



Biopolitics and the issue of biopiracy: the right of traditional peoples to benefit sharing

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ABSTRACT

The general objective of this study was to verify if the Brazilian Government defends the right of traditional peoples and communities to benefit sharing and if it acts effectively in the fight against biopiracy. The methodology used was the deductive method, having as sources of consultation books, doctrines, articles and legislation. After the research, it can be concluded that, despite the country having a comprehensive law on national biodiversity, with a chapter dedicated to benefit-sharing, it is not able to effectively defend the rights of traditional peoples and communities, nor to fight biopiracy. An important fact is that biopiracy is not yet typified in Brazilian law, which ends up making it easier for this crime to continue happening. It is necessary for the legislator to typify this crime, which encompasses several spheres of law, being an environmental crime, against traditional peoples and communities and those of the *Lesá Patria*. Therefore, adjustments to the Law are necessary so that it becomes capable of effectively protecting traditional peoples and communities from economic-scientific exploitation, and protecting biodiversity, the economy and national sovereignty.

Keywords: Biopolitics, Biopiracy, Traditional peoples, Benefit sharing.

1 INTRODUCTION

Biopolitics is as old as the organization of the first cities, when the term was used, more specifically, in relation to the way the State appropriated the bodies and sexualities of its citizens, in order to sustain a determined political and economic model. But, with technological evolution, the center of the political dispute has changed, becoming biological life and the possibility of "making" or "modifying" it in its essence, which had never occurred before in history. With this change in focus, biopolitics added new issues, that is, new material-biological realities, such as cells, chromosomes, molecules, genes, which, in the case of biotechnology, for example, have economic utility and become a desire for appropriation by large capitalist corporations. In this context, technique, science and industry, which are intimately related, become pillars of the economic system¹.

The true dimension and conception of biopolitics was born with Foucault, in his work "The Birth of Biopolitics". Based on an examination of the modes of domination operated by the practices of local biopowers in the context of Nazism and socialism, the author brings the vision of the constitution of the newest technologies of domination, elaborated at the level of market economies under the aegis of the economic neoliberalism of the Chicago

¹ ROTANIA, Alejandra. **What is biopolitics?** New Freiburg: Heinrich Böll Stiftung Foundation, 2006. Available at: < <https://br.boell.org/pt-br/2014/05/22/por-que-fazer-um-caderno-sobre-biopolitica>>. Accessed on: 25 Aug. 2021. p. 9.



School. Thus, there emerges what he calls the figure of the *homo economicus* that transcends the individual's autonomous juridical-political personality, making the individual a simple pawn of the globalized market's economic rules. In this way, the *homo economicus* becomes an economic agent, who responds to the stimuli of the market logic and assumes the responsibility for the constitution of his professional capital and for the maintenance of his competitive capacity in the labor market, which will be made possible and potentiated by the manipulation of biogenetics, possibly beyond any ethical discussion².

In light of this new paradigm, biopolitics has become a field that allows the aggregation, approximation and association of sectors of reality related to life, nature and knowledge, whose changes over time have been provoked by industry, science and technology, which today dispute the global political-economic field. Thus, among the sectors of reality and branches of science that can be grouped in the field of biopolitics are biotechnology, genetic engineering, biosecurity, biopiracy, the water problem, the privatization and computerization of knowledge, the accelerated development of biomedicine, scientific experiments, the artificiality and commodification of human reproduction, research using embryonic tissue, and bionanotechnology. These sectors are part of an economy and a politics that transform life and nature as a whole into market slices and objects of commodification³.

This study focuses on the issue of biopiracy, which can be defined as the illegal exploitation of natural resources, including plants, animals, seeds and any other source of genetic material, from national forests, with the intention of using this material for commercial, medicinal or cosmetic purposes, together with the appropriation and monopolization of traditional knowledge of traditional peoples and communities for economic profit⁴.

In the latter case is the characterization of the current mode of colonization, where large international corporations send employees disguised as "emissaries" to countries that hold a wealth of biodiversity, in order to find out for what purposes and functions traditional local peoples and communities use this biodiversity. Thus, they appropriate this knowledge and then claim that they have invented something that has actually been used for a long time by these populations.⁵

On the other hand, it is possible to do this in a legitimate way, through the Sharing of Benefits, which consists of sharing the benefits derived from the economic exploitation of finished products or reproductive material developed from access to genetic heritage or associated traditional knowledge⁶. However, this sharing of knowledge is not always done in a legal way and, unfortunately, all the

² LYRA, Ursula Miranda Bahiense de; BARRETO, Ana Carolina Carvalho. Human rights and the biopolitical perspective. In: ARAÚJO, Daoiz Gerardo Uriarte; FERREIRA, Gustavo Assed; BIZAWU, Sébastien Kiwonghi (Orgs.). **International Human Rights Law II**. Florianópolis: CONPEDI, 2016. p.46-47.

³ ROTANIA, op. cit. p.9-10.

⁴ BELARMINO, Ana Isabela das Neves. **Brazilian biodiversity and the damage of biopiracy**. 2008. 77f. Monograph (Bachelor in Economics), Federal University of Santa Catarina. Florianópolis, 2008. p.12.

⁵ BRUNO, Simara Ferreira. **Biodiversity benefits for quilombola communities: does the new legislation support them?** 184f. Dissertation (Master in Environmental Engineering) - State University of Rio de Janeiro, Rio de Janeiro, 2018. p.46.

⁶ BRAZIL. Ministry of Environment. **Benefit sharing**. Published: 11 Nov. 2020. Available at: < <https://www.gov.br/mma/pt-br/assuntos/biodiversidade/patrimonio-genetico/reparticao-de-beneficios>>. Accessed on: 25 Aug. 2021.



biodiversity existing in Brazil, as well as the knowledge of the traditional peoples and communities about it, have attracted the action of international biopiracy, which is considered the third largest traffic in the world⁷.

Biopiracy has become a multi-billion dollar business, with Brazil being one of the main targets of this criminal business. In light of this, the losses suffered are great, and are related to the loss of knowledge and bioproducts. This damage is estimated at R\$ 33.3 billion per year and is linked not only to the illegal trade in genetic heritage, but also to the financial loss for not receiving *royalties* resulting from the patenting that these corporations do, of active ingredients present in pharmaceuticals, cosmetics and other products, which are obtained from the Brazilian biodiversity and the knowledge of traditional peoples and communities, which are registered in other countries.⁸

Given these facts, the general objective of this study was to verify whether the Brazilian government has been defending the right of traditional peoples and communities to benefit sharing, as well as how it acts in the fight against biopiracy, which can be considered a crime against the country.

The methodology used for this article was the deductive method, which starts from general arguments to particular ones. It was established as sources of consultation books, doctrines, articles and legislation, many accessed via the Internet, through specialized sites such as Scielo, CAPES, Google Academic, the Public Domain, the Library of the Federal Senate and others. This research also had a qualitative approach to the data collected, with a descriptive objective, where the content was evaluated seeking a more global understanding of the information, favoring its quality and its context with the theme.

2 BIOPIRATORY

The term biopiracy appeared in 1993, developed by the non-governmental organization (NGO) RAFI (*Rural Advancement Foundation International*) - now called the ETC-Group (*Action Group on Erosion, Technology and Concentration*). The aim was to raise people's awareness about the exploitative practices that were taking place, that is, that multinational companies and scientific institutions were taking away and patenting the biological resources and knowledge of traditional peoples and communities without their and their governments' authorization. By analyzing the formation of the word "biopiracy", we see that "bio" corresponds to life and "piracy" to theft, a term that came to be applied to the practice of selling or distributing goods found in nature to other countries, in disagreement with the precepts of the Convention on Biological Diversity (CBD)^{9,10,11}.

⁷ BRUNO, Simara Ferreira; MATTOS, Ubirajara Aluizio de Oliveira. Biodiversity benefits for traditional communities: does the new legislation support them? *Ciência Florestal*, Santa Maria, v.31, n.2, 2021. p.1000-1001.

⁸ RENTAS - Rede Nacional de Combate ao Tráfico de Animais Silvestres (National Network for Combating Traffic in Wild Animals). **National report on management and sustainable use of wild fauna**. Brasília: RENTAS, 2017. p.87-88.

⁹ ANDRADE, Renato Campos. Genetic heritage and biodiversity - emphasis on international forms of protection and biopiracy. *Revista da Faculdade de Direito da UERJ*, v.1, n23, 2013. p.15.

¹⁰ BRUNO, 2018, op. cit. p.45.

¹¹ ROTANIA, op. cit. p. 39.



It is important to say that it was only after the signing of this Convention that respect for the sovereignty of nations over their genetic heritage, i.e., that which exists in their territory, came into existence. The CBD occurred during the United Nations Conference on Environment and Development, better known as ECO 92, in the city of Rio de Janeiro in 1992, by the United Nations Organization (UNO), of which more than 160 countries, including Brazil, were signatories. The meeting culminated in the preparation of the main document of international scope with the purpose of establishing legal standards for the development of economic activities related to biological diversity, establishing the principle of sovereignty of countries over their own resources¹².

It is worth explaining that genetic patrimony is all the genetic information found in organisms (plants, animals, insects, humans, microorganisms) of a given country that may be studied with the objective of developing medicines or other benefits¹³.

Therefore, through biopiracy, biological resources and traditional knowledge about the use of a good part of these resources are being harvested in Brazil and patented abroad by multinational companies and scientific institutions, which end up enjoying these benefits themselves, the fruit of a criminal act. As a result, the traditional populations that have used these resources and generated this knowledge for centuries lose the right to benefit from and participate in this development¹⁴.

These criminals are called "biopirates" and usually enter Brazil claiming to be researchers, usually with the endorsement of some research institution/organization in their country of origin, or even coming as tourists or on false religious missions. When they arrive in Brazil, they move to the place of interest, integrate themselves into local communities and start recruiting their inhabitants to collect species. Parallel to this, they seek to obtain information from the native populations, getting information on the medicinal use/value of local plants and substances that are taken from animal species. Most of the time they arrive in the country already knowing what they want. They may not know exactly where it is located, but they have a notion and a defined target. To get the exact location, they look to the native knowledge. It is noteworthy that Brazil has traditional populations with rich millennial knowledge about plants and animals^{15,16}.

3 TRADITIONAL PEOPLES AND COMMUNITIES

According to Decree No. 6040, of February 7, 2007, which established the National Policy for Sustainable Development of Traditional Peoples and Communities, these peoples are defined thus:

Traditional Peoples and Communities: culturally differentiated groups that recognize themselves as such, have their own forms of social organization, occupy and use territories and natural resources

¹² MENUCHI, Luciana Nalim Silva; AMARANTE SEGUNDO, Gesil Sampaio; ARAÚJO, Jacqueline Camolese de. The new legal framework for access to genetic heritage and protection of associated traditional knowledge. **Journal GEINTEC**, v.6, n.1, 2016. p.2956.

¹³ ANDRADE, op. cit. p.3.

¹⁴ ROTANIA, op. cit. p.39.

¹⁵ BELARMINO, op. cit. p.35-36.

¹⁶ RENTAS - Rede Nacional de Combate ao Tráfico de Animais Silvestres (National Network for Combating Traffic in Wild Animals). **1º Relatório nacional sobre o tráfico de fauna silvestre**. Brasília: RENTAS, 2001. p.25.



as a condition for their cultural, social, religious, ancestral and economic reproduction, using knowledge, innovations and practices generated and transmitted by tradition¹⁷.

In Brazil, the following are considered traditional peoples and communities: the indigenous peoples, the remaining quilombola communities (quilombolas), the artisanal fishermen, the riverside dwellers, the gypsy peoples, the terreiro peoples, the pantaneiros, the faxinalenses from Paraná and region (those who combine the planting of yerba mate with pig farming and with the extraction of pião from the common use of the territory), the fundos de pasto communities from Bahia (who practice goat farming in territories of common use), the caiçaras (artisanal fishermen from the states of São Paulo, Rio de Janeiro, and Espírito Santo, who combine artisanal fishing and extractivism in common areas with farming), the geraizeiros (who occupy traditionally the "gerais" or "cerrado" savannahs), among others that, all together, represent a significant portion of the Brazilian population and occupy a significant part of the national territory¹⁸.

Just in relation to indigenous people, according to the 2010 census of the Brazilian Institute of Geography and Statistics (IBGE), there are 305 different ethnic groups, distributed throughout the national territory, but mostly located in the North and Northeast, with 274 different indigenous languages having already been registered in the country¹⁹. Another numerous group are the quilombos, with, according to Fundação Cultural Palmares, 2,962 quilombola communities in Brazilian territory, which are communities of descendants of enslaved people, including, besides the descendants of escaped slaves, indigenous people, mestizos and poor whites²⁰.

These traditional peoples and communities have a differentiated capacity for relating to the ecological environment, which is complex, and are capable of identifying differentiations that go unnoticed by most people, both in fauna and in flora, among the various species that exist, knowing how to explain their ways of life and their functions. Their activities are complex, as they constitute multiple forms of relationship with the resources, and it is precisely this variety of practices that ensures the reproduction of the group, also enabling the construction of a culture integrated to nature and appropriate forms of management²¹. This is a very rich cultural heritage, originating from a practical knowledge that knows how to value and preserve the various ecosystems, which is often seen as unproductive knowledge by modern societies.²²

¹⁷ BRAZIL. Presidency of the Republic. Civil House. Subchefia para Assuntos Jurídicos. **Decree No. 6040 of February 7, 2007**. Institui a Política Nacional de Desenvolvimento Sustentável dos Povos e Comunidades Tradicionais. Available at: < http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2007/decreto/d6040.htm>. Accessed on: 27 Aug. 2021.

¹⁸ COSTA FILHO, Aderval; MENDES, Ana Beatriz Vianna. **Rights of traditional peoples and communities**. Belo Horizonte: Coordination of Social Inclusion and Mobilization (CIMOS) - Public Ministry of Minas Gerais (MPMG), 2014. p.15.

¹⁹ BRAZIL. National Indian Foundation. **Who they are**. Available at: < <http://www.funai.gov.br/index.php/indios-no-brasil/quem-sao>>. Accessed on: 27 Aug. 2021.

²⁰ PALMARES CULTURAL FOUNDATION. **Fundação Palmares certifies 103 quilombos in 2017**. Published: 14 Jul. 2017. Available at: < <http://www.palmares.gov.br/?p=46307>>. Accessed on: 27 Aug. 2021.

²¹ CASTRO, Edna. Territory, biodiversity and knowledge of traditional populations. In: DIEGUES, Antonio Carlos (org.) **Etnoconservação: novos rumos para a proteção da natureza nos trópicos**. 2.ed. São Paulo: Anablume, 2000. p.169.

²² KRETZMANN, Carolina Giordani. **Multiculturalism and cultural diversity: traditional communities and the protection of the common heritage of humanity**. 149f. Dissertation (Master of Laws) - University of Caxias do Sul, Caxias do Sul, 2007.



It can be seen that the traditional knowledge developed by these peoples and communities is not methodical and/or systematic knowledge, but rather knowledge that has been collectively constructed and accumulated through observation and experimentation with nature by the people who live there²³. This knowledge produces different techniques for handling natural resources, allows the use and discovery of medicinal formulations, new food sources, cosmetic elements, among others. For this reason, such knowledge is considered intangible assets and, due to its potential for commercial exploitation for new products, arousing in industrial societies a series of biotechnological interests. However, almost always without giving due recognition to the inherent rights of these peoples. Because of this, all traditional knowledge must be considered as intellectual property²⁴.

In this scenario, the intellectual property of traditional knowledge is found in the sphere of Collective Rights, having its definition legalized, firstly, by art. 7 of Provisional Measure (MP) no. 2.052/2000, as: "information or individual or collective practice of an indigenous community or local community, with real or potential value, associated to the genetic patrimony"²⁵.

Traditional peoples and communities have sought intellectual property rights over their knowledge, as a precaution against its appropriation, associated with the genetic resources that are in their territories, based on precepts of the Convention on Biological Diversity and the World Intellectual Property Organization (WIPO). In parallel, they also demand their rights to receive part of the benefits that are generated from their ancestral knowledge²⁶.

4 BENEFIT SHARING

Brazil was a pioneer in the creation of a legal system for access to traditional knowledge and benefit sharing with traditional peoples and communities, by means of PM 2.052/2000, which brings, in its article 7, item XIII, the following definition

Contract for the Utilization of Genetic Heritage and Benefit Sharing: multilateral legal instrument that qualifies the parties, the object and the conditions of access and remittance of components of the genetic heritage and associated traditional knowledge, as well as the conditions for benefit sharing²⁷.

²³ FERES, Marcos Vinício Chein; MOREIRA, João Vítor Freitas. Legal protection of Amazonian biodiversity: the case of traditional knowledge. **Environmental Law and Society Magazine**, v.4, n.2 2014. p.21.

²⁴ BATISTA, Américo Donizete. Biopiracy: the affront to biodiversity and intellectual property. **Revista EPeQ Fafibe**, 2.ed., v.1, p.46-50, 2010. p.48.

²⁵ BRAZIL. Presidency of the Republic. Civil House. Subchefia para Assuntos Jurídicos. **Provisional Measure No. 2.052**, of **June 29, 2000**. Regulates subsection II of § 1 and § 4 of art. 225 of the Constitution, arts. 1, 8, line "j", 10, line "c", 15 and 16, lines 3 and 4 of the Convention on Biological Diversity, provides on the access to genetic heritage, the protection and access to associated traditional knowledge, the sharing of benefits and the access to technology and technology transfer for its conservation and use, and makes other provisions. Available at: <http://www.planalto.gov.br/ccivil_03/mpv/antigas/2052.htm>. Accessed on: 27 Aug. 2021.

²⁶ PINTO, Miguel Correia; GODINHO, Manuel Mira. Traditional knowledge and intellectual property. **Sociology, Problems and Practices**, n.42, 2003.p. 91 and 96.

²⁷ BRAZIL. **Provisional Measure N° 2.052, of June 29, 2000**. op. cit.



This MP was reissued until the MP 2.186-16/2001 and, later, the New Biodiversity Law²⁸ (Law 13.123/2015), which came in response to the various existing criticisms of the model that was adopted, which generated various proposals for changes to the regulatory framework on access to national biodiversity, given that the terms of the distribution were left open, that is, to be signed in an eventual additive contract.

According to Oliveira et al.²⁹, traditional peoples and communities are guaranteed the right to decide on the use of their traditional knowledge, as well as to receive benefits for its economic exploitation by third parties (directly or indirectly) having ownership over them. These benefits can be:

Non-monetary, such as training (human resource training), courses and lectures, technology transfer, research on diseases of interest to the provider, projects for the sustainable use of its genetic resources to generate new forms of income for the communities, preparation of primers, books, and other forms of registering and returning traditional knowledge to the community; and
Monetary, involving a percentage of the profit (*royalties*, etc.) in the case of the generation of a patent for the development of a phytotherapeutic or phytotherapeutic product, or any other type of patent that involves such access³⁰.

Even before the Biodiversity Law, PM 2,186-16 created a control system for access to genetic heritage, giving the State broad powers to control who could have access, what could be accessed, how such access could be carried out and, in appropriate cases, how the sharing of benefits resulting from the economic exploitation of Brazilian biodiversity should be carried out. Also according to the MP, this system is now managed by the Council for the Genetic Heritage Management (CGEN), chaired by the Ministry of Environment, with both normative and deliberative attributions³¹.

The called Contracts for Utilization of Genetic Heritage and Benefit Sharing (CURBs) are intended to ensure that a portion of the benefits to be derived from the economic exploitation of a product (or process) produced through access to genetic heritage and/or associated traditional knowledge is remitted to the owner of the area from which the material was collected and/or to the community that provided the traditional knowledge³².

This distribution is very important given the precarious reality in which many of these traditional communities live, which is largely due to the restriction of their territorial space, generating

²⁸ BRAZIL. Presidency of the Republic. Casa Civil. **Law No. 13.123, of May 20, 2015**. Regulates subsection II of § 1 and § 4 of Article 225 of the Federal Constitution, Article 1, item j of Article 8, item c of Article 10, Article 15 and §§ 3 and 4 of Article 16 of the Convention on Biological Diversity, promulgated by Decree no. 2.519, of March 16, 1998; provides on the access to genetic heritage, on the protection and access to associated traditional knowledge and on the sharing of benefits for the conservation and sustainable use of biodiversity; revokes Provisional Measure 2.186-16, of August 23, 2001; and makes other provisions. Available at: <http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2015/lei/13123.htm>. Accessed on: 27 Aug. 2021.

²⁹ OLIVEIRA, Danilo Ribeiro; LEITÃO, Suzana Guimarães; O'DWYER, Eliane Cantarino; LEITÃO, Gilda Guimarães; ARQMO. Authorization of access to associated traditional knowledge for bioprospecting purposes: the case of UFRJ and the Association of Quilombola Communities of Oriximiná - ARQMO. **Revista Fitos**, v.5, n.1, p.59-76, 2010. p.66.

³⁰ OLIVEIRA et al., op. cit. p.66.

³¹ PIMENTEL, Vitor; VIEIRA, Vitor; MITIDIARI, Thiago; FRANÇA, Felipe; PIERONI, João Paulo. Brazilian biodiversity as a source of pharmaceutical innovation: a new hope? **BNDES Journal**, n.43, 2015. p.56.

³² DIAS, Luciana Laura Carvalho Costa; MARINHO, Maria Edelvacy Pinto. Realization of benefit sharing in traditional knowledge associated with biodiversity in Brazil. **Veredas do Direito**, v.12, n.23, 2015. p.291.



absence/deficiency of sources of extraction and income. It is common to see the need to increase and improve housing, food, clothing, health conditions, and consumer goods, which effectively represents the need for more financial resources so that the lives of these populations do not oscillate between subsistence and sub-life conditions³³.

This picture shows the importance of generating products from biodiversity, resulting from local traditional knowledge, transforming biodiversity resources into economic activities, generating income and employment for these communities³⁴.

5 EFFECTIVENESS OF THE BRAZILIAN LEGISLATION IN PROTECTING ITS GENETIC HERITAGE AND TRADITIONAL KNOWLEDGE

The preservation of genetic heritage was already included in the Federative Constitution of Brazil of 1988, which in its article 225, paragraph 1, clause II, provides that the Public Authorities must: "preserve the diversity and integrity of the genetic heritage of the country and supervise the entities dedicated to research and manipulation of genetic material"³⁵.

Ten years later, Law No. 9.605 was enacted, which provides on the penal and administrative sanctions derived from conducts and activities harmful to the environment. Its Chapter V deals with crimes against the environment, where section I contains articles on Crimes against Fauna; section II on Crimes against Flora; section III on Pollution and other Environmental Crimes; section IV on Crimes against Urban Planning and Cultural Heritage; and section V on Crimes against Environmental Administration³⁶.

Then came the aforementioned PM 2.052/2000, with its re-issues until PM 2.186-16/2001, but they were not enough to curb biopiracy and the crime of lese-patria. In 2004 a parliamentary commission of inquiry (CPI) was created, known as the CPI of Biopiracy, which lasted two years. This CPI revealed that, at the time, there were more than three thousand researches in progress in the world, with material illegally collected from Brazil, from the Amazon and Pantanal regions. This showed that the legislation that existed until then was insufficient and ineffective. In addition, there was no criminalization in Brazil for Biopiracy, equating the crime with others, such as destruction of the environment, but without ever mentioning the term itself. In addition, many agents that should be indicted for these crimes are foreign companies and laboratories, which, due to the lack of specific legislation in their countries of origin and with many of them not ratifying the CBD, ended up not being denounced³⁷.

³³ OLIVEIRA et al., op. cit. p.72.

³⁴ BRUNO; MATTOS, op. cit. p.1007.

³⁵ BRAZIL. Presidency of the Republic. Civil House. Subchefia para Assuntos Jurídicos. **Constitution of the Federative Republic of Brazil of 1988**. Available at: <http://www.planalto.gov.br/ccivil_03/constituicao/constituicaocompilado.htm>. Accessed on: 25 Aug. 2021.

³⁶ BRAZIL. Presidency of the Republic. Civil House. Subchefia para Assuntos Jurídicos. **Law No. 9.605, February 12, 1998**. Provides on criminal and administrative penalties derived from conducts and activities that are harmful to the environment, and makes other provisions. Available at: <http://www.planalto.gov.br/ccivil_03/leis/19605.htm>. Accessed on: 25 Aug. 2021.

³⁷ MACIEL, Laura Ribeiro. The legislative gap on biopiracy in Brazil and how to change the current situation. **Journal Thesis Juris**, v.3, n.1, 2014.p. 225-226.



Precisely because of the gaps in Brazilian law, biopiracy continued to occur, making it necessary to create stricter rules to combat these criminal acts, as the only way to truly and effectively protect natural resources, the environment, biodiversity and the discoveries coming from the intellect of traditional peoples and communities³⁸.

As defined by the CBD, when the bioprospecting activity (when the research and exploration of biodiversity is done legally) involves knowledge, innovations and/or practices of traditional peoples and communities, it is necessary that its application occurs with the approval, participation and benefit sharing with the community(ies) involved. Thus, the CBD involved both consultation with the country(ies) of origin of the genetic resources and associated traditional knowledge, recognizing the expression of their sovereignty, and consultation with the traditional peoples and communities that hold the knowledge, which is done through the same country(ies)³⁹.

In cases where, upon being granted a patent, its holder fails to comply with this commitment, he will be subject to the sanctions described in Brazilian law, which is currently the New Biodiversity Law, Law No. 13,123/2015, also known as the New Legal Framework of Brazilian Biodiversity. When analyzing the innovations brought by it in relation to the previous one (MP No. 2,186-16/2001), it is observed that it came with the intention of facilitating the legal exploitation of biodiversity, stimulating agreements and, consequently, benefit sharing.

In its art. 8, paragraph 2, it determines that: "The traditional knowledge associated with the genetic heritage dealt with in this Law integrates the Brazilian cultural heritage⁴⁰. This was an important change, because when traditional knowledge was conceived as intellectual property it became patentable, and the company or entrepreneur that approached the holders and acquired their knowledge ended up patenting it, becoming its owner, which was commonplace. Now this traditional knowledge goes beyond something only intellectual, representing national culture, representing the identification of a people, being protected as such.

It also brings the Chapter V with ten articles that deal exclusively with the rules for benefit sharing. Among them, articles 20 and 21 regulate the percentages when the chosen modality is the monetary benefit sharing, which will be due a portion of 1% of the net annual revenue obtained with the economic exploitation of the product, except for the hypothesis of reduction to 0.1%, with the purpose of guaranteeing the competitiveness of the contemplated sector⁴¹. Thus, this chapter came to make the rules clearer and pre-established.

³⁸ BATISTA, op. cit. p.50.

³⁹ RODRIGUES, Alexandra Gato; GADENZ, Danielli; RUE, Letícia Almeida de la. Biodiversity and traditional knowledge in the context of environmental geopolitics. **Revista Eletrônica Direito e Política**, Programa de Pós-Graduação *Stricto Sensu* em Ciência Jurídica da UNIVALI, v.9, n.1, 2014. p.299.

⁴⁰ BRAZIL. **law no. 13.123, of May 20, 2015**. op. cit.

⁴¹ BRAZIL. **law no. 13.123, of May 20, 2015**. op. cit.



However, the new law, although it has brought important innovations, is still unable to reconcile the economic and scientific interests of researchers with the interests of traditional communities. This is because it continues to allow the distribution of royalties through means other than monetary means, which studies have shown is not beneficial or advantageous for these populations. On the other hand, this law is deficient in relation to inspection and punishment for those who do not comply with it, representing a step backwards, since it favors large corporations and industries, to the detriment of the rights of traditional peoples and communities, allowing biopiracy to continue to occur⁴².

In this context it is observed that it ends up generating a situation of biocolonialism, which would be a discourse of power based on both biopiracy and bioprospecting, with the aim of creating an international division of labor between countries that are leaders in the biotechnological revolution and countries that supply *biocommodities*. This issue refers to the idea of biopower, since there is an interconnection between the domination exercised by "power holders" over others, giving rise to conflicts that will mark the bio-legal post-modernity. Therefore, traditional peoples and communities find themselves in a situation of vulnerability or susceptibility to the challenges that biocolonialism imposes on developing countries and historically marginalized communities in developed countries⁴³.

Biopolitics, in this scenario, emerges in the context of pluripotent life, since it is exercised at the intracellular level through biotechnology. From this perspective, power is no longer exclusively territorial in nature, but is exercised by manipulating the temporality of life in order to control territory. This new form of colonialism leads to a loss of sovereignty, which can be better understood by the mechanism of fungibility between territorial power (geopolitics) and power over life (biopolitics). In this way, the mechanism of control over the temporality of life through techniques of life fabrication makes possible the manipulation and production of new spatialities⁴⁴.

Therefore, biopiracy is still a serious problem for Brazil and, even though there is no official government estimate of the economic damage involved with this crime, the mitigation of these illicit activities involves their prevention, which is directly related to the expansion of environmental enforcement, which must be done with the creation of investigative intelligence work and integrated action planning, involving the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), the Federal Police, Funai, among other federal agencies⁴⁵.

6 CONCLUDING REMARKS

Fulfilling the study's objective, it was found that although Brazilian legislation has a comprehensive law on national biodiversity, with an entire chapter dedicated to benefit sharing, the country is unable to

⁴² BRUNO; MATTOS, op. cit. p.1015-1016.

⁴³ PIRES-OLIVEIRA, Thiago. Fragments of a biocolonizing discourse in the human genome project: law, genetic heritage and vulnerability. *Revista Direitos Fundamentais e Alteridade*, v.4, n.1, 2020. p.74.

⁴⁴ PFRIMER, Matheus Hoffmann; COCA, Estevan Leopoldo de Freitas; BARBOSA JÚNIOR, Ricardo César. Biopolitics, social movements and genetic resources: the case of PAA Seeds. *Boletim Goiano de Geografia*, v.36, n.2, 2016. p. 236.

⁴⁵ RENTAS, 2016, op. cit. p.17.



effectively defend the rights of traditional peoples and communities or combat biopiracy. This crime should be considered a crime against the country, because genetic heritage and traditional knowledge are literally stolen from the country to generate economic and scientific gains for other countries, to the detriment of the national economy and its traditional peoples and communities.

A crucial point is that biopiracy is not yet typified in Brazilian law, which makes it easier for this crime to continue happening. There is the environmental crimes law (Law No. 9605 of February 12, 1998) and the new biodiversity law (Law No. 13123 of May 20, 2015), which serve as parameters to frame this crime, but this does not exclude the urgent need for the legislator to typify biopiracy as a crime, which is an offense that covers several spheres of law, being an environmental crime, a crime against traditional peoples and communities, and a crime against the country.

Therefore, adjustments are needed in the Law to make it capable of effectively protecting traditional peoples and communities from scientific-economic exploitation, and protecting biodiversity, the economy, and national sovereignty.



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