

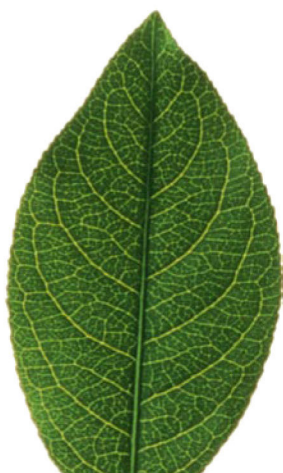
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# LEAD

## INSTITUTIONALIZING BIOPIRACY: ANALYSIS OF THE BENEFIT-SHARING RULES IN THE BRAZILIAN BIODIVERSITY LAW

Gaia Hasse, Kelly Lissandra Bruch and Joana Stelzer

ARTICLE



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## TABLE OF CONTENTS

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1. Introduction	117
2. Scientific Knowledge and Traditional Knowledge: The Epistemological Conflict	118
3. Conflicts in Determining the Legal Nature of Traditional Knowledge	119
4. Biopiracy, Colonialism and Sustainability	121
5. From Epistemicide to Appropriation: Analysis of the Exemption System of Law No. 13,123/2015	123
5.1 From the Controversial Procedure to the Standardized Incongruities	123
5.2 Mapping Exemptions in Benefit Sharing Rules	125
6. Conclusions	128

# 1

## INTRODUCTION

In recent decades, environmental protection and sustainable development have occupied a relevant part of the international political agenda. While human perception of the effects of climate change increases, there is also a rise of environmental social movements, with a consequent increase in political mobilization around the theme. At the same time, it is noteworthy that the relationship between indigenous and traditional peoples (ITP) and environmental protection is widely recognized by the international scientific community and decision makers as a key issue for the protection of biodiversity. From this perspective, it is also recognized that indigenous and traditional peoples sustain ways of life that are not offensive to nature – which can be seen as an innovative paradigm of modernity, laying the foundations for more ecologically balanced society.

Brazil, being the most mega-biodiverse country in the world, naturally occupies a prominent position in debates and negotiations on the subject. In this context, it is of utmost importance to understand the country's position in the world discussions, as well as how Brazil regulates biodiversity protection. The Brazilian biodiversity law<sup>1</sup> was approved in 2015 and defines the rules for access to traditional knowledge and Brazilian genetic heritage, regulating item II of §1 and §4 of Article 225 of the Federal Constitution, as well as articles 1; 8, j; 10, c; 15 and 16, §§3 and 4 of the Convention on Biological Diversity (CBD). This law is essential for the establishment of the rules for the distribution of benefits, sustainable conservation and use of biodiversity.

The proceedings of the Federal Law, however, were controversial, with numerous reports of violations of international agreements and repeated statements of dissatisfaction with the regulation. The authors

denounce the exclusion of indigenous and traditional peoples in the creation of this norm,<sup>2</sup> pointing out that the legal provisions on access and benefit-sharing (ABS) are inadequate and do not comply with the CBD and the Nagoya Protocol, ratified by Brazil in 2020.

The general objective of this research, after a preliminary presentation of the theoretical premises that underline the interpretation of the norms, is to describe how the biodiversity law regulates and protects Brazilian genetic and cultural heritage. More specifically, the objective is to identify the rules related to the distribution of benefits arising from the economic exploitation of socio-biodiversity, by mapping the exemptions of the duty to share the benefits with the Traditional Knowledge holders. In addition, it seeks to verify how European domination over traditional Latin American peoples affected the formulation of this environmental legislative policy.

The discussion starts from the premise that some theoretical conceptions determine how the world is observed, analysed, and regulated. Thus, it introduces the notion that different conceptions carry various cognitions about reality. This theoretical field, straying from classical legal approaches, allows the development of a reading of social facts that considers the diversity of knowledge, which is ignored in the face of the epistemological monopoly of Western science. This phenomenon, identified by Boaventura<sup>3</sup>, is fundamental to identify the relationship between coloniality, the Brazilian legal system and the human relationship with biodiversity.

1 Brazil, Federal Law 13.123/2015 (Biodiversity law).

2 Caroline Bastos do Amarante and Marina de Lourdes Pinheiro Ruivo, 'Marco regulatório do acesso ao patrimônio genético e aos conhecimentos tradicionais associados no Brasil: da MP 2186-16 à Lei Federal nº 13.123/2015' (2017) 38 *Revista Espacios* 5; Liana Amil Lima da Silva and André Halloys Dallagnol, 'Violação do direito à consulta prévia no processo de elaboração da lei: vício congênito' in Eliana Cristina Pinto Moreira and others (eds), *A "nova" lei nº 13.123/2015 no velho marco legal da biodiversidade: entre retrocessos e violações de direitos socioambientais* (1st edn, Instituto o Direito por um Planeta Verde 2017).

3 Boaventura de Souza Santos, 'Para além do pensamento abissal: das linhas globais a uma ecologia de saberes' (2007) 78 *Revista Crítica de Ciências Sociais* 3.

We aim at answering the research question: do the ABS rules in the Brazilian biodiversity law protect the genetic and cultural heritage of the country? As a hypothesis, it is supposed that despite the controversial procedure of the Bill and the dissatisfaction expressed by several actors, the rules contained in the normative framework would adequately meet the minimum parameters of the ABS system, thus sufficiently protecting Brazilian socio-biodiversity. However, considering the reports of violation of international norms and indignation registered by some sectors of society, an alternative hypothesis is that Law no. 13,123/2015 does not create an adequate ABS system, failing to meet the ethical precepts and parameters of justice in the national framework.

The method adopted to achieve the objectives proposed in this study, of a pure nature, is the critical-inductive, with consultation of legal instruments, reports of international organizations, manifestations of representative entities and literature review. The approach to the problem was qualitative and regarding the purposes it was adopted the descriptive method, considering that there was a concern to detail the effects of national legislation on the distribution of benefits arising from the economic exploitation of socio-biodiversity. The interpretation method was predominantly axiological, as it sought to explain the values incorporated by the framework, discussing these criteria. The results were presented in textual and graphic form.

## 2

### SCIENTIFIC KNOWLEDGE AND TRADITIONAL KNOWLEDGE: THE EPISTEMOLOGICAL CONFLICT

The Western Modern Era is marked by drastic changes in the way of understanding and describing the world, arising from the revolutions in physics and astronomy that occurred between the 16th and 17th centuries. If roughly until the sixteenth century European culture was dominantly organic, from then on, this vision of a living and spiritual universe was gradually replaced by a mechanical conception of the

world.<sup>4</sup> The Cartesian conception of the world underlies most modern sciences, and it was responsible for the characteristic fragmentation of Western society. Simultaneously, this view of the world as a machine is a theoretical foundation for the unsustainable use of the environment and biodiversity as a resource to be exploited.

The history of Latin America, in parallel, was shaped by this new conception of the world – the American colonies were discovered, conquered, dominated, and colonized within the process of European cultural and territorial expansion.<sup>5</sup> Coloniality, in that context, can be identified as indispensable for the formation of Modernity.<sup>6</sup> Not by mere coincidence, this expansion was concomitant with the development of the new European epistemological paradigm. Although relatively recent, the then-in-force European epistemological culture served as a plausible justification for domination over the natives of colonized continents and the exploitation of natural resources. Further, coloniality was installed at the core of institutions and the law, sustaining Western domination beyond the end of colonialism.<sup>7</sup>

Modern science has claimed (and still claims) for itself the monopoly of knowledge, disregarding other epistemological alternatives. From this fight for monopoly derives the impossibility of dialogue of science with other knowledges.<sup>8</sup> Axiomatically, the power of modern science to attribute validity as true or false directly affects the recognition of the knowledge of traditional peoples as knowledge.<sup>9</sup> Thus, when studying the legal nature and the treatment granted by institutions to traditional knowledge, it is necessary to keep in mind the influence of the dominant epistemology on the institutions.

4 Fritjof Capra, *The Turning Point: Science, Society and the Rising Culture* (New York, Bantam Books 1982).

5 Eduardo Galeano, *As veias abertas da América Latina* (Porto Alegre, L&PM Pocket, 2010).

6 Walter D Mignolo, 'Colonialidade: o lado mais escuro da Modernidade' (2017) 32 (94) *Revista brasileira de Ciências Sociais* 2.

7 Aníbal Quijano, 'Colonialidade do Poder e Classificação Social' in Boaventura de Souza Santos and Maria Paula Meneses (eds) *Epistemologias do Sul* (Editora Cortez 2010).

8 Boaventura de Souza Santos, *A gramática do tempo: para uma nova cultura política* (Editora Cortez 2006).

9 Santos (n 3).

For that matter, even critical approaches, such as the Third World Approaches to International Law (TWAIL) and Critical Race Theory (CRT), have been pointed out as being limited regarding representation and discussions related to certain themes and perspectives, essentially for reflecting the limitations of the Nation State ideology, symbolic of the paradigm of modernity.<sup>10</sup> The nation-state, imposed as univocal, centralized and sovereign, ignored the cultural diversity existing in the colonized lands. The ITP, in contrast, collaborate for the construction of a critical view of the law: they challenge TWAIL to carry out re-readings,<sup>11</sup> in view of the diversity of third worlds existing in global relations. It is observed, therefore, that there is an undeniable political relationship between the ITP and the third world, marked by argumentative tensions and differences within the critical approaches themselves.<sup>12</sup>

Accordingly, when discussing this matter, the whole approach performed is eminently marked by the dominant epistemology – it is inevitable to replicate certain discursive characteristics typical of academic education. Indeed, the critical approaches can be interpreted as the other side of the same coin, belonging to the dominant epistemology. Nevertheless, the deconstruction of scientific discourse (although within the academic logic, naturally reproducing the Western worldview) is fundamental in the resignification of certain conceptions and legal concepts constructed and designed over the last centuries – as is the case of traditional knowledge and, consequently, in the logic of the creation of ABS rules. It is with this perspective that the present work addresses the research problem presented.

# 3

## CONFLICTS IN DETERMINING THE LEGAL NATURE OF TRADITIONAL KNOWLEDGE

In a historical point of view, from the 19th century knowledge began to be taken as a commodity. A legal system, capable of qualifying as the owner of knowledge the one who registers it, was then created. Modern society, in this way, gradually transformed generational knowledge (which until then had been the rule, even in Europe) into individual property.<sup>13</sup> Thus, the current intellectual property protection system was forged during the time of Western industrialization, directly meeting the needs of technologically advanced societies.<sup>14</sup> With the Trade-Related Aspects of Intellectual Property Rights (TRIPs), intellectual property rights were ‘universalized’, but reproducing the legal structure of western intellectual property patterns.<sup>15</sup> Therefore, the international intellectual property protection system does not adhere to global ethical principles, considering that it significantly excludes or restricts access for most developing countries.<sup>16</sup> In this sense, it is notable that the international standards contained in TRIPs are directly conflicting with the rules on the equitable distribution of benefits of ABS system.<sup>17</sup>

10 Valerie Philips, ‘Indigenous Rights, Traditional Knowledge, and Access to Genetic Resources – New Participants in Future International Law Making’ (2007) 101 American Society of International Law 319.

11 Fernanda Cristina de Oliveira Franco, ‘Oportunidades e desafios das TWAIL no contexto latino-americano a partir de perspectivas dos povos indígenas ao direito internacional’ (2015) 12 Revista de Direito Internacional 227.

12 Amar Bathia, ‘The South of the North: Building on Critical Approaches to International Law with Lessons from the Fourth World’ (2012) 14 Oregon Review of International Law 131.

13 Carlos Frederico Marés de Souza Filho, ‘Conhecimentos Tradicionais, consulta prévia e direitos territoriais’ in Eliana Cristina Pinto Moreira and others (eds), *A “nova” lei nº 13,123/2015 no velho marco legal da biodiversidade: entre retrocessos e violações de direitos socioambientais* (1st edn, Instituto o Direito por um Planeta Verde 2017).

14 World Intellectual Property Organization, ‘Traditional Knowledge and Intellectual Property’ (Background Brief n. 1, Geneva 2015) <[https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_tk\\_1.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_tk_1.pdf)>.

15 Pedro Augusto Domingues Miranda Brandão, ‘Colonialidade do Poder e Direito: uma análise da construção do novo marco legal de acesso à biodiversidade’ (PhD thesis, Universidade de Brasília 2018).

16 Henk ten Have (ed), *Encyclopaedia of Global Bioethics* (Springer International Publishing 2016).

17 Sergio Peña Neira, ‘Planning on Law: Fair and Just in the Division of Benefits - The Case of Genetic Resources in the High Seas’ (2018) 41 Revista Derecho del Estado 227.



The World Intellectual Property Organization (WIPO) recognizes traditional knowledge as a dynamic set of knowledge developed, sustained, and transmitted among the generations of a community, making up its cultural identity.<sup>18</sup> This definition, however, does not simplify the situation: despite the *sui generis* perception, it is difficult to frame traditional knowledge in the current forms of intellectual property protection, conceived within the Eurocentric rational logic. Although there is no clarity regarding the rules governing access to and protection of traditional peoples' knowledge, there is a global consensus (at least discursive) about the need to protect this knowledge.<sup>19</sup> In view of the debates and discussions about the need for protection and regularization of access to such knowledge and associated genetic resources, it is emerging the need to categorize and classify them.

This debate, although ignored for a long time, came to light in the face of growing interest in the physical, chemical, and biological properties of the biodiversity components, derived from biotechnological development.<sup>20</sup> Even though these issues are in the international agenda, it is notorious that holders of knowledge intrinsically related to biodiversity are often excluded from discussions and do not have bargaining power in the political scenarios.<sup>21</sup> These actors have demonstrated their concerns and perspectives to the international community for decades but have been preemptorily ignored.<sup>22</sup>

Given the multiple dimensions of this knowledge, the theme began to be discussed in several international spheres, both within the United Nations system and in independent spaces,<sup>23</sup> but with a repeated Eurocentric focus. The greater openness of dialogue, however, led to the creation of some alternative initiatives to traditional intellectual property

systems, which expanded the field of debate. On the other hand, the fact that Traditional Knowledge is not covered by conventional intellectual property systems has led some countries to the construction of their own regimes, *sui generis*, more suitable to protect them,<sup>24</sup> which has also been expanded to the international scope. It started a discussion on the creation of an indigenous conception of intellectual property, which could not be protected by conventional regulation, typically top down.<sup>25</sup>

The contemporary conception of Traditional Knowledge is a result of political-economic-cultural domination, determined by the modern view, maintaining the process of colonialism over traditional peoples.<sup>26</sup> Modern science, led by a dominant epistemology that conferred on it the title of only valid form of knowledge,<sup>27</sup> requires that the selection of research objects themselves is according to scientific dogmatic. At the same time, this dominant worldview guides, to a greater or lesser extent, the institutions and contemporary legal awareness.

In view of the so-called 'civilizing' process, which involves the concealment and exclusion of peoples and cultures, followed the global imposition of the individualistic logic of the relationship of subjects with objects, which are now interpreted as properties.<sup>28</sup> This process allowed knowledge that was not defined along the lines of science to be treated as simple raw material for profit extraction, being stripped of their own value and left at the mercy of the international community political will. The difficulties on defining and framing are rather due to conflicts of interest than from *de facto* techniques. In short, the question of the definition of Traditional Knowledge legal nature is an epistemological issue, but it will only be resolved in the political field. Despite the almost unison discourse of the need to protect traditional communities, they continue to be attacked, with constant threats to their social, cultural and group identity organizations.<sup>29</sup>

18 World Intellectual Property Organization (n 14) 1.

19 Vitor Henrique Pinto Ido, 'Conhecimentos Tradicionais na Economia Global' (LLM thesis, Universidade de São Paulo 2017).

20 Luiz Gustavo Gonçalves Ribeiro and Natalia Bastos do Vale Brito, 'Participação das comunidades tradicionais na lei de acesso aos recursos genéticos: diálogos com a Teoria Discursiva do Direito em Habermas' (2018) 14 Revista Brasileira de Direito 149.

21 John Reid, 'Biopiracy: The Struggle for Traditional Knowledge Rights' (2009) 34 American Indian Law Review 77.

22 Phillips (n 10).

23 Ido (n 19) 48-49.

24 World Intellectual Property Organization (n 14) 3.

25 Ido (n 19) 19.

26 Ido (n 19) 36.

27 Brandão (n 15) 142.

28 Brandão (n 15) 87-89.

29 Marcelo de Castro Cunha Filho, 'Quanto custa o Conhecimento Tradicional? Análise das regras de acesso e de repartição de benefícios no Brasil' (LLM thesis, Universidade Federal de Juiz de Fora 2015).



Given the complexity of the issue and the numerous conflicts between interest groups, the implementation of more proactive and appropriate regulatory frameworks seems to be remote.

Therefore, traditional knowledge is currently in a legal limbo: it is not protected by the Western intellectual property system, and the nature attributed to it weakens its possibility of recognition and protection. This lack of regulation, however, results in an advantageous position for those who have an interest in appropriating this knowledge. The absence of consensus, based on the complexity of the matter, ends up being a rational justification for the continuous legal neglect and appropriation of this knowledge.

# 4

## BIOPIRACY, COLONIALISM AND SUSTAINABILITY

Among the threats that hang over traditional peoples and communities, biopiracy certainly stands out. Biopiracy is a central point in discussions on the protection of biodiversity and associated Traditional Knowledge. Biopiracy occurs when manipulation or appropriation of genetic resources and/or associated 'Traditional Knowledge takes place, without the holders' consent and without fair and equitable distribution of benefits.<sup>30</sup> Despite the growing discussions on the creation of regulations and agreements to protect these communities and knowledge, the granting of patents on medicines based on Traditional Knowledge appropriation continues to occur frequently. Under this path, U.S. pharmaceutical companies have been able to guarantee protection for drugs directly associated with biopiracy, through the patent system.<sup>31</sup>

In the international trade of capital, goods and services, traditional knowledge and practices associated with native biodiversity are targeted by private agents seeking

raw materials that can be transformed into profitable technological innovation. Traditional knowledge represents a driver for scientific research, functioning as a shortcut for investigations.<sup>32</sup> For example, it is estimated that Traditional Knowledge increases research efficiency with medicinal plants in roughly 400 per cent.<sup>33</sup> The knowledge of traditional peoples is seen as high value resources that, regardless of the creation of final product directly derived from access to knowledge, allows a significant decrease in the costs of research and prospecting necessary, for example, to reach an active component of interest to the pharmaceutical industry.<sup>34</sup> Moreover, this knowledge can be applied in various industrial activities, such as cosmetics, biological control, bioremediation, environmental monitoring, civil engineering, mining, and the materials industry.

This process results in the appropriation of biodiversity and associated knowledge by third parties, often actors from developed countries. In this scenario, developed countries have naturally benefited from the knowledge and practices of traditional populations, typically allocated in developing countries, deepening the disparities between global north and south.

Although in developing countries, rich in socio-biodiversity, people have had knowledge associated with natural resources for centuries, developed countries are the ones that determine how these resources are exploited, due to the way that intellectual property protection system has been designed. Numerous emblematic cases can be reported to exemplify this phenomenon in Brazil, such as the patent of poison *curare*, by the company Wellcome, Lilly and Abbot; and the seed trafficking of *Hevea brasiliensis* (as well as the extraction technique developed by the Amerindians). As recorded by Schiocchet *et al.*,<sup>35</sup> the smuggling of 70,000 seeds

30 Verity Dawkins, 'Combating Biopiracy in Australia: Will a Disclosure Requirement in the Patents Act 1990 be More Effective than the Current Regulations?' (2018) 21 Journal of World Intellectual Property 15.

31 Reid (n 21) 81.

32 Cunha Filho (n 29) 17.

33 Reid (n 21) 80.

34 Camilo Tomazini Pedrollo and Valdely Ferreira Kinupp, 'Sustainability or Colonialism? Legislative Obstacles to Research and Development of Natural Products and Patents on Traditional Knowledge in Brazil' (2015) 29 Acta Botanica Brasilica 452.

35 Taysa Schiocchet and others, 'Estabelecimento de um sistema de desoneração da responsabilidade civil ambiental: anistia e ruptura da responsabilidade civil ambiental solidária' in Eliana Cristina Pinto Moreira and others (eds) n (2) 195.

from the Amazon rubber tree to the British colonies ended up taking from Brazil the position of the world's leading exporter of latex, leading to the decline of the rubber economic cycle in the country.

In addition to violating the sovereignty of the exploited States and increasing the global economic imbalance between North and South, biopiracy also poses a significant risk to biodiversity, as it threatens certain species that end up being targets of exploitation. Consequently, endangering these genetic resources results in damage to the way of life of countless traditional communities that depend on the ecologically balanced environment.<sup>36</sup> Shiva designates this new wave of natural resources exploitation, associated with biotechnology, as the 'second arrival of Columbus'.<sup>37</sup> In this endless search for new resources, biopiracy is identified with 'discovery', and the patent system grants the tools for this appropriation of the knowledge of non-Western peoples as property of western powers.

Nevertheless, the discussions on the subject enabled the creation of mechanisms for the protection and preservation of socio-biodiversity. Among these mechanisms, the ABS system stands out— as it has considerable adherence of States – which is based on the establishment of rules of prior and informed consent, as well as criteria for fair and equitable sharing of benefits arriving from economic exploration of traditional knowledge and associated genetic resources. However, the effectiveness of this system is still uncertain: it is not known whether these rules have coercive and moral force to face the predatory exploitation of socio-biodiversity.<sup>38</sup> The distribution of benefits is justified internationally by the recognition of some ethical concepts and principles, such as solidarity, reciprocity, fair benefit, humanitarian needs, procedural justice, constructive capacity, and the reduction of inequalities.<sup>39</sup> Thus, although there is no definitive form of protection and definition of

this knowledge, the distribution of benefits ended up being recognized as an adequate way to access and use these resources.

On the other hand, it is worth noting that Traditional Knowledge, based on the relationship between people and the environment, plays a fundamental role in sustainability.<sup>40</sup> However, although it is necessary to recognize the characteristics of non-Western ways of life and to valorise their role in biodiversity conservation, it ended up being understood in a limited way, interpreted as instruments for sustainable development. Traditional knowledge began to be valued and protected from the moment that biodiversity itself began to be protected.<sup>41</sup> Traditional communities are considered relevant as they are identified as instruments for preserving biodiversity.<sup>42</sup> Concisely, protection of traditional knowledge, as cultural heritage of humanity, is a key issue for sustainable development and preservation of biodiversity.<sup>43</sup> The concern with the protection of this knowledge and the holding communities stems from the interest in protecting the function they perform, precisely because it serves the Western community. In this context, the preservation for future use to produce medicines is a determining reason for the creation of protection systems. The justification for the protection of this original knowledge is therefore also serving the interests of the Western community. However, the protection of the rights of these peoples should suffice, without the need for such validation with utilitarian bias. The concern with sustainable development and the use of traditional communities as instruments for the preservation of natural resources for future use reveals another side of Eurocentric domination. Finally, the norms for sustainable development, with rare exceptions, do not incorporate truly indigenous notions at their core: they are created within the dominant logic and continue to reproduce the dominant culture, as occurs in the Brazilian biodiversity law.

36 Fondo Internacional de Desarrollo Agrícola, *El Valor de los conocimientos tradicionales: los conocimientos de los pueblos indígenas en las estrategias de adaptación al cambio climático y la mitigación de este* (Fondo Internacional de Desarrollo Agrícola 2016) 62.

37 Vandana Shiva, *Biopirataria: a pilhagem da natureza e do conhecimento* (Vozes 2001).

38 Cunha Filho (n 29) 19.

39 Have (n 16) 249-250.

40 Natalia Hanazaki and others, 'Indigenous and Traditional Knowledge, Sustainable Harvest, and the Long Road Ahead to Reach the 2020 Global Strategy for Plant Conservation Objectives' (2018) 69 *Rodriguésia* 1587.

41 Souza Filho (n 13) 99-100.

42 Ido (n 19) 40.

43 Camilo Tomazini Pedrollo and others, 'Medicinal Plants at Rio Jauaperi, Brazilian Amazon: Ethnobotanical Survey and Environmental Conservation' (2016) 186 *Journal of Ethnopharmacology* 111.

# 5

## FROM EPISTEMICIDE TO APPROPRIATION: ANALYSIS OF THE EXEMPTION SYSTEM OF LAW NO. 13,123/2015

This item discusses the inclusion of exemptions from obligations in the law of access to Brazilian biodiversity, mapping the hypotheses in which the user of Traditional Knowledge and associated genetic resources is released from the duties of obtaining prior and informed consent from the provider community, and/or sharing the benefits deriving from economic exploitation in a fair and equitable way.

The exuberance of Brazilian nature (and Latin America's in general) has been recognized since the moment of 'discovery'. The natural riches dazzled the 'discoverers', who recorded them in the first texts on the 'new world'. From that moment on these abundant natural resources were exploited as if they were inexhaustible sources of wealth. Although Brazilians remained on the sidelines of international debates on the environment until the 1960s, since the 1970s the national environmental movement has gained visibility. The process of redemocratization of Brazil played a relevant role in strengthening discussions on the subject – the 1988 Constitution is considered to date a milestone for the formulation of environmental protection policies in the region.<sup>44</sup>

Intense debates have taken place on the implementation of articles 8j and 15 of the CBD in Brazil since the internalization of the treaty, especially regarding its impact on research. Internal regulation was a challenge for all parts of this Convention, notably for providers, such as Brazil, due to the impacts and complexity of the theme.<sup>45</sup> The complicated implementation of the CBD, however, has generated

some disastrous consequences in Brazil as well as in other developing countries, mainly in those with great socio-biodiversity. As Brandão<sup>46</sup> noted, Latin America, in its decolonization process, has maintained coloniality – and this impacts the way political and legislative processes develop up to the present.

For a long period, a Provisional Measure (MP)<sup>47</sup> regulated the access to and remittance of components of genetic heritage and associated Traditional Knowledge. Modifications in the MP gradually distorted the original intention of the CBD, generating excessive bureaucracy for access and development of research involving biodiversity. However, the MP was not effective in implementing the objectives of preserving the environment and promoting sustainable development, nor in the protection of Traditional Knowledge and its holders. A study that investigated the achievement of benefit-sharing objectives through analysis of administrative processes and terms of distribution of benefits concluded that the contracts signed did not offer the traditional knowledge providers even the guarantee that there would be some sort of benefit sharing; after all, there was the state seal on contracts clearly aiming at the interests of the user.<sup>48</sup>

Cunha Filho, in his analysis of MP 2186-16/2001, pointed out that Brazilian legislation, by adhering to the ABS system, gave a market solution to the problem of biopiracy.<sup>49</sup> The same logic can be observed more markedly in the new regulatory framework. Law No. 13,123/2015, which replaced the MP, promoted significant changes in the regulation of the matter, facilitating access to genetic heritage and associated Traditional Knowledge.

### 5.1 From the Controversial Procedure to the Standardized Incongruities

The Brazilian biodiversity law has been marked, since the processing of the Federal Law in the National Congress, by controversies. It is noteworthy, for

44 Elmar Bones and Geraldo Hasse, *Pioneiros da Ecologia* (Já Editores 2002).

45 Cristina Maria do Amaral Azevedo, 'A regulamentação do acesso aos recursos genéticos e aos conhecimentos tradicionais associados no Brasil' (2005) 5 *Biota Neotropica* 1.

46 Brandão (n 15) 263.

47 Brazil, Medida Provisória 2.186-16 (2001).

48 Luciana Laura Carvalho Costa and Maria Edelvacy Pinto, 'Concretização da Repartição de Benefícios em Conhecimentos Tradicionais Associados à Biodiversidade no Brasil' (2015) 12 *Veredas do Direito* 28.

49 Cunha Filho (n 29) 74-75.

example, that the delay in Brazil's adherence to the Nagoya Protocol (which has only been ratified in August 2020) contrasted with the rapid processing of the Bill that originated Law No. 13,123/2015, which occurred as a matter of urgency and without respecting the binding international norms regarding the participation of ITP.<sup>50</sup> Brazilian legislation violated the principle of prior consultation already in the legislative creation process and, in addition, stipulated rules that removed the obligation of prior and informed consent in some cases, in clear distortion of what the CBD stipulates.<sup>51</sup> The domestic law is also not in accordance with several provisions of Nagoya Protocol, such as those present in articles 5.5, 6.2, 7, 10, 12.3 of the multilateral agreement.

The law represents a legal setback in the concept of indigenous peoples, contrary to legal frameworks and ignoring the historical achievements of these Peoples. The term 'non-identifiable origin' equates Traditional Knowledge with public knowledge, as if it had no origin or 'owners', which contradicts the traditional communities' view of their own knowledge.<sup>52</sup> The Law formally recognizes the collective nature of Traditional Knowledge – but its recognition is due to its identification in scientific publications, its registration in databases or cultural inventories.<sup>53</sup> Hence, the crucial point for its recognition is the external legitimization. It should be noted that the Law does not innovate by recognizing this nature – it merely fulfils its theoretical, formal, duty not to contradict constitutional provisions. In the rest of the body of the law, despite the rhetorical recognition of the nature of this knowledge, the contradictions between the rules are striking.

For example, it is indicated that one of the innovative points of Law 13.123/2015 is the recognition that all Traditional Knowledge is shared – this recognition

occurs for validating the prior consent obtained from one holding community against others.<sup>54</sup> In practice, this allows the presumption that Traditional Knowledge belongs to all, by its collective nature; in view of this presumption, the law stipulates that it is sufficient to obtain a single consent form, which will be enforceable before all other Traditional Communities. It represents the creation of a fictitious way of obtaining consent, since the requirement is formally fulfilled, even though the real objective of obtaining the acquiescence of the provider communities is not achieved.

In the same sense, Feres *et al* report<sup>55</sup> that the system creates *sui generis* rules for access to genetic heritage and Traditional Knowledge, unparalleled in the world – Brazil has created a protection system that, in fact, unprotects. In short, the law created a system of classification of Traditional Knowledge that does not materially respect its nature, generating perverse effects.<sup>56</sup> Traditional Knowledge, when formally treated as a thing of all, ends up being treated materially as *res nullius*, that is, nobody's thing.<sup>57</sup> The supposed non-identifiable origin ignores the existing conception of Traditional Knowledge as socially referenced systems in constant transformation and contradicts the manifestations of the holders of such knowledge. Thus, the duty to seek prior and informed consent is mitigated and, consequently, so is the possibility of negotiation between the parties.

It is also worth noting that there are no clear control mechanisms after the access register in the CGEN database. Consequently, those who access traditional knowledge inappropriately will probably get away with

50 Sheilla Borges Dourado, 'A lei nº 13.123/2015 e suas incompatibilidades com normas internacionais' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 78.

51 Hanazaki and others (n 40) 1596.

52 Cláudia Regina Sala de Pinho, 'Com a palavra, os movimentos sociais' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 36-39.

53 Fernando Lagares Távora and others, 'Comentários à Lei nº 13.123, de 20 de maio de 2015: Novo Marco Regulatório do Uso da Biodiversidade' (Brasília, Núcleo de Estudos e Pesquisas da Consultoria Legislativa do Senado Federal 2015) 16.

54 Associação Brasileira de Indústria e Higiene Pessoal, Perfumaria e Cosméticos, *Guia Orientativo para Acesso à Biodiversidade Brasileira* (GSS Sustentabilidade e Bioinovação Ltda 2017) 80.

55 Marcos Vinício Chein Feres and others, 'As origens do marco legal da biodiversidade – as políticas de acesso e remessa' (2018) 42 *Revista da Faculdade de Direito da UFG* 35.

56 Eliane Cristina Pinto Moreira and Leandro Barbalho Conde, 'A Lei n. 13.123/2015 e o retrocesso na proteção dos Conhecimentos Tradicionais' (2017) 14 *Veredas do Direito* 175.

57 Luciano Maciel, 'Incertezas quanto ao conhecimento tradicional de origem não identificável' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 161.

it. Moreover, registration and eventual verification process do not occur before the collection of information. Hence, in the event of incorrect realization of the informed prior consent procedure, the knowledge will have already been transmitted, failing the law in its rhetorical purpose of protecting this legal good. The legislator has decreased the mechanisms for the protection of Traditional Knowledge and genetic resources,<sup>58</sup> contrary to the expectations generated in discussions on the subject since the creation of the CBD and deepened over the last twenty years.

Brandão, when mapping the construction of the new regulatory framework for access to biodiversity, through an analysis of the dynamics adopted in the legislative process, concluded that the law carries within itself landmarks of the coloniality of power.<sup>59</sup> Pedrollo and Kinupp<sup>60</sup> approach the legislation critically, pointing out that the law reproduces colonialist culture, failing to protect biodiversity and promote sustainable development. This reflects the notion that coloniality has been maintained during the process of decolonization, then allowing the reproduction of colonialism in post-colonial endeavours.<sup>61</sup>

Accordingly, Brazilian legislation does not combat or question the hegemony of scientific knowledge over other forms of wisdom, considered less important.<sup>62</sup> In fact, this logic is so internalized in the exercise of power that there is no questioning about the validity of the premises that underlie the creation of the law. There is marked asymmetry related to State power – traditional peoples' values were not considered throughout the legislative process. Given the institutional conditions for the development of the normative framework, the rights of traditional peoples were not recognized.<sup>63</sup>

Ergo, the lack of adequate conceptualization of Traditional Knowledge, and consequent legal definition, is what allows limitations in the ABS rules and the exclusion of traditional communities, small farmers, and indigenous peoples from decision-making processes

about their own knowledge.<sup>64</sup> In other words, the lack of clear determination of the premises ends up allowing the institutionalization of unfair and excluding norms. It is through epistemicide that it is possible for industry representatives and the government to justify such rules, stating that they adequately meet the parameters established in the CBD. In the detailed analysis of the rules contained in Law 13.123/2015, however, such claims are unbearable. It is not possible to identify Traditional Peoples as holders of effective rights over their own knowledge and resources.<sup>65</sup>

## 5.2 Mapping Exemptions in Benefit Sharing Rules

In addition to the peculiar rules on access, the law brings a set of situations in which there is no benefit sharing, which should be another key point in the regulation. The ABS system was theoretically the form chosen by Brazil to promote the sustainable exploitation of its biodiversity and the promotion and preservation of traditional knowledge. According to the logic of this compensation system, the fruits of the exploitation of Brazilian socio-biodiversity should be partially employed in projects for the country's technological development, biodiversity preservation and promotion of the development of traditional communities.

The exemptions, on the other hand, were created to encourage the development of some sectors of the economy that exploit biodiversity associated with Traditional Knowledge.<sup>66</sup> The establishment of hypotheses in which users do not have the obligation to share with the provider communities the benefits arising from the exploitation of their knowledge is a key point for understanding the appropriation phenomenon.

Perverting the logic of benefit sharing, the legislature has simultaneously maintained bureaucracy and determined the compensation as an exception.<sup>67</sup> According to Sass, the rules contained in the law do

58 Feres and others (n 55) 46.

59 Brandão (n 15) 263.

60 Pedrollo and Kinupp (n 34) 454.

61 Luciana Ballestrin, 'América Latina e o giro decolonial' (2013) 11 *Revista Brasileira de Ciência Política* 89.

62 Costa and Pinto (n 48) 297.

63 Feres and others (n 55) 56.

64 Nurit Besunsan, 'À guisa de conclusão: a lei 13.123/2015 como um espelho do tempo e da erosão de direitos' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 276.

65 Feres and others (n 55) 57.

66 Ministério do Meio Ambiente, *Patrimônio Genético, Conhecimento Tradicional Associado e Repartição de Benefícios: Lei nº 13.123 de 20 de maio de 2015 e Decreto nº 8.722, de 11 de maio de 2016* (Ministério do Meio Ambiente 2017) 148.

67 Besunsan (n 64) 278.



not serve to combat biopiracy.<sup>68</sup> Brazilian socio-biodiversity is then exposed to international economic interests. The law establishes permissive rules while not presenting public policies aiming at the national

development of biotechnology and the strengthening of production chains linked to biodiversity. It is possible to perceive that the exemptions are not exceptions, as outlined in the flowchart below.

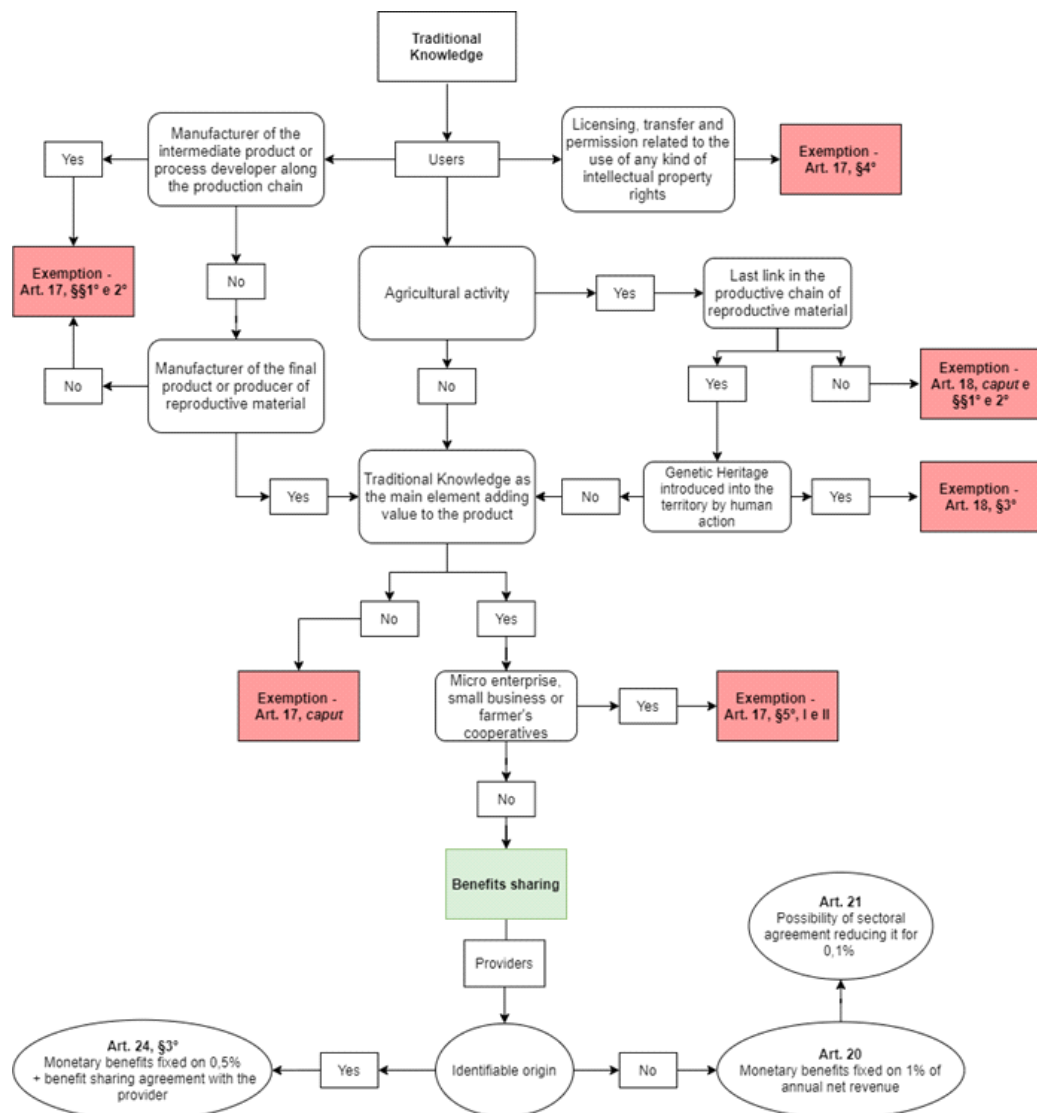


Fig. 1. Diagram showing possible scenarios for exemptions established by the Law 13.123/2015.

68 Liz Beatriz Sass, 'Os direitos de propriedade intelectual e a violação do dever de preservar a diversidade e a integridade do patrimônio genético do país e fiscalizar as entidades dedicadas à pesquisa e manipulação de material genético' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 174.

The regulatory framework establishes<sup>69</sup> that the distribution between the user and the provider will be negotiated between the parties in a fair and equitable manner but removes the possibility of negotiation by stating that the choice regarding the kind of compensation rests with the user,<sup>70</sup> conferring this negotiating advantage.<sup>71</sup> Contrary to the CBD and the Nagoya Protocol, which determine the freedom of communities in negotiations, Brazilian law arbitrarily sets compensation at 1 per cent of annual net income, with the possibility of reducing it up to 0.1 per cent by sectorial agreement with the government.<sup>72</sup>

In addition, there is in the law a set of situations exempted from distributing the benefits. One of the hypotheses in which there is no duty to share benefits is when access to and use of Traditional Knowledge is performed by researchers who do not aim directly at economic exploitation.<sup>73</sup> It also creates a legal regime beneficial to agribusiness, representing a great gain and cost reduction for this sector,<sup>74</sup> by exempting it from both duties of the regularity of access and the sharing of benefits.

There is also an exemption from the duty of sharing benefits to individual micro-enterprises, small enterprises, and micro entrepreneurs, not establishing any offset for exploitation conducted by those agents. Not even in the patent system there are exceptions of this nature to benefit micro and small companies.<sup>75</sup>

In addition to the pre-established exemptions sectors and economic activities, the benefit-sharing duty was conditioned to lucrative economic exploitation, which depends on the qualification of Traditional Knowledge or associated genetic resources as the main elements

of value aggregation.<sup>76</sup> This qualification, however, is subjective and difficult to characterize, and may depend on information held only by manufacturers.<sup>77</sup> Manufacturers of intermediate products and all users along the production chain are also exempt, which may generate distortions in case of final product resulting from various accesses.<sup>78</sup>

The law, by creating what is identified here as a system of exemptions, conditioned the holders' remuneration to the user's purpose within certain production chains, recognizing this knowledge only as an input in the market.<sup>79</sup> The concern was rather with the legal nature of the user than with the legal nature of Traditional Knowledge and its relationship with its holders; there was preference for the form of economic exploitation of resources rather than sustainable development. Traditional Knowledge has thus been reduced to goods, subject to market logic. Paradoxically, benefit-sharing contracts do not undergo this market logic, as they are limited to a maximum (tending to minimum) level of remuneration for providers, as set out in legislation. In other words, the nature of Traditional Knowledge is subverted, while the autonomy of providers to determine the remuneration for access to resources is removed. In short, Traditional Knowledge is seen as a commodity to be consumed and exploited in the market. Although they have been stripped of their own value, they have ample value in the market – and hence the quest to create ways to facilitate access and remittance of resources linked to them.

The legislation makes Brazil subservient to the interests of the world market, handing over to the business community the Brazilian genetic and cultural heritage – and, precisely for this, the most sensitive points of the law are the most praised by representatives of the business sector.<sup>80</sup> The legislation results from a conflict of asymmetric powers, determined by coloniality. The false premise that progress and development can only be carried out within Cartesian logic serves to nullify the validity of non-Western knowledge, justifying its appropriation.

69 Biodiversity Law (n 1) art. 24 §1.

70 *ibid* art. 19 §1.

71 Confederação Nacional da Indústria, *Acesso e repartição de benefícios no cenário mundial: a lei brasileira em comparação com as normas internacionais* (Confederação Nacional da Indústria 2017).

72 Brandão (n 15) 193.

73 João Paulo Rocha de Miranda, 'Estabelecimento de isenções para pesquisas' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 152-153.

74 Távora and others (n 53); Igor Alexandre Pinheiro Monteiro, 'Estabelecimento de isenções para agricultura e alimentação' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 148.

75 Tiago Martins and Nathália Tavares de Souza Almeida, 'Previsões de isenção em razão do "acessante"' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 162-163.

76 Biodiversity Law (n 1) art. 17, *caput*.

77 Sass (n 68) 173.

78 Eliane Cristina Pinto Moreira, 'Visão geral da Lei nº 13.123/2015' in Eliana Cristina Pinto Moreira and others (eds) (n 2) 71.

79 Moreira and Conde (n 56) 190.

80 Brandão (n 15) 229.



It is inferred that all this stems from the negative of the Other, with the consequent waste of the experience of ways of life associated with the construction and preservation of biodiversity. What occurs is a conflict between argumentative logics originated in distinct epistemologies. The legislation, although rhetorically stating otherwise, adopts a legislative technique capable of meeting the interests of the market, reproducing the dominant culture. What happens, in the end, is the structuring of a system that not only accepts biopiracy, but also encourages its practice, maintaining the coloniality system.

## 6

### CONCLUSIONS

By analysing the provisions of the Brazilian biodiversity law, it is possible to observe that its provisions are contradictory. Although rhetorically built on a discourse of sustainable development promotion and respect for traditional peoples and communities, the rules contained therein are vague regarding to the alleged purposes. The regulatory framework ends up not contributing to the conservation of genetic or cultural heritage; it unprotects the holders of Traditional Knowledge and discourages Brazilian scientific development; it allows the Traditional Knowledge appropriation by individuals through the intellectual property system, without ensuring a proper, concrete, and relevant return to the true holders of this knowledge. From the analysis of the legal provisions related to access and benefit sharing, we observe that the law contradicts the provisions of CBD and creates a system that deviates from the ethical premises of the ABS system, violating the rights of Traditional Peoples and Communities. The regulatory framework standardized a system of exemptions and amnesties that result in the institutionalization of biopiracy.

By attributing to traditional knowledge the condition of *res nullius*, it allows the annulment of the intrinsic value of non-Western knowledge. The evolution of Brazilian legislative posture on the subjective is of evident regression. The expectations created by Brazil's performance at international summits over the past years have been dashed by the non-ratification of the

Nagoya until very recently. The regulatory framework crowns the end of expectations: it is contradictory and fails to create rules for the protection of biodiversity.

Moreover, the legal provisions further jeopardized the Traditional Peoples and Communities rights. Their knowledge is more exposed to prospecting without fair and equitable compensation. In the creation of the framework, the need for further considerations on the nature of Traditional Knowledge and respect for the rights of its holders was ignored. As a result, the legal provisions are inconsistent. By recognizing the collective nature of Traditional Knowledge and, at the same time, allowing access and distribution of benefits without considering this nature, the legislator has created legal nonsense. In defining that the holders should be respected and remunerated and, at the same time, opening the possibility of access and exploitation without compensation, the legislator offered resources that are not disposable. It defined that benefit sharing rules should aim at sustainable development and, simultaneously, there is a lack of strict criteria for accountability for environmental damage.

Between the conflict over the ownership of resources and the threat of exploitation of Brazilian genetic and cultural heritage by actors from developed countries, the preservation of the environment is forgotten, which should be the central issue in the regulation. Sustainable development depends on the convergence of interests of various groups in the creation of a new paradigm. The creation of this new paradigm, in turn, involves the recognition and validation of non-Western epistemologies.

Opposing to worldwide trends, Brazil has created a regulatory framework with peculiar provisions. The world's most mega-biodiverse country has established a law that unprotects biodiversity and establishes setbacks when compared to previous regulation of the matter. Ignoring the indignation of traditional peoples and communities, the country allowed broad access and exploitation of Traditional Knowledge and associated genetic resources, demanding little or almost nothing as a counterpart. In this sense, Brazil 'opens its arms' to Columbus's new arrival in America, maintaining the same colonial logic that has allowed the exploitation of Latin American peoples and resources over the past five centuries.

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