# The Efficiency of the Current Governance Model for the Amazon

Tutor: Prof. Ángel J. Rodrigo

Centro de Estudios Internacionales

Lunes, 06 de mayo de 2014

# TABLE OF CONTENTS

INTRODUCTION	3
1. Preliminary Concepts	5
1.1. The Legal Amazon	5
1.2. Sovereignty	5
1.3. Governance	8
1.4. Global Commons	8
2. Overview of the current governance model for the Amazon	9
2.1. Limitations in the scope of the essay	9
2.2. Context	10
2.3. Stakeholders	11
2.3.1. International community	11
2.3.2. Brazil (and other Amazonian States)	15
2.3.3. Indigenous Communities	18
3. Assessment of the current governance model	22
3.1 Issues and weaknesses of the current governance model	22
3.2. Proposal of improvement measures	23
CONCLUSION	26
BIBLIOGRAPHY	28

## INTRODUCTION

The Amazon accounts for more than half of the planet's rainforests, fauna and flora, and the volume of its water basin is equivalent to 20% of the total fresh water supply for the entire world. Furthermore, the Amazon is considered the "Lungs of our Planet", since it filters the air by absorbing carbon dioxide and producing oxygen in huge amounts, and contributes significantly to the reduction of global warming. Indeed, it is one of the richest places on Earth in terms of biodiversity and genetic, natural and cultural resources. It is no wonder, then, that it has always attracted substantial attention at both a local and global level.

Normally, when one speaks of the Amazon and its governance, the focus underlying the debate is the juxtaposition between the sovereignty of the eight States<sup>4</sup> that have jurisdiction over the Amazon<sup>5</sup> and the possible limitations on this sovereignty on the part of the international community. The latter worries about the administration of the region, the environmental impact that may flow from mismanagement of the area and the benefits – economic, scientific or otherwise – that may be obtained through resources found in the Amazonian territory.

However, this view of the interests in the region – the development and sovereignty of the Amazonian States versus the international community's concern over and interest in the Amazon – is an oversimplification. Indeed, the attention attracted by the Amazon is manifested in different ways, including not only the preoccupation with the environment and sustainability and a possible menace to sovereignty of a State, but also the self-determination of peoples, advances in science, and the livelihood of local communities.

The diversity of interests results in a plethora of stakeholders that want to claim – or reclaim – their rights over the Amazon and participate in the governance of such a coveted region. These

\_

Power of Nature. "Amazon: Lungs of the Planet." *Bbc.com*. BBC, 27 Feb. 2013. Web. <a href="http://www.bbc.com/future/story/20130226-amazon-lungs-of-the-planet">http://www.bbc.com/future/story/20130226-amazon-lungs-of-the-planet</a>>.

<sup>&</sup>lt;sup>2</sup> Environment Outlook in Amazonia -GEO Amazonia. Rep. N.p.: UNEP, n.d. DRC/1073/PA. ISBN: 978-92-807-2945-0. Web. 5 May 2014. <a href="http://www.unep.org/pdf/GEOAMAZONIA.pdf">http://www.unep.org/pdf/GEOAMAZONIA.pdf</a>.

<sup>&</sup>lt;sup>3</sup> "Amazon Rainforest." Online posting. Blue Planet Biomes. West Tisbury School, n.d. Web. 5 May 2014. <a href="http://www.blueplanetbiomes.org/amazon.htm">http://www.blueplanetbiomes.org/amazon.htm</a>.

<sup>&</sup>lt;sup>4</sup> To avoid any confusion, when referring to countries or nations, the words "State" or "States" will be used on their own. When referring to the eight countries that share the Amazon, they shall be referred to as "Amazonian States". Finally, when referring to political units within a country, they will be accompanied by an adjective designating the nation they belong to (i.e. Brazilian states).

<sup>&</sup>lt;sup>5</sup> "Amazon Cooperation Treaty (ACT)". Portal ACTO (Amazon Cooperation Treaty Organization). Web May 2014. <a href="http://otca.info/portal/tratado-coop-amazonica.php?p=otca">http://otca.info/portal/tratado-coop-amazonica.php?p=otca>

stakeholders are the Amazonian States and the international community, but also national and international companies and investors, as well as two groups that are often neglected in discussions of governance of a territory: local and indigenous communities. For convenience purposes, although other stakeholders will be mentioned directly or indirectly, this essay will focus on three major actors and their interests: the Amazonian States (with special focus on Brazil), the international community and indigenous communities.

With so many actors and stakes in the region, one must ask: is the Amazon<sup>6</sup> governed in the most efficient way possible? If not, how should it be governed and by whom? This essay will attempt to show that the current situation can and should be optimized. To do so, the current governance model for the Amazon will be examined and assessed, as will its subjects and objects, the stakeholders and their interests, and the norms that regulate the interactions between them. Then, some improvement measures that attempt to solve the drawbacks of the current governance model will be presented.

<sup>-</sup>

<sup>&</sup>lt;sup>6</sup> As mentioned below, the portion of the Amazon mainly analyzed in this essay will be the Legal Amazon, which is defined in section 1 (*infra*, "Preliminary Concepts").

## 1. PRELIMINARY CONCEPTS

# 1.1. THE LEGAL AMAZON

Different territories – varying in extension, geo-ecological and cultural characteristics, as well as socio-political and economic history – can be considered as "the Amazon". Indeed, different countries may have a different way of defining the Amazon according to the principles on which they base the recognition of the territory. Nonetheless, it is more or less agreed that it is a region that encompasses the world's largest extension of tropical forest, with a territorial reach of up to six million km² shared by eight countries: Brazil, Peru, Bolivia, Colombia, Ecuador, Venezuela, Suriname and Guyana. For the purposes of this essay, the bigger focus will be on Brazil, the country in which the biggest part of the Amazon is located, an area often referred to as the Amazônia Legal (Legal Amazon). The Legal Amazon is closely connected to the rest of the Amazon and, as such, many issues overlap and it is impossible to analyze one without referring to the other. For convenience purposes, in this essay the terms Amazon and Legal Amazon will be used interchangeably, although they do not refer to the exact same space.

The Legal Amazon is an administrative unit covering 59% of the Brazilian territory and encompassing the Brazilian states of Acre, Amapá, Amazonas, Pará, Rondônia, Roraima, Tocantins, Mato Grosso, and part of Maranhão. The Legal Amazon was established by Article 2 of Brazilian Federal Law No. 5.173 of 1966 as an effort on the part of the government to group regions of its territory with similar economic, social and political issues in such a way as to improve the governance and social and economic development of the area.

It must be noted that the Legal Amazon has extensive borders, dense vegetation, an enormous surface area, as well as low population density and poor communications. All these factors make it extremely difficult to supervise.<sup>8</sup>

## 1.2. SOVEREIGNTY

A well known concept of Public International Law, supported by the United Nations' basic principle of equality of nations,<sup>9</sup> sovereignty is the inalienable right of any State to exercise

-

<sup>&</sup>lt;sup>7</sup> The Various Amazons | Conservation Areas in Brazil. Instituto socioambiental (ISA). Web. <a href="http://uc.socioambiental.org/en/amaz%C3%B4nia/the-various-amazons/">http://uc.socioambiental.org/en/amaz%C3%B4nia/the-various-amazons/</a>>.

<sup>&</sup>lt;sup>8</sup> López, Alexander. "Environmental Change, Security, and Social Conflicts in the Brazilian Amazon." Environmental Change & Security Project Report 5 (Summer 1999): 26-33. Wilson Center. Web. http://www.wilsoncenter.org/sites/default/files/feature3.pdf, at p. 28

supreme authority over the territory and people under its control. This right is formalized under the principle of non-intervention, <sup>10</sup> that is, the right to not have others meddle with internal affairs of a State.

In light of globalization and the formation of an International Community however, this state-centric notion of sovereignty has been changing into a more cooperative and transnational notion.<sup>11</sup> An area that especially illustrates the emergence of this "cooperative sovereignty" is the environment. Indeed, environmental issues are inherently transnational, as the effects of environmental degradation know no political borders and one country's negligent conduct towards their environment can result in damages to other countries.<sup>12</sup>

Within the sovereignty principle – and of bigger relevance for this essay – is the principle of permanent sovereignty of the States over their natural resources (PSNR). It originates in a decolonization context after the Second World War and its objective was then to return to the State control over its assets so as to facilitate its political and economic development. Although it was initially a political statement targeting developing countries, the evolution of this concept resulted in a principle of international law<sup>13</sup> and in a set of rights and obligations that operate in different legal frameworks – including Environmental Law, Maritime Law, and Investment Law – and it was extended to all States. More recently, various indigenous communities have also been claiming rights arising from the PSNR.

# The rights associated to PSNR include:

a) The right to explore, develop and dispose of natural resources, which encompasses corollary rights such as the right of nationalization, requisition and expropriation (including of foreign property), and of regulation of the admission of foreign investments,

<sup>&</sup>lt;sup>9</sup> United Nations, Charter of the United Nations, 24 October 1945, at Article 2(1)

<sup>&</sup>lt;sup>10</sup> De Sartre, Xavier Arnauld, and Romain Taravella. "National Sovereignty vs. Sustainable Development Lessons from the Narrative on the Internationalization of the Brazilian Amazon." Political Geography 28 (2009): 406-15. Elsevier. Web. http://web.env.auckland.ac.nz/courses/geog320/resources/pdf/sustainability/Arnauld-de-Satre\_Taravella\_2009.pdf, at p.406

<sup>&</sup>lt;sup>11</sup> Rodrigo Hernández, Ángel J. "Tema 4: Membrecía Y Subjetividad En La Comunidad Internacional Y En El Derecho Internacional." Centro De Estudios Internacionales, Barcelona. 21 Oct. 2013. Lecture.

<sup>&</sup>lt;sup>12</sup> Todd, Anne Marie. "Environmental Sovereignty Discourse of the Brazilian Amazon: National Politics and the Globalization of Indigenous Resistance." Journal of Communication Inquiry 27.4 (October 2003): 354-70. Sage Journals. Web. http://jci.sagepub.com/content/27/4/354.full.pdf+html, at p. 358

<sup>&</sup>lt;sup>13</sup> Schrijver, Nicolaas Jan. "Sovereignty over Natural Resources: Balancing Rights and Duties in an Independent World." . Ph.D. Thesis. School of Law at the University of Groningen. March, 1995. Groningen, The Netherlands <a href="http://pubproxy.ub.rug.nl/1/dissertations/FILES/faculties/jur/1995/n.j.schrijver/dissertatie.pdf">http://pubproxy.ub.rug.nl/1/dissertations/FILES/faculties/jur/1995/n.j.schrijver/dissertatie.pdf</a>, at p. 359

- the grant of concessions for the exploration of natural resources and the distribution of benefits arising from such exploration;
- b) The freedom to elect its own economic, environmental and development policies and of exploring its natural resources in accordance to these policies; and
- c) The right to determine the method of conflict resolution with basis on national laws, and of obtaining compensation for damages and losses caused to its natural resources.<sup>14</sup>

The obligations arising from the PSNR – which may also be considered as limitations to sovereignty – are not always enforceable before international tribunals and do not always result in liability. Nonetheless, their mentions in resolutions, declarations and jurisprudence result in pressure on the part of the international community and of public opinion. The obligations include:

- a) The obligation to exercise the rights arising from the PSNR in the best interest of the population. According to Resolution 1083 of the General Assembly of the United Nations, the PSNR is a right of States and peoples, and must be exercised with the aim of promoting the national development of the State and the wellbeing of the totality of its population. An obligation related to this is the duty of protecting the rights and interests of indigenous communities which, due to their close link to natural resources are more vulnerable. Although States may be found liable for violations of rights and interests of indigenous peoples, the authority over the use and exploration of natural resources found on indigenous lands still lies with the State.
- b) The duty to cooperate, which includes the cooperation to international development especially in relation to developing countries and the cooperation between countries that share the same natural resources, since these do not follow political borders.
- c) The duty of conservation and sustainable use of natural resources, which includes de duty of the State to exploit without causing damages to third States.<sup>15</sup>
- d) Other obligations derived from International Law, including bilateral and multilateral treaties. <sup>16</sup>

<sup>&</sup>lt;sup>14</sup> Schrijver (1995), at pp. 242-290.

<sup>&</sup>lt;sup>15</sup> Stockholm Declaration principle 21. "Declaration of the United Nations Conference on the Human Environment". United Nations Conference on the Human Environment. Stockholm June 1972 <a href="http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503">http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503</a>.

<sup>&</sup>lt;sup>16</sup> Schrijver (1995), at pp. 291-350.

#### 1.3. GOVERNANCE

The Commission on Global Governance has defined it as follows:

"Governance is the sum of many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest." <sup>17</sup>

As can be seen, governance is a much more holistic concept than a mere system of rules or an activity performed by authorities. It is a process in which collaboration and accommodation of interests of all participants should be given preference over domination and imposition of power.

## 1.4. GLOBAL COMMONS

The Glossary of Environment Statistics from the United Nations defines the global commons as "natural assets outside national jurisdiction such as the oceans, outer space and the Antarctic." Traditionally, the four global commons identified by International Law are: the High Seas, the Atmosphere, the Antarctic and Outer Space. However, the concept seems to be evolving to respond to pressing environmental issues of global concern. As such, tropical rain forests and biodiversity are also being included in this list due to their importance to the international community. The problem with their inclusion as part of the set of global commons is that, unlike, for example, the High Seas, tropical forests such as the Amazon and the biodiversity that comes with them are under the jurisdiction of certain States. As such, to be able to categorize the Amazon as a global commons, the definition of this concept would need to be changed so as not to infringe upon the sovereignty of Amazonian States – or any other State which has jurisdiction over a resource that is of global importance. Otherwise, the Amazon should perhaps be viewed more as a means of protecting the global commons than an object of the global commons itself.

\_

<sup>&</sup>lt;sup>17</sup> The Commission on Global Governance. Our Global Neighbourhood, Oxford University Press, 1995, ISBN 0-19-827998-3, 410pp), http://www.bibliotecapleyades.net/sociopolitica/sociopol\_globalization30.htm, at p. 4

<sup>&</sup>lt;sup>18</sup> "Glossary of Statistical Terms - Global Commons Definition." OECD Glossary of Statistical Terms. OECD, n.d. Web. 05 May 2014. <a href="https://stats.oecd.org/glossary/detail.asp?ID=1120">https://stats.oecd.org/glossary/detail.asp?ID=1120</a>.

<sup>&</sup>lt;sup>19</sup> Global Governance and Governance of the Global Commons in the Global Partnership for the Development Beyond 2015. N.P.: United Nations, N.D. WEB. <a href="http://www.un.org/en/development/desa/policy/untaskteam\_undf/thinkpieces/24\_thinkpiece\_global\_governance.pdf">http://www.un.org/en/development/desa/policy/untaskteam\_undf/thinkpieces/24\_thinkpiece\_global\_governance.pdf</a>.

#### 2. Overview of the current governance model for the Amazon

## 2.1. LIMITATIONS IN THE SCOPE OF THE ESSAY

Before delving into the assessment of the current model, one must acknowledge the limits in the scope of this essay.

Firstly, as stated in the introduction, not all stakeholders will be analysed, although they may be mentioned due to their sometimes overlapping – and occasionally competing – interests in regards to other stakeholders. Indeed, only the international community, Amazonian States and indigenous communities will be examined. National, foreign and transnational companies, despite their important impact on the environment, on the Brazilian economy and on rights of indigenous peoples, will not be analysed in depth, but will be mentioned. Furthermore, there are several local communities which have similar stakes as indigenous communities: small farmers and ranchers, extractive communities and Quilombolas. Although not considered to be the same as indigenous persons, the Quilombolas (descendents of afro-slaves which escaped the slave plantations before slavery was abolished in Brazil in 1888) are a very important part of the local communities which depend on the Amazon and share many of the same interests and characteristics with indigenous communities. However, in this essay, because of the significant overlap between different local communities and for the sake of convenience and brevity, only indigenous peoples will be examined.

Secondly, it will evidently be impossible to deal with all existing protection mechanisms for the interests of the major stakeholders in the Amazon. Indeed, there is a great body of legislation relevant to the issues addressed in this essay, especially since much of it deals with issues pertaining to Environmental Law, which is characterized by its normative fragmentation and lack of centralization (both at a treaty and at an institutional level). Moreover, in addition to legislation, different interests can also be protected by institutions, organizations and government programs, making it even more difficult to make an analysis of all mechanisms available.

Thirdly, some generalizations will have to be made. Indeed, by grouping the stakeholders in the manner done in this essay, it would seem like they are homogenous groups composed of parts with the same interests. This is, of course, not true, as different States have different positions regarding the issues discussed, and indigenous communities vary greatly amongst themselves.

<sup>&</sup>lt;sup>20</sup> This includes the pharmaceutical, timber, mining and bio-prospecting companies.

Nonetheless, for convenience purposes, each group of stakeholders will be assessed and discussed as a whole.

Lastly, when analysing Amazonian States, their interests and the local and internal protection mechanisms thereof, the assessment will be conducted by focusing mostly on Brazil, for the sake of simplicity.

#### 2.2. Context

The world's interest in the Amazon and its resources dates back to early colonization in the 1500s, mostly by the Portuguese. Ever since, it has been coveted for the opportunities it offers for science, medicine and natural resource sectors. Indeed, over the past 180 years, international agencies, countries and individuals have interfered in its management.<sup>21</sup> All this interest by the international community could not, of course, go by unnoticed by the ones with the most to gain from it: Brazil and the seven other Amazonian States. As the Amazon territory was widely unoccupied and coveted by powerful nations, Brazil has for a long time sought to protect it and, in a way, reclaim it as its own.

In the 1960s and '70s, Brazilian generals saw the occupation of the Brazilian Amazon as a national security priority. With "*Ocupar para não entregar*"<sup>22</sup> as their slogan, the government – which, at the time was a military dictatorship – began a campaign to develop the land in the Amazon and assert Brazil's sovereignty claim over it, which gave way to the beginning of deforestation and, therefore, loss of biodiversity. This state-driven process led to the construction of highways and other infrastructure and gave rise to incentives to conquer, transform and develop the land in the Amazon, <sup>23</sup> including subsidized agricultural credits. <sup>24</sup>

Without forgetting that the rest of the world was and/or is responsible for much of the deforestation in the planet, the Legal Amazon has lost an alarming amount of square kilometres

<sup>22</sup> Roughly translated to "Occupy it to avoid surrendering it"

<sup>&</sup>lt;sup>21</sup> López (1999), at p.28

<sup>&</sup>lt;sup>23</sup> Barrionuevo, Alexei. "Whose Rain Forest Is This, Anyway?" The New York Times. 18 May 2008. Web. <a href="http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.</a>

<sup>&</sup>lt;sup>24</sup> Hargrave, Jorge and Kis-Katos, Krisztina. "Economic Causes of Deforestation in the Brazilian Amazon: A Panel Data Analysis for the 2000s". Environmental and Resource Economics Journal, Volume 54, Issue 4, pp 471-494, April 2013, at p. 472

of its forests. Indeed, there has been a loss of 17% of the Amazon Forest in the past 50 years.<sup>25</sup> Nonetheless, if compared to the end of the XX century, when development incentives were at their peak and deforestation rates ranged from 10 000 to 30 000 km<sup>2</sup>/year, protection of the Amazon has been improving, as in recent years they have been decreasing, reaching a low of 4571 km<sup>2</sup> in 2012, with a slight increase in 2013 (reaching 5843 km<sup>2</sup>).<sup>26</sup>

Furthermore, although it is difficult to determine the loss of biodiversity – since scientists are uncertain of the number of species that currently exist and of those that have existed –, experts estimate the loss of biodiversity to be anywhere from 1 000 to 10 000 times higher than the natural extinction (extinction that would occur without the interference of human activity) would be.<sup>27</sup>

## 2.3. STAKEHOLDERS

# 2.3.1. International community

The international community's main concerns are environmental problems and how they affect the planet, as well as the economic benefits that can be derived from the region. Several world leaders have manifested their apprehension towards the way Brazil manages the Amazon through declarations suggesting giving up control of the territory to other States or entities. Former American Vice-President Al Gore, then a senator, was quoted as saying, in 1989, "Contrary to what Brazilians think, the Amazon is not theirs, but all of ours." Former French President François Mitterrand stated that Brazil needs to accept a relative sovereignty over the Amazon. Finally, in 1992, former Soviet Union President Mikhail Gorbachev pushed the idea that Brazil should partially delegate its rights over the Amazon to a competent international organization. Furthermore, American military strategist and futurist Herman Kahn, advocated for the establishment of a freshwater lake in the region, thus turning the area into a centre of agricultural production. All these declarations are evidence of the substantial interest the international

<sup>&</sup>lt;sup>25</sup> "Problems in the Amazon." WWF Global / Panda, N.d. Web. 5 May 2014. <a href="http://wwf.panda.org/what\_we\_do/">http://wwf.panda.org/what\_we\_do/</a> here we work/amazon/problems>.

<sup>&</sup>lt;sup>26</sup> Projeto Prodes – Monitoramento da Floresta Amazônica Brasileira por Satélite. Ministério De Ciência e Tecnologia do Brasil. INPE. N.p.: INPE, n.d. Web. <a href="http://www.obt.inpe.br/prodes/index.php">http://www.obt.inpe.br/prodes/index.php</a>.

<sup>&</sup>lt;sup>27</sup> "How Many Species Are We Losing?" WWF Global / Panda. N.p., n.d. Web. 05 May 2014. <a href="http://wwf.panda.org/about">http://wwf.panda.org/about</a> our earth/biodiversity/biodiversity/>.

<sup>&</sup>lt;sup>28</sup> López (1999), at p.28

<sup>&</sup>lt;sup>29</sup> *Ibid*.

<sup>&</sup>lt;sup>30</sup> Barrionuevo (2008)

community has in the Amazon and its resources, both from an environmental and economic point of view.

# 2.3.1.1. ENVIRONMENTAL CONCERNS

The importance of the Amazon for the world in terms of biodiversity and regulation of climate change has already been established. One of the biggest threats to this area is deforestation and what accompanies it, namely climate change and loss of biodiversity.

As mentioned above, since the 1960s there has been much incentive on the part of the Brazilian government to develop land found on Amazonian territory. These incentives were mainly aimed at cattle-ranching, which is now a big export product for Brazil. Property law at the time dictated that ranchers who converted the land into pasture would gain title to said land, thus incentivising them to develop the land even more, which translated into high deforestation rates.<sup>31</sup> Then, in the 1990s, in addition to cattle-ranching, another agricultural sector began to be increasingly profitable for Brazil: the cultivation of soybeans. Increased international demand for soybeans put extra pressure on the world's greatest exporter of this good – Brazil – and contributed to further deforestation.

An issue directly linked to deforestation is climate change. The Amazon is the world's carbon sink and, without it, the Earth's ability to store carbon – thus removing it from the atmosphere – would compound the effects of global warming.<sup>32</sup> Another way it regulates the climate is because it directly affects rainfall patterns in Brazil and Argentina and, indirectly, in Europe and North America.<sup>33</sup>

Furthermore, a link can be established between the fast loss of hectares of forest, climate change and a decrease in biodiversity. As species lose their natural habitats, biodiversity and genetic loss ensue. Although intuitively one associates deforestation with the loss of the actual trees cut, the damage to other plants and animals dependent upon them for their survival cannot be ignored. Indeed, while smaller plants rely on the shade and moisture of canopy trees (which are usually

12

<sup>&</sup>lt;sup>31</sup> Hazen, Tyler E. "The Effects of Brazilian Agricultural Property Policies and International Pressures on the Soybean Industry: Incentives for Amazon Deforestation and How It May Be Reduced." San Diego Journal of Climate and Energy Law 2 (2010): 223-48. Hein Online. Web. http://pib.socioambiental.org/pt/c/ 0/1/2/populacao-indigena-no-brasil, at p. 227

<sup>&</sup>lt;sup>32</sup> Power of Nature (2013)

<sup>&</sup>lt;sup>33</sup> Barrionuevo (2008)

the ones subject to logging and other forms of deforestation), the animals depend on the vegetation for food, shelter, water, and breeding sites.<sup>34</sup>

Loss of biodiversity is a threat at a global scale, since it can lead to the collapse and imbalance of ecosystems and, as such, create large-scale agricultural problems which may threaten food supplies of a vast amount of people around the world.<sup>35</sup> Loss of biodiversity can also result in health impacts, not only because of the potential reduction of food supplies, but because it is of extreme importance for health research and traditional medicine<sup>36</sup>. Furthermore, the impacts that climate change and biodiversity loss have on ecosystems – such as increase in insect breeding – can result in an increase of temperature-related illnesses such as Malaria<sup>37</sup>.

With such far-reaching consequences, it is not surprising that the international community expresses concern over the management and conservation not only of the Amazon, but of the environment as a whole. Indeed, several members of the international community have also ratified various treaties on climate change such as the United Nations Framework Convention on Climate Change (UNFCCC), and its optional protocol; the Kyoto Protocol. Furthermore, all members of the United Nations, except for the United States and Andorra ratified the Convention on Biological Diversity (CBD), which entered into force on 29 December 1993, with the ratification of all members of the United Nations, except for the United States and Andorra. It has 3 main objectives:

- 1. The conservation of biological diversity
- 2. The sustainable use of the components of biological diversity
- 3. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

The CBD is of great relevance to the Amazon and its governance, and the vast number of parties who ratified it is evidence of their preoccupation with the sustainable management of this region.

<sup>35</sup> Shah, Anup. "Loss of Biodiversity and Extinctions." - Global Issues. Global Issues - Social, Political, Economic and Environmental Issues That Affect Us All, n.d. Web. 04 May 2014 <a href="http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions">http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions</a>>.

<sup>&</sup>lt;sup>34</sup> "Loss of Biodiversity (including Genetic Diversity)." Rainforest Conservation Fund RSS. Rainforest Conservation Fund, n.d. Web. 03 May 2014. <a href="http://www.rainforestconservation.org/rainforest-primer/3-rainforests-in-peril-deforestation/f-consequences-of-deforestation/3-loss-of-biodiversity-including-genetic-diversity/>.

<sup>&</sup>lt;sup>36</sup> "Biodiversity." WHO. World Health Organization, n.d. Web. 05 May 2014. <a href="http://www.who.int/globalchange/ecosystems/biodiversity/en/">http://www.who.int/globalchange/ecosystems/biodiversity/en/</a>.

<sup>&</sup>lt;sup>37</sup> Fobil, Julius, Juergen May, and Alexander Kraemer. "Assessing the Relationship between Socioeconomic Conditions and Urban Environmental Quality in Accra, Ghana."International Journal of Environmental Research and Public Health 7.1 (2010), at p. 137

Furthermore, with deforestation increasing at an alarming rate, the Brazilian government has felt pressure from the international community and has enacted a large body of legislation to combat environmental issues. Indeed, even in its Constituição da República Federativa do Brasil de 1988 (The Constitution of the Federative Republic of Brazil of 1988, henceforth, the "Constitution"), Brazil guarantees the right to preservation of the diversity and integrity of its genetic patrimony (Art. 225, §1°, II). The problem is – and this problem can also be found in other countries' environmental legislation – the lack of enforcement.<sup>38</sup>

Lastly, another way the international community defends its interests in the preservation of the Amazon is through economic pressures. Indeed, there is much pressure on Brazil to fulfil the international community's demands of meat and soy, which only increases deforestation. The international market has, however, become more responsible, and its sustainability requirements and environmental concerns have had an impact on Brazilian policy (such as the ban of cultivating soybeans in major areas of deforestation following a campaign that pressured the chain of fast food restaurants McDonald's to cease selling chicken raised on soy produced in deforestation areas).<sup>39</sup>

## 2.3.1.2. ECONOMIC POTENTIAL

The international community in general has a keen economic interest in the Amazon since, as already mentioned in this essay, it is one of the richest places on Earth in terms of biodiversity, and genetic and natural resources. With all the economic potential in the area, it is not surprising that the international community, especially foreign companies and investors, have turned their eyes to the Amazon.

The high-value timber from the forests attracts several international groups and is exploited by huge corporations such as Mitsubishi, Georgia Pacific, Texaco and Unocal. This exploitation of the forest for the value of timber – by local and international players – is leading to an accelerated destruction of the rain forests. The biodiversity and genetic resources also attract substantial economic interests, especially from pharmaceutical companies. For instance, over 120 drugs commercialized worldwide and 25% of Western pharmaceuticals use ingredients

<sup>39</sup> *Ibid.* at pp. 240-241

<sup>&</sup>lt;sup>38</sup> Hazen (2010), at p. 231

coming from the plants of the region. Furthermore, the Amazon has up to 70% of the 3000 plants that can fight cancer that were identified by the US National Cancer Institute.<sup>40</sup>

There is also the economic value of the indigenous traditional knowledge that is being used for commercial purposes. The UN "Indigenous Peoples - Lands, Territories and Natural Resources" paper presents the example of "a frog poison which acts as a stronger painkiller than morphine and is used by indigenous communities in Brazil, has been the target of more than 20 patents in Europe and the United States".<sup>41</sup>

As such, the interest of international actors in the Amazon cannot be regarded as a purely environmental one. Indeed, the international community has stakes in the Amazon that go beyond the protection of the global environment and extend to scientific knowledge and, more generally, economic gain.

# 2.3.2. Brazil (and other Amazonian States)

# 2.3.2.1. SECURITY AND POLITICAL INTERESTS

The Brazilian government has, among others, two closely linked types of interests in the Amazon: security and political. Indeed, the military has always played a prominent role in safeguarding Brazil's political stake in the Amazon (i.e. sovereignty over its territory). While protecting the State's jurisdiction over its territory, Brazilian generals also indirectly aid in the protection of the land itself and those who inhabit it.

Before going any further, one must ask: is there such a thing as sovereignty over the Brazilian Amazon? To answer this question, Brazil uses the territorial criterion of sovereignty, while the International Community seems to give preference to reconciling their views with the new, less state-centred definition of sovereignty.<sup>42</sup>

15

<sup>&</sup>lt;sup>40</sup> "Rainforest Facts." Rainforest Facts. N.p., n.d. Web. 05 May 2014. <a href="http://www.raintree.com/facts.htm#.U2Zoo4FdVKU">http://www.raintree.com/facts.htm#.U2Zoo4FdVKU</a>.

<sup>&</sup>lt;sup>41</sup> United Nations. Permanent Forum on Indigenous Issues. UN Permanent Forum on Indigenous Issues. Indigenous Peoples - Lands, Territories and Natural Resources. UN, 2007. Web. <a href="http://www.un.org/esa/socdev/unpfii/documents/6\_session\_factsheet1.pdf">http://www.un.org/esa/socdev/unpfii/documents/6\_session\_factsheet1.pdf</a>>.

<sup>&</sup>lt;sup>42</sup> López (1999), at p. 26

Brazilian armed forces have declared that they will preserve sovereignty "as long as possession of and jurisdiction over the territory is guaranteed, along with its indivisibility and the possibility of political actions that aim to preserve Brazil's vital interests". They have argued that this is the limit of the concept of sovereignty and that it cannot be made further flexible. <sup>43</sup> A problem with the territorial view on sovereignty, other than the fact that it is not consistent with the modern perspective, is that the Amazon is shared by eight States. Because of the interdependent nature of all components of the Amazon (and any other ecosystem), it would be an oversimplification to divide it according to political borders.

On the other hand, the international community and its various actors (States, NGOs, etc) challenge this sovereignty by claiming that the importance of the Amazon is not confined to the Brazilian territory. <sup>44</sup> Indeed, not only is it shared by other Amazonian States, but it has impacts that reach the whole world. As such, there has been much international pressure for bigger international responsibility by Brazil and for the internationalization of the Amazon. In any case, for the purpose of this essay, Brazil will be considered as having sovereignty over the Amazon that corresponds to it: the Legal Amazon.

As already mentioned, the region has for decades been characterized by strong military presence, as it is regarded as vulnerable and strategic for national security. <sup>45</sup> The concern of the Brazilian government and military over the Amazon area has only been enhanced by declarations of world leaders that seem to attack territorial integrity, unity, and sovereignty. With all of the previously mentioned declarations suggesting giving up control of the territory to other States or entities, it is not surprising that even today Brazilian policy regarding the Amazon is guided by a fear of too much intervention in what the country regards as its sovereign competences. As such, governance of the Amazon is inextricably linked to the Brazilian military and its efforts to protect the area at both a local and global level.

As an effort to afford the needed protection, the Brazilian government implemented the System for Vigilance of the Amazon (SIVAM), the control of which was given to the military<sup>46</sup>. The system would not only serve to safeguard Brazil's sovereignty over its portion of the Amazon, but also to monitor the area and gather data on the region, thus contributing to more efficient

\_

<sup>&</sup>lt;sup>43</sup>*Ibid*, at p. 28

<sup>44</sup> *Ibid*, at p. 26

<sup>&</sup>lt;sup>45</sup>*Ibid*, at pp. 27-28

<sup>&</sup>lt;sup>46</sup>Wittkoff, E. Peter. "Brazil's SIVAM: Surveillance Against Crime and Terrorism". International Journal of Intelligence and Counter Intelligence, 16:4, 543-560, DOI:10.1080/716100473 (2003), at p. 454

decision and policy making in regards to the area.<sup>47</sup> SIVAM, would also serve to aid in the combat of illegal activities taking place in the Amazon.<sup>48</sup> Indeed, an important safety concern in the area is the role of the region as the stage for regional and international drug trafficking, illegal timber harvesting and contraband.<sup>49</sup> The Amazon occupies a large surface (equal to the size of Western Europe) and is both difficult and expensive to adequately supervise, including at the borders. Through a network of satellites, sensors and aircraft monitoring, SIVAM is meant to be a crucial instrument for providing security in the area and improving its management and sustainability.

Furthermore, Brazil's sovereignty over its natural resources is reaffirmed in several ways in international law (as discussed in section 1.2., *supra*), including in the CBD – described above – which is founded on the principle of permanent sovereignty of States over their natural resources.

# 2.3.2.2. Environmental and Socioeconomic Interests

The Amazon is of great importance to Brazil's economic growth. Both natural and genetic resources found in the area, as well as large extensions of undeveloped and inexpensive land with potential for development, are key elements to the Brazilian economy. In addition to the already mentioned cattle ranching and soybean plantations, other efforts to develop the area included the construction of dams and development of hydroelectricity projects, as well as land use for mining and wood production. However, the economic interests of Brazil go far beyond the monetary gain that is brought by the commercial aspect of the Amazon. Much of what affects the region at an environmental level has a strong impact on the country's economic and social issues. As such, like the international community, Brazil has good reason to be concerned with the environmental issues that may affect the Amazon.

\_

<sup>&</sup>lt;sup>47</sup> Da Costa, Thomaz Guedes. "Brazil's SIVAM: as it Monitors the Amazon, Will it Fulfill its Human security Promise?". ECSP (Environmental Change and Security Project) Report, Issue 7. (Summer 2001)

<sup>&</sup>lt;a href="http://pdf.usaid.gov/pdf">http://pdf.usaid.gov/pdf</a> docs/PNADF986.pdf#page=53 47-48>, at pp. 47-48

<sup>&</sup>lt;sup>48</sup>Wittkoff (2003), at p. 543

<sup>&</sup>lt;sup>49</sup>*Ibid*, at p. 550

<sup>&</sup>lt;sup>50</sup> Schiff, Jennifer. "The Amazon as a "Global Commons": Reconciling State Sovereignty with the Interconnectivity of the Global Environment" Paper presented at the annual meeting of the Theory vs. Policy? Connecting Scholars and Practitioners, New Orleans Hilton Riverside Hotel, The Loews New Orleans Hotel, New Orleans, LA,. 2013-12-29 <a href="http://citation.allacademic.com/meta/p416056index.html">http://citation.allacademic.com/meta/p416056index.html</a>, at p. 11

Deforestation and environmental degradation have a significant impact on agriculture, one of the most important sectors of Brazilian economy, as it represents a US\$65 billion industry. While much of the deforestation in Brazil is done in the name of agriculture (i.e.: by clearing several hectares of forest to make room, for instance, for cattle-ranching and soybean plantations), it can actually negatively affect that sector. Indeed, the trees in the Amazon are responsible for water cycling services; the vapour emanating from the forest reaches important agriculture regions in the country and contributes to their prosperity<sup>51</sup>. Furthermore, environmental degradation can lead to social problems such as increased poverty, conflict generated by loss of habitat and land and health issues.

# 2.3.3. Indigenous Communities

Although there are indigenous peoples living in both rural and urban areas of different regions of Brazil, an important part of the Brazilian indigenous community lives in the Amazon. In the Legal Amazon, the indigenous population is of approximately 433,363 individuals.<sup>52</sup> Although they are all "indigenous peoples", they are divided into different groups or tribes (there are 170 groups in the Legal Amazon),<sup>53</sup> with their own traditions, knowledge, beliefs and organizational structures.

A major part of those belonging to indigenous communities live on the 608 units of protected indigenous lands and reserves, which comprise 13% of the Brazilian territory. Indigenous peoples have a very significant stake in the Amazon, as it includes an important part of their territory (98% of indigenous land can be found in the Legal Amazon).<sup>54</sup> Indeed, indigenous communities have a very close and special relationship with their land, as is evidenced by the Kimberley Declaration:

"Our lands and territories are at the core of our existence – we are the land and the land is us; we have a distinct spiritual and material relationship with our lands and territories and they are inextricably linked to our survival and to the

<sup>52</sup> "População Indígena No Brasil." No Brasil Atual Quantos São Onde Estão. N.p., n.d. Web.

<a href="http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil">http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil</a>>.

<sup>&</sup>lt;sup>51</sup> "Problems in the Amazon." WWF Global.

<sup>&</sup>lt;sup>53</sup> Vital Forest Graphics 2009 - Chapter 16: The Amazon- The Largest Rainforest in the World. Rep. N.p.: UNEP, n.d. Isbn 9789280729030. Web. <a href="http://www.unep.org/vitalforest/Report/VFG-16-The-amazon-the-largest-rainforest-in-the-world.pdf">http://www.unep.org/vitalforest/Report/VFG-16-The-amazon-the-largest-rainforest-in-the-world.pdf</a>>.

<sup>&</sup>lt;sup>54</sup> "Mineração Em Terra Indígena Avança Na Câmara." www.ihu.unisinos.br. N.p., n.d. Web. <a href="http://www.ihu.unisinos.br/noticias/509318-mineracaoemterraindigenaavancanacamara">http://www.ihu.unisinos.br/noticias/509318-mineracaoemterraindigenaavancanacamara</a>>.

preservation and further development of our knowledge systems and cultures, conservation and sustainable use of biodiversity and ecosystem management."55

As can be seen, indigenous communities have a variety of interests in the Amazon which are in great measure linked to their land. These interests range from preservation of culture and environment, to health and security, and even include, in a less significant way, financial benefit. Indeed, deforestation and other environmental issues leading to the loss and deterioration of indigenous lands can result not only in loss of culture, "marginalization, discrimination and underdevelopment of indigenous communities", but also to health problems.<sup>56</sup>

The rights of these communities are protected both at a local and international level. Brazil protects the interests of indigenous peoples primarily through its Constitution, which guarantees their rights relative to their culture, to their land and to access to resources, as well as to intellectual property and traditional knowledge. The international community also attempts to safeguard and promote these rights worldwide, through conventions such as the CDB and its optional protocol (the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, henceforth, the "Nagoya Protocol"), as well as declarations such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP).

# 2.3.3.1. CULTURAL INTERESTS AND RIGHTS

Firstly, Article 215, §1° of the Constitution guarantees sociodiversity rights and protects the different manifestations of indigenous cultures, which encompasses, according to Article 231 of the Constitution, their social organization, customs, languages, beliefs and traditions.

Secondly, and at a global level, there is UNDRIP, which protects cultural rights of indigenous communities. However, since it is a declaration, it does not have the same clout as a resolution or treaty, and there are difficulties in its enforcement.

19

<sup>&</sup>lt;sup>55</sup> The Kimberley Declaration. Proc. of International Indigenous Peoples Summit on Sustainable Development, Khoi-San Territory Kimberley, South Africa,. N.p., 22 Aug. 2002. Web. <a href="http://www.ipcb.org/resolutions/htmls/kim\_dec.html">http://www.ipcb.org/resolutions/htmls/kim\_dec.html</a>.

<sup>&</sup>lt;sup>56</sup> United Nations Permanent Forum on Indigenous Issues (2007)

#### 2.3.3.2. RIGHTS TO LAND AND RESOURCES

The Constitution establishes that indigenous lands of traditional occupation are property of the State (art. 20, XI of the Constitution). However, they are under permanent possession of indigenous communities, which have exclusive usufruct of resources found on their lands, namely the ones derived from the soil, rivers and lakes located in the area (Article 231, §2°). The exceptions to the "exclusive usufruct" can be found in Article 231, §3° of the Constitution: the development of water resources (including for energy generation) and mining. Those activities may only take place following authorization of the National Congress and after the affected communities have been heard. Furthermore, their participation in the benefits deriving from those activities is guaranteed.

In any case, the exclusive usufruct over natural resources found on their land does not preclude the indigenous communities from authorizing access to third parties, subject to it being in their interest and in a way that does not violate cultural integrity.

At an international level, the UNDRIP also protects indigenous communities' rights over genetic resources. It also encourages States to guarantee and enforce the rights contained in this declaration. It does so mainly through two articles:

- Article 31(1) "Rights to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions... including genetic resources".
- Article 31(2): "In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights".

Nonetheless, as explained above, the fact that this is a declaration makes these principles more difficult to enforce.

Another way indigenous peoples' lands – and resources found therein – are protected are through international legislation, namely the Convention on Biological Diversity (CDB) and the Nagoya Protocol. There are several problems with these pieces of international law which will be described below. However, there is one problem that permeates most treaties: in order to seek consensus among the parties and obtain as many ratifications as possible, oftentimes the lowest common denominator among the parties will be applied.

Although the CDB makes some reference to indigenous communities, it fails to clearly indicate the way in which the indigenous communities should be consulted with regards to the resources.

The failures of the CDB in sufficiently including indigenous peoples and their rights have prompted the enactment of the Nagoya Protocol to complement the Convention. This Protocol has not yet entered into force due to the lack of ratifications (although it has received 66% of the needed ratifications, it still needs, at the time of writing, seventeen more in order to enter into force).<sup>57</sup> The Nagoya Protocol does a better job at recognizing the rights of indigenous peoples to access to genetic resources by stating that "each Party shall take measures, as appropriate, with the aim of ensuring that the prior informed consent or approval and involvement of indigenous and local communities is obtained for access to genetic resources where they have the established right to grant access to such resources."<sup>58</sup> It also explicitly acknowledges in its Article 5 that there needs to be benefit-sharing with indigenous and local communities. However, the protocol has several issues:

- 1) It fails to respect international standards set out by the UNDRIP.
- 2) It excessively relies on national legislation. National legislation should be one of the most effective means of guaranteeing rights of indigenous communities since, if done at an international level, all indigenous communities tend to be generalized and grouped together, when in fact they are all quite different, as mentioned above. However, there is a worry that this excessive reliance might lead to serious abuses, as exemplified by a history of violations of rights of indigenous peoples by various States.
- 3) The language use is still ambiguous and may result in arbitrariness.
- 4) The Protocol's reference to "established rights" may unfairly burden indigenous communities, which would have to prove the existence of those rights in domestic legislations, a task that may be overly difficult, if not impossible.<sup>59</sup>

<sup>&</sup>lt;sup>57</sup> Four New Ratifications Edge Landmark Genetic Resources Treaty Closer to Entering into Force. United Nations Environment Programme. Secretariat of the Convention on Biological Diversity . UNEOP, n.d. Web.

<sup>&</sup>lt;a href="http://www.cbd.int/doc/press/2014/pr-2014-05-01-Nagoya-Protocol-en.pdf">http://www.cbd.int/doc/press/2014/pr-2014-05-01-Nagoya-Protocol-en.pdf</a>>.

<sup>&</sup>lt;sup>58</sup> Article 6, Nagoya Protocol

<sup>&</sup>lt;sup>59</sup> "Nagoya Protocol: Substantive & Procedural Injustices Relating to Indigenous Peoples' Human Rights." Nagoya Protocol: Substantive & Procedural Injustices Relating to Indigenous Peoples' Human Rights. N.p., n.d. Web. <a href="http://www.ubcic.bc.ca/print/News">http://www.ubcic.bc.ca/print/News</a> Releases/UBCICNews05191102.htm>.

As can be seen, there is a blatant failure to adequately protect the rights of indigenous peoples.

- 3. ASSESSMENT OF THE CURRENT GOVERNANCE MODEL
- 3.1 ISSUES AND WEAKNESSES OF THE CURRENT GOVERNANCE MODEL

The current situation in regards to the management and governance of the Amazon is weakened by the fragmentation of interests surrounding the region. Indeed, when analysing three of the major stakeholders in the Amazon, one can see how each has its own set of stakes in the region and, although sometimes those stakes overlap, they often clash with one another. The desire for national economic development and protection of sovereignty on the part of Brazil and other Amazonian States is oftentimes pitted against the international community's stake in the preservation of the global environment. This clash of interests not only leads to a standstill in the current governance model, but is also permeated by contradictions.

Developed nations of the international community are simultaneously the ones who most pressure the Amazonian States to better preserve the Amazon and the ones who consume and waste the highest amounts of energy and emit most greenhouse gases and pollution. Furthermore, they lay blame on Amazonian States for deforestation and try to lecture them on land use, but it is because of their demands for agricultural, mining and other goods produced in the region that such alarming rates of deforestation occur in the first place. Indeed, they use the Amazon as a "machine" to obtain goods, and want it to offset the environmental damage they cause on the planet, and then insist that the "maintenance" of this "machine" be undertaken by Amazonian States, because it is the latter that have the responsibility to do so (at least according to developed nations).

This is not to say Amazonian States are mere puppets or slaves of the will of developed nations. The mismanagement of the region has and continues to cause grave impact not only on the rest of the international community, but also on themselves. Indeed, they are victims of their own faulty governance and conservation mechanisms, as environmental degradation and deforestation impact the very industry that causes them: agriculture. Indeed, one of the main ways Brazil can achieve economic development and growth is through cattle-ranching, cultivation of soybeans, and other agricultural activities. However, these activities cause environmental degradation which, in turn, negatively affects these important sectors of Brazilian economy.

Furthermore, with these two major actors (the international community and Amazonian States) taking centre stage of the debate for control of the Amazon, little room is left for the interests of another major stakeholder: indigenous communities. Indeed, although the latter has been gaining more attention in recent years, governments are still reluctant to give in to their demands for fear of giving up too much of their control over matters under their jurisdiction. Indigenous peoples are thus left with means of protection that are undermined by the use of vague and unclear language, lack of ratification and enforcement, as well as unfair burden. These are communities that are incredibly vulnerable, have undergone a history of abuse, and continue to be seen as secondary, even though their traditional knowledge relating to both genetic resources and ways of managing their environment have aided in and continue to be indispensable for a sustainable and optimal governance of the Amazon.

## 3.2. Proposal of improvement measures

As seen in the sections above, the current governance model for the Amazon has much room for improvement. Although it is unrealistic to expect to accommodate all interests and fully satisfy all stakeholders, there may be a way to reach a more optimal situation. The aim should be to protect the environment – both at a global level and at a local one – while refraining from infringing the Amazonian States' sovereignty and recognizing and protecting rights of indigenous peoples. To do so, several courses of actions are recommended, all of which have cooperation at their core.

Firstly, stakeholders need to recognize that while their ultimate goals may be different, they can work together to achieve their ends. For example, to address local security concerns by Brazil, the work performed through SIVAM (System for Vigilance of the Amazon) can and should be optimized through regional and international cooperation. At the global level, SIVAM has been said to be an important tool for cooperation between Brazil and the United States. Despite Brazil's trepidation towards involving a State which has in the past shown such keen interest in the region, cooperation with this global power would prove mutually beneficial, especially since the firm that built SIVAM – Raytheon – is headquartered in the United States. <sup>60</sup> Furthermore, illicit activities that take place in the area such as drug trafficking, affect several members of the international community, including the United States and Europe, where great part of the drug supply is sent. At a local level, neighbouring States who share the Amazon need to collaborate in the prevention and detection of illegal activities, as well as in the apprehension of the

<sup>&</sup>lt;sup>60</sup> Wittkoff (2003), at page 555

perpetrators thereof. A recent example of this is the drug trafficking situation in the Amazon Tri-Border area (the point where Brazil, Colombia and Peru meet), which is at the heart of a booming drug trade facilitated by porous borders, a fluid population and disparate resources between the three nations.<sup>61</sup> As different stages of the drug trafficking process (from production, to transportation, to sale) shift from one State to another, it is essential for law enforcement of the three countries to work together.

Another example stems from the fact that both Brazil and other States of the international community have an interest in protecting the Amazon. As previously discussed, for Brazil, protecting the environment of the region also means protecting its agricultural sector, a multibillion dollar industry for the country and a means to economic growth and development. The issue for Brazil is not only that regulating land use to reduce deforestation could result in decreased production, but also that the implementation of mechanisms to carry out such regulation can be expensive. For the international community, the hindrances in regulating land use in the Amazon comes from resistance on the part of Amazonian States who want neither their sovereignty to be infringed, nor their economic development to be halted. If both actors were to cooperate, they could align their interests and achieve a solution that is, if not ideal, at least acceptable to all. One way to do this is to have both stakeholders share the benefits and costs linked to the Amazon. On the one hand, Amazonian States would commit themselves to better management of the region, more stringent environmental regulations, and to the enforcement of policies for more sustainable land use and agriculture. On the other hand, the international community could establish a fund or financial incentive mechanism to substantially alleviate the financial burden that would be placed on the Amazonian States.

Secondly, there needs to be improvement at a legislative level, both nationally and internationally. At the national level, Brazil needs to enforce the environmental regulation it enacts to protect the Amazon. At an international level, treaties protecting the environment and indigenous peoples need to be ratified by more States, especially key players such as the United States. For example, the Nagoya Protocol is still lacking ratifications for its entry into force. Furthermore, treaties need to be implemented more vigorously at a domestic level. Finally, the language in the regulations needs to be clearer and less vague.

<sup>&</sup>lt;sup>61</sup> Parkinson, Charles. "The Flow of Drugs and Blood in the Amazon Tri-border Region." *InSight Crime*. N.p., 4 Apr. 2014.

Thirdly, indigenous communities need to be more present in the debate and collaborate in the drafting of policies and legislation. They have special traditional knowledge of the Amazon and its resources and their contribution would enrich and optimize the governance model. Furthermore, the protection of indigenous lands is one of the most effective ways of preventing deforestation. Once again, although the interests of the indigenous communities in their land and culture are different from the environmental and economic interests held by the international community and the Amazonian States, all these interests can be protected using the same means.

Finally, all stakeholders, but especially Amazonian States and the international community, need to set aside their extremist points of view and give concessions so as to better protect all interests. Indeed, in much of the media and academia analysed in the writing of this essay, there were two radical positions. On the one hand, in texts written by some Brazilian scholars, the view was that the rest of the world – especially powerful nations like the United States – wanted to use environmental concern as a pretext to gain political control over the area. In articles written by the rest of the international community, there were strong allegations concerning Brazil's "paranoia" in regards to the world's interest in the Amazon, as well as statements indicating that the Amazon was, in fact, a good that belongs to the whole world. The way the issue is portrayed in academia and the media influences public opinion, which in turn plays an important role in the political sphere (i.e. through the election of the governments) and, thus, in policy-making. Without making nuances on both points of view, the situation will perpetuate itself and it will be difficult to reach a compromise, align the interests of different stakeholders and achieve an efficient governance model that protects the interests of the various actors in an optimal manner.

\_

<sup>&</sup>lt;sup>62</sup> Nolte, C., A. Agrawal, K. M. Silvius, and B. S. Soares-Filho. "Governance Regime and Location Influence Avoided Deforestation Success of Protected Areas in the Brazilian Amazon." *Proceedings of the National Academy of Sciences* 110.13 (2013): 4956-961. Web.

# **CONCLUSION**

The Amazonian territory has been coveted for a long time and has been the object of much tension. The Amazon is vital to the international community, to the Amazonian States and to the indigenous peoples living in it, and is in danger of being destroyed. This generates debates over the sovereignty of the Amazon, the adequate protection of rights of indigenous peoples and the governance of the territory.

Firstly, there is the international community, which has great interest in the region – not only out of concern for the environment, but also out of economic and research interests – and claims that control over it should be taken out of the hands of the Amazonian States' governments or, at least, that the area should be more closely supervised and better governed.

Secondly, there is Brazil, to whom the Amazon has great importance economically and politically. It argues it has sovereignty over the region and that that sovereignty is in danger of being violated. Furthermore, as many other developing countries have contended in the past, Brazil asserts its rights to development by using the principle of permanent sovereignty over its natural resources, which are largely found in Amazonian territory.

Thirdly, there are the indigenous communities, for whom the Amazon represents much more than a political claim, a means for development, a centre for research or an opportunity for investment. For them, the Amazon is the land they live on, a fact that brings with it a connotation of cultural and spiritual significance. Furthermore, their interest in the Amazon is tied to the right of self-determination of peoples.

There are several problems with the current governance model of the Amazon which lead to a failure to protect the interests of these three stakeholders at an optimal level. Indeed, the desire for economic development on the part of Brazil has lead to deforestation, loss of biodiversity, and contribution to climate change, which poses a problem not only to itself, but to the international community and its environmental concerns, as well as to the wellbeing and culture of indigenous communities. The preoccupation of the international community with the Amazon, which has on occasion been manifested in the form of interference with the area, can lead to the infringement of Brazilian and other Amazonian States' sovereignty over the Amazon. Furthermore, the claims made by indigenous communities demanding not only the protection of the environment and of their territory, but also the guarantee of their intellectual property rights

and rights over indigenous lands, can prevent both Amazonian States and the international community from exploiting, developing and managing the land.

No model can perfectly accommodate the totality demands mentioned above, which is why they must be weighed and protected according to their priority. Nonetheless, if the three actors – the Amazonian States, the international community and indigenous communities – cooperate and set aside extremist perceptions they may have of each other's point of view, the Amazon could be governed in a much more efficient way and the interests of all stakeholders could be more fully protected.

## **BIBLIOGRAPHY**

- "Amazon Cooperation Treaty (ACT)". Portal ACTO (Amazon Cooperation Treaty Organization). Web. <a href="http://otca.info/portal/tratado-coop-amazonica.php?p=otca">http://otca.info/portal/tratado-coop-amazonica.php?p=otca></a>
- "Amazon Rainforest." Online posting. Blue Planet Biomes. West Tisbury School, n.d. Web. <a href="http://www.blueplanetbiomes.org/amazon.htm">http://www.blueplanetbiomes.org/amazon.htm</a>>.
- Barrionuevo, Alexei. "Whose Rain Forest Is This, Anyway?" The New York Times. 18 May 2008.Web. <a href="http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_r=1&>.">http://www.nytimes.com/2008/05/18/weekinreview/18barrionuevo.html?\_
- "Biodiversity." WHO. World Health Organization, n.d. Web. <a href="http://www.who.int/globalchange/ecosystems/biodiversity/en/">http://www.who.int/globalchange/ecosystems/biodiversity/en/>.
- Da Costa, Thomaz Guedes. "Brazil's SIVAM: as it Monitors the Amazon, Will it Fulfill its Human security Promise?" ECSP (Environmental Change and Security Project) Report, Issue 7. (Summer 2001) <a href="http://pdf.usaid.gov/pdf\_docs/PNADF986.pdf#page=53">http://pdf.usaid.gov/pdf\_docs/PNADF986.pdf#page=53</a> 47-48>
- De Sartre, Xavier Arnauld, and Romain Taravella. "National Sovereignty vs. Sustainable Development Lessons from the Narrative on the Internationalization of the Brazilian Amazon." *Political Geography* 28 (2009): 406-15. *Elsevier*. Web. <a href="http://web.env.auckland.ac.nz/courses/geog320/resources/pdf/sustainability/Arnauld-de-Satre Taravella 2009.pdf">http://web.env.auckland.ac.nz/courses/geog320/resources/pdf/sustainability/Arnauld-de-Satre Taravella 2009.pdf</a>.
- Environment Outlook in Amazonia -GEO Amazonia. Rep. N.p.: UNEP, n.d. DRC/1073/PA. ISBN: 978-92-807-2945-0. Web. <a href="http://www.unep.org/pdf/GEOAMAZONIA.pdf">http://www.unep.org/pdf/GEOAMAZONIA.pdf</a>>.
- Fobil, Julius, Juergen May, and Alexander Kraemer. "Assessing the Relationship between Socioeconomic Conditions and Urban Environmental Quality in Accra, Ghana." *International Journal of Environmental Research and Public Health* 7.1 (2010): at p. 137
- Four New Ratifications Edge Landmark Genetic Resources Treaty Closer to Entering into Force. United Nations Environment Programme. Secretariat of the Convention on Biological Diversity . UNEOP, n.d. Web. <a href="http://www.cbd.int/doc/press/2014/pr-2014-05-01-Nagoya-Protocol-en.pdf">http://www.cbd.int/doc/press/2014/pr-2014-05-01-Nagoya-Protocol-en.pdf</a>.
- Global Governance and Governance of the Global Commons in the Global Partnership for the Development Beyound 2015. N.P.: United Nations, N.D. WEB. <a href="http://www.un.org/en/development/desa/policy/untaskteam\_undf/thinkpieces/24\_thinkpiece\_global\_governance.pdf">http://www.un.org/en/development/desa/policy/untaskteam\_undf/thinkpieces/24\_thinkpiece\_global\_governance.pdf</a>.
- "Glossary of Statistical Terms Global Commons Definition." OECD Glossary of Statistical Terms. OECD, n.d. Web. <a href="https://stats.oecd.org/glossary/detail.asp?ID=1120">https://stats.oecd.org/glossary/detail.asp?ID=1120</a>.

- Hargrave, Jorge and Kis-Katos, Krisztina. "Economic Causes of Deforestation in the Brazilian Amazon: A Panel Data Analysis for the 2000s". Environmental and Resource Economics Journal, Volume 54, Issue 4, pp 471-494, April 2013
- Hazen, Tyler E. "The Effects of Brazilian Agricultural Property Policies and International Pressures on the Soybean Industry: Incentives for Amazon Deforestation and How It May Be Reduced." *San Diego Journal of Climate and Energy Law* 2 (2010): 223-48. *Hein Online*. Web. <a href="http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil">http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil</a>>.
- "How Many Species Are We Losing?" WWF Global / Panda. N.p., n.d. Web. <a href="http://wwf.panda.org/about\_our\_earth/biodiversity/biodiversity/">http://wwf.panda.org/about\_our\_earth/biodiversity/biodiversity/></a>.
- "Loss of Biodiversity (including Genetic Diversity)." Rainforest Conservation Fund RSS. Rainforest Conservation Fund, n.d. Web. <a href="http://www.rainforestconservation.org/rainforest-primer/3-rainforests-in-peril-deforestation/f-consequences-of-deforestation/3-loss-of-biodiversity-including-genetic-diversity/">http://www.rainforestconservation.org/rainforest-primer/3-rainforests-in-peril-deforestation/f-consequences-of-deforestation/3-loss-of-biodiversity-including-genetic-diversity/</a>.
- López, Alexander. "Environmental Change, Security, and Social Conflicts in the Brazilian Amazon." *Environmental Change & Security Project Report* 5 (Summer 1999): 26-33. *Wilson Center*. Web. <a href="http://www.wilsoncenter.org/sites/default/files/feature3.pdf">http://www.wilsoncenter.org/sites/default/files/feature3.pdf</a>>.
- "Mineração Em Terra Indígena Avança Na Câmara." Www.ihu.unisinos.br. N.p., n.d. Web. <a href="http://www.ihu.unisinos.br/noticias/509318-ineracaoemterraindigenaavancanacamara">http://www.ihu.unisinos.br/noticias/509318-ineracaoemterraindigenaavancanacamara</a>.
- "Nagoya Protocol: Substantive & Procedural Injustices Relating to Indigenous Peoples' Human Rights." Nagoya Protocol: Substantive & Procedural Injustices Relating to Indigenous Peoples' Human Rights. N.p., n.d. Web. <a href="http://www.ubcic.bc.ca/print/News Releases/UBCICNews05191102.htm">http://www.ubcic.bc.ca/print/News Releases/UBCICNews05191102.htm</a>.
- Nolte, C., A. Agrawal, K. M. Silvius, and B. S. Soares-Filho. "Governance Regime and Location Influence Avoided Deforestation Success of Protected Areas in the Brazilian Amazon." *Proceedings of the National Academy of Sciences* 110.13 (2013): 4956-961.
- Parkinson, Charles. "The Flow of Drugs and Blood in the Amazon Tri-border Region." *InSight Crime*. N.p., 4 Apr. 2014. Web.
- "População Indígena No Brasil." No Brasil Atual Quantos São Onde Estão. N.p., n.d. Web. <a href="http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil">http://pib.socioambiental.org/pt/c/0/1/2/populacao-indigena-no-brasil</a>.
- "Problems in the Amazon." WWF Global / Panda, N.d. Web. <a href="http://wwf.panda.org/what\_we\_do/where\_we\_work/amazon/problems">http://wwf.panda.org/what\_we\_do/where\_we\_work/amazon/problems</a>>.
- Projeto Prodes Monitoramento da Floresta Amazônica Brasileira por Satélite. Ministério De Ciência e Tecnologia do Brasil. INPE. N.p.: INPE, n.d. Web. <a href="http://www.obt.inpe.br/prodes/index.php">http://www.obt.inpe.br/prodes/index.php</a>.

- Power of Nature. "Amazon: Lungs of the Planet." *Bbc.com*. BBC, 27 Feb. 2013. Web. <a href="http://www.bbc.com/future/story/20130226-amazon-lungs-of-the-planet">http://www.bbc.com/future/story/20130226-amazon-lungs-of-the-planet</a>.
- "Rainforest Facts." Rainforest Facts. N.p., n.d. Web. <a href="http://www.rain-tree.com/facts.htm">http://www.rain-tree.com/facts.htm</a>#.U2Zoo4FdVKU>.
- Rodrigo Hernández, Ángel J. "Tema 4: Membrecía Y Subjetividad En La Comunidad Internacional Y En El Derecho Internacional." Centro De Estudios Internacionales, Barcelona. 21 Oct. 2013. Lecture.
- Shah, Anup. "Loss of Biodiversity and Extinctions." Global Issues. Global Issues Social, Political, Economic and Environmental Issues That Affect Us All, n.d. Web. <a href="http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions">http://www.globalissues.org/article/171/loss-of-biodiversity-and-extinctions</a>.
- Schiff, Jennifer. "The Amazon as a "Global Commons": Reconciling State Sovereignty with the Interconnectivity of the Global Environment" *Paper presented at the annual meeting of the Theory vs. Policy? Connecting Scholars and Practitioners, New Orleans Hilton Riverside Hotel, The Loews New Orleans Hotel, New Orleans, LA.*, 2013-12-29 <a href="http://citation.allacademic.com/meta/p416056index.html">http://citation.allacademic.com/meta/p416056index.html</a>.
- Schrijver, Nicolaas Jan. "Sovereignty over Natural Resources: Balancing Rights and Duties in an Independent World." . Ph.D. Thesis. School of Law at the University of Groningen. March, 1995. Groningen, The Netherlands <a href="http://pubproxy.ub.rug.nl/1/dissertations/FILES/faculties/jur/1995/n.j.schrijver/dissertatie.pdf">http://pubproxy.ub.rug.nl/1/dissertations/FILES/faculties/jur/1995/n.j.schrijver/dissertatie.pdf</a>>.
- Stockholm Declaration principle 21. "Declaration of the United Nations Conference on the Human Environment". United Nations Conference on the Human Environment. Stockholm June 1972 <a href="http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503">http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503>.</a>
- The Commission on Global Governance. *Our Global Neighbourhood*, Oxford University Press, 1995, ISBN 0-19-827998-3, 410pp). http://www.bibliotecapleyades.net/sociopolitica/sociopol\_globalization30.htm
- The Kimberley Declaration. Proc. of International Indigenous Peoples Summit on Sustainable Development, Khoi-San Territory Kimberley, South Africa,. N.p., 22 Aug. 2002. Web. 5 May 2014. <a href="http://www.ipcb.org/resolutions/htmls/kim\_dec.html">http://www.ipcb.org/resolutions/htmls/kim\_dec.html</a>.
- The Various Amazons | Conservation Areas in Brazil. Instituto socioambiental (ISA). Web. <a href="http://uc.socioambiental.org/en/amaz%C3%B4nia/the-various-amazons/">http://uc.socioambiental.org/en/amaz%C3%B4nia/the-various-amazons/</a>>.

- Todd, Anne Marie. "Environmental Sovereignty Discourse of the Brazilian Amazon: National Politics and the Globalization of Indigenous Resistance." *Journal of Communication Inquiry* 27.4 (October 2003): 354-70. *Sage Journals*. Web. <a href="http://jci.sagepub.com/content/27/4/354.full.pdf+html">http://jci.sagepub.com/content/27/4/354.full.pdf+html</a>>.
- United Nations, Charter of the United Nations, 24 October 1945, at Article 2(1)
- United Nations. Permanent Forum on Indigenous Issues. UN Permanent Forum on Indigenous Issues. Indigenous Peoples Lands, Territories and Natural Resources. UN, 2007. Web. <a href="http://www.un.org/esa/socdev/unpfii/documents/6\_session\_factsheet1.pdf">http://www.un.org/esa/socdev/unpfii/documents/6\_session\_factsheet1.pdf</a>>.
- Vital Forest Graphics 2009 Chapter 16: The Amazon- The Largest Rainforest in the World. Rep. N.p.: UNEP, n.d. Isbn 9789280729030. Web. <a href="http://www.unep.org/vitalforest/Report/VFG-16-The-amazon-the-largest-rainforest-in-the-world.pdf">http://www.unep.org/vitalforest/Report/VFG-16-The-amazon-the-largest-rainforest-in-the-world.pdf</a>>.
- Wittkoff, E. Peter. "Brazil's SIVAM: Surveillance Against Crime and Terrorism". International Journal of Intelligence and Counter Intelligence, 16:4, 543-560, DOI:10.1080/716100473 (2003).