil (ITTO, 2021)²³.

Take notice that the Archimedes Operation culminated in the signing of an international cooperation agreement between Brazil and the United States, to create control mechanisms that inhibit the illegal commercialization of Brazilian raw materials.

The success of this traceability of Brazilian tropical wood is largely due to innovations in federal forest management systems, such as the System for the Marketing and Transport of Forest Products (Sisflora)²⁴ and the Anti-Fraud System to Fight Illegal Deforestation (Sinaflor+) (IBAMA/Sinaflor+, 2020). The latter corresponds to an update of Sinaflor, created in 2012 to ensure control of wood management, tracking it from its origin and strengthening the fight against illegal deforestation, in accordance with Law 12.651/2012 (Ibama/Sinaflor, 2016).

With Sinaflor+, trees destined for cutting are 100% identified by geolocation, and each forest product can be traced back to the exact point where it was originally extracted. The new system has an electronic signature, and a QR-Code for the product

²³ The Federal Police (PF) recently used two technologies they found very effective in the fight against illegal logging. The first is a new satellite monitoring system, called "Planet Lab" (that uses high-resolution satellite images, allowing cross-referencing of field harvesting against the forest management plan). The second is a tool that identifies the DNA of the tree. Both technologies were used in two of the largest operations against illegal logging, the Archimedes Operation and the Handroanthus GLO Operation. Using DNA methods, the police can check the exact location from where the timber originated (ITTO, 2021).

²⁴ Sisflora (Forest Product Marketing and Transport System), integrated with CEPROF (Forest Product Consumer Registration System), is a system that aims to assist and control the marketing and transport of forest products in the State of Pará (Sisflora/PA).



is generated during authorization, in order to ensure more transparency to inspection and greater rigor.

The Brazilian Institute for the Environment and Renewable Natural Resources (Ibama) has been working on the creation of a Single Authorization platform for Brazil (called “Pau Brasil”). This platform will make it possible for all foreign trade activities involving products and by-products from Brazilian biodiversity to be submitted to risk analysis and management before issuing a license, integrated with the Single Foreign Trade Portal (Ibama/Siscomex, 2020), making it possible to track the wood from its origin, during its transportation and at the exit from the country. Consequently, there will be more credibility to exported Brazilian natural goods, since the entire chain of custody will be exhibited, even the return of the sustainable management plan²⁵.

All of this was only possible thanks to the normative evolution for this purpose. For instance: Ordinance 253/2006, which instituted the Forest Origin Document (DOF) as an environmental license for trade and transaction of forest products; Law 12.651/2012, which instituted the National System for Control of the Origin of Forest Products (Sinaflor) and recognizes the DOF (Ibama/DOF, 2020)²⁶ as an environmental license for trade and transaction of forest products; Normative Instruction (IN) No. 21/2014 of Ibama, which disciplines Sinaflor and DOF; Order No. 7036900/2020 – Gabin, which recognizes DOF export as an environmental license for such purpose; Resolution No. 497/2020 of the National Council for the Environment (Conama)²⁷, which includes traceability mechanisms in forest product management systems; and Ibama's Normative Instruction No. 19/2020, which amends IN No. 21/2014 and regulates the traceability of origin at Sinaflor.

²⁵ This moves towards what has been previously recommended by the BvRio Institute, “Using Big Data to Detect Illegality in the Tropical Timber Sector”, by highlighting the development and adoption of monitoring, control and traceability systems for production, processing and transportation of Brazilian tropical timber products as an essential component of any strategy to promote legality. “If these are combined with greater transparency of official data, it may be possible to reduce the level of illegality in the Brazilian tropical timber sector” (BvRio, 2017).

²⁶ The Forest Origin Document (DOF), established by Ordinance No. 253 of August 18, 2006, of the Ministry of the Environment, constitutes a mandatory license for the transport and storage of forest products of native origin, including native charcoal, containing information on the origin of these products, pursuant to art. 36 of Law No. 12,651, of May 25, 2012 (Law for the Protection of Native Vegetation), 2020” (Ibama, DOF, 2020); in this sense, the DOF export follows: Technical Note No. 4/2020/DBFLO, Process No. 02001.009271/2020-06 (Ibama, Technical Note, 2020).

²⁷ National Environment Council, created by Federal Law nº 6.938/81, is the Brazilian collegiate body responsible for adopting measures of consultative and deliberative nature regarding the Environment.



Many operations by the Federal Police and by Ibama have used information from the DOF itself, which has provided increasingly effective operations. Currently, work has been done to complete the integration of statutory systems with Sinaflor, as well as to disseminate operating knowledge to all stakeholders, including supervisory bodies, and to improve smarter inspection systems.

Over the years, the Brazilian Ministry of the Environment has promoted advances in forest management, to give greater credibility to management actions for the sustainable use of native wood and to prevent deforestation²⁸. This is so because many believe that one of the best ways to keep the forest standing, safe from illegal deforestation, is through sustainable, low-impact forest management, which takes place via the rational administration of the forest, to obtain economic, social and environmental benefits, “respecting the support mechanisms of the ecosystem object of management and considering, cumulatively or alternatively, the use of multiple wood species, multiple non-wood products and by-products, as well as the use of other forest goods and services” (MMA/Res. 406, 2009).

By the use of legal wood, and with greater severity in marketing and inspection via control of the chain of custody (from the extraction of fully identified wood to the final consumer), we seek to achieve the sustainability of this very important raw material, avoiding deforestation, wildfires and its illegal trade. Therefore, it is understood that special attention needs to be given to separating legal wood from that which is not, and to disseminate knowledge of what this means for the Amazon forest in terms of benefits.

With goals for protecting the Amazon, preventing the illegal deforestation of tropical trees and giving greater credibility to sustainably harvested wood – as well as to generate wealth for the region –, it is intended to expand satellite surveillance beyond those areas of sustainable management. That will help to check for illegal

²⁸ According to the National Forest Program (PNF), “predatory exploitation, fires and fires have been a constant threat to the conservation of Brazilian forest heritage and the sustainable use of its natural resources, what puts equally at risk the conservation of soil, water resources and biodiversity, which are intrinsically dependent on the preservation and good use of our forests. Aiming to solve the problem, the Ministry of the Environment has intensified environmental control, by strengthening inspection, and encouraging the legalization of enterprises, while [alerting] the sector [about] the adoption of sustainable technologies such as forest management, under the new sustainability paradigms advocated in the Rio Declaration and in Agenda 21, conceiving the National Forest Program – PNF” (MMA/IBAMA, 1999).



logging, and help to notify the responsible authorities, bringing greater credibility to the legal logging activity.

Another action that is still under feasibility analysis is the use of DNA technology per individual (wood log), which currently is used only by the Federal Police. This may be another component coupled with the National System for Control of the Origin of Forest Products (Sinaflor), something that will allow double-checking by sampling, by individual, as a reinforcement of traceability. Other mechanisms are also being improved for greater efficiency in combating deforestation and the illegal trade of Brazilian timber.

All of this is relevant to give greater credibility to legal exports of Brazilian wood. To this end, Brazil has sought to develop components of innovation, stricter inspection processes, giving greater agility for those who work with sustainable management, as well as creating more efficient traceability control mechanisms, such as those for monitoring the transport of wood, using new technologies, identifying the entire route taken, and considerably reducing the risks of illegal transport of Brazilian raw materials.

It is important to highlight that every sustainable management forestry unit undergoes a rigorous bidding process until the concession for this purpose, of which the Brazilian Forest Service is the managing agency at the federal level.

Since 2015, the Brazilian Forest Service has been working with a Chain of Custody System (SCC) – a set of procedures adopted to track timber forest products exploited in areas under forest concession, which ranges from the felling of trees, sectioning and transport of logs to their transformation into the first processing unit, controlled by means of a computerized system.

Since the beginning of the implementation of the Sustainable Forest Management Plans, concessionaires insert data about their activities in the SCC, which allows the Brazilian Forest Service to control the production and transport of wood products in areas under forest concession, aiming at the spatial control of the units management, and its annual production within each annual production unit (UPA), in order to obtain the entire spatialization of the forest inventory.

This inventory is fed into the Chain of Custody System, and Sinaflor+ incorporates the mapping and inventory (control of cutting, production of logs linked to



the trees that gave rise to each of them) registered in the chain of custody, in addition to the transport route from the forest to the industry, detailing each transported log. This enables the traceability of wood that comes from the sustainable forest management unit to the industry – which then enables, in addition to the forest traceability, this validation in the survey (IBAMA, debate on traceability of wood, 2021).

Information technologies are being used more often to control forest management units via satellite images, which has been the practice for some years. However, the region's new satellite monitoring system – Selective Timber Harvesting Mapping System - Detex (SFB/Detex, 2020) – enables the Brazilian Forest Service to assess the concessionaires' compliance with the Sustainable Forest Management Plan, as well as alert the competent bodies of any irregularity eventually found within or near the concession. This makes it possible to cross-reference information provided by the concessionaire with information captured by Detex. It should also be noted that these images captured by Detex can also be used to detect invasion and the theft of wood.

Still regarding the use of technology for control in forest management units, it can be said that laser scanning (light detection and ranging) to assess damage and recovery capacity (through the intervention that took place) has been a very useful resource in the Chain of Custody System (SFB/SCC, 2020).

It is expected that the improvements being made in the control systems and the creation of the Pau Brasil platform will be enough to solve the problems related to the current system, among which we can mention: (i) lack of consistency and standardization in species names; (ii) near-automatic approval of logging without previous field checking and; (iii) lack of integration among available databases on timber stocks and species distributions (Brançalion *et al*, 2018), fundamental for a due diligence.

In addition to the need for constant maintenance and improvement of instruments and systems for the control, monitoring, inspection and tracking of legal wood, it is also essential to improve Brazil's international communication, so that the actions taken can be transmitted in a transparent manner, in order to increase the credibility of how Brazilian tropical timber is legally produced (Farani *et al*, 2019), as



well as to keep the Amazon forest “standing”; in this case, through low-impact sustainable forest management.

Other projects still in their initial phase – such as the Forest+Carbon Programs (2020) and the Adopt a Park (2021), both supported by the Brazilian Ministry of the Environment – were instituted to help reduce carbon emissions, control illegal deforestation, and the restoration of native Brazilian biomes.

The Forest+ Carbon Program seeks to encourage the conservation and recovery of native vegetation in all Brazilian biomes (Amazon, Atlantic Forest, Cerrado, Caatinga, Pampa and Pantanal), promoting a real income alternative for those who care for and protect Brazilian forests. According to the Ministry of the Environment, this program aims to create, foster and consolidate the payment market for environmental services in all biomes, in order to recognize and value environmental activities, projects and service providers (MMA/Floresta+ Carbono, 2020).

The Ministry of the Environment clarifies that payment for environmental services consists of remuneration – made by individuals or organizations, public or private, nationally or internationally – to environmental service providers, directly or indirectly, monetary or non-monetary. With this program, the Brazilian government also intends to give greater legal certainty to carbon trading transactions, which may favor the generation of income for people living in these biotic forest regions and, consequently, should help to reduce illegal deforestation.

“Adopt a Park” (MMA/2021) is a program created by Decree 10.623/2021 to attract resources with the objective of promoting the conservation, restoration and improvement of federal conservation units through the participation of private individuals and legal entities, both national and foreign. The funds are invested by the adopter in services such as preventing and fighting fires and deforestation, recovering degraded areas, consolidating and implementing management plans, surveillance and monitoring of parks. The so-called “Environment Partners” will be able to publicize this partnership. The adoption period will be one year, and may be renewed after this period has expired.

Although it is recognized that Brazilian institutions for the protection of the environment, in their various forms, have been working proactively to combat illegal deforestation in the Legal Amazon and, in an innovative way (through their most recent



programs and actions), have sought mechanisms for protection and preservation of Brazilian forests, respecting the uniqueness of each national biome, there is still a need for greater visibility in the effectiveness of the performance of its actions, in order to achieve more credibility at the international level.

9 FINAL CONSIDERATIONS

Over the years, Brazil has participated in valuable bilateral, multilateral, regional and global partnerships in different forms of international cooperation – a mechanism of global solidarity, and an essential factor in achieving sustainable development, as recognized by the United Nations.

However, the principle of international cooperation, when put into practice, cannot be dissociated from another principle – that of transparency, which is fundamental for the maintenance and validity of any partnership or agreement signed in mutual trust, so that all parties be on equal footing in their negotiations. For this reason, there must be good will among the cooperating parties to establish communication mechanisms, provide clarifications and define plans and goals established for the construction of stronger and more transforming cooperation partnerships.

In order to avoid unnecessary conflicts and restore bridges of mutual trust, it is relevant that the Brazilian Ministry of Foreign Affairs acts more emphatically in environmental sustainability diplomacy, promoting and implementing a clearer and more objective international communication on the actions of the country for environmental preservation.

On the other hand, it is hoped that each country that imports Brazilian raw materials diligently complies with its obligations within the stipulated norms (either national ones or those set by the regional blocks of which they are a member), in order to effectively combat the illegal trade of Brazilian native wood, in favor of the socio-environmental sustainability of the Legal Amazon.

In this sense, we expect that, via environmental diplomacy, a closer relationship between Brazil and the European Union (as well as with other buying-



countries of tropical wood and its by-products) can be established. International cooperation that focus on curbing the illegal trade of Brazilian raw materials is essential to fight illegal deforestation in the Amazon rainforest.

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