World Heritage Natural
Site Nomination for UNESCO

Cavernas do Peruaçu National Park

PARQUE NACIONAL
CAVERNAS DO
PERUAÇU
ICMBio-MMA

MANAGEMENT PLAN

ANNEX 1

ICMBio
CHICO MENDES INSTITUTE
MMA

MINISTRY OF
ENVIRONMENT AND
CLIMATE CHANGE

BRAZILIAN GOVERNMENT
BRASIL
UNITING AND REBUILDING

PARQUE NACIONAL
CAVERNAS DO PERUAÇU

ICMBio-MMA

2024

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Brazil
Minister of the Environment and Climate Change – MMA
Chico Mendes Institute for Biodiversity Conservation - ICMBio
January 2024

Figure 1: Aerial View of Canyons of Peruaçu, Cavernas do Peruaçu National Park. Photographer: Ataliba Coelho

1. INTRODUCTION

The official planning instrument of the Conservation Units is the Management Plan. The main objective of the Management Plan for a Conservation Unit is to present the management guidelines for the area to ensure the full protection of the natural resources that occur there. It is a dynamic project that, using ecological planning techniques, determines the zoning of a conservation unit, characterizing each one of its zones, proposing its physical development according to its purposes and establishing basic guidelines for the management of the unit (IBAMA, 2005).

The Management Plan of Cavernas do Peruaçu National Park approved in 2005 is an extensive document, with almost 1.000 pages in 4 volumes and annexes, resulting from a continuous process of research and dialogue among communities, managers, and political representatives. It is available on the website of the Brazilian Federal Government.

This document provides a detailed overview of the Management Plan for the Cavernas do Peruaçu National Park, accompanied by other essential instruments for the sustainable management of the park. One such key component is the Speleological Management Plan (PME). Established by CONAMA Resolution No. 347 in 2004, the PME is crucial for delineating the zoning, use, and preservation of the natural resources of the caves. This resolution sets clear guidelines for the creation and approval of the plan by environmental authorities, with a special focus on tourism, and religious, and cultural activities.

Specifically, the Speleological Management Plan for the Cavernas do Peruaçu National Park is designed to ensure that all activities within the park are conducted in a manner that respects and protects the unique ecosystem of the caves. The document meticulously details management strategies, tailored to each cave and considering the impact of human activities, aimed at preserving this invaluable natural heritage. It includes an in-depth assessment of the conservation status of each cave open to the public, identifying specific risks and proposing routes and pathways designed to prevent future damage.

All documents related to the planning of the park are available on the website of the Brazilian Federal Government and can be accessed at the following link:

Website of Cavernas do Peruaçu National Parque: < https://www.gov.br/icmbio/pt-br/assuntos/biodiversidade/unidade-de-conservacao/unidades-de-biomas/cerrado/lista-de-ucs/apa-cavernas-do-peruacu/apa-cavernas-do-peruacu>.

2. MANAGEMENT STRATEGY

The objectives of preservation and improvement of management to ensure the integrity of the proposed property will be achieved through the operation of the following objectives:

» a. establish an official agreement between the institutions that have on-site management responsibilities to fulfill the obligations under the World Heritage Convention;

» b. integrate existing management systems and plans, ensuring complementarity and integration of efforts and results, in order to relate the site's outstanding universal values to the management actions necessary to ensure that the attributes maintain their authenticity and integrity;

» c. integrate initiatives, actions, and resources from the public and private sectors, e.g., the tourism sector;

» d. generate benefits for the community in general, by improving the site's outstanding universal values, through the development of new forms of interaction that have sustainability guidelines as criteria; and

» e. maintain an up-to-date view of the state of conservation of the site and the various factors that may positively or negatively influence its attributions, authenticity, and integrity.

To make this integration possible, a Management Committee structure will be implemented in line with modern World Heritage management practices, consisting of a consultative sector with broader institutional and popular participation and another executive branch, capable of operationalizing the management actions focused on the site, combining those already existing with other proposals by the management committee's decisions with the other actors.

This committee will be structured based on the Consultative Council of the Cavernas do Peruaçu National Park, created by Ordinance No. 96 of December 17, 2004, and later reinforced by the 2022 Ratification Agreement issued by the Chico Mendes Institute for Biodiversity Conservation (ICMBio) through the Southeast 4 Regional Management (GR 4). This agreement consolidated the composition and number of positions in the councils of the Cavernas do Peruaçu Environmental Protection Area and the Cavernas do Peruaçu National Park, firmly based on ICMBio Ordinances 03 and 04/2015. These ordinances not only modified the creation ordinance but also defined the structure and members of the councils, ensuring a balanced and representative management of the protected areas.

Composed of representatives from both the government and civil society, and equally shared between them, the Consultative Council aims to guide ICMBio, the government agency that manages the Cavernas do Peruaçu National Park (PNCP), from the perspective of different social actors regarding the present and future of the Conservation Unit. It ensures a democratic, transparent, and participatory process in decision-making.

The formation of the Consultative Council took into account the documentation presented by institutions representing government and civil society sectors in these councils, the methodology used to define representative institutions, the democratic decision-making process with the sectors represented, and compliance with the principles and guidelines provided in ICMBio Normative Instruction No. 09/2014. This process ensures that the council's decisions reflect a wide range of opinions and interests from different sectors of society, emphasizing the importance of active and representative member participation.

The current composition of the Consultative Council of the Cavernas do Peruaçu National Park includes the following entities:

I - PUBLIC AGENCIES:

a) Federal Government and public companies and/or concessionaires of public services or mixed economy societies and federal autarchies - 5 seats:

› 1. Chico Mendes Institute for Biodiversity Conservation (Principal and Substitute)

› 2. Brazilian Institute of Environment and Renewable Natural Resources (Principal and Substitute)

› 3. National Indian Foundation (Principal and Substitute)

› 4. Regional Council of Engineering and Agronomy of Minas Gerais (Principal and Substitute)

› 5. Development Company of the São Francisco and Parnaíba Valleys (Principal and Substitute)

b) State Government and public companies and/or concessionaires of public services or mixed economy societies and state autarchies - 5 seats:

› 6. Technical Assistance and Rural Extension Company of the State of Minas Gerais - EMATER (Principal and Substitute)

› 7. Environmental Military Police - PM (Principal and Substitute)

› 8. Development Institute of North and Northeast Minas Gerais - IDENE (Principal and Substitute)

› 9. Regional Superintendence of Education (Principal and Substitute)

› 10. State Institute of Forests (Principal and Substitute)

c) Municipal Government - 5 seats:

› 11. Januária City Hall (Principal and Substitute)

› 12. São João das Missões City Hall (Principal and Substitute)

› 13. Bonito de Minas City Hall (Principal and Substitute)

› 14. Itacarambi City Hall (Principal and Substitute)

› 15. Montes Claros City Hall (Principal and Substitute)

II - TERRITORY USERS:

a) Representation of residents and property owners inside and around the Cavernas do Peruaçu National Park and representation of residents and property owners inside the APA - 7 seats:

› 1. Association of Small Rural Producers of Várzea Grande (Principal) and Association of Rural Producers and Family Farmers of Areião and Adjacencies (Substitute)

› 2. Community Association Professor Ana Maria of Small Producers of Olhos D'Água I (Principal) and Association of Rural Producers and Family Farmers of Araçá (Substitute)

› 3. Association of Small Rural Producers of Volta da Serra (Principal and Substitute)

› 4. Association of Small Rural Producers of Junco (Principal) and Association of Small Rural Producers and Family Farmers

of Vereda Grande I (Substitute)

› 5. Community Association of Brejal (Principal) and Association of Small Producers and Family Farmers of Janelão (Substitute)

› 6. Association of Small Rural Producers and Family Farmers of Fabião I (Principal) and Association of Small Rural Producers and Family Farmers of Vereda Grande II (Substitute)

› 7. Public Security Council of Itacarambi (Principal) and Community Development Council of Fabião II (Substitute)

b) Representation of indigenous peoples and traditional populations - 3 seats:

› 8 and 9. Xakriabá Indigenous People (2 Principals and 2 Substitutes)

› 10. Association of Small Rural Producers of Onça (Principal) and Association of Small Rural Producers of Pedras and Buritizinho (Substitute)

c) Representation of the tourism, hospitality, commerce, industry, and mining segments - 1 seat:

› 11. Representative of Accredited Conductors (Principal) and Representatives of Inns (Substitute)

d) Representation of rural producers - 3 seats:

› 12. Association of Small Rural Producers of Vila Bonita (Principal and Substitute)

› 13. Cooperative of Family Farmers and Agroextractivists of the Peruaçu Valley - COOPERUAÇU (Principal and Substitute)

› 14. Arantes Enterprises (Principal), ICIL-Industry and Commerce Itacarambi (Substitute)

e) Rural development and extension institution - 1 seat:

› 15. ProNatureza Foundation (Principal and Substitute)

III – NON-GOVERNMENTAL ORGANIZATIONS AND COLLECTIVES:

a) Non-governmental organizations and class entities working on socio-environmental issues - 4 seats:

- 1. World Wildlife Fund - WWF Brazil (Principal and Substitute)
- 2. Caritas Diocesan of Januária (Principal and Substitute)
- 3. Old Chico Circuit (Principal and Substitute)
- 4. Grande Sertão Institute – IGS (Principal and Substitute)

b) Non-governmental organizations and class entities working on historical, cultural, and artistic themes - 1 seat:

- 5. Cerrado Pequi Institute (Principal) and Peruaçu Guardians Study Group (Substitute)

c) Non-governmental organizations and class entities working on speleology and archeology themes - 2 seats:

- 6. Brazilian Society of Speleology (Principal) and Brazilian Society of Archeology - SAB (Substitute)
- 7. Speleology and Guided Studies Group of Januária (Principal) and Peruaçu Valley Speleogroup - EVP (Substitute)

IV- EDUCATIONAL, RESEARCH, AND EXTENSION INSTITUTIONS:

a) Educational and Research Institutions, public and private - 2 seats:

- 8. Saturnino ngelo da Silva State School (Principal and Substitute)
- 9. Federal Institute of Northern Minas Gerais (Principal and Substitute)

3. MANAGEMENT PLAN - MAIN GOALS

The management plan for the Cavernas do Peruaçu National Park (IBAMA, 2005) was approved in 2005 (Ordinance No. 90, of December 28, 2005, IBAMA), resulting in environmental zoning, whose basic principles relate to the conservation of natural resources, use for scientific research, and public visitation in the form of ecotourism and environmental education. The goal is to ensure the potential of natural elements over demands, conservation over abusive use or management, and community participation in the conservation of the Park, in addition to ensuring compliance with legal environmental norms. The strategy was to analyze the potentialities and weaknesses of natural systems, identify, qualify, and quantify the impacts resulting from human actions, through the assessment of past and present scenarios.

In general, the Management Plan of the PNCP excludes excessively detailed operational aspects and rules, and is complemented by the current guidelines adopted by ICMBio, such as: Methodological Guide for Managing Impacts of Visitation (ICMBio, 2011); ROVUC - List of Visitation Opportunities in Conservation Units (ICMBio, 2018b); Signage Manual (ICMBio, 2018); Trail Signage Manual (ICMBio, 2019) and many other ICMBio standards related to general regulation, recently adopted by the institution.

The management plan of the Cavernas do Peruaçu National Park was meticulously organized into four booklets, each representing a distinct phase of the planning with specific procedures and contents.

The first booklet focuses on environmental aspects, covering everything from the analysis of ecosystems and watersheds to the relevance of Conservation Units (UCs) in the context of the National System of Conservation Units (SNUC) and the State of Minas Gerais. It highlights the critical role of UCs in the conservation scenario and explores the socio-environmental and political interactions of Minas Gerais for the preservation of natural areas, including the search for strategic partnerships.

The second booklet details the incorporation of the UC into the regional landscape, with an emphasis on the “buffer zone” around the Park, essential for the preservation of the UC and encompassing various local communities, especially those located in the Peruaçu River Watershed.

The third booklet offers a comprehensive summary of the environmental aspects of a National Park, establishing the importance of the UC at multiple levels - local, regional, state, national, and international. This segment emphasizes the environmental richness of the Park, including its biodiversity, speleology, archaeology, and landscape features, fundamental for its official consolidation in the SNUC.

The fourth booklet identifies strategic areas for effective management of the park and its buffer zone, addressing managerial actions that include research, monitoring, environmental education, protection, and management. Additionally, the Management Plan includes detailed annexes that cover a variety of topics, from the physical environment, such as climatology and geology, to biodiversity studies and socio-environmental and legal aspects, highlighting the importance of ecotourism.

Due to the unique characteristics of the park, several focal points were considered in the preparation of the document:

» Protect representative samples of terrestrial ecosystems;

» Protect transition samples between the biomes of the Caatinga, Cerrado, and fragments of the Atlantic Forest;

» Protect the scenic mosaic formed by a rich speleological, geological, archaeological heritage and associated vegetation;

» Ensure the continuity of the natural dynamics of the various vegetational formations;

» Guarantee processes that corroborate the maintenance of the quality of water resources, such as marginal lakes and the Peruaçu River basin;

» Protect the environment by protecting the adaptations of the troglomorphic biota;

» Protect representative endemic species of the PNCP region;

» Ensure the continuity of the natural dynamics of Deciduous and Semi-deciduous Seasonal Forests;

» Maintain processes that guarantee the existence of the shrubby and arboreal savannas of the Valley, veredas, and vegetational formations of transition from Caatinga;

» Protect a significant sample of archaeological heritage records;

» Protect the geological formations in the region that are the result of a complex interaction between geological stratification, the fracturing system, and erosive activity;

» Provide opportunities for the development of scientific studies and research on environmental and cultural dynamics, portrayed in current testimonies of the past that occur in the Conservation Unit (UC);

» Provide opportunities for visitors to develop controlled activities of visitation, leisure, environmental education, and ecotourism in transition environments in past and present coastal dunes;

» Contribute to local and regional development, acting as a center for the dissemination of ecotourism activities;

» Contribute to regional development through the dissemination and encouragement of practices for the sustainable use of resources in the environment, valuing local culture, ecotourism, and food products; and

» Promote the integration of UCs adjacent to the park, in order to exercise the mosaic formed by the connectivity of the areas, emphasizing the importance of the park as a central area, with a higher degree of biodiversity protection.

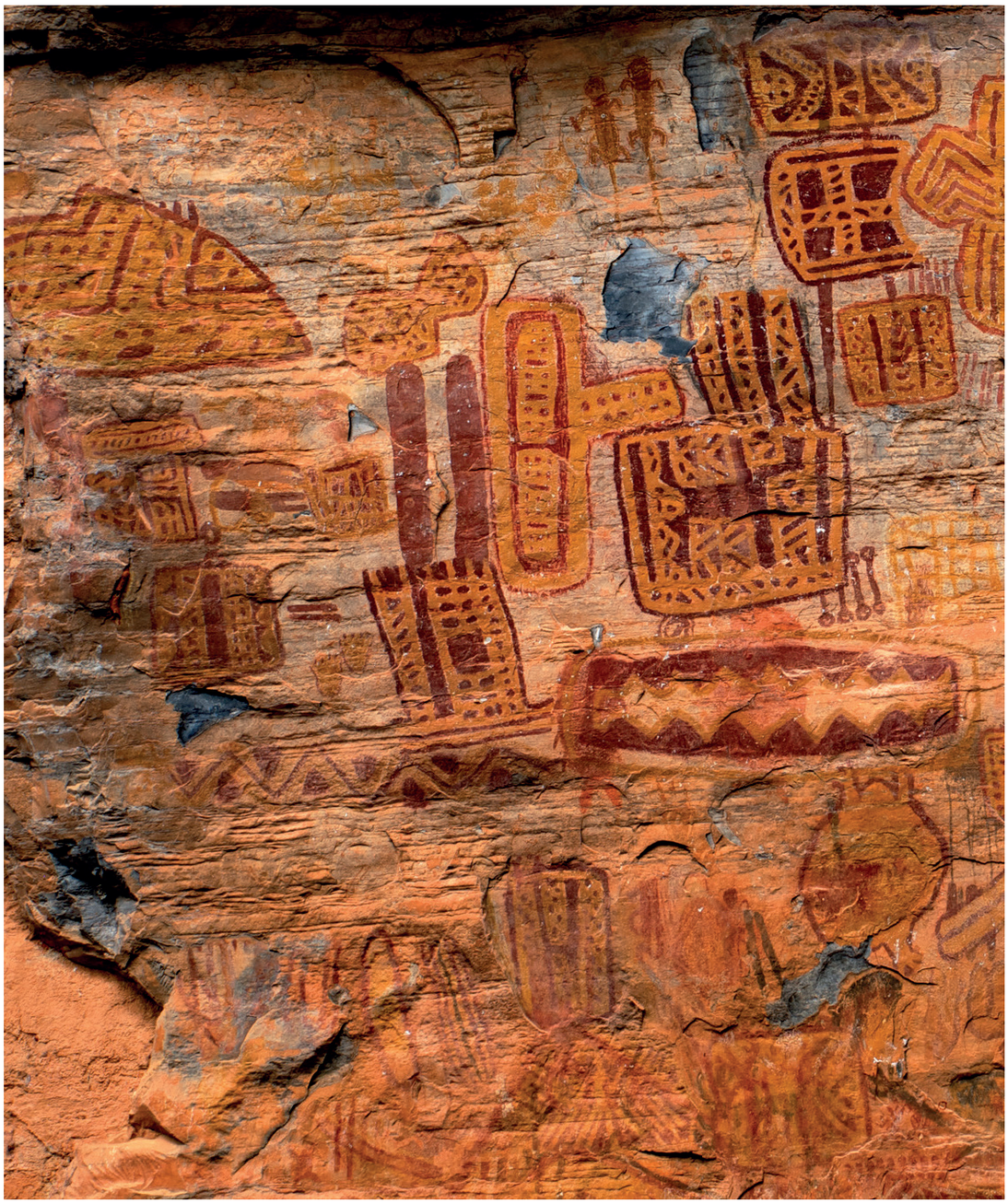
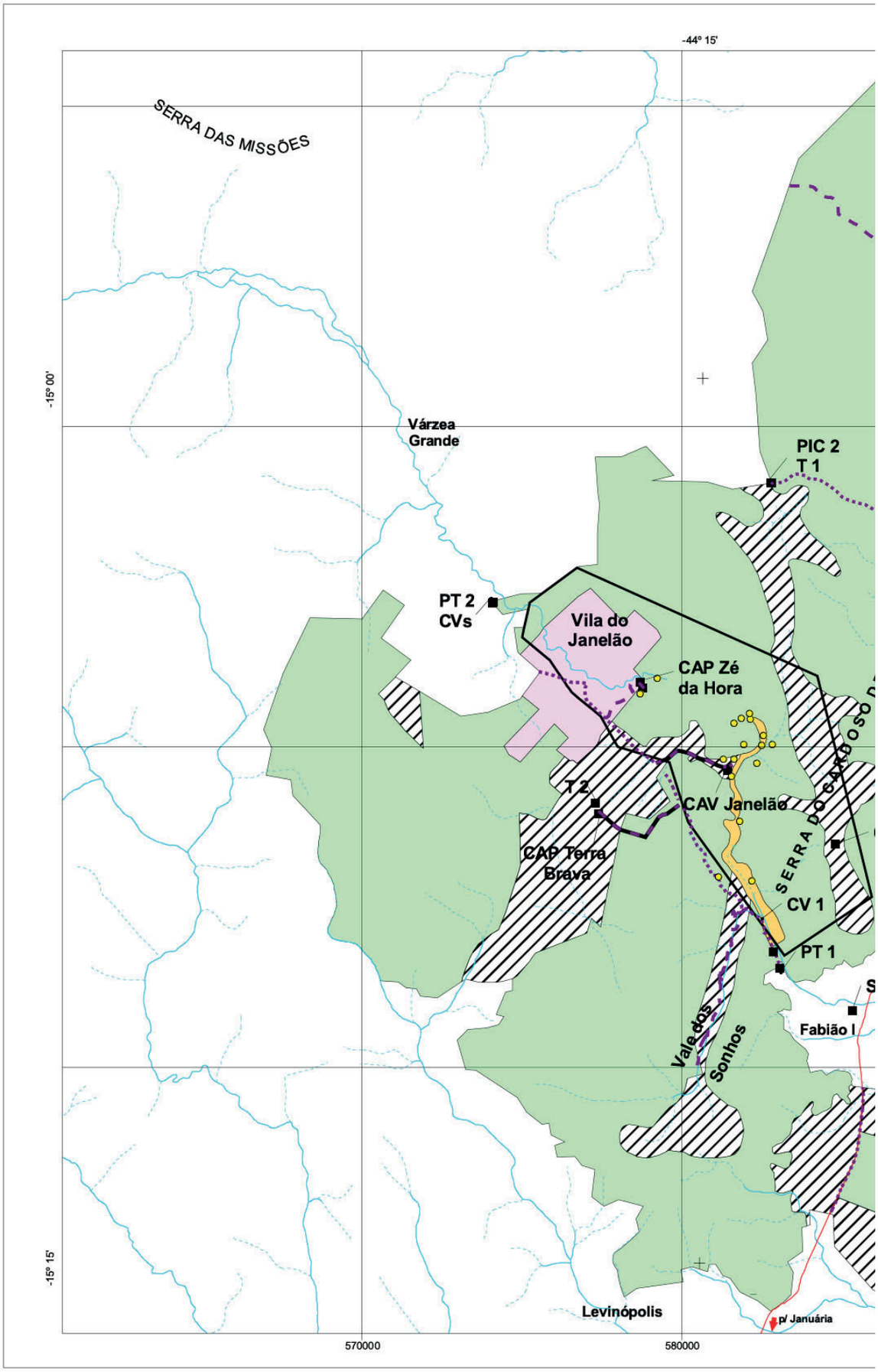


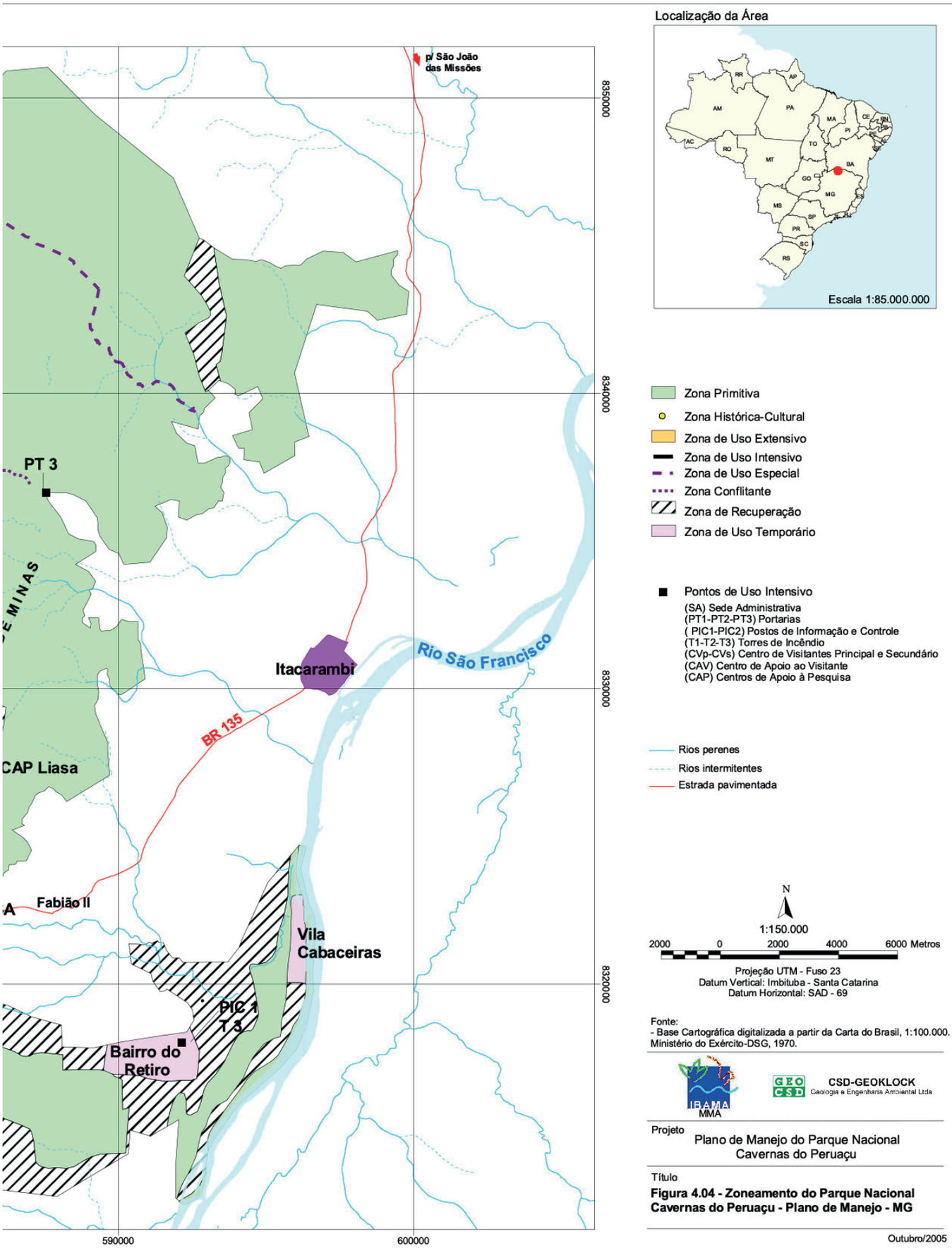
Figure 2: Examples of rock figures, Cavernas do Peruaçu National Park. Photographer: Fernando Tatagiba

4. ZONING

The administration of the Cavernas do Peruaçu National Park follows the zoning stipulated in its Management Plan, approved by IBAMA Ordinance No. 90 on December 28th, 2005. As a conservation strategy for the different areas that make up the Cavernas do Peruaçu National Park, the management plan established a zoning (figure 01) that serves as a technical management tool for the preservation and maximum conservation of the Park's natural elements, in addition to guaranteeing the uses directed to cultural, recreational and scientific activities in a sustainable manner.

Figure 03: Zoning of Cavernas do Peruaçu National Park as established in the management plan (IBAMA, 2005)

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PT 3
Itacarambi
Rio São Francisco
BR 135
CAP Liasa
Fabião II
Vila Cabaceiras
PIC 1
T 3
Bairro do Retiro
Localização da Área
Escala 1:85.000.000
Zona Primitiva
Zona Histórica-Cultural
Zona de Uso Extensivo
Zona de Uso Intensivo
Zona de Uso Especial
Zona Conflitante
Zona de Recuperação
Zona de Uso Temporário
Pontos de Uso Intensivo
(SA) Sede Administrativa
(PT1-PT2-PT3) Portarias
(PIC1-PIC2) Postos de Informação e Controle
(T1-T2-T3) Torres de Incêndio
(CVp-CVs) Centro de Visitantes Principal e Secundário
(CAV) Centro de Apoio ao Visitante
(CAP) Centros de Apoio à Pesquisa
Rios perenes
Rios intermitentes
Estrada pavimentada
N
1:150.000
2000 0 2000 4000 6000 Metros
Projeção UTM - Fuso 23
Datum Vertical: Imbituba - Santa Catarina
Datum Horizontal: SAD - 69
Fonte:
- Base Cartográfica digitalizada a partir da Carta do Brasil, 1:100.000. Ministério do Exército-DSG, 1970.
IBAMA
MMA
GEO CSD
CSD-GEOKLOCK
Geologia e Engenharia Ambiental Ltda
Projeto
Plano de Manejo do Parque Nacional Cavernas do Peruaçu
Título
Figura 4.04 - Zoneamento do Parque Nacional Cavernas do Peruaçu - Plano de Manejo - MG
Outubro/2005

PRIMITIVE ZONE: The Primitive Zone within the Cavernas do Peruaçu National Park is a largely untouched area dedicated to preserving its natural environment, which includes rare species of flora and fauna, significant scientific phenomena, and historical and cultural aspects. Its primary objectives are conservation, research facilitation, and environmental education. Specifically, it aims to protect endangered species, promote scientific research, conserve different vegetation types, preserve important water resources like the Peruaçu River, and safeguard archaeological, paleontological, and geospeleological sites. This zone constitutes the majority of the park's area and permits activities like scientific research, environmental monitoring, restricted visitation, environmental education, and surveillance while restricting new infrastructure and vehicle traffic to prevent environmental degradation. This zone represents 78.9% of the park's area and experiences the least human pressure. (IBAMA, 2005).

EXTENSIVE USE ZONE: The Extensive Use Zone within the Cavernas do Peruaçu National Park is characterized by natural areas that may have undergone some human alterations. Its primary objective is to preserve these environments with minimal human impact while promoting environmental education and recreational activities. This zone serves as a transition between the Primitive Zone and the Intensive Use Zone and includes access trails to visitor attractions like caves and archaeological sites. It covers a small portion of the park's total area and allows for research, environmental monitoring, public visitation, and interpretation activities. Infrastructure is kept minimal and must harmonize with the landscape to minimize environmental impact. Educational and interpretive signage is permitted. Preservation of historical-cultural, archaeological, and paleontological attributes is mandatory, and any new construction in sensitive areas must involve experts in these fields. The Extensive Use Zone covers approximately 0.5% of the total area of the Cavernas do Peruaçu National Park and is limited to a narrow strip between the caves and archaeological sites, extending along the access trails. (IBAMA, 2005).

HISTORICAL-CULTURAL ZONE: The Historical-Cultural Zone within Cavernas do Peruaçu National Park aims to preserve and showcase valuable archaeological and paleontological sites open to the public, with a focus on education and research. It seeks to maintain and conserve these sites, particularly those intended for public visitation, while minimizing human impact. This zone is crucial for research, environmental education, and public use, emphasizing caves and adjacent areas to raise awareness about heritage conservation. It

was created due to the park's significant potential for such sites, and its composition includes various caves and key archaeological and paleontological locations. Strict rules prohibit any interference, alterations, or infrastructure changes without specialist supervision. Continuous surveillance and a ban on vehicle traffic are enforced to protect the valuable heritage of Cavernas do Peruaçu National Park. (IBAMA, 2005).

INTENSIVE USE ZONE: The Intensive Use Zone in Cavernas do Peruaçu National Park combines natural and human-modified areas to preserve the environment as close to its natural state as possible. Equipped with important structures like visitor centers, museums, and facilities, its main goal is to facilitate visitation, recreation, and environmental education while ensuring harmony with the environment. Specific objectives involve installing and renovating necessary public-use structures, including Visitor Centers, Research Support Centers, and Visitor Support Centers. This zone supports activities for public use in the conservation unit, with key infrastructures specified by their coordinates. Regulations require centralizing public services, construction and renovations that minimize environmental impact, and intensive enforcement measures to preserve the environment and natural resources of the park.

SPECIAL USE ZONE: The Special Use Zone in Cavernas do Peruaçu National Park serves as an area for essential administrative, maintenance, and service facilities within the park, including housing, workshops, and resources. Its primary aim is to minimize the impact of structures on the natural and cultural environment while supporting administrative, protection, and operational activities. Notably, visitation is not permitted in this zone. Specific objectives include facilitating park management by establishing necessary infrastructure like buildings, roads, workshops, and promoting surveillance, protection, and research activities. This zone houses various facilities, such as entrances, surveillance posts, fire towers, and the administrative headquarters in the Fabião I District, each identified by UTM coordinates. Regulations emphasize centralized administrative services, eco-friendly integration of buildings, the prohibition of using natural resources for construction, and the gradual transition to native plant species. This zone necessitates rigorous surveillance and proper waste and effluent management, along with studies for installing septic tanks and water collection methods to minimize environmental impact and protect the Peruaçu River watershed.

RECOVERY ZONE: The Recovery Zone within Cavernas do Peruaçu National Park comprises areas significantly impacted by human activities, with the intention of restoring them before incorporating them into the Permanent Zones of the Conservation Unit. Its main objective is to halt natural resource degradation and restore these human-altered areas. Public visitation is permitted solely for educational purposes. Specific goals include erosion control, promoting natural or induced recovery, rescuing archaeological sites affected by natural erosion, managing exotic flora and fauna species with minimal impact methods, eliminating pasture areas, and reintegrating recovered areas into the park's original ecosystem. The zone's justification is based on satellite imagery and field data, identifying locations with human or natural alterations. Covering approximately 17.1% of the park's total area, it includes pasture areas, deciduous seasonal forests, savannah formations, and human-altered regions. Rules emphasize promoting recovery, removal of exotic species, and use of native species for restoration, with research and authorized recovery techniques encouraged. Access is restricted, and areas will be incorporated into permanent zones once recovered, and ongoing monitoring and enforcement.

CONFLICT-USE ZONE: The Conflict-Use Zone in Cavernas do Peruaçu National Park encompasses areas where pre-existing uses conflict with conservation objectives, such as gas pipelines, oil pipelines, transmission lines, antennas, and roads. The primary goal is to balance these conflicting situations by minimizing impacts on the Conservation Unit. Specific objectives involve regulating road usage, equipping sections of the BR-135 highway with necessary infrastructure for park protection, and restricting traffic to residents, park employees, authorized personnel, researchers, and visitors. Trucks and cargo vehicles are prohibited, and bus transit is limited. This zone addresses the challenge of roads, including the Fabião I - Várzea Grande municipal road, which cuts through the primitive zone, and the BR-135 highway, posing risks like wildlife roadkill. Additionally, there is a Temporary Occupation Zone, focused on controlling the subsistence activities of resident communities until land tenure issues are resolved, with rules including a Commitment Agreement, partnerships for resource conservation, and a Rural Extension Program for sustainable resource use.

BUFFER ZONE: The boundaries of the buffer zone are comprised by the Buffer Zone of the Cavernas do Peruaçu National Park, which are established by the Park's Management Plan. The definition of this buffer

zone is intended to guarantee greater protection to the proposed core zone, since this area has specific norms and restrictions in order to avoid any negative impacts reaching the proposed site.

TABLE 1: CRITERIA FOR ZONING OF THE UC (CONSERVATION UNIT) - MANAGEMENT PLAN OF THE CAVERNAS DO PERUAÇU NATIONAL PARK (PNCP) - MINAS GERAIS.

Indicative criteria of the uniqueness of the UC.	Indicative criteria for conservation values.	- Representativeness -Species richness/diversity -Transition areas -Environmental susceptibility -Presence of archaeological and paleontological sites.
	Indicative criteria for land use suitability.	-Visitation potential -Potential for environmental awareness -Presence of infrastructure -Conflicting use -Presence of population.

TABLE 2: A RELATIONSHIP BETWEEN THE DEGREE OF INTERVENTION AND THE ZONING OF THE CONSERVATION UNIT (UC) - MANAGEMENT PLAN OF PNCP - MG

NO INTERVENTION OR LOW INTERVENTION	-Intangible -Primitive
MEDIUM LEVEL OF INTERVENTION	-Extensive Use -Cultural History
HIGH LEVEL OF INTERVENTION	-Intensive Use -Special Use -Restoration -Conflicting Use -Temporary Occupation

TABLE 3: QUANTITATIVE IN HECTARES OF THE ZONES ESTABLISHED IN THE MANAGEMENT PLAN FOR CAVERNAS DO PERUAÇU NATIONAL PARK - MG

QUANTITATIVE DATA IN HECTARES OF THE ZONES ESTABLISHED IN THE MANAGEMENT PLAN FOR CAVERNAS DO PERUAÇU NATIONAL PARK - MG		
ZONE	**AREA (HA)**	
Primitive	44,815.20	78.9%
Extensive Use	284.00	0.5%
Recovery	9,712.80	17.1%
Temporary Use/Conflict-Use Zone	1,988.00	3.5%

5. ADDITIONAL PROTECTION INSTRUMENTS

Protected areas in Brazil are organized under the National System of Conservation Units (SNUC), according to Law No. 9,985/2000, which establishes criteria and standards for the creation, implementation, and management of protected areas in Brazil, across all three levels of government (federal, state, and municipal). The SNUC adopts the international classification system of protected areas defined by IUCN.

In the region of the Cavernas do Peruaçu National Park, which includes the extreme north of the state of Minas Gerais, there already is a broad and diversified network of official protected areas, both public and private, in different categories and governmental levels as the Mosaic of Conservation Units and other protected areas called Sertão Veredas – Peruaçu (MSVP). This complex is located on the left bank of the São Francisco River, North and Northwest Macroregions of Minas, and includes the following units: Grande Sertão Veredas National Park; Cavernas do Peruaçu National Park; APA Peruaçu; Serra das Araras State Park; Veredas do Peruaçu State Park; Mata Seca State Park; Pandeiros State Wildlife Refuge; Pandeiros APA; Cochá e Gibão APA; Veredas do Acari State Reserve of Sustainable Development; RPPN Fazenda Porto Cajueiro.

The mosaic covers an area of more than 1,500,000 hectares. The municipalities encompassed by the MSVP are, in Minas Gerais: Formoso, Arinos, Chapada Gaúcha, Urucuia, Cônego Marinho, Januária,

Itacarambi, Bonito de Minas, São João das Missões, and Manga. It also includes a small part of the municipality of Cocos in the southwest of the state of Bahia (FUNATURA, 2008).

Another fundamental plan for the management of the region is the ecological-economic macro-zoning of the State of Minas Gerais (MacroZEE-MG). This is a document that guides the use and occupation of the land and the rational use of natural resources, whose guidelines have come to guide public policies aimed at sustainable development and the promotion of the well-being of the population of Minas Gerais. According to the State Environmental Policy, which established the MacroZEE-MG, this document aims to guide the formulation and implementation of public and private policies, plans, programs, and projects of quality of life of the population, taking into account potentialities, vulnerabilities, restrictions of use and the need to protect natural resources, allowing full economic development to be achieved sustainably.

According to State Law No. 7,772, of September 8, 1980, which provides for the protection, conservation, and improvement of the environment, the area proposed as World Heritage is located in an area where business activities, public or private, must be exercised in consonance with the state policy of protection, conservation, and improvement of the environment, making this document quite compatible with the objectives of protecting a World Heritage.

The objectives of preservation and improvement of management to ensure the integrity of the nominated property will be achieved through the operation of the objectives contained in the State Environmental Policy. To make this integration possible, a consultative sector is composed of broader institutional and popular participation, and an executive sector, capable of operationalizing the management actions focused on the site, combines those already existing with others proposed by the decisions of the management committee with other actors.

The planned structure of the consultative committee aims to optimize the various actions necessary for the management of the site through inter-institutional work, with sectors and institutions aggregated in society. The Ministry of Environment and Climate Change, through ICMBio, will organize and preside over the Committee. The federal, state, and municipal bodies responsible for environmental policies will compose the Local Executive Committee, along with representatives of

civil society and local tourism organizations.

Finally, it is of great importance to highlight the Municipal Master Plan of Januária, one of the municipalities that make up the Park. Januária is the only one that has a Master Plan, established by Municipal Complementary Law No. 068, on April 18, 2008, and it is a fundamental regulatory instrument for the municipal planning and development policy process, operating not only in public entities but also in private ones. Furthermore, it establishes guidelines for the establishment of areas of environmental protection interest and for areas that present environmental vulnerabilities or constitute areas at risk of occupation.

6. MANAGEMENT OF PUBLIC USE

The Management Plan of the Caverns of Peruaçu National Park (IBAMA, 2005) establishes specific rules for public use, applicable in all park zones. These include the prohibition of altering or interfering with any historical-cultural, archaeological, paleontological, and speleological attributes. Additionally, activities in each cave must follow the established zoning and public use guidelines, as emphasized in the Speleological Management Plan (IBAMA, 2005).

CHARACTERIZATION OF THE TOURIST DESTINATION

The proposed site is situated in the southeast region of Brazil, specifically in the northern part of the State of Minas Gerais. It encompasses a core area spanning 56,800 hectares, which corresponds to the Cavernas do Peruaçu National Park. Surrounding this core area is an Environmental Protection Area (APA) that spans 143,355 hectares, forming the Buffer Zone of the Site. The park is located within the municipalities of Itacarambi, Januária, and São João das Missões, which together had an estimated population of 100,000 inhabitants in 2022.

The PNCP region and its surrounding area of the Mosaico Sertão Veredas can be considered a significant Tourism Inducing Center in the Northern region of Minas Gerais. The importance of tourism activity in the region is evident on the Tourism Map of the Ministry of Tourism (MTur). This initiative categorizes municipalities (A-E) based on tourist flow, the number of jobs, and establishments in the sector. Januária and Itacarambi, and São João das Missões are categorized as D and E,

respectively, with Januária having more infrastructure and falling into category C. Another indicator of the region's importance for tourism is the significant visitor flow in PNCP, which has already exceeded 9,000 visitors annually.

The park possesses remarkable scenic potential, offering a variety of visitor activities. Its stunning landscape, which stands as one of the most notable examples worldwide of a karst valley developed through the collapse of ancient galleries. Over its 17 kilometers, it presents a vertical drop of over 200 meters and successive collapsing dolines, colossal caves with magnificent and diverse speleothem decoration, arches, natural bridges, springs, and stone forests. The park's landscape also includes other attractions such as the Peruaçu and São Francisco Rivers, as well as lush elements of the Caatinga and Cerrado flora, including dry forest vegetation and fragments of the Atlantic Forest. Despite these qualities, the tourism support infrastructure in the region is still in its early stages.

There is clearly significant potential to increase the number of visitors to the park, underscoring the need for additional investments to expand the unit's management capacity and improve its administration. This will provide high-quality visitor experiences while preserving natural resources and biodiversity, which are the primary objectives in establishing the Conservation Unit.

The analysis of the objectives and fundamental Resources and Values highlights aspects that guide the Management and Speleological Plan, such as the need to deepen environmental interpretation as a mean of giving significance to visitation activities, the importance of monitoring the relationship between visitation and biophysical aspects, and the role of the Park as a promoter of economic development in the region through tourism.

All actions and behaviors of those involved, directly or indirectly, in the implementation of the Management and Speleological Plan for the public use area must be guided by the directions below.

The Visitation and Public Use Program at Peruaçu Caves National Park (PNCP) encompasses different categories of activities. The first of these is 'Tourist Use,' which allows any citizen to access areas of the park, as long as they are accompanied by a registered guide. Visitors must follow predefined itineraries available in the PNCP, participating in recreational, educational, and interpretative activities, providing

an enriching experience of immersion in nature and local culture. Additionally, 'Tourist Use' promotes environmental awareness, encouraging visitors to adopt sustainable practices during their visit, thereby contributing to the preservation of the park's ecosystem.

Another category is 'Technical Use,' aimed at more fragile or high-risk areas not available for general tourist use. However, specialized visitors, such as spelunkers, paleontologists, archaeologists, geologists, and biologists, can access these areas, provided they demonstrate their technical expertise in the field and the necessity of conducting specific research. To obtain permission for 'Technical Use,' it is necessary to request authorization from the park management, establishing schedules, the need for specialized guides, and specific itineraries, thus ensuring the preservation of sensitive park areas while facilitating the advancement of scientific knowledge and environmental conservation.

In addition to the options of 'Tourist Use' and 'Technical Use,' the park also offers 'Scientific Use,' intended for extremely fragile areas strictly dedicated to rigorous scientific research. Access to these areas is strictly limited to researchers who have obtained prior authorization from competent authorities such as ICMBio, DNPM, and IPHAN. This authorization is linked to the presentation and prior approval of the research project by ICMBio, ensuring the preservation of the most sensitive areas and the conduct of research that significantly contributes to the advancement of scientific knowledge and the conservation of the natural and cultural heritage of the park.

For all the categories of use mentioned above, the program addresses essential aspects such as infrastructure to accommodate visitors, the development of visitation itineraries, the implementation of other institutional activities, and the establishment of general rules for the public use of the Conservation Unit. The Coordinator of the Visitation and Public Use Area plays a crucial role in managing these activities. Their responsibilities include implementing and coordinating the actions of the Thematic Visitation and Public Use Program, conducting planning and evaluation meetings, preparing monthly and semi-annual reports, defining service schedules, creating procedure manuals, organizing information in the PNCP database, and integrating with other associated activities such as monitoring, management, protection, and environmental education. Furthermore, they work on operationalizing partnerships for visitation and public use activities within the Conservation Unit, ensuring harmony between

environmental preservation and the promotion of knowledge and appreciation of the natural and cultural riches of the park.

The Cavernas do Peruaçu National Park offers various attractions that provide a range of visitation opportunities. However, the characteristics and level of development of its areas are heterogeneous. With that in mind, after the analysis of the Speleological Management Plan, the following areas and routes were designated for public use :

- Gruta do Janelão;
- Lapa do Índio;
- Lapa Bonita;
- Lapa dos Cascudos;
- Lapa dos Troncos;
- Lapa dos Desenhos;
- Lapa do Caboclo;
- Lapa do Carlúcio;
- Lapa do Rezar; and
- Arco do André.

Aiming to establish the plan, a set of activities and services was developed for each pole, along with guidelines for the realization and monitoring of visitation, and a list of strategic actions necessary for the the implementation of public use in the Cavernas do Peruaçu National Park

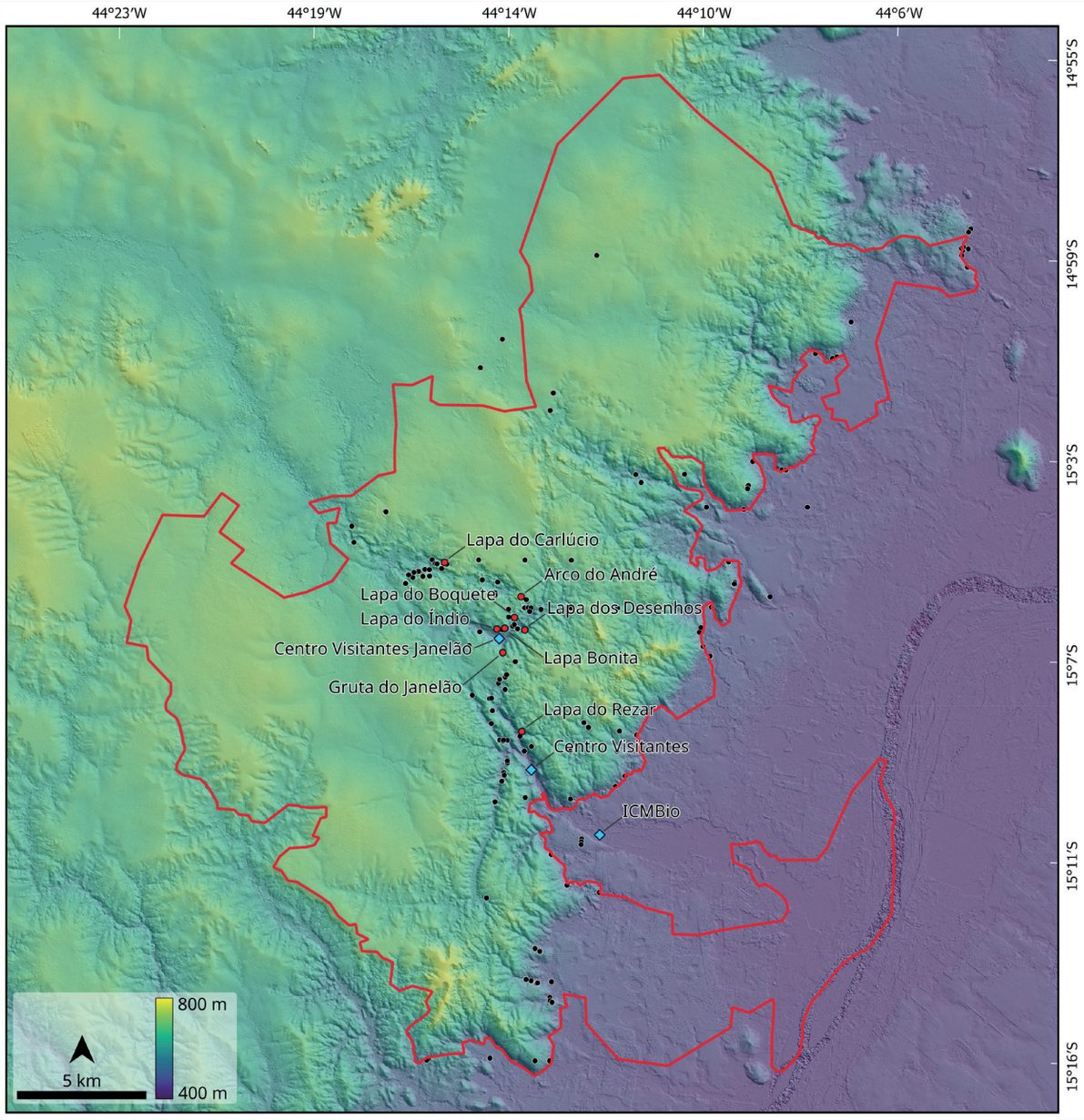

Figure 04: Topographic map with the location of the Cavernas do Peruaçu National Park main attractions

7. CONCLUSION

Management plans are essential tools to ensure the effectiveness of protected areas in the challenge of preserving biodiversity. They must include actions that promote the integration of these areas into the economic and social life of the resident and neighboring communities. ICMBio has been improving the methodology for developing management plans, where a new methodological script was adopted, and in summary, it establishes a strategic level planning model developed in an adaptive way, where there is a core document and

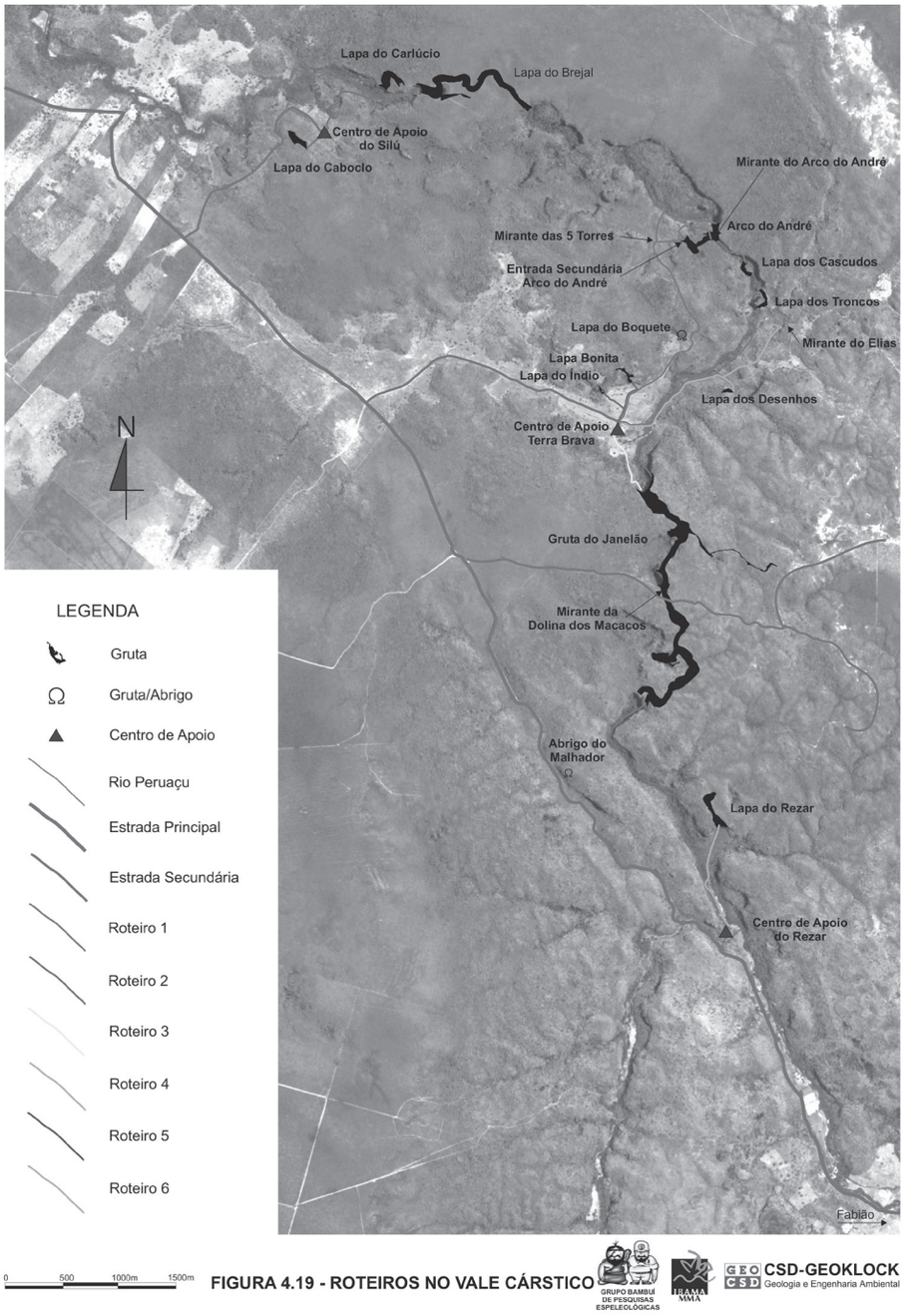

Figure 05: Visitation routes in the karst valley, Cavernas do Peruaçu National Park (IBAMA,2005

supplementary thematic plans. In this configuration, planning becomes more dynamic and compatible with the changing scenario in which the protected areas are located. This is the concept of the management plan for the proposed area, which must be improved, implemented, monitored and updated according to the site's management needs, always in a participative and inclusive way

In conclusion, the "Management Plan for the Peruaçu Caves National Park" is a significant milestone in the environmental and cultural conservation of the area. It highlights the importance of participative

and integrated management, emphasizing the need to preserve the park's unique biodiversity and historical heritage. The efforts made so far show positive progress, but it is crucial to maintain ongoing vigilance and commitment to face future challenges and ensure the sustainability and protection of the National Park for future generations.

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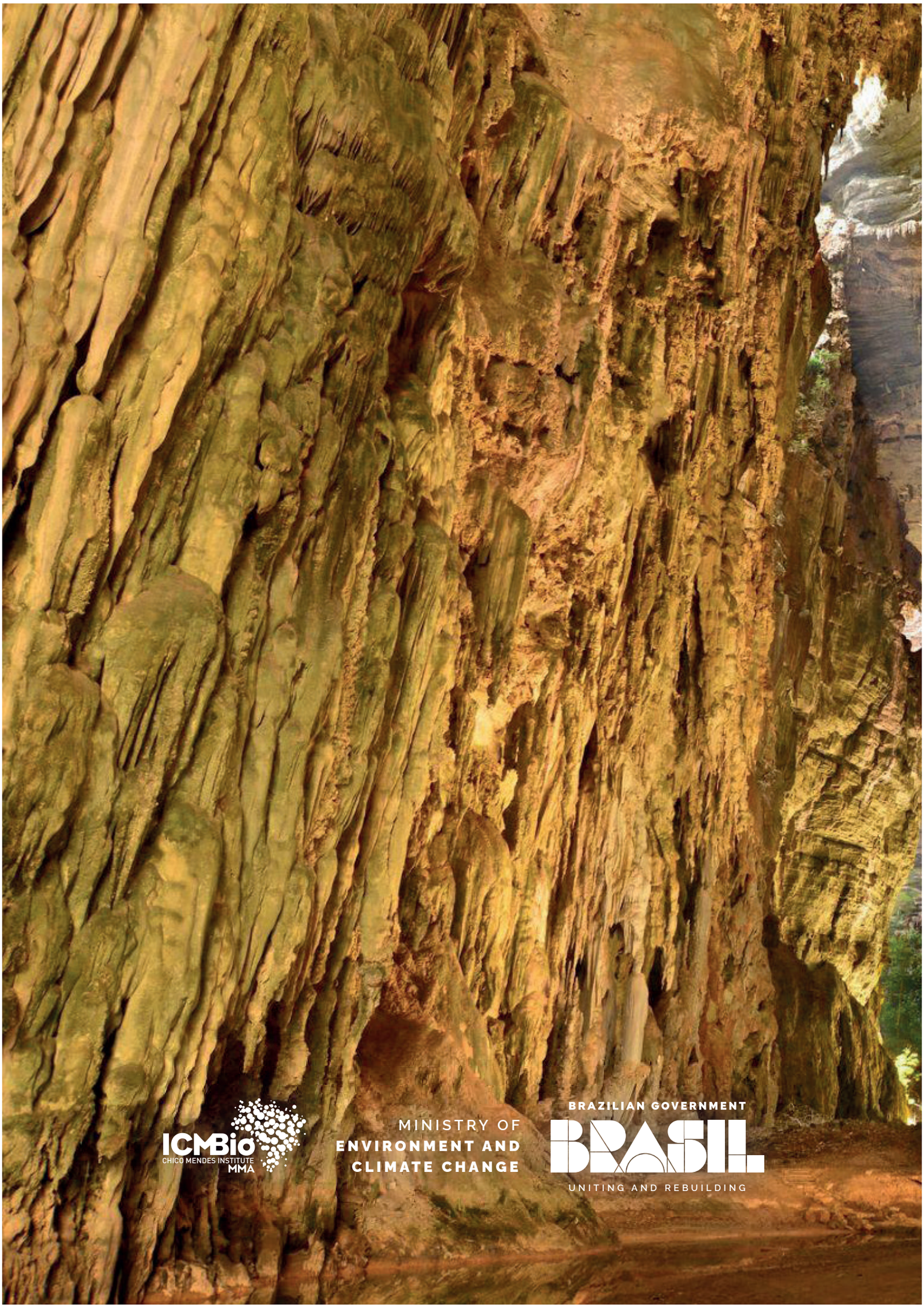
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