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The performance of the Geoparks Commission of the Brazilian Geology Society, from 2018 to 2020

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Abstract

This study presents the context of the creation and development of actions of the Geoparks Commission of the Brazilian Society of Geology (CG-SBG). For this, documentary research of the entity's minutes and existing records in other media was carried out. The results show that the commission has positioned itself as a channel for institutional, political, and social mobilization relative to the topic of geoparks in Brazil, following the objectives established in the CG-SBG bylaws, namely: (a) awaken and conduct debates and reflections on geoparks within SBG; (b) share knowledge about the context and performance of geoparks with the national society, government institutions, and entities of common interest with this topic through publication in its most diverse media; (c) work to benefit the dissemination and implementation of geoparks in Brazil; (d) integrate representatives of the various proposals for geoparks in Brazil and; (e) propose institutional support to geoparks implementation projects in the national territory. In addition, many representatives of regional branches on the commission also form teams of aspirants and geopark projects, further facilitating the interaction between the proposals and the joint discussions. Among the actions carried out is the participation of the commission in several regional, national, and international events, the provision of information through a website, and the manifestation on issues related to geoparks, such as the need to create a National Geoparks Committee, as provided for by UNESCO, in accordance with the statutes of the International Geoscience and Geoparks Programme and guidelines of the UNESCO Global Geoparks (IGGP/2015/ST), to monitor the development of projects and act jointly with UNESCO and aspiring geoparks. Thus, this study concludes that although the commission exists within the scope of a scientific society, it has carried out actions that contribute to the strengthening of the topic of geoparks in various segments of Brazilian society, from the municipalities to national policies.

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1. Introduction

Global Geoparks of the United Nations Educational, Scientific and Cultural Organization (UNESCO) are unique and unified geographical areas, where sites and landscapes of international geological significance are managed with a holistic concept of protection, education, and sustainable development (UNESCO, 2017). Although its territories have a geological heritage of great prominence associated with other aspects of natural and cultural heritage (material and immaterial), a geopark is not a conservation unit nor does it aim to protect geological sites. For this purpose, there are

other legal mechanisms in Brazil included in the National System of Conservation Units, for example. A geopark seeks the management of territory through sustainable development, with the involvement of the population and local agents and an emphasis on education and tourism. Currently, the presence of 161 geoparks in the International Geoscience and Geoparks Programme and the Global Geoparks Network in 44 countries shows the relevance of these structures for regional development, especially in Brazil, which has a remarkable geological diversity with the representation of practically all geological periods, rich biodiversity, and important cultural heritage.



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The Geoparks Project of the Geological Survey of Brazil – CPRM, started in 2006, is an expressive milestone in the realization of inventories, with identification and description of places of geological interest in potential areas to become UNESCO global geoparks in Brazil. Seventeen proposals were published in partnership with universities, city halls, and state research agencies (Schobbenhaus and Silva 2012) and 12 new proposals are available on the institution's website (www.cprm.gov.br).

Since the creation of the Araripe UNESCO Global Geopark in 2006, the first and only UNESCO Global Geopark in Brazil to date, there has been a significant and continuous effort to achieve recognition by UNESCO of similar initiatives in the national territory. The following projects started in 2007: Ciclo do Ouro (SP), Caminhos Cânions do Sul (RS-SC), and Fernando de Noronha (PE). The Quadrilátero Ferrifero Geopark (MG) and Bodoquena-Pantanal Geopark (MS) projects in 2009 and 2010, respectively, were the first to attempt to integrate into the Global Geoparks Network, but without success (Ruchkys and Machado 2013, Onary-Alves et al. 2015).

Nascimento et al. (2018) pointed out the difficulties encountered by geoparks projects to obtain the seal of UNESCO Global Geoparks/Global Geoparks Network (UGG/GGN):

- a Difficulty in understanding the geographical concept of territory.
- b Lack of clarity about the UNESCO Global Geoparks Programme, causing geoparks to be confused with parks or another category of conservation unit.
- c Absence of strategic planning for Brazilian geoparks projects to meet the criteria required to obtain UGG/GGN certification.
- d Interaction with communities and public managers so that they can assume their role in the implementation, management, and carrying out of actions to consolidate the projects.
- e Low heritage education for both the population and visitors to the project territories.
- f Lack of an official entity to coordinate discussions on geoparks in Brazil.

Currently, Brazil has four Aspirants and 31 Geoparks Projects (Nascimento 2020). Caminhos dos Cânions do Sul (RS-SC) and Seridó (RN), which submitted applications in 2019 and 2020, respectively, and Caçapava (RS) and Quatro Colônia (RS), with the letters of intent delivered in 2020, are aspiring geoparks. The projects are at different stages of development: (1) becoming aware of what a geopark is; (2) there is still no structure for managing the territory, but they are at the stage of bringing people together and encouraging society to embrace the idea of a geopark; and (3) those who are working in the territory and can fit into the logic of the geopark (Comissão de Geoparques - SBG 2020).

The Brazilian Geology Society, through the creation of its Geoparks Commission, joins the effort to publicize the topic, the creation of the National Geoparks Committee, and the implementation of Brazilian geoparks.

2. History

The Brazilian Geological Society (SBG) is the largest technical-scientific entity in Earth Sciences in Brazil, with more than 70 years of foundation. Headquartered in São

Paulo, it has about 5,000 partners linked to 10 regional branches spread across the country. Its mission is to promote the knowledge and development of geosciences, applied geology, and related research and technology, as well as the rational and sustainable use of mineral and water resources (http://www.sbgeo.org.br/home/pages/2).

SBG Bahia-Sergipe Branch began to discuss the topic of geoparks in 2016 when it promoted the roundtable Brazilian Geoparks: Paths, Difficulties, and Alternatives, a face-toface event broadcast nationally by videoconference, with the remote participation of Prof. Dr. José Brilha (University of Minho, Portugal), Prof. Dr. Marcos Nascimento (UFRN - Seridó Geopark), Geologist Carlos Schobbenhaus (CPRM), and MSc. Flávia Lima (Geodiversidade Soluções Ltda.). An interinstitutional group was formed as a result of this debate and, because the geopark is a territorial management model based on sustainable development, a strategic plan for the implementation of geoparks in the State of Bahia (Santos-Pinto et al. 2018) was elaborated and delivered to the Secretariats of Planning (SEPLAN) and Economic Development (SDE). Given this local experience, the group realized the need to create an entity at the national level, a Geoparks Commission, which would encourage discussion about geoparks and could integrate representatives of the different geoparks projects in Brazil. This proposal was taken by the Chief Executive Officer of Bahia-Sergipe Branch to the Society's Board of Directors for consideration. After the proposal was accepted, the proponent was appointed as a leader and tasked with assembling the team with the representatives of the regional branches of SBG for the preparation of bylaws of the Geoparks Commission of the Brazilian Geological Society (CG-SBG). The working group consisted of eight representatives from the Bahia-Sergipe Branch, two from the Brasília Branch, two from the Midwest Branch, one from the Northeast Branch one from the Paraná Branch, one from the Rio de Janeiro/Espírito Santo Branch, and one from the São Paulo Branch. Currently, we also have the representation of the Minas Gerais and Rio Grande do Sul-Santa Catarina Branches (Figure 1).

3. Bylaws

The CG-SBG bylaws was approved on April 21, 2018 (Sociedade Brasileira de Geologia - SBG 2018), with the following objectives:

- a Awaken and conduct debates and reflections on the topic Geoparks within SBG.
- b Share knowledge about the context and performance of geoparks with the national society, governmental institutions, and entities of common interest with this topic through publication in its most diverse media (book, article, booklet, website, or folder).
- c Work to benefit the dissemination and implementation of geoparks in Brazil.
- d Integrate representatives of the various proposals for geoparks in Brazil.
- e-Propose institutional support to geoparks implementation projects in the national territory.

Its members must be specialists from teaching and research institutions, agencies, and companies or independent professionals and indicated by the regional branch of SBG.



FIGURE 1. Composition of the Geoparks Commission, biennium 2020–2022 (http://www.geoparques-sbg.org.br)

Members may be added at any time during the Commission's term of office.

CG-SBG must contain the following positions and coordination, which are necessarily effective members of the Company: a) Manager; b) Secretary; and c) Communication and Publications Coordinator. The term of office of the CG-SBG positions and coordination will be two years, renewable for an equal period.

4. Geoparks Commission activities and products

The Geoparks Commission members are indicated exclusively by the regional branches of SBG. Currently, many of them are also directly involved with aspirants and Geoparks projects, standing out the projects Morro do Chapéu, Alto Rio de Contas, Serra do Sincorá, and São Desidério, in Bahia; Uberaba – Terra de Gigantes, in Minas Gerais; Costões and Lagunas, in Rio de Janeiro; Chapada dos Veadeiros and Pireneus, in Goiás; Bodoquena-Pantanal, in Mato Grosso do Sul; and Chapada dos Guimarães, in Mato Grosso. The aspirants are Seridó, in Rio Grande do Norte, and Caçapava, in Rio Grande do Sul. Thus, the Geoparks Commission already promotes a first integration among representatives of several proposals for geoparks in Brazil (Figure 2).

The participation of CG-SBG in regional, national, and international scientific events, in addition to disseminating the topic, favors debate and reflection within SBG with other segments of the community and other institutions. The participation of the geoscientific community is optional in open Commission meetings in the Brazilian Congresses of Geology promoted by SBG, as occurred in 2018 in Rio de Janeiro (49th CBG).

Other types of participation can be mentioned, such as in the 1st International Forum on Innovation and

Sustainability in Mining, held on 8/14/2019, in Salvador-BA, where thematic banners and videos and geoproducts were exhibited and explanatory leaflets, tourist itineraries of Chapada Diamantina and publications from the Bahia-Sergipe Branch on geosites and proposals for geoparks in the State of Bahia were distributed (Figure 3) in partnership with the Bahia-Sergipe Branch of SBG and Serra do Sincorá Geopark Association (AGS). Another prominent occasion took place at the Legislative Assembly of the State of Bahia during the opening of the public hearing promoted for the Implementation of the Serra do Sincorá Geopark project in Chapada Diamantina, and three months later the CG-SBG director and secretary performed presentations on the UNESCO Global Geoparks and Geoparks projects in the State of Bahia.

The CG-SBG website (http://www.geoparques-sbg.org.br) is an essential tool for sharing information about the context and performance of geoparks with the national society, government institutions, and entities of interest common with this topic by the publication of scientific articles, dissertations, thesis, geological inventories, events, and websites of interest. In addition, it enables interaction with the public, who can submit their scientific production on the topic of geoparks for publication on the website (Figure 4).

Due to the technical competence of the team, CG-SBG can offer technical assistance in the preparation of proposals for geoparks in compliance with administrative and scientific criteria required by UNESCO. For this, the goal is to prepare didactic material to be made available on the CG-SBG website, such as that already published presenting the discussion on the Self-Assessment Form of the UNESCO International Geoscience and Geoparks Programme (IGGP) (http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/unesco-global-geoparks/) and the Global Geoparks

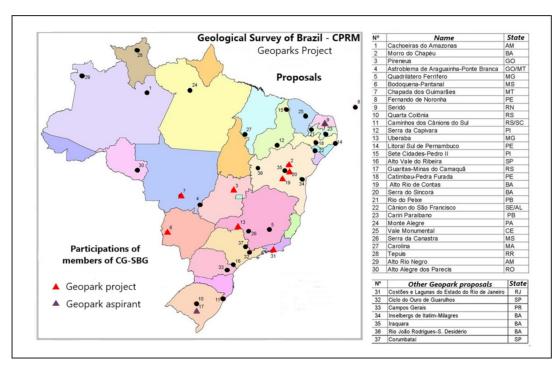


FIGURE 2. Aspirants and geoparks projects with the participation of CG-SBG Members (modified from: http://www.cprm.gov.br/publique/GestãoTerritorial/Geoparques-134). Aspirant Caçapava was treated by CPRM as Guaritas-Minas do Camaquã (number 17).

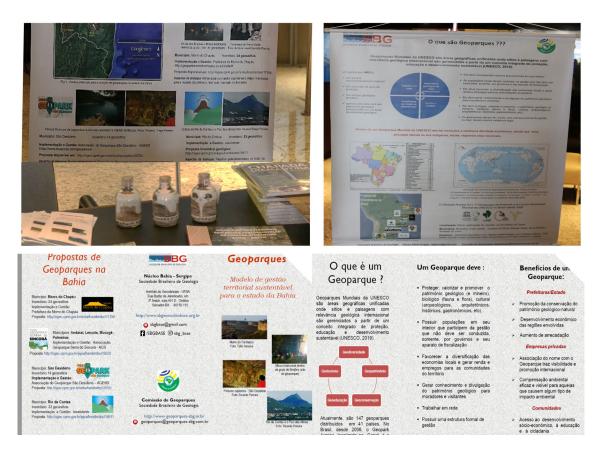


FIGURE 3. Exhibition with explanatory banners on geoparks, geoproducts (colored sand bottles), and free distribution of explanatory leaflets, tourist itineraries of Chapada Diamantina, and publications from the Bahia-Sergipe Branch on geosites and proposals for geoparks in the State of Bahia.

Network (GGN) (http://www.globalgeopark.org/), a mandatory form for applying for the global geopark and an important support tool for the construction of the application dossier (Comissão de Geoparques - SBG 2020).

The request for letters of support from the Brazilian Geological Society for activities on geoparks and related topics demonstrates the consideration given to the work carried out by CG-SBG. Thus, letters were sent in support of the candidacy of the Seridó Geopark Project, for the Araripe UNESCO Global Geopark, and the Regional University of Cariri – URCA to host the next International Conference on Geoparks and the implementation of the International Day of Geodiversity. Besides, at the suggestion of CG-SBG, SBG expressed its opposition to the proposal to modify Federal Decree 6640/2008 of the Ministry of Mines and Energy to remove protection from caves classified as of maximum relevance, as they are classified as Geological Heritage.

5. Discussions

5.1 - Meetings

Although Brazil hosts the 1st Geopark of the Americas and Southern Hemisphere (Araripe UNESCO Global Geopark) and has an increasing number of proposals for geoparks projects and four aspiring geoparks (two under analysis and two with letter of intent sent), we do not yet have an official national entity that coordinates discussions on the topic. This Committee, Forum, or Commission, foreseen in the statutes of the International Geoscience and Geoparks Programme and guidelines of UNESCO Global Geoparks (IGGP/2015/ST) (UNESCO 2015), is responsible for the pre-selection of candidates able to apply for the UNESCO seal, as a country can only submit two proposals per year to the International Geoscience and Geoparks Programme, in addition to other functions within its scope, such as:



FIGURE 4. CG-SBG website: A – partial view of the homepage; B – publications and form for the visitor to submit their scientific production related to geoparks for publication on the page.

- a) Coordinate the national contribution to UNESCO Global Geoparks within the International Geoscience and Geoparks Programme.
- b) Identify the geological heritage and make the public aware of its importance.
- c) Promote the creation and development of new UNESCO Global Geoparks, evaluating and endorsing applications, revalidations, and extensions.
- d) Observe the assessment or revalidation missions in the Member State, if desired.
- e) Submit to the UNESCO National Commission of that Member State or to the government agency responsible for relations with UNESCO all applications for UNESCO Global Geopark, which will be forwarded to UNESCO.
- f) Ensure the adequate removal of the area as a UNESCO Global Geopark within the IGGP in case the area wishes or fails in the revalidation process.
- g) Promote international cooperation between UNESCO Global Geoparks.
- h) Provide information at the national level on the Global and Regional networks of UNESCO Global Geoparks.
- i) Initiate and support strategies and actions for sustainable development within and between UNESCO Global Geoparks.

The joint efforts of Araripe UNESCO Global Geopark, Geological Survey of Brazil-CPRM, and UNESCO Office in Brazil over the last decade to change this situation have not been successful. CG-SBG has made a public statement about the importance and urgency of making the Brazilian Geoparks Committee official, including making available its services to work together with the agencies responsible for its creation. At the beginning of 2019, during the 1st URCA Summer University Course, in Juazeiro do Norte (CE), a meeting was held at the request of CG-SBG to discuss the implementation of the Brazilian Geoparks Committee, with the presence of representatives of Araripe UNESCO Global Geopark, UNESCO in Brazil and Latin America, the Brazilian Association for the Defense of Geological and Mining Heritage, and the Regional University of Cariri. There was consensus on the urgency of this action due to the advanced stage of several proposals for geoparks in Brazil that aspire to integrate the Global Programme and the Global Geoparks Network, and the appointment of CG-SBG as a permanent member in the composition of the Brazilian Geoparks Committee.

This position was ratified in the "Araripe Letter," the final document of the V Brazilian Symposium on Geological Heritage, held in the city of Crato-CE, in October 2019, which recognized the role of the Brazilian Geological Society, through the Geoparks Commission, supporting the formalization actions of Geoparks projects in Brazil and indicating its participation in the composition of the Brazilian Geoparks Committee (AgeoBR, 2019).

5.2. Holding the event

CG-SBG promoted the "I Webinar Aspiring and Geopark Projects: realities and challenges." This was the first national event, free of charge, which brought together the representatives of the four Aspirants and several Geopark projects in Brazil, in addition to national and international institutions related to the topic. It had an average audience of 980 people via YouTube and 2137 people via Facebook (data from October 2020) from different professions and

educational levels, being carried out from 9/18 to 10/9/2020 once a week (Fridays).

The meeting allowed participants to be introduced to the UNESCO International Geoscience and Geoparks Programme, which certifies a territory as a UNESCO Global Geopark and informed about the application process to the Geoparks Project in Brazil of the Geological Survey and the Araripe Global Geopark of UNESCO.

Noteworthy was the presence of the representative of the United Nations Division III, Ministry of Foreign Affairs, the body that houses the National Commission for UNESCO, and the sector responsible for receiving applications to the UNESCO International Geoscience and Geoparks Programme and forwarding them to the entity's headquarters in Paris. The representative committed to contribute to the development of the topic in Brazil and look for ways to create the National Geoparks Committee. The UNESCO Office in Brazil and the Ministry of Tourism, represented by the Department of Marketing and Competitive Intelligence for Tourism, also offered to contribute to the various aspirants and projects, and the latter proposed the construction of a discussion agenda on the topic. All entities said they would work together to build strategies to support and strengthen Brazilian candidacies.

The dissemination of successful actions in the territories of Aspirants (4) and the different initiatives of some Geoparks Projects (16) gave greater visibility to the proposals, their stages of development, and instigated the debate on the implementation of geoparks projects in Brazil and the need to work in a participatory and networked way, basic pillars of any geopark in the world.

The lectures were recorded, and the videos are available on the SBG YouTube channel and Facebook.

6. Conclusions

The Brazilian Geological Society, through its Geoparks Commission, is available to continue working towards the creation of the Brazilian Geoparks Committee and the dissemination and implantation of geoparks in Brazil. Although it is part of a scientific society, its actions contribute to the strengthening of the topic of geoparks in various segments of Brazilian society, from municipalities to national policies.

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