

Genetic Heritage Management Council and the coordination of the access and benefit-sharing policy in Brazil

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Abstract: The purpose of the article is to discuss the functioning of the Genetic Heritage Management Council (CGen, acronym in Portuguese) from the enactment of Law No. 13,123 / 2015 until December 2019, to understand its role as coordinator of the benefit-sharing policy. CGen's work context was presented and the theoretical framework of public policy coordination was discussed. The research was carried out based on the analysis of the minutes of the 24 meetings held by the Board, seeking to identify the frequency of full members, the participation of listeners, and the most discussed topics at the meetings. The CGen was found to be a leader in law enforcement, which seeks to use communication and standardization as mechanisms for its coordination. However, the low participation of beneficiaries of the policy and representatives of states and municipalities calls into question the effectiveness of the policy.

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Introduction

The first standard on access and benefit sharing in Brazil was established through Provisional Measure (PM) n. 2.186-16/2001. However, it was enforced by law n. 13.123/2015, which provides on the protection of both national genetic patrimony and knowledge associated with traditional and indigenous communities based on sharing benefits deriving from their trade. This legislation was substantiated by the perspective that it would not be fair to have private agents economically accessing and exploring these resources without paying back to the country or to the ones providing such a material.

The Genetic Patrimony Council (CGen, acronym in Portuguese) was created by the Brazilian Environment Ministry (MMA, acronym in Portuguese) in 2002 to coordinate agents and interests, as well as to make decisions about access and benefit sharing policy implementation in Brazil. The aim of the present article is to analyze the actions by CGen since the enactment of law n. 13.123/2015 until December 2019 to better understand its functioning and the role played by it as coordinator of the access and benefit sharing policy. The importance of this analysis lies on the scarcity of studies focused on this policy and CGen's actions towards it.

Bibliographic research about benefit sharing in Brazil (introduced in the second section) and public policy coordination (introduced in Section 3) was carried out. Documents, such as laws, decrees and provisional measures that could add information to the topic were also screened.

CGen management reports made available between 2003 and 2015 were checked in order to assess the historical background of its functioning. However, meeting minutes of all its meetings (ordinary and special meetings) performed between 2016 and 2019 were also assessed – the first meeting based on law n. 13.123/2015 took place in July 2016. The minutes were read, information was systematized and analyzed, and parts interested in the policy and the main activities of the Council (introduced in Section 4) were identified. The last section addresses the final considerations; it points out that, although CGen uses several coordination mechanisms to contribute to policies well-functioning, the low participation of policy beneficiaries and states and municipalities' representatives put CGen's effectiveness at risk.

The Access and Benefit Sharing Policy

The Convention in Biological Diversity (CDB) was the first world treat on biodiversity, it was enacted in 1993 and ratified by 187 countries (FRANÇA, 2007). It was ratified by Brazil in 1994, and provides on the need of having a mechanism to share benefits and control the access to genetic patrimony. CDB ensures nations' autonomy to deal with access to their genetic patrimony, but it also points towards the fact that it would not be fair for those who hold such a patrimony not to have some sort of return from its commercial exploitation (RÊGO, 2008).

PM n. 2.186-16/2001 was the first regulation on this topic in Brazil. It aimed at stopping companies and individuals from privately take possession of fauna and flora

genetic resources through associated traditional knowledge in order to turn them into profitable products without generating any return to the country (SOUZA et al., 2017).

According to MMA (s/d), this PM was a milestone in the combat to biopiracy, but it needs to be changed, given the critiques from its users. On the one hand, the ones who sought access to genetic patrimony and CTAs (Associated Traditional Knowledge, acronym in Portuguese) used to state that the procedures were too strict and bureaucratic, a fact that would lead to high costs (SACARRO Jr., 2011). On the other hand, genetic patrimony providers and CTAs (Indians, communities and traditional farmers) used to criticize the fact that they did not participate enough in decision-making processes.

Thus, the aforementioned PM was revoked by the publications of law n. 13.123/2015, also known as Biodiversity Law, which provided on new standards for access to genetic patrimony and CTAs, as well as on the guidelines for benefit sharing procedures.

Scholars point out some advancements and critiques concerning the new legislation. Silva (2017), for example, states that there are improvements in bureaucratic procedures for researchers, in concepts' clarification and in rules set for access and benefit sharing. There is also the argument that the new legislation allowed including representatives from the business sector and from traditional communities in CGen. With respect to the critiques, Brandão (2018) reports the prevalence of market interests to the detriment of traditional communities' interests. Moreira (2017) points out that the new law has created a separation between genetic patrimony and traditional knowledge, and he criticizes the "traditional knowledge of non-identifiable origin" modality, which is hard to establish. These critiques were corroborated by different representatives from traditional communities and indigenous peoples (MOREIRA et al., 2017).

Despite the critiques, law n. 13.123 provided the pathway to make sharing possible, be it monetary or non-monetary sharing. In case of monetary sharing, the one who has used genetic patrimony or traditional knowledge "of non-identifiable origin" to manufacture goods must pay back 1% of its annual net revenue to the National Benefit Sharing Fund, also known as FNRB (acronym in Portuguese). This percentage can drop to 0.1% depending on the agreement set to ensure competitiveness in the productive sector. If the modality is not monetary, sharing takes place through factors such as technology transference, projects to biodiversity sustainable use, free goods' distribution in social interest programs, among others. In case of using traditional knowledge of "identifiable origin", knowledge providers have the right to get benefits based on agreements negotiated with users. In addition, the new legislation addresses the creation of the National System to Manage Genetic Patrimony and Associated Traditional Knowledge (SisGen, acronym in Portuguese) – this topic will be further approached in the text.

During the time PM n. 2.186-16/2001 was in force, CGen carried out 130 ordinary and special meetings; it approved 295 Genetic Patrimony Use Contracts and Benefit Sharing Projects (CGen, 2015 and 2016). Actions to prevent the illegal access to Genetic Patrimony and CTA, to qualify traditional communities and to discuss policy regulations were taken.

Enactment of law n. 13.123/2015 led to changes in CGen; based on the PM, the

Council should only coordinate the implementation of public policies related to genetic patrimony and CTA, but the new law also gave CGen the responsibility to elaborate such policies. It was defined that the Council has deliberative, normative and consultant profile; it is composed of 60% of federal governments' representatives and 40% of civil society representatives, who are divided into industry, academia and traditional communities (BRASIL, 2015).

Coordination of public policies

There is no ultimate definition for the term "coordination". According to Boston (1992), coordination is a procedural value encompassing a whole set of targets and concerns. Lindblom (1965) defines coordination as the mutual adequacy between actors or the deliberate interaction to produce results positive to participants. Based on Metcalfe (1996) and Peters (1998), it concerns the instruments to seek, in a forced or voluntary way, compliance with organizations' tasks and efforts in the public sector.

Souza (2018, p.16) understands coordination as "the organization of all activities, in order to reach consensus between individuals and organizations in to reach the aims of a given group". By addressing activities, it deals with the need of having coordination at the governmental bureaucratic and managerial scope. However, this author also introduces coordination as "a mechanism to solve conflicts", and such a fact evidences its importance at the political dimension.

Malone and Crowston (1994) seem to summarize these different definitions of coordination by interpreting it as the "management of interdependences among activities", where interdependence is a keyword, since it makes coordination necessary. Thus, assessing the coordination of public policies means inquiring what are the existing interdependence types among a single or multiple activities, and how they can be managed. This definition is interesting, since it does not hide the role of cooperation, conflict and competition possibly observed in processes of such nature. It also does not limit the number of participants to establish the need of coordination. In other words, one single actor can carry out different interdependent activities; therefore, it needs to coordinate them (CASTRO; YOUNG, 2017).

It is essential assessing the coordination of public policies given its ability to avoid overlapping and inconsistency within governmental activities (PELKONEN et al., 2009). Besides, Peters (2015) argues that coordination is a key matter in the public policies' field, mainly because most policies have in it some degree of dependence on other policies in order to work out well.

With respect to access and sharing benefits, different actors and institutions must manage their interdependent activities so that the policy can work. Traditional Knowledge providers hold and supply information about genetic patrimony. They must get financial benefit deriving from companies that economically exploit such resources. Financial resources are divided by FNRB, which is managed by MMA and BNDES (financial institution).

Researchers perform experimental or theoretical activities that do not necessarily generate commercial goods out of genetic patrimony or CTA. However, these interested parts must require authorization to carry out such research. The government, through its different federal bureaus, accounts for establishing the general rules for policy functioning and for its inspection. CGen accounts for coordinating the elaboration and implementation of the genetic patrimony and CTA access policy. In addition, there is the need of integrating the benefit sharing policy to other policies associated with biodiversity, intellectual protection, among others.

Some authors have been discussing the mechanisms capable of promoting the expected coordination. Malone (1994) approaches the role of cooperation, competition and conflict in order to achieve coordination. Metcalfe (1996) points out the possibility of different actors in a network to achieve coordination without the need of establishing a formal leadership.

Mintzberg (2008), when dealing with organizations, set five mechanisms that can be used in separate, or in combination to each other, to promote coordination. He pointed out the following mechanisms: mutual adjustment, direct inspection, work process standardization, work outcome results' standardization and workers' skills standardization.

"Mutual adjustment" concerns organizations members' communication ability. It regards the frequent and informal communication observed in all sorts of organizations, which is featured by significant decentralization. Accordingly, coordination depends on the collaboration between organizations' members; it can be accomplished, regardless of the existence of a boss or manager (MINTZBERG, 2008).

Direct inspection is another coordination mechanism; it regards the existence of a leader capable of defining work guidelines and of monitoring actions taken by other agents in the organization. Decision-making and control by the authority is centered in "direct inspection".

Coordination could also be achieved through standardization. This proposition is substantiated by planning and scientific knowledge, before the conduction of every activity. With respect to the standardization of labor processes, it is possible observing the uniformity of performed activities. However, outcome standardization is supported by the belief that all manufactured products must be treated equally, regardless of being goods or services. The standardization of workers' skills is related to workers' knowledge. They must be somehow trained in order to know exactly what to do and what to expect from other collaborators in the organization (MINTZBERG, 2008).

The aforementioned mechanisms are adopted to achieve coordination but they do not specifically concern the public sector or other public policies. However, Mintzberg (2008) states that they can be applied in different organizations. Accordingly, their use at CGen scope will be assessed to help better understanding its ability to contribute to manage activities' interdependences and to policy full functioning.

Results and discussions

In total, 24 CGen meetings were carried out from the creation of law n. 13.123/2015 until December 2019; 21 of them were ordinary and 3 were special, all of them took place in Brasilia. These meetings counted on 34 different organs, on average – a fact that evidences the number of parts interested in this policy. Of the total of meeting, 15 took place in 2 days, given the number of processes and the complexity of topics in the agenda.

CGen is ruled by MMA, with its Executive Secretariat managed by Biodiversity Secretariat. From law n. 13.123/2015 onwards, the Council was composed of 20 organs; each one of them has the right to nominate one full representative and 2 alternate ones. Its composition was changed by Decree n. 8.772/2016 (Table 1).

Table 1 – Change in organs composing CGen, 2001-2015 and 2016-2019*

CGen members (PM n. 2.186-16/2001 and Decree n. 3.945/2001)	CGen members (law n. 13.123/2015 and Decree n. 8.772/2016)
Environment Ministry - MMA	Environment Ministry - MMA
Science and Technology Ministry - MCT	Science, technology and Innovation Ministry - MCTI
Health Ministry - MS	Health Ministry
Justice Ministry - MJ	Justice Ministry
Agriculture, Livestock and Supply Ministry - MAPA	Agriculture, Livestock and Supply Ministry
Defense Ministry - MD	Defense Ministry
Foreign Affairs Ministry - MRE	Foreign Affairs Ministry
Culture Ministry - MinC	Culture Ministry
Development, Industry and Foreign Trade Ministry - MDIC	Development, Industry and Foreign Trade Ministry
Brazilian Environment and Renewable Natural Resources Institute - IBAMA	Social Development and Starvation Combat Ministry - MDS
Rio de Janeiro Botanical Garden Research Institute	Agricultural Development Ministry - MDA
National Scientific and technological Development Council - CNPq	National Confederation of the Industry - CNI
National Amazonian Research Institute - INPA	National Confederation of Agriculture - CNA
Brazilian Agricultural Research Company - EMBRAPA	National Confederation of Industry or Agriculture
Oswaldo Cruz Foundation - FIOCRUZ	Brazilian Society for Science Progress - SBPC

Evandro Chagas Institute	Brazilian Anthropology Association - ABA
National Foundation of Indians - FUNAI	Brazilian Sciences Academy - ABC
National Industrial Property Institute - INPI	National Indigenous Policies Council - CNPI
Palmares Cultural Foundation	National Council of Traditional Peoples and Communities - CNPTC
	National Rural Sustainable Development Council - Condraf

*All terms are with acronyms in Portuguese.

Source: Elaborated by the authors

It is possible observing that changes in CGen composition mainly involved academia, industry and traditional communities' representatives. Important research institutions in the biological sciences, agriculture, environment and medicine fields, such as Embrapa, Evandro Chagas Institute and INPA, among others, were replaced by ABC and SBPC. INPI had to leave CGen due to changes in the law, although it is the Brazilian bureau in charge of granting patents requests gotten from access to the national genetic patrimony or CTA. Although IBAMA, FUNAI and FIOCRUZ representatives are out of the Council, they somehow kept their participation in the meetings, but just as hearers.

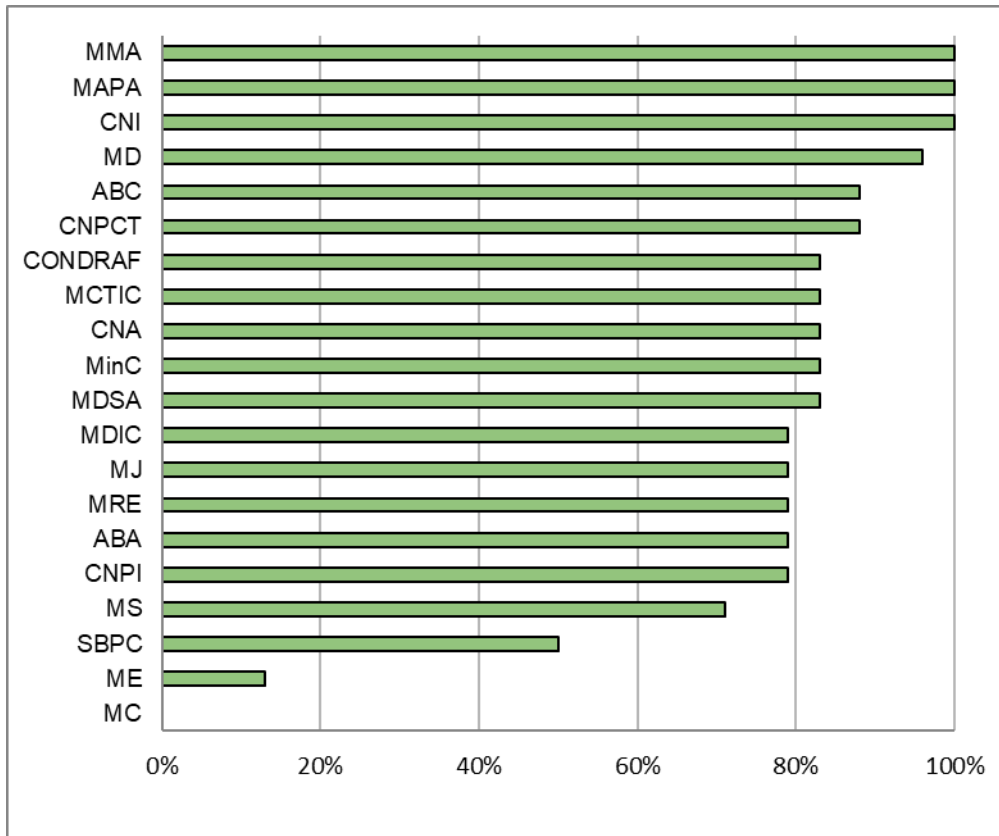
It is also important highlighting that scientific institutions have lost space, different from the Councils, which have gained new seats. These Councils are collegiate and parity organs composed by the government and society, a fact that allows discussing about planning and managing public policies focused on different fields: health, social assistance, education, labor, among others (MARTINS et al., 2008). Condraf and CNPI, for example, are entities encompassing governmental and non-governmental entities, and they enable outspreading and amplifying CGen meetings' contents. Traditional community representatives who were interviewed by Moreira, Porro and Silva (2017) pointed out the importance of these organs to inform about benefit sharing. Accordingly, after law n. 13.123/ 2015 was enacted, new participation spaces focused on civil society and on the production sector were opened in CGen; in the case of this last sector, they were represented by entities such as CNI and CNA.

However, in 2016, there were changes in the federal government's structure and it has affected CGen's composition. According to law n. 13.341/ 2016, MDS and MDA were turned into the Social and Agricultural Development Ministry (MDSA). In 2019, given the change in the federal administration, new changes were put in place at federal executive sphere: MinC and MDSA became part of the Citizenship Ministry (MC) and MDIC became part of the Economy Ministry (ME) (BRASIL, 2019).

Representatives from the extinct organs stopped going to the meetings due to these changes; from 2019 onwards, ME representatives joined the meetings at CGen. MC,

in its turn, did not fulfil the internal MMA procedures to nominate representatives, as described in the justification for their absence in minutes of meetings 20 and 21. Thus, the Council's assembly started counting on 17 organs. Figure 1 presents counselors' participation frequency (full and alternates) in CGen's assemblies between 2016 and 2019.

Figure 1 – CGen members' participation frequency in its meetings, 2016-2019.



Source: Elaborated by the authors based on Portes et al. (2017).

Representatives from three organs attended all CGen meetings: MMA, MAPA and CNI. MMA needs to attend all meetings since it holds the Council's presidency seat. MAPA and CNI representatives' full participation points towards the commercial importance of decisions made in CGen's forums. Overall, the frequency of representatives from other organs is high, it ranges from 70% to 90%. ME and MC are the two organs recording means lower than the aforementioned ones; they just started composing the council recently, because other ministries were included in it. Although SBPC was quite active in important moments of the access and benefit sharing policy, such as in its regula-

tion approval process¹, it just attended 50% of the meetings.

The change in the group of full and alternate representatives of each of the organs composing CGen's assembly was also assessed. Among the 20 organs that have attended the assemblies, seven (MS, CNPI, MJ, CNA, CNPCT, MD and ME) did not make any change in its members and ten of them (MMA, MAPA, ABC, CONDRAF, MINC, MDSA, ABA, SBPC and CNI – this last one holds two seats in it) changed the full and alternate members once overtime. MCTI and MDIC accounted for two changes in full and alternate members. Just in MRE there were more than two changes.

It was possible observing that the same person changed status or the organs it represented in some occasions (from full to alternate member, vice-versa). Assumgely, this process takes place given the complexity of the herein assessed policy, which demands familiarity with topics such as genetics, property rights, biodiversity valorization, among others. This is not a trivial result in comparison to turnovers in councils assessed in other studies (PORTES et al., 2017).

If one has in mind that CGen assemblies are public, hearers were also taken as relevant for the analysis. These agents do not have power to vote on the topics discussed in the meetings. However, they can pressure and influence decision made by the assembly. Table 2 shows the total number of hearers in the 24 meetings; they were classified based on the organ they represented.

Table 2 – Hearers in CGen meetings between 2016-2019*.

Organs' classification	Number of hearers	Percentage
Federal governmental organs	216	30.5%
Law offices and consultancies	214	30.2%
Companies	173	24.4%
Associations	44	6.2%
Science and Technology Institutions (ICTs)	29	4.1%
Federal Prosecutor (MPF)	20	2.8%
Social organizations and movements	5	0.7%
Governmental and class councils	3	0.4%
Without information	3	0.4%
Legislative members	2	0.3%
Total	709	100.0%

* All terms are with acronyms in Portuguese

1 - SBPC attended diferente public hearings and elaborated (in May 2016) a document to MMA to propose a series of changes in the Decree Project that regulated law n. 13.123/2015 (SBPC, 2016). Some of the suggestions by the organization were implemented.

Source: Elaborated by the authors.

Representatives from federal governmental organs formed the majority in the assessed meetings. Ministries' employees attended as full-seat holders and as hearers. MMA was the ministry mostly sending representatives to the meetings, since it allowed the participation of servants linked to secretariats and departments such as Biodiversity Secretariat and Genetic Patrimony Department, as well as representatives from autarchies, like IBAMA.

Yet, by addressing hearers linked to governmental organs, FUNAI servants attended three meetings. This is a small number, since the assessed policy also regards CTA protection. Similarly, lack of representatives from federative spheres is also a highlight, since it seems to be a contradiction, because – although it is a federal law – genetic patrimony and CTA are linked to territories. Assumingly, lack of actors associated with other federative spheres, either in the assembly or as CGen hearers, can impair the coordination of effective law n. 13.123/ 2015 implementtaion.

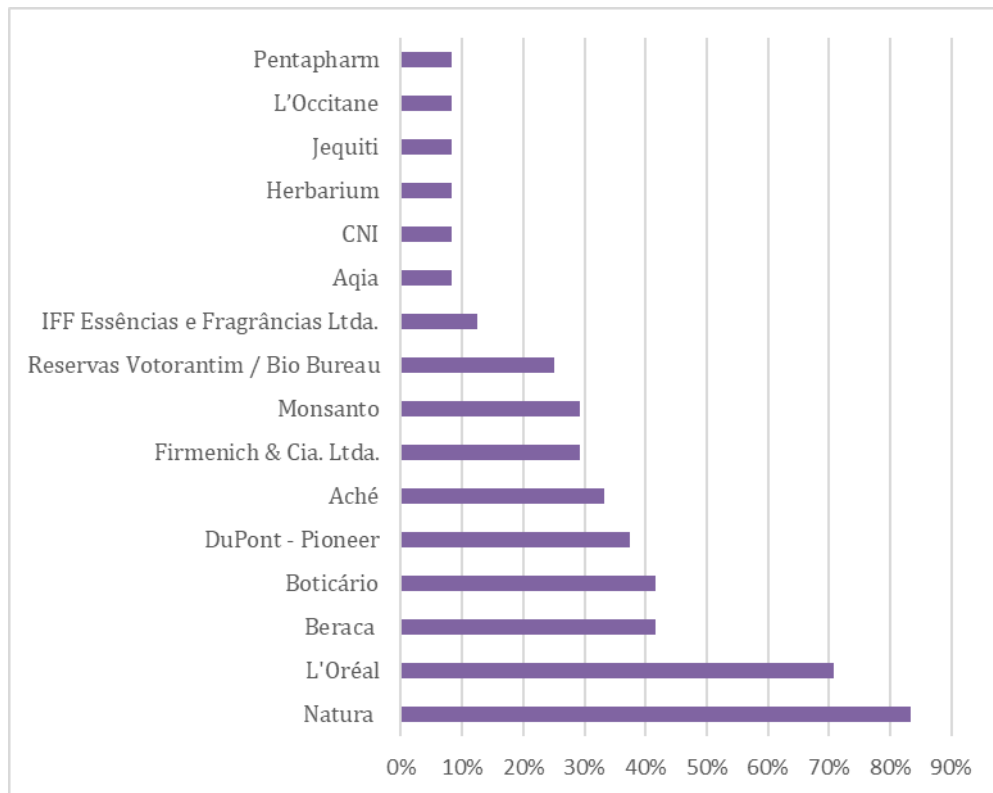
According to Milanezi and Barbosa (2013), IBAMA's inspection operations, in 2010 and 2012, were essential to increase the number of Benefit Sharing Use Contracts (CURBs) in Brazil. These operations are in compliance with Complementary Law n. 140/ 2011, based on which, the Federal Government accounts for managing the access to genetic patrimony and CTA. However, the same law defined that each federative entity accounts for protecting its environment and inspecting its territory, and that cooperation actions among federal, state and municipal spheres is desirable, so that the environment, the genetic patrimony and CTA get protected. It is essential to broadly spread knowledge about the benefit sharing law in order to have integrated actions running.

CGen, is in charge of coordinating the assessed policy, play the leadership role, based on Mintzberg (2008). It is capable of centralizing decision-making and of controlling the actions of other organs involved in this policy. Accordingly, given the role played by inspection organs from other federative entities, institutions, such as the Brazilian Association of State Environment Entities and/or the National Association of Municipal Environment Organs should join the CGen assembly.

Law and consultancy offices rank the second position among the ones sending hearers to CGen meetings. These organizations have clients who are interested in claiming for authorized access to the genetic patrimony and CTAs, besides the representation to close CURBs. This process highlights the economic and legal relevance of discussion about benefit sharing.

Industries rank the third position in the aforementioned ranking, they counted on 173 hearers from 33 different companies in 24 CGen meetings. Figure 2 depicts the industrial companies that have attended at least two meetings.

Figure 2 – Frequency as hearers representing industrial companies that have attended at least two CGen meeting, 2016-2019.



Source: Elaborated by the author.

Souza et al. (2017) highlight that companies from the cosmetics and perfume sectors account for the most active participation in the access and benefit sharing policy. The same was herein observed, companies in these sectors (Natura, L'Oréal, Boticário) sent representatives to more than 40% of the meetings. It is also possible observing the presence of companies that work with natural ingredients (such as Beraca), as well as of pharmaceutical, chemical and biotechnological companies (Dupont – Pioneer, Monsanto, among others). Identifying the main sectors interested in using the national genetic patrimony and CTA is important at the time to prioritize specific public policies focused on boosting partnerships and the bio-economy.

It is important pointing out the participation of associations such as AgroBio (Association of Biotechnology Companies in Agriculture and the Agroindustry) e ABIFRA (Brazilian Association of Essential Oils, Aromatic Chemical Products, Fragrances and Similar Industries) in CGen. These associations represent companies with common interests, which seek to claim rights and develop the sector in which they operate, with a

view to mutual benefit.

Fiocruz and Brasilia University were the ICTs mostly participating in the meetings. Fiocruz was CGen's permanent member until 2015 and UnB is located close to the place where the meetings take place, a fact that makes it easier for their representatives to access the meetings. It was also possible observing the participation of researchers from other universities in Brazil and abroad, given their interest in genetic patrimony and CTA.

Governmental councils that have representatives to follow-up CGen's meetings joined the National Biosafety Technical Commission (CTNBio) and CNPCT, which is CGen's full member. In addition, members from the Notarial Federal Council and representatives from notary offices also attended the meetings as hearers.

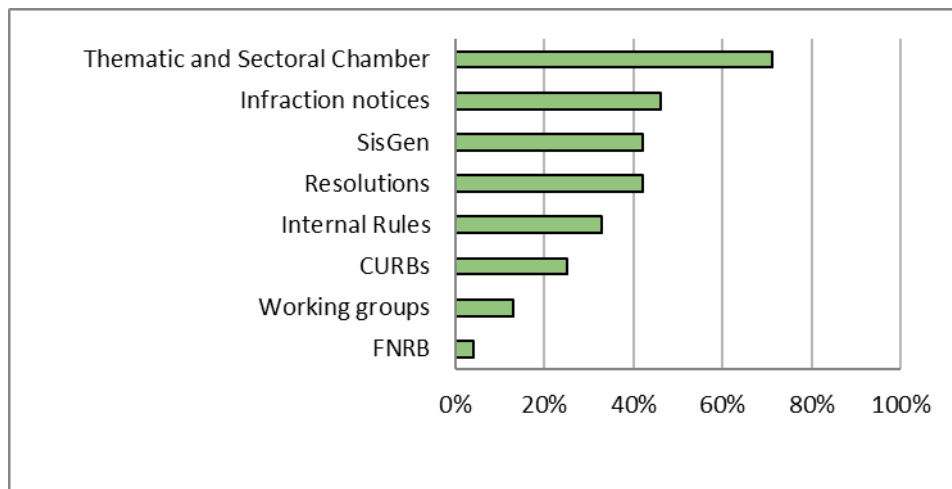
Members of the legislative, non-governmental organizations and representatives of traditional communities were the groups recording the lowest participation as hearers in CGen's meetings. Representatives from the Pantaneira Traditional Communities Network, by the Ashaninka Indigenous People and the Socio-environmental Institute, attended 5 meetings. It is important taking into consideration that low participation can be related to the hard time groups located in remote areas have to get to the meetings. Most of these groups do not have the resources to send hearers, differently from companies and associations (the cost of full members is paid by the federal government)².

The low participation of those who own traditional knowledge in CGen's meetings is one of the factors accounting for the poor effectiveness of the benefit sharing policy if one has in mind its goals, namely: sharing the profit coming from commercial products resulting from the genetic patrimony and CTA. It is so, because the lower the representativeness of policy beneficiaries in the Council, the lower the chances of achieving effective negotiation power to argue with the State and other parts interested in the policy (DAGNINO, 2002).

This outcome was highlighted by Dias and Marinho (2015), who analyzed six CTA-related managerial processes assessed by CGen until 2013. They have set four requirements (previous knowledge, fair benefit sharing, technology transference and right to property) to determine whether the aims of the policy were actually achieved. They pointed out that the four analyzed processes did not fulfil any of the requirements, whereas only two processes fulfilled one requirement, each. Thus, Dias and Marinho (2015) have concluded that the aims of the benefit sharing policy in the analyzed processes were not accomplished.

The last herein observed factor regards the topics most frequently addressed at CGen's assemblies (Figure 3). These topics are related to the Council's main legal competences.

2 - Meetings with online broadcast or that have allowed participation online could help the access of policy beneficiaries. However, it is known that the access to the internet and to equipment is unequal in the country, a fact that mainly impairs the most vulnerable groups (which is the case of policy beneficiaries).

Figure 3 – Topics addressed in CGen Assemblies’ meetings, 2016-2020.

Source: Elaborated by the author.

Subjects most often approached at CGen’s refer to Thematic and Sectoral Chambers, which are mentioned in approximately 70 % of the analyzed meeting minutes. Discussions about these Chambers include their creation, representatives’ nomination, deliberations and reports on the work of each one of them.

The Chambers work as instance for counselors to consult experts, as well as other representatives from both the government and civil society about specific topics, before they are subjected to the Assembly. Because these are communication spaces among different agents, they contribute to coordinate the policy by consolidating understandings and disclosing conflicts about certain points to be approached by CGen.

The second most discussed topic in the Council’s meetings regards infraction notices, which concern irregularities committed by those who claim access to genetic patrimony and/or CTA. In these cases, CGen acts by deliberating about the notices and setting the fees. Despite the fact that the legal framework is already established, many companies that trade goods developed from biodiversity remain irregular and are not paying the benefit shares. According to the regulation, companies that have been exploiting the genetic patrimony and/or CTA after June 2000 should present an adjustment commitment term to CGen, but only 66 companies had issued such a document up to 2018 (MACHADO, 2019).

The attempt to set standardized procedures to make the implemented legislation effective, such as commitment terms, are close to mechanisms to reach coordination, which were mentioned by Mintzberg (2008). Procedure’s standardization is used to minimize doubts and to help managing interdependent activities; however, there must be control and inspection.

“Resolutions” and “internal rules”, which were addressed in 41% and 36% of the

meetings, also refer to standardizing work processes and results. The topic ‘resolution’ shows deliberations and propositions about changing standards about benefit sharing. “Internal rules”, in their turn, define the rules for CGen’s own functioning. The definition of guidelines seeks to reason about and unify the adequate practices, even when there is no communication among members. Based on such practices, the parts involved in the policy are aware of what to expect from other agents in order to ensure their rights and to have their duties respected.

SisGen was approached in 41% of the meetings; this electronic system was implemented in 2017 to help CGen managing genetic patrimony and/or CTA. SisGen accounts for controlling shipments’ access, licenses and registration; finished goods notifications or reproductive materials, among other functions making the communication between parts interested in the policy and the Council easier. After SisGen became operational, discussions about it regarded criteria for users and providers’ registering, and about the proposition of developing a new platform. Communication makes it easier to manage interdependent activities and SisGen makes the task of getting and controlling information for benefit sharing conduction less complex.

CURBs, the reports of working teams and FNBR were the lesser approached topics, they recorded frequency lower than 30%.

CURBs, addressed in law n. 13.123 as “benefit sharing agreement”, are legal instruments to qualify the parts, the object and the conditions for benefit sharing”. In other words, they are the contracts set between national genetic patrimony and CTA exploiters and providers, who need CGen’s register and approval to ensure the proper use of resources and benefit sharing.

Souza et al. (2017, p. 4155) analyzed 103 CURBs officially registered in Brazil between 2004 and 2013; most of them referred to the exclusive use of the National Genetic Patrimony (86.4%). These agreements were set with associations and cooperatives (61), with private natural and legal persons (52) and with indigenous communities (1). The actors also identified the global values of benefit sharing in these deals, which reached R\$ 8.3 million in values recorded for 2015.

By dealing with monetary resources generated by the policy, it is important highlighting that the discussion about FNBR was only approached in one CGen meeting, in December 2019. The aim FNRB is to get monetary resources deriving from the economic exploitation of products resulting from access to genetic patrimony and CTA and send them to projects by the National Benefit Sharing Program (PNRB). This fund was regulated in 2016, but BNDES was only chosen as financial institution to manage it, along with MMA, in 2019. According to Luna (2020), several companies were able to deposit approximately R\$ 19 million in this fund, which concerned resources gathered in 2019. However, until May 2020, FNRB was not yet operational and its Operation Manual was not concluded and approved.

The aforementioned analysis showed that CGen is an organ created to coordinate the access and benefit sharing policy, it leads the processes, since it is capable of making decisions and controlling the actions of different actors interested in this policy. CGen

created the mechanisms to standardize procedures and results, such as regulations, as well as formal and informal communication, such as SisGen and ordinary and special meetings of the Council and its Chambers. In other words, CGen uses these mechanisms to accomplish the coordination mentioned by Mintzberg (2008), which are focused on the functioning of the herein addressed policy.

However, results have shown that even if these coordination mechanisms were operational, the policy would not succeed in fulfilling its fair benefit sharing goal. It is so, because there was low participation of policy beneficiaries in CGen, a fact that may have influenced the small number of contracts set with CTA holders that could generate financial return to them.

Assumingly, such a situation takes place due to the mechanisms pointed out by Mintzberg (2008), which are used to accomplish coordination, although they do not discuss power. By dealing with a public policy, the discussion on power becomes essential, since the political and economic resources involved in this process have impact on its implementation (HOWLETT et al., 2013). It means that, besides the coordination mechanisms, it is also necessary have the means to balance power differences between interested parts in order to favor the ones who have lower power of action, such as the case of benefit sharing policy beneficiaries. Lack of traditional groups' power to influence the policy leads to unequal benefit sharing results. Given that the assessed policy is not effective in sharing resources among traditional knowledge holders, it creates a vicious cycle of traditional communities' legitimacy denial either by the policy itself or by CGen; these communities do not participate in it and end up not putting pressure to get the resources from benefit sharing.

Final Considerations

The aim of the present article was to introduce and discuss CGen's functioning between 2016 and 2019, in order to better understand its role as access and benefit sharing policy coordinator.

It was observed that CGen plays leadership role in the assessed policy; moreover, it is in charge of coordinating its elaboration and implementation. An important part of its activity lies on determining the guidelines and editing rules that are also taken as mechanisms to accomplish the expected coordination. It is so, because they would standardize the policy's processes and results. Furthermore, CGen opens room for the adequate forum focused on the "mutual adjustment mechanism", which can take place through formal and informal communication.

Even if the coordination mechanisms suggested by Mintzberg (2008) were operational, CGen would still face challenges to achieve an effective policy implementation. Assumingly, these challenges are mainly linked to power dimensions mobilized in process that demand coordination and that are not taken into account by the model.

The first challenge set to policy functioning lies on lack of state or municipal representatives' participation in the Council's meetings. This is a worrisome situation, since, although the policy can have national reach, it is in the local space that genetic patrimony and CTA are actually found. Accordingly, it is necessary including environmental organs from other federative units in CGen in order to outspread the knowledge on this policy, as well as to help inspecting its implementation.

The second challenge refers to unbalance in participation in the Council, because, on the one hand, there is significant action by companies, law and consultancy offices, and by other sector; whereas the participation by social movements, civil society organizations and by representatives from communities holding traditional knowledge is low. This situation makes these communities lesser capable of controlling and putting pressure over decisions made at CGen assemblies; it benefits users to the detriment of the main beneficiaries of the policy, a fact that has impact on its effectiveness. This feature may have contributed to the small number of contracts set so far, as well as to the reduced volume of resources sent to these communities.

It is essential wide spreading the benefit sharing topic in society; broadening policy beneficiaries' participation in and pressure over CGen; involving other federative spheres in the policy, mainly to increase inspection over its fulfilment; speeding up FNRB functioning, so that his legislation can actually broaden resources' capture – these are the actions suggested to improve policy functioning. Such resources derive from the private sector and must be sent to projects that help biodiversity conservation and to traditional communities, given their role as guardians of genetic resources.

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Conselho de Gestão do Patrimônio Genético e a coordenação da política de acesso e repartição de benefícios no Brasil

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Resumo: O objetivo do artigo é discutir o funcionamento do Conselho de Gestão do Patrimônio Genético (CGen) desde a promulgação da Lei n°. 13.123/ 2015 até dezembro de 2019, com vistas a compreender seu papel de coordenador da política de repartição de benefícios. Foi apresentado o contexto de funcionamento do CGen e discutido a coordenação de políticas públicas como referencial teórico. A pesquisa foi empreendida a partir da análise das atas das 24 reuniões realizadas pelo Conselho, buscando identificar a frequência dos membros titulares, a participação dos ouvintes e os temas mais discutidos nas reuniões. Foi verificado que o CGen é uma liderança na aplicação da lei, que busca utilizar comunicação e padronização como mecanismos para a sua coordenação. Contudo, a baixa participação dos beneficiários da política e dos representantes dos estados e municípios colocam a efetividade da política em xeque.

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Artigo Original

Palavras-chave: Repartição de benefícios; Conselho de Políticas Públicas; Patrimônio Genético; Conhecimento Tradicional; Coordenação de políticas públicas.

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Consejo de Gestión del Patrimonio Genético y la coordinación de la política de acceso y distribución de beneficios en Brasil

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Resumen: El objetivo del artículo es discutir el funcionamiento del Consejo de Gestión del Patrimonio Genético (CGen, acrónimo en portugués) desde la promulgación de la Ley N ° 13.123 / 2015 hasta diciembre de 2019, con miras a entender su rol como coordinador de la política de distribución de beneficios. Se presentó el contexto de trabajo de CGen y se discutió la articulación de políticas públicas como referencia teórica. La encuesta se realizó a partir del análisis de las actas de las 24 reuniones realizadas por la Junta Directiva, buscando identificar la frecuencia de miembros plenos, la participación de los oyentes y los temas más discutidos en las reuniones. Se encontró que el CGen es un líder en la aplicación de la ley, que busca utilizar la comunicación y la estandarización como mecanismos para su coordinación. Sin embargo, la baja participación de los beneficiarios de la política y los representantes de los estados y municipios socava la efectividad de la política.

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Artículo original

Palabras-clave: Acceso y Distribución de beneficios; Consejo de Políticas Públicas; Herencia genética; Conocimiento tradicional; Coordinación de políticas públicas.

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