



THE MATA ATLÂNTICA BIOSPHERE RESERVE PHASE VI / 2008

**REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE
MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE**





RBMA
Phase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

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- Forest Institute of São Paulo
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- SOS Mata Atlântica Foundation

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Ministério do
Meio Ambiente





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REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE – PHASE VI

PRESENTATION

Biosphere Reserves are dynamic, and their review is always necessary. In the case of the RBMA, such review has been performed in six phases from 1992 to 2008.

Originally the Mata Atlântica Biosphere Reserve – RBMA - was designed in maps of the Brazilian Institute of Geography and Statistics – IBGE and the Brazilian Army.

In Phase VI those maps were digitalized, checked considering information provided by the Ministry of Environment, the SOS Mata Atlântica Foundation and State Environmental Agencies. Other research institutions and technicians of each of the states involved have cooperated, as well as consultants specialized in the Mata Atlântica and Marine Biome, conservation, biodiversity and geoprocessing.

The product presented hereby is a set of maps of the 16 states encompassed by the RBMA, in the scale of 1:250.000, with information crossed with the mapping of Priority Conservation Areas, Sustainable Use and Share of Benefits of the Brazilian Biodiversity of the Ministry of Environment, besides entering of information on the Sea Coastal Biome and the Maps of federal and state Conservation Units (legally protected areas).

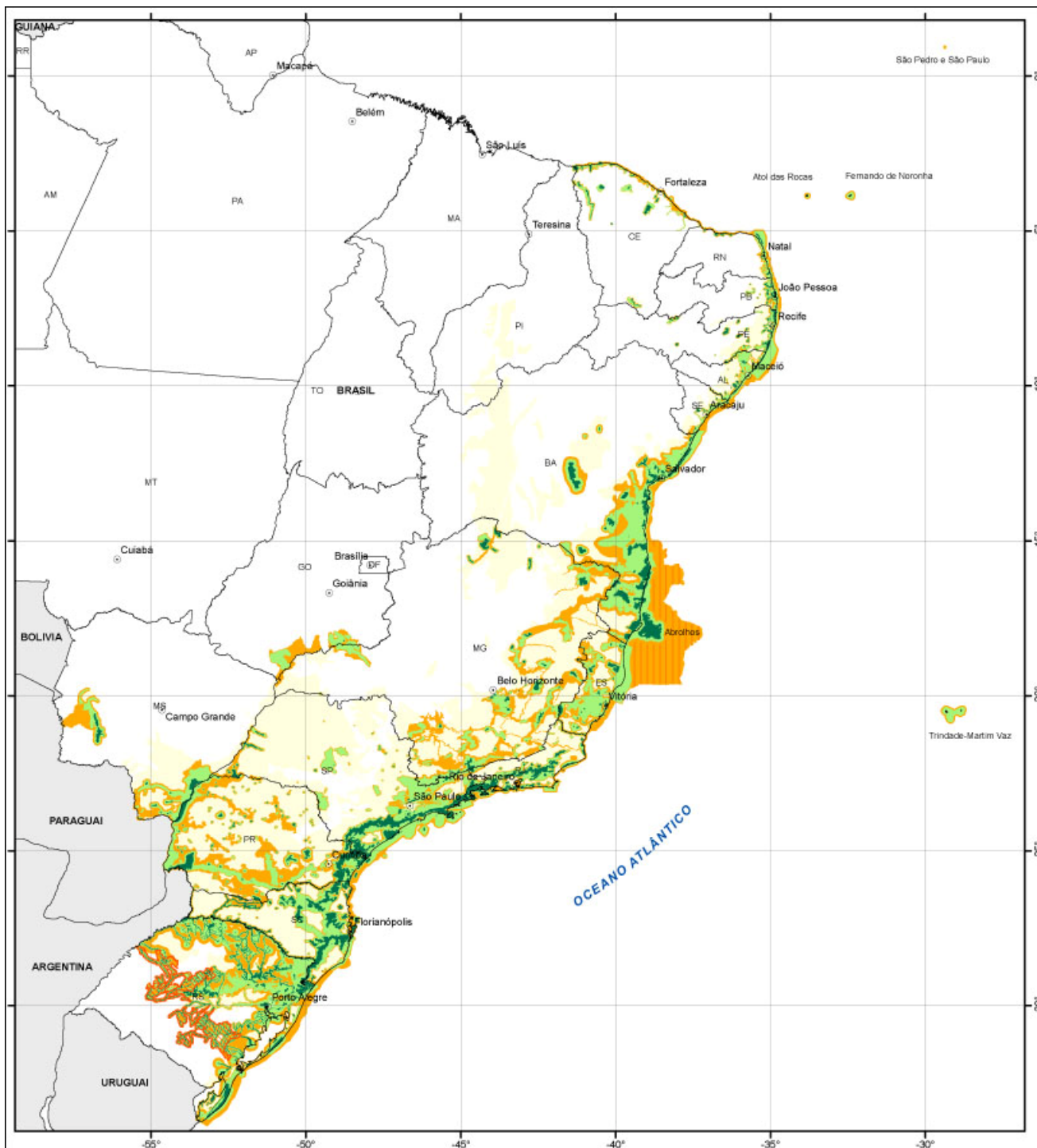
This mapping, besides collaboration of regional collegiates and state committees of the RBMA and the Sea and River Coastal Network / AVINA, has been approved in all management levels of the RBMA. On August 28, 2008, it was unanimously approved by the Brazilian Committee of the MaB Program – COBRAMaB.

Upon Phase VI, the Mata Atlântica Biosphere Reserve encompasses 57% of the Biome, with approximately 78,500,000 ha, of which 7,500,000 ha are core zones, 31,000,000 ha are buffer and connectivity zones, and 40,000,000 ha are transition and cooperation zones, approximately 62,300,000 ha are terrestrial areas, and 16,200,000 are marine areas, all in accordance with tables and maps comprising this document.

With the new limiting, the Mata Atlântica Biosphere Reserve encompasses another State, Goiás, new coastal and marine areas, all typologies of vegetation of the Mata Atlântica Biome and its related ecosystems, areas of interaction with others Brazilian biomes, and it further includes the Marine Collegiate in its management system.

Review of the RBMA Phase VI, carried out in a participative and decentralized process has contributed to strength the Biosphere Reserve, a mechanism more and more important for the conservation of nature and sustainable development in the Mata Atlântica region, one of the most beautiful, rich and endangered forests in the planet.

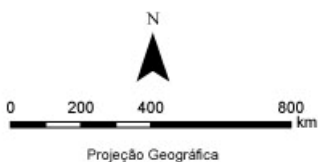
CLAYTON FERREIRA LINO
Chairman of the CN-RBMA
September 2008



Reserva da Biosfera da Mata Atlântica
FASE VI
2008
BRASIL



- Zona núcleo
- Zona de amortecimento
- Zona de transição
- Domínio da Mata Atlântica
- Zona Especial de Interação Mata Atlântica-Mar
- Zona Especial de Interação Mata Atlântica-Pampa



THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE



CHAPTER 1

General Data / UNESCO Form



THE MATA ATLÂNTICA BIOSPHERE RESERVE – PHASE VI

1. NAME

Mata Atlântica Biosphere Reserve Phase VI – Review and Update of the Limits and the Zoning of the Mata Atlântica Biosphere Reserve in Digital Cartographic Base

2. COUNTRY

Brazil

3. Compliance with the three functions of Biosphere Reserves: Conservation, Sustainable Development and Knowledge and Participative Management.

With the present proposed Review (Phase 6), Biosphere Reserve of the Mata Atlântica – RBMA will now cover an area of approximately 78,500,000 hectares (785,000 Km²), forming a greenbelt extending over 6.750 Km across the Coast, being the biggest Biosphere Reserve of the entire Worldwide network of the MaB Program/UNESCO – Man and Biosphere. Located at one of the Planet’s richest and most threatened biomes, the Mata Atlântica, the RBMA covers approximately 57%, sheltering practically all types of landscapes and land and marine ecosystems found in the region.

Located in Brazil’s most urbanized and industrialized region, also in the surrounding areas and interior of some of the biggest metropolis in the world, such as Sao Paulo and Rio de Janeiro, the reserve enables an institutional, territorial and ecosystemic articulation in incomparable scale.

Therefore, due to its continental dimensions, strategic location, decentralized and effectively participative management system and a set of extremely broad-based, dynamic programs and projects, the RBMA completely fulfills the three basic functions required by UNESCO from Biosphere Reserves.

Some of these contributions are summarized below:

3.1. Conservation

The Biosphere Reserve currently covers (Phase VI) areas in 16 of the 17 states where the Mata Atlântica is found. There are 62,318,723 hectares in land areas and 16,146,753 hectares in marine areas, involving a great diversity of ecosystems. There are Dense Rain Forests; Ombrophyllous Mixed Forests, also known as Araucaria Forest; Ombrophyllous Open Forests; Semideciduous Seasonal Forests, and Deciduous Seasonal Forests.

Moreover, a series of ecosystems associated to the Mata Atlântica are protected in the RBMA, such as mangroves, high altitude fields, rupestrine vegetation, dunes, sand banks, marine roughs, caves, cave ecosystems and many others located in ocean islands.

The inclusion of all of these ecosystems in the RBMA also means the country’s commitment before the international community to fulfill these duties.



For this reason, the simple fact of an area being included in the RBMA and recognized by the MaB Program/UNESCO, already strengthens a lot the fight for its conservation, fostering actions by the environmentalist movement (Governmental and non governmental) in its defense.

In this line, the RBMA houses the main remains of the Mata Atlântica, the habitat of endemic species endangered of extinction, priority areas for the creation of Protected Areas, forest recovery and formation of forest mosaics and greenbelts. 276 of the 472 species of flora and 380 of 627 species of the Brazilian fauna, considered endangered of extinction are found in the Mata Atlântica. Out of these, 85% are protected in Full Protection Conservation Units of the Mata Atlântica, which compose the Core Zones of the RBMA. There are more than 700 Units, of which 246 are governmental (2,566,620 ha) and 466 are official private reserves (103,366 ha). Added to other Preservation Areas defined by Law (mangroves, riparian forests, etc.) the Core Zones of the RBMA cover 7,350,899 ha.

Also in the buffer and connectivity zones and in the transition and cooperation zones, which together add to almost 72,000,000 ha, endangered species and land, costal and marine ecosystems are protected.

The action of the Biosphere Reserve in the field of conservation through public policies and their technical-scientific programs is as important as the inclusion in the RBMA and the creation of Protected Areas. Among these programs, those that deserve to be highlighted are "Research and Conservation", "Waters and Forests", "Mosaic and Greenbelts" and "Restoration of the Mata Atlântica", all with various projects in the various regions of the Reserve.

3.2. Sustainable Development

Natural resources of the Mata Atlântica have always served as raw material to be used by its inhabitants. Since the discovery of Brazil, such resources have been exploited by colonizers at higher and higher rates. This activity started to devastate the forest, which today, after 500 years of continued use and substitution of the forest for agriculture, animal husbandry, mining, infrastructure and urbanization has only over 7% left of the exuberating vegetation that covered the Mata Atlântica Biome in good state of conservation.

Designation of these areas as the Mata Atlântica Biosphere Reserve enlarges the sustainable use of the forest, because the very concept of biosphere reserve implies the implementation of zoning and sustainable use of natural resources in its buffering and transition areas, referred to as such as of the third World Congress on Biosphere Reserves, held in Madrid in February 2008, as a Buffer and Connectivity Zone and Transition and Cooperation Zone.

Sustainable development is also promoted in the Core Zones of the RBMA, to the extent that we are strongly engaged in the promotion of Ecotourism in Protected Areas and their surroundings. The Biosphere Reserve of the Mata Atlântica is recognized as one of the main players in the action field in Brazil, and we can highlight its Projects to provide Ecotourism Guide Training and Certification to Hotels and *Pousadas* in various regions. These Projects are focused on youth, traditional communities and small local businesspeople have been especially successful in regions of Vale do Ribeira/SP, in the Paraty/RJ region and in the Biosphere Reserve of the Greenbelt of the City of São Paulo. With the deployment of phase VI of the RBMA, this program should be extended into many other areas.

There are over 70 different indigenous groups in the Mata Atlântica, dozens of *Quilombos* (black slave-descendant communities), *caíçaras* (traditional fishing communities) and other groups of traditional fishermen, besides millions of small rural producers and extractivist communities. This is main audience for the RBMA'S engagement. In this sense, the National



Council of the Biosphere Reserve of the Mata Atlântica and its State Committees have had a strong engagement in the formulation of public policies and fair market practices that promote the improvement of the quality of life of these traditional populations included in the RBMA. For this, it has supported the creation of Sustainable Development Reserves, Extractivist Reserves and other Protected Areas that compose its Buffer and Connectivity Zones. It has made an enormous effort to create government funds and programs to support community initiatives in agroforestry, organic agriculture, sustainable handling of native species and sustainable agriculture. It has also been engaged in the formulation of policies on Payments for Environmental Services (carbon, water and biodiversity) in the Mata Atlântica.

Also focused on the local communities that inhabit its territory, today the RBMA has the most important Program focused on the production and fair trade on products of the Mata Atlântica. The "Mata Atlântica Market" Program (check the specific website at the Biosphere Reserve's web Portal: www.rbma.org.br/mercadomataatlantica) registers, certifies with a specific seal and supports the production and sale of handicraft, food products and others.

Although it is preferably focused on local communities, the RBMA also maintains projects and partnerships with business sectors on a search for a "Quality Economy" integrating productive chains and the principles of sustainability. It is noteworthy to highlight the Reserve's partnerships with the sugar and alcohol sector of the Northeast and with various companies of other sectors that maintain Advanced Sites of the RBMA in Conservation Areas owned by them.

3.3. Knowledge and Management

Over a decade ago, the National Council of the RBMA defined in its action plan that the formerly named "logistic function" prescribed by the MaB Program for the Biosphere Reserves should be translated into 3 lines of action: a) Development and traditional and scientific knowledge; b) Promotion of the community and environmental education and; c) Implementation of a decentralized and participative management system.

The Mata Atlântica gathers the majority of the Universities and research centers and researchers in Brazil. Therefore, the RBMA focuses its efforts in the systematization and diffusion of scientific information that contribute to the conservation and sustainable use of the Forest. Likewise, it promotes the rescue and appreciation of the knowledge of the traditional populations on the handling of species and that are a fundamental part of our culture and the sustainable development of the Biome. In this sense, the RBMA has already promoted 12 National and International Seminars, it maintains a web portal, produces vast environmental communication and education material (posters, folders, videos, etc.) and technical and scientific publications. It is noteworthy to highlight the "RBMA Books" series, with 33 volumes and the oldest (since 1993) regular publication on the Mata Atlântica focused on the general public.

On the other hand, the RBMA'S Management System, with a National Council, 16 State Committees, 5 Subcommittees, 3 Regional Committees and 24 Advanced Sites in various States is currently the most comprehensive Biome defense Network of the Americas. There are over 300 government (Federal Government, States and Cities) and civilian institutions (NGOs, local communities, businesspeople and scientists) permanently engaged in an integrated manner.

This Management system, which received UNESCO – Brazil's commemorative Environmental Award for 60 years of UNESCO and 30 years of the MAB Program, is certainly the RBMA'S biggest achievement. It is what enables the management of a Reserve with such enormous dimensions and that provides great capacity of political mobilization and articulation in the



Forest's defense. This is also the Network that ensures the logistic, material and human support for the conservation and sustainable development in the RBMA'S area.

The review and expansion of the Biosphere Reserve in this phase VI is a direct fruit of this vast network that made the Reserve today, besides being a priority conservation area, also one of the most important institutions of the socio-environmental area in Brazil. Phase VI will enable a great advancement for the RBMA in the sense of being an ever so more important instrument before the Ministry of the Environment for the implementation of public policies in the Mata Atlântica.

On Phase VI, the RBMA includes another State (Goiás) and created a new Regional Committee (Marine Committee), which further strengthen its management system.

The rich participation process adopted in the preparation of Phase VI contributed for the consolidation and strengthening of the RBMA partnership network and management system, and further to promote and implement the purposes of the MaB Program, and this is therefore a pioneer successful experiment enriched with new directives defined in Madrid.

4. CRITERIA FOR DESIGNATION AS BIOSPHERE RESERVE

The process for acknowledgment and implementation of the RBMA in all of its phases has fully incorporated the criteria set forth in Section 4 of the Statutory Framework of Seville Strategy.

In this Phase VI, inspired in this practice of continued use and application of the directives of such framework, a RBMA Review Directions Manual – Phase VI has been prepared contemplating the general principles and thematic criteria, already in compliance with the directives and new zoning concepts defined in the Third World Congress on Biosphere Reserves. This Manual is presented in chapter II.

4.1. INCLUSION IN AN ECOLOGIC SYSTEM MOSAIC

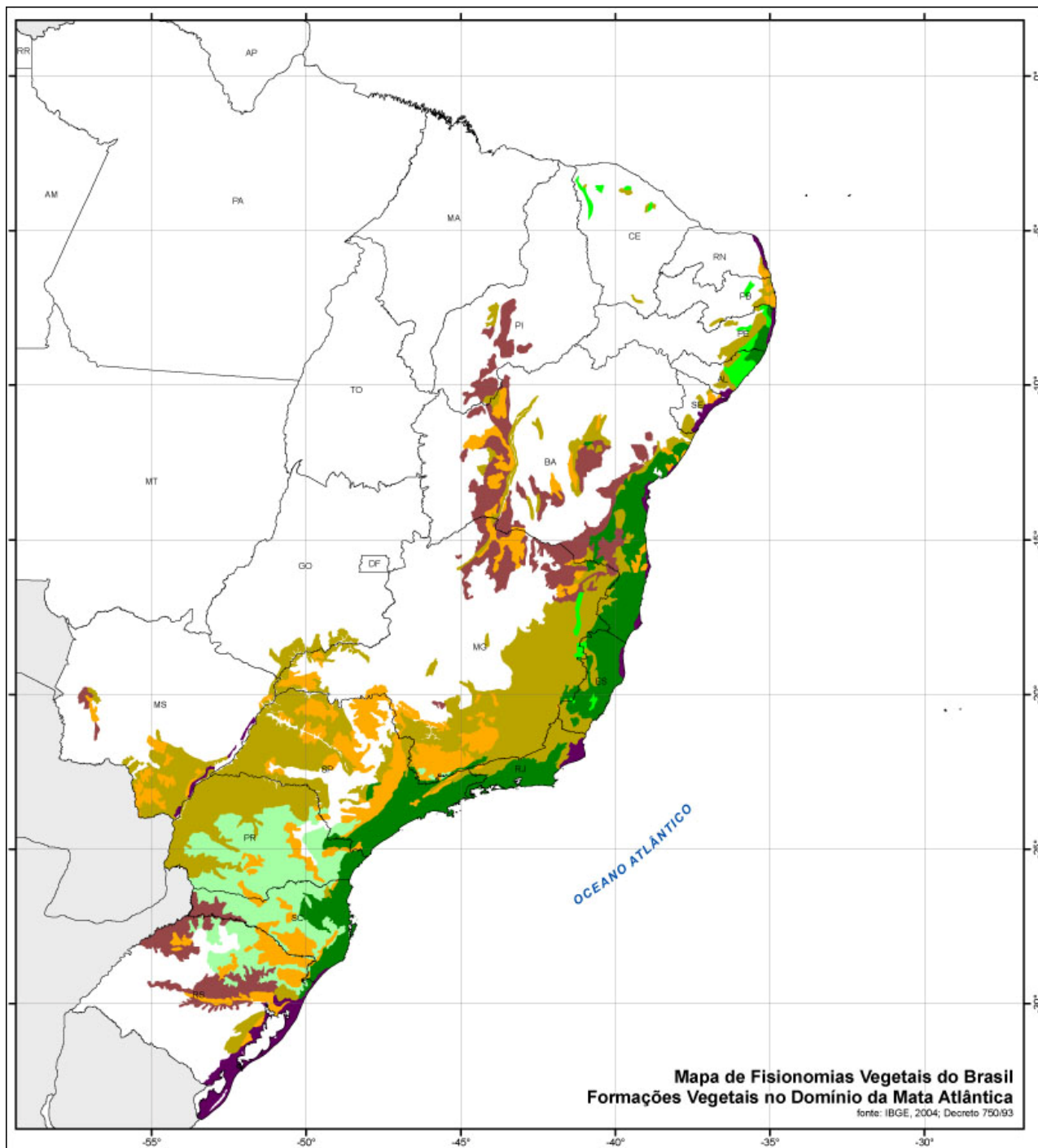
The areas proposed as Biosphere Reserves Phase VI are included in the Mata Atlântica Biome, which is formed by several formations, such as dense ombrophile forests, mixed ombrophile, open ombrophile, semi-deciduous seasonal, deciduous seasonal, high altitude fields, and other related ecosystems, such as mangroves, sand banks, inland swamps and oceanic islands.

This complex of formations comprised by a set of ecosystems highly changed by human action results in a landscape mosaic with different vegetal fragments of different sizes, forms, ecologic conditions, and conservation and pressure levels.

Among such natural mosaic areas it is possible to highlight regions currently known as Ecological Corridors and Mosaics of Protected Areas, such as the Jacupiranga Mosaic and the Serra do Mar and Mantiqueira Mosaics, within the limits of which almost all ecosystems contained in the Mata Atlântica are represented, including related ecosystems, such as insular and high altitude fields. All this Corridors and PA Mosaics are now included in the Mata Atlântica BR.



MATA ATLÂNTICA NATURAL FORMATIONS



Reserva da Biosfera da Mata Atlântica FASE VI 2008



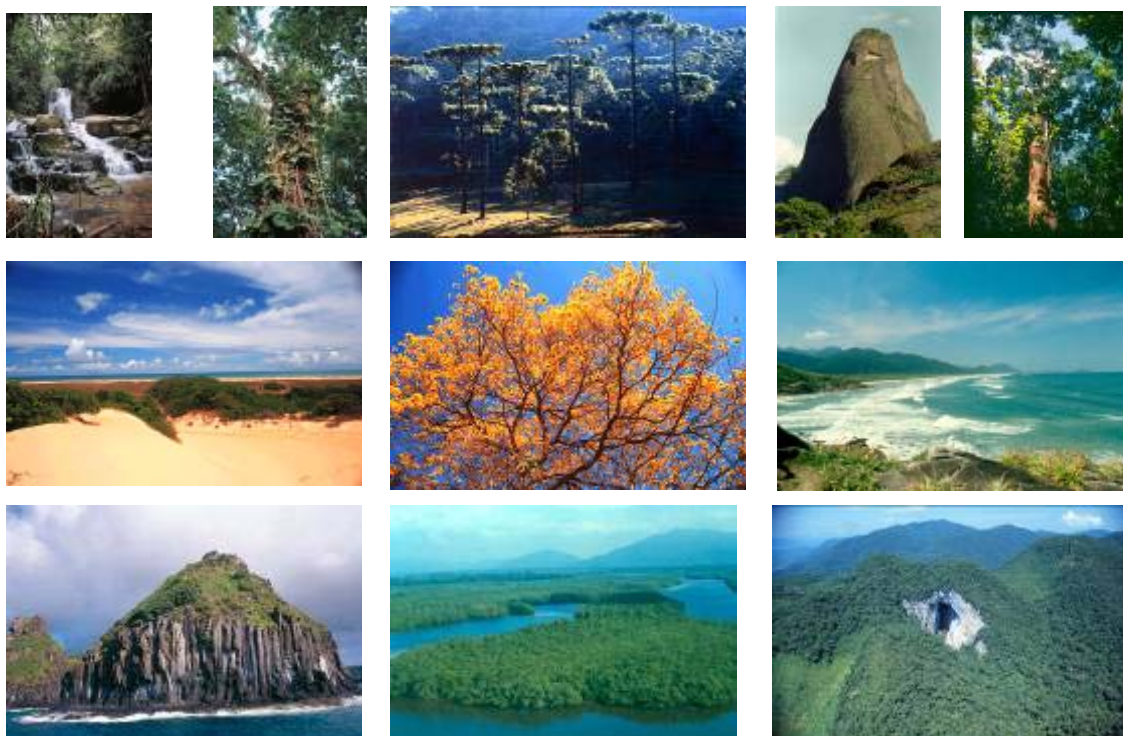
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| Formações Florestais no DMA | Flor. Ombrófila Aberta |
| Contatos | Flor. Ombrófila Densa |
| Flor. Estacional Decidual | Flor. Ombrófila Mista |
| Flor. Estacional Semidecidual | Formações Pioneiras |



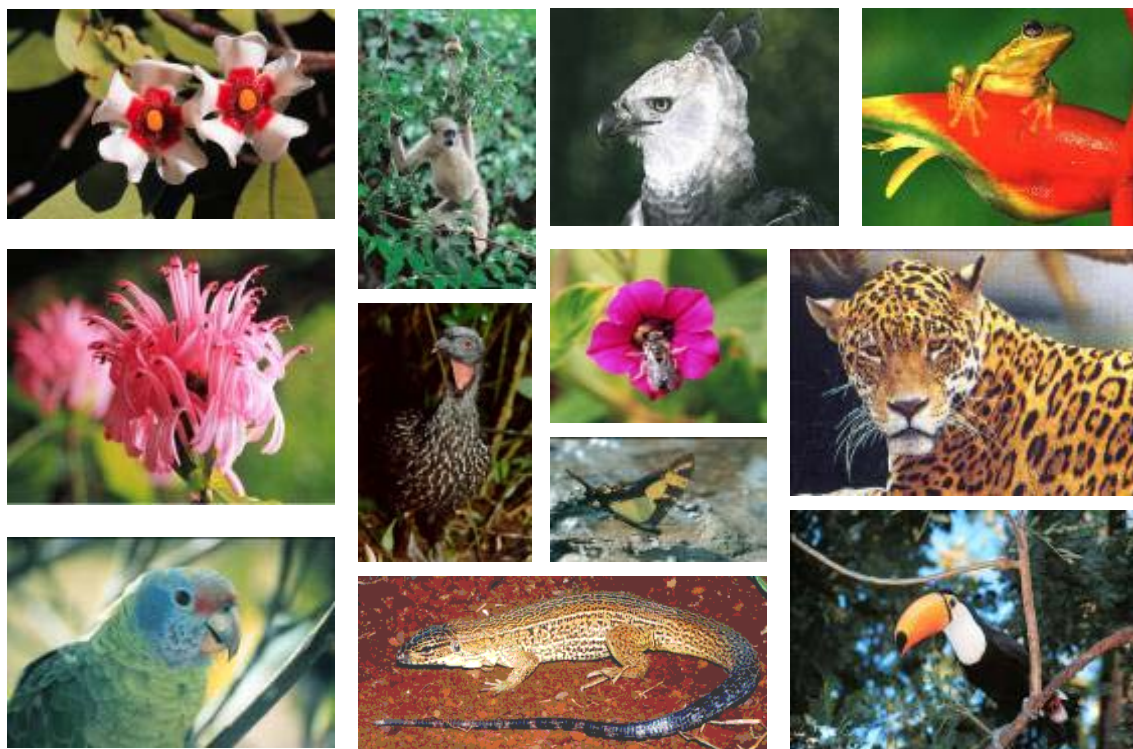
Projeção Geográfica



MATA ATLÂNTICA - ECOSYSTEMS



MATA ATLÂNTICA - BIODIVERSITY





4.2. CONSERVATION OF BIODIVERSITY

Phase VI of the RBMA incorporates the main principles, strategies and directives contemplated in Ministry Ruling No. 9, dated January 23, 2007, which acknowledges new Biodiversity Conservation Priority Areas, in a complementary and articulated manner with state policies and instruments used to conserve biodiversity, such as, for instance, the Biodiversity Conservation Atlas of SOS Mata Atlântica Foundation, the Native Forest and Reforesting Digital Atlas of Minas Gerais and the Conservation Unit Atlas of the State de São Paulo, among others.

Delimitation of the RBMA in a digital cartographic base has allowed best precision and provision of significant information for compliance with the basic objectives and functions of the Biosphere Reserve.

In Phase VI of the RBMA new forest remaining areas representing several different phytophysionomies of the Mata Atlântica Biome are included, in particular the ecotones and interaction areas of biomes like the dry forest lands in the State of Minas Gerais, the coastal platforms of the National Park of Abrolhos, in the State of Bahia and parts of the Pampa Biome in the State of Rio Grande do Sul, besides deciduous seasonal forests, semi-deciduous seasonal forests and ciliary forests, in the State of Goiás.

Besides, the RBMA area in the coastal and marine region has been enlarged, including core, buffer and transitions zones in areas deemed as high and extreme priority for biodiversity conservation purposes.

Core zones of the Biosphere Reserve have also been included and updated from the creation in the past few years of several public and private, terrestrial, coastal and marine conservation units at federal, state and local levels. Core zones have also been significantly enlarged with the inclusion of permanent preservation and highly restricted use areas, such as the remaining forests, mangroves, sandbanks, dunes, estuaries and coral reefs, which are deemed as extreme high priority for biodiversity conservation purposes.

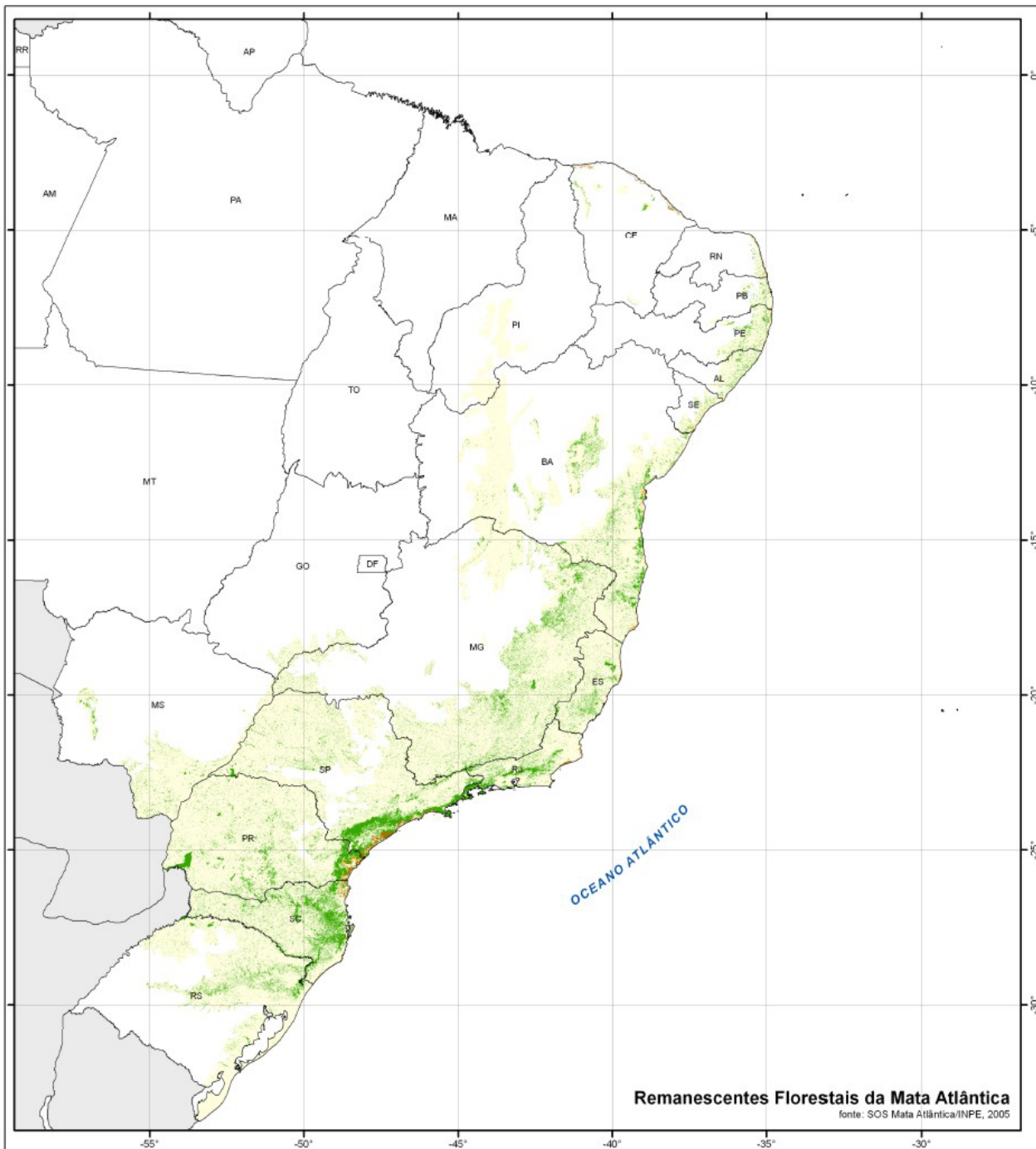
Another well consolidated biodiversity conservation strategy in this phase is the inclusion of areas for purposes of forming ecologic corridors, and buffer and transition zones, thus allowing for connection and cooperation among several areas comprising the RBMA, in particular coastal and marine corridors, and the Central Mata Atlântica and the Serra do Mar Corridors.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

MATA ATLÂNTICA REMAINING FOREST



Remanescentes Florestais da Mata Atlântica
fonte: SOS Mata Atlântica/INPE, 2005



Reserva da Biosfera da Mata Atlântica FASE VI 2008

BRASIL

N

0 200 400 800 km

Projeção Geográfica

Coordenação:



Apoio:



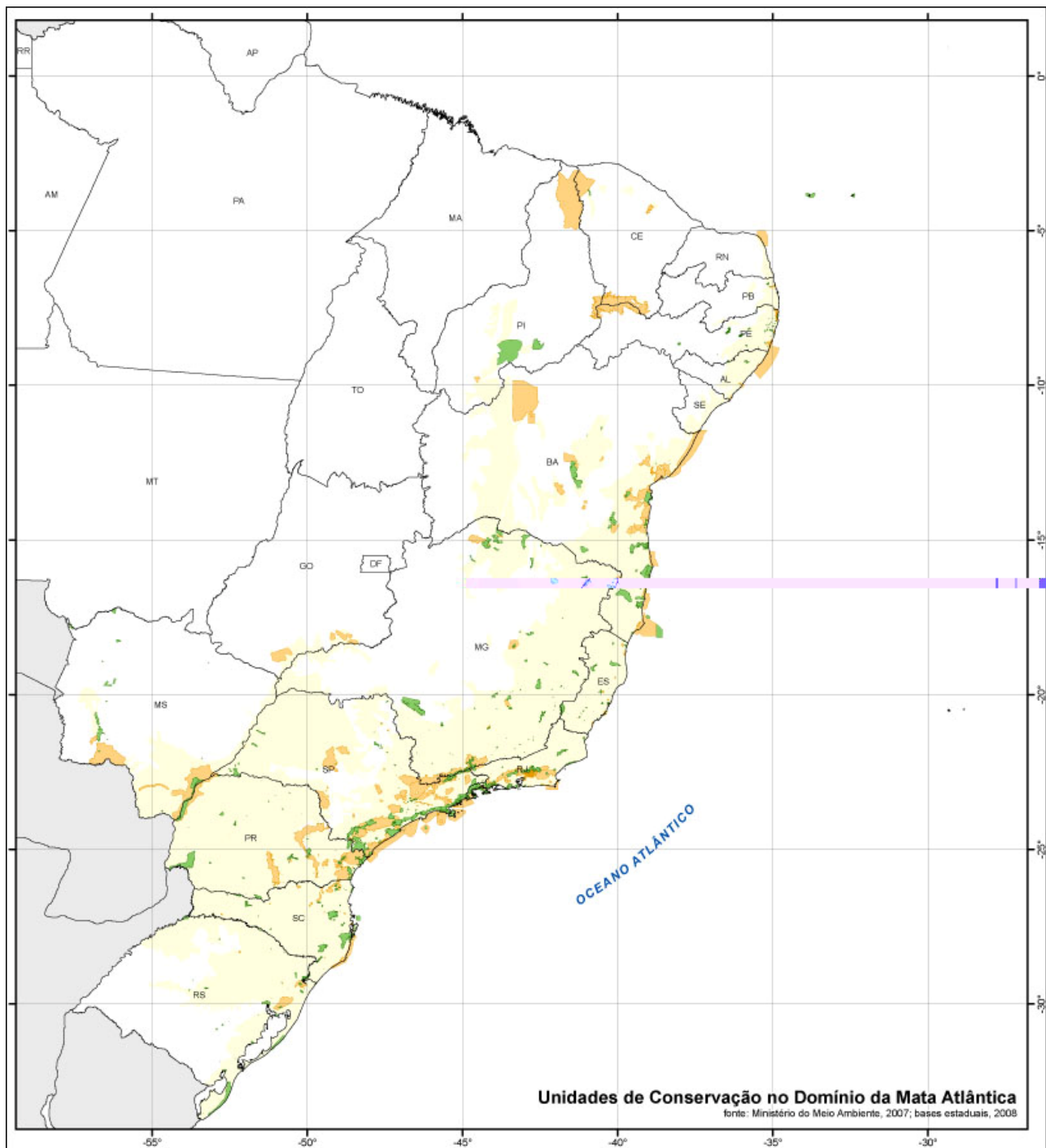
Execução:



- Domínio da Mata Atlântica
- Remanescentes da Mata Atlântica
- fonte: SOS Mata Atlântica, 2005
- Mata
- Restinga
- Mangue



MATA ATLÂNTICA PROTECTED AREAS



Unidades de Conservação no Domínio da Mata Atlântica
fonte: Ministério do Meio Ambiente, 2007; bases estaduais, 2008



Reserva da Biosfera da Mata Atlântica FASE VI 2008

BRASIL

N



0 200 400 800 km

Projeção Geográfica

- UCs de Proteção Integral
- UCs de Uso Sustentável
- Domínio da Mata Atlântica

Coordenação:



Apoio:



Ministério do Meio Ambiente

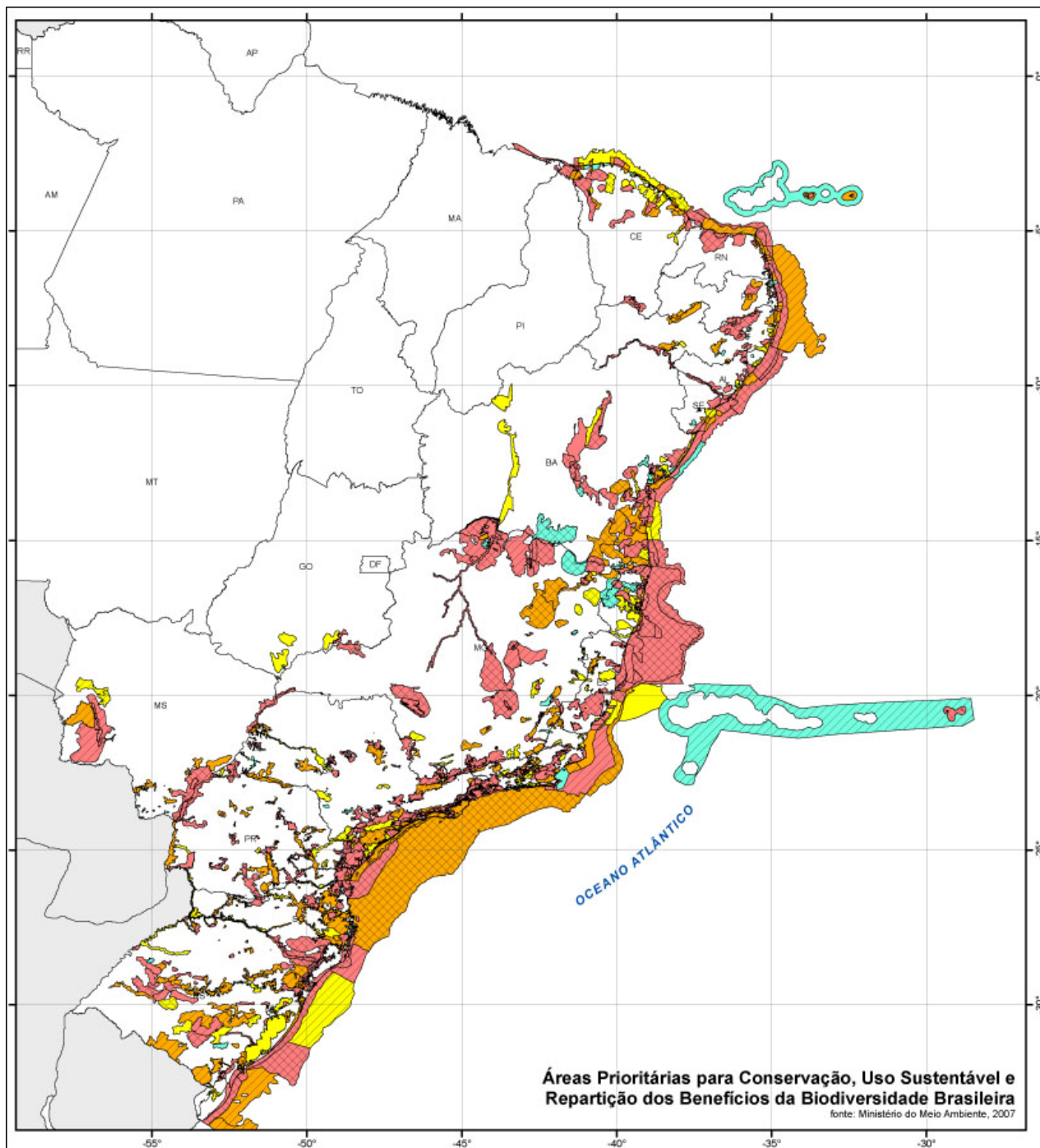


Execução:





TERRESTRIAL AND MARINE PRIORITY AREAS FOR CONSERVATION



Reserva da Biosfera da Mata Atlântica FASE VI 2008

BRASIL

N

0 200 400 800 km

Projeção Geográfica



Coordenação:



Apoio:



Execução:



Áreas Prioritárias 2007	Importância
Alta	Extremamente Alta
Muito Alta	Muito Alta
Extremamente Alta	Alta
	Insuficientemente Conhecida



4.3. STATEMENT OF SUSTAINABLE DEVELOPMENT METHODOLOGIES FOR THE REGION

During the process of Review of the RBMA Phase VI, among the criteria adopted to mark buffer and transition zones, experiences related to promotion of sustainable development, have been taken into account, in particular in regions where traditional populations dwell, and where there are ongoing initiatives and projects promoting local development linked with environmental and social improvement, all in accordance with the principles of sustainable development. We highlight the socio-biodiversity corridor in Indigenous Lands of the State of Mato Grosso do Sul and more than 130 Protected Areas created for the Sustainable Use of Resources by traditional communities.

Ecologic corridors inserted in Phase VI of the RBMA, in the several States of the Mata Atlântica Biome are also strategic spaces for promotion of sustainable development in the production chain of family agriculture, in particular from promotion of organic agriculture and agroforest systems, which contribute to maintain the landscape and preserve natural resources.

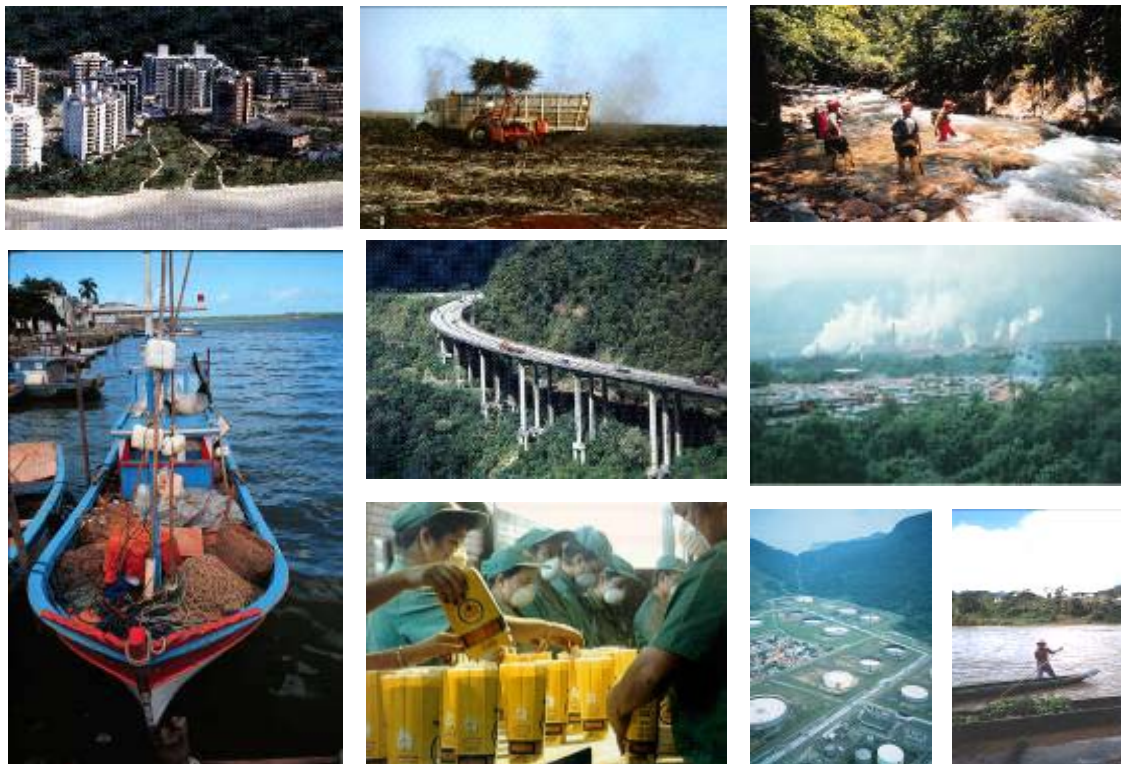
In this sense the Forest Market and the Sustainable Tourism Programs of the RBMA promotes in all of its territory such social and environmental actions and sustainable development from adequate handling of natural resources, in particular in regions like Ribeira Valley in of the State of São Paulo and the Northeastern Advanced Sites in Alagoas.



MATA ATLÂNTICA - SOCIO-DIVERSITY

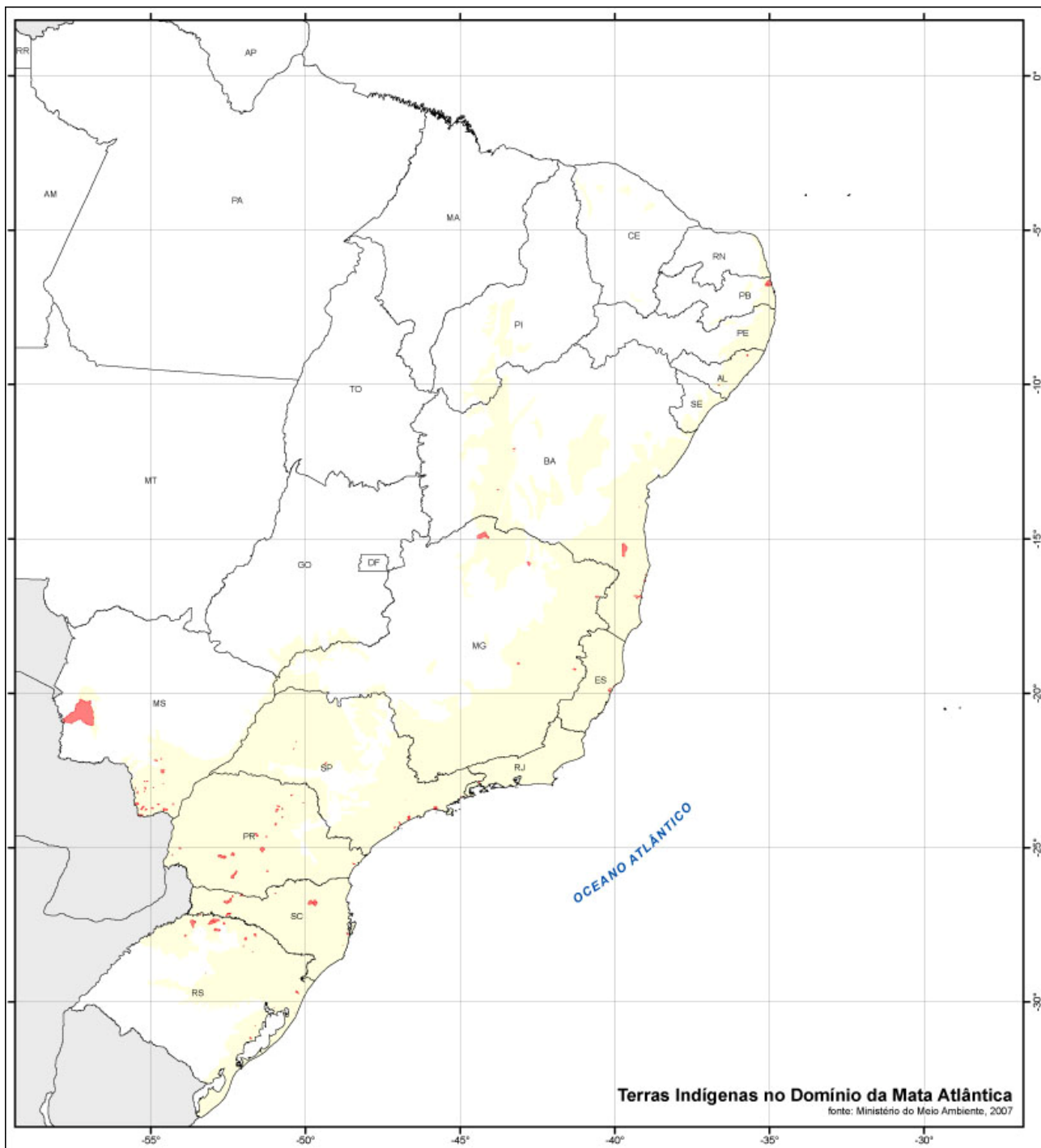


MATA ATLÂNTICA - SOCIO-ECONOMICS





MATA ATLÂNTICA INDIGENOUS LANDS



Terras Indígenas no Domínio da Mata Atlântica
fonte: Ministério do Meio Ambiente, 2007



Reserva da Biosfera da Mata Atlântica FASE VI 2008



Coordenação:

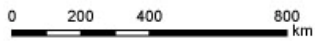


Apoio:



Execução:

BRASIL



Projeção Geográfica

- Terras Indígenas
- Domínio da Mata Atlântica



4.4. DIMENSIONS COMPATIBLE WITH THE CONCEPT OF BIOSPHERE RESERVE

The Mata Atlântica Biosphere Reserve was acknowledged in sequential phases throughout several years: **Phase I** in 1991, **Phase II** in 1992, **Phase III** in 1993, **Phase IV** in 2000 and **Phase V** in 2002. It is the biggest Biosphere Reserve in the planet and is in accordance with what is set forth in the MaB Program for Biosphere Reserves because of its importance for the conservation of biodiversity and promotion of sustainable development.

Its territory has dimensions in the scale of the Biome, from Phase VI, 16 of the 17 States within the limits of the Mata Atlântica and all of its phytophysiognomies. Its design is much more complex because it incorporates the concepts of ecologic corridors, mosaic of protected areas and green belts in the surroundings of urban and metropolitan areas. Therefore, regardless of the area, what is more important in this Phase VI is that it represents the acknowledgment and improvement of areas deemed as priority for purposes of conservation of the Mata Atlântica by the Ministry of Environment, and therefore this is an important instrument to promote conservation sustainable development of the Biome.

In Phase VI, from challenges arising of climate changes, losses of biodiversity and rapid urban growth in the conclusions of the 3rd World Biosphere Reserve Congress (Madrid Statement and Madrid Action Plan -2008), in the Millennium Development Goals and the Millennium Ecosystem Assessment, and, in view of the provisions of the RBMA Review Procedure Manual – Phase VI, the zoning of the RBMA was redefined, and is now constituted by zones, according to the chart below:

PHASE	TERRESTRIAL AREA	MARINE AREA	TOTAL (TERRESTRIAL + MARINE)
Phase V	42,362,840	2,070,403	44,433,243
Phase VI	62,318,723	16,146,753	78,465,476

PHASE	CORE ZONES	BUFFER ZONES	TRANSITION ZONES	TOTAL
Phase VI	≅ 7,500,000	≅ 31,000,000	≅ 40,000,000	78,465,476

*Measurement in hectares



4.4.1. THE POPULATION OF THE MATA ATLÂNTICA BIOSPHERE RESERVE (RBMA) - PHASE VI

- The Mata Atlântica Biome encompasses an area of about 136,670,000 ha., embracing 17 of the Brazilian states and about 3,400 municipalities.
- Of this area, 78,465,476 ha. (About 57% of the Biome) are proposed to be Biosphere Reserve in this Phase VI (228/2009) of the RBMA.
- This area embraces 2385 municipalities, in 16 states, 700 of them completely included and 1,685 partially included in the RBMA.
- There are 623 Legally Protected Areas included in the Reserve, 481 of them of Full Protection Conservation Area and 142 of Sustainable Conservation Area.
- The whole population of the municipalities in the influence zone of the RBMA is of about 114,000,000 inhabitants, principally concentrated in metropolitan and urban areas (including 16 capitals as Sao Paulo, Rio de Janeiro, Recife, etc...) that **are not part** of the Mata Atlântica Biosphere Reserve.
- Given the dimensions and the population dynamics of the region, the inhabitants' information should be considered as estimates and subject to significant error even when supported by official demographic census. Data were calculated based on the Brazilian Census of 2007 from the Brazilian Statistical and Geographical Institute – IBGE, and available information of the Management Bodies of Protected Areas, gathered by the State Committees and Council of RBMA during the drafting process of the Phase VI of the Mata Atlântica Biosphere Reserve.
- Thus has to be estimated population of the RBMA:

TOTAL = 60,896,097 inhabitants in the three zones of the Reserve which results in a low population density of less than one inhabitant per hectare;

Regarding the distribution of population in the zoning of the Reserve estimates are:

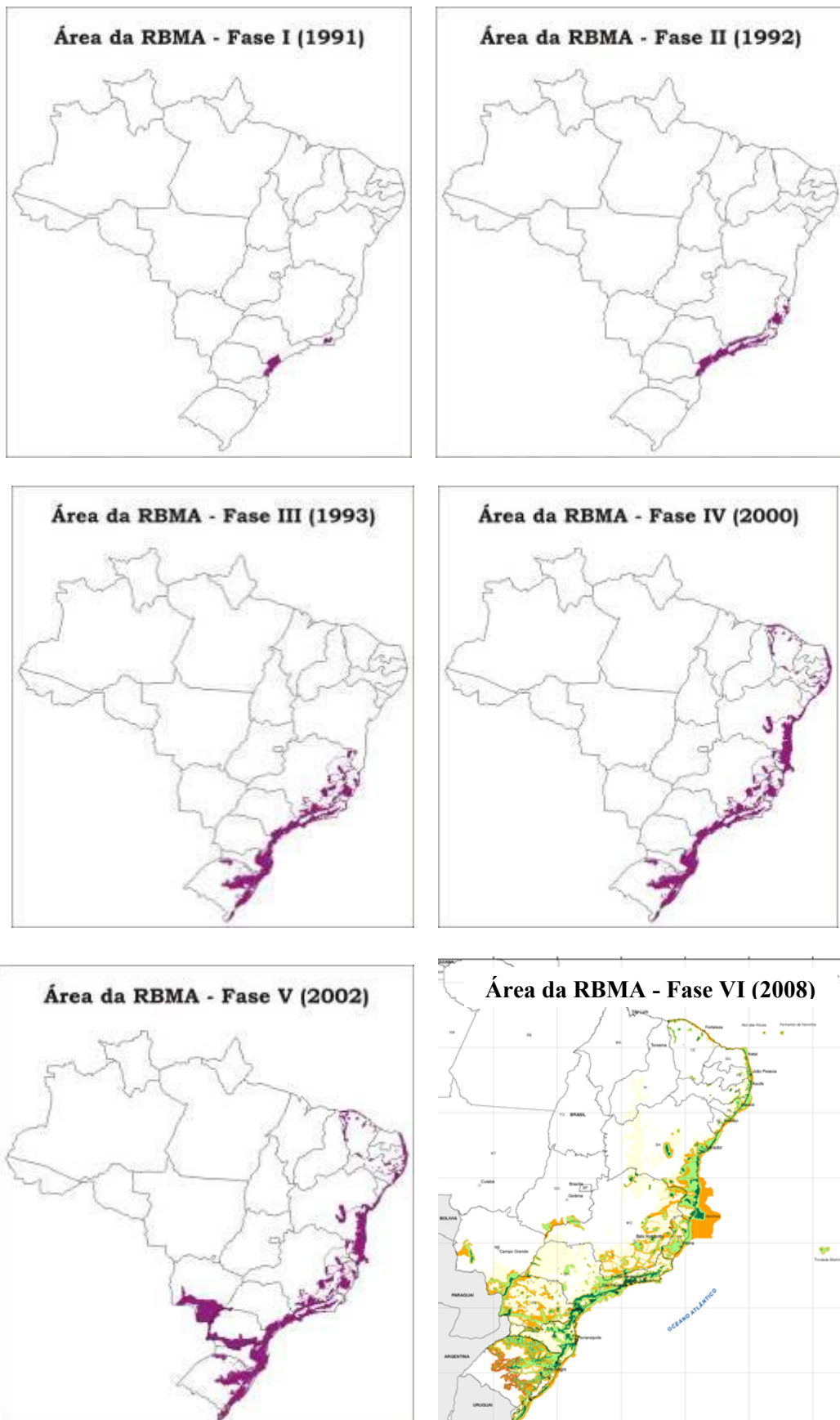
Core Zone: Approximately 150,000 inhabitants representing traditional communities and residents of properties located in full protected area without land regularization;

Buffer and Connectivity Zone: Approximately 20,150,000 inhabitants;

Transition and Cooperation Zone: Approximately 40,600,000 inhabitants.



BIOSPHERE RESERVE OF MATA ATLÂNTICA EVOLUTION





4.5. APPROPRIATE ZONING

According to the provisions of the RBMA Review Manual - Phase VI, the zoning in this Phase VI has been drafted in accordance with the concepts defined by the MaB/UNESCO Program, and contains three types of zones: **core zones**, in Portuguese: *zonas nucleo = ZN*, **buffer and connectivity zones**, in Portuguese: *zonas de amortecimento e conectividade=ZA* and **transition cooperation and zones**, in Portuguese: *zonas de transição e cooperação=ZT*.

Historically, for the RBMA, in some States or regions, besides such three other zones called Core zone 2 and Recovery Zone have been defined.

In this review, the CN-RBMA has defined that the zoning of the RBMA must be standardized and use exclusively such three original zones, in accordance with the following concepts:

Core zones - ZN – the central purposes of core zones are conservation of biodiversity and other natural resources. These are legally protected and clearly limited areas in the territory. For the RBMA, core zones are comprised by:

- Federal, state or local Full Protection Conservation Units as National Parks, Ecological Stations, etc;
- RPPN – Official Natural Private Reserves;
- Full Protection Zones within sustainable use Protected Areas, as for instance wild life zones of the EPAs or full protection zones in the RDS – Sustainable Development Reserves;
- Natural World Heritage Sites with severe conservation restrictions.
- APP – Actually conserved permanent preservation areas, when defined by officially acknowledged briefs and limitations, zoning, project or conservation normative orders.
- Spring or fountain areas when actually conserved, duly protected by the law (Forest Code, the Mata Atlântica Law, the Spring's Law or Municipal Zoning) and clearly identified by briefs;
- Environmental servitude areas officially established for protection of biodiversity and water recourses.

In the last three cases, the inclusion of areas should be duly justified by State Committees, on a case by case basis.

Buffer and Connectivity Zone - ZA – the purpose of buffer zones is minimizing negative environmental impacts on core zones while promoting quality of life of its populations, in particular traditional communities.

Buffer zones are established within core zones or among them, thus promoting its connectivity. Every core zone should be surrounded by a buffer zone. However, not every buffer zone should mandatorily have a core zone in its center, provided it surrounds or connects other core zones. In very large pieces of buffer zones without cores defined by full protection conservation units, special attention should be given to permanent protection areas and other areas protected that eventually may fit as Core Zones of the RBMA.

For the RBMA, buffer and connection zones are constituted as a priority by:

- Environmental Protected Areas - APA, in Portuguese: *Área de Proteção Ambiental - APA*. These are sustainable use conservation units defined by the Conservation Unit National System - SNUC or Conservation Unit State Systems.

Note: Full protection zones of these conservation units may be classified as core zones of the RBMA;



- Buffer Zones of conservation units defined in its constitution decrees or management plans;
- Natural Heritage Sites (when not included as core zones);
- Ecologic Corridors between Conservation Units;
- Official Fountain Areas not fitting as core zones;
- Buffer zones surrounding isolated RPPN (Private Reserves), which, although they fail to have this legal definition zone, they should be contained in the RBMA;
- Indigenous lands;
- Quilombo (Traditional Black communities) areas;
- Legal reserves or environmental servitude areas with direct use of natural resources;
- Priority areas for conservation of the Mata Atlântica which are officially deemed as "very high" or "extremely high" priority in the map of the Priority Conservation Areas of the Environment Ministry and which do not fit the criteria of the Core zones;
- Marine areas contemplated in item Marine Coastal Zoning of the RBMA review manual;
- Urban areas contemplated in item Urban Zoning of the RBMA review manual.

Remarks:

- Buffer and connectivity zones must have their limits clearly defined in briefs and respective cartography;
- In its delimitation, coincidence with other existing zonings must be sought (Environmental Protection Areas, Municipal Master Plans, Coastal Management, etc.) and preferably following the permanent and easy-to-identify references (rivers, water divisors, road, power lines, ducts, etc.).
- The buffer zones of the RBMA must include the buffer zones of conservation units, but not to be restricted thereto, and they may be larger and broader.

Transition and Cooperation Zone - ZT – transition zones involve all buffer zones, and, as a result, all core zones of the Reserve. These are the ones that define the external limit of the RBMA and its sizes. Although in the original definition of zoning of RBs by UNESCO, the ZT do not mandatorily have fixed limits, the National Committee of the RBMA has defined that in the case of this Reserve, transition zones must also be accurately limited. This directive has also become a recommendation of UNESCO for all Biosphere Reserves as from the Madrid Congress.

Transition zones are intended as a priority for monitoring, environmental education and integration of the Reserve with its surroundings, where intense use and occupation urban, agricultural and industrial zones predominate.

For the RBMA, transition and cooperation zones are constituted by:

- A territorial stripe 300 meters wide 10 kilometers, environmentally and technically determined by State Committees, contouring all Buffer Zones of the Reserve;
- Areas containing forest remaining areas of "high" or "very high" priority for conservation, which are physically near with an environmental influence in other zones of the Reserve;



- Human settlements with low social and environmental impact, as well as tourism sites under the same conditions;
- Consolidated agricultural areas with low environmental impact.

Remarks:

1- Whenever possible the limiting of the ZT shall take into account hydrographic basins, municipal limits and other official zoning consistent with the principles and goals of the Biosphere Reserve.

2- In exception cases, the Transition Zone may have its width reduced (meters or dozens of meters) also because of exception situations regarding the land. Examples are stripes of land in Conservation Units totally included in the urban mesh.

3- In special cases as in the Marine Zone or Interaction Areas with other biomes, Transition Zones may be broader, and they shall be duly justified.

4.6. PARTICIPATORY MANAGEMENT

The Ministry of Environment, State Environment Institution and nongovernmental organizations linked to the conservation of nature have acted in issues related to the Biosphere Reserve in all states involved in the current proposal.

All governments of the states encompassed by the Mata Atlântica have their environmental bodies and planning departments with divisions that deal specifically with the Mata Atlântica subject.

Another important aspect for integration is the decentralized management system of the RBMA.

The RBMA works as a worldwide autonomous unit linked to the MaB/UNESCO program, of which Brazil is a signatory by the Brazilian Committee of the Program "Man and the Biosphere" – COBRAMAB, coordinated by the Ministry of Environment.

Its Management System is decentralized and comprised by parity collegiates from the government and the civil society, and it is comprised basically by a National Council, an Executive Secretariat, State Committees and Subcommittees and Regional Collegiates, which integrate several government levels (federal, state and local) with entities from the civil society (NGOs, scientific community, associations of the Reserve dwellers and corporate entities), with representatives elected or appointed independently by the respective segments.

The RBMA still has within its management system the Institute Friends of the Mata Atlântica Biosphere Reserve (IA-RBMA), a linked NGO that has as specific purpose to support and facilitate the execution of projects and raising of funds for the Reserve's activities.

Some State Committees also act as management boards of big conservation and sustainable development projects in its region generally arising from agreements with the Federal Government (or state governments) and international cooperation agents (KFW and GTZ from Germany, G-7, World Bank, etc.).

The RBMA has one National Head Office and one Executive Secretariat located in the Horto Florestal of São Paulo, with its own team dedicated full-time to the Reserve's activities. Some State Committees and Subcommittees also have their own head offices and teams.

The RBMA acts internationally with participation in the Biosphere Reserve networks (Worldwide and Ibero-American) in supporting other programs, as the World Heritage Sites in

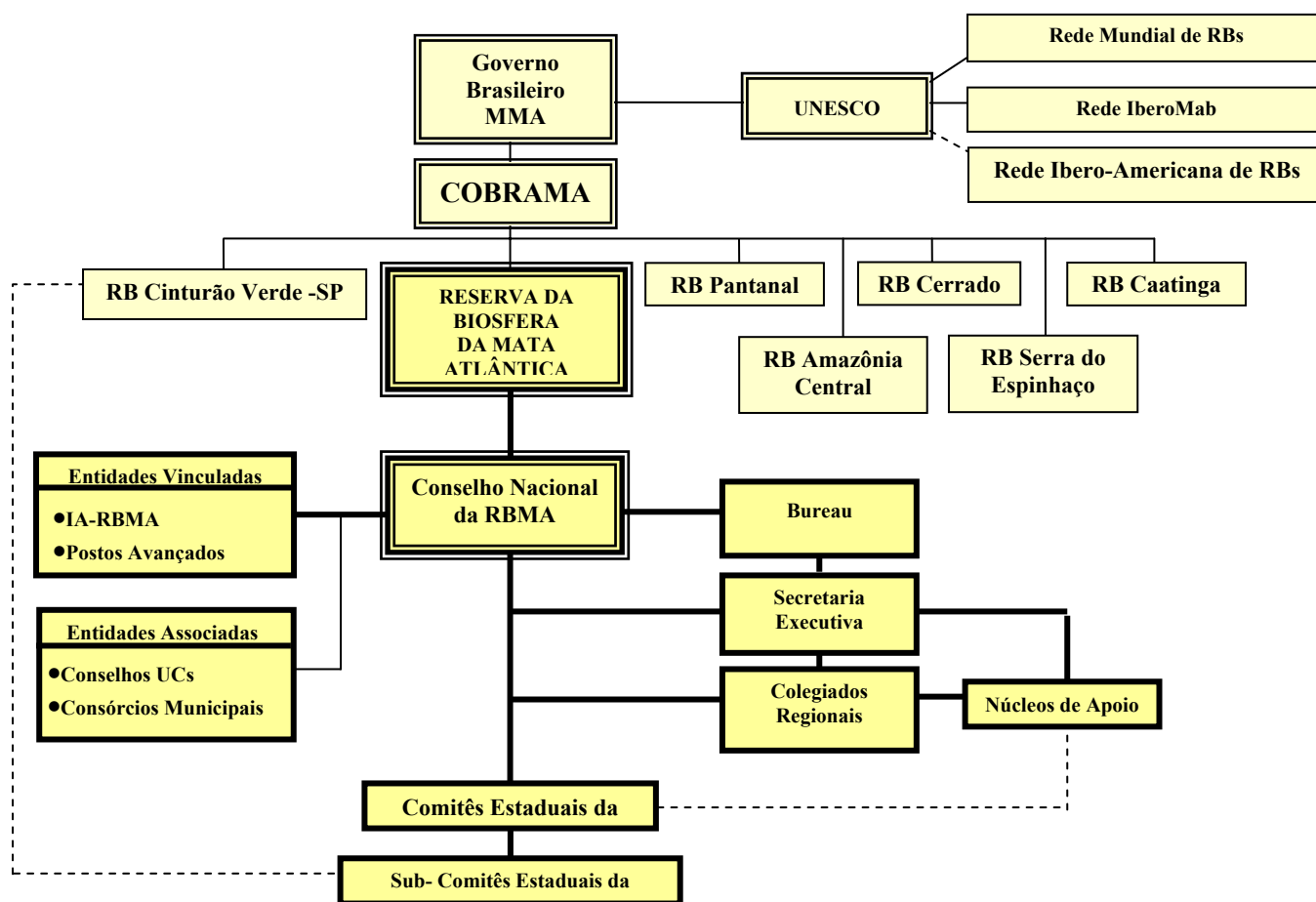


Brasil, and further developing technical and scientific exchange and corporate advising to other biosphere reserves.

All these aspects have transformed the RBMA in a model of “a new generation of Biosphere Reserves”, in the words of the International Coordination Committee of the MaB / UNESCO Program, which have been supporting this Brazilian initiative and promoting this example as an alternative model for the creation of new biosphere reserves or restructuring of others.

The RBMA model was adopted by the Brazilian Committee of the Man and Biosphere Program - COBRAMAB and the Ministry of Environment, which defined as a national policy the creation of at least one big Biosphere Reserve in each Brazilian biome, with space setup and management system based on the experience of the Mata Atlântica Biosphere Reserve. As a result, the RBMA included among its objectives the support to the creation and implementation of those “Sister Reserves” and consolidation of the Brazilian Network of Biosphere Reserves. Currently, the RBMA coordinates the Brazilian Network of Biosphere Reserves.

RBMA MANAGEMENT SYSTEM





4.7. EXECUTION MECHANISMS

While the conceptual and practical advance to implement the RBMA is deemed as indisputable, the need to increment the management capacity of the Reserve is acknowledged, including in this context human, financial, administrative and managerial resources. Besides, it has become critical to improve the communication with members and partners of the Reserve, define priorities and implement new action strategies. In this context, the RBMA Strategic Planning has been prepared from a broad participative process.

For such, a participative work methodology has been created orderly involving several levels of the RBMA, with the main purpose of discussing and obtaining approval by the National Council of the RBMA of a Strategic Planning within a 10-year horizon.

As set forth in the RBMA Strategic Planning, Action Lines and RBMA Programs have a national permanent nature, while projects and activities have a defined term and may have national or local scope. Action lines and the programs that comprise them are:

- **ACTION LINE 1. Corporate Management and Strengthening of the RBMA**

Programs: Consolidation of the RBMA Management System; Territorial Consolidation and Strategic Planning; Advanced sites.

- **ACTION LINE 2. Public Policies and Institutional Affairs**

Programs: Legislation and Public Policies, Campaigns and Mobilization

- **ACTION LINE 3. International Cooperation**

Programs: International Cooperation and International Networks

- **ACTION LINE 4. Conservation and Sustainable Development**

Programs: Forest Resources; Waters and Forests; Sustainable Tourism; Urban Forests; Culture and Mata Atlântica; Conservation and Research; Quality Economy; Mosaics and Ecologic Corridors, and Mata Atlântica Market.

- **ACTION LINE 5. Information, Communication and Environmental Education.**

Programs: Mata Atlântica Yearbook; Publications; Communication, Information and Environmental Education.

Each of these Programs encompasses several projects and activities. The projects have specific objectives, resources and defined term. Therefore, they are temporary. Activities, on their turn, are subdivided in routine activities, such as, for instance, financial administration, and special activities, like the IBEROMAB Meeting.

Programs and projects established in the strategic planning are developed and implemented by several collegiate levels comprising the RBMA management system and partners.

Here, it is possible to highlight the role of 34 RBMA Advanced Sites, centers for promotion and information on concepts, ideas, programs and projects developed by the Reserve.

Although it directs its field projects and actions to internal areas of its territory, in particular within its priority areas, the RBMA acts in the whole Mata Atlântica Biome on public policies biodiversity conservation, education and environmental communication, sustainable tourism, responsible consumption, natural resource integrated management and corporate articulation policies.

The RBMA also participates and acts in partnership with several public and private institutions in the implementation of national and regional programs, in accordance with its purposes and directives, with particular focus on the Mata Atlântica Restoration Pact, Ecologic Corridor Project, Alliance for the Mata Atlântica Mosaic Protected Area, among others.



RBMA PROGRAMS AND PROJECTS

Programas da Reserva da Biosfera da Mata Atlântica

Conservação e Pesquisa

Conservação da Biodiversidade, Novas Áreas Protegidas, Manejo Participativo

Políticas Públicas

Legislação e Políticas Públicas, Mobilização, Campanhas e Articulação, Prêmio Muriqui, Fundos

Cooperação Internacional

Grupos de Trabalho da UNESCO, Redes Regionais, Sítios do Patrimônio Mundial Natural, Projetos de Cooperação Bilateral

Mosaicos e Corredores Ecológicos

Mosaicos de UCs, Corredor Ecológico

Mercado Mata Atlântica

Consumo Responsável, Negócios Sustentáveis

Águas e Florestas

Integração de Políticas de Águas e Florestas, Programa Águas e Florestas, Gestão Integrada de Águas e Florestas em Bacias Hidrográficas

Turismo Sustentável

Projetos de Base Comunitária, Capacitação de Monitores Locais, Apoio à Gestão em UCs, Política Nacional e Certificação do Turismo

Florestas Urbanas

Zoneamento, Cinturões Verdes, Parques e Ecossistemas Urbanos, Maranjais

Gestores da Mata Atlântica/ Capacitação

Mobilização, Gestão Participativa, Informação e Capacitação

Cultura e Mata Atlântica

Comunidades Locais, História e Patrimônio, Conhecimento Tradicional e Científico, Arte e Artesanato

Economia de Qualidade

Certificação, Produção e Consumo Sustentável, Serviços Ambientais, Compensação Ambiental, Responsabilidade Social

Recursos Florestais

Uso Sustentável, Inventário e Pesquisa, Certificação Ambiental

Anuário Mata Atlântica

Estudos e Pesquisas, Anuário Mata Atlântica, Informações de Qualidade sobre a Mata Atlântica, Congressos e Seminários

Comunicação e Educação Ambiental

Educação Ambiental, Publicações, Intercâmbio, Áudio e Vídeo

Parceiros: UNESCO, Ministério do Meio Ambiente, BROS, SECRETARIA DO MEIO AMBIENTE SÃO PAULO, APOIO: PEME, Shopping Anália Franco, Projeto Mata Atlântica



5. OFFICIAL SUPPORT – SUPPORT LETTERS TO THE RBMA PROPOSAL

The following subscribe this document as evidence of official support.

The Brazilian Committee of the Man and Biosphere-COBRAMaB which approved the proposal at its meeting on August 28, 2008, as well as the institutions listed below:

5.1. Institutions and Government Programs in Environment Area

Institution: Institute Chico Mendes on Biodiversity Conservation

Name: Rômulo José Fernandes Barreto Mello

Post: Chairman

Date: 22 de agosto de 2008

Institution: Environment Policy and Management Board – CONPAM/CE

Name: Maria Tereza Bezerra Farias Sales

Post: Chairman

Date: 22 de agosto de 2008

Institution: Protection Office of Environment - IDEMA/RN

Name: Eugênio Marcos Soares Cunha

Post: General Director

Date: 27 de agosto de 2008

Institution: Environment Administration Oversight – SUDEMA/PB

Name: Régis Albuquerque Cavalcanti

Post: Superintendent

Date: 19 de agosto de 2008

Institution: Science, Technology and Environment Secretary of Pernambuco – SECTMA/PE

Name: Aloysio Costa Jr.

Post: Environment Executive Secretary

Date: 18 de agosto de 2008

Institution: Environmental Institute of Alagoas - IMA/AL

Name: Adriano Augusto de Araújo Jorge

Post: Chief Executive Officer

Date: 15 de agosto de 2008

Institution: Environmental Institute of Alagoas - IMA/AL

Name: Alex Nazário Silva Oliveira

Post: Director of the Conservation Unit

Date: 15 de agosto de 2008

Institution: Environmental Institute of Alagoas - IMA/AL

Name: Gustavo Silva de Carvalho

Post: Technical Director

Date: 15 de agosto de 2008

Institution: Brazilian Institute of Environment - IBAMA/AL

Name: Paulo César Casado Auto



Post: Representative of IBAMA in the CE-RBMA
Date: 15 de Agosto de 2008

Institution: State Co-ordination Unit in Bahia – UCE/BA
Name: Milson Batista
Post: Coordinator of the Ecologic Corridor Project
Date: 18 de agosto de 2008

Institution: Secretary of State for Environment and Sustainable Development/MG
Name: José Carlos Carvalho
Post: Secretary of State
Date: 18 de agosto de 2008

Institution: State Institute of Forests in Belo Horizonte – IEF/MG
Name: Humberto Candeiras Cavalcanti
Post: General Director
Date: 19 de agosto de 2008

Institution: State Environment and Water Resources Secretariat – SEAMA/ES
Name: Maria da Glória Brito Abaurre
Post: State Secretariat
Date: 22 de agosto de 2008

Institution: Capixaba Institute of Research, Technical Assistance and Rural Extension –
INCAPER/ES
Name: Maria da Penha Padovan
Post: Environmental Coordination
Date: 20 de agosto de 2008

Institution: Research Institute's of Mata Atlântica - IPEMA/ES
Name: Elizete Shering Siqueira
Post: Chairman of the board
Date: 21 de agosto de 2008

Institution: Preservation Institute of Mata Atlântica – IPEMA/ES
Name: Fernando Alberto Mendes Pinto Neto
Post: Project Technician
Date: 15 de agosto de 2008

Institution: State Institute of Forestry in Rio de Janeiro – IEF/RJ
Name: André Ilha
Post: Chairman
Date: 21 de Agosto de 2008

Institution: Department of Environment/SP
Name: Pedro Ubiratan Escorel de Azevedo
Post: Deputy State Secretary for the Environment
Date: 02 de outubro de 2008

Institution: Forest Conservation and Production Foundation of São Paulo State – Fundação
Florestal/SP
Name: José Wagner Neto



Post: Executive Director
Date: 12 de Setembro de 2008

Instituição: Forest Institute – IF/SP
Nome: Claudio Henrique Barbosa Monteiro
Cargo: Director General
Data: Setembro de 2008

Institution: Department of Environment and Water Resources of Goiás - SEMARH/GO
Name: Roberto Gonçalves Freire
Post: State Secretary
Date: 25 de agosto de 2008

Institution: Environment and Water Resources Secretariat of Paraná State/PR
Name: Francisco Lange Júnior
Post: Biodiversity and Forest Coordinator
Date: 19 de agosto de 2008

Institution: Secretary of State for Sustainable Economic Development of Santa Catarina /SC
Name: Onofre Santo Agostini
Post: State Secretary
Date: 01 de outubro de 2008

Institution: Environment Foundation - FATMA/SC
Name: Carlos Leomar Kreuz
Post: President
Date: 07 de outubro de 2008

Institution: State Foundation for Environmental Protection Henrique Luis Roessler –
FEPAM/RS
Name: Ana Maria Pellini
Post: President Director
Date: 25 de agosto de 2008

Institution: Secretary of Culture of the State of Rio Grande do Sul /RS
Name: Maria Beatriz Medeiros Kother
Post: Director of IPHAE
Date: 25 de setembro de 2008

Institution: Prefeitura Municipal de Jateí/MS
Name: Eraldo Jorge Leite
Post: Municipal Mayor
Date: 25 de agosto de 2008

Instituição: Department of Environment of Bonito/MS
Nome: Edmundo Costa Jr.
Cargo: Municipal Secretary of Environment
Data: Setembro de 2008

5.2. Representatives of Teaching/Research Institutions



Institution: Universidade Federal do Ceará – UFC/CE
Name: Luis Carlos Uchoa Saunders
Post: Pro-Rector of Management acting as Rector
Date: 19 de Agosto de 2008

Institution: Golfinho Rotador Center/PE
Name: Prof. Dr. Flávio José Lima Silva
Post: Chairman of the Deliberative Board
Date: 22 de agosto de 2008

Institution: MAC Herb Garden /AL
Name: Rosangela Pereira de Lyra Lemos
Post: Trustee
Date: 15 de agosto de 2008

Institution: Pró-Tamar Foundation /BA
Name: Gustave Gilles Lopez
Post: Bahia Regional Coordinator
Date: 22 de agosto de 2008

Institution: Foundation of the Brazilian Center for Protection and Research of Marine Turtles –
Pró-TAMAR/BA
Name: João Carlos Alciati Thomé
Post: Regional Coordinator of Espírito Santo and Chairman of the Board of Trustees
Date: 21 de agosto de 2008

Institution: Federal University of Goiás – UFG/CAJ / GO
Name: Fabiano Rodrigues de Melo
Post: Research and Post-Graduation Assistant
Date: 22 de Agosto de 2008

Institution: Universidade de São Paulo – USP/SP
Name: Prof. Dr. José Pedro de Oliveira Costa
Post: Teacher Dr. of Architecture and City Planning
Date: 20 de Agosto de 2008

Institution: Pontifícia Universidade Católica do Rio Grande do Sul – PUC-RS
Name: Dr. Jorge Alberto Villwock
Post: : Director of the Environment Institute
Date: 21 de Agosto de 2008

5.3. Representatives of ONGs

Institution: Network of ONGs of the Mata Atlântica - RMA
Name: Elizete Shering Siqueira
Post: General Coordinator
Date: 21 de agosto de 2008

Institution: Mata Atlântica Foundation in the State of Ceará/CE
Name: Ednaldo Vieira do Nascimento
Post: Chairman of the Board of Directors



Date: 21 de agosto de 2008

Institution: Caatinga Association/CE
Name: Rodrigo Castro
Post: Executive Director / Legal Representative
Date: 26 de agosto de 2008

Institution: Brasil Cidadão Foundation/CE
Name: Maria Leinad Vasconcelos Carbondin
Post: Executive Director
Date: 25 de agosto de 2008

Institution: Northeastern Ecology Society – SNE/PE
Name: Marcelo Sérgio Martins Mesel
Post: Chairman
Date: 25 de agosto de 2008

Institution: Association for Protection of the Atlantic Forest of Northeast – AMANE/PE
Name: Maria das Dores de V. C. Melo
Post: Executive Director
Date: 22 de agosto de 2008

Institution: Coastal Institute Reefs – IRCOS/PE
Name: Dr. Mauro Maida
Post: General Council President
Date: 02 de Setembro de 2008

Institution: Institute of Environmental Research and Conservation of Alagoas – IAPP/AL
Name: Antonio Wilton de Carvalho
Institution: Chairman
Date: 15 de agosto de 2008

Institution: AVINA – Marine and Coastal Water Representation of Brazil /BA
Name: Tânia Mascarenhas Tavares
Post: Representative
Date: 26 de agosto de 2008

Institution: Institute of Social and Environmental Studies of the Southern Region of Bahia – IESB/BA
Name: Paulo Vila Nova
Post: Executive Secretary
Date: 19 de agosto de 2008

Institution: Environmentalist Group of Bahia – Gambá/BA
Name: Renato Cunha
Post: Coordinator
Date: 19 de agosto de 2008

Institution: International Conservation/BA
Name: Guilherme Fraga Dutra
Post: Director of the Marine Program
Date: 25 de agosto de 2008



Institution: International Conservation of Brazil – CI-Brasil/MG
Name: Luiz Paulo de Souza Pinto
Post: Director of the Mata Atlântica Program
Date: 14 de agosto de 2008

Institution: Terra Institute/MG
Name: Carlos Alberto Lessa
Post: Executive Superintendent
Date: 20 de agosto de 2008

Institution: Terra Institute /RJ
Name: Gilberto Pereira
Post: Technical Director
Date: 25 de agosto de 2008

Institution: Mico Leão Dourado Association/RJ
Name: Denise Marçal Rambaldi
Post: General Secretary
Date: 21 de agosto de 2008

Institution: Center for the Study of Marine Conservation – CEMAR/SP
Name: Mabel Augustowski
Post: Oceanographer – Biologist, Executive Coordinator
Date: 20 de agosto de 2008

Institution: SOS Mata Atlântica Foundation /SP
Name: Márcia Makiko Hirota
Post: Knowledge Management Director
Date: 22 de agosto de 2008

Institution: SOS Mata Atlântica Foundation /SP
Name: Mario Cesar Mantovani
Post: Mobilization Director
Date: 22 de agosto de 2008

Institution: Society for the Preservation of Birds in Brazil – SAVE Brasil/SP
Name: Jaqueline M. Goerck
Post: Director-President
Date: 02 de Setembro de 2008

Institution: Coastal Agency /SP
Name: Antonio Eduardo Poleti
Post: Administrative and Financial Director
Date: 20 de agosto de 2008

Institution: Baía de Guanabara Institute – IBG/RJ
Name: Dora Hess de Negreiros
Post: Chairman
Date: 22 de Agosto de 2008

Institution: Vitae Civilis - Development, Environment and Peace Institute/SP



Name: Dr. Rubens Harry Born
Post: Executive Coordinator
Date: 28 de Setembro de 2008

Institution: Mater Natura – Environmental Studies Institute of Parana/PR
Name: Paulo A. Pizzi
Post: Chairman
Date: 02 de Setembro de 2008

Instituição: The National Conservancy
Nome: Miguel Calmon
Cargo: Director of the Atlantic Forest Program
Data: 01 de setembro de 2008

Institution: International Wildlife Coalition - IWC/Brasil/SC
Name: José Truda Palazzo Jr.
Post: Chairman
Date: 20 de agosto de 2008

Institution: Ong Mira-Serra/RS
Name: Lisiane Becker
Post: Coordinator-Chairman
Date: 24 de Agosto de 2008

Institution: CURICACA/RS
Name: Alexandre Krob
Post: Technical Coordinator
Date: 21 de agosto de 2008

Institution: Environmental Monitoring and Education Nucleus – NEMA/RS
Name: Carla Valéria Leonini Crivellaro
Post: Director
Date: 21 de agosto de 2008

5.4. Associations and Local Community

Institution: Association for Local Development Co-produced – ADELCO/CE
Name: Soraya Vanini Tupinambá
Post: Operational Director
Date: 08 de Setembro de 2008

Institution: Indigenous Culture Nucleus – NCI/MG
Name: Ailton Krenak
Post: Executive Director
Date: 20 de Agosto de 2008

Institution: Rede Cananéia Association /SP
Name: Cleber Rocha Chiquinho
Post: Chairman
Date: 25 de Agosto de 2008



Institution: Beekeepers' Association of Rio D`Uma Valley – APIVALE/SC
Name: Glaico José da Sell
Post: Secretary
Date: 25 de agosto de 2008

5.5. Business Sector

Institution: PA – Sítio do Pau Brasil of Usina Coruripe/AL
Name: Cícero Augusto Bastos de Almeida
Post: Member
Date: 15 de Agosto de 2008

Institution: PA Serra D`água Reserve of Usina Camaragibe/AL
Name: Cláudia Maranhão
Post: Coordinator
Date: 15 de agosto de 2008

Institution: PA Cinturão Verde of BRASKEM/AL
Name: Cláudio Pimentel
Post: Coordinator
Date: 15 de agosto de 2008

Institution: PA Fazenda São José of Grupo Toledo/AL
Name: Ivo Augusto S. Pepe
Post: Coordinator
Date: 15 de agosto de 2008

Institution: PA Menestrel of Alagoas of Usina Seresta/AL
Name: Geraldo Gomes de Barros Filho
Post: Coordinator
Date: 15 de Agosto de 2008

Institution: PA RPPN Santa Teresa of Grupo João Lyra/AL
Name: Ronaldo Melo
Post: Coordinator
Date: 15 de Agosto de 2008

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF
THE MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



CHAPTER 2

**Methodology Guidance:
Mata Atlântica Biosphere Reserve - Phase VI**



RBMA REVIEW – PHASE VI **MANUAL OF INSTRUCTIONS**

I – WHAT IS PHASE VI OF THE RBMA?

The RBMA was created as from 1991 with its Phase I including only some areas of São Paulo, Paraná and Rio de Janeiro. In the following phases (1992, 1993, 2000 and 2002) the Reserve was enlarged to include areas of 15 of the 17 States where the Mata Atlântica appears, thus covering approximately 32% of total area of the Biome.

Throughout this process, some delimitation and zoning criteria have changed and resulted in non-standardized situations in different regions. In this sense, it is worth stressing:

- In some states inland forest areas have been include (Seasonal Forests), little represented in others.
- The same occurs in coastal and marine ecosystems that had differentiated attention in different states.
- In some regions, the zoning followed such 3 UNESCO basic zones for Biosphere Reserves (Core Zone, Buffer Zone and Transition Zone) while in others, new zones besides those have been adopted (Core Zone II, Recovery Zone, etc.).
- In some areas, connectivity of the areas with very large or river-extended buffer and/or transition zones has been prioritized.

On the other hand, in this period several new Full Protection Conservation Units have been created (which must be core zones) and others for sustainable use (which shall be included as buffer zones).

Similarly, up-to-date and accurate information has been generated on forest remaining areas, priority conservation areas (Mata Atlântica and coastal marine zone), macro-zoning and others, which shall subside the new design of the RBMA.

Following the direction of the MaB /UNESCO Program, the RBMA makes its review at each 5 years, and in 2007 by completing its 15 years of action, the RBMA will be making the review of its entire area.

Phase VI of the RBMA corresponds to the "General Review of the Delimitation and Zoning of the Reserve", with the following objectives:

- Refit the limits of the RBMA by taking into account updated information, as well as the criteria defined by the National Council – CN-RBMA and Bureau of the RBMA, as presented below.
- Refit the zoning of the RBMA by updating core zones, excluding additional categories (core zone II, recovery zone) and in accordance with the criteria set forth herein.
- Review any inclusion of Mata Atlântica areas of the states of Goiás and Piauí in the RBMA.
- Detail and standardize the inclusion of coastal and marine areas in the RBMA.

II – WHICH ARE THE REVIEW PROCEDURES?

Any amendments (inclusions and exclusions) in the design of the Biosphere Reserves, except when exclusively in transition zones, require the approval of UNESCO. For such, the country must submit the new mapping, a detailed form with the proposal, a justification of the



changes and the agreement letter of authorities involved (in particular federal, state and local bodies).

All proposals must be submitted to UNESCO/Paris up to April 30 of each year in order to be reviewed by the Biosphere Reserve Advisory Committee, which shall meet in June. Upon approval, they shall be submitted to the International Coordination Committee (ICC-MAB), which, in its September/October meeting, will approve them or not.

So that the RBMA Proposal - Phase VI is drafted in a participative and decentralized manner and the UNESCO agenda to be fulfilled, the following schedule has been established:

November 2006 – 16th meeting of the CN-RBMA, in Salvador, State of Bahia, where the general directives for Phase IV and its basic agenda were defined.

February/April 2007 – Drafting of the digital cartography.

The original maps of the RBMA (except Phase V – 2002) have been originally drafted in hardcopy and now are digitalized by a company (ARCPLAN) retained by the CN-RBMA, under coordination of Executive Secretary João Lucílio Albuquerque.

Besides over 70 digital RBMA maps in scale 1: 250.000 for the Northeastern and Southeastern regions, and 1: 1000.000 for the Southeastern Region, the following digital maps have been drafted:

- Brazil Map with the RBMA
- Mata Atlântica Areas (the Biome, according to a IBGE vegetation map)
- Priority Biodiversity Conservation Areas (Mata Atlântica and Coastal Marine Biome)
- Federal Conservation Units (the State and Local Protected Areas are not available digitally and must be provided by the States to the Committee)

April 2007 – Meeting with the Coastal Marine Network (AVINA) for discussions on the inclusion of new coastal and marine areas in the RBMA and eventual creation of one or more RBs do Mar.

17th Bureau Meeting (including coordinators of Regional Collegiates) in order to define the criteria, procedures and responsibilities in the execution of the review.

May/June 2007 – Drafting of this Manual and submission of the material to State Committees.

June/July 2007 – Drafting of the proposals by each State Committee:

- Each State Committee and Subcommittee received:
 - A Set of Maps (paper) scale 1: 250.000, covering the area of the RBMA in each State, except for the Southeastern Region, which are in scale 1: 1.000.000.
 - In the Portal of the Reserve (www.rbma.org.br), by clicking on the Logo of the RBMA - (Muriqui) and then in item "**MAPPING OF THE RBMA**", all RBMA maps will be available in PDF format.



With these data and the collaboration of the members, the Committees have analyzed the current design of the RBMA in the state and proposed fittings (limits and zoning) in order to update the design by considering the criteria defined by the National Council.

It is important to note that all changes/complements/enlargements to be proposed shall be designed in the map (paper or digital) and duly justified in writing, and shall then be sent to the Executive Secretariat of the RBMA up to July 16, 2007, mandatorily.

August 2007 – Discussion of the proposals in Regional Collegiates. In the second quarter of July after consolidation by S.E. of the material received from the States, the proposals shall be discussed and finalized in the meetings of the Regional Collegiates:

Meeting of the Northeastern Regional Collegiate:

To be held probably in the State of Pernambuco in late July or early August 2007, with the following participants: two representatives of the Executive Secretariat of the RBMA, the Advisor of Northeastern Region and the Representative of Mar, the Regional Coordinator of the Northeastern Region, ten Coordinators of the State Committees and Subcommittees of the RBMA-NE, two representatives of Piauí (one governmental and one non-governmental) and four coastal/marine representatives (two governmental and two non-governmental).

Meeting of the Southeastern Regional Collegiate:

To be held probably in the State of São Paulo in the first half of August 2007, with the following participants: three representatives of the Executive Secretariat of the RBMA, the Advisor of the Southeastern Region and the Representative of Mar (Sea), the Regional Coordinator of the Southeastern Region, four Coordinators of the State Committees and Subcommittees of the RBMA-SE, two representatives of Goiás (one governmental and one non-governmental) and four coastal/marine representatives (two governmental and two non-governmental).

Meeting of the Southern Regional Collegiate

To be held probably in the State of Santa Catarina in July 2007, with the following representatives: three representatives of the Executive Secretariat of the RBMA, the Advisor of the Southern Region and the Representative of Mar (Sea), the Regional Coordinator of the Southern Region, four Coordinators of the State Committees of the RBMA-S, and four coastal/marine representatives (two governmental and two non-governmental).

Systematization of a full proposal of the RBMA Review – Phase VI based on the documents submitted by the CNE-RBMA and discussed in the collegiates shall be compiled and assessed by the CN-RBMA coordination team, jointly with regional coordinators and submitted to the Bureau.

End of August 2007 – 18th Meeting of the Bureau (Special)

The Bureau shall review and provide prior approval of the new RBMA map. After the agreements that may be recommended in such meeting, the material shall be detailed, included in the filled UNESCO form and submitted by the SE to the National Council Meeting.



October 2007 – 17th CN-RBMA Meeting to review and approve the proposal of the RBMA Review – Phase VI.

Systematization of a full proposal of the RBMA Review – Phase VI based on the directives and requests of the CN-RBMA shall be compiled and assessed by the coordination team and regional coordinators and be submitted for review and approval by COBRAMAB – Brazilian Committee for the MaB Program.

Until August 2008 – Approval by COBRAMAB.

Systematization of any adjustments proposed by COBRAMAB for the RBMA Review – Phase VI based on the documents submitted shall be compiled and assessed by the team of the Executive Secretariat of the CN-RBMA.

August/September 2008 – Drafting of an UNESCO Form (Portuguese/English) for the Biosphere Reserve Review.

September 2008 – Submission of a document by Itamaraty (MRE) to UNESCO/Paris.



CRITERIA USED IN THE RBMA REVIEW - PHASE VI – 2006 - 2008

I - INTRODUCTION

The following directions have been established by the CN-RBMA and the RBMA Bureau in its November 2006 (Salvador) and May 2007 (São Paulo) meetings.

In order to best understand the criteria presented here, General Review Principles and the following themes are discussed:

- 1. Zoning review;**
- 2. Inclusion of urban areas;**
- 3. Inclusion of marine areas;**
- 4. Inclusion of the States of Piauí and Goiás;**
- 5. Review of the RBMA limits.**

Any doubts and fittings shall be resolved by means of: consultations with the National Executive Secretariat, at any time; meetings of the regional collegiates (July/August 2007); Bureau meeting (September 2007) and CN-RBMA meeting (October 2007).

II – GENERAL PRINCIPLES

General Principle 1 – We are not starting it all over or reinventing the RBMA, but only fitting its limits and zoning by virtue of:

1. Creation of new Conservation Units or change of the existing ones;
2. Existence of more accurate and up-to-date information and cartography on the remaining areas of the Mata Atlântica and its related ecosystem;
3. Special attention is recommended by CN-RBMA to coastal and marine areas;
4. Existence of new official zonings of the territory (Master Plans, coastal macrozoning, etc.);
5. Existence of indications of priority conservation areas (Mata Atlântica, Pampas, Marine) produced by PROBIO/MMA Workshops.

On the other hand, the new design of the RBMA must seek for increased homogeneity of the criteria used throughout its enlargement phases.

Thus, there is no intention to grow or decrease in size, but only search for a correct and adequate design. Changes must be made with economy and all due justifications.

General Principle 2 – The following is a general criterion: The RBMA must include the main remaining Mata Atlântica areas, as well as all Conservation Units in the several states of the Biome.

"Main remaining areas" are understood as the areas meeting at least one and preferably and cumulatively the following criteria:

1. Significantly large areas (as compared to the average remaining regional areas) with primary or secondary forests in medium or advanced state of regeneration;



2. Areas with concentration of significant forest fragments that may be interconnected by means of ecologic corridors or Conservation Units;
3. Special interest areas (priority) for conservation of endemic, rare or endangered species;
4. Forest areas with traditional or sustainable use by communities;
5. Areas forested around Conservation Units that are important for the connectivity thereof.

Whenever including all Conservation Units in the Biome is sought, the general principle does not exclude the existence of exceptions. Thus, areas little conserved, isolate and remote from the central body of the RBMA, in order to be integrated thereto, must be duly justified.

General Principle 3 – In delimiting and zoning the RBMA, although increased standardization is sought, regional differences presented by the Mata Atlântica and its related ecosystems must be respected and valued.

As an example, in the Northeast, "High Altitude Humid Forests (Brejos de Altitude)" are remaining areas of the Mata Atlântica isolated amidst the Caatinga.

Thus, by including them in the RBMA, the continuous corridor that characterizes the Reserve in the Southeast and South is broken. No doubt however that these isolated patches of forest must be included in the RBMA.

III – THEMATIC CRITERIA

1. Zoning Review: According to a concept defined by the MaB/UNESCO Program, Biosphere Reserves must contain three types of zone: core zones, buffer zones and transition zones. All RBs must contain all such three zones.

In the case of the RBMA, historically in some States or regions other zones, besides such tree, named as Core II and recovery zones have been defined. In this review, the CN-RBMA defined that the zoning of the RBMA must be standardized and use exclusively such tree original zones. Areas classified in a different manner shall be reclassified and included in one of the three zones referred to above by following these criteria.

Core zones – ZN – The main purpose of core zones is conservation of biodiversity and other natural resources. These are areas protected by Law and clearly limited within the territory. For the RBMA, core zones are comprised by:

- Federal, state or local Full Protection Conservation Units;
- RPPN – Official Private Reserves of the Natural Patrimony;
- Full Protection Zones within sustainable use Conservation Units, as for instance wild life zones in the APAs or full protection zones in the RDS – Sustainable Development Reserves;
- Natural World Heritage Sites with severe restriction on conservation.
- APP – Actually conserved permanent conservation areas, when separated by means of briefs (even simplified briefs, as, for instance: 20-meter strip around River X), and official acknowledged limits, per zoning, project or conservation normative.



- Areas of springs or fountains when actually conserved and duly protected by the Law (Forest Code, Mata Atlântica Law, Watershed Protection Law or Local Zoning) and clearly identified by briefs;
- Environmental Servitude areas officially established to protect biodiversity and water resources.

In the last three cases, the inclusion of areas shall be duly justified by State Committees, on a case by case basis.

Similarly, any exclusion (or zoning change) of areas already acknowledged by UNESCO as Core zones in previous phases should be restricted to the minimum and be duly justified.

Buffer Zone – ZA – the purpose of buffer zones is minimizing negative environmental impacts in core zones while promoting quality of life of the populations dwelling therein, in particular traditional communities.

Buffer zones are established in the surroundings of core zones or among them, thus promoting connectivity thereof. Every core zone should be surrounded by a buffer zone. However, not every buffer zone should mandatorily have a core zone in its center, provided it surrounds or connects other core zones. In very large pieces of buffer zones without a core defined by full use conservation units, special attention should be given to permanent protection areas and other areas protected that eventually may fit as Core zones of the RBMA.

For the RBMA, buffer zones are constituted as a priority by:

- Sustainable use conservation units defined by the Conservation Unit National System - SNUC or Conservation Unit State Systems.

Note: Full protection zones of these conservation units may be classified as core zones of the RBMA;

- Buffer areas of conservation units defined in its constitution decrees or management plans;
- Natural World Heritage Sites (when not included as core zones);
- Ecologic Corridors between Conservation Units;
- Official fountain areas not fitting as core zones;
- Buffer zones surrounding isolated RPPN (Private Reserves), which, although they fail to have this legal definition zone, they should be contained in the RBMA;
- Indigenous lands;
- Quilombo areas;
- Legal reserves or environmental servitude areas with direct use of natural resources;
- Priority areas for conservation of the Mata Atlântica which are officially deemed as "very high" or "extremely high" priority, and which do not fit the criteria of the Core zones;
- Marine areas contemplated in item Marine Coastal Zoning of this document;
- Urban areas contemplated in item Urban Zoning of this document.

Remarks:

- Buffer zones must have their limits clearly defined in briefs and respective cartography;



- In its delimitation, coincidence with other existing zonings must be sought (Environmental Protection Areas, Municipal Master plans, Coastal Management, etc.) and preferably following the permanent and easy-to-identify references (rivers, water divisors, road, power lines, ducts, etc.).
- The buffer zones of the RBMA must include the buffer zones of conservation units, but not to be restricted thereto, and they may be larger and broader.

Transition Zones - ZT – transition zones involve all buffer zones, and, as a result, all core zones of the Reserve. These are the ones that define the external limit of the RBMA and its size. Although in the original definition of zoning of RBs by UNESCO, the ZT do not mandatorily have fixed limits, the National Committee of the RBMA has defined that in the case of this Reserve, transition zones must also be accurately limited.

Transition zones are intended as a priority for monitoring, environmental education and integration of the Reserve with its surroundings, where intense use and occupation urban, agricultural and industrial zones predominate.

For the RBMA, transition zones are constituted by:

- A territorial stripe 300 meters to wide and 10 kilometers, environmentally and technically determined by State Committees, contouring all Buffer Zones of the Reserve;
- Areas containing forest remaining areas of "high" or "very high" priority for conservation, which are physically near with an environmental influence in other zones of the Reserve;
- Human settlements with low social and environmental impact, as well as tourism sites under the same conditions;
- Consolidated agricultural areas with low environmental impact.

Remarks:

1- Whenever possible the limiting of the ZT shall take into account hydrographic basins, municipal limits and other official zoning consistent with the principles and goals of the Biosphere Reserve.

2- In exception cases, the Transition Zone may have its width reduced (meters or dozens of meters) also because of exception situations regarding the land. Examples are stripes of land or in Conservation Units totally included in the urban mesh.

3- In special cases as in the Marine Zone or Interaction Areas with other biomes, Transition Zones may be broader, and they shall be duly justified.

2. Inclusion of urban areas

Originally, Biosphere Reserves were conceived from natural areas and rural zones. Currently, the discussion on the use of such figure involves also urban and perimeter areas, even because many cities have important natural areas within their perimeters.

The RBMA has gone deeper into the issue by means of its "Urban Forest" program and has defined four pilot areas in order to implement the concept of Biosphere Reserve in the cities. These are: the Biosphere Reserve of the Green Belt of the City of São Paulo, (State of São Paulo), the Island of Santa Catarina (Florianópolis, State of Santa Catarina), the city of Rio de Janeiro (State of Rio de Janeiro) and the set of protected areas (Conservation Unit Belt) in the Metropolitan Region of Recife (State of Pernambuco). Each of these cases shall contribute



with concepts and criteria to be extended to several urban and perimeter areas within or near the RBMA.

Currently, for Phase VI, the CN-RBMA has defined that:

- As a general principle, the RBMA should not include densely occupied urban areas. The only exception shall be the Island of Florianópolis, with already approved zoning;
- Full Protection Conservation Units existing in remaining areas of the Mata Atlântica within or in the perimeter of cities shall be Core zones of the RBMA. In these cases, the Buffer Zone shall be the same as defined for the Conservation Zone. Actually, the Transition Zone may not exist (but rather be reduced to very narrow stripes) in cases where dense urban occupation is not recommended;
- Special cases shall be proposed with a justification by State and Committees and reviewed throughout the review process.

3. Inclusion of Marine Areas

The priority of the RBMA is environmental conservation together with sustainable development within the Mata Atlântica areas, including forest remaining areas and ecosystems related thereto. For this reason, mangrove areas, high altitude fields, dunes, sand banks and coastal areas are also included therein. Besides these areas directly related to the Mata Atlântica, marine ecosystems influenced by impacts from the coastal zone have also been encompassed by the RBMA.

An example thereof are the reefs in the area of Abrolhos (State of Bahia) or fishing areas surrounding submerged bases and portions in several coastal areas. Similarly, oceanic islands of Fernando de Noronha, São Pedro e São Paulo archipelago, Atol das Rocas, Trindade and Martim Vaz are included in the RBMA.

During the process of Phase VI, the RBMA shall give special attention to this issue and review in detail its limits in coastal and marine areas, in particular in areas deemed as priority to conservation. Creation of a Marine Work Group, comprised by members of State Committees of the RBMA and specialist in marine ecosystems (indicated by the Coastal Network - Marine/Avina) shall strengthen the development of the Review proposal.

While a review will be made, such GT will also study an eventual creation of one or more Marine Biosphere Reserves in Brazil. Focus areas for this study shall be oceanic islands of the Northeast (Fernando de Noronha, Atol, Penedos), the region of Abrolhos and the Marine Corridor Vitória-Trindade. In the event these Biosphere Reserves are proposed, some areas (Trindade Island, for instance) could be transferred from the RBMA to the Marine RB or continue as overlapping area of both Reserves.

In order to review the RBMA, the Committee recommends:

- Inclusion of priority conservation coastal ecosystems, including coral areas and areas of the continental platform near the coast where endemic or endangered marine species are gathered;
- Specifically marine areas should be included in buffer zones and transition zones, thus preventing proposals of core zones, except where Full Protection Conservation Units already exist.



4. Inclusion of Areas of the States of Piauí and Goiás

Regarding the 17 States of the Biome, 15 of them are currently represented in the RBMA, except for Goiás and Piauí only. Eventual inclusion of these States is subject to:

1. Indisputable confirmation by the scientific community that the remaining forest areas present there are Mata Atlântica;
2. Compliance with the criteria referred to in item General Principle 2;
3. Existence of adequate information and mapping on remaining areas and Conservation Units as base for the proposal of limits and zoning;
4. Interest and formal affiliation of each State;
5. Conditions to establish the respective State Committees or instance representing them in the initial acknowledgement phase.

For the RBMA, in case the areas of Piauí are included, the State will become part of the RBMA Northeastern Region, and in the case of inclusion of Goiás, the State will be part of the RBMA Southeaster Region.

5. Review of the RBMA Limits

The RBMA limits coincide with those of the transition zones and shall be the result of an "inside-to-outside" work from core zones. The limits shall be a natural consequence of application of the criteria presented in the items above and intend to form the "final" limit of the RBMA, thus completing 15 years of growth.

A new review may only be made in 2012, according to standards of the CN-RBMA.

Other Considerations on the limits and zoning of the RBMA

1. Overlapping with other Biosphere Reserves

Brazil has currently 7 Biosphere Reserves. Except the Biosphere Reserve of the Green Belt of the City of São Paulo (fully overlapped as an integral part of the RBMA), which is also Mata Atlântica, the others are distributed among big Brazilian biomes: Pantanal Biosphere Reserve, Caatinga Biosphere Reserve, Cerrado Biosphere Reserve, Central Amazon Biosphere Reserve, and Serra do Espinhaço Biosphere Reserve (ecotones and rupestrine fields). Almost all of them have overlapping areas among themselves in transition zones (ecotones) among ecosystems.

The RBMA has overlapping areas with the Caatinga, Cerrado, Pantanal and Espinhaço Biosphere Reserves, besides, obviously, the São Paulo City Green Belt Biosphere Reserve. The National Park of Ubajara (State of Ceará), for instance, is a core zones both of the RBMA and the RBCA. The National Park of Serra da Bodoquena is also a Core zone of the RBMA and the Pantanal Biosphere Reserve.

Obviously, such overlapping must be located, reduced to the least possible and duly justified. They must be agreed jointly among Reserves, and the zonings of both of them should be coherent.



So, when a buffer zone of the RBMA is partially included into a smaller buffer zone (as in the case of the Pantanal Buffer Zone in the surroundings of the National Park of Serra da Bodoquena), some transition zone is not required to be limited in such location. In this event, the Transition Zone of the RBMA would be at the same time a Buffer Zone of the Pantanal Biosphere Reserve, which would cause confusion and management difficulties. From a formal point of view, the Transition Zone of the RBMA coincides with the limits of the buffer zone.

2. Limiting and identification of Units within the Core and Buffer Zones

In producing the new RBMA mapping, the Committees shall identify the several Units that comprise the core zones and buffer zones. Thus, the same will occur when Conservation Units of the same class are neighboring. The limit among both areas comprising the core zone shall be marked in the map and duly identified with the name of the Unit.

In the case of the Buffer Zones, besides the Conservation Units, Indigenous Lands, Quilombos and other Special Areas of the RBMA shall be clearly limited and identified.

All of these territorial units shall be listed in a table that accompanies the brief of the RBMA in the State.

3. Cartographic Key

The proposals must follow the standardization of colors and keys presented in the work cartography sent to the Committees.

CLAYTON FERREIRA LINO
Chairman of the CN-RBMA
São Paulo, May 2007

Note: After the World Congress of RBS in Madrid 2008, terminology and conceptual minor changes were made to the manual. For example, "Buffer Zones" is now called "Conductivity and Buffer Zones" and "Transition Zones" have become "Transition and Cooperation Zones".

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

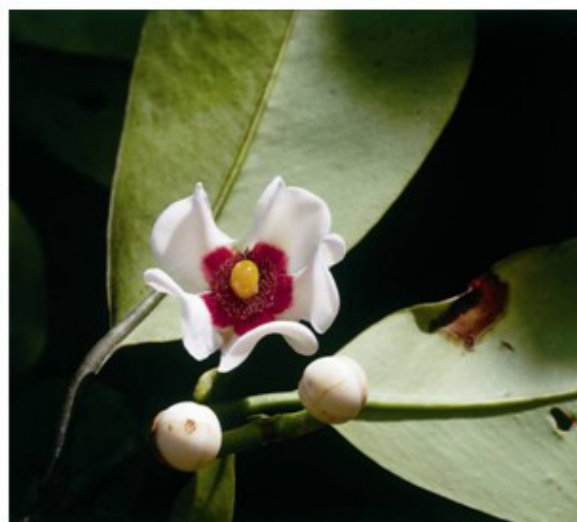
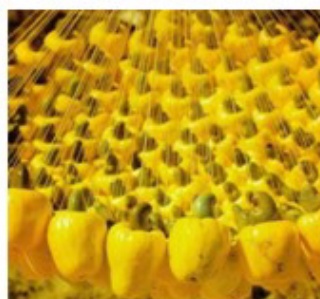
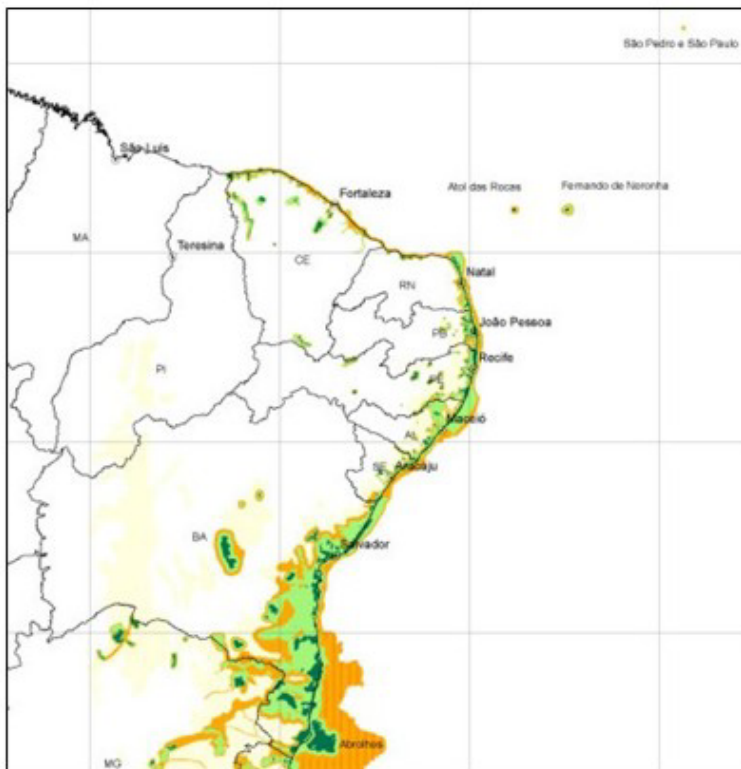
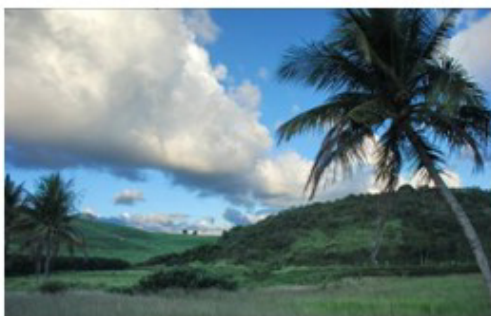


CHAPTER 3

Proposal Specification by Regions and States

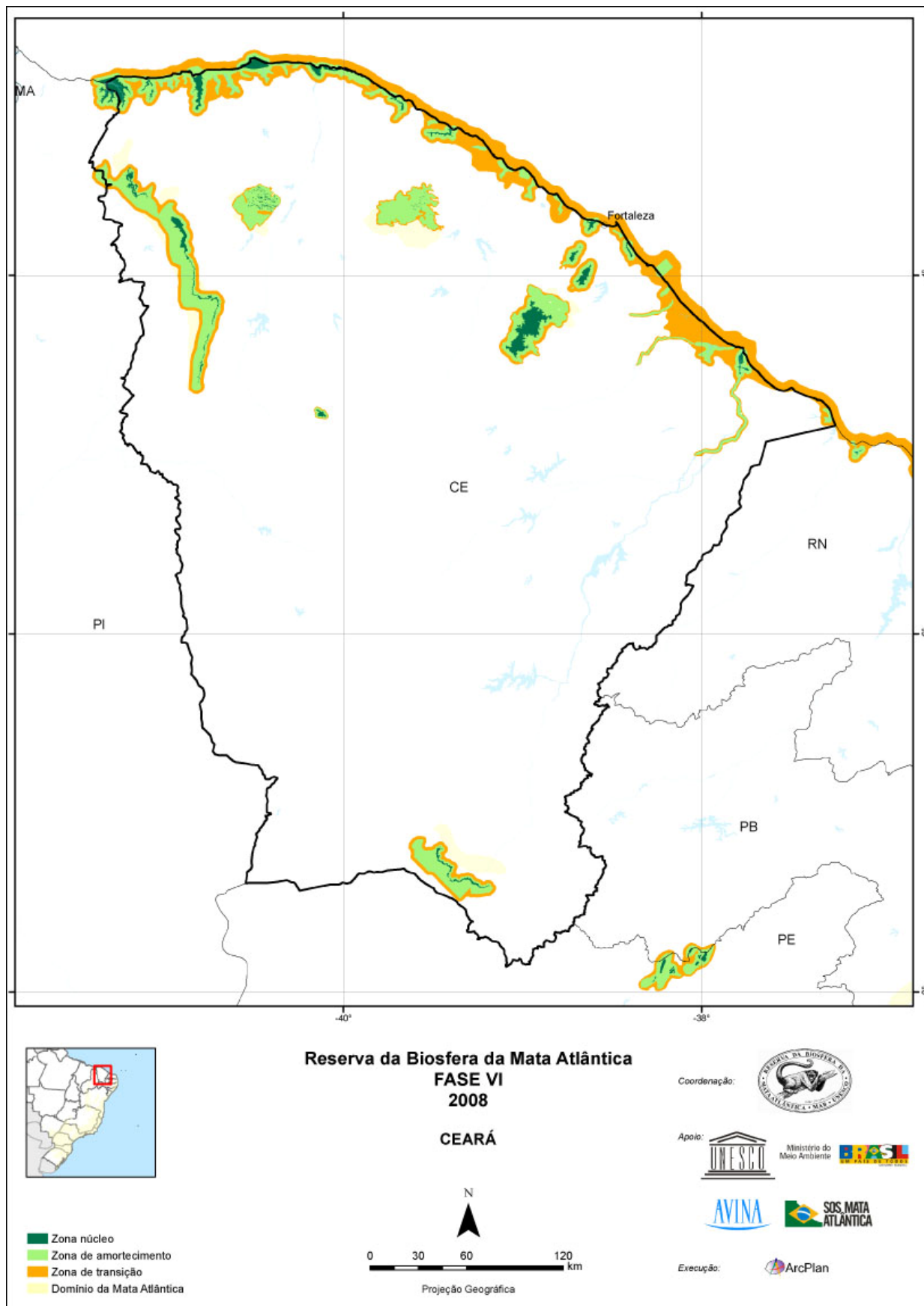


Northeast Region





3.1. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF CEARÁ





THE MATA ATLÂNTICA IN THE STATE OF CEARÁ

“The Mata Atlântica in Ceará occupies total area of 1,873 km² and is located in a dispersed manner in ten regions: Chapada do Araripe, Shore, Chapada do Ibiapaba, Serra da Aratanha, Serra de Baturité, Serra do Machado, Serra das Matas, Serra de Maranguape, Serra da Meruoca and Serra de Uruburetama, occupying totally or partially 67 municipalities”.

“As in a significant portion of the Brazilian northeast, it is in the shores of the State that most aggressions to the biodiversity of the ecosystems associated to the Mata Atlântica is verified: mangroves, sand banks and dune vegetation. Reduction of mangrove areas is explained by the compatible use of the soil related to enlargement of tourist facilities and crustaceous culture. Restinga vegetation is reduced further by virtue of tourism and enlargement of agriculture”.

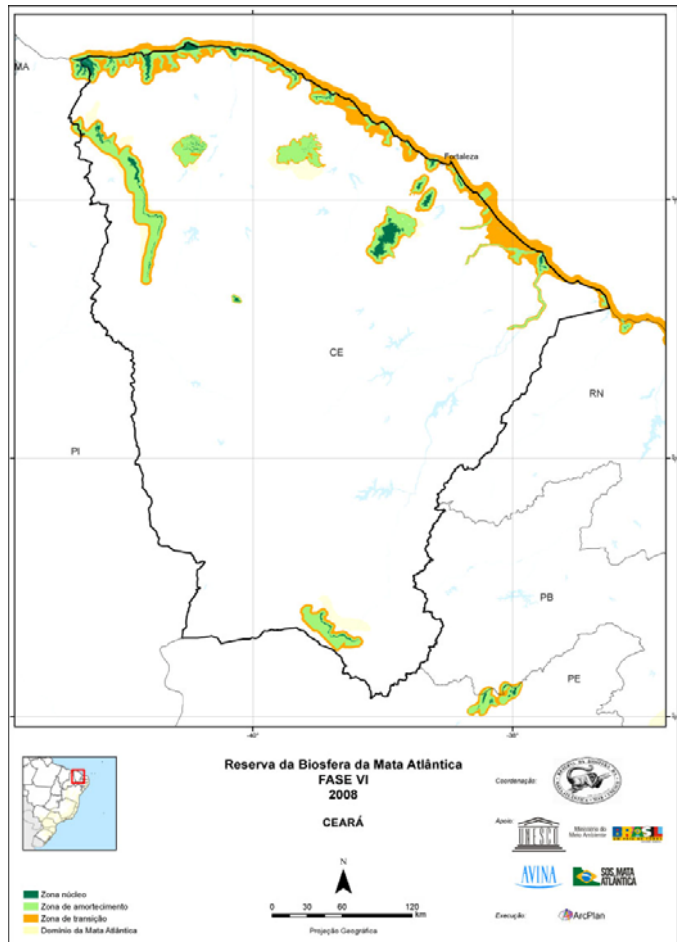
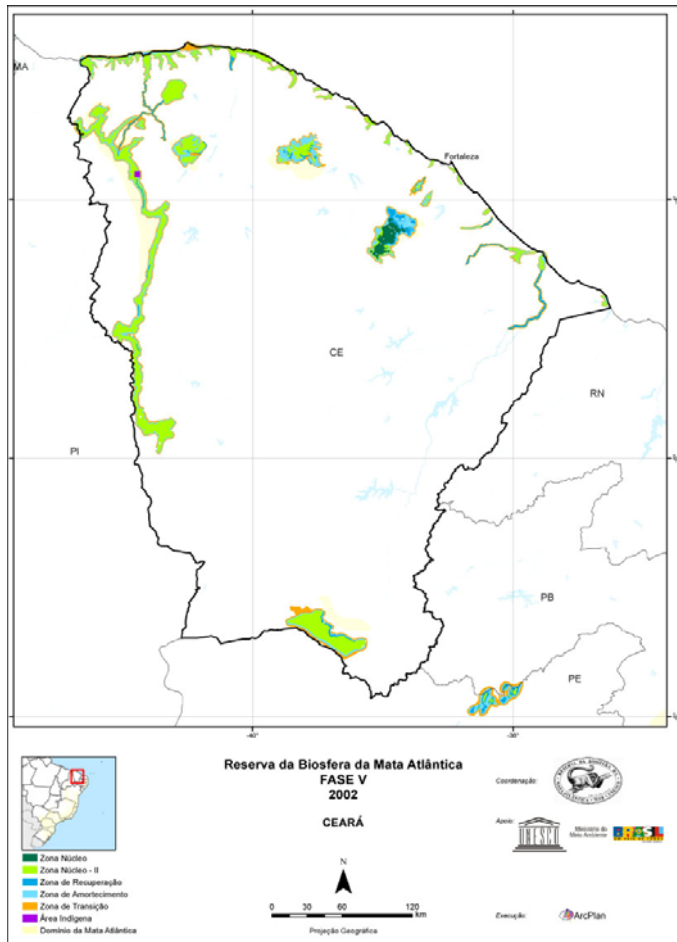
“According to data obtained from the mapping performed by the Northeast Ecology Society - SNE in 2004, it is possible to verify that only 14 municipalities (Amontada, Barbalha, Barroquinha, Beberibe, Camocim, Crato, Fortim, Guaramiranga, Meruoca, Mulungu, Pacatuba, Pacoti, Paracuru and Paraipaba) among those with mapped vegetation obtained an amount above 10% of the municipal areas covered regarding the Mata Atlântica and Related Ecosystems in the State of Ceará”.

“The results presented in the tables show a matter of relevance in the management of the Northeastern Mata Atlântica: the vegetation protected in conservation units in the State represents 44.86% (84,018.40 ha) of the total mapped vegetation (187,286.41 ha). In spite of the fact that only 25.72% (21,610.59 ha) of this protected percentage are within full protection conservation units, field reports indicate that the presence of a conservation unit, even a sustainable use one, but of great size, such as the APA (Environmental Protected Area), has played great influence in the conservation of the biome in the State”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF CEARÁ

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	CE	14,950,449	1,020,454	7%	26,024	1,046,479
Phase VI			1,182,578	8%	322,632	1,505,210



MAIN CHANGES TO PHASE VI – DESCRIPTION AND JUSTIFICATION

In the State of Ceará the main changes from Phase V to Phase VI of the RBMA occurred by virtue of:

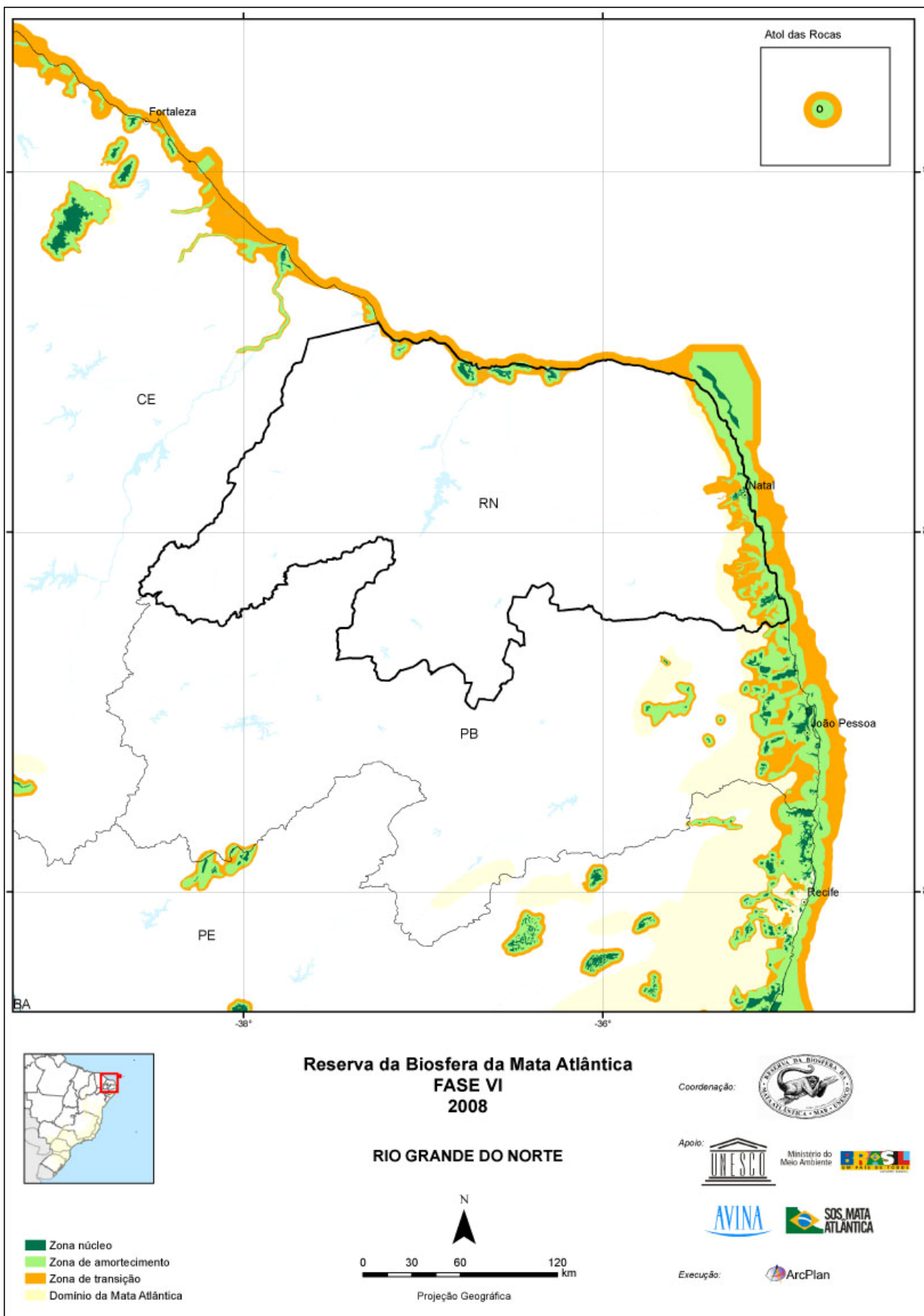
- 1- Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2- Fitting of the zoning of the RBMA, focused on the transformation of **core zones 2** existing in Phase V into **buffer zones**, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of Terrestrial and coastal core zones, focused on the discussion to include conservation units, such as the National Park of Jericoacoara and the Extractive Reserve of Batoque.
- 4- Significant enlargement of the RBMA areas in the coastal and marine regions, including Core, Buffer and Transition Zones, interconnecting mangrove areas, sand banks, sea turtle spawning and manatee procreation areas, thus forming biodiversity corridors with the State of Rio Grande do Norte.
- 5- Inclusion of Indigenous land Lagoa Encantada and Pitaguary as Buffer Zones.
- 6- Suppression of areas included in Phase V, not considered as Mata Atlântica Biome anymore, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.2. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF RIO GRANDE DO NORTE





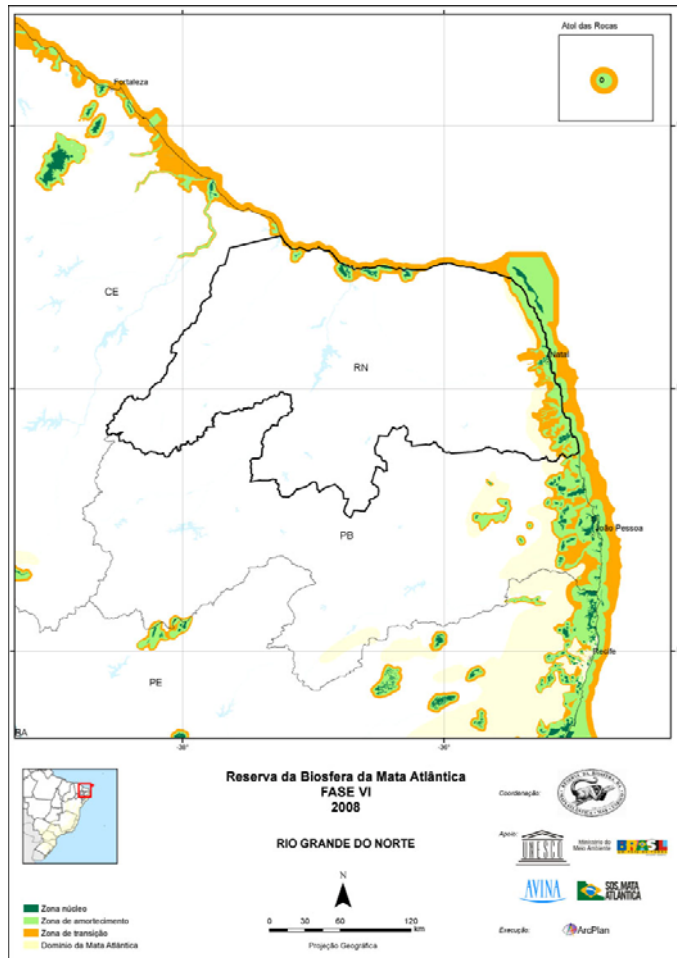
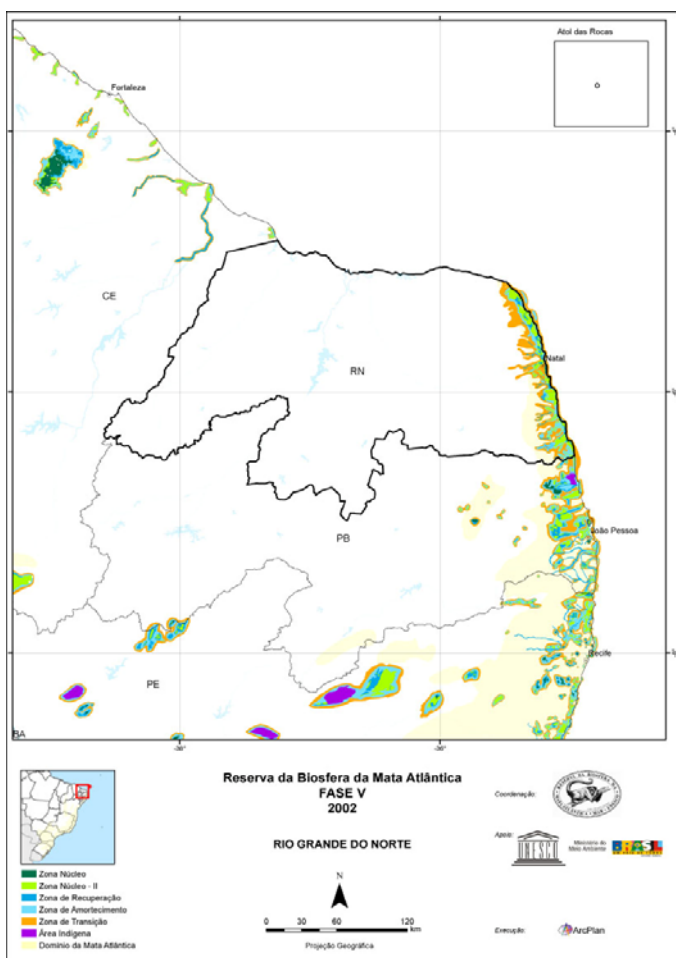
THE MATA ATLÂNTICA IN THE STATE OF RIO GRANDE DO NORTE

“The Domain of the Mata Atlântica (DMA) in Rio Grande Norte occupies total area of 3,298 Km² and is located in the eastern shore side of the State, thus occupying totally or partially 27 municipalities, including the forest, sand bank and mangrove ecosystems. Although it is not included in the DMA, the northern shore presents remaining sand bank and mangrove areas in the municipalities of São Bento do Norte, Galinhos, Guamaré, Macau, Porto do Mangue, Areia Branca, Grossos and Tibau. Similarly, serrana (mountain) forest fragments are found in the municipalities of Martins, Portalegre, Serrinha dos Pintos, Coronel João Pessoa and Luís Gomes”.

“In spite of the strong fragmentation of the ecosystems forming the Mata Atlântica in the State, there is the possibility of forming an ecologic corridor from Mata da Estrela, in the municipality of Baía Formosa, continuing through the bushy and arboreous sand banks of the shore until the municipality of Natal. Another corridor may be formed from Extremoz to the municipality of Touros, also protecting and recovering the sand bank ecosystem. These two portions constitute Priority Conservation Areas of the Mata Atlântica in Rio Grande do Norte, according to results of the “Workshop on Assessment of Priority Conservation Areas of the Mata Atlântica and Campos Sulinos”, held in Atibaia, São Paulo, in 1999”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF RIO GRANDE DO NORTE COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	RN	5,336,070	251,080	5%	40,686	291,766
Phase VI			335,295	6%	507,793	843,088



MAIN CHANGES OCCURRING TO PHASE VI – DESCRIPTION AND JUSTIFICATION

In the State of Rio Grande do Norte the main changes occurring from Phase V to Phase VI were due to:

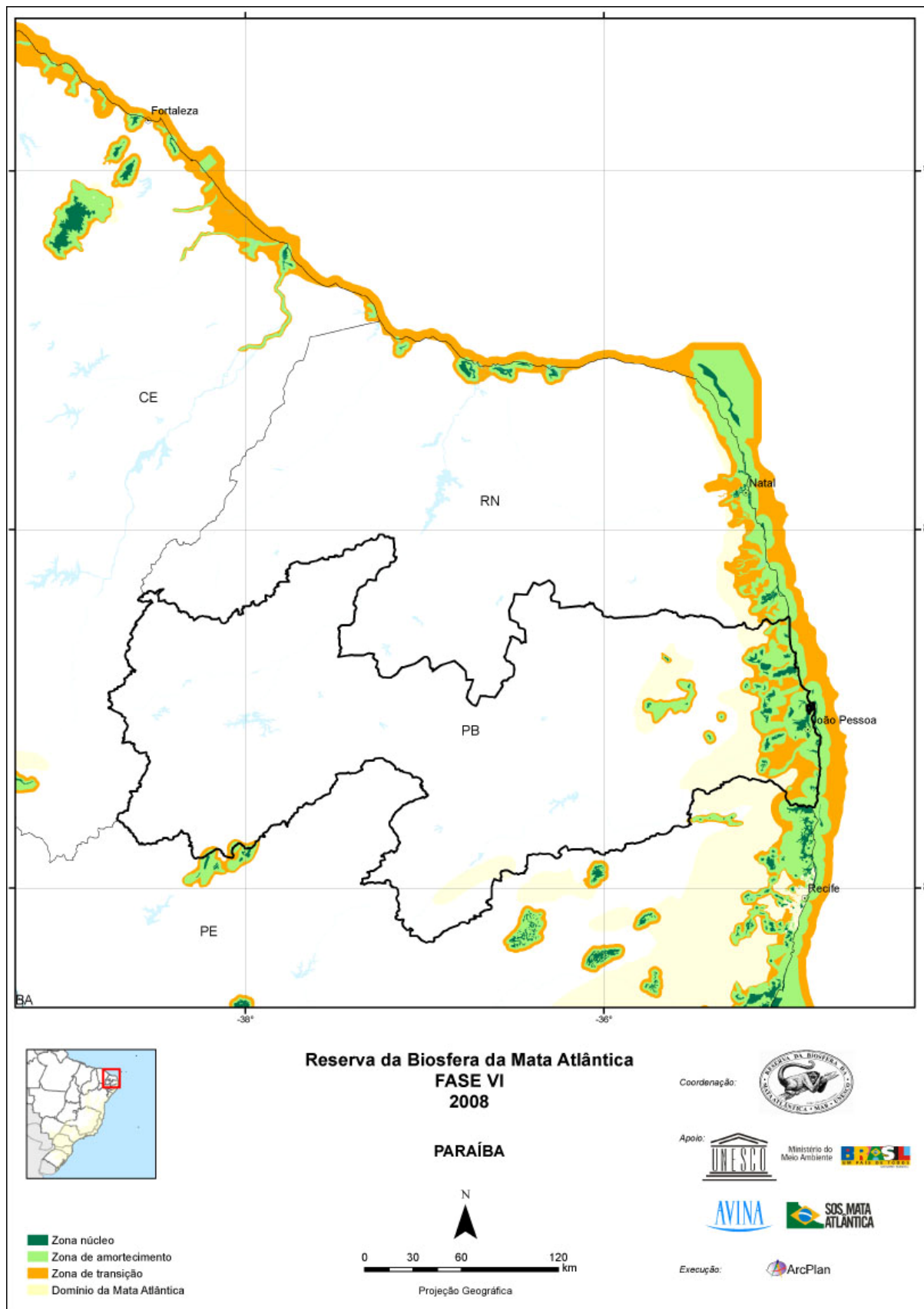
- 1 - Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2 - Fitting of the zoning of the RBMA, focused on the transformation of core zones 2 existing in Phase V into buffer zones, consistent with the provisions of the Review Manual – Phase VI.
- 3 - Creation of core zones in permanent preservation and highly restricted use areas, in particular mangroves, sand banks and coral reefs, deemed as extreme high priority for biodiversity purposes by the State and the Ministry of Environment.
- 4 - Significant enlargement of the RBMA areas in the coastal and marine region, including Buffer and Transition Zones, interconnecting mangrove areas, sand banks, sea turtle spawning and manatee procreation areas, thus forming biodiversity corridors with the State of Ceará.
- 5 - Inclusion of new conservation units as the core and buffer zones, focusing on the Environmental Protection Area of Coral Reefs and Natural Forest of Nísia **Forest**.
- 6 - Suppression of areas included in Phase V, not considered as Mata Atlântica Biome anymore, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.3. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF PARAÍBA





THE MATA ATLÂNTICA IN THE STATE OF PARAÍBA

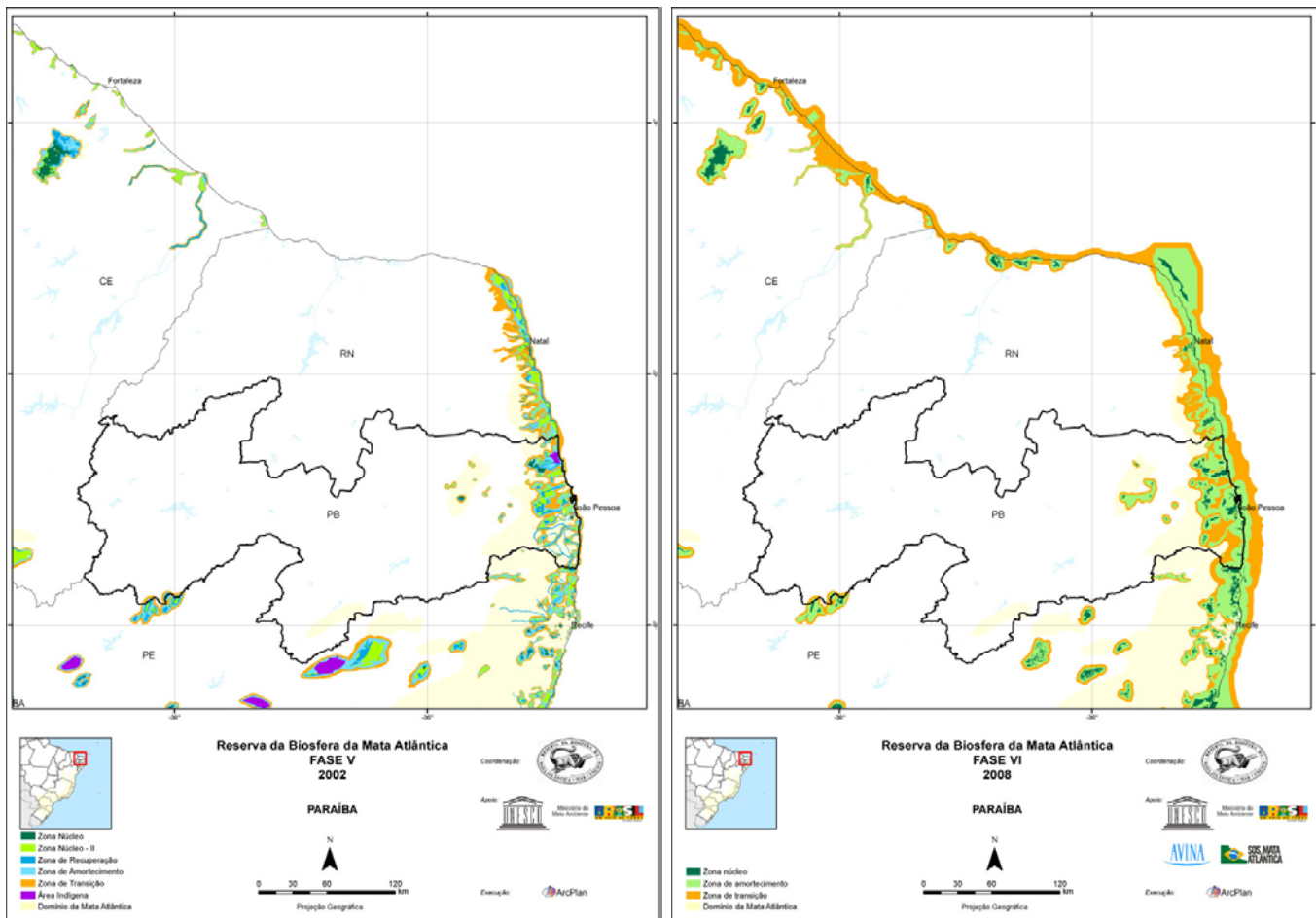
“The Domain of the Mata Atlântica (DMA) in Paraíba covers two big areas, thus making a total of 6,743 Km² and occupying totally or partially 63 municipalities, including forest, sand bank and mangrove ecosystems”.

“The activities identified in the assessment and which impact the most in these Mata Atlântica ecosystems in the State were: enlargement of the sugarcane plantation area and development of activities intended for crustaceous-keeping in mangrove areas. Regarding identification of areas with higher forest concentration, focus is given to the municipalities of Cruz do Espírito Santo, Santa Rita, Rio Tinto and Mamanguape. The location of these forest fragments suggests formation of an ecologic corridor. Another focus area corresponds to the remaining areas found in the municipality of Areias and Alagoa Grande, a set of great ecologic and social interest because these are mountain forests fragments (or high altitude humid florests). Pico do Jabre, located in the municipality of Maturéia, because it is nailed into a forest withim Caatinga area, deserve special attention considering the results obtained in this mapping that show area decreases in the last ten years. It is worth stressing that such tree areas constitute Priority Conservation Areas of the Mata Atlântica in Paraíba, according to results of the “Workshop on Assessment of Priority Conservation Areas of the Mata Atlântica and Campos Sulinos”, held in Atibaia, São Paulo, in 1999”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF PARAÍBA

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	PB	5,702,556	286,828	5%	28,484	315,313
Phase VI			405,181	7%	198,045	603,227



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Paraíba the main changes occurring from Phase V to Phase VI were due to:

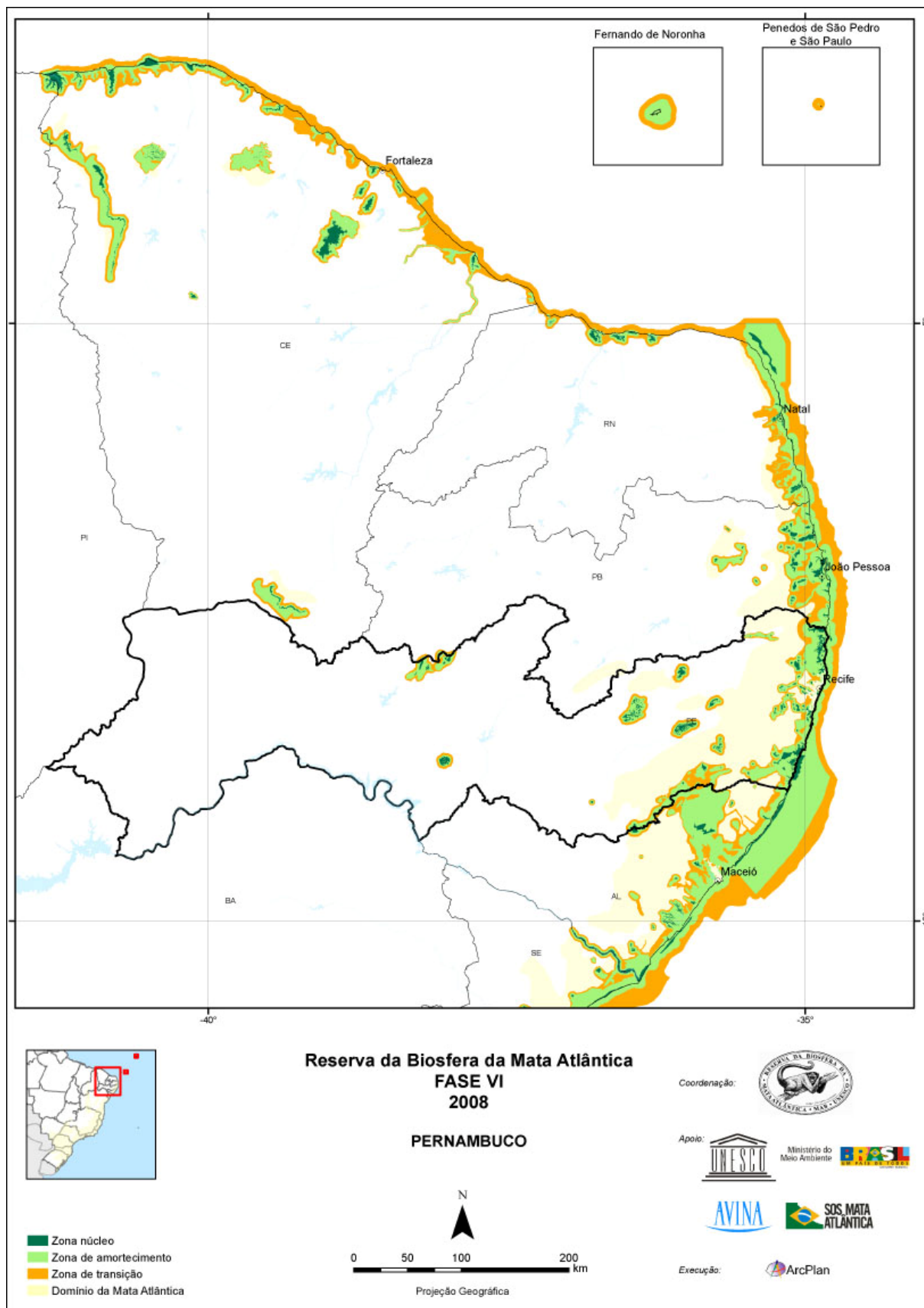
- 1 - Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2 - Fitting of the zoning of the RBMA, focused on the transformation of **core zones 2** existing in Phase V into buffer zones, consistent with the provisions of the Review Manual – Phase VI.
- 3 - Creation of core zones in permanent preservation and highly restricted use areas, in particular mangroves, sand banks and coral reefs, deemed as extreme high priority for biodiversity purposes by the State and the Ministry of Environment.
- 4 - Inclusion of new conservation units, such as core zones, in particular State Parks of Aratu, Jacarapé, Marinho de Areia Vermelha e Mata do Xem-Xem; Municipal Park of Barra do Rio Camarat; Biological Reserve of Guaribas; Ecologic Reserve of Mata do Rio Vermelho and RPPN Roncador, Gargaú and Pacatuba.
- 5 - Significant enlargement of the RBMA in the coastal and marine regions, including new buffer and transition zones, mangrove, sand banks areas, indigenous lands, sustainable use conservation units, sea turtle spawning and manatee procreation areas, thus forming biodiversity corridors with the States of Rio Grande do Norte and Pernambuco.
- 6 - Suppression of areas included in Phase V, not considered as Mata Atlântica Biome anymore, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.4. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF PERNAMBUCO





THE MATA ATLÂNTICA IN THE STATE OF PERNAMBUCO

“The Mata Atlântica in the states of Pernambuco and Alagoas represents a great part of what is left of the Center of Endemism Pernambuco, which shelters the coastal forest from Alagoas to Rio Grande do Norte. Studies indicate that one third of the trees of Center Pernambuco would be endangered in the region, which is a consequence of the interruption of the seed dispersion process. Tree extinction models drafted subsequently suggest that this figure could be underrated and that the forest located in the north of the São Francisco River is the biogeographic unit of the Mata Atlântica with greater possibility of losing species in regional and global scale. This region, for instance, is the place (Murici, Alagoas) with greater amount of species of endangered birds in the Americas”.

“In May 2004, in the Federal Senate, in Brasília, an agreement among eight non-governmental institutions was executed named the Murici Pact, the purpose of which is to raise funds and develop big projects intended for conservation and sustainable use of the biodiversity. Continuing with this strategy, the Association for Protection of Mata Atlântica in the Northeast (AMANE) was then created. It is an entity formed by the NGOs of the Murici Pact to coordinate the actions of a conservation and sustainable use project for the Mata Atlântica in the Northeast. This project includes the states of Pernambuco and Alagoas within the territory named Center of Endemism of Pernambuco”. (Source: *1)

The RBMA by means of Institute Friends of the RBMA is one of the entities of the Murici Pact and founders of the AMANE.

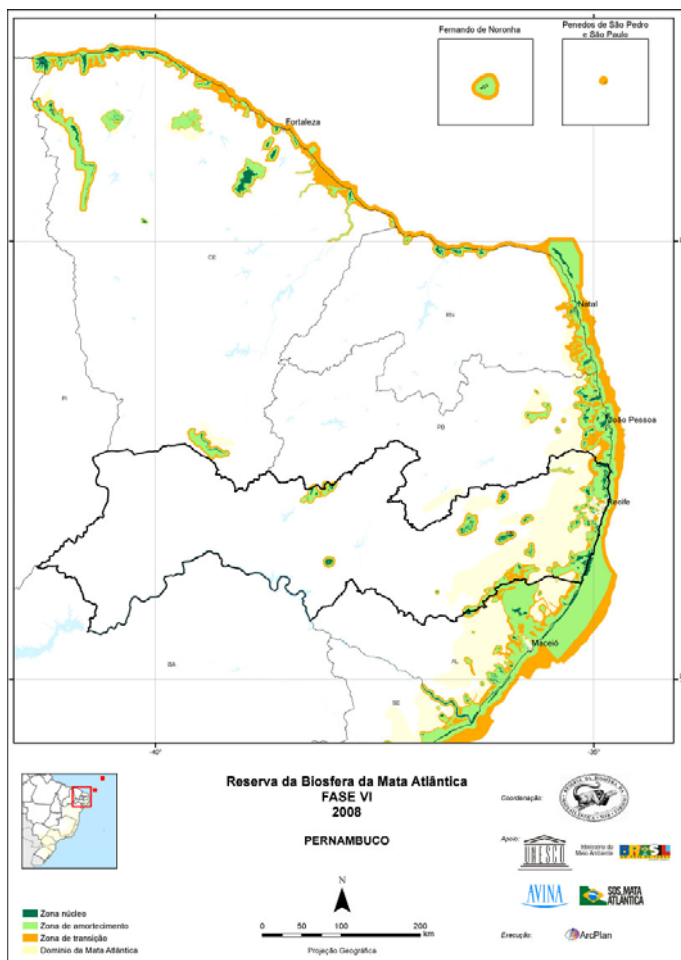
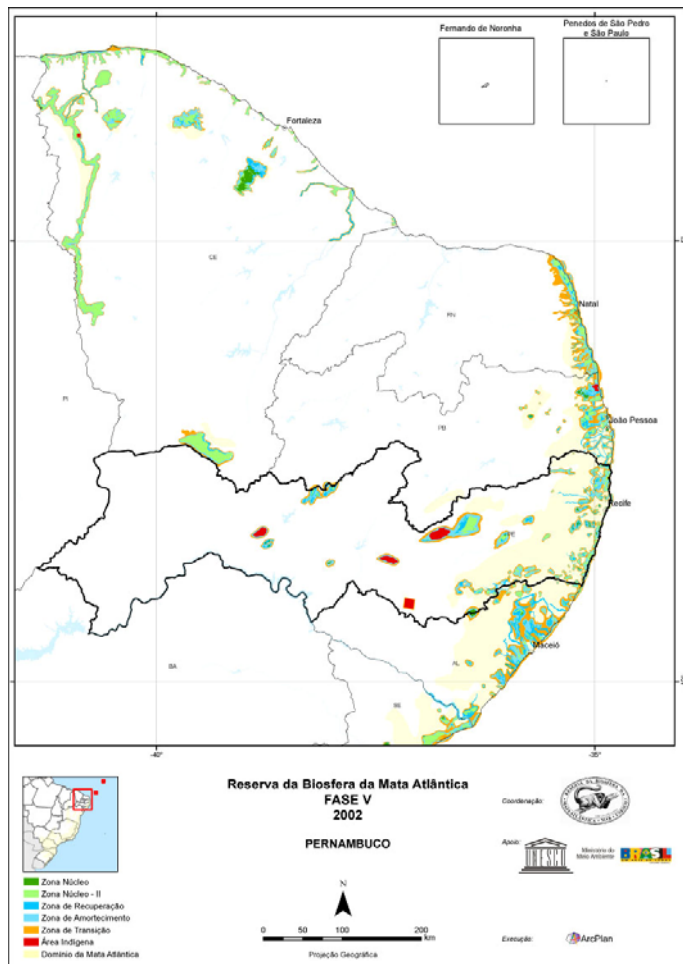
It is worth mentioning that there are about 40 pieces of urban forests in the metropolitan area of Recife of great importance to the protection of biodiversity and water sources in the region.

The archipelago of Fernando de Noronha, also included in the RBMA and recognized as a World Natural Heritage Site, although distant 340 miles from the coast, belongs to the territory of the state of Pernambuco.



THE RBMA PHASE V AND PHASE VI IN THE STATE OF PERNAMBUCO

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	PE	9,908,692	753,457	8%	25,345	778,802
Phase VI			726,653	7%	363,03	1,089,685



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Pernambuco, the main changes occurring from Phase V to Phase VI of the RBMA were due to:

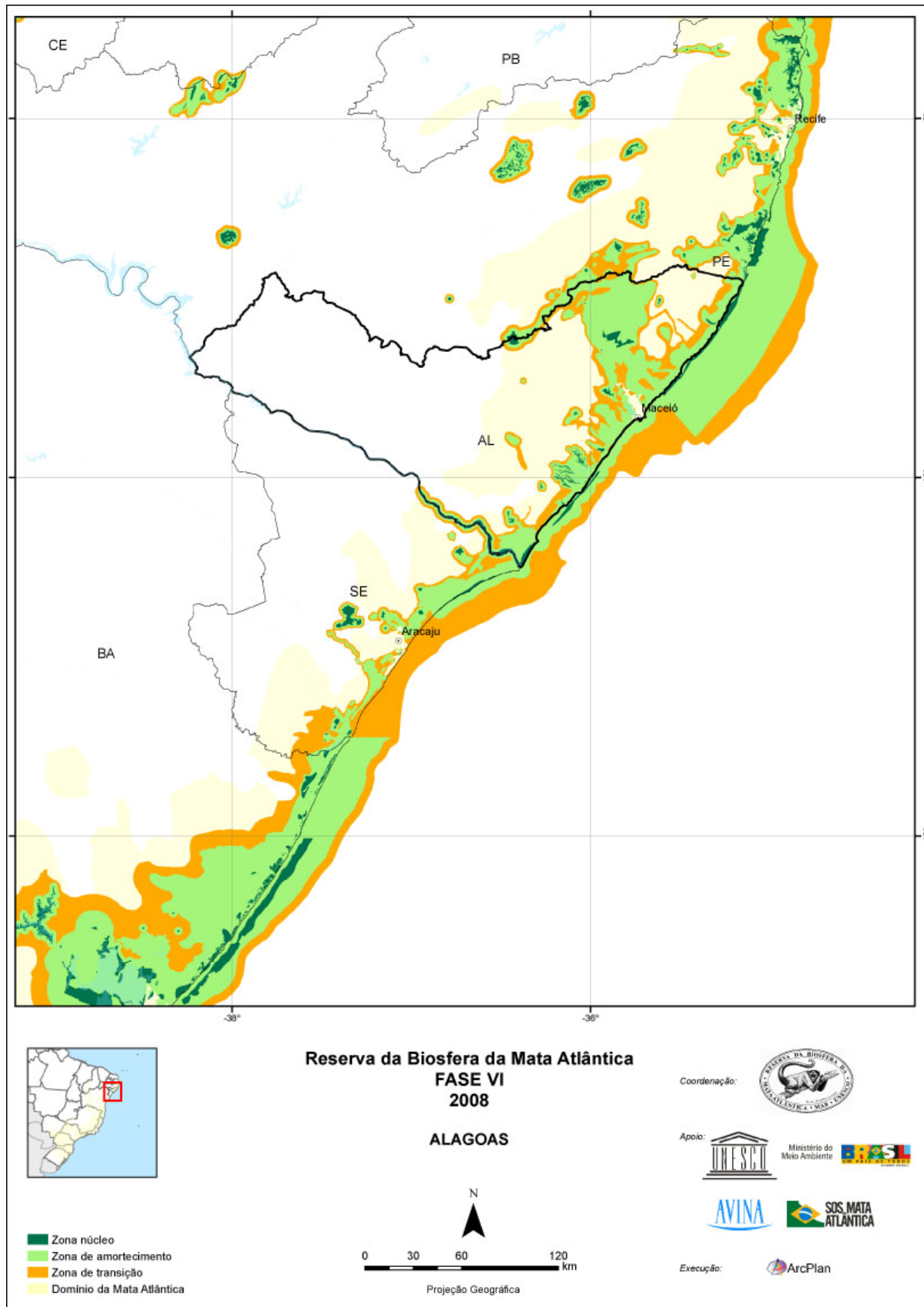
- 1 - Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2 - Fitting of the zoning of the RBMA, focused on the transformation of **core zones 2** existing in Phase V into buffer zones, consistent with the provisions of the Review Manual – Phase VI.
- 3 - Creation of new conservation units in land, coastal and marine areas, deemed as new core zones, with their respective buffer and transition zones, in particular wild life zones of the Federal APAs of the Coast of Corals and Fernando de Noronha; the Natural Municipal Park of Forte de Tamandaré, Ecologic Reserves of Mata da Usina de São José and Mata de Camaçari, and new Private Reserves of the Natural Patrimony – RPPN.
- 4 - Creation of core zones in permanent preservation areas, such as, for instance, mountain tops and ciliary vegetation, deemed as extremely important and high priority for purposes of conservation of the biodiversity in the mapping of priority areas of the Ministry of Environment.
- 5 - Inclusion of forest remaining areas, such as buffer and transition zones, intend to create connectivity to form ecologic corridors in the border of the State of Alagoas, in the region of the Mata de Murici.
- 6 - Significant enlargement of the RBMA in the coastal and marine regions, including buffer and transition zones, sustainable use conservation units, interconnecting mangroves, sand banks, sea turtle spawning and manatee procreation areas, thus forming biodiversity corridors with the States of Paraíba e Sergipe.
- 7 - Enlargement of the buffer and transition zone of the RBMA, including environmental protection areas around core zones constituted by the National Marine Park of Fernando de Noronha, by Atol das Rocas Biological Reserve and the Archipelago of de São Pedro and São Paulo, region of procreation of spinner dolphins and marine megabiodiversity.
- 8 - Suppression of areas inserted in Phase V, not deemed as Mata Atlântica Biome anymore, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.5. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF ALAGOAS





THE MATA ATLÂNTICA IN THE STATE OF ALAGOAS

“Although the entire Brazilian coast has been occupied by European colonization at the same time (16th Century), it was in the Northeast of Brazil that the Mata Atlântica was more quickly debased. Two economic cycles have been critical in this process: the pau-brasil and the sugar cane, which continues until today. In 1990, there was less than 6% of the original coverage of the Mata Atlântica in the north of the São Francisco River, and some forest types, as the dense ombrophile forest, have been reduced to a few dozens of square kilometers”.

“Most conservation units of Alagoas have not been regularized and implemented, and the inspection is not effective. It is possible to observe, however, great potential to preserve the biome in the State by forming partnerships of the State Government and the RBMA management system with the sugar and alcohol industry”.

Currently Alagoas is the State concentrating more RBMA advanced sites, including Private Protected Areas that amount to 29,000 hectares.

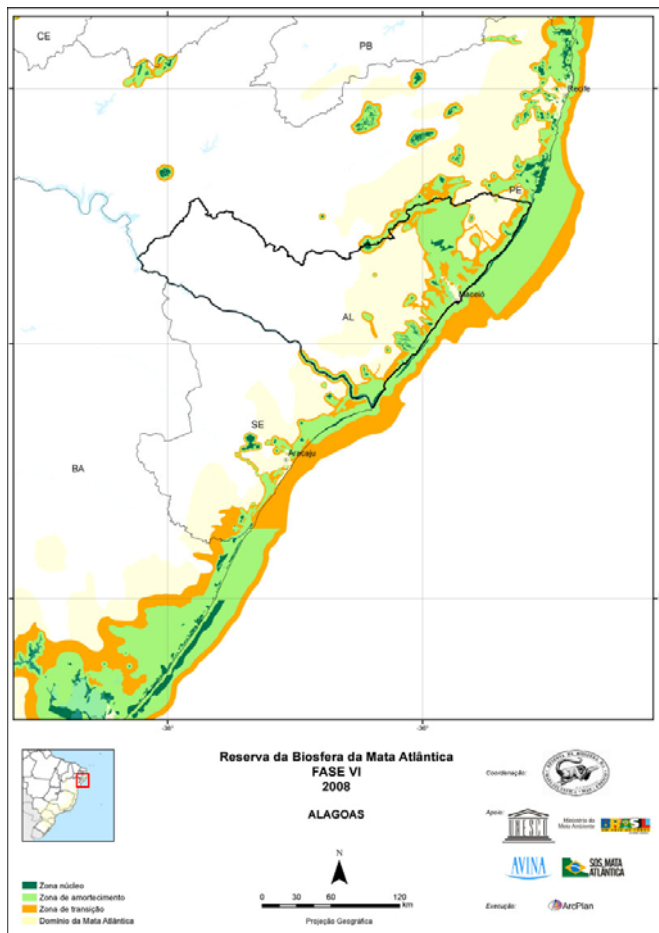
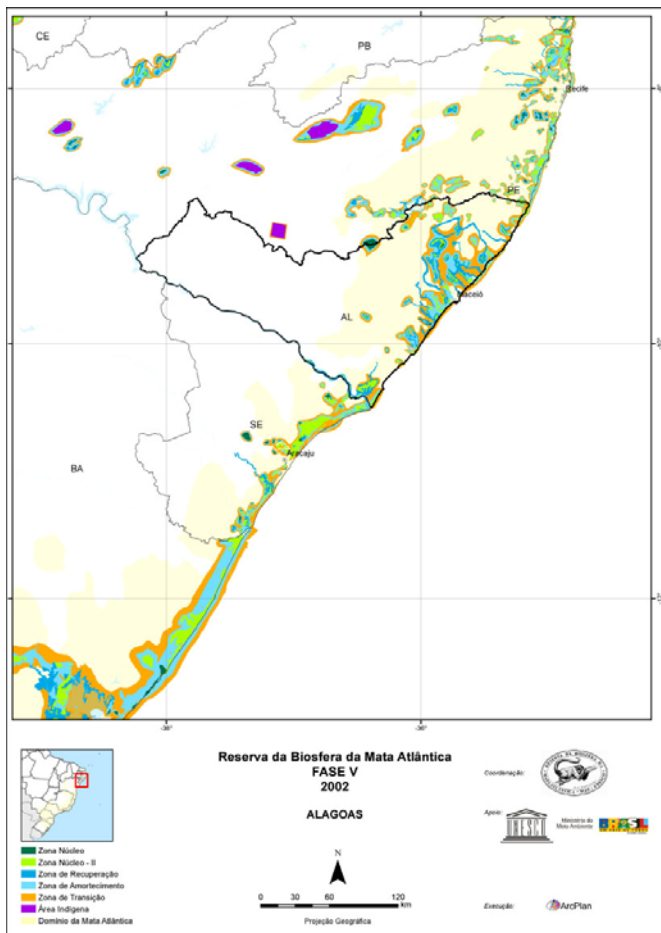
“Recently, four RPPNs have been created in sugar-alcohol plant areas: the RPPN of the Gulandim Reserve, created in 2001, with 41 ha, located in the municipality of Teotônio Vilela, owned by Usinas Reunidas Seresta S/A; the RPPN of Fazenda Santa Tereza, created in 2001, with 100 ha, located in the municipality of Atalaia, included in the territory of Usina Uruba; and RPPNs Fazenda Pereira, with 290 ha, and Fazenda Lula Lobo, with 98.6 ha, created in 2001, located in the municipality of Coruripe, owned by S/A Usina Coruripe Açúcar e Álcool”. (Source: *1)

The largest remaining protected from Alagoas is in Murici Ecological Station with about 6000ha of forest. This area, which houses the largest number of bird species threatened with extinction in the Americas, is a priority for the RBMA in the Northeast.



THE RBMA PHASE V AND PHASE VI IN THE STATE OF ALAGOAS

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	AL	2,806,090	512,154	18%	41,832	553,986
Phase VI			712,715	25%	730,614	1,443,330



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Alagoas, the main changes occurring from Phase V to Phase VI were due to:

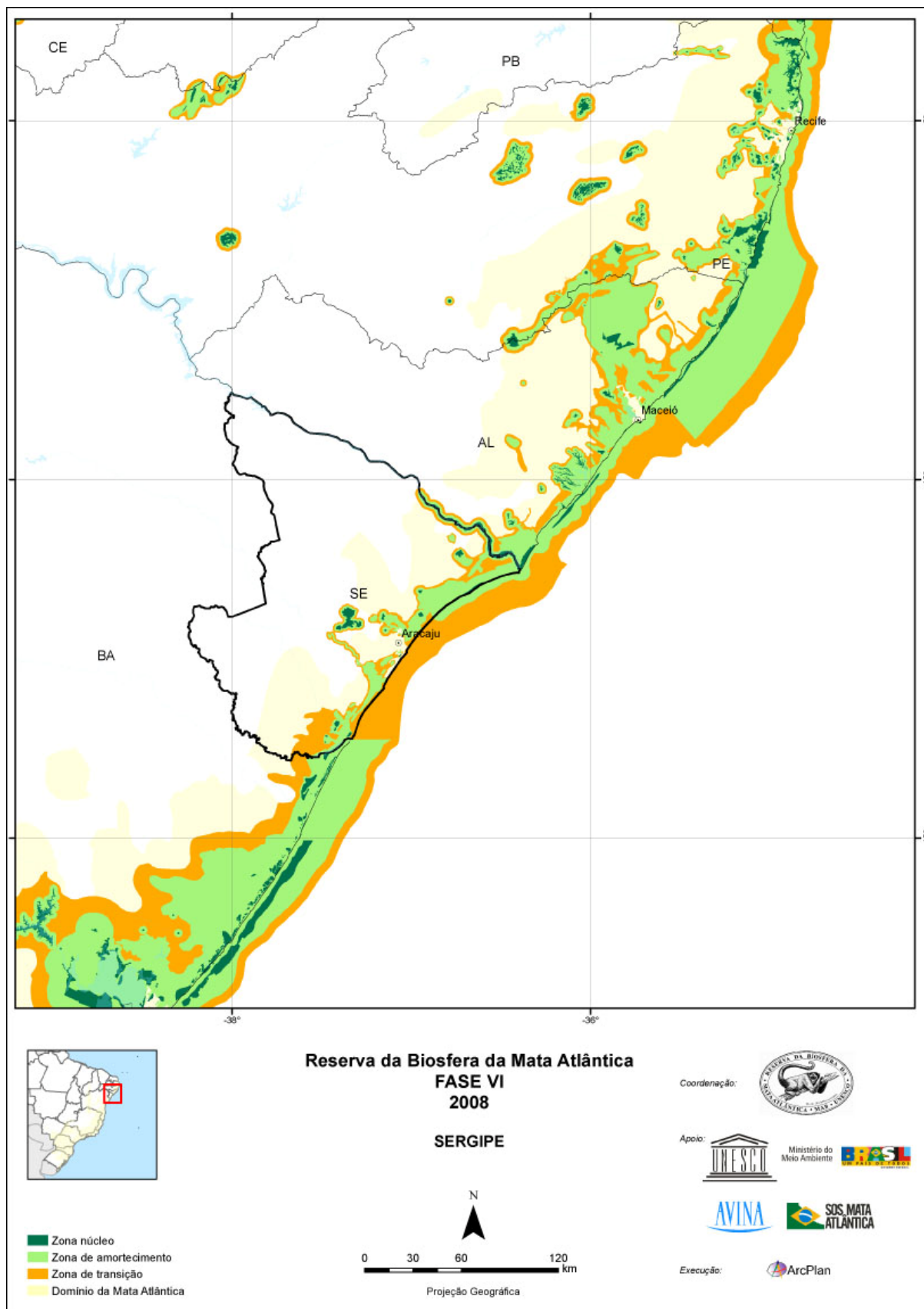
- 1 - Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2 - Fitting of the zoning of the RBMA, focused on the transformation of **core zones 2** existing in Phase V into buffer zones, consistent with the provisions of the Review Manual – Phase VI
- 3 - Creation of core, buffer and transition zones due to the creation of new full protection and sustainable use, land, coastal and marine conservation units, in particular ecologic reserves of Saco da Pedra and Mangroves of Lagoa do Roteiro; Environmental Protection Area of the Coast of Corals; Ecologic Station of Mata de Murici, and the RPPNs, some of the sugar-alcohol industry, such as Fazenda Santa Tereza, Fazenda Canadá, Fazenda Boa Sorte and Fazenda Lula Lobo.
- 4 - Creation of core zones in permanent preservation and highly restricted use areas, in particular forest remaining areas, mangroves, sand banks and dunes, estuaries and coral reefs, deemed as extremely important and high priority for purposes of conservation of the biodiversity by the State and the Ministry of Environment.
- 5 - Significant enlargement of the RBMA area in the coastal and marine regions, including core, buffer and transition zones in areas deemed as highly and extremely important and priority for purposes of conservation and interaction of the Mata Atlântica biome and the Marine biome, forming a biodiversity corridor with the State of Sergipe, in the mouth of the São Francisco River.
- 6 - Significant enlargement of buffer zones in areas surrounding the Mata de Murici, in particular private remaining forest areas owned by sugar plants in the region, with the purpose of creating a biodiversity corridor with the State of Pernambuco.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.6. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF SERGIPE





THE MATA ATLÂNTICA IN THE STATE OF SERGIPE

“Originally, the Mata Atlântica would occupy the entire shore line of the State of Sergipe. Until the white man (European) arrived in 1501 to take possession of indigenous land, with the purpose of exploiting pau-brasil, raising cattle and planting sugar cane. After over 500 years of occupation of the original Mata Atlântica, there are few corridors left throughout the shore line of the State, which currently take 40km² wide in the territory of Sergipe, with formations of different ecosystems that include shore lines with their association of shores and dunes, also with the occupation of hygrophila perenial, large and broad leaves a typical tropical vegetation coastal forest formations (coastal forest), occurring throughout the shore line of Sergipe as small stains, except in the southern portion of the State where some private farms are more preserved, and they are located usually in the top of the highest hills or slopes, normally with steep downhill. In deeply devastated locations there are lasting and temporary planting and then pastures. The Sergipe Mata Atlântica occurs from municipalities located in São Francisco until Mangue Seco, in the border with the State of Bahia”.

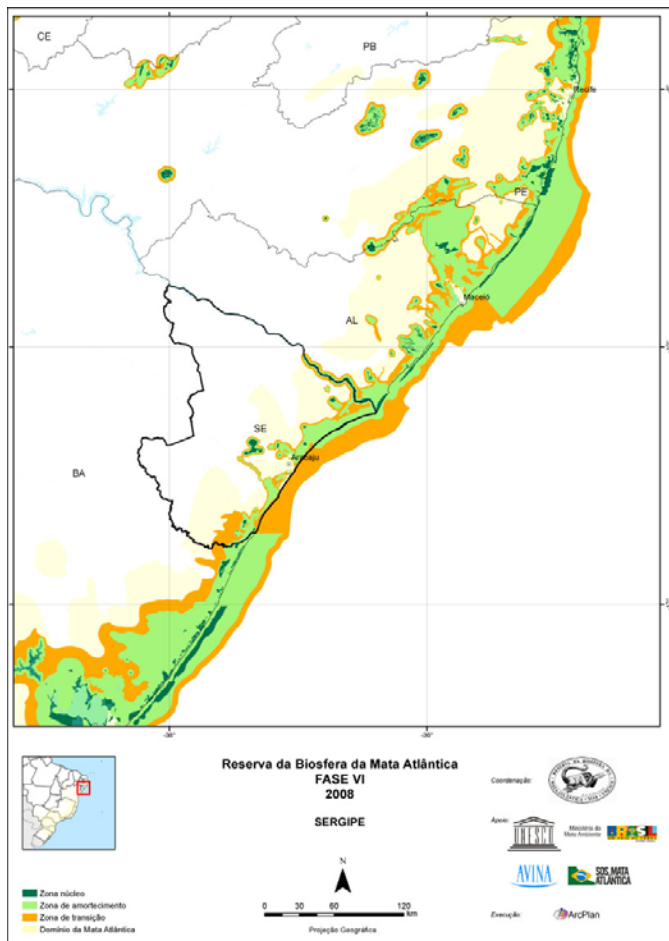
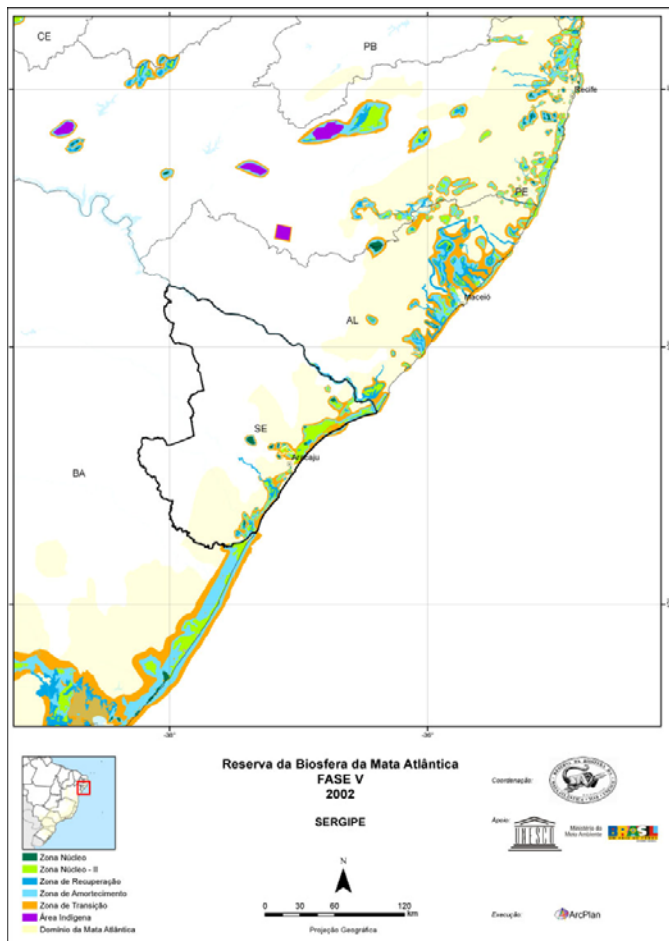
“The Mata Atlântica has further rare species of plants – of which many are endemic – and it is further the first and biggest block of forests in the State. The coastal zone of Sergipe is divided in two sectors: Northern and Southern Shore”.

“The ecosystem of the Mata Atlântica regions involves 5,750 Km² of the State. Currently, the original vegetal coverage is restricted to mangroves, restinga vegetation and remaining humid rain forest, also called coastal forest, and extends from the south to the north from Bahia to Alagoas. It has several associations with shores and dunes and herbaceous vegetation. Such vegetation serves to fix movable dune areas. Among which, the salsa-da-praia, grama-da-praia, feijão da praia, capim-gengibre, xique-xique or guizo-de-cascavel”.
(Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF SERGIPE

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	SE	2,209,482	235,985	11%	10,337	246,322
Phase VI			335,465	15%	293,077	628,541



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Sergipe the main changes occurring from Phase V to Phase VI were due to:

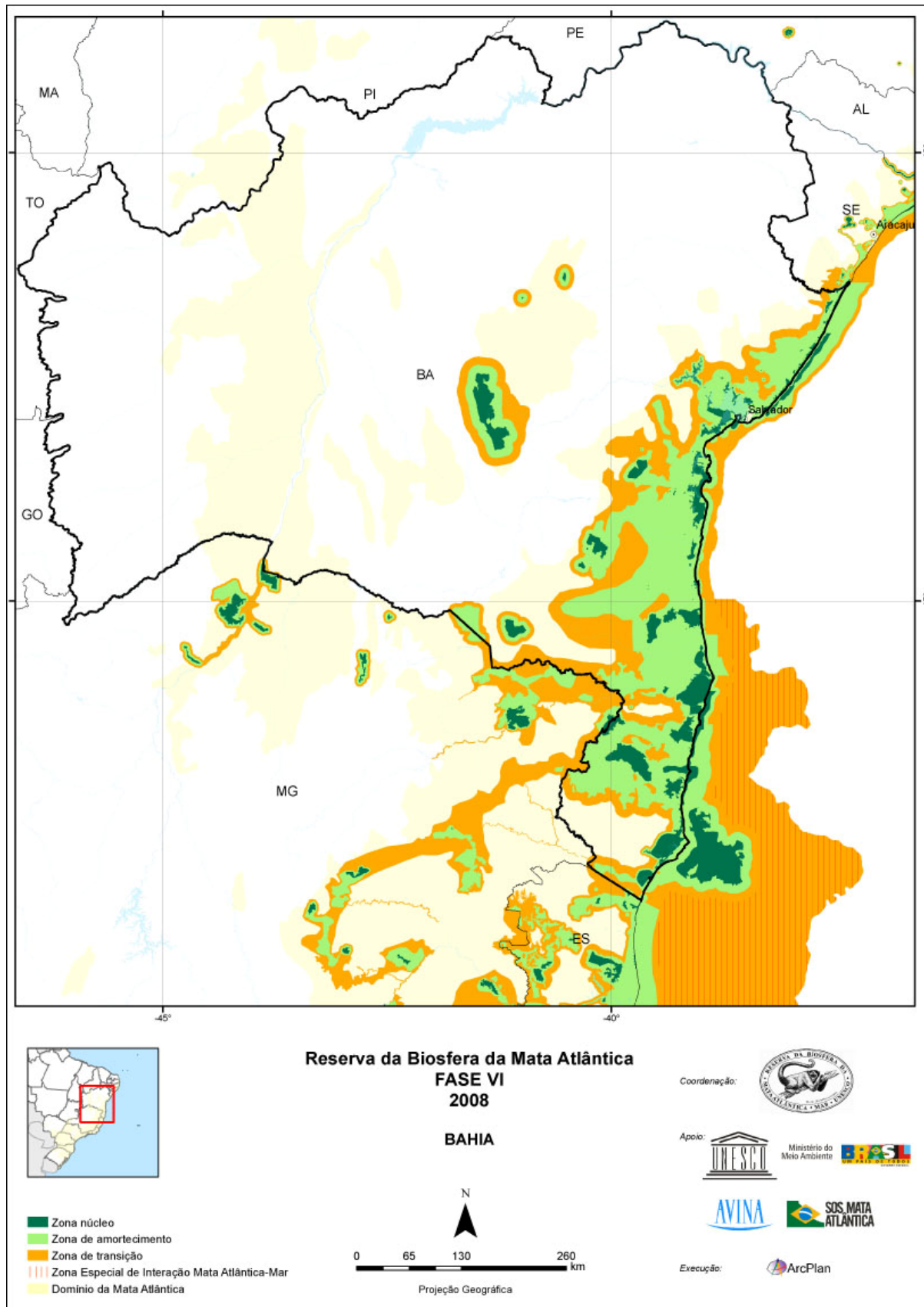
- 1 - Refinement in the limiting of the RBMA from drafting of its digital cartography.
- 2 - Fitting of the zoning of the RBMA, focused on the transformation of **core zones 2** existing in Phase V into buffer zones, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new full protection, terrestrial and marine coastal conservation units, deemed as core zones, with their respective buffer and transition zones, in particular the National Park of Itabaiana.
- 4 – Enlargement of the buffer zone of the RBMA with the creation of National Forest-FLONA of Ibura.
- 5 – Significant enlargement of the RBMA area in the coastal and marine region, including core, buffer, transition and highly and extremely priority conservation and interaction zones of the Mata Atlântica biome with the Marine biome.
- 6 – Formation of biodiversity corridors with the State of Alagoas, in the mouth of the São Francisco River and the State of Bahia in the region of the Environmental Protection Area of the Northern Shore of the State of Bahia.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.7. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF BAHIA





THE MATA ATLÂNTICA IN THE STATE OF BAHIA

"The Mata Atlântica in Bahia is distributed in five regions: Chapada Diamantina-West, North Shore, Lower South, South, and Far South. These regions have different ecologic characteristics, human occupation history, soil use and anthropic pressures. Several economic cycles occurred within the domains of the Mata Atlântica in Bahia: pau brasil, sugar cane, gold, diamonds, coffee, jacarandá, cattle, cotton, cocoa and recently eucalyptus monoculture".

"Of the five Mata Atlântica regions in Bahia, three are located south of Baía de Todos os Santos in the Central Corridor of the Mata Atlântica (CCMA)".

"In Bahia, the CCMA extends for a vast territory and is limited in the north by the Paraguaçu River (at Baía de Todos os Santos) and in the south by Mucuri River, in the border with the State of Espírito Santo".

"In the Far South of Bahia the biggest area of protective native forest is located and extends along three national parks: Descobrimento, Monte Pascoal and Pau-Brasil in the land portion, with approximately 50,000 hectares of forests, and the National Marine Park of Abrolhos, with 90,000 hectares. Small hydrographic basins protected by these national parks are extremely important not only for the biodiversity of the Mata Atlântica, but also for the coral reefs and other marine ecosystems of the Banco de Abrolhos and the National Marine Park of Abrolhos, the richest coral reef zone of the South Atlantic".

"In the vast territory of the Mata Atlântica in Bahia, besides the three great National Parks, the other full protection conservation units are: Biologic Reserve of Una, State Park of Serra do Conduru and Ecologic Station of Wenceslau Guimarães. All of such continental Conservation Units together represent approximately 78,000 hectares of protected forests".

"Within the domain of the Mata Atlântica in Bahia there are further 20 State Environmental Protection Areas (APAs) encompassing continental forests, mangroves, islands, coral banks and other related ecosystems. Besides these Conservation Units, approximately 30 Private Reserves of the Natural Patrimony (RPPNs) protect together 9,510 hectares of ecosystems".

"The CCMA represents approximately 75% of the biogeographic region of "Bahia", according to a assessment made by Silva e Casteleti (2001), encompassing different typologies of the Mata Atlântica: dense ombrophile forest; mangroves; sand banks; semi-deciduous forest; open ombrophile forest".

"The region comprises up to endemism centers of the Mata Atlântica, according studies available on land vertebrates, butterflies and plants. These are characterized by a high endemism index (26% to 28% of species of several types)".

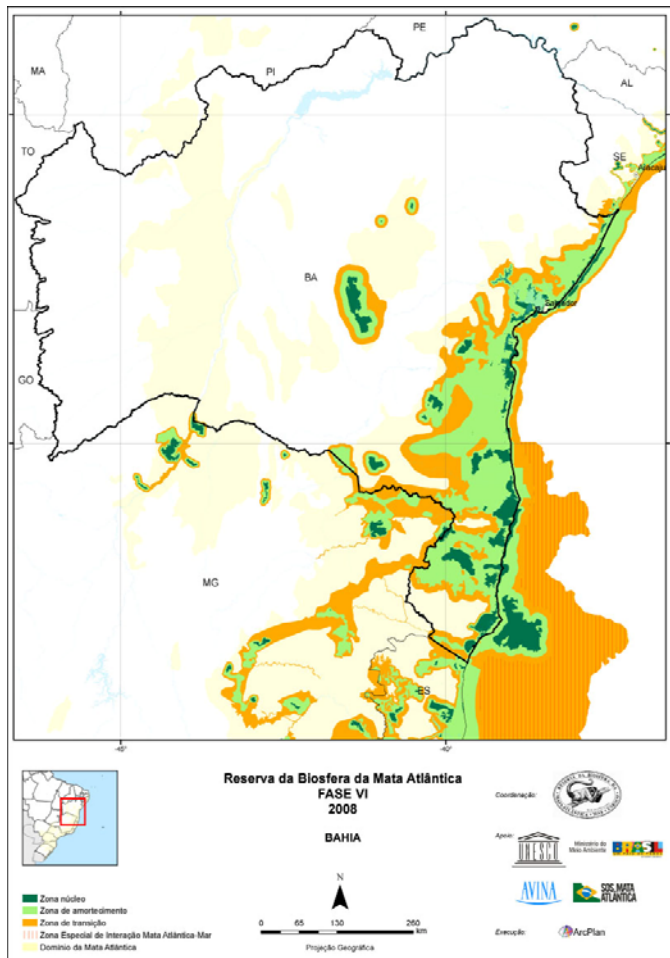
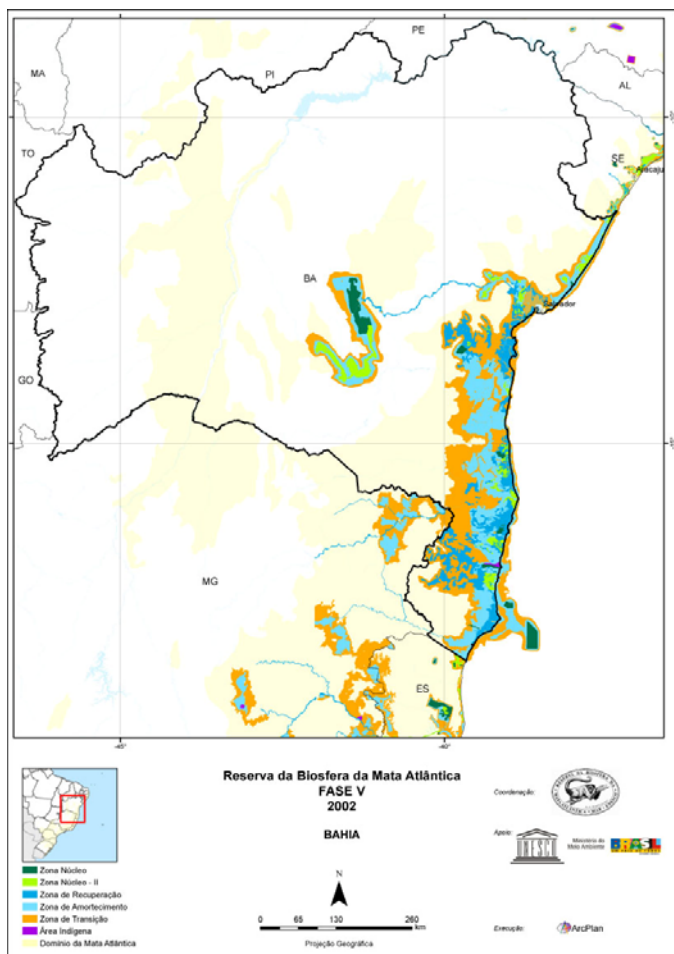
"The greatest part of the Central Corridor of the Mata Atlântica appears as small fragments distributed in the landscape matrix, with over 88% of the remaining area of the Mata Atlântica of the region. By mans of Project CCMA, eight ecologic corridors have been defined by adopting as the criteria to determine their polygons the size and distance between fragments; existence of conservation units and teaching and research institutions; existence of water bodies; existence of sustainable development projects, NGOs, traditional and/or organized communities and differentiated and relevant biodiversity issues. Among which: by means of Project CCMA eight ecologic - mini - corridors were defined by adopting as criteria to determine their polygons the size and distance between fragments; existence of conservation units and teaching and research institutions; existence of water bodies; existence of sustainable development projects, ONGs, traditional and/or organized communities and differentiated and relevant biodiversity issues. Among which: Boa Nova



Poções; Condurú; Marinho de Abrolhos; Monte Pascoal; Descobrimento; Papuã - Pratigi; Pau - Brasil; Restinga; Serra das Onças and Una - Baixão - Lontras". (Source: *1)

THE RBMA PHASE V AND PHASE VI IN THE STATE OF BAHIA

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	BA	56,600,774	7,324,163	13%	975,016	8,299,180
Phase VI			9,352,177	17%	5,568,912	14,921,089



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Bahia, the main changes occurring from Phase V to Phase VI were due to:

1- Refinement of the limits of the RBMA from drafting of its digital cartography. In the State, the works have been complemented from the base of information of the Central Ecologic Corridor Project of the Mata Atlântica (Bahia -Espírito Santo), data from the state environment system of Bahia and the mapping of priority conservation areas of the Ministry of Environment.

2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.

3- Creation of full protection, land and marine coastal conservation units, deemed as core zones, with their respective buffer and transition zones, in particular national parks of Pau-Brasil, Marine of Abrolhos and Serra das Lontras; state parks of Conduru, of Sete Passagens, the Natural Reserve of Serra do Teimoso; Biological Reserve of Una and several RPPNs.

4- Creation of new core zones within permanent preservation and highly restricted use zones, in remaining forest areas in advanced recovery stage, lakes, sand banks and dunes, mangroves and coastal reefs.

5- Significant enlargement of buffer zones in areas of nine ecologic mini-corridors defined by the Central Ecologic Corridor Project of the Mata Atlântica, in indigenous lands, sustainable use conservation units, areas of the Mosaic of Conservation Units and highly and extremely priority conservation areas, as defined by the State and the Ministry of Environment.

6- Significant enlargement of the RBMA areas in coastal and marine areas, including core, buffer and transition zones deemed as highly and extremely priority for conservation and interaction of the Mata Atlântica and Marine biomes, in particular coastal platforms in the region of the National Park of Abrolhos.

7- Inclusion of remaining forest areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridors in the borders with the states of Sergipe, Minas Gerais and Espírito Santo.

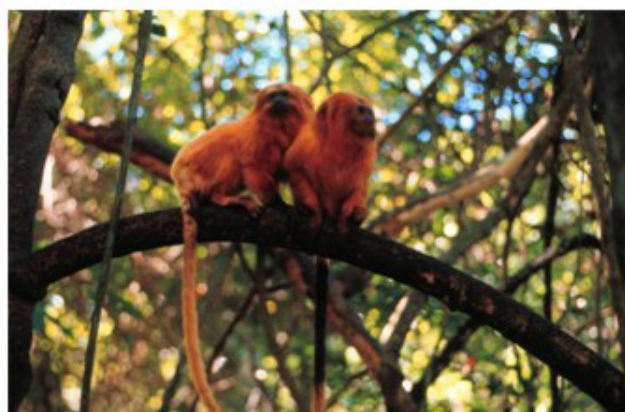
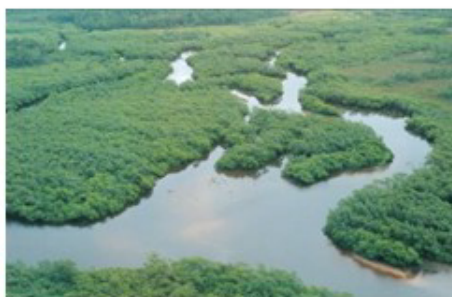
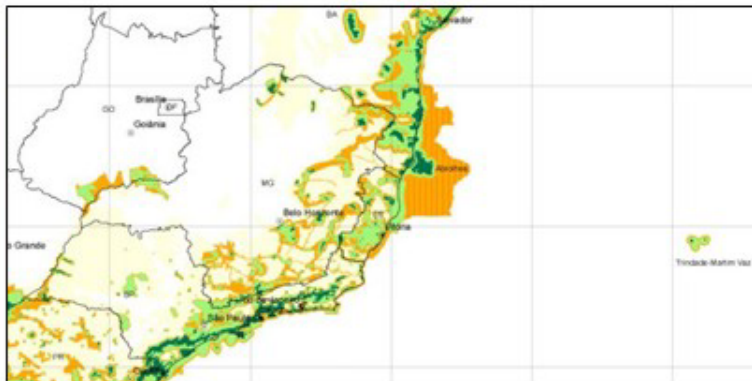
8- Suppression of areas included in Phase V, not deemed as Mata Atlântica Biome anymore, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table of Annex 01.



Southeast Region

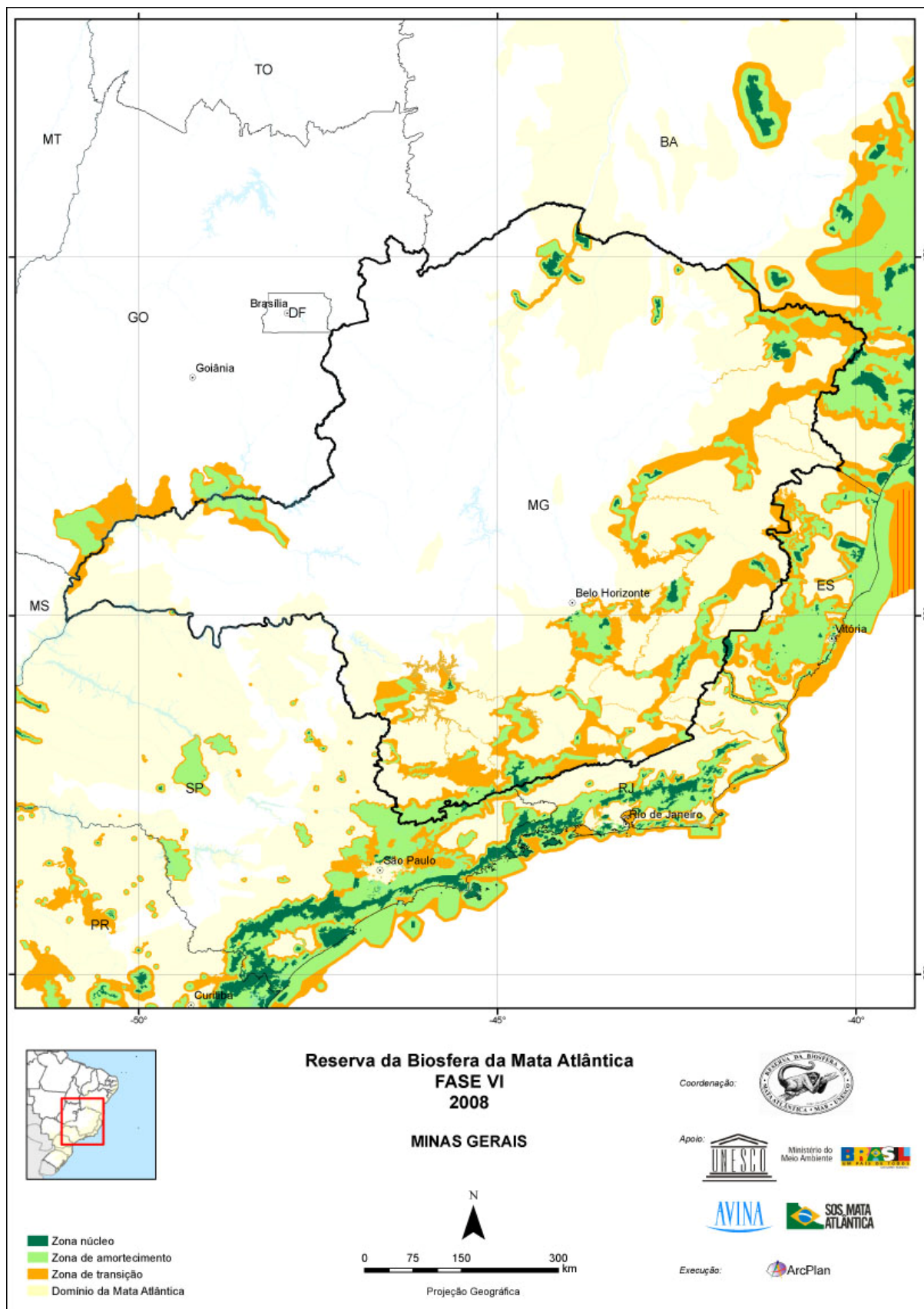




RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.8. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF MINAS GERAIS





THE MATA ATLÂNTICA IN THE STATE OF MINAS GERAIS

“The Mata Atlântica occurring in Minas Gerais is very heterogeneous, with vegetation physiognomy from the dense ombrophile forest to the semi-deciduous seasonal forests. Besides such typologies, areas of contact between such formations, ciliary forests and remaining areas incrustated in other formations are also included in the biome”.

“According to the SOS Mata Atlântica Foundation, the physiognomic type of the dense ombrophile forest may be found in small stains in the northeastern region of the State (Vale do Jequitinhonha – border with the state of Bahia), in the east (Vale do Mucuri – in the border with the state of Espírito Santo) and in the south, in the region of Serra da Mantiqueira”.

“In Minas Gerais, the Mata Atlântica would cover 49% of the area of the State, and is now reduced to 7% of its original coverage. As an aggravation, most of what is left of the Mata Atlântica vegetation in the State is located within very small remaining areas and in the hands of private land owners. Although it is not fragmented, the Mata Atlântica in Minas still contains much diversity of flora and fauna species, including several endemic and endangered species. Besides such fragmentation, there are several other direct threats to the biodiversity of this forest, including, among others, deforesting for expansion of agriculture and cattle-raising, wild-life traffic, urban growth and industrial development”.

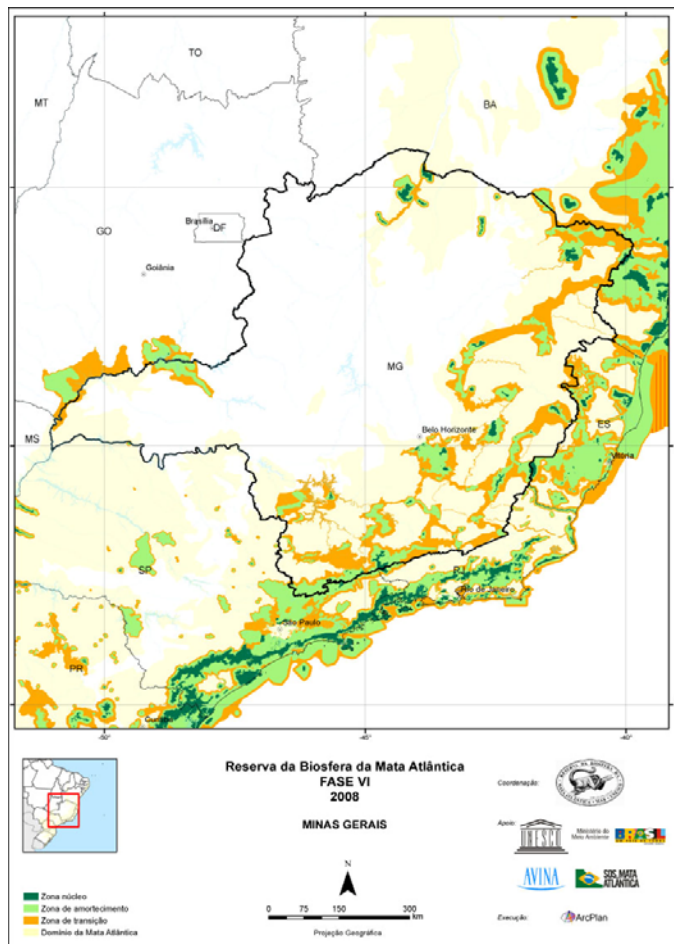
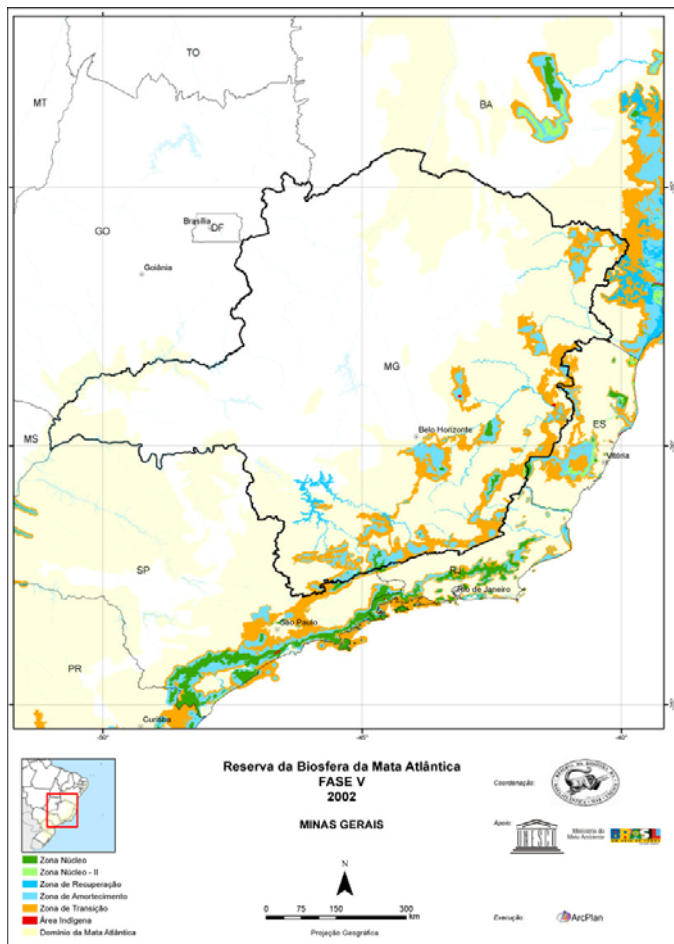
“Minas Gerais encompasses approximately 70% of species of mammals occurring in the whole Domain of the Mata Atlântica. The majority of such species mammals recorded in the State occurs in the Mata Atlântica, of which approximately one third (65) are exclusively of such biome. This is, for instance, the case of the muriqui-do-norte (*Brachyteles hypoxanthus*), the biggest neotropical monkey”.

“It is difficult even to conceive that in the past approximately 400 mil muriquis would share the big biodiversity of the Mata Atlântica. Today, there are approximately 1,300 individuals only. For the avifauna, of the 785 species occurring in the State – approximately half of the birds of Brazil - 54 are endemic to the Mata Atlântica”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF MINAS GERAIS

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	MG	58,696,459	6,124,690	10%		6,124,690
Phase VI			9,334,986	16%		9,334,986



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Minas Gerais, the main changes occurring from Phase V to Phase VI were due to:

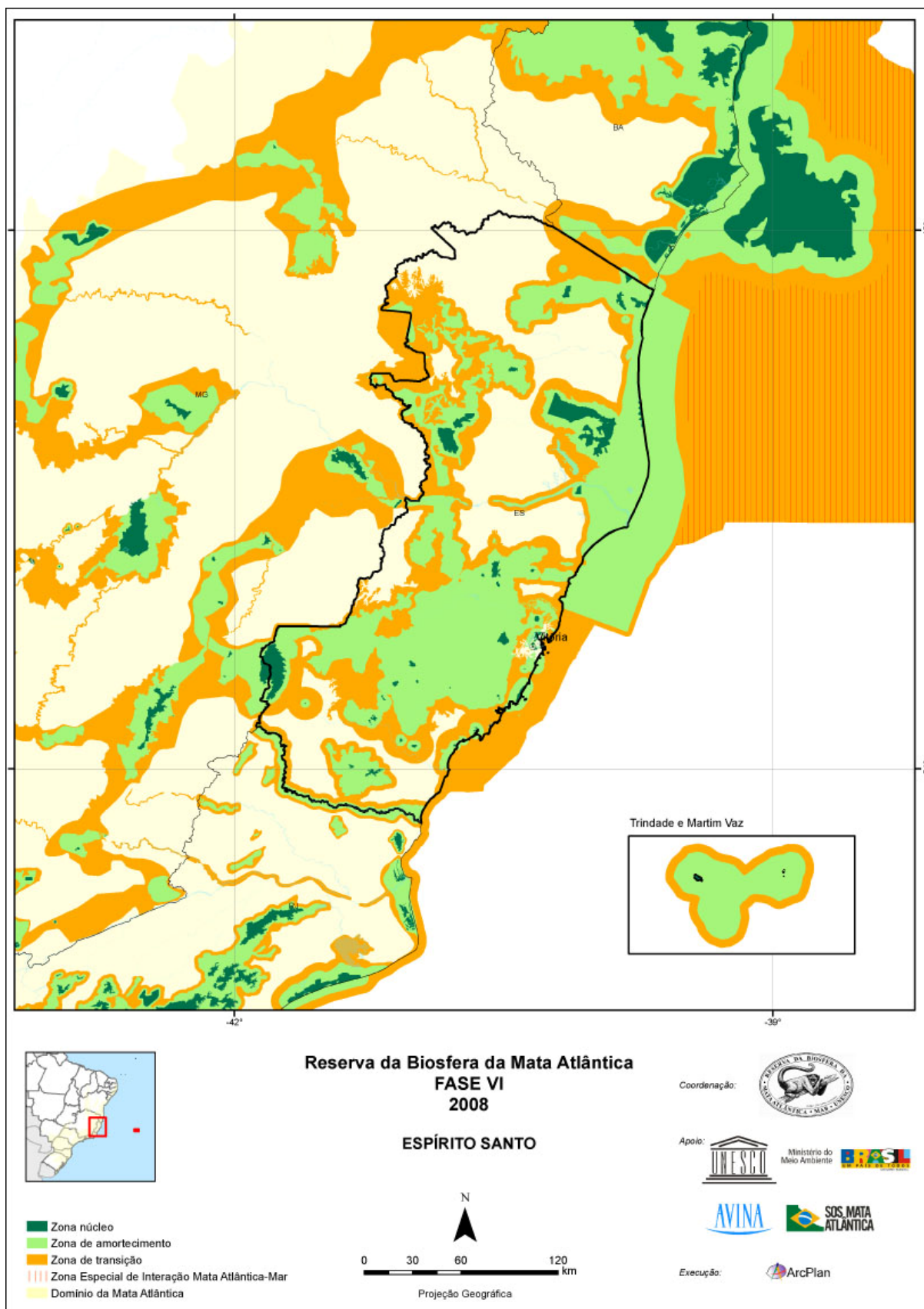
- 1- Refinement of the RBMA limiting from drafting of its digital cartography. In the State, the works have been complemented from forest mapping updated and made available by the Government of the State for this review.
- 2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new conservation units deemed as new core zones, with their respective buffer and transition zones, in particular, among others, the National Parks of Alto Cariri, the Peruaçu Caves; state parks of Mata Seca, of Montezuma and of Serra da Boa Esperança, and municipal parks of Mata das Borboletas, of Roberto Burle Marx, the RPPN of Alto Gamarra, Fazenda Boa Esperança, Mata do Jambreiro.
- 4- Significant enlargement of buffer zones within permanent preservation areas, such as, for instance, mountain tops, ciliary vegetation and indigenous lands, sustainable use conservation units, areas of the Mosaic of Protected Areas of Mantiqueira, and areas deemed as extremely priority for conservation and creation of new conservation units, as assessed by the State and Ministry of Environment.
- 5- Inclusion of remaining areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridors in the borders with the states of Bahia, Goiás, Espírito Santo, Rio de Janeiro and São Paulo.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.9. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF ESPÍRITO SANTO





THE MATA ATLÂNTICA IN THE STATE OF ESPÍRITO SANTO

"Espírito Santo has an area of 45.597 km², of which 100% of its area were covered by Mata Atlântica. According to the Brazilian Institute of Geography and Statistic (IBGE-2004), the Mata Atlântica in the State is comprised by ombrophile forests, semi-deciduous seasonal forests, pioneer formations (swamps, sand banks, mangroves) and vegetation refuge of Serra do Caparaó. The relief is characterized by mountains, with altitudes from the sea level up to 2,897m, the highest point of which is Pico da Bandeira (Serra do Caparaó)."

"From the geological point of view, Amorim (1984) considered that Espírito Santo may be divided in two main zones: the tabuleiros zones and the serrana (mountain) zone. The tabuleiros zone comprises the plain or slight waving shoreline, with medium altitude of approximately 50 m. In Espírito Santo, it occupies a narrow stripe in the south from the plains and the first slopes of inland mountains. In the north of Vitória it continues and becomes expressive from Linhares and São Mateus and extends from the south of Bahia. The serrana zone, located in the inland is formed by deep and excavated valleys in the extensions of Serra da Mantiqueira".

"The Mata Atlântica Biodiversity Conservation project in the State of Espírito Santo, carried out by the Research Institute of Mata Atlântica (IPEMA) in partnership with the Government of the State and the Brazil International Conservation has defined priority conservation areas of the Mata Atlântica by supporting proposals intended for the creation of new conservation units, one coastal and three marine. The proposal of the coastal one is the creation of a Sustainable Development Reserve in the region located in the mouth of the Doce River, and it has a surface of approximately 8,550 ha of restinga vegetation, swampy areas and pasture, located in the surroundings of the Comboios Biologic Reserve".

"Proposed marine conservation units include the Marine Park of Santa Cruz, in Aracruz; the Marine Park of Ilha do Francês, in Piúma, and the Extractive Reserve of Barra Nova, in São Mateus".

"It is worth mentioning further the Project for Implementation of the Central Corridor of the Mata Atlântica-CCMA, which has as purposes the maintenance and increase of the level of connectivity between forest fragments allowing to maximize the flow of individuals of different species comprising the biotic communities".

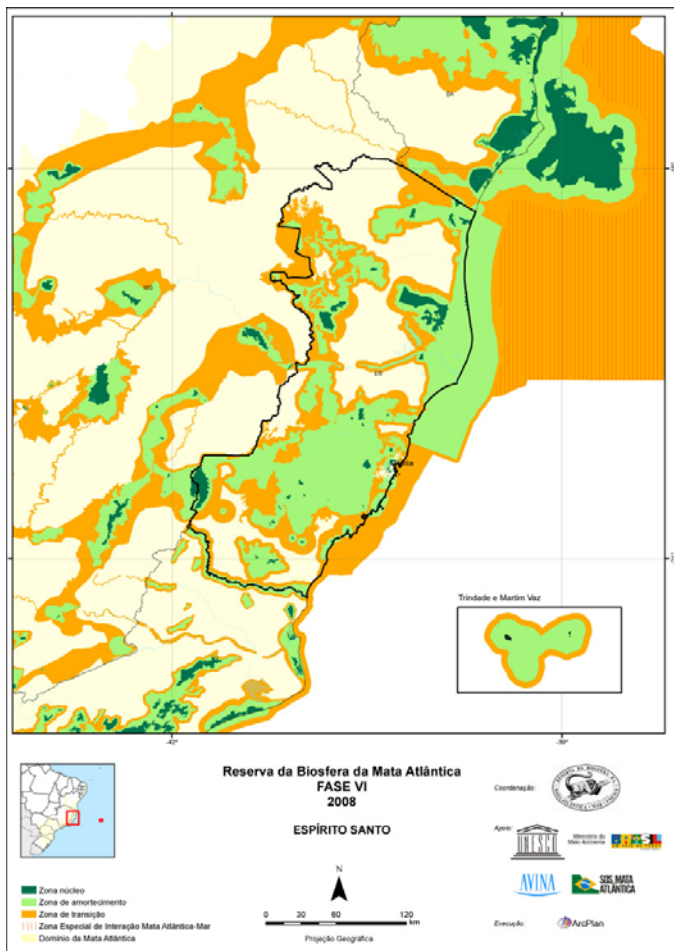
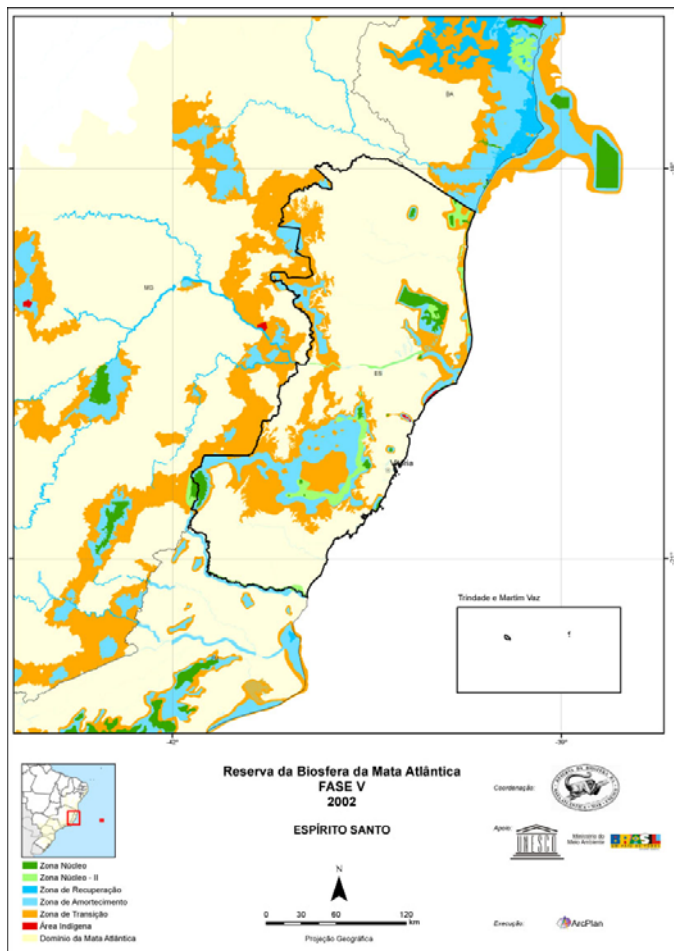
"By means of the CCMA Project, eight ecologic mini-corridors have been defined with the adoption of criteria to define their polygons and distance between fragments; existence of conservation units and learning and research institutions; existence of water bodies; existence of sustainable development projects, NGOs, traditional and/or organized communities, and differentiated and relevant biodiversity issues. Among which: Corridors; Córrego do Veado; Pedra do Elefante; Sooretama - Comboios- Goytacazes; Alto do Misterioso; Duas Bocas-Mestre Álvares; Saíra Apunhalada; Guanady and Serra das Torres". (Source: *1)

The State Committee of the RBMA in Espírito Santo acts as Manager Committee of the Central Corridor Project in the State.



THE RBMA PHASE V AND PHASE VI IN THE STATE OF ESPÍRITO SANTO

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	ES	4,620,253	1,551,714	34%	186	1,551,900
Phase VI			3,149,361	68%	3,739,859	6,889,220



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Espírito Santo the main changes occurring from Phase V to Phase VI were due to:

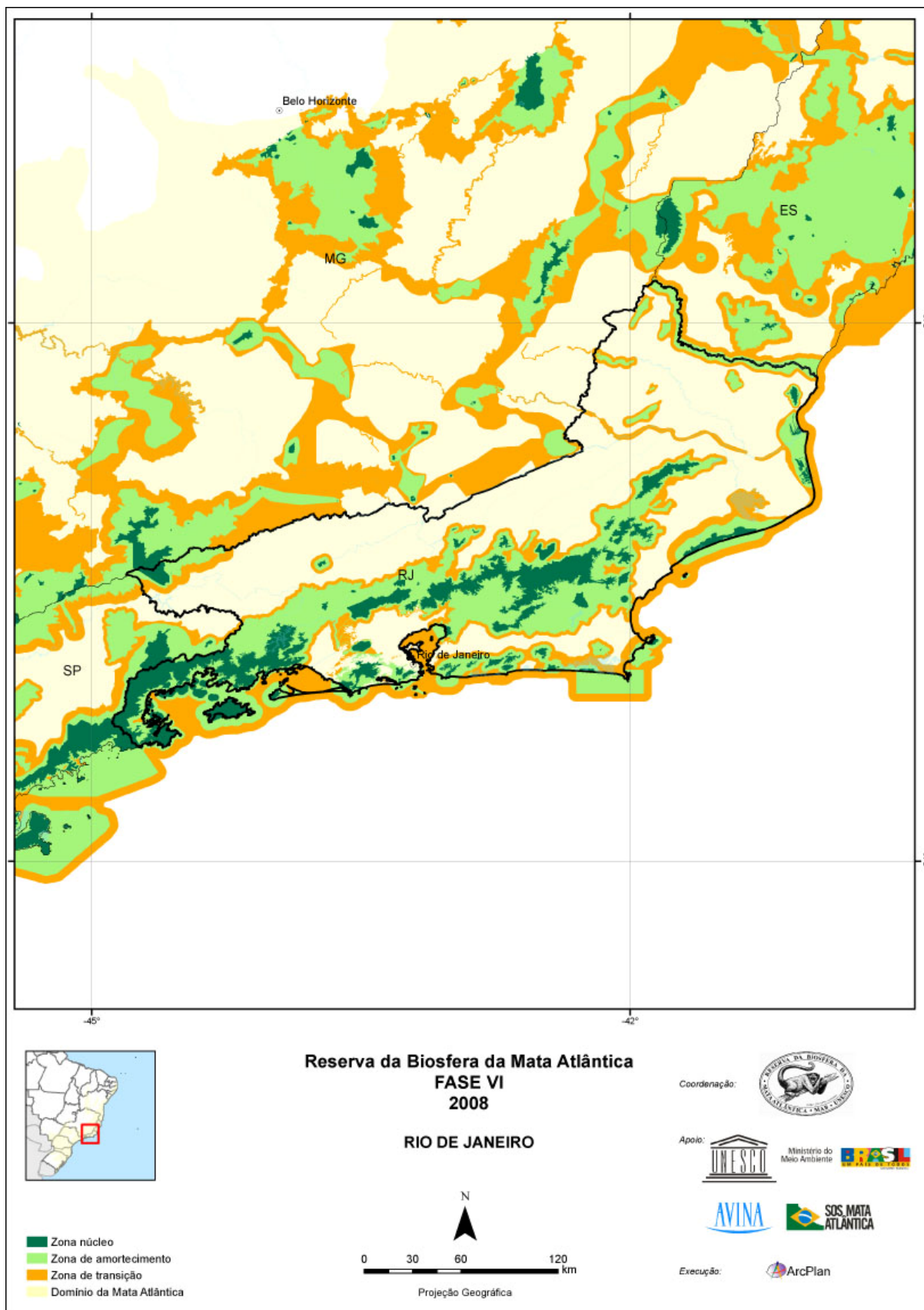
- 1- Refinement of the limiting of the RBMA from drafting of its digital cartography. In the State, the works have been complemented from the information base of the Central Ecologic Corridor Project of the Mata Atlântica - Espírito Santo/Bahia -CCMA; the Biodiversity Conservation Project of the Mata Atlântica in the State of Espírito Santo, carried out by the Research Institute of the Mata Atlântica (IPEMA) in partnership with the Government of the State and the Brazil International Conservation; by the data and information base provided by the Government of the State and mapping of priority conservation areas of the Ministry of Environment.
- 2- Fitting of the zoning of the RBMA in the State, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new full protection, terrestrial and marine coastal conservation units, considered core zones, with their respective buffer and transition zones, in particular the National Monument of Pontões Capixabas and several RPPNs.
- 4- Creation of new core zones within permanent preservation and highly restricted use zones, such as forest remaining areas in advanced recovery stage, lakes, sand banks, dunes, mangroves and costal reefs.
- 5- Significant enlargement of buffer zones in areas of mini ecological corridors, as defined by the CCMA Project, within Indigenous Land, conservation and sustainable use zones and extreme priority conservation areas, as assessed by the State and the Ministry of Environment.
- 6- Significant enlargement of the RBMA area in the coastal and marine region, including core, buffer and transition zones in areas deemed as high and extreme priority for conservation and interaction of the biome of the Mata Atlântica and Marine, in particular inclusion of Lagunar Complex and the mouth of the Doce River.
- 7- Inclusion of marine areas, such as the RBMA buffer zone, because these are deemed as high priority for the creation of the Marine Ecologic Corridor in the border with the State of Bahia between the mouth of the Doce River and the National Park of Abrolhos.
- 8- Enlargement of the buffer and transition zone of the RBMA, in the surroundings of core zones comprised by the Municipal Reserve of Trindade Island and the Martin Vaz Archipelago.
- 9- Zoning adjustments with the transformation of transition zones into buffer zones, in view of the connectivity and formation of ecologic corridors in the borders with the states of Bahia, Minas Gerais and Rio de Janeiro.

PROTECTED AREAS PER TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.10. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF RIO DE JANEIRO





THE MATA ATLÂNTICA IN THE STATE OF RIO DE JANEIRO

“Rio de Janeiro is fully inserted in the Mata Atlântica biome, which, as a whole, is very old, and one believes that it was set up in the beginning of the Tertiary. However, recent climate fluctuations throughout the Quaternary have caused space expansion and retraction processes in the Mata Atlântica from more restrict regions that worked as fauna a flora refuges. This event admits that there are some regions of the Mata Atlântica that are high biodiversity zones, from which irradiation of many species occurred as the forest would spread”.

“Zones that constitute old Pleistocene refuges are the following: south of Bahia; region of tabuleiros in Espírito Santo and seashores of Rio de Janeiro and north of São Paulo. In these zones, a great amount of endemic species is found related to high specific diversity. The State of Rio de Janeiro occupies a peculiar position because its location coincides with one of the areas of biggest diversity of the Biome”.

“Estimates account that Rio de Janeiro around the Sixteenth Century had 97% forest coverage in its territory. The vegetation map in a 1:1.000.000 scale of the RADAMBRASIL Project indicates that Rio de Janeiro would contain portions of original phytoecologic regions of the Mata Atlântica biome”.

“The biggest continued and conserved forest extensions are in the regions of Paraty, Angra dos Reis and Mangaratiba, and, in the inland of the State, in the mountain region, from the Tinguá Biological Reserve, through the National Park of Serra dos Órgãos, State Park of Três Picos, and continuing in fragments to State Park of Desengano. More critical areas are located in the northern and northwestern regions of the State, with great forest coverage losses in the period from 1995 to 2000, high level of degradation and erosion spots. In general, the reduction, degradation and fragmentation in the vegetal coverage of the State has as cause several different factors, among which:

- conservation units created, but not implemented;
- expansion of cattle-raising areas in steep slops and mountain tops;
- expansion of urban areas, and rural and seashore condominiums and allotments;
- burns caused by cattle-raisers, allotment owners, balloons and agriculture;
- stone-pits and sand-pits;
- banana plantations;
- extraction of vegetal resources (palm tree and ornamental and medicinal plants);
- power transmission lines and gas and oil ducts;
- no economic and ecologic zoning”

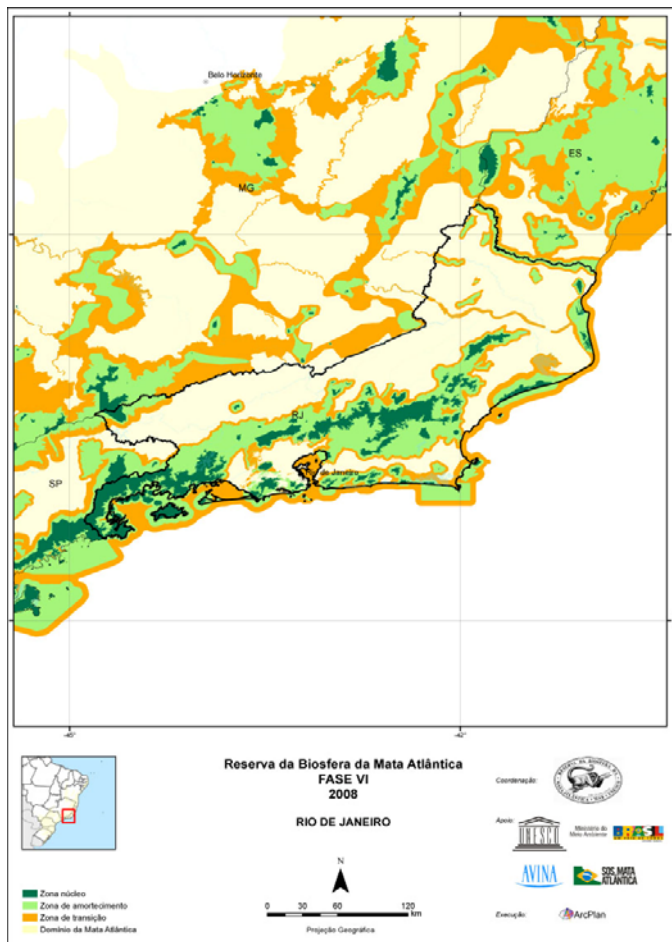
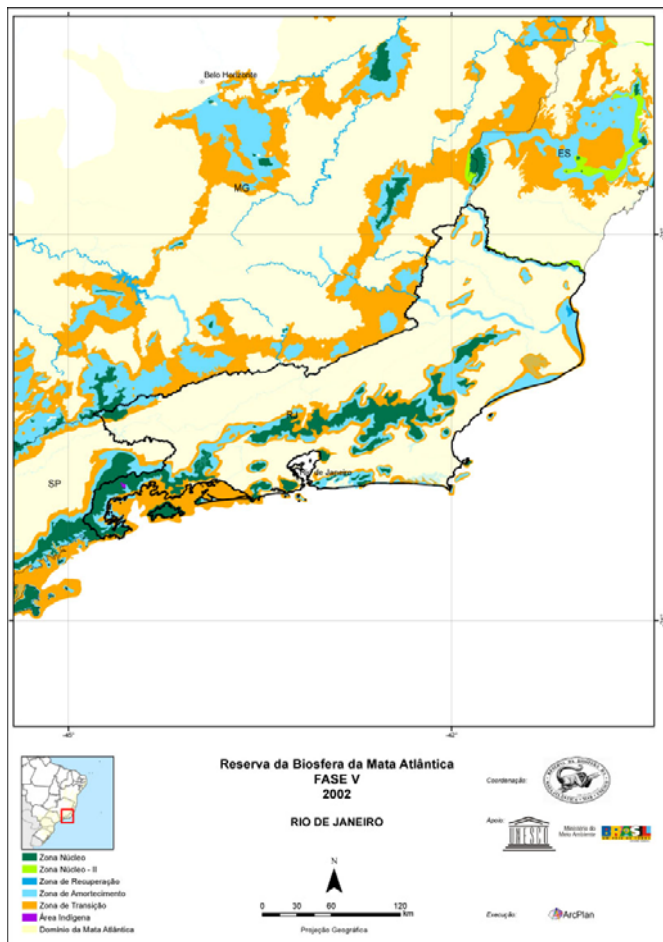
“With direct partnership of the Mata Atlântica Mosaic Program of the RBMA, the Ministry of Environment acknowledged three big Mosaics encompassing several Conservation Units of the State of Rio de Janeiro, in the Region of the Serra do Mar Corridor, these are the Mata Atlântica Central Fluminense Mosaic, the Bocaina Mosaic and the Mantiqueira Mosaic. New mosaics are being formed in the State for the integrated management of Conservation Units and protected areas, in particular the TINGUÁ - Bocaina Corridor and the mosaic of the region of Poço das Antas”. (Source: *1)

Recently, in this last area the State Park of Cunhambebe has been created with about 30.000 hectares.



THE RBMA PHASE V AND PHASE VI IN THE STATE OF RIO DE JANEIRO

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	RJ	4.375.048	1,509,250	34%	272,436	1,781,685
Phase VI			2,053,199	47%	712,174	2,765,373



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Rio de Janeiro the main changes occurring from Phase V to Phase VI were due to:

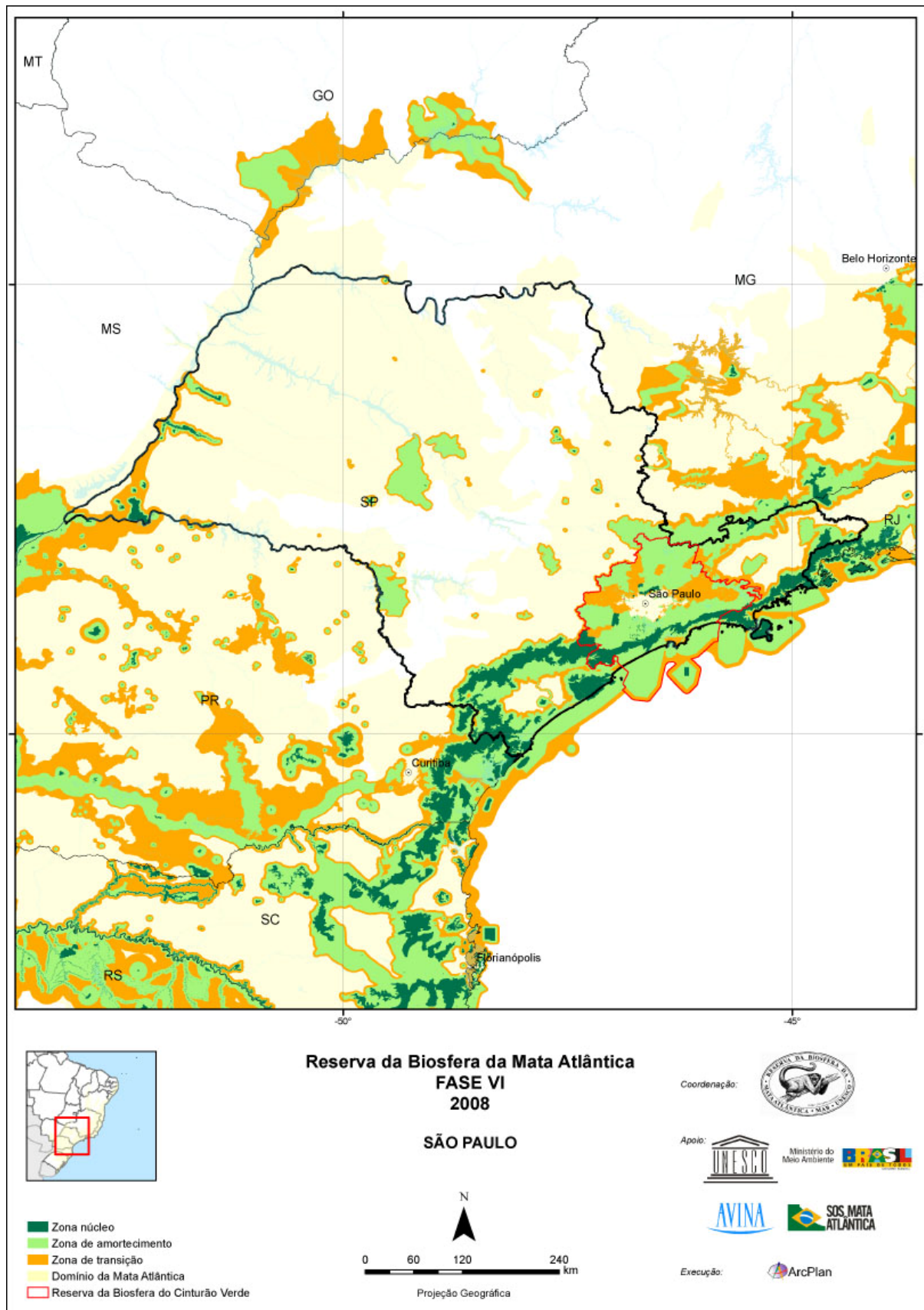
- 1- Refinement of the RBMA limiting from preparation of its digital cartography and complementary information provided by the State Forest Institute of Rio de Janeiro.
- 2- Fitting of the RBMA zoning in the State consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new full protection land and marine coastal conservation units, deemed as core zones, with their respective buffer and transition zones, in particular the National Park of Cunhambebe and state parks of Três Picos, Grajaú, Ilha Grande and Tinguá – Bocaina; ecologic stations of Guanabara and Guaxindiba; municipal parks of Araponga, Taquara and Serrinha do Alambari and RPPNs Trijunção, Querência, El Nagual.
- 4- Significant enlargement of buffer zones within areas of the Mosaics of Conservation Units of Bocaina, Mantiqueira and Central Fluminense; federal, state and local sustainable use conservation units and areas deemed as extreme priority conservation, as assessed by the State and the Ministry of Environment.
- 5- Enlargement of the RBMA area in the coastal and marine region, including nucleus, buffer and transition zones in areas deemed as extreme priority for the creation of conservation units and interaction of the Mata Atlântica and Marine biomes.
- 6- Inclusion of remaining areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridors in the borders with the States of Minas Gerais, São Paulo and Espírito Santo.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



3.11. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF SÃO PAULO





THE MATA ATLÂNTICA IN THE STATE OF SÃO PAULO

“With over 80% of its territory covered by forests in 1500, the State of São Paulo has its environmental history marked by different levels of threat to original Mata Atlântica ecosystems. For four centuries of economic exploitation, the State had its forest coverage dramatically reduced for occupation of agriculture monoculture, in particular because of deforesting to cultivate coffee. Even so, until 1920 more than half of the territory was covered by native forests. But it was in half century of industrialization that the devastation of the Mata Atlântica reached most alarming levels, when in 1973 the primitive forest was reduced to 8.75% of its territory, or approximately 2 million hectares, concentrated almost exclusively in Serra do Mar”.

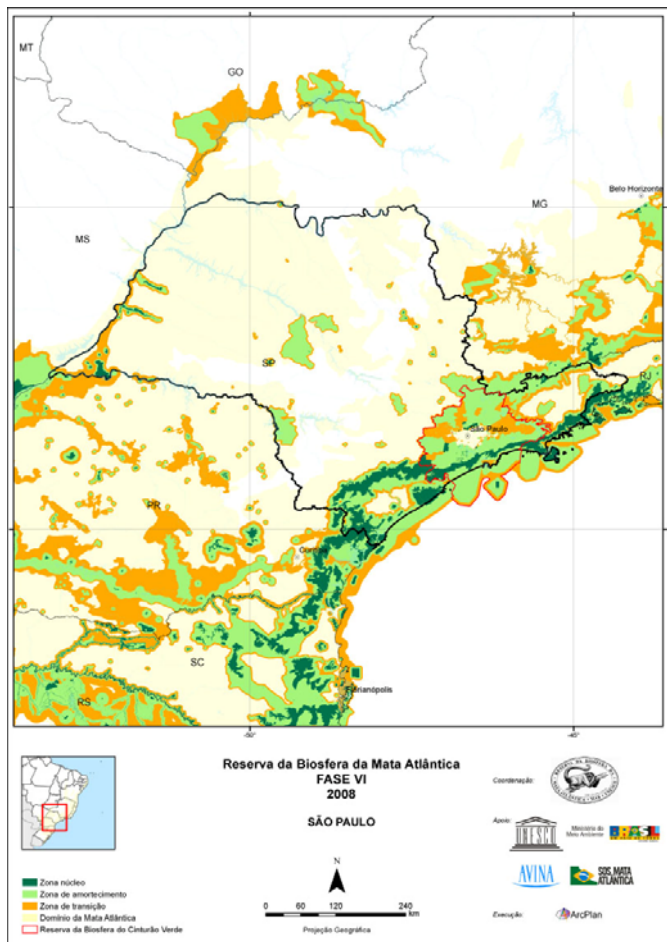
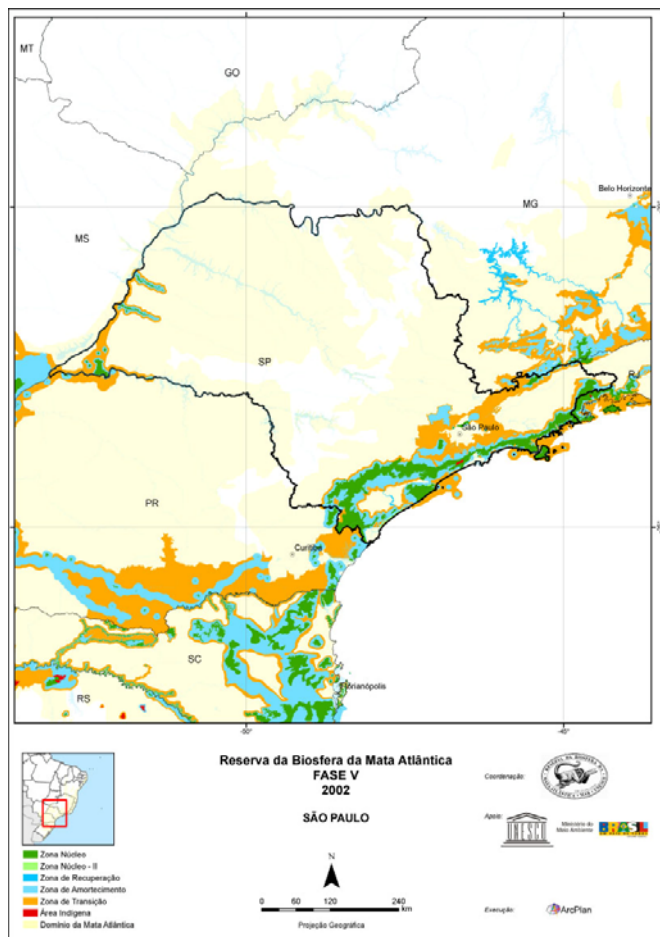
“In 2002, an assessment by the São Paulo Forest Institute, a research and administration body of conservation units of the State, carried out based on satellite images detecting fragments above four hectares, revealed subtle reversion in the loss of vegetation. The data showed that in one decade there was a 2% increase in the São Paulo vegetation area. Even so, the increase was not global and occurred mainly in Mata Atlântica regions of Paraíba Valley and Seashore, where the project to recover the forest increased the inspection and infrastructure within conservation units. The study led to the publication in 2005 of the Natural Vegetation Forest Inventory of the State of São Paulo, showing that the surface covered by natural forests started to represent 13.94% of the territory of the State, which is equal to 3,457,301 hectares. The assessment of natural forests – the concept of which includes different types of rain forests, araucária and gallery forests – was made based on 11 administrative regions covering the 645 municipalities of the State. In this analysis, the biggest concentrations of natural vegetation occurred in the region of Sorocaba and Seashore”.

“By comparing the data from the prior assessment (1990-92), vegetation was found in the following regions: Vale do Paraíba, Seashore, São Paulo, Presidente Prudente and Ribeirão Preto. On the other hand, diminishing of the natural area continues more significant in the regions of Araçatuba, São José do Rio Preto, Bauru, Marília and Campinas. Contrary of the perspectives of regeneration of the forest in specific spots, deforesting, fires, hunting and traffic of species still appear as serious unsolved problems in the State, thus resulting in direct reduction of biodiversity of the Mata Atlântica. Even the data presented by the Forest Institute are being disputed by the SOS Mata Atlântica Foundation, that organizes since 1985 the Atlas of Remaining Mata Atlântica Areas. According to that NGO, the assessment of the IF takes into account only additions, and leaves aside the deforesting that occurred almost in the same proportion in the assessed period. Current fragments are insufficient to maintain the biodiversity, as the level of fragmentation of the landscape leads to limit situations related to isolation of the last fauna and flora populations, causing genetic impoverishment and growing border effects on the remaining areas. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF SÃO PAULO

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	SP	24.876.682	3,733,783	15%	381,220	4,115,003
Phase VI			5,623,856	23%	1,505,708	7,129,564



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of São Paulo the main changes occurring from Phase V to Phase VI were due to:

1- Refinement of the RBMA limiting from drafting of its digital cartography. In the State, the works have been complemented based on the Atlas of Priority Conservation Areas of the Secretariat of Environment of São Paulo and the mapping of priority conservation areas of the Ministry of Environment. It has also incorporated the proposal to review the Biosphere Reserve of the Green Belt of the City of São Paulo, which is an integral part of the RBMA.

2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.

3- Creation of new full protection, land and marine coastal conservation units, deemed as core zones, with their respective buffer and transition zones, in particular the Ecologic Station of Barreiro Rico and the several Conservation Units comprising the Mosaics of Jacupiranga and Juréia-Itatins.

4- Creation of new core zones within permanent and highly restricted use preservation areas, such as islands, mangroves, sand banks and remaining forest areas in advanced stage of recovery.

5- Significant enlargement of buffer zones in areas of the Mosaics of Conservation Units of Bocaina, Mantiqueira and Jacupiranga; in indigenous land; sustainable use conservation units, such as sustainable development reserves of Quilombos of Barra do Turvo, Pinheirinhos and Lavras, and the Extractive Reserve of Ilha do Tumba.

6- Significant enlargement of the RBMA area in the coastal and marine region, including nucleus, buffer and transition zones in areas proposed for the creation of three big environmental protection areas.

7- Refitting of the zoning in the area of the Green Belt of the City of São Paulo, and inclusion of protected areas inserted within urban regions.

8- Inclusion of remaining areas, such as buffer and transition zones, in view of connectivity and formation of ecologic corridors in the borders with the states of Minas Gerais, Rio de Janeiro and Paraná.

9- Modification of the zoning by transforming core zones into buffer zones, and vice-versa, especially in the Region of the Mosaic of Jacupiranga, as a function of changes of the category of protected areas and the conservation status of existing remaining forest areas.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

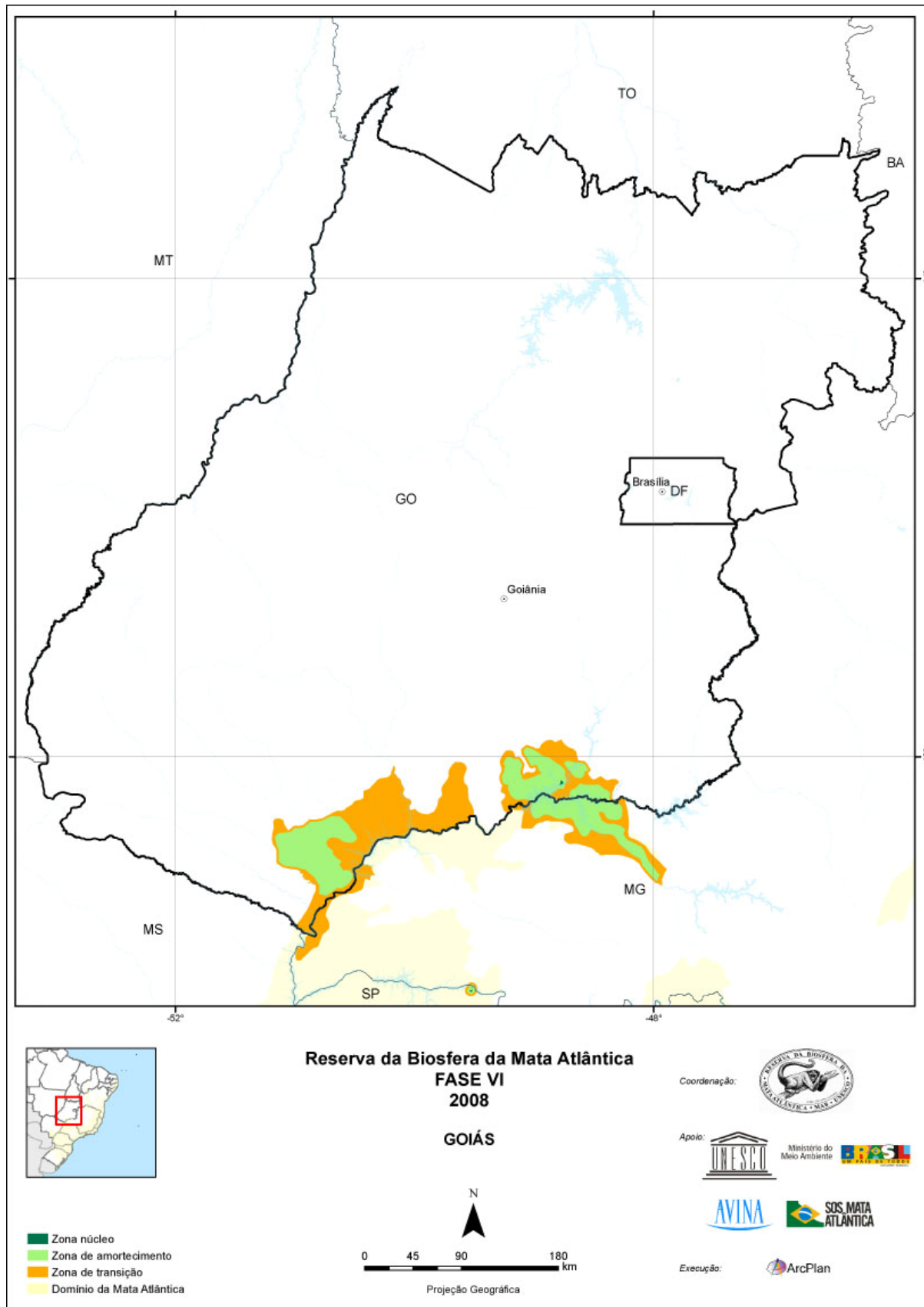
See table in Annex 01.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.12. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF GOIÁS





THE MATA ATLÂNTICA IN THE STATE OF GOIÁS

"This is the State with the lesser area covered by ecosystems of the domain of the Mata Atlântica, Goiás has only 82 thousand hectares still occupied by specific forest of this biome. The area is proportionally very small regarding the domain of the Cerrado in the State. The remaining Mata Atlântica area extend basically through the territory of new municipalities of the southeast of Goiás: Quirinópolis, Inaciolândia, São Simão, Buriti Alegre, Morrinhos, Água Limpa, Corumbaíba, Goiatuba and Araporã".

"Contrary of states like Rio de Janeiro, Espírito Santo and Paraná, fully covered by the diversity of the physiognomies of the Mata Atlântica, ombrophile forests and deciduous seasonal forests, mangroves and restinga, Goiás has only the deciduous seasonal forest and semi-deciduous seasonal forest, both characterized by tree vegetation the leaves of which fall in the drought period. There are further ciliary forests, incrustated remaining areas or limitrophes inserted in other formations".

"The State Park of the Mata Atlântica, in the municipality of Água Limpa, was created from technical studies of the Protected Area and Integrated Action Management of the Ecosystem Directorship of the Environmental Agency of Goiás, which showed the richness of the physical and biotic characteristics of the region".

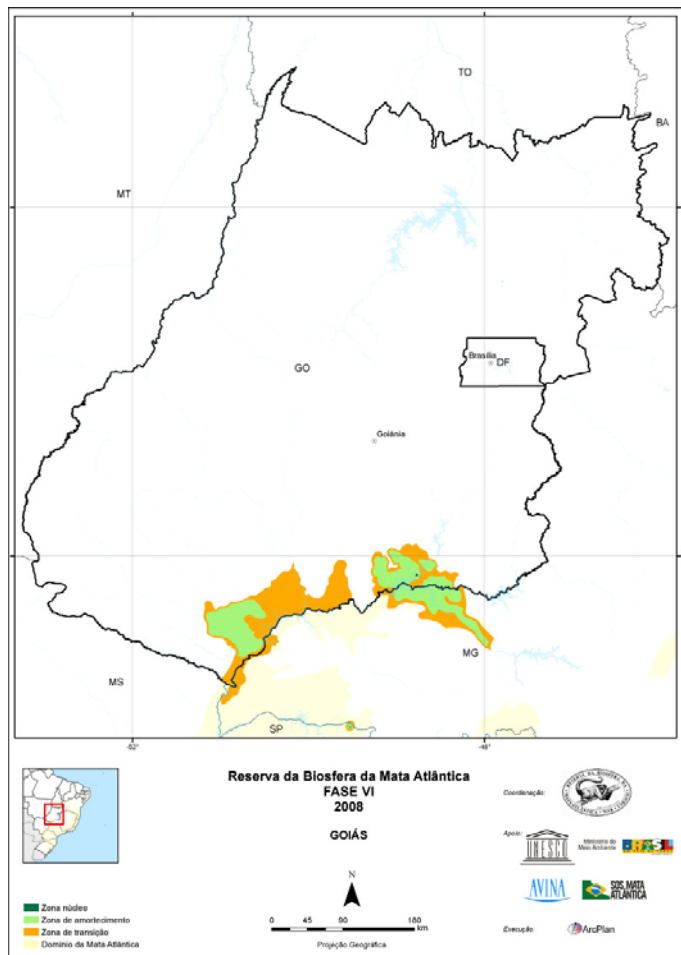
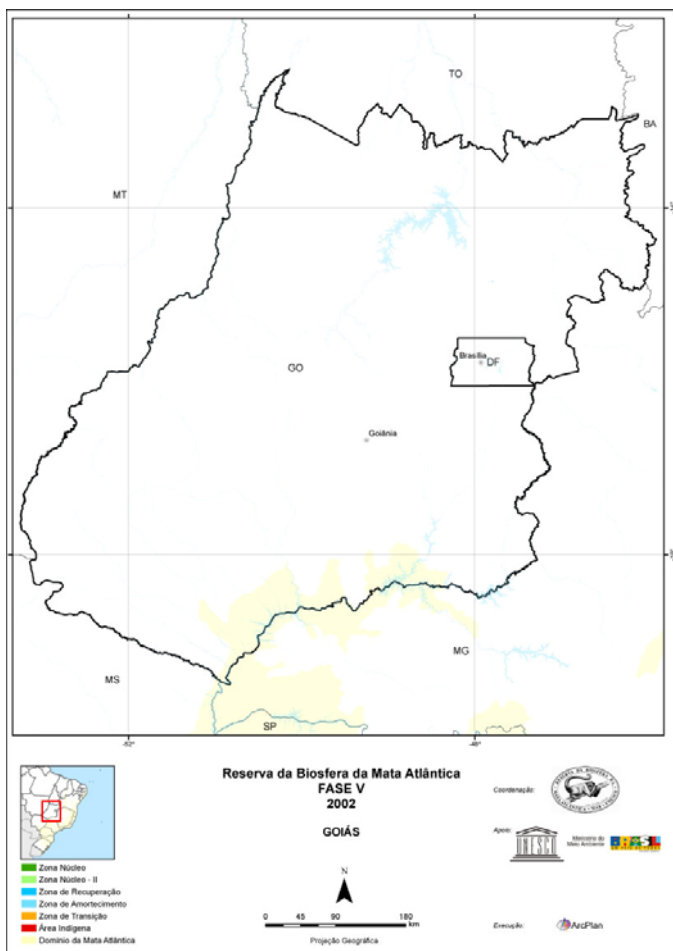
"According to technicians of the environmental agency, the 1 thousand hectares of the Park must be preserved because of the fauna diversity comprised of big mammals, such as monkeys and the jaguar, and native bird species that move from the Cerrado and the Mata Atlântica; the flora diversity has the same level of expression comprised by plants as the cedar, jatobá, peroba-rosa and others almost extinct that occur only in the Biome".

"In 1995, Goiás had approximately 85 thousand hectares of forest or 7.5% regarding the original domain of the State. In 2000, this number had dropped to approximately 82 thousand hectares or 7.24% of the original area. The deforestation amounted to more than 3 thousand and 300 hectares or 3.95% between 1995 and 2000". (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF GOIÁS

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	GO	34,122,823				
Phase VI			1,337,105	4%		1,337,105



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

Inclusion of remaining Mata Atlântica areas in the State of Goiás in the RBMA phase VI was the result of a request by representatives of the Government of the State to the National Council of the RBMA, which approved it based on:

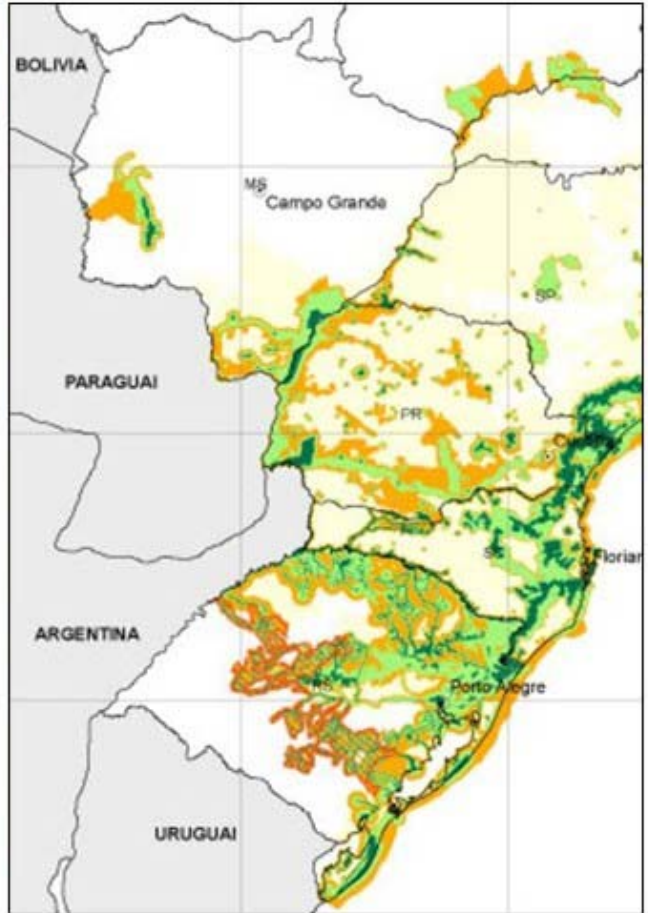
- 1- Evidence obtained with scientific assessments and studies of occurrence of remaining vegetation areas of the Mata Atlântica domain in the State of Goiás;
- 2- Creation of an important full protection Conservation Unit, State Park of the Mata Atlântica, with 1000 ha, located in the municipality of Água Limpa, south of the State, the phytogeographic characteristics of which are confirmed as Mata Atlântica, by means of a technical study coordinated by Professor Dr. Ângelo Rizzo, of the Federal University of Goiás. The State Park of the Mata Atlântica has great fauna diversity and is comprised of big mammals, such as monkeys and the jaguar, and further by native bird species that move from the Cerrado and the Mata Atlântica. The flora diversity of the State Park of the Mata Atlântica has the same expression level and is comprised by plants as the cedar, jatobá, peroba-rosa and other almost extinct occurring only in such biome.
- 3- A RBMA limiting and zoning proposal has been drafted for the State consistent with the provisions of the Review Manual – Phase VI, and defines core, buffer and transition zones comprised by full protection and sustainable use conservation units, permanent preservation and highly restricted use zones deemed as high priority for purposes of conservation of biodiversity, as assessed by the State and the Ministry of Environment.
- 4- Inclusion of remaining areas, such as buffer and transition zones, in view of connecting and forming an ecologic corridor in the border with the State of Minas Gerais.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.



Southern Region

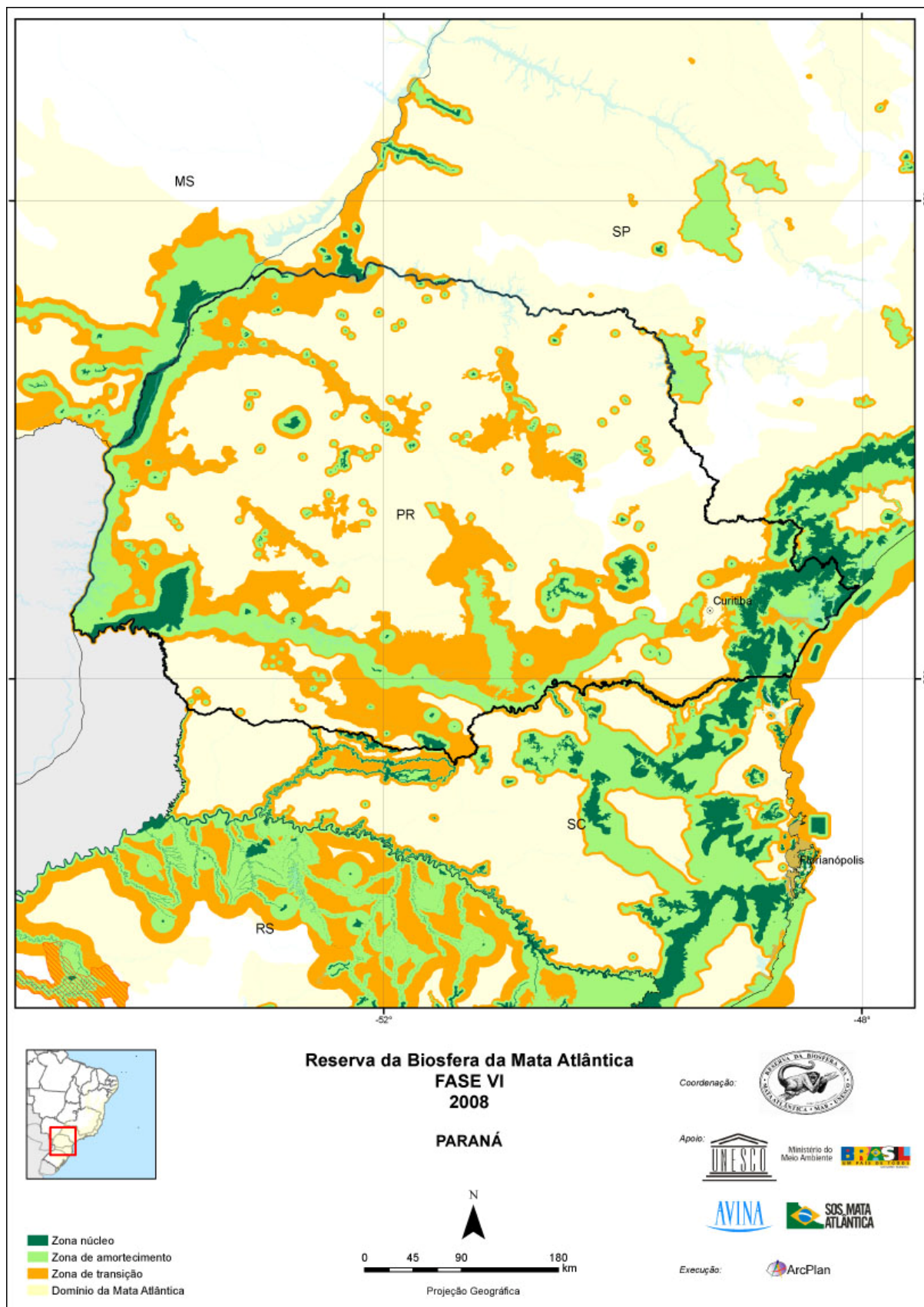




RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.13. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF PARANÁ





THE MATA ATLÂNTICA IN THE STATE OF PARANÁ

“Officially, Paraná has today extension of 199,729 km², of which 84.7%, or 169,197 km², were originally covered by the Mata Atlântica. The remaining territory was originally comprised by field formation, Cerrado (Savannah) spots and some vegetation typologies of the shore line”.

“The first vegetal coverage of the State was formed by the following flora formations: rain tropical-subtropical forest; araucária forest in the plains and region of the subtropical forest above 500m, clean fields and cerrado fields (low-grass steppes); vegetation of low lands and swamps; shore vegetation, islands, restinga and high mountain vegetation; and bay areas with mangrove stripes. From the approximate surface of 201,203 km², the forest would cover 168,482 km², including mangrove fringes of the bays, subxerophytic restinga forests in the shore line and stripes of fog forest in Serra do Mar, besides subtropical rain forest and the araucária forest in the plains and the region of the subtropical forest above 500m high”.

“Therefore, this assessment the forest, that is the Mata Atlântica itself, would cover approximately 83.74% of the State territory. There is a difference regarding current official data caused by methodological mapping differences. However, it is important to highlight that approximately 84% of the territory of Paraná was originally covered by forest formations, all of which fitted within the so-called Mata Atlântica Domain”.

“The situation of the Mata Atlântica in Paraná is critical, especially in regions of araucária forests and semi-deciduous seasonal forests”.

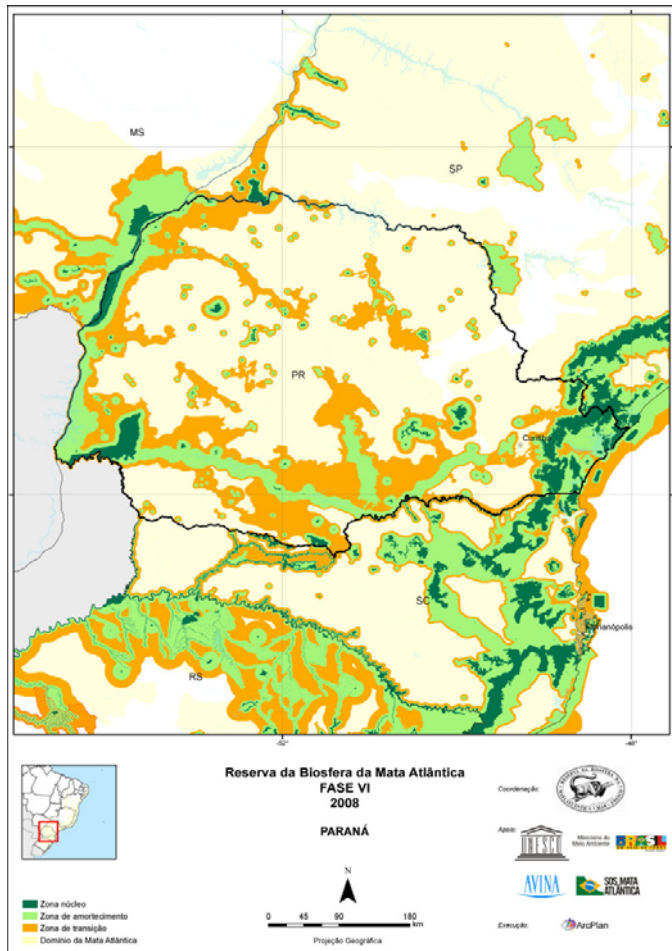
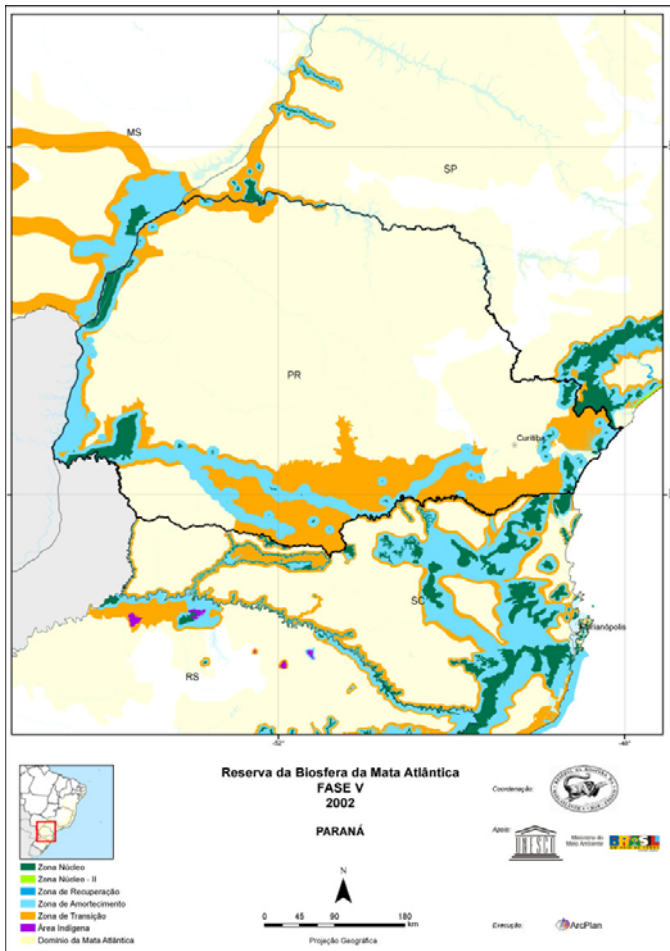
“Another aggravating factor is the existence of conservation units to preserve important forest remnants, with areas representing different environmental situations occurring in the State. Although the creation of conservation units is an important environmental conservation tool, it is not fully effective”.

“Isolated islands with conservation units are not ideal. While coordinated regional policies are not implemented by the Government jointly with governmental and non-governmental institutions, the manufacturing industry and in particular the local population, conservation of these ecosystems shall not be effective. Landscape planning is required, with zoning that contemplates preservation areas and others with different management levels, besides the restoration of forests and creation of corridors to connect fragments”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF PARANÁ

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	PR	20.048.824	5,203,268	26%	212	5,203,480
Phase VI			8,442,749	42%	205,506	8,648,255



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Paraná the main changes occurring from Phase V to Phase VI were due to:

- 1- Refinement of the RBMA zoning from drafting of its digital cartography. In the States, the works have been complemented with information provided by the Environmental Secretary of Paraná.
- 2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of a significant number of new full protection terrestrial and marine conservation units, deemed as core zones, with their respective buffer and transition zones.
- 4- Creation of small core zones in permanent preservation and highly restricted use zones, such as remaining forest areas in advanced stage of conservation and within RPPNs.
- 5- Significant enlargement of buffer and transition zones, forming biodiversity corridors, ciliary forests, permanent conservation areas in hydrographic basins, indigenous lands; sustainable use conservation areas, and areas of extreme priority conservation, as assessed by the State and the Ministry of Environment.
- 6- Significant enlargement of the RBMA area in the coastal and marine region, including core, buffer and transition zones in areas of very high and extreme de priority for the creation of conservation units and interaction of the Mata Atlântica and Marine biomes.
- 7- Inclusion of remaining areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridors in the divisions with the States of São Paulo, Santa Catarina and Mato Grosso do Sul.
- 8- Modification of the zoning by transforming core zones into buffer zones and vice-versa, as a function of changes of class of protected areas, creation of new conservation units and the level of conservation of existing remaining areas.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

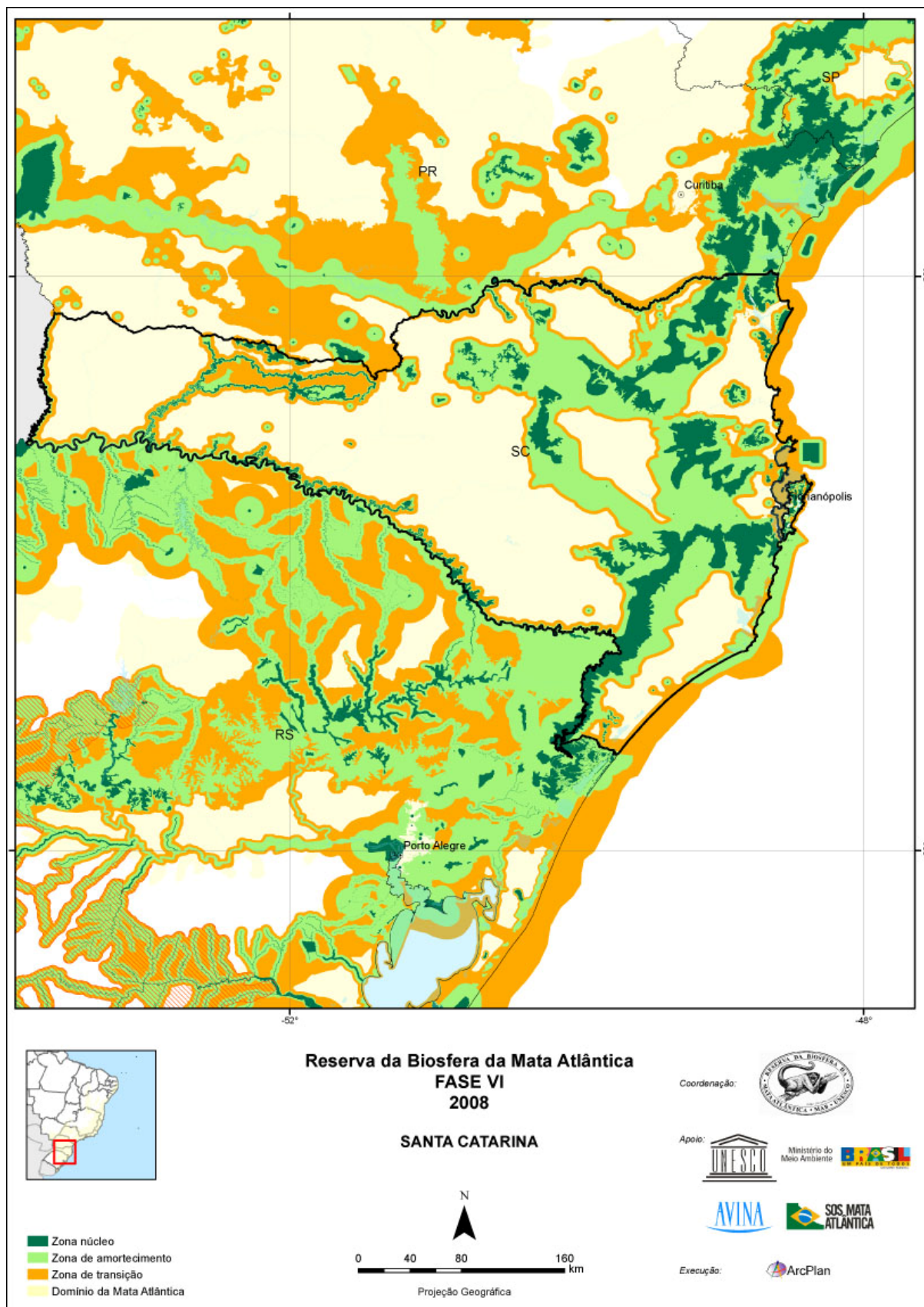
See table in Annex 01.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.14. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF SANTA CATARINA





THE MATA ATLÂNTICA IN THE STATE OF SANTA CATARINA

“With territory of 95,985 km², of which 85%, or 81,587 km², were originally covered by the Mata Atlântica, Santa Catarina is located today as the third Brazilian state with bigger remaining Mata Atlântica area, and maintains today 1,662,000 hectares (16,620 Km²), or 17.46% of the original area. Records state that the area of the State corresponds only to 1.12% of the Brazilian territory. Such data illustrate well the current critical situation of the Mata Atlântica”.

“According to the Phytogeographic Map of the State of Santa Catarina, the forest coverage of the State is subdivided in Atlântica Coastal Rain Forest, Araucária or Pine Forest and Subtropical Forest of the basin of the Uruguay River. The Atlântica Coastal Rain Forest, also known as dense ombrophile forest, together with its related ecosystems, mangroves and sand banks, would cover 31,611 km² or 32.9% of the territory of Santa Catarina. The Araucária Forest, defined as a mixed ombrophile forest, would cover 40,807 km², that is, 42.5% of the territory of the State, thus comprising the predominant forest coverage. The Subtropical Forest of the Basin of the Uruguay River, or semi-deciduous seasonal forest, on its turn, would cover 9,196 km², amounting to 9.6% of the forest coverage of Santa Catarina. It is estimated that 14.4% (13,794 km²) of fields and 0.6% (575 km²) of portions of fog forests are left”.

“From the original dense ombrophile forest still there is approximately 22% (7,000 km²) left, distributed in remaining primary forest areas or in advanced stage of regeneration. The biggest extension of the area covered by forests in the State is represented by fragments of dense ombrophile forest”.

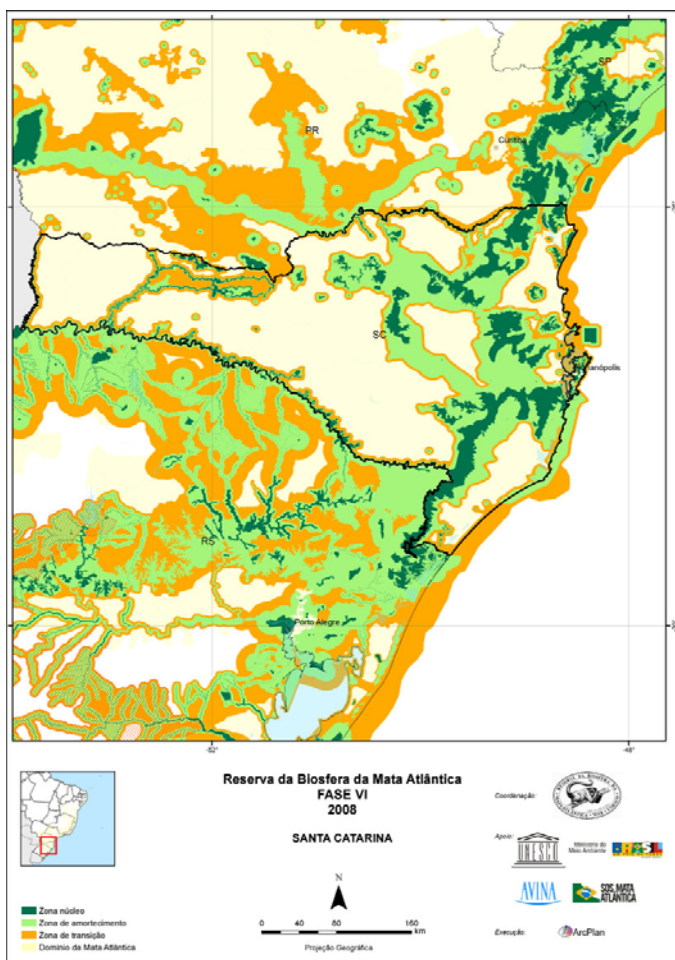
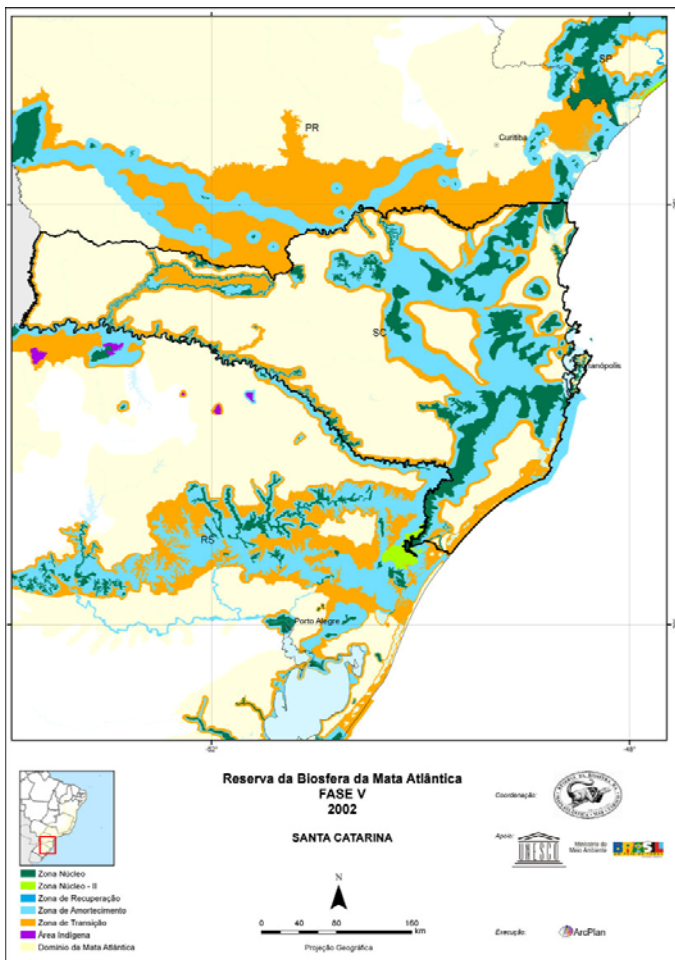
“The mixed ombrophile forest, which was comprised of the predominant forest formation of the State, has been intensely predated by timber exploitation, and today is in extremely critical situation. Several nucleus of the mixed ombrophile forest are also found in the region of the Rain Forest, in particular the nucleuses located in the municipalities of Antônio Carlos, São João Batista, Lauro Müller, Sombrio and Major Gercino”.

“The mixed ombrophile forest is comprised of vegetation virtually from the south region of Brazil. Today its extremely fragmented remaining areas hardly reach 5% of the original area, according to data of the Ministry of Environment (2000), or 3%, according to FUFEP (1978), of which derisive 0.7% could be deemed as primitive areas, the so-called virgin forests”.
(Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF SANTA CATARINA

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	SC	9,573,850	4,653,097	49%	125,311	4,778,409
Phase VI			4,706,180	49%	455,755	5,161,935



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Santa Catarina, the main changes occurring from Phase V to Phase VI were due to:

- 1- Refinement of the RBMA limiting from drafting its digital cartography from data and information provided by FATMA The State Environmental Foundation and mapping of areas defined as priority conservation, as assessed by the State and the Ministry of Environment.
- 2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new full protection, land, coastal and marine conservation units, deemed as core zones, with their respective buffer and transition zones, in particular the national parks of Serra do Itajaí and of Araucárias; state parks Fritz Plaumann, Araucárias and Rio das Canoas; Wild Life Reserve of Campos de Palmas; municipal parks of Galheta and Morro do Macaco, and RPPNs Chácara Edith and Caetezal.
- 4- Creation of Environmental Protection Area Baleia Franca , sustainable use conservation units, with the definition of highly restricted use areas in the region of occurrence and procreation of the bowhead whale.
- 5- Significant enlargement of the RBMA area in the coastal and marine regions, including nucleus, buffer and transition zones in areas deemed of extreme priority conservation, as assessed by the State and the mapping drafted by the Ministry of Environment.
- 6- Enlargement of buffer zones within indigenous lands, quilombos and permanent preservation areas limited and prioritized for the creation of ciliary forest corridors in the border with the State of Paraná.
- 7- Refitting of the zoning in the area of Ilha de Santa Catarina, thus integrating the RBMA zoning with the Master Plan of the Municipality of Florianópolis.
- 8- Inclusion of remaining forest areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridors between conservation units in the border with the State of Rio Grande do Sul.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

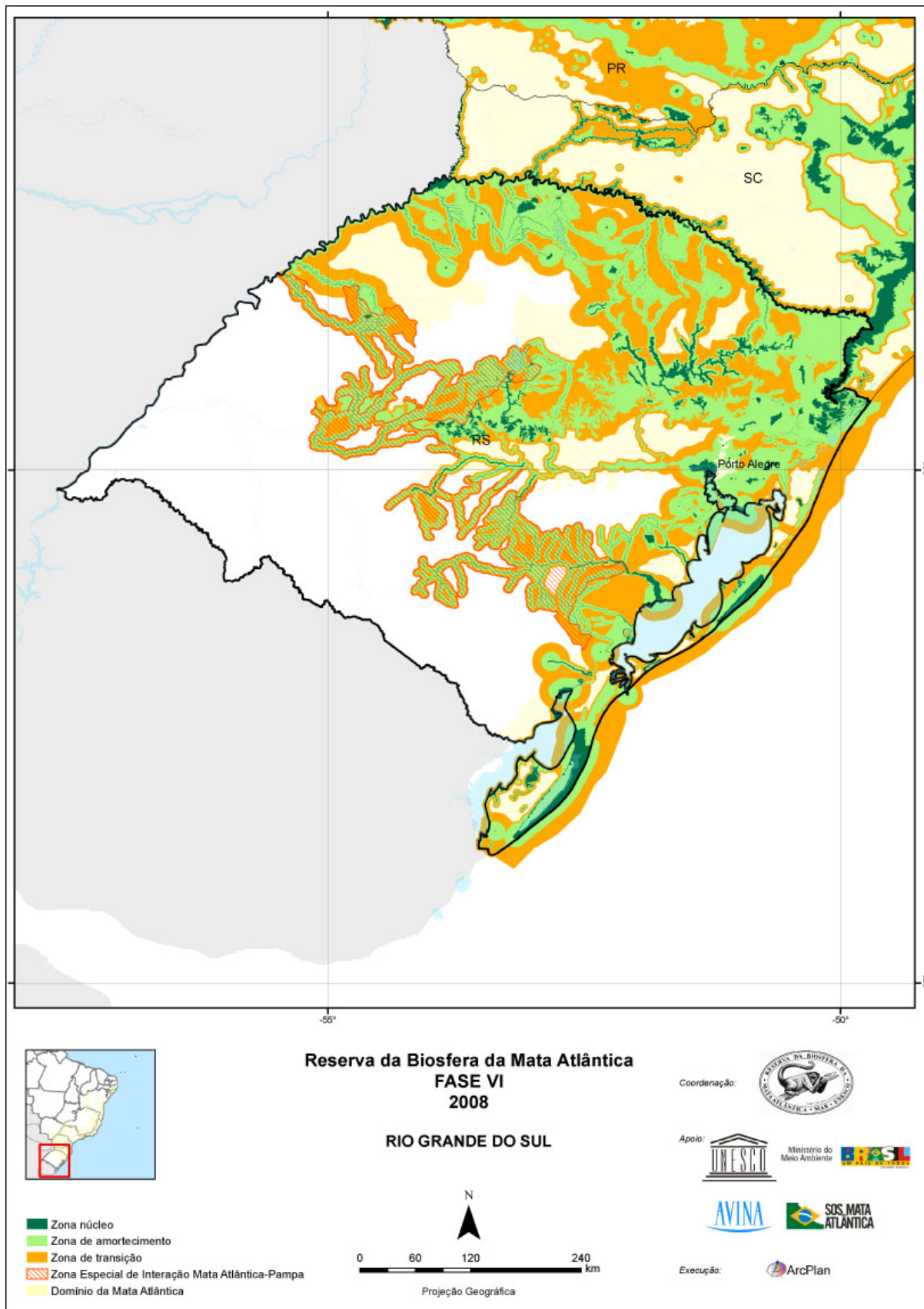
See table in Annex 01.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.15. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF RIO GRANDE DO SUL





THE MATA ATLÂNTICA IN THE STATE OF RIO GRANDE DO SUL

“Located in the extreme south of Brazil, in the border with Uruguay and Argentina, the State of Rio Grande do Sul has 282,062 km², population of 10,187,798, subtropical weather, relief with three different natural regions and two big biomes: Mata Atlântica (in the mountains plains and the lake region) and Pampa”.

“It is estimated that in 1500 there were 11,202,705 km² (39.70 hectares) with Mata Atlântica vegetation coverage in the State. In 1940, the original coverage was 9,898,536 Km² (35.08%), but within less than 20 years, over 7 million hectares of such vegetation were lost, and today there are only 2,700,501 Km² (9.57%) left”.

“The Domain of the Mata Atlântica in Rio Grande do Sul is comprised of dense ombrophile forest, mixed ombrophile forest (Araucária Forest), semi-deciduous seasonal forest, high altitude fields and saud bank”.

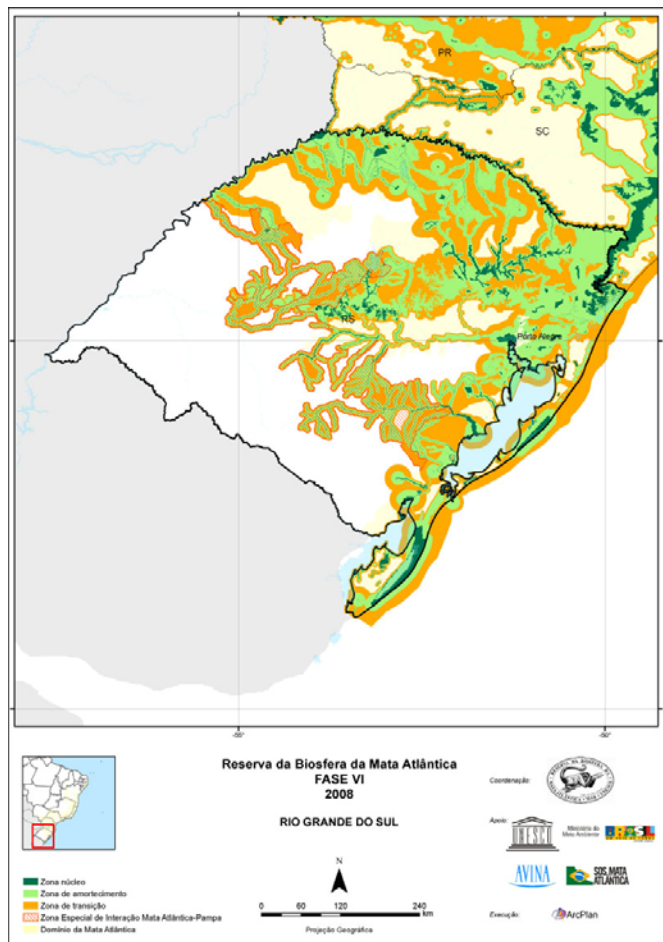
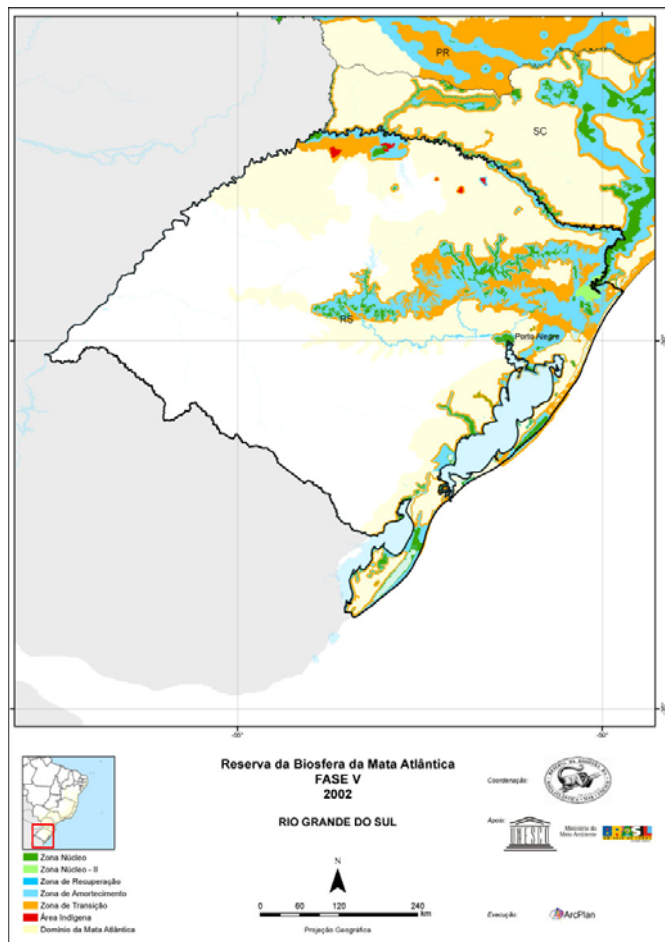
“In the last years, forest recovery is perceptible in areas abandoned by agriculture. Automation and lack of public policies intended for the small agriculturist have led rural producer to abandon areas used before for agriculture, in particular mountain slopes”.

“On the other hand, deforesting continues. Small producers continue to deforest to increase their “productive” area or, in order to generate firewood sawmills continue to exploit the forests, and infrastructure undertakings, such as roads and dams, are allowed within remaining forest areas”.

“In the Northern Seashores is the main set of rain forest remaining areas, in particular the dense ombrophile forest and, in the Atlantic side, sedges, dry fields, fig tress, queenplams, cedars, soapbark trees; in the continental side, remaining restinga forests. In the region is located the State Biological Reserve of Serra Geral – in the high portion – State Park of Itapeva – in the plains – and Ecologic Reserve of Ilha dos Lobos – in the ocean, next to the city of Torres”. (Source: *1)



THE RBMA PHASE V AND PHASE VI IN THE STATE OF RIO GRANDE DO SUL COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	RS	27,103,592	5,391,425	20%	143,313	5,534,738
Phase VI			11,318,413	42%	1,543,645	12,862,058



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Rio Grande do Sul the main changes occurring from Phase V to Phase VI were due to:

- 1- Refinement of the RBMA limiting from drafting of its digital cartography and mapping of areas defined as priority conservation, as assessed by the State and the Ministry of Environment.
- 2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI.
- 3- Creation of new full protection, terrestrial, marine and coastal conservation units, deemed as core zones, with their respective buffer and transition zones, in particular the Wild Life Federal Reserve of Ilha dos Lobos, State Park of Quarta Colônia; municipal parks of Ronda, of Morro do Osso, and RPPN of Pontal da Barra; Rancho Mira Serra.
- 4- Creation of new core zones within permanent and highly restricted use preservation areas, such as mountain tops, estuary ciliary forests and remaining forest areas in advanced stage of recovery.
- 5- Significant enlargement of buffer zones in indigenous lands, within limited and prioritized areas for creation of ciliary forest, costal and marine corridors, high altitude fields and areas defined as extreme priority conservation, as assessed by the State and the Ministry of Environment.
- 6- Significant enlargement of the RBMA area in the coastal and marine regions, including core, buffer and transition zones within areas deemed as extreme and high priority conservation.
- 7- Inclusion of remaining forest areas, such as buffer and transition zones, in view of the connectivity and formation of ecologic corridor between conservation units and in the border with the State of Santa Catarina.
- 8- Enlargement of buffer and transition zones of the RBMA within biome interaction areas of the Mata Atlântica and Pampa biomes.
- 9- Suppression of areas inserted in Phase V, not anymore deemed as Mata Atlântica Biome, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

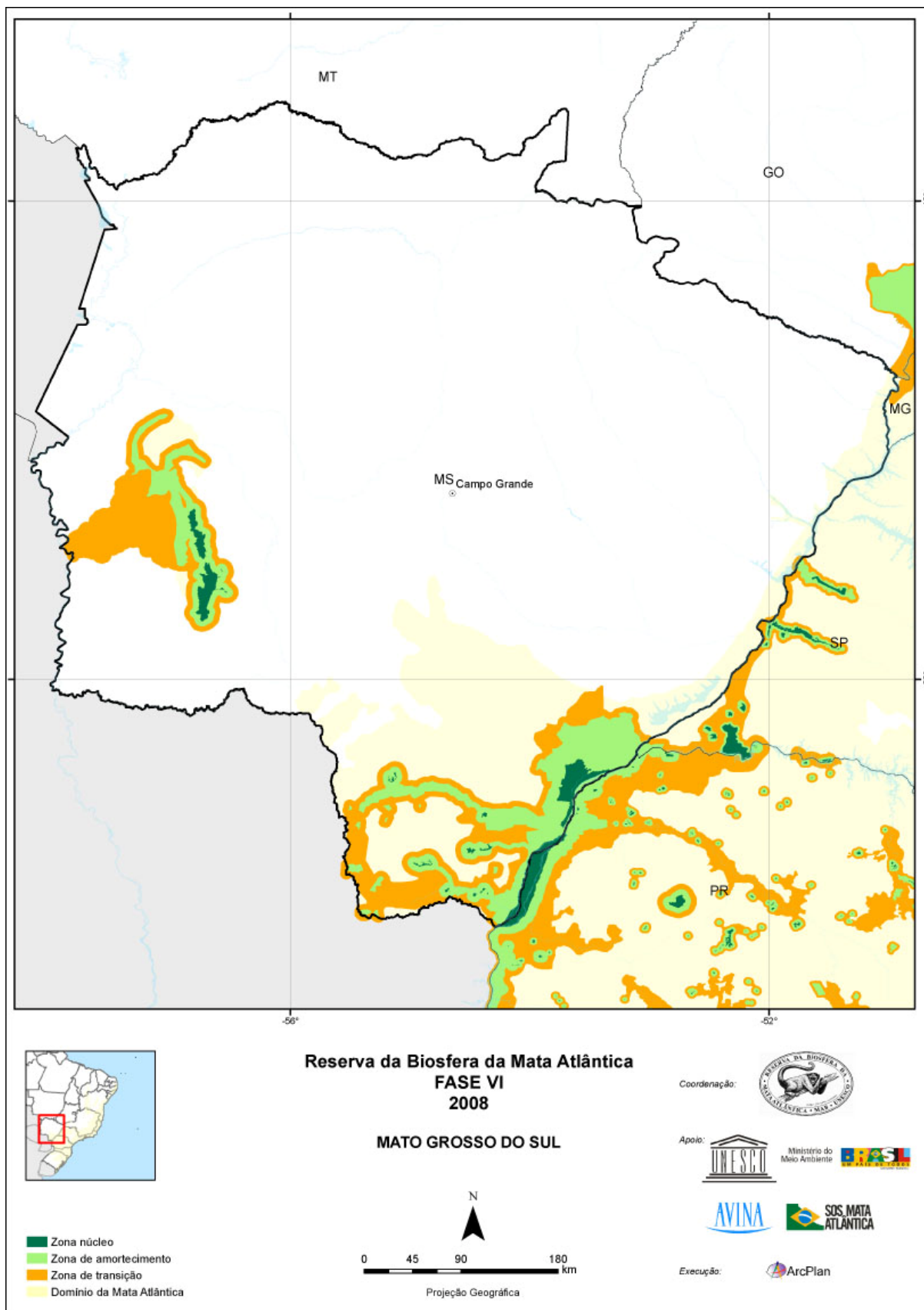
See table in Annex 01.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

3.16. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE STATE OF MATO GROSSO DO SUL





THE MATA ATLÂNTICA IN THE STATE OF MATO GROSSO DO SUL

The Mata Atlântica in Mato Grosso do Sul includes forest formations (primary and secondary in advanced stage of regeneration) of deciduous seasonal forest and semi-deciduous seasonal forest, ciliary forests, remaining areas incrustated or inserted into other formations, such as, for instance, the Cerrado and the Pantanal.

The main remaining areas of the Mata Atlântica in Mato Grosso do Sul are concentrated in three areas: Serra da Bodoquena, plains of the Paraná River, next to the border of the States of São Paulo and Paraná and isolated fragments in the inland of several indigenous lands located southwest of the State.

In Serra da Bodoquena highlight is given to its National Park, as well as the west slope of the mountain inserted in the indigenous land of the Kadwéu Tribe.

"The National Park of Serra da Bodoquena is a conservation unit where the predominant phytophysognomy is the mountain-foot deciduous seasonal forest. With area of 76,481 ha (764.81km²), the PNSB covers approximately 0.2% of the surface of Mato Grosso do Sul (MS)".

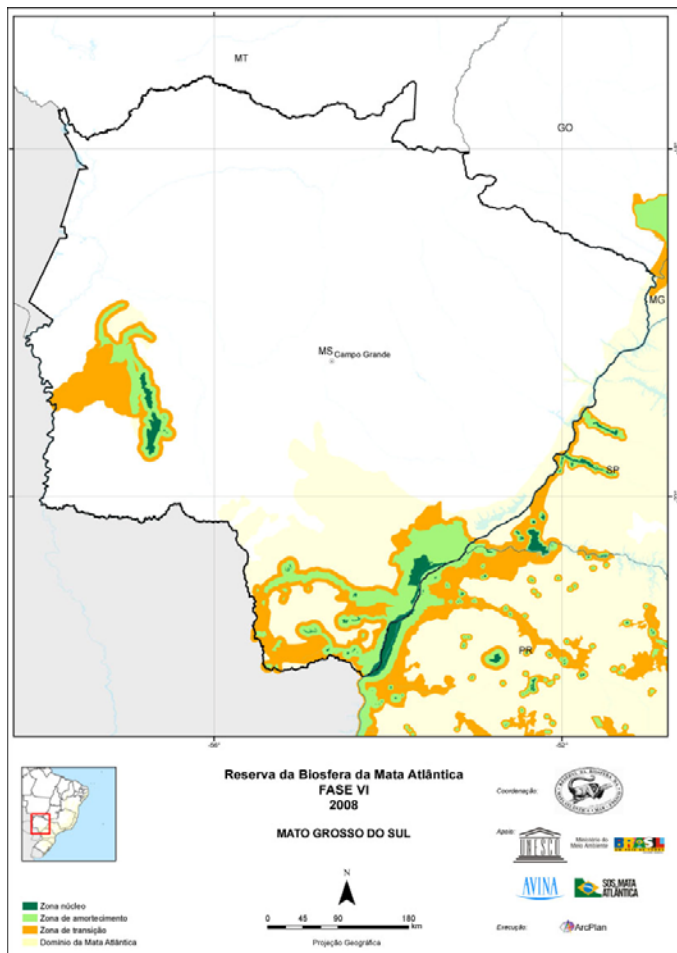
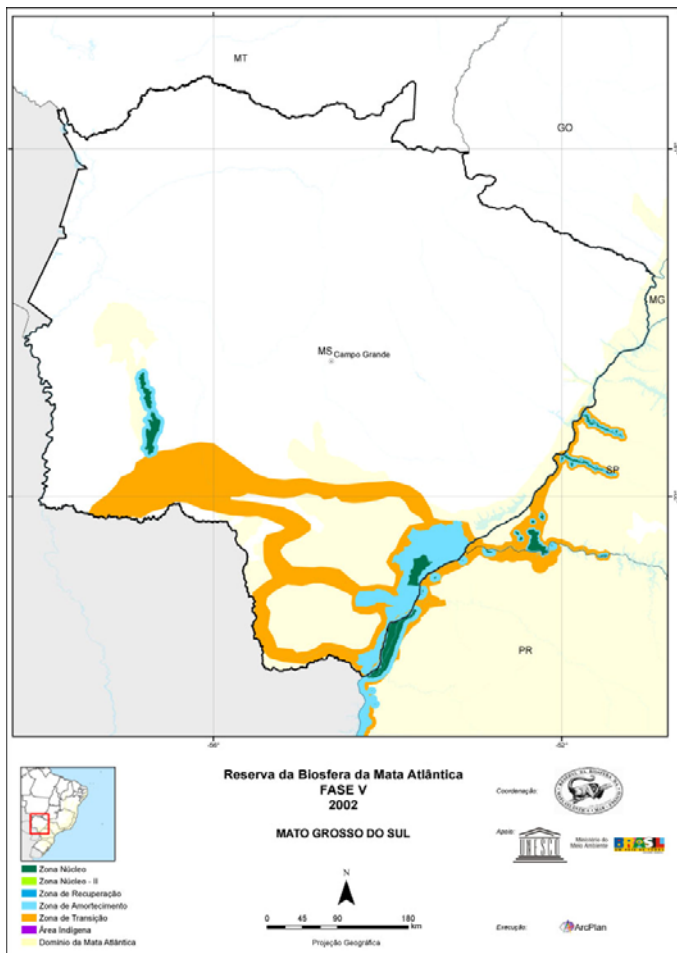
"Serra da Bodoquena has a diversity of ecosystems the protection of which cannot be restricted to the insides of the park. Occupation of the soil around the unit is significant, but the region still has interesting connectivity possibilities by means of preservation of water resources, maintenance of mosaics of legal reserves and formation of ecologic corridors". (Source: *1)

At margins and islands of the Paraná River highlight is given to State Park of Ivinhema and the National Park of Ilha Grande, with characteristic fauna Low Land Forests permanently endangered by fires.



THE RBMA PHASE V AND PHASE VI IN THE STATE OF MATO GROSSO DO SUL

COVERAGE MAPS



COVERAGE AREA

Phase	State	State Area	Terrestrial Area	% of the UF (Terrestrial)	Marine Area	Total (Terrestrial + Marine)
Phase V	MS	36.192.341	3,811,492	11%		3,811,492
Phase VI			3,302,810	9%		3,302,810



MAIN CHANGES OCCURRING TO PHASE VI - DESCRIPTION AND JUSTIFICATION

In the State of Mato Grosso do Sul, the main changes occurring from Phase V to Phase VI were due to:

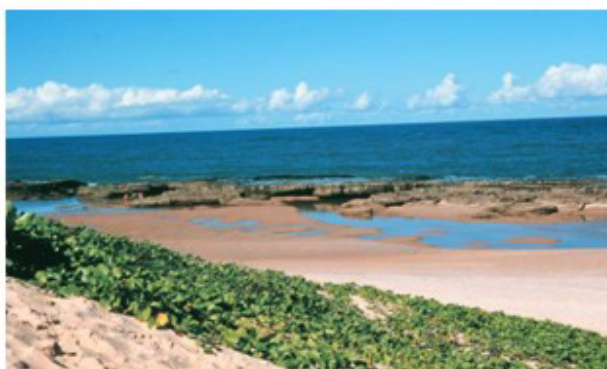
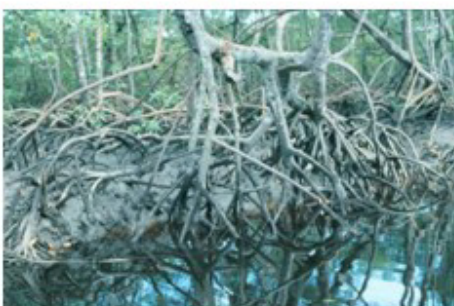
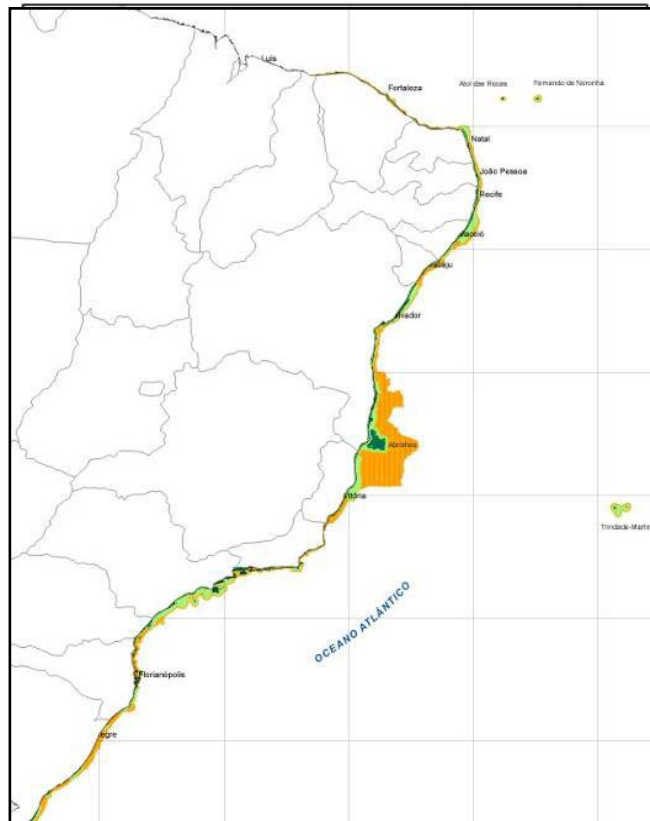
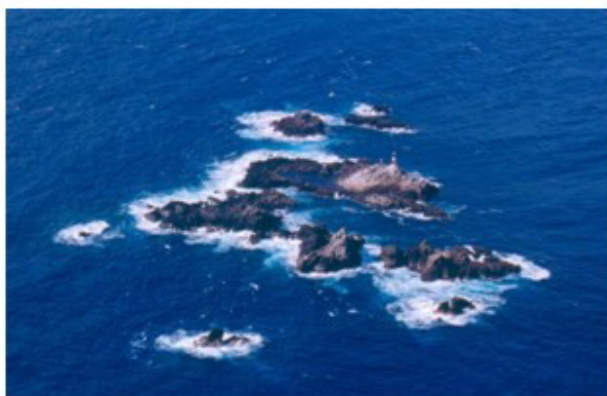
- 1- Refinement of the RBMA limiting from drafting of its digital cartography. In the State, the works have been complemented with information provided by the Environment Body of Mato Grosso do Sul State.
- 2- Fitting of the RBMA zoning in the State, consistent with the provisions of the Review Manual – Phase VI
- 3- Enlargement of buffer and transition zones with the inclusion of several indigenous lands and remaining forest areas, in particular in the region of Serra da Bodoquena.
- 4- Enlargement of buffer and transition zones in view of the connectivity and formation of biodiversity ecologic corridors in indigenous lands and preservation areas, in the border with the States of São Paulo and Paraná.
- 5- Suppression of areas inserted in Phase V, not deemed anymore as Mata Atlântica Biome, according to current criteria.

PROTECTED AREAS BY TYPE OF ZONE - PHASE VI

See table in Annex 01.

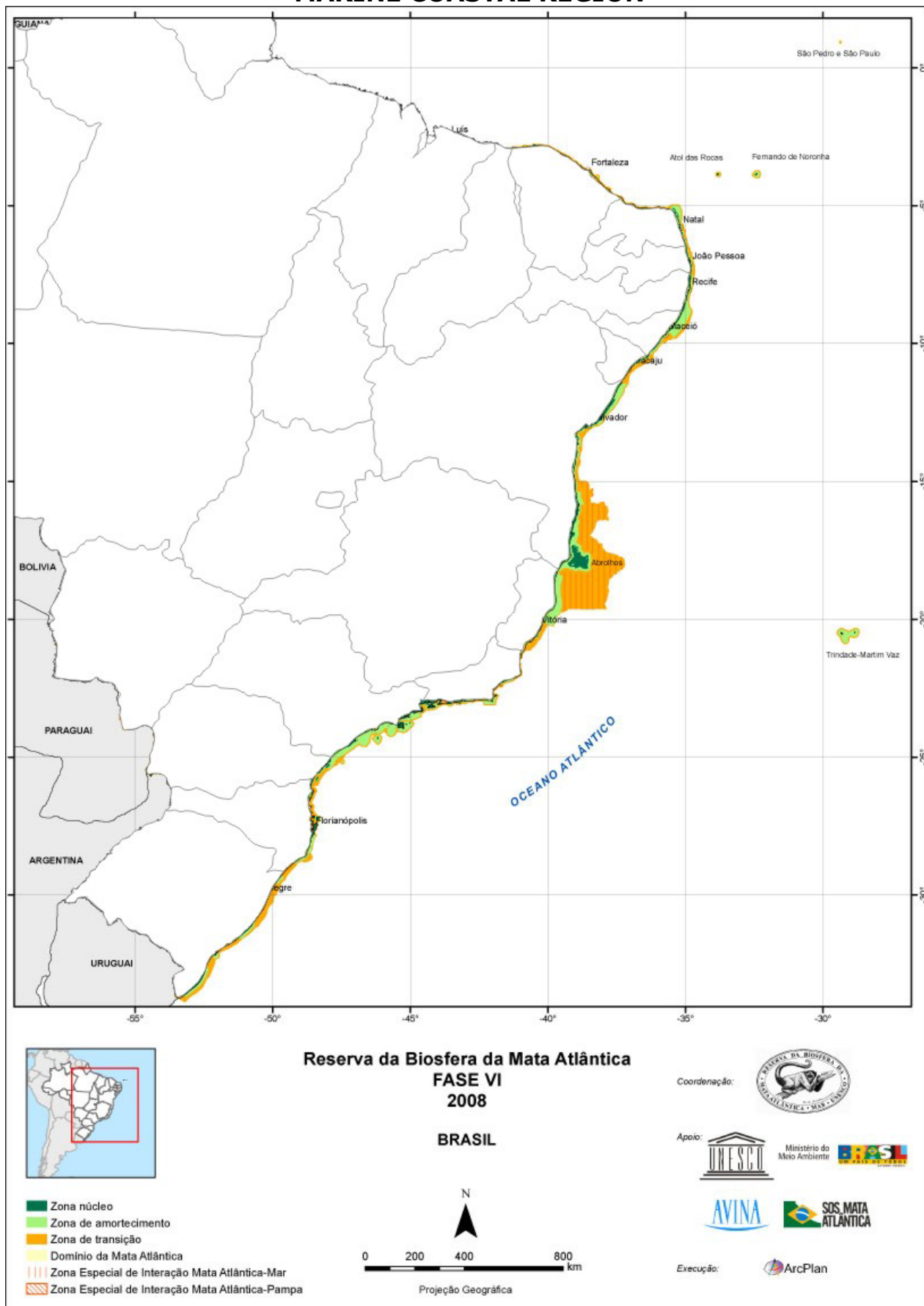


MARINE REGION





3.17. THE MATA ATLÂNTICA BIOSPHERE RESERVE IN THE MARINE COASTAL REGION





DESCRIPTION AND JUSTIFICATION OF THE INCLUSION OF COASTAL AND MARINE AREAS

"Among the marine and coastal ecosystems of the world, coral reefs are highlighted because of their surprising diversity of species. In Brazil, they take a relatively small area corresponding only to 5% of the reefs of the Atlantic Ocean, but they have high rates of endemism that reach 50% for coral species, and 20% for reef fishes. This represents a rate of endemic species per area 3 to 4 times bigger than in the Caribbean".

"Among the marine ecosystems of Brazil, big estuaries and mangroves distributed along almost all the 7,300 km of its coast have also great importance. The northern region of Brazil has the biggest mangroves, some of which continue completely unknown".

"The region of Abrolhos presents the greatest concentration of reefs of the Brazilian coast, with several endemic species, such as the brain coral (*Mussismilia braziliensis*), which is found only in the seashores of Bahia. It has further the greatest marine biodiversity of the South Atlantic. The Rapid Assessment Program carried out by ONG Conservação Internacional em Abrolhos in 2000 recorded approximately 1300 species of fishes, corals, algae, crustaceans, mollusks and polychaetes, of which 45 are endangered, according to lists of IUCN (2003) and IBAMA (2003 and 2004)".

"Even with this huge importance, marine ecosystems of Brazil are endangered by several human activities, in particular uncontrolled fishing, sedimentation caused by deforesting, water pollution, exploitation of oil and natural gas, crustaceans catching and disordered urban growth. This situation becomes even worse considering that only 0.4% of Brazilian marine ecosystems constitute federal protected marine areas and that inspection mechanisms in such areas are still ineffective and need to be actually implemented. Reverting this scenario is a big challenge for a small set of institutions working with marine conservation in Brazil". (Source: *2)

Inclusion of these areas in the Mata Atlântica Biosphere Reserve shall significantly contribute for the conservation of marine ecosystems along a big portion of the Brazilian coast, as well as for protection and sustainable use of several ecosystems related to the Mata Atlântica biome, as, for instance, mangroves, dunes, sand banks and coral reefs.

In order to implement the RBMA in these coastal and marine areas and give due attention to specific themes of these ecosystems, the National RBMA Council has defined the creation of the "Marine Collegiate" as an integral part of its Management System.



3.17 COVERAGE AREA OF THE MARINE REGION BY STATES

Phase	Statte	Marine Area
Phase V	Ceará	26,024
Phase VI		322,632
Phase V	Rio Grande do Norte	40,686
Phase VI		507,793
Phase V	Paraíba	28,484
Phase VI		198,045
Phase V	Pernambuco	25,345
Phase VI		363,032
Phase V	Alagoas	41,832
Phase VI		730,614
Phase V	Sergipe	10,337
Phase VI		293,077
Phase V	Bahia	975,016
Phase VI		5,568,912
Phase V	Minas Gerais	
Phase VI		
Phase V	Espírito Santo	186
Phase VI		3,739,859
Phase V	Rio de Janeiro	272,436
Phase VI		712,174
Phase V	São Paulo	381,220
Phase VI		1,505,708
Phase V	Goiás	
Phase VI		
Phase V	Paraná	212
Phase VI		205,506
Phase V	Santa Catarina	125,311
Phase VI		455,755
Phase V	Rio Grande do Sul	143,313
Phase VI		1,543,645
Phase V	Mato Grosso do Sul	
Phase VI		
Phase V	TOTAL	2,070,403
Phase VI		16,146,753

Note: The table indicates the marine costal area of RBMA occurring in each of the Brazilian Coastal States.

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF
THE MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



Chapter 4

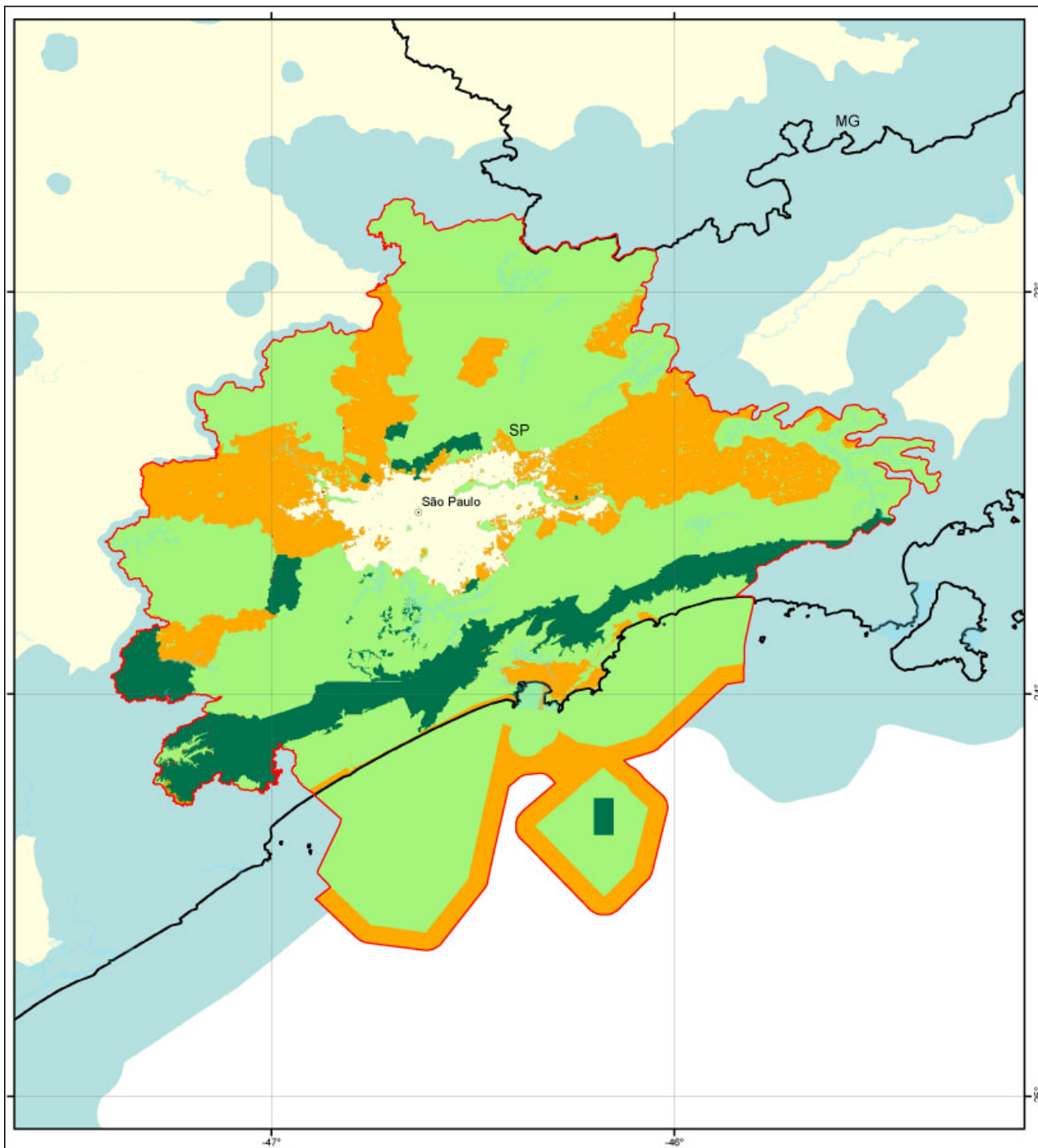
São Paulo City Green Belt Biosphere Reserve Zoning Review



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

SÃO PAULO CITY GREEN BELT BIOSPHERE RESERVE



Reserva da Biosfera da Mata Atlântica
FASE VI
2008

RESERVA DA BIOSFERA DO CINTURÃO VERDE



- Reserva da Biosfera do Cinturão Verde
- Zona núcleo
- Zona de amortecimento
- Zona de transição
- Domínio da Mata Atlântica
- Reserva da Biosfera da Mata Atlântica





RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA
ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE



GOVERNO DO ESTADO DE SÃO PAULO

SECRETARIA DO MEIO AMBIENTE
INSTITUTO FLORESTAL

C.P. 1322 – 01059-970 - São Paulo - SP, Brasil - Fone ++55 11 6231 8555 - Fax ++ 55 11 6232 57 67

São Paulo, September 29th 2008

Ofício RB 09/2008

Dear Mr. Lino,

I am pleased to inform that the São Paulo City Green Belt Biosphere Reserve Management Council, in its 3rd Meeting held on last 13th of August, approved the Biosphere Reserve's zoning revision and boundary changes.

Moreover, given the Green Belt and the Atlantic Forest Biosphere Reserves integration in terms of area, management system and the own zoning revision process, we would like to suggest that both technical documents compose a single package to be submitted to the MAB Advisory Committee's approval, in the same way they were submitted to the Brazilian MAB Committee.

For that purpose, please find attached the technical zoning revision document which describes the methodology and further relevant information about the process carried out in the Green Belt.

Yours Sincerely,

Rodrigo Antonio Braga Moraes Victor
Coordinator, São Paulo City Green Belt Biosphere Reserve

Dr. Clayton Ferreira Lino
President, Atlantic Forest Biosphere Reserve National Council
São Paulo – Brazil

cc – dr. Maria de Lourdes Gandra – President, São Paulo City Green Belt Biosphere Reserve



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA
ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

Management Council

dr. **Cláudio Henrique Barbosa Monteiro** – General Director, São Paulo Forest Institute

SÃO PAULO CITY GREEN BELT BIOSPHERE RESERVE

ZONING REVISION PROCESS

FASE II / 2008



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Marina Mitsue Kanashiro

Project Support:

Atlantic Forest Biosphere Reserve

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SÃO PAULO CITY GREEN BELT BIOSPHERE RESERVE

ZONING REVISION PROCESS

4.1. Background

The area encompassed by the São Paulo City Green Belt Biosphere Reserve is host to a remarkable biological diversity and provides a wide range of ecosystem services like food, water, climate stabilization, flood and erosion control, CO₂ sequestration, tourism, recreation, aesthetic values and many others. These services are vital for ensuring the well-being of the 23 million people living in this area, which generate some 20% of Brazil's GDP.

The São Paulo City Green Belt Biosphere Reserve was declared in 1993, continuing the work of a social movement that since the late 80's has worked towards more participatory management possibilities and integrated conservation strategies for the natural resources surrounding one of the world's largest metropolises.

At around the same time, another initiative was also seeking Biosphere Reserve declaration, but for a much larger area: the Brazilian coastal biome known as Mata Atlântica (Atlantic Forest), of which the São Paulo City Green Belt is an integral part. Led by the national-level Atlantic Forest Consortium, the first phase of Atlantic Forest Biosphere Reserve was approved in 1991.

Because the areas totally overlapped, the Brazilian MAB Committee and the MAB Secretariat advocated for an institutional arrangement capable of accommodating these two innovative and legitimate movements while keeping their individually respective identities. By this innovative agreement, although the entire territory of the São Paulo City Green Belt also forms part of the Atlantic Forest, each of these Biosphere Reserves articulates and maintains its own stand-alone management system.

Over the years, this structure proved to be functional and allowed for the existence of two Biosphere Reserves that:

- i) Deal with issues at their own scales, and
- ii) Keep mutual and cooperative programmatic and institutional interactions.

The São Paulo City Green Belt Biosphere Reserve has a management system constituted by a Management Council, a Bureau and a Secretariat. The Council has 34 members, evenly composed by governmental and non governmental representatives. The Secretariat is provided by the São Paulo State Forest Institute. As shown in the ANNEX 1, the Council and the Bureau define the Biosphere Reserve's general policy and action plan, while the Secretariat seeks to implement them.

From 1991-2002, the Atlantic Forest Biosphere Reserve has carried out 5 revisions to its zoning and boundaries, in contrast to the São Paulo City Green Belt Biosphere Reserve, which has maintained its original zones and boundaries throughout.

More recently, the São Paulo City Green Belt Biosphere Reserve Action Plan (approved in June 2006) called for revision of this zonation. In 2007, such procedures were initiated, and in 2008, agreement was reached with the Atlantic Forest Biosphere Reserve National Council (undergoing a 6th revision of its own) that both rezoning processes should constitute a single integrated package for analysis by the appropriate authorities.



Although the São Paulo City Green Belt's zoning revision process was developed in full interaction with the Atlantic Forest's, the former used appropriate complementary material, methods and criteria necessary to meet its specific management challenges and needs, as follows:

4.2. Revision Methodology and Criteria:

As would be expected for such a large and complex area, the zoning revision process used a wide array of criteria and methods.

Four major elements, however, oriented the overall zoning revision process:

a) Areas maintaining their zoning or simple updates:

Since initial zoning (1993), several protected areas of different categories have been designated within the Biosphere Reserve territory. Strictly protected areas, such as State Parks or City Nature Parks were automatically classified as core zones. Other areas under intermediate legal protection - such as Environmental Protection Areas (APAs) - were consequently designated as buffer zones. This classification has been used since the Biosphere Reserve nomination and remains conceptually unaltered.

Also, many (if not most) of the areas kept their original zoning as they still perfectly fit in the most modern zoning concepts.

b) New concepts as discussed in the Madrid Congress:

The new roles that Biosphere Reserves should play in the contemporary world, as well as their zoning functions, were extensively addressed before and during the 2008 Madrid Congress. The background documents and the Madrid Plan itself are extremely inspiring as to how Biosphere Reserve and their zones can best meet the challenges of urbanization, climate change and the need for ecosystem services provision. For that purpose, zones should have broader as well as more proactive functions. For instance, buffer zones, while protecting the core areas, should both function as ecological corridors and stand-alone patches. These concepts, while to a great extent already present in the Biosphere Reserve's old zonation, were now thoroughly incorporated in the revision process. One good example of this functional zonation approach is that many of the Buffer and Connectivity areas do not necessarily surround Core Areas.

c) The Zoning Revision Manual of the Atlantic Forest Biosphere Reserve:

The Atlantic Forest Biosphere Reserve National Council undertook a remarkable work to adapt the Biosphere Reserve international zoning concepts to the Brazilian legal, institutional and ecological contexts. That was compiled in a manual that oriented their overall revision process in 16 Brazilian states (the manual is found in this document's Chapter 2 - Methodology Guidance: Mata Atlântica Biosphere Reserve - Phase VI). Many of the manual criteria were also used for the São Paulo City Green Belt Biosphere Reserve zoning revision.

d) Urban-specific criteria:

In the year 2001, the MAB Programme launched a working group, the **MAB Urban Group**, to elaborate on the rationale and the benefits of applying the Biosphere Reserve concept to urban areas. The group built a solid conceptual framework on Urban Biosphere Reserves to inspire both existing BRs and a number of sites looking for nomination. Among the several



documents produced, two are actually instrumental in elucidating the concept: i) *“Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network of Biosphere Reserves”* (UNESCO, 2003); e ii) *“Urban Biosphere Reserves – A Report of the MAB Urban Group”* (UNESCO, 2006) (ANNEX 2).

As an exceptionally urban / peri-urban Biosphere Reserve, the São Paulo Green Belt defined a set of urban-specific criteria to help clarify the relevance of the Biosphere Reserve concept to more urbanized areas. As a matter of fact, although surrounding one the world’s biggest metropolis, the Biosphere Reserve was formerly more restricted to rural and peri-urban lands. In light of increased understanding of relationships between biodiversity and ecosystem services in urban landscapes, and, ultimately, the degree to which Biosphere Reserves can contribute to improved urban management, the zoning revision process set up criteria to engage the urban fabric.

Initially, the revision technical team and the Biosphere Reserve Bureau found it appropriate to formally zone the entire urban agglomeration as a “special” transition area. As this idea underwent broader technical review, however, it showed itself rather controversial.

In order to reach consensus on this issue, the revision technical team proposed a compromise solution, defining specific criteria for official inclusion of urban areas. Although the group considers these criteria still unfinished, the following categories were used at this revision stage:

d.1 - Urban green areas network:

Aside from sustaining a number of plant and animal species, green areas inside cities also provide important ecosystem services (water, climate regulation, flood control, recreation, etc). They perfectly fit in the “stepping-stones patches” concept discussed in the Madrid Congress’ background documents. For these features, the green areas in the cities of São Paulo and Santo André were zoned as Buffer and Connectivity Areas. Although limited access to GIS data prevented further inclusion of other municipalities, broader application of this criteria is expected for future rounds of zoning revision.

d.2 - Downscaling - Integration with municipal master plans:

One very important step towards applying the Biosphere Reserve concept to an urban region is to enable decision-makers at the smallest scales to buy into it. Robust awareness programmes and projects are extremely valuable strategies to propagate this philosophy. Indeed, activities such as this rezoning process—where the Biosphere Reserve serves as a platform for discussing changes in land-use and land-cover—provide very favorable opportunities for local decision makers to engage with and adopt the concept in their own work.

Another effective way of generating buy-in is downscaling the Biosphere Reserve concept so that its functional zonation aligns with zones defined in city master plans. However, in a region with 78 individual municipalities (as is the case in the Green Belt), this is hugely a time- and resource-intensive undertaking. So, although the decision to proceed in this direction has been taken, full downscaling of the BR concept is not expected to be accomplished in the short term.

For this reason, and in light of time constraints and data availability challenges during this first revision phase, information from just one city’s master plan, Santo André, (located at the south-west of São Paulo), now features in the Biosphere Reserve zoning. In that case, as can be seen in ANNEX 10, 'Special Environmental Interest Zones' (referring to riparian forest conservation and recovery areas) as defined in the City’s Master Plan were zoned as Buffer and Connectivity areas.

d.3 – Non-Urbanized Freshwater Protection Areas:



In order to protect springs, rivers and reservoirs supplying most of the Greater São Paulo population with water, a specific law was created in the seventies aiming at controlling land use in those areas. Building on that law, updated legal frameworks are being set up to further protect those highly threatened freshwater sources.

Although significant parts of these Freshwater Protection Areas have undergone chaotic occupation and degradation process, especially the southern one, they still remain vitally important to the São Paulo Metropolis. For that reason, their non-urbanized portions were also zoned as Buffer and Connectivity areas.

It is of utmost importance to note that the categories under item "d" are highly significant to critical Biosphere Reserve-related issues like environmental conservation and restoration, environmental education, incentive to sustainable development initiatives, social inclusion, etc, what makes them even more suitable to rank as Buffer and Connectivity areas.

From the major criteria above, specific categories (or layers) were finally used to compose each of the Biosphere Reserve zones as follows:

4.3. Biosphere Reserve zones and their land use and cover categories

4.3.1. Core Zone categories (according to the Brazilian Protected Areas System)

4.3.2. Strictly Protected Areas (State Parks, City Nature Parks)

4.3.3. Wildlife Conservation Zones of Environmental Protection Areas

4.3.2. Buffer and Connectivity Zone categories:

4.3.2.1. Environmental Protection Areas (all other zones)

4.3.2.2. Non-Urbanized Freshwater Protection Areas

4.3.2.3. São Paulo and Santo Andre Cities' urban green areas network

4.3.2.4. Santo André City's Special Environmental Interest Zone (referring to riparian forest conservation and recovery areas) - Integration with municipal master plans.

4.3.2.5. Adult Forests

4.3.2.6. Corridor between the Cantareira and Juquery State Parks

4.3.2.7. Marine Priority Conservation Areas

4.3.3. Transition and Cooperation Area categories:

4.3.3.1. The remaining areas, with the exception of major urbanized settings



SYNTHESIS OF THE ZONING REVISION METHODOLOGY, CRITERIA AND ADDITIONAL INFORMATION

ZONE	CONSTITUENT CATEGORIES (LAYERS)	LEGAL PROTECTION DEGREE	CONSERVATION STATE	CRITERION (A) USED	ANNEX NUMBER
Core Zones	Strictly Protected Areas (State Parks, City Natural Parks, Ecological Stations)	Very High	Good to Excelent	a, b, c	3
	Wildlife Conservation Zones of Environmental Protection Areas	Very High	Good to Very Good	b, c	4
Buffer and Connectivity Zones	Environmental Protection Areas (all other zones)	Medium to High	Medium to Very Good	a, b, c	5
	Non-urbanized Freshwater Protection Areas	Medium to High	Low to Very Good	d.3	6
	Adult Forests	Medium to High	Good to Very Good	b	7
	Corridor between the Cantareira and Juquery State Parks	Medium to High	Good	b, c	8
	São Paulo and Santo Andre Cities' urban green areas network	Medium to High	Low to Good	b, d.1	9
	Santo André City's Special Environmental Interest Zone (referring to riparian forest conservation and recovery areas)	Medium to High	Low to Good	b, d.2	10
	Marine Priority Conservation Areas	Low to Medium	-	b, c	11
Transition And Cooperation Areas	All the remaining areas, with the exception of major urbanized settings	Low to Medium	Low to Good	a, b, c, d	12



4.4. Boundary Changes - Methodology and Criteria

Besides the zoning revision process outlined above, the São Paulo City Green Belt Biosphere Reserve is also proposing a major expansion of its boundaries, especially with the incorporation of an adjacent marine area. Also, in a truly particular situation, a very small area is proposed to be excluded from the Reserve

The boundary change proposals are as follows:

4.4.1. Terrestrial boundary changes:

The Biosphere Reserve is proposing a terrestrial expansion beyond its present eastern and western limits. However, these expansions do not incorporate significant new area; they merely aim to adjust the Reserve's boundaries both to existing protected areas and to natural watershed limits.

Likewise, in order to better align the Biosphere Reserve to the boundary of a protected area on its eastern edge, a small area of land is proposed for removal.

These changes are further described below:

4.4.1.1. Changes in the East:

Boundary changes to the Biosphere Reserve's eastern edge were proposed to mirror the limits of the Várzea do Paraíba Environmental Protection Area and the watershed of the Paraibuna reservoir. In doing so, a small adjacent area formerly included now falls outside the proposed boundaries.

These changes partially incorporate 4 new municipalities in the Biosphere Reserve territory: Redenção da Serra, Natividade da Serra, Jambeiro and São José dos Campos.

On the other hand, the tiny area to be removed from the Green Belt still remains an integral part of the Atlantic Forest Biosphere Reserve, a fact which prevents this decision from having any major political consequences.

Annex 13 illustrates these changes.

4.4.1.2. Changes in the West:

Boundary changes to the Biosphere Reserve's western edge were proposed to mirror the limits of the Itupararanga Environmental Protection Area.

These expansion partially incorporates the Alumínio City.

Annex 14 illustrates these changes.

4.4.2. Marine expansion

Although the São Paulo City Green Belt Biosphere Reserve always had a significant shoreline, with precious coastal ecosystems, its boundaries never extended to include these marine areas, which would make much sense from the systemic approach a Biosphere Reserve should embrace.

Therefore, the zoning revision process created an opportunity to include adjacent marine ecosystems into the Reserve area, an idea which was enthusiastically supported by the both the revision technical team and the Management Council.



The new marine proposed design is also consistent with a policy that was implemented at the national level by the Atlantic Forest Biosphere Reserve, which aims to improve management integration between marine and terrestrial areas. Moreover, the Green Belt area now extends to the important Laje de Santos Marine State Park, a protected area of deep marine ecological relevance.

The marine limits aligned with designated conservation priority areas, where the São Paulo State Government is currently studying the designation of new marine protected areas.

As discussed previously, most of the area is Buffer and Connectivity Zone, with additional Core and Transition / Cooperation Zones, as illustrated in Annex 11.

4.5. Data sources and Materials

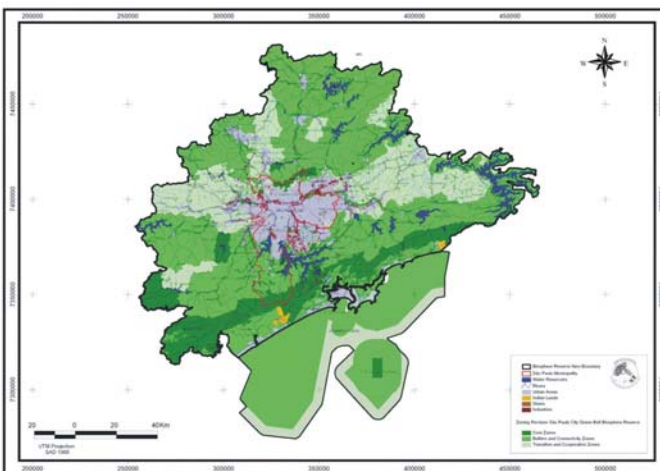
The zoning revision process database was provided by the Forest Management and Inventory Sector of the São Paulo Forest Institute.

Complementary data were provided by the São Paulo Metropolitan Planning Company – EMLASA – and by ArcPlan Geoprocessamento.

Software used was ArcView 3.2 and 9.2.

4.6. Zoning Revision Process – Final Configuration

The following maps and tables compare the Biosphere Reserve’s zones, boundaries and physical size, both before and after the revision process FIGURE 1:

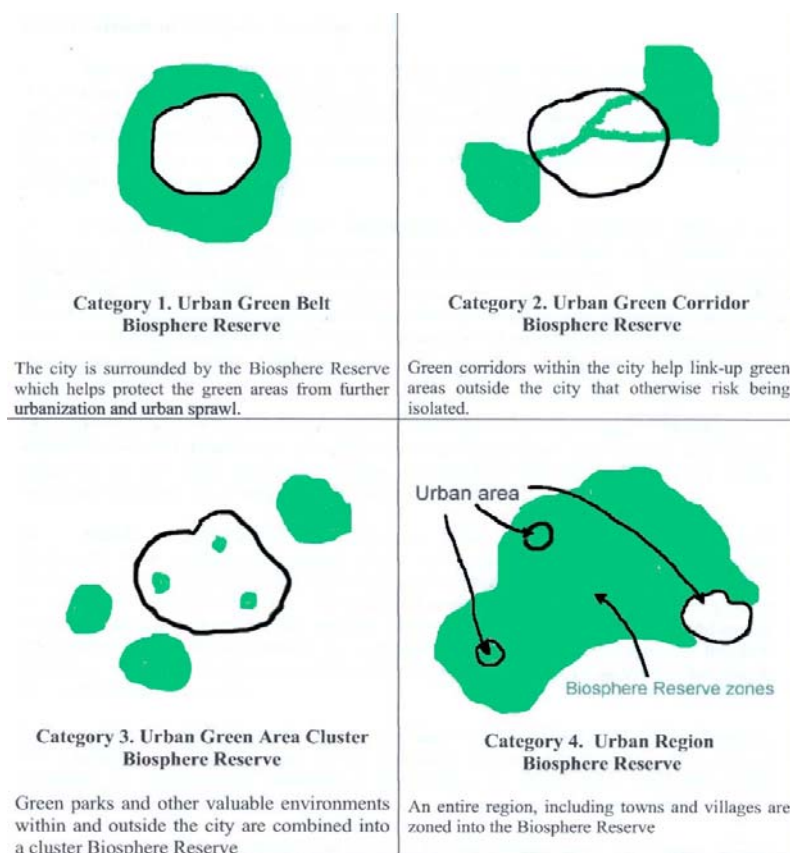


	Terrestrial Area (ha)
Core Zone	220,422
Urban Area	220,279
TOTAL (excluding urban area)	1,540,032
TOTAL (including urban area)	1,760,311

	Terrestrial Area (ha)	Marine Area (ha)	TOTAL (ha)
Core Zone	228,816.34	5,137.07	233,953.41
Buffer and Connectivity Zone	405,584.82	136,279.33	541,864.15
Transition and Cooperation Zone	971,526.96	364,087.06	1,335,614.02
Urban Area	220,284.44	-----	220,284.44
TOTAL (excluding urban area)	1,826,212.56	505,503.46	2,331,716.02

In terms of design and configuration, the São Paulo City Green Belt Biosphere Reserve is now a good example of at least 3 in 4 of the Urban Biosphere Reserve categories proposed by the MAB Urban Group. As can be seen from the figure below, the new biosphere reserve configuration, besides the green belt itself, now contains inner green clusters and corridors.

FIGURE 2 – POSSIBLE CATEGORIES OF URBAN BIOSPHERE RESERVES¹



4.7 Validation of the Zoning Revision Process

The zoning revision process underwent a series of participatory discussion stages with several different stakeholders and has been officially approved and / or validated at the local and national levels. In summary, the following aspects of this process are important to note:

4.7.1 The revision process was called for by the Biosphere Reserve Action Plan, approved by its Management Council in 2006.

4.7.2 The process followed consistent procedures and criteria, sought sound innovations, took stock of the most recent discussions raised by several international groups and spheres (e.g. the Millennium Ecosystem Assessment, the MAB Urban Group, the Madrid Congress and outcomes), used a reliable base of data and underwent several external reviews.

4.7.3 While maintaining clear objectives and following consistent guidelines, the revision process remained open and flexible throughout the technical working period and incorporated most of the suggestions that came up.

¹ "Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network of Biosphere Reserves (UNESCO, 2003)"



4.7.4 The process underwent (and was shaped by) several Biosphere Reserve Bureau discussions and was formally approved by its Management Council on August 13, 2008. It is also important to observe that the Council's composition is very representative of the region's stakeholder diversity and in a sense the revision incorporated their views, opinion and interests. The letter in ANNEX 15 **officially incorporates** the new zoning and boundaries in the framework of the Biosphere Reserve's management system.

4.7.5 The process has been widely discussed with the Atlantic Forest National Council and approved by their zoning revision technical team.

4.7.6 Finally, during their meeting of August 28, 2008, the Brazilian MAB Committee approved this zoning revision, together with that of the Atlantic Forest. The approval letter is enclosed in the **ANNEX 2** of the Atlantic Forest Reserve Zoning Revision Document (Support letters to the RBMA - Phase VI Proposal).

4.8-Next Steps and Final Comments

The document presently being submitted to the MAB Advisory Committee for approval captures the conceptual, legal and institutional improvements since the Biosphere Reserve's initial declaration in 1993.

The current zoning is expected to further inspire regional decision-makers and stakeholders to foster the areas' integrated and sustainable management, and can be of high value to other Biosphere Reserves in the World Network facing the challenge of reconciling urbanization and environmental conservation.

As a matter of fact, the **Madrid Action Plan** identifies urbanization as a one of the world's major emerging challenges and highlights the "*role of biosphere reserves in addressing these challenges*". In its section A.3, "Urbanization As A Principal Driver For Ecosystem-Wide Pressures", the plan explicitly mentions that "*A number of urban areas are either considering, or have applied, the biosphere reserve principles within their jurisdictions, with the intention of using the concept as a tool for planning and managing sustainable urban development.*"

In this sense, methodologies for zoning both Biosphere Reserves under heavy urban influence and the new generation of Urban Biosphere Reserves will have increasing significance to the World Network during the Action Plan implementation phase (2008-2013) and beyond.

As previously mentioned in this document, the methodology developed during this revision is just the starting point of a process, of which the current phase is an early stage. The intent to downscale the Biosphere Reserve zoning to the reality of each of its 78 cities is a major task to be undertaken. With this initiative, the Biosphere Reserve seeks not just to recognize local plans and legal frameworks, but to be an integrating platform leading a number of planners to adopt innovative public policies.

Furthermore, in the broader scale, the São Paulo Metropolitan Region is currently undergoing its own reorganization process, and foresees the creation of a Council and an Agency for integrated management of the region. Whenever this process is finalized, the São Paulo City Green Belt Biosphere Reserve can potentially be a powerful tool for the implementation of sound regional and integrated environmental policies.



4.9-List of Annexes

RBCV-SP ANNEX 01- Management System Of The São Paulo City Green Belt Biosphere Reserve

RBCV-SP ANNEX 02 - *“Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network of Biosphere Reserves”* (UNESCO, 2003) and *“Urban Biosphere Reserves – A Report of the MAB Urban Group”* (UNESCO, 2006).

RBCV-SP ANNEX 03 - Strictly Protected Areas (State Parks, City Nature Parks, Ecological Stations)

RBCV-SP ANNEX 04 - Wildlife Conservation Zones of Environmental Protection Areas

RBCV-SP ANNEX 05 - Environmental Protection Areas (all other zones)

RBCV-SP ANNEX 06 - Non-urbanized Freshwater Protection Areas

RBCV-SP ANNEX 07 - Adult Forests

RBCV-SP ANNEX 08 - Corridor between the Cantareira and Juquery State Parks

RBCV-SP ANNEX 09 - São Paulo and Santo Andre Cities’ urban green areas network

RBCV-SP ANNEX 10 - Santo André City’s Special Environmental Interest Zone (referring to riparian forest conservation and recovery areas)

RBCV-SP ANNEX 11 - Marine Priority Conservation Areas

RBCV-SP ANNEX 12 - All the remaining areas, with the exception of major urbanized settings

RBCV-SP ANNEX 13 - Terrestrial boundary changes – Eastern Side

RBCV-SP ANNEX 14 - Terrestrial boundary changes – Western Side

RBCV-SP ANNEX 15 - Letter acknowledging the Zoning Revision approval by the the São Paulo City Green Belt Biosphere Reserve Management Council.

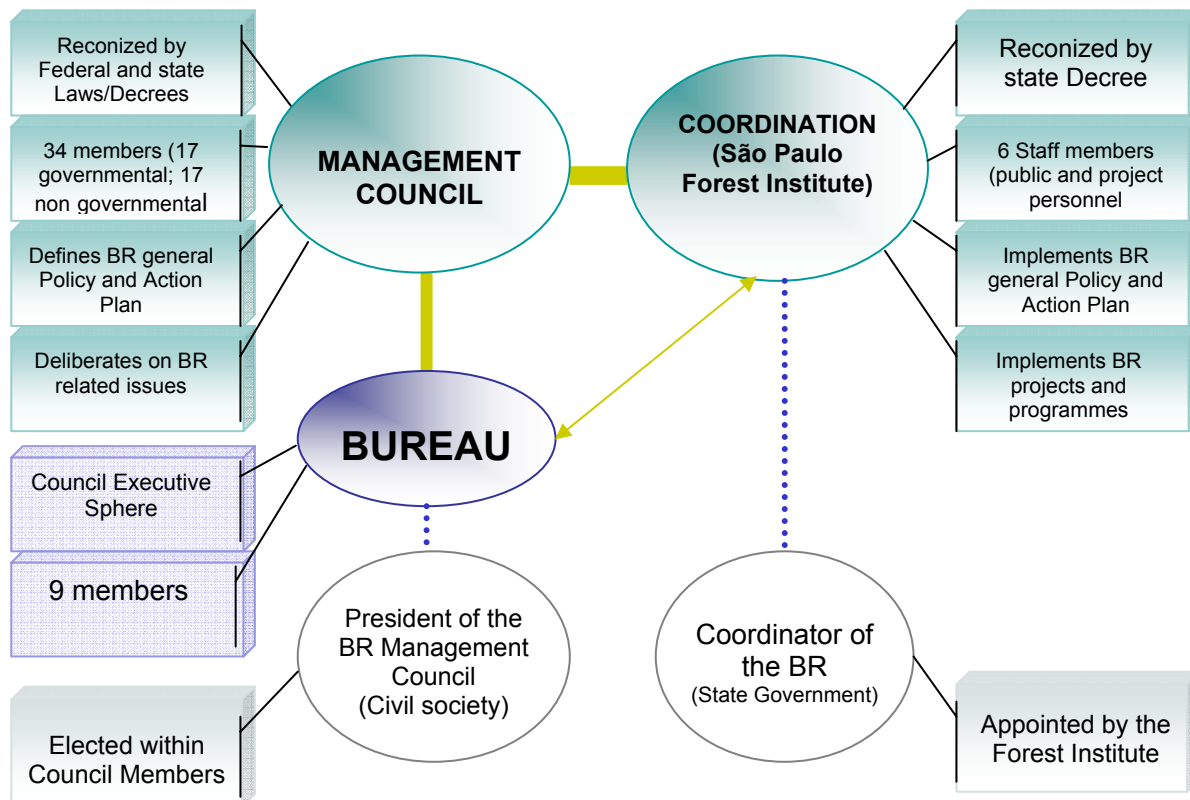
RBCV-SP ANNEX 16 - Final Consolidated Zoning Revision



RBCV-SP ANNEX 1

Management System Of The São Paulo City Green Belt Biosphere Reserve

MANAGEMENT SYSTEM OF THE SÃO PAULO CITY GREEN BELT BIOSPHERE





RBCV-SP ANNEX 2

“Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network of Biosphere Reserves” (UNESCO, 2003)

“Urban Biosphere Reserves – A Report of the MAB Urban Group” (UNESCO, 2006).



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA
ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE

SC-06/CONF.202/INF.6

Paris, 10 October 2006

English only

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

International Coordinating Council of the Man and the Biosphere (MAB) Programme

Nineteenth Session

UNESCO Headquarters, Paris, Room IV (Fontenoy Building)

23-27 October 2006

Urban Biosphere Reserves
A Report of the MAB Urban Group



URBAN BIOSPHERE RESERVES

A Report of the MAB Urban Group²

I. Introduction

1. This report represents the consensus opinion of the UNESCO-MAB Urban Group (referred to as the Urban Group hereafter) and is derived from discussions over the Internet and at international meetings and conferences including: "Urban Biosphere and Society" in New York (2003), "Life in the Urban Landscape" in Gothenburg (2005), and the workshop on Biodiversity and Urban Areas in Paris (2005). The report includes a discussion on suggested guidelines/criteria to help the development of Urban Biosphere Reserves (UBRs); it also notes the relevance of the current concept to the World Network of Biosphere Reserves (WNBR) as a whole (it might be argued that the São Paulo City Greenbelt Biosphere Reserve is a UBR already). With the increased rate of urbanization around the globe, many existing Biosphere Reserves will have no alternative but to incorporate urban landscapes and respond to urbanization as a dominant driver of change. The report then concludes that inclusion of urban areas within the WNBR may ultimately benefit the entire network. In view of increased human domination of ecosystems worldwide the Seville Strategy and Statutory Framework may be ready for revision in order to remain relevant.

II. Urban Biosphere Reserves. Why? And how?

The context

2. Today half of the world's population lives in urban landscapes, a proportion increasing to two-thirds within 50 years. The rapid increase of large cities in the developing world and the transformation of urban landscapes in the developed world represent one of the greatest challenges to ensure basic human welfare and a viable global environment. In 2030 it is estimated that more than two billion people will be living in urban slums with limited access to basic services, limited participation in decision-making processes and facing extreme vulnerability to natural disasters. Urban landscapes probably represent the most complex mosaic of land-cover and multiple land uses of any landscape. As such, urban landscapes provide important large-scale probing experiments of the effects of global change on ecosystems, since for instance significant warming and increased nitrogen deposition are already prevalent and because they provide extreme, visible and measurable examples of human domination of ecosystem processes. Urbanization places increased pressures on vulnerable ecosystems but urban landscapes are also sources of knowledge, resources and innovations offering solutions for humans and the environment.

3. The Millennium Ecosystem Assessment (MA) recently identified urbanization and urban landscapes as a priority area for a viable, sustainable strategy requiring a much deeper

² This document is the outcome of the deliberation of experts of the MAB Urban Group, the composition of which is available on: <http://www.unesco.org/mab/ecosyst/urban/doc/group.pdf>



understanding of processes and increased capacity to adapt to the urbanization process. The MA is based on analyses of ecosystem services defined as the benefits people obtain from ecosystems including: provisioning services (the products obtained from ecosystems); regulating services (the benefits obtained from the regulation of ecosystem processes); cultural services (the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences); and the supporting services (those that are necessary for the production of all other ecosystem services). The MA-report stresses that in urban areas, green spaces and vegetation may provide a number of these services but the diversity and complexity of processes demand innovative ways to manage and maintain these services. The MA represents an extremely rich and important source of information and data for guiding policies on ecosystem- and urban landscape-management and presents an opportunity for the MAB Programme to incorporate its findings and recommendations in the next generation of guidelines for Biosphere Reserves, including UBRs. In turn, this would help to integrate the MA results into local and regional policies for land use and ecosystem management.

4. Efforts in this direction are already taking place in the São Paulo City Green Belt Biosphere Reserve and in the Kristianstad Vattenrike Biosphere Reserve (Sweden), both of which have participated in the Sub-global MA process. More than just examples of MA and the WNBR interacting, findings of these local assessments will be extremely valuable for the integrated management of these BRs and, ultimately, for inspiring others to further explore the connections between ecosystem services and human well-being in their urban, peri-urban or rural management frameworks.

III. Suggested features of Urban Biosphere Reserves

5. It is clear to the Group that in order to be meaningful, a UBR should add tangible benefits to an urban area such as a sound manageable structure and not just add another administrative layer. To do that, the MAB community should not simply accept and 'tolerate' urban landscapes as functioning ecosystems worthy of BR designation but explicitly recognize the unique contributions such landscapes may make to the three functions characterising the Biosphere Reserve concept: i.e. conservation, sustainable development, and research and education.

6. In looking at features /characteristics for UBRs, the MAB Urban Group did not simply look at how urban landscapes could qualify for BR designation as perceived today but also how the concept could grow, enrich itself and become a widely accepted tool for land use management.

7. The MAB Urban Group thus considered features that would allow urban landscapes to both qualify and benefit as UBRs. These included:

- recognition of the value and services provided by urban nature in an urban context;³
- the existence and implementation of a plan for the conservation of urban

³ In the São Paulo City Green Belt Biosphere Reserve, for example, contributions of urban and periurban ecosystems to local population form the central axis from which most of the BR managementguidelines are derived. These services, the main focus of the MA Sub-global Assessment, include water, food, control of natural disasters (such as flooding), cleaning of air, CO₂ sequestration, tourism and recreation.



biodiversity, as well as ecosystem services;

- demonstrable local interest in nature conservation and commitment by local and /or regional governments to mainstream environmental issues into development and social policies;
- innovative practices with biodiversity benefits such as green roofs, energy and water policies, waste management and urban restoration;
- research and education capacities to investigate processes and inform urban policies;
- an adequate scale for ecosystem management with attention to temporal dynamics;
- consideration of environmental justice elements such as the promotion of imports/consumption of eco-labelled goods and the use of fair trading arrangements;
- designating 'zones of cooperation' in collaboration with other cities, rural areas or biosphere reserves for cooperation on sustainable development;
- using alternatives to the traditional zoning system, such as the "thematic area" system used in Kristianstad BR;
- exploring practices and models for reducing social exclusion in urban and periurban areas through environmental conservation actions.⁴

8. Following on from the issue of an UBR's impact on the wider world is the question of how it should relate to the rural areas that surround it. Specifically, how much of the countryside surrounding the city should be included in an Urban Biosphere Reserve? Some existing cities, such as Rome contain large rural areas within the jurisdiction of the city authorities, and in the case of Rome these rural areas are being encouraged to produce sustainably-farmed foodstuff for the city. In the case of Kristianstad Vattenrike, the wetlands surrounding and sustaining the urban area provide the link and the natural network that connect construction with the natural environment.

9. A similar situation can be found in the São Paulo City Green Belt: most of the relevant remaining ecosystems that provide essential services to 23 million people are peri-urban or surrounding ones and extend to an area that goes much beyond the built-up environment. In view of these examples, the Group concluded that it may not be possible to set criteria for the extent of rural areas to be incorporated into an UBR, but that candidate UBRs should be requested to explicitly identify and justify the inclusion of rural areas in their proposed zonation.

10. There was also a debate about whether part of an urban area could become an UBR whilst other parts of the same conurbation were not subject to designation. There was consensus that the entire conurbation should be included in an UBR and that it would impose unacceptably artificial boundaries on the urban system to allow parts of the conurbation to be excluded.⁵

⁴ The Youth Programme conducted by the São Paulo City Green Belt Biosphere Reserve, for instance, offer eco-job training opportunities to economically disadvantaged youth communities, as well as promoting the creation of eco-jobs through 13 Eco-Job Training Centres in the BR.

⁵ This statement is reinforced by the São Paulo Green Belt experience: although major built-up areas of São Paulo and Santos metropolises are formally zoned out of the BR, in practice the entire complex is managed as a single body, both in terms of practical actions (how, for example, could UBR educational initiatives overlook the urban cores?) and



11. The question of how large a settlement should be before it qualifies for consideration as an UBR provoked considerable debate. Some suggested that only very large cities should qualify while others noted that small to medium sized cities often exhibit problems of urbanization and exemplify solutions, which would be applicable on a global scale. It was further noted that many smaller cities are already part of existing BRs even though the focus of many of these BRs is, and is likely to remain, upon biodiversity outside these settlements. Clearly, an UBR must have some focus on urban issues to add value to the work of the WNBR. It has therefore been suggested that the focus of an UBR should be on human settlements and the value of biodiversity to enhance their quality of life, and not solely on biodiversity, which may be the focus of the more traditional, rural BRs. It is postulated that this could be the main difference between UBRs and existing BRs.

12. Finally, it was fairly obvious to the Group that urban landscapes, no matter how much biodiversity value they may acquire through BR designation, would primarily continue to serve other functions besides nature conservation. Even with regards to nature management within defined urban landscapes, the group suggested that an UBR should use the existing wide variety of designations, protected areas and plans within a city as its components.⁶

13. Inevitably this process will require thoroughly considered:

- a. administrative organization (in which all stakeholders take part);⁷
- b. funding arrangements (to assure the functioning of the administrative organization);
- c. communications/education strategies (to inform and engage the resident population).

These strategies should be targeted at specific levels for individual audiences such as for councillors, ratepayers, school children, etc.;

d. cooperation plans (to enable conflict resolution). It will be important to address the levels of responsibility (environmental, social and economic) within the UBR through such plans.⁸

the overall management system (many of the Management Council members are relevant urban stakeholders). This situation is prompting the Council to revise the BR zonation, in the light of both the BR actual management needs and the Urban Group discussions and reflections.

⁶ This model can be observed in the São Paulo City Green Belt: the BR encompasses two metropolitan areas, over 20 state and city parks, a wide array of other protected areas, water basin management systems, cultivated and forest areas. Altogether they constitute a mosaic relevant to the urban metabolism and to which geographically and conceptually the BR seems to appropriately comprehend.

⁷ Again, the São Paulo City Green Belt Management System can be cited in this regard: a consulting / deliberative Management Council was created by national and State legislation. This council, composed of 34 members (17 governmental and 17 non-governmental), is representative of the most relevant urban and peri-urban stakeholders in the BR area, ranging from local people to industry organizations. Very similarly to MAB Programme management, the council defines on the BR general policy and action plan, whereas a coordination (secretariat), provided by the State Forest Institute (which manages most of the BR core areas) is accountable for implementing BR policies / actions. Mata Atlântica Biosphere Reserve's system (of which São Paulo Green Belt is an integral part) functions in a similar way but at a much wider scale, enclosing several cities.

⁸ In São Paulo, the BR Management Council is often requested to take position on and/or to mediate conflicts arising from development projects.



14. It was suggested that the most important issue might be the settlement's ability to demonstrate innovation in integrating urban lifestyles in the natural environment and successful conservation of biodiversity. Combining this with the requirements of criterion 4 of article 4 of the Statutory Framework that Biosphere Reserves should be of an appropriate size to serve the three functions of a Biosphere Reserve ought to enable a judgement to be made about a settlement's eligibility for accession to the WNBR.

15. There has been a strong debate on the question of whether only urban areas with exceptionally high biodiversity should qualify as UBRs. Although the main focus of an UBR should not be on biodiversity *per se* (as noted above), they should include a system of natural or near-natural open spaces that can fulfil the function of conservation and to prove the value of biodiversity to city livelihoods. Cape Town is an example of a conurbation that includes substantial areas of extreme biodiversity value, being situated in the Cape Floral Kingdom. In Western Europe, the flora of the major conurbations can be shown to have greater similarities with that of other conurbations than with the countryside surrounding any particular conurbation. In addition to acting as host areas for existing ecosystems and biotopes, urban areas are developing distinct ecological associations and habitats of their own. For example, one of the United Kingdom's most bio diverse sites is on an abandoned industrial development site on the Thames estuary near London. In Brazil, not only the São Paulo City Green Belt but also the entire Mata Atlântica BR systems encompass a number of small, medium and mega cities where inner and surrounding ecosystems are of extreme biological diversity.⁹ Criterion 2 of Article 4 of the Statutory Framework requires that BRs be of significance for biological diversity conservation.

IV. Urban Biosphere Reserves – implications for the World Network and a suggested framework for future research

16. The Urban Group operated on the premises that cities are positive assets and not simply the source of problems to be solved. It is noted that as well as consuming 'tangible' resources (food, fuel, building materials), cities produce 'intangible' products such as knowledge, innovation and art. The cultural identity and distinctiveness of a city comes from more than just its buildings and open spaces, it also comes from the unique history and traditions of its peoples including foods and values accorded to different flora and fauna.

17. This has raised the question of how UBRs might relate to World Heritage Sites. It is suggested that further work might usefully be done on this issue.

18. The Urban Group suggests that MAB consider including Biosphere Reserves with significant urban components into the World Network. Consideration of UBR criteria has led the Urban Group to discuss at least one issue, that of culture, and its place in Biosphere Reserves, upon which there is little guidance in the Statutory Framework and Seville Strategy. In Rome, the most highly bio diverse sites tend to be clustered around the oldest part of the city in the sites with greatest archaeological – and cultural – value. In Cape Town it might be argued that sites with outstanding contemporary cultural value do not coincide with biodiversity hotspots. The Seville Strategy Goal I is to use Biosphere Reserves to conserve natural and cultural diversity. This seems to clearly imply that there is a role for

⁹ One example is the city of Florianópolis (Brazil), which is about to launch an initiative to apply the biosphere reserve concept to the city and its hinterlands.



inclusion of cultural practices in the perception and management of natural areas in cities such as the exotic vs. native species debate. However, there is little guidance in the Strategy about what this actually means in terms of land use and zonation.

19. The Urban Biosphere and Society conference in New York in 2003 made three recommendations for the elaboration of the functions of BRs that would be required if the World Network were to admit sites with a large urban component. These focus even more intently on the human issues that underpin the critical relationship between people and nature in urban areas:

1. The conservation function, which traditionally covers protection of biodiversity against human intervention, should be extended to cover urban natural and cultural diversity such as community gardens, urban agriculture, and the relationship between immigration and the introduction of exotics in urban ecosystems;
2. The development function should be made more inclusive to introduce the idea of equity of access to urban environmental goods and services such as clean air, clean water, safe environment, and green spaces and environmental education;
3. The logistics function, which covers education and research, should look into education as a tool for self-reliance and empowerment. Outreach should include an examination of the ecological footprint of urban lifestyles and consumption patterns, and it should also contribute to making urban dwellers responsible stewards of the planet.

20. The MAB Urban Group strongly suggested that further research within the MAB program should be conducted on how the functional and spatial components of the BR concept could contribute to building a sustainable development ethic and governance regime inside and outside the World Network. Urban landscapes, whether they become fully fledged BRs or not, could be considered as sites of choice for such investigations. This would greatly contribute to mainstreaming the BR concept into sustainable development initiatives with a strong education and research component.

21. Some of these investigations and research could be conducted in conjunction with the Stockholm MISTRA Institute (see SC-06/CONF.202/INF.7 - Urban Policy and Research: MAB and the Stockholm MISTRA Institute) which has among its four cross-cutting research components two that have a direct relevance to BRs and urban landscapes: (1) The Urban social-ecological systems and globalization; and (2) adaptive governance of dynamic landscapes.

22. For some 30 years, the activity of WNBUR has helped scientists and decision makers to better understand how human activity affects a variety of ecosystems, and individual BRs have proven to be successful laboratories for integrating development and conservation policies.

23. In the 12 years since the Seville Strategy was prepared, urban areas have expanded to a point where no policy today contemplates "stemming rural exodus" as they did twenty years ago. The impact of urban areas is not limited to their immediate hinterlands. Though ecological footprints are measured in hectares, physical impacts made by an urban area are distributed around the world. In view of this rapid urbanization, the Seville Strategy and



Statutory Framework, in their present forms no longer provide sufficient guidance for the expansion/management of the WNBR. Therefore, if the BR concept is to remain a useful tool for understanding the effects of human activity on ecosystems and mitigating negative impacts, a revision of *The Seville Strategy & the Statutory Framework of the World Network of Biosphere Reserves* is required.

24. One component of such a revision must be the development of adequate criteria and Implementation Indicators for urban areas as BRs. Another is to provide sufficient guidance to existing BRs on how to integrate urban development issues – be they direct or indirect – into their management plans. Finally, better linkages with other global networks are essential in order for the WNBR to benefit from their experience as well as to ensure that the different networks remain complementary rather than competitive.

25. It is further suggested that UBRs require their own evaluation system. As a new component of the WNBR, operating in areas with a great diversity of stakeholders, it will be important to be able to demonstrate to all stakeholders that their UBR is adding value to that area, rather than just adding another layer of institutional complexity. It is therefore suggested that an evaluation system be developed specifically for UBRs, rather than relying on the existing periodic review form. In this regard, it is worthy citing the São Paulo City Green Belt BR which developed a set of urban-specific Implementation Indicators in addition to those contained in the Seville Strategy on the occasion of its preliminary evaluation in 2005.

V. Key recommended actions that could be taken in the light of this information note:

26. The Urban Group recommends that the International Coordinating Committee consider:

- Renewing the mandate of the Urban Group to further pursue the questions posed in this report;
- Ensuring that the above issues receive sufficient attention in future MAB research programmes;
- Conducting some of the suggested investigations and research in conjunction with the Stockholm MISTRA Institute;
- Undertaking a survey of BR managers to identify how urban challenges are affecting their work, across the WNBR;
- Convening a meeting of experts to update *The Seville Strategy & the Statutory Framework of the World Network of Biosphere Reserves*;
- Incorporating the findings and recommendations of the Millennium Ecosystem Assessment (MA) in the next generation of guidelines for Biosphere Reserves, including UBRs;



MAB Urban Group

Draft June 2003

Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network of Biosphere Reserves

1. The present document outlines the preliminary considerations by the MAB Urban Group concerning Urban Biosphere Reserves in the context of the Statutory Framework and the Seville Strategy for the World Network Biosphere Reserves.

2. Although a good number of existing Biosphere Reserves actually include cities and towns, and/or are adjacent to major urban areas, the Biosphere Reserve Advisory Committee and the MAB Bureau have likely yet to consider more clearly urban-oriented Biosphere Reserve nominations. Such nominations could actually be a question of time (cities known to consider nominations include Cape Town, New York, Rome and Stockholm).

3. The reflections on this topic are therefore intended to facilitate the deliberations of the Biosphere Reserve Advisory Committee and the MAB Bureau in the eventuality of such applications actually being submitted. The recommendations contained in the document are however not final as far as they represent 'work in progress'. A more definitive text will be prepared following the meeting of the MAB Bureau 8-11 July 2003, and the "Urban Biosphere & Society: Partnership of Cities Conference", 28-31 October 2003, in New York.¹⁰

4. The document is divided into four parts: the first section seeks to define the notion of Urban Biosphere Reserves, the second part addressed the question if Urban Biosphere Reserves are compatible with the Statutory Framework for Biosphere Reserves, in the third section we try to answer the question if Urban Biosphere Reserves would be a welcome addition to the World Network, section four contains the conclusions and recommendations.

¹⁰ Conference organized by the Columbia University-UNESCO Joint Program on Biosphere and Society (CUBES) in co-sponsorship with the New York Academy of Sciences, UN-Habitat and the MAB Urban Group. One of the key objectives of the Conference is to discuss research findings regarding the feasibility of the establishment of urban Biosphere Reserves for cities and to establish a set of definitions on what an urban Biosphere Reserve and its functions could be.



I. Defining 'Urban Biosphere Reserves'

5. Before assessing the extent to which Urban Biosphere Reserves are compatible with the Statutory Framework, it would seem necessary to seek to establish a working definition of the notion of an Urban Biosphere Reserve. A standard definition of an urban area is: "a geographical area constituting a city or town". A simplistic proposal would then be to say that an Urban Biosphere Reserve is a Biosphere Reserve constituting a city or town. However, in the discussions now going on in a number of cities around the world, the idea has never been to restrict an Urban Biosphere Reserve only to the urban areas (i.e. the cities or towns), but to take a regional perspective integrating urban areas and their hinterlands. Furthermore, the mere existence of a city or a town in a Biosphere Reserve is not sufficient to call it an Urban Biosphere Reserve (if it were, a large number of existing Biosphere Reserves could be classed as Urban Biosphere Reserves)¹¹. The issue is then that of defining the relative importance of the urban elements in the Biosphere Reserve.

6. The 'relative importance' could possibly be assessed as a function of several measurable factors in the Biosphere Reserve, e.g. percentage of urban land cover, rate of urbanization and urban sprawl, distance to major urban areas, percentage of people living in urban areas compared to the country side, impacts of urban areas and the urban population on the Biosphere Reserves etc).

7. The underlying key objectives for which the Biosphere Reserve was established, e.g. conservation of urban biodiversity, promoting sustainable urban development and reduced urban foot-prints, city networking etc., could also be defining characteristics of an Urban Biosphere Reserve. It is not, however, the purpose here to seek to establish any more rigid indicators for assessing Urban Biosphere Reserves (that could be the subject for a separate paper).

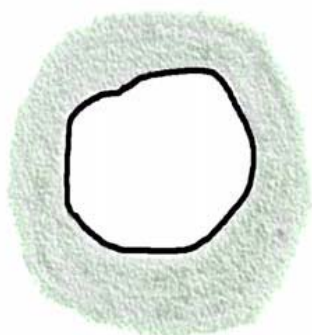
8. A possible working definition of an Urban Biosphere Reserve based on the above considerations could therefore be as follows:

- Urban Biosphere Reserve: a Biosphere Reserve characterized by important urban areas within or adjacent to its boundaries where the natural, socio-economic and cultural environments are shaped by urban influences and pressures, and set-up and managed to mitigate these pressures for improved urban and regional sustainability.

Possible categories of Urban Biosphere Reserves

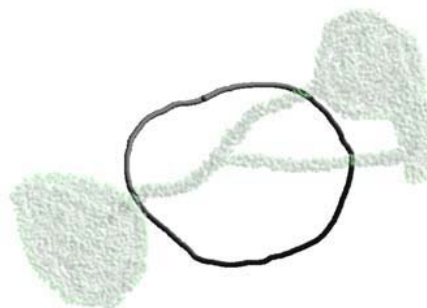
9. Depending on their zonation pattern, different categories of Urban Biosphere Reserves could be envisioned, such as Urban Green Belt Biosphere Reserves, Urban Green Corridor Biosphere Reserves, Urban Green Area Cluster Biosphere Reserves and Urban Region Biosphere Reserves (see Fig 1).

¹¹ This being said, a number of existing Biosphere Reserves might eventually be classified as Urban Biosphere Reserves.



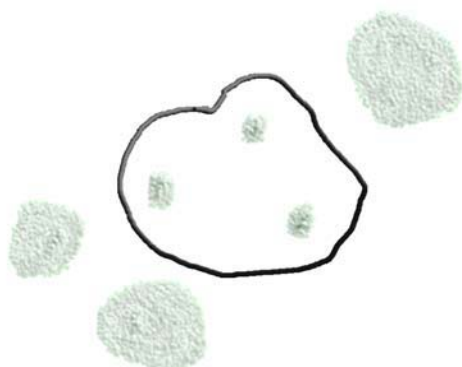
Category 1. Urban Green Belt Biosphere Reserve

The city is surrounded by the Biosphere Reserve which helps protect the green areas from further urbanization and urban sprawl.



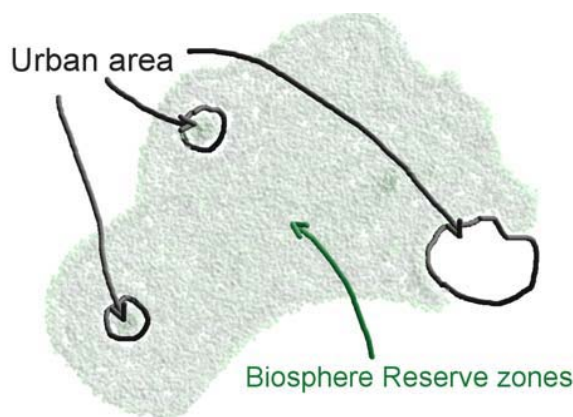
Category 2. Urban Green Corridor Biosphere Reserve

Green corridors within the city help link-up green areas outside the city that otherwise risk being isolated.



Category 3. Urban Green Area Cluster Biosphere Reserve

Green parks and other valuable environments within and outside the city are combined into a cluster Biosphere Reserve



Category 4. Urban Region Biosphere Reserve

An entire region, including towns and villages are zoned into the Biosphere Reserve

Fig 1. Examples of possible categories of Urban Biosphere Reserves

10. Combinations of these categories are of course possible, or even likely. The distribution of the three different Biosphere Reserve zones (i.e. core, buffer and transition areas) adds to the large number of possible combinations.



II. Urban Biosphere Reserves in the context of the Statutory Framework of the World Network of Biosphere Reserves

11. The Statutory Framework of the World Network of Biosphere Reserves (the 'Framework') includes an Introduction and 10 Articles. It is the document that guides the Advisory Committee on Biosphere Reserves and the MAB Council and its Bureau when considering Biosphere Reserve nominations. We will here address the question if Urban Biosphere Reserves as defined and categorized above are compatible with the relevant paragraphs of the Framework.

12. It is stated in the Framework's **introduction** that "Within UNESCO's Man and the Biosphere (MAB) programme, biosphere reserves are established to promote and demonstrate a balanced relationship between humans and the biosphere". Urban areas and regions will more than often not exemplify such a relationship. On the other hand, Urban Biosphere Reserves could be important to promote them. Also, Urban Biosphere Reserves could demonstrate examples of balanced relationship between humans and the biosphere reserves in certain sectors, although it may not contribute to the full range of human-biosphere interactions.

13. The Introduction ends with the proposal that "States are encouraged to elaborate and implement national criteria for biosphere reserves which take into account the special conditions of the State concerned". States interested in elaborating criteria for Urban Biosphere Reserves would therefore seem to be encouraged to do so.

14. **Article 1** defines Biosphere Reserves as "areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognized within the framework of UNESCO's programme on Man and the Biosphere (MAB), in accordance with the present Statutory Framework". The notion of urban ecosystems was pioneered by MAB and Urban Biosphere Reserves will typically consist of a rich mosaic of terrestrial and coastal ecosystems. The definition, however, is a very general one more aiming at ensuring that sites labelled as Biosphere Reserves are those that are recognized by MAB as such rather than to define their features in detail.

15. **Article 3** in the Framework sets out the three major **functions** of Biosphere Reserves: "In combining the three functions below, biosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale:

(i) conservation - contribute to the conservation of landscapes, ecosystems, species and genetic variation;

(ii) development - foster economic and human development which is socio-culturally and ecologically sustainable;

(iii) logistic support - support for demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.

16. The first general remark that could be made here is that it actually would be quite difficult to perceive how Biosphere Reserves that do not include urban areas possibly could demonstrate approaches to conservation and sustainable development on a regional scale. Regions without urban areas, or perhaps without people, would not be good examples of a



'balanced relationship between humans and the biosphere' (Introduction). If it is agreed that sustainable development cannot be achieved without sustainable urban development, again, it will be difficult to rule out Urban Biosphere Reserves.

17. Urban Biosphere Reserves could certainly contribute to the **conservation** of landscapes and biodiversity of high importance for a large number of people. Both locally, regionally and globally (through reduced urban foot prints). They would also form important platforms for fostering **development** along more sustainable lines. Urban areas are typically cast in the light of their negative impacts, however, it should of course not be forgotten that cities and towns are critical in terms of also providing a number of benefits, such as income and job opportunities, markets, health and educational facilities without which several Biosphere Reserves, and society at large, actually would not be fully functional or sustainable. Finally, Urban Biosphere Reserves could provide **logistic** support for education, public awareness and research on critical issues linked to conservation and sustainable urban development.

18. It is useful to recognize here that an Urban Biosphere Reserve (or any Biosphere Reserve for that matter) never is synonymous to the city, town or region where it is situated - it is merely one additional institutional structure among a myriad of human institutions (albeit an important one!). Therefore, an Urban Biosphere Reserve cannot and should not be held 'accountable' for all facets of man-environment interactions within its boundaries. Being associated with an unsustainable urban area should therefore not automatically be seen to imply that the Biosphere Reserve does not, or could not fulfil its functions.

19. The Framework's **Article 4** sets out the general **criteria** for an area to be qualified for designation as a Biosphere Reserve. We will look at the seven criteria one by one:

1. It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions. Needless to say, perhaps more than any other reserves, Urban Biosphere Reserves will contain a broad gradient of human interventions and a rich mosaic of ecological systems.

2. It should be of significance for biological diversity conservation. Urban areas include important, sometimes unique biodiversity. In addition, biodiversity in urban areas tend to be essential for the welfare of its inhabitants (food, climate regulation, water catchments, recreation etc).

3. It should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale.

More than perhaps any other types of reserves, Urban Biosphere Reserves would be important tools to address sustainable development on a regional scale by integrating urban areas which often are at the centre of the sustainability debate.

4. It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3.

There are no restrictions as such as to how big an Urban Biosphere Reserve could be. An appropriate size could therefore usually be envisaged involving urban areas and their hinterlands.

5. It should include these functions, through appropriate zonation, recognizing:



(a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;

As already discussed, an Urban Biosphere Reserve could be set-up in a number of ways. An Urban Green Corridor Biosphere Reserve (category 2), for example, could include core areas within the urban area (e.g. park areas, rivers and lakes). These areas can be the subject to legal protection and of a sufficient size to ensure that the conservation objectives are met.

(b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;

Buffer zones may require some innovative thinking in the urban context. For example, residential areas could provide buffer zone protection for rivers and lakes within the city provided they are equipped with sound waste water facilities etc. Furthermore, polluting industrial activities not compatible with the conservation objectives could be avoided in such areas (perhaps to the benefit of human health as well).

(c) an outer transition area where sustainable resource management practices are promoted and developed.

There are no limitations to the possibilities an Urban Biosphere Reserve could provide in terms of promoting and developing sustainable resources management practices in sectors such as agriculture, forestry, recreation, water, energy, transport, housing and waste management. Of minor importance here is perhaps the fact that the transition areas may not always be the outer areas in an Urban Biosphere Reserve, rather they could find themselves surrounded by buffer zones and core areas.

6. Organizational arrangements should be provided for the involvement and participation of a suitable range of inter alia public authorities, local communities and private interests in the design and carrying out the functions of a biosphere reserve.

Key public and private stake holders are concentrated to the urban areas which will facilitate their involvement and participation in the design and operations of an Urban Biosphere Reserve. Although the politics of establishing and managing an Urban Biosphere Reserve could be expected to be complex, the benefits of such a process could be enormous in terms of bringing stakeholders aboard on a cooperation platform for regional sustainability that typically will not have existed before.

7. In addition, provisions should be made for:

(a) mechanisms to manage human use and activities in the buffer zone or zones;

Urban areas have often already established mechanisms in place to oversee and manage economic and other human activities.

(b) a management policy or plan for the area as a biosphere reserve;

An increasing number of cities around the world have developed local Agenda 21 initiatives and have well established (more or less well implemented) plans and policies covering most facets of urban life. These can in many instances form an effective basis for an Urban Biosphere Reserve policy which in addition, however, also would have to extend to the hinterlands. The fact that an Urban Biosphere Reserve would seek to bridge the often conflicting interests between cities and their hinterlands is what makes it so attractive and potentially powerful.

c) a designated authority or mechanism to implement this policy or plan;

This is of course a key point for any successful Biosphere Reserve. It will however in many instances be a tough challenge for an Urban Biosphere Reserve to muster the power and authority to ensure the implementation of a comprehensive and



ambitious policy or plan that would touch on fundamental urban management issues. There are no fix prescriptions for how a Biosphere as an institution can or should be setup to ensure implementation. Legislation, political, public and financial support are all important ingredients for success. Increasingly, the true strength of Biosphere Reserves might lie in their ability to produce sustainable economic benefits spurred by a shared vision among key stakeholders of the region as a space for sustainable development cooperation.

(d) programmes for research, monitoring, education and training.

Easy access to universities, research facilities, schools and education centres will help ensure that Urban Biosphere Reserves can establish strong programmes for research, monitoring, education and training. Urban Biosphere Reserves could also help promote the establishment of new and innovative training centres for education for sustainable development at different levels.

20. The above discussion is but a short, partly theoretical analysis of the extent to which Urban Biosphere Reserves are or would be compatible with the Framework. The conclusion at this point in time, however is that Urban Biosphere Reserves are compatible with the Framework.

III. Urban Biosphere Reserves - a welcome addition to the World Network?

21. It is one thing to suggest that Urban Biosphere Reserve would be compatible with the Statutory Framework, but are they a welcome contribution to the World Network? One authority on the issue of Biosphere Reserves for the 21st Century is of course the Seville Strategy (the 'Strategy'). Drawn up by 400 experts from 102 countries and 15 international and regional organizations in Seville in March 1995, the Strategy seeks to identify "the specific role of biosphere reserves in developing a new vision of the relationship between conservation and development" together with a series of recommendations for developing effective Biosphere Reserves and for setting out the conditions for the appropriate functioning of the World Network of Biosphere Reserves. At its 13th session (12-16 June 1995), the MAB-ICC gave its strong support to the Seville Strategy.

22. Well, does the Strategy talk about Urban Biosphere Reserves? Not really, but it gets fairly close. Ten key directions were identified by the Seville Conference that formed the foundations for the Strategy. The second key direction is that Biosphere Reserves should be developed "that include a wide variety of environmental, biological, economic and cultural situations, going from largely undisturbed regions and spreading towards cities." Exactly where this spread should be interrupted on its way towards the urban areas, if at all, is not specified leaving the question somewhat open.

23. In relation to the coverage of the World Network, it is however recommended (under Goal I) to "...establish, strengthen or extend biosphere reserves as necessary, giving special attention to fragmented habitats, threatened ecosystems, and fragile and vulnerable environments, both natural and cultural". For many, this would seem to be an implicit call for Urban Biosphere Reserves.

24. Concerning the transition areas, the Strategy documents explains that it "may contain a variety of agricultural activities, settlements and other uses and in which local communities, management agencies, scientists, non-governmental organizations, cultural groups, economic interests and other stakeholders work together to manage and sustainably develop



the area's resources". This could also be interpreted as a support for Urban Biosphere Reserves (as far as the transition areas are concerned).

25. It is recommended under the Strategy's Goal II (utilize Biosphere Reserves as models of land management and of approaches to sustainable development) to "establish, strengthen or extend biosphere reserves to include areas ... where there are critical interactions between people and their environment (e.g. peri-urban areas, degraded rural areas, coastal areas, freshwater environments and wetlands)". Peri-urban areas are mentioned as examples here, but the text again stops short of mentioning cities.

26. Although the Strategy includes a large number of recommendations, it modestly acknowledges that it is deliberately focused on a "few priorities". This is one possible explanation to why the document is not more explicit on urban issues. Also, the focus on urban areas, urbanization and urban sprawl has become sharper since 1995. The Strategy might therefore have been more sensitive to the urban agenda had it been drafted today.

27. Another possible explanation is of course that Urban Biosphere Reserves were not seen as such a good idea, perhaps based on the concern that they somehow would stretch the Biosphere Reserve concept beyond recognition. If so, comfort could be drawn from the Strategy document that underscores that "In fact, one of the greatest strengths of the biosphere reserve concept has been the flexibility and creativity with which it has been realized in various situations."

28. A parallel could possibly be drawn here to the World Heritage Convention, which successfully manages to cover such different entities as cultural and natural properties, recently extended to also cover cultural landscapes. This without eroding either the rationale for, or the usefulness of the Convention to its Member States. For the Convention, the connecting theme is that of conserving universal cultural values. For Biosphere Reserves, the connecting theme is contained in their three functions, i.e. conservation, development and logistics with sustainable development as a possible over-arching theme. It would seem only timely that if Member States proposed Urban Biosphere Reserves, they would be a welcome addition to the World Network.

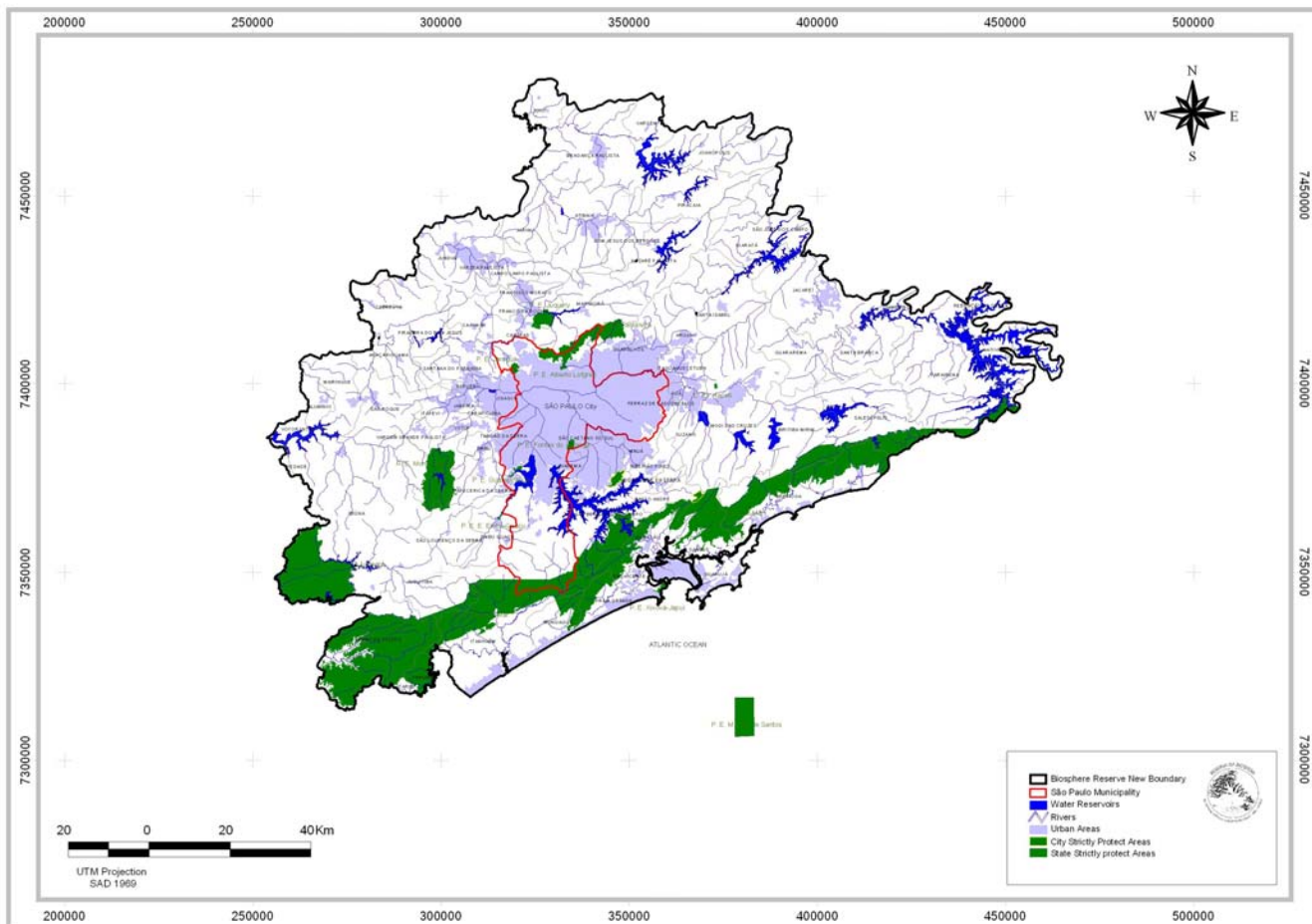
IV. Conclusions and recommendations

29. Urban Biosphere Reserves as defined in this document would seem to be compatible with the Statutory Framework, and if not called for, at least not ruled out in the Seville Strategy. In view of the fact that urban areas are key players in the quest for sustainability, refusing Biosphere Reserve proposals simply because they includes urban areas would seem counterproductive.



RBCV-SP ANNEX 3

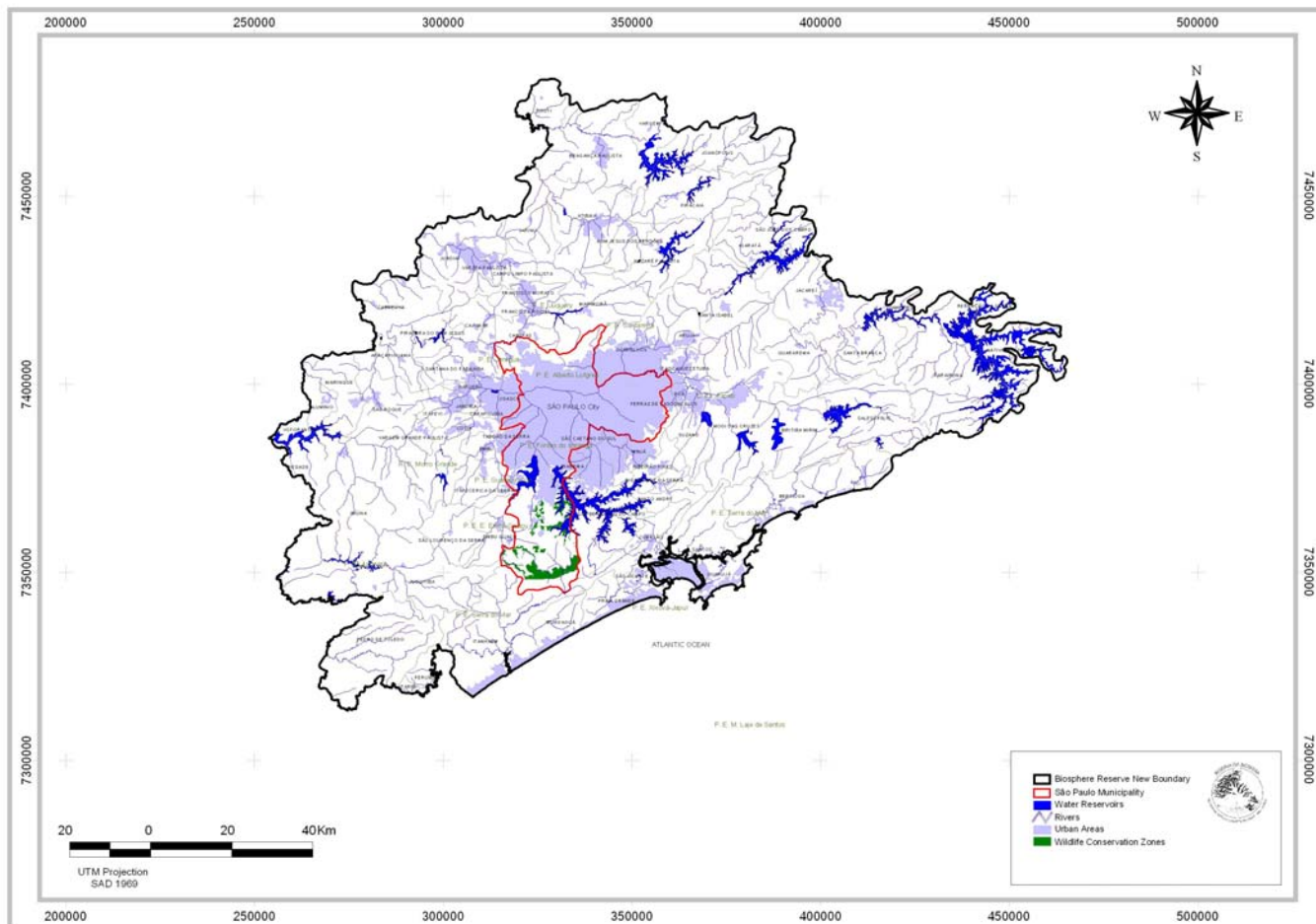
Strictly and Protected Areas (State Parks, City Natural Parks, Ecological Stations)





RBCV-SP ANNEX 4

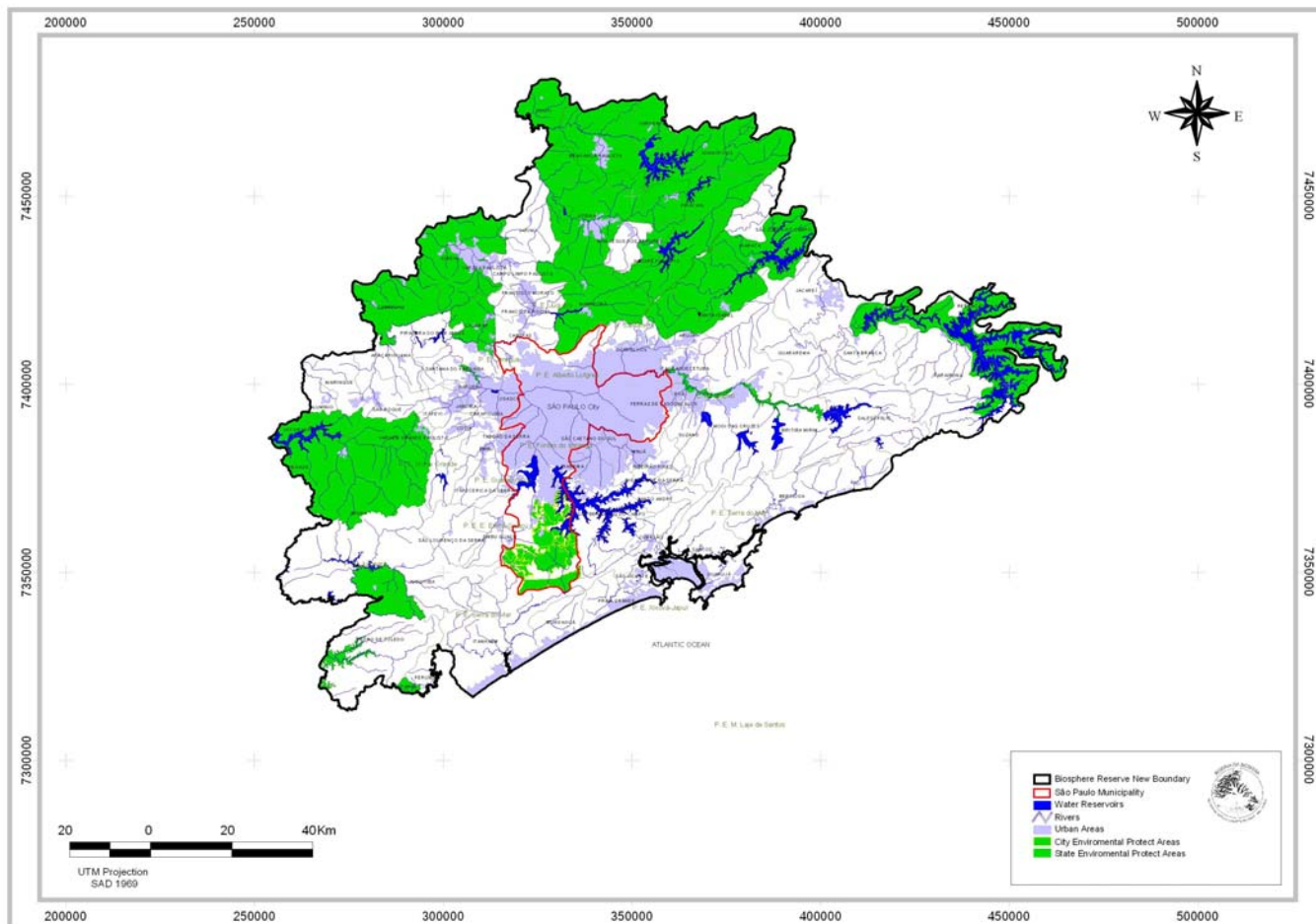
Wildlife Conservation Zones of Environmental Protection Areas





RBCV-SP ANNEX 5

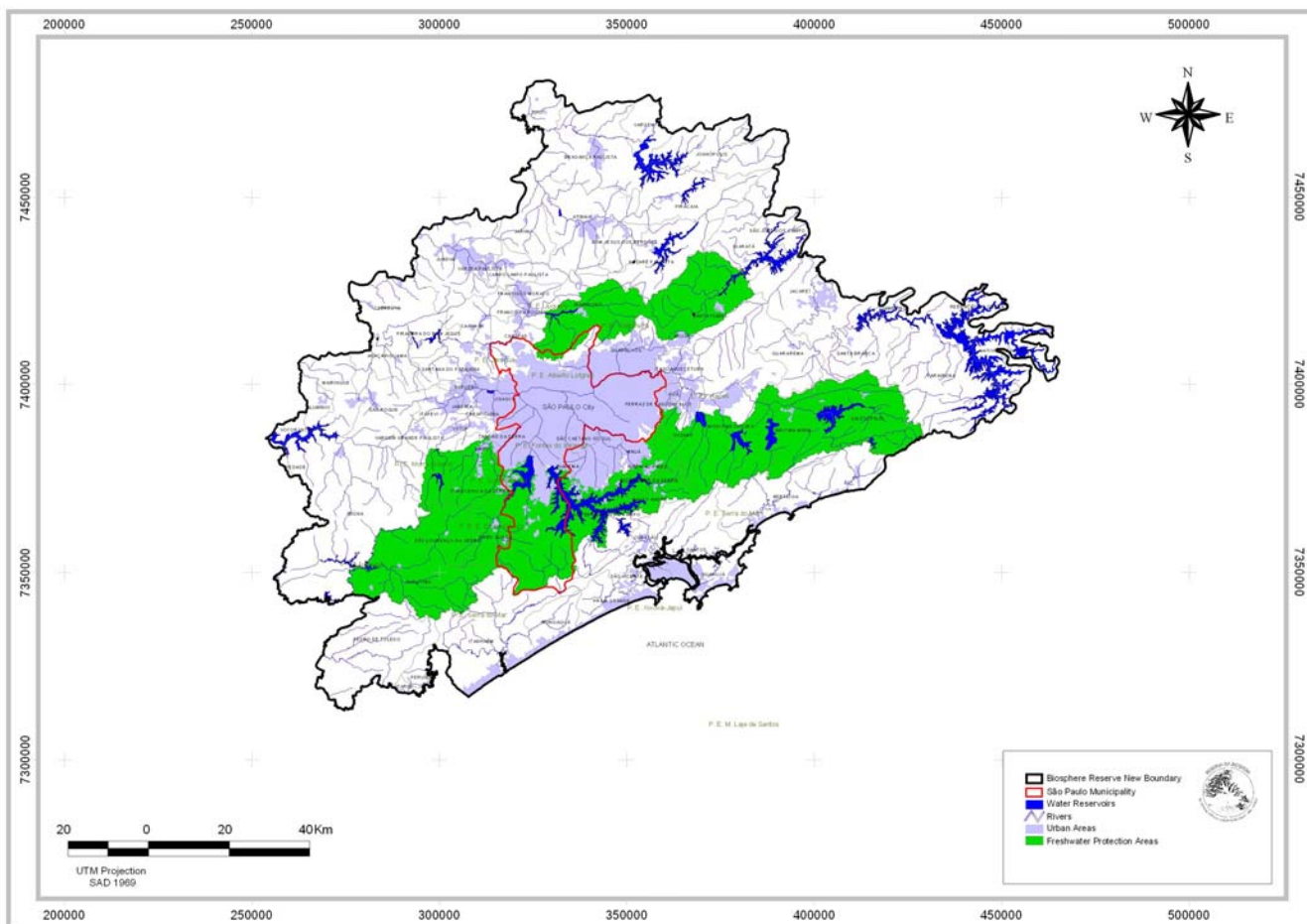
Environmental Protection Areas (all other zones)





RBCV-SP ANNEX 6

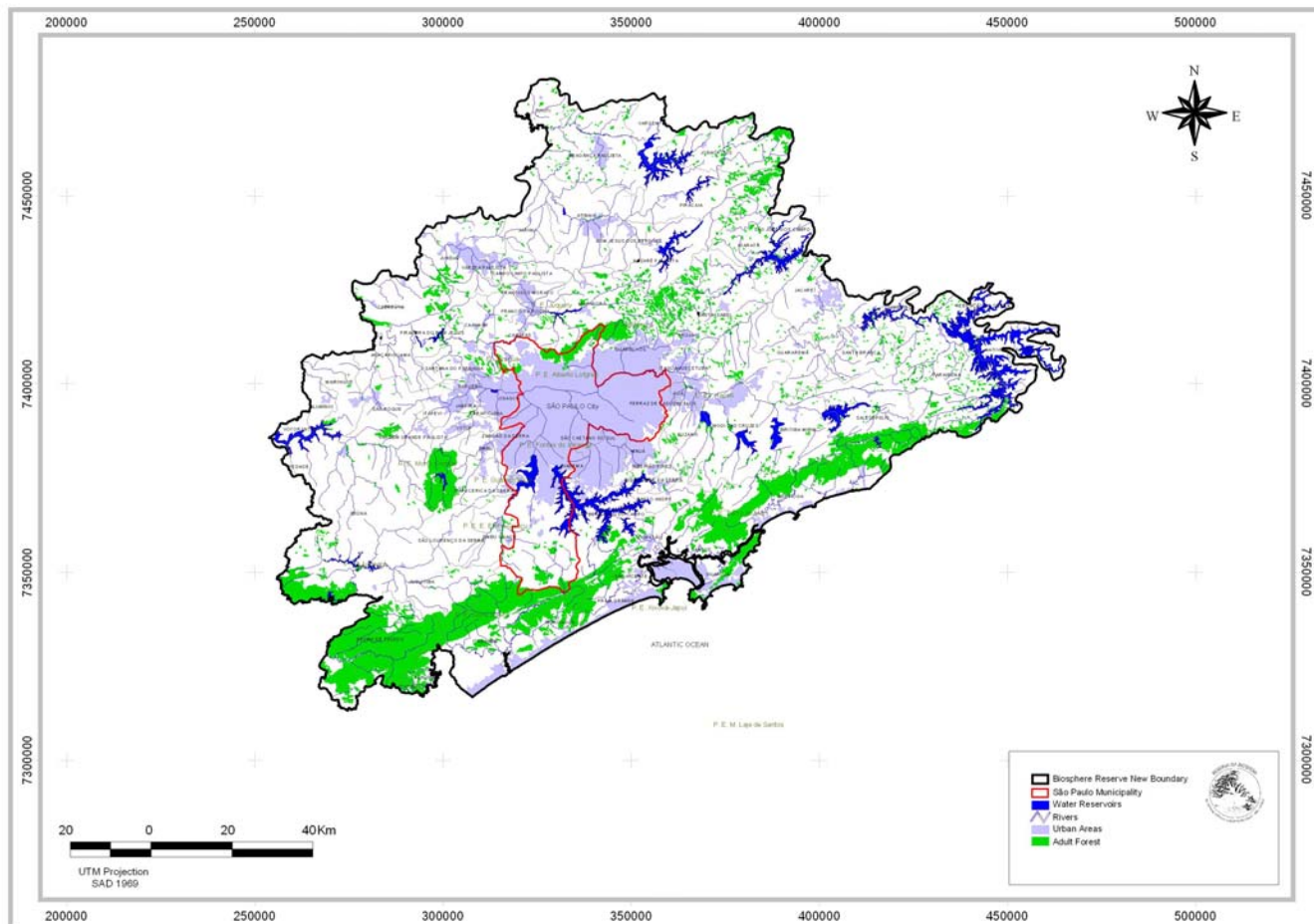
Non-urbanized Freshwater Protection Areas





RBCV-SP ANNEX 7

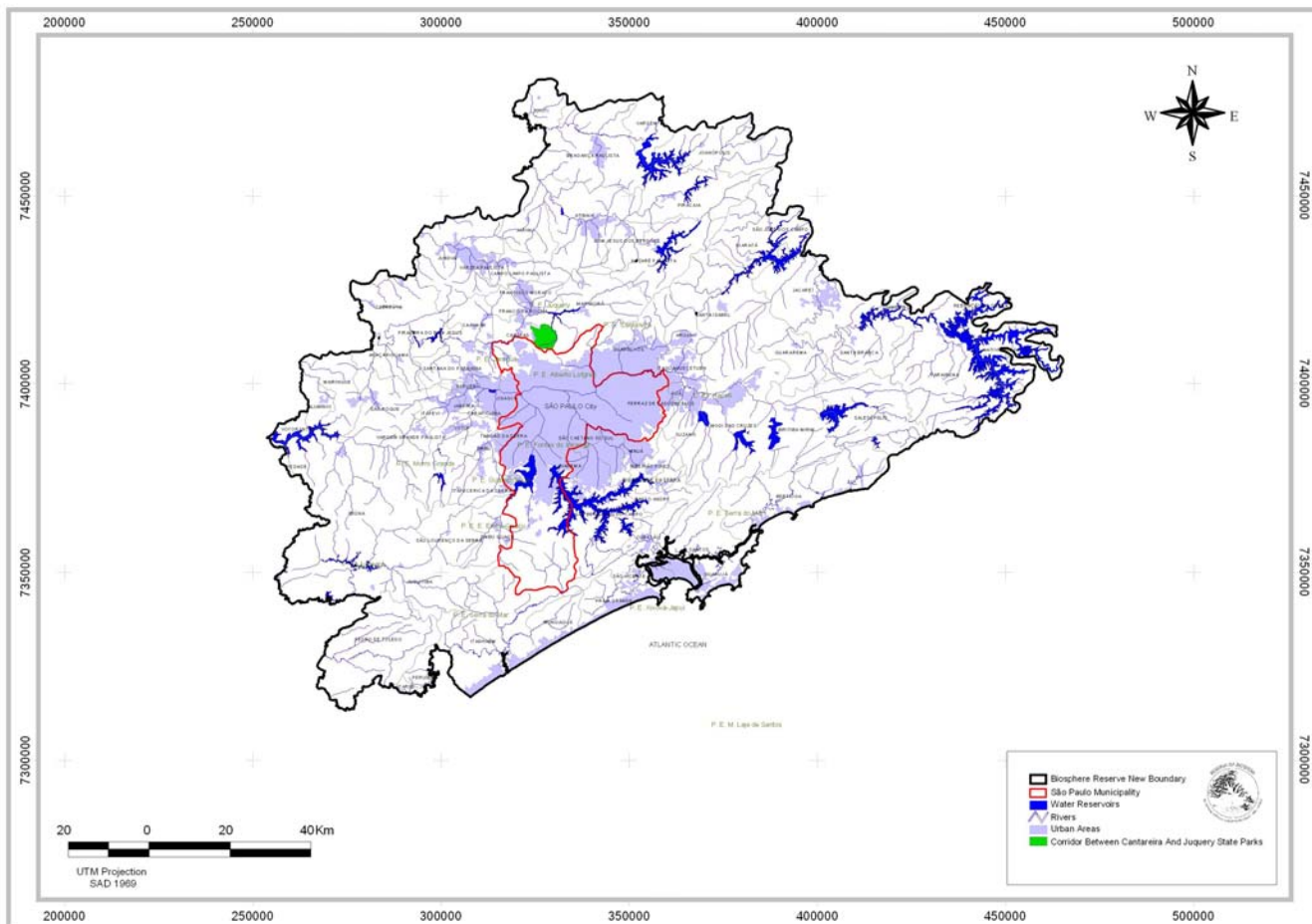
Adult Forests





RBCV-SP ANNEX 8

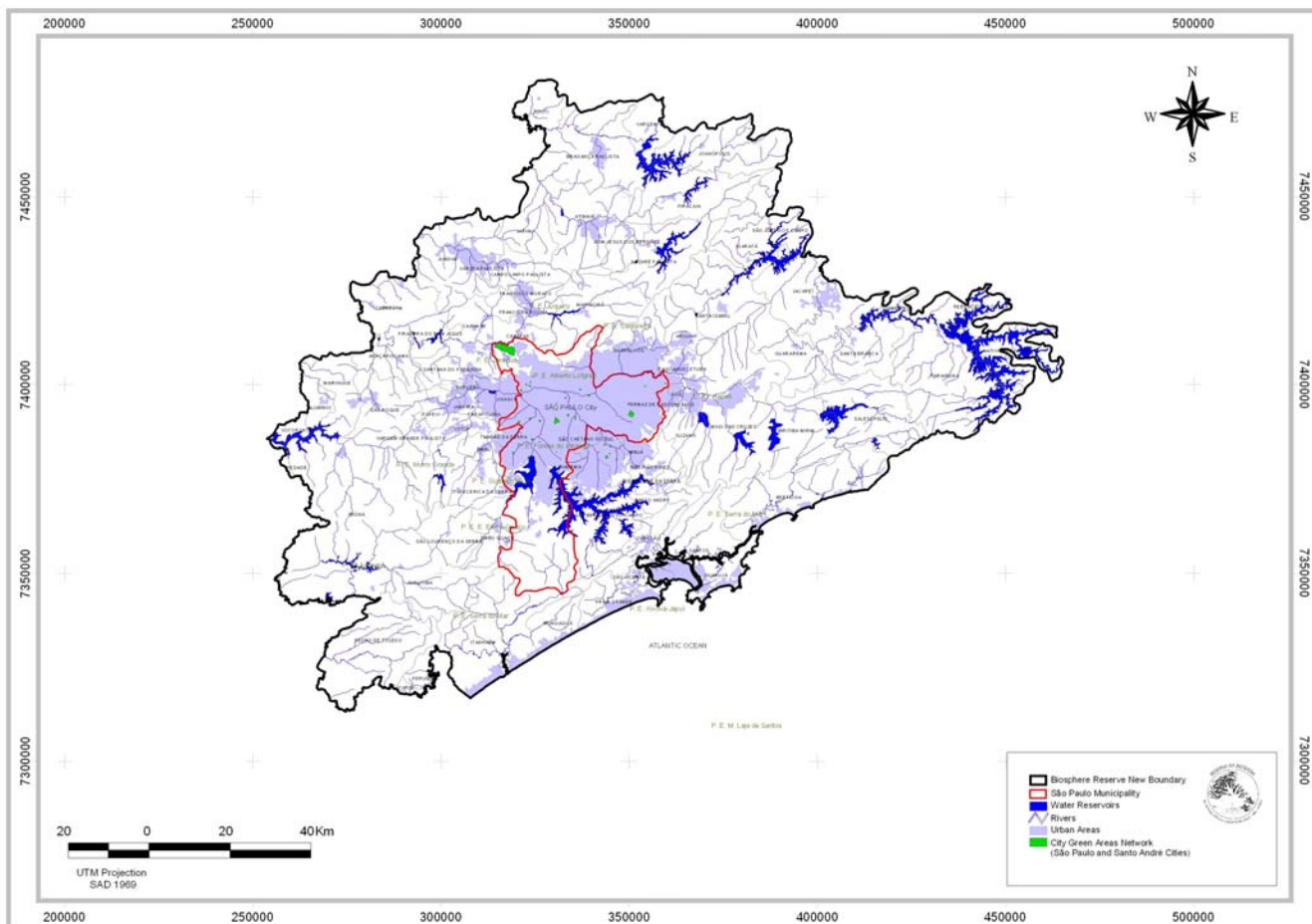
Corridor between the Cantareira and Juquery State Parks





RBCV-SP ANNEX 9

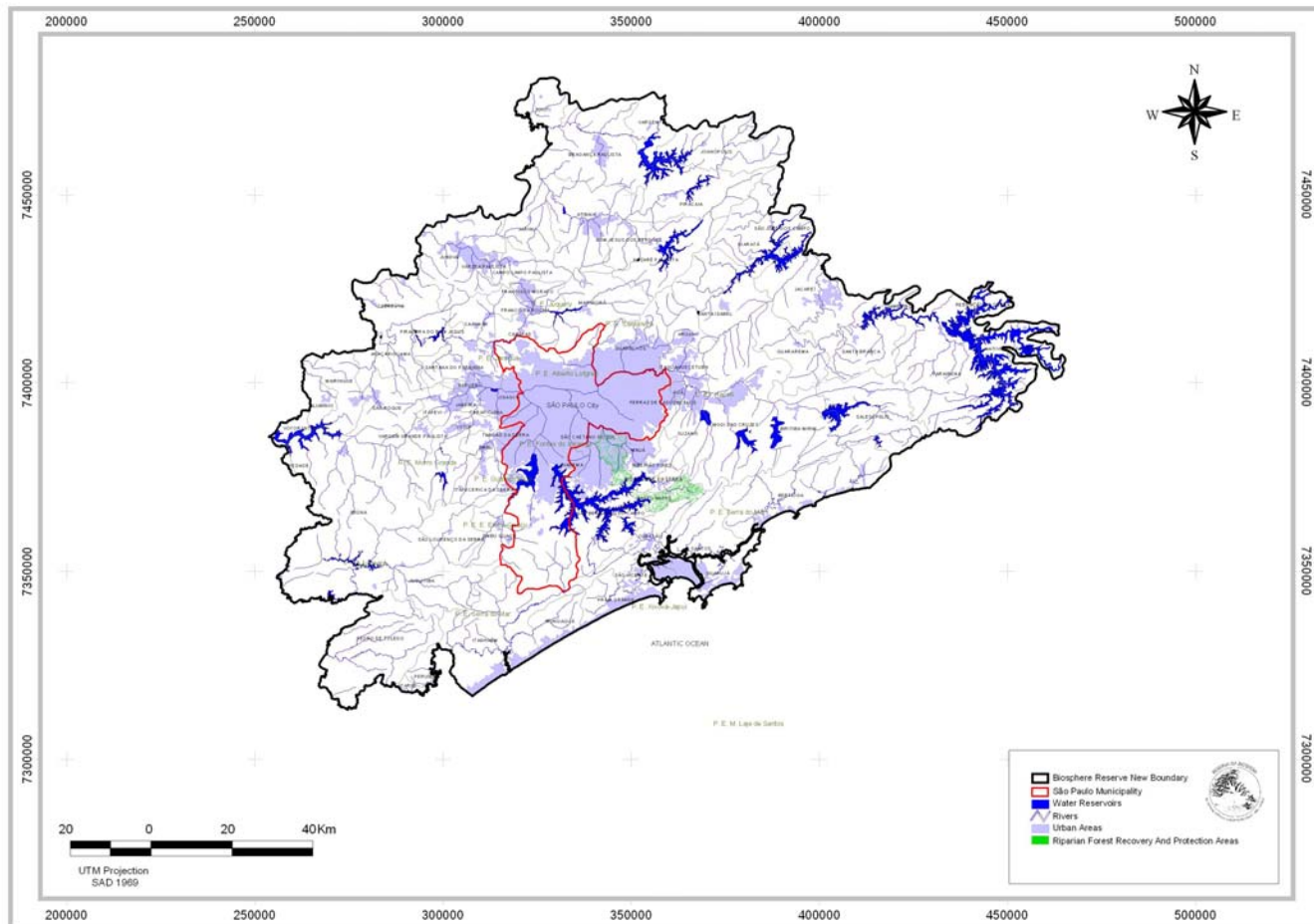
São Paulo and Santo Andre Cities' urban green areas network





RBCV-SP ANNEX 10

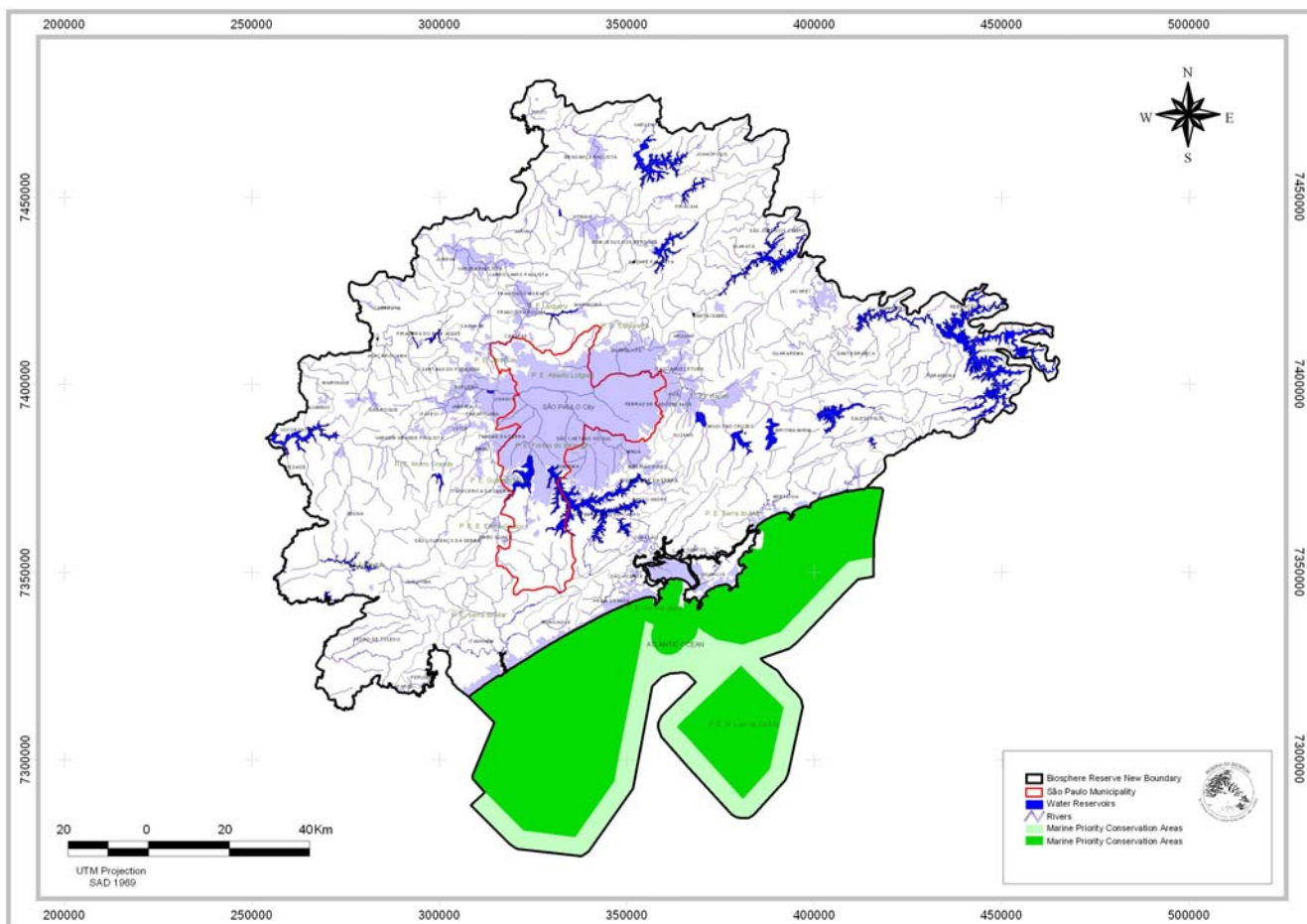
Santo André City's Special Environmental Interest Zone (referring to riparian forest conservation and recovery areas)





RBCV-SP ANNEX11

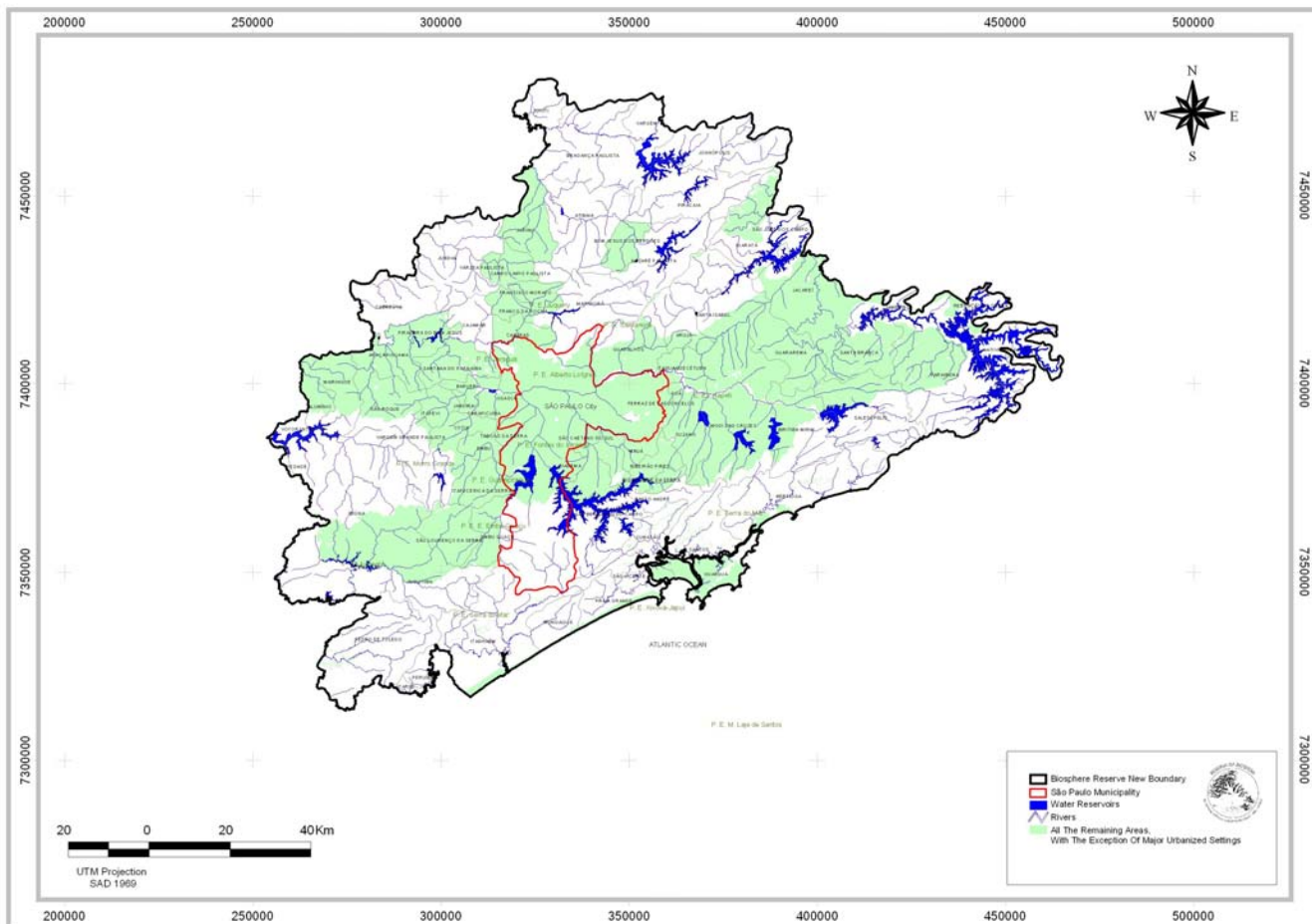
Marine Priority Conservation Areas





RBCV-SP ANNEX 12

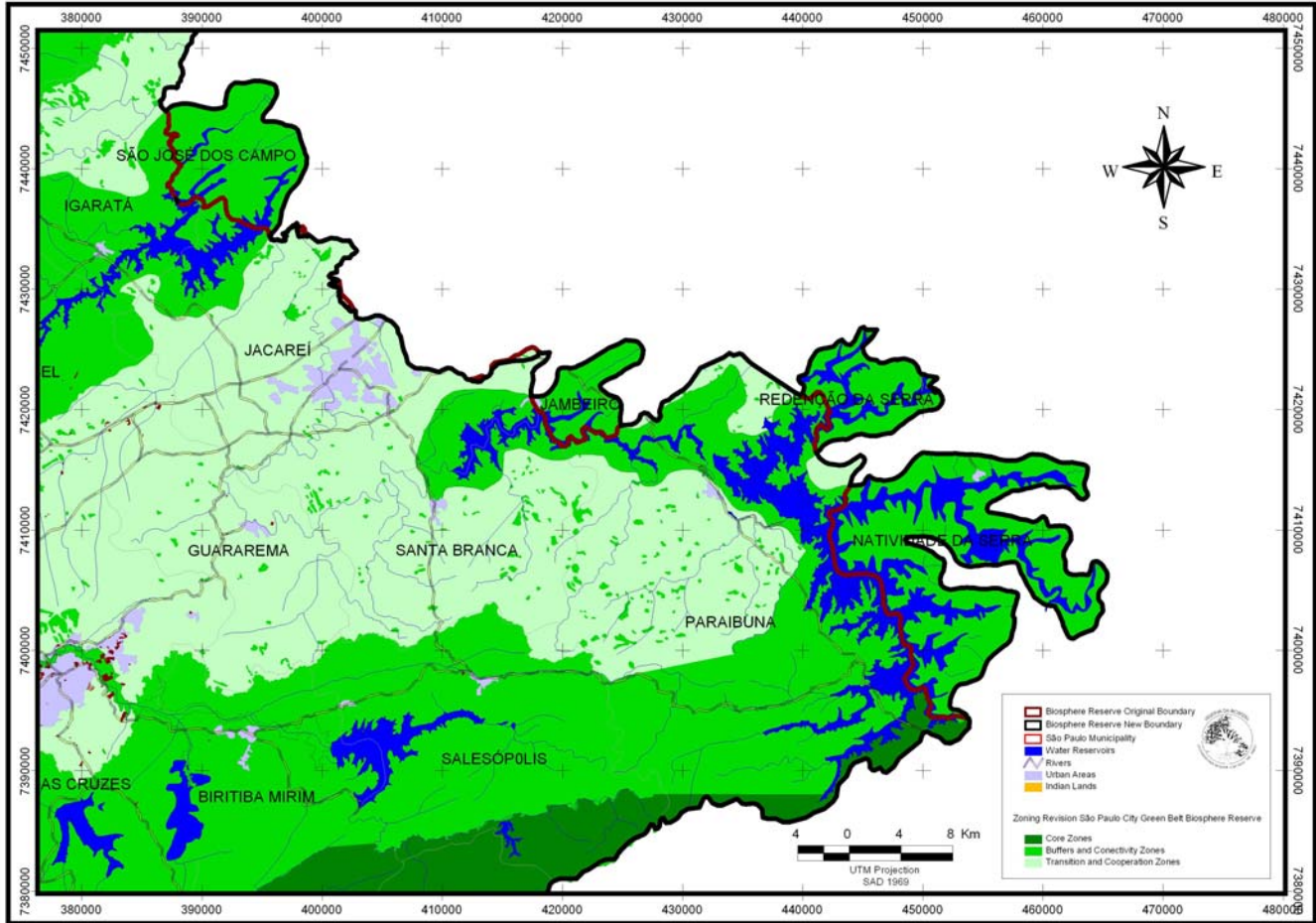
All the remaining areas, with the exception of major urbanized settings





RBCV-SP ANNEX 13

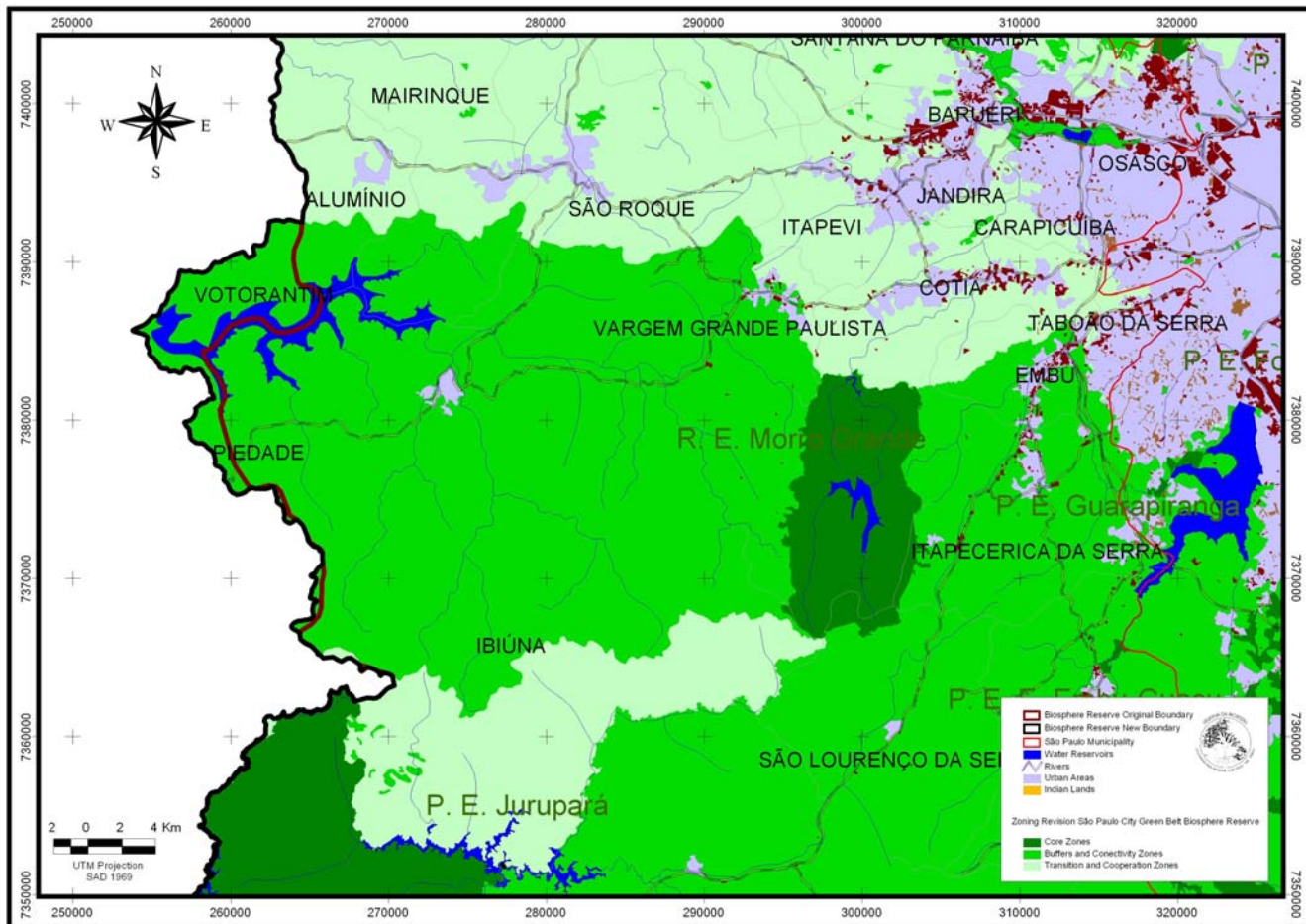
Terrestrial boundary changes – Eastern Side





RBCV-SP ANNEX 14

Terrestrial boundary changes – Western Side





RBCV-SP ANNEX 15

Letter acknowledging the Zoning Revision approval by the the São Paulo City Green Belt
Biosphere Reserve Management Council.



RBMA
Fase VI

REVIEW AND UPDATE OF THE LIMITS AND THE ZONING OF THE MATA
ATLÂNTICA BIOSPHERE RESERVE IN DIGITAL CARTOGRAPHIC BASE



GOVERNO DO ESTADO DE SÃO PAULO

SECRETARIA DO MEIO AMBIENTE
INSTITUTO FLORESTAL

C.P. 1322 – 01059-970 - São Paulo - SP, Brasil - Fone ++55 11 6231 8555 - Fax ++ 55 11 6232 57 67

São Paulo, September 29th 2008

Ofício RB 09/2008

Dear Mr. Lino,

I am pleased to inform that the São Paulo City Green Belt Biosphere Reserve Management Council, in its 3rd Meeting held on last 13th of August, approved the Biosphere Reserve's zoning revision and boundary changes.

Moreover, given the Green Belt and the Atlantic Forest Biosphere Reserves integration in terms of area, management system and the own zoning revision process, we would like to suggest that both technical documents compose a single package to be submitted to the MAB Advisory Committee's approval, in the same way they were submitted to the Brazilian MAB Committee.

For that purpose, please find attached the technical zoning revision document which describes the methodology and further relevant information about the process carried out in the Green Belt.

Yours Sincerely,

Rodrigo Antonio Braga Moraes Victor
Coordinator, São Paulo City Green Belt Biosphere Reserve

Dr. Clayton Ferreira Lino

President, Atlantic Forest Biosphere Reserve National Council
São Paulo – Brazil

cc – dr. **Maria de Lourdes Gandra** – President, São Paulo City Green Belt Biosphere Reserve
Management Council

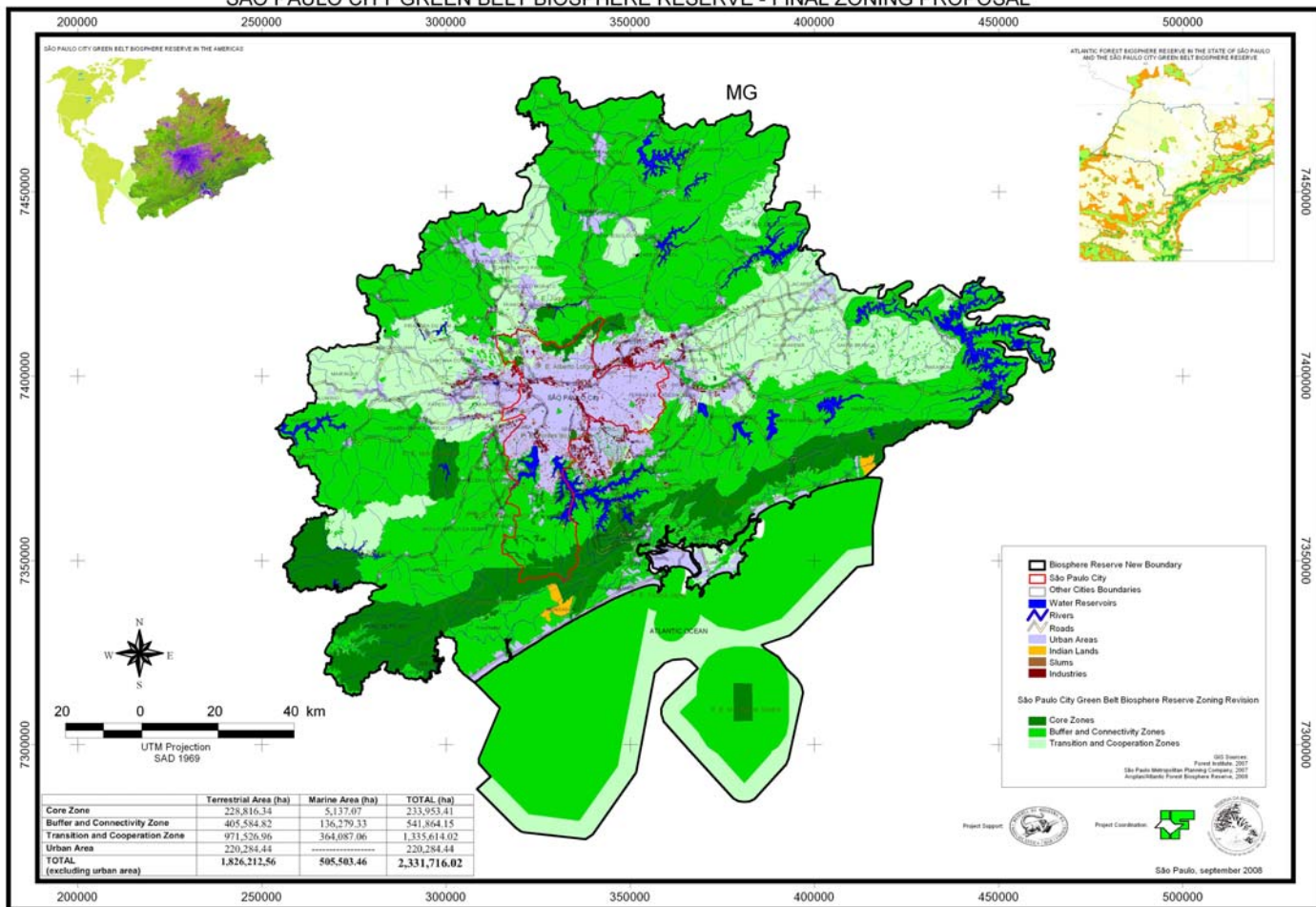
dr. **Cláudio Henrique Barbosa Monteiro** – General Director, São Paulo Forest Institute



RBCV-SP ANNEX16

Final Consolidated Zoning Revision

SÃO PAULO CITY GREEN BELT BIOSPHERE RESERVE - FINAL ZONING PROPOSAL



THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE LIMITS AN THE ZONING OF
THE MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



Annex 1

**Table of Protected Areas
and Zoning of the RBMA by State**



Glossary

- ZA** = *Zona de Amortecimento e Conectividade* = Buffer and Conectivity Zone
ZN = *Zona Núcleo* = Core Zones
ZT = *Zona de Transição e Cooperação* = Transition and Cooperation Zone
RESEC = *Reserva Ecológica* = Ecologic Reserv
REBIO = *Reserva Biológica* = Biologic Reserv
RESEX = *Reserva Estrativista* = Estrative Reserv
FLONA = *Floresta Nacional* = National Forest
PARNA = *Parque Nacional* = National Park
FE = *Floresta Estadual* = State Forest
PM = *Parque Municipal* = Park City
RVS = *Refúgio de Vida Silvestre* = Wildlife Refuge
RDS = *Reserva de Desenvolvimento Sustentável* = Sustainable Development Reserve
ESEC = *Estação Ecológica* = Ecological Station
ARIE = *Área de Relevante Interesse Ecológica* = Significant Ecological Area of Interest
PNM = *Parque Natural Municipal* = Municipal Park City
MONA = *Monumento Natural* = Natural Monument
APA = *Área de Proteção Ambiental* = Enviromental Protected Area
APP = *Área de Proteção Permanente* = Permanent Protection Area
RPPN = *Reserva Particular de Patrimônio Natural* = Private Natural Heritage Reserve
PEC = *Parque Ecológico* = Ecological Park

CE = Ceará

RN = Rio Grande do Norte

PB = Paraíba

PE = Pernambuco

AL = Alagoas

SE = Sergipe

BA = Bahia

MG = Minas Gerais

ES = Espitiro Santo

RJ = Rio de Janeiro

SP = São Paulo

GO = Goiás

PR = Paraná

SC = Santa Catarina

RS = Rio Grande do Sul

MS = Mato Grosso do Sul



ST	ZONE	CATEGORY	NAME	DOC	DATE
CE	ZA	Indian Land	Lagoa Encantada		
CE	ZA	Indian Land	Pitaguary		
CE	ZA	Conservation Unit	APA of Chapada do Araripe		1997
CE	ZA	Conservation Unit	APA of Serra da Aratanha		
CE	ZA	Conservation Unit	APA of Serra de Baturité		
CE	ZA	Conservation Unit	APA of Paracuru Dunes		
CE	ZA	Conservation Unit	APA of the Parnaíba Delta		1996
CE	ZA	Conservation Unit	APA of the Curu River Estuary		
CE	ZA	Conservation Unit	APA of the Mundaú River Estuary		
CE	ZA	Conservation Unit	APA of Cauípe Salty Water Lagoon		
CE	ZA	Conservation Unit	APA Jericoacoara		1984
CE	ZA	Conservation Unit	APA Serra da Ibiapaba		1996
CE	ZA	Conservation Unit	FLONA of Araripe-Apodi		1946
CE	ZA	Conservation Unit	RESEX of Batoque		2003
CE	ZN	APP			
CE	ZN	Mangrove in Priority Area			
CE	ZN	Forest Reminders			
CE	ZN	Conservation Unit	APA da Serra de Baturité		
CE	ZN	Conservation Unit	PARNA of Jericoacoara		2002
CE	ZN	Conservation Unit	PARNA of Ubajara		1959
RN	ZA	Conservation Unit	State APA of the Coral Reefs		
RN	ZA	Conservation Unit	FLONA of Nísia Forest		2001
RN	ZN	Mangrove			
RN	ZN	Coastal Reefs			
RN	ZN	Conservation Unit	REBIO of Atol das Rocas		1979
RN	ZN	Core Zone - Phase V			
PB	ZA	Indian Land	Jacaré de São Domingos	01/03/95	
PB	ZA	Indian Land	Potiguara	02/07/95	
PB	ZA	Indian Land	Potiguara de Monte-Mor	05/19/04	
PB	ZA	Conservation Unit	APA of the Mamanguape River Sandbanks		1993
PB	ZA	Conservation Unit	ARIE Mangroves of the Mamanguape River Mouth		1985
PB	ZA	Conservation Unit	FLONA of the Cabedelo Restinga		2004
PB	ZN	APP			
PB	ZN	Mangrove			
PB	ZN	Coastal Reefs			
PB	ZN	Forest Reminders			
PB	ZN	Conservation Unit	APA of Goiana and Megaó Rivers Estuary		
PB	ZN	Conservation Unit	ARIE Mata Goiamunduba		
PB	ZN	Conservation Unit	State Park of Aratu	Decree 23,838 of 12.27.2002	2002
PB	ZN	Conservation Unit	State Park of Aratu		
PB	ZN	Conservation Unit	State Park of Jacarapé	Decree 23,836 of 12.27.2002	2002
PB	ZN	Conservation Unit	State Park of Jacarapé		
PB	ZN	Conservation Unit	State Park Marinho de Areia Vermelha	Decree 21,263 of 08.28.2000	2000
PB	ZN	Conservation Unit	State Park Mata do Xém-Xém		



PB	ZN	Conservation Unit	Municipal PEC of the Camarat River Sandbanks		
PB	ZN	Conservation Unit	REBIO of Guaribas		
PB	ZN	Conservation Unit	REBIO of Guaribas		1990
PB	ZN	Conservation Unit	RESEC Mata do Rio Vermelho		
PB	ZN	Conservation Unit	RPPN of Roncador		
PB	ZN	Conservation Unit	RPPN Gargaú		
PB	ZN	Conservation Unit	RPPN Pacatuba		
PB	ZN	Core Zone - Phase IV			
PE	ZA	Conservation Unit	APA of the Coral Coast		1997
PE	ZA	Conservation Unit	APA of Fernando de Noronha		1986
PE	ZN	APP / Forest Reminders			
PE	ZN	Spring Protection Area	Manantial Aldeia	Spring Protection Area - Law 9860	
PE	ZN	Spring Protection Area	Manantial Cumbé de Cima	Spring Protection Area - Law 9864	
PE	ZN	Spring Protection Area	Manantial Eng. Canoas	Spring Protection Area - Law 9863	
PE	ZN	Spring Protection Area	Mata de São João da Várzea	Spring Protection Area - Law 9866	
PE	ZN	Spring Protection Area			
PE	ZN	Spring Protection Area		Spring Protection Area - Law 9861	
PE	ZN	Coastal Reefs			
PE	ZN	Forest Reminders	Triunfo Reminders		
PE	ZN	Forest Reminders			
PE	ZN	Conservation Unit	APA of Guadalupe	State Decree 19,635/97	
PE	ZN	Conservation Unit	APA of Sirinhaém	State Decree 21,229/98	
PE	ZN	Conservation Unit	APA of the Santa Cruz Channel Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Carro Quebrado River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Formoso River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Itapessoca River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Jaguaribe River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Timbó River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Una River Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Goiana and Megaó Rivers Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Jaboatão and Pirapama Rivers Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Sirinhaém and Maracaípe Rivers Estuary	State Law 9,931/86	
PE	ZN	Conservation Unit	APA of the Sirinhaém River Estuary	State Law 9,931	
PE	ZN	Conservation Unit	APA of the Una River Estuary		
PE	ZN	Conservation Unit	APA Nova Cruz	Municipal Law 2,466/03	



PE	ZN	Conservation Unit	ESEC of Caetés	State Law 11,622/98	
PE	ZN	Conservation Unit	ESEC of TapaConservation Unitrá	State Law 11,622/98	
PE	ZN	Conservation Unit	Marine PARNA of Fernando de Noronha		1988
PE	ZN	Conservation Unit	State Park Dois Irmãos	State Law 11,622/98	
PE	ZN	Conservation Unit	State Park Mata de Dois Irmãos		
PE	ZN	Conservation Unit	PEC of Serra Negra		
PE	ZN	Conservation Unit	PEC João Vasconcelos Sobrinho	Municipal Law 2,796/83	
PE	ZN	Conservation Unit	PM (without name)		
PE	ZN	Conservation Unit	NATURAL PM of Forte de Tamandaré	Municipal Decree 013/03	
PE	ZN	Conservation Unit	REBIO of Pedra Talhada	Federal Decree 98,524/89	1989
PE	ZN	Conservation Unit	REBIO of Saltinho	Federal Decree 88,774/83	1983
PE	ZN	Conservation Unit	REBIO of Serra Negra		1982
PE	ZN	Conservation Unit	RESEC of Mata de Camaçari	Ecologic State Reserve - Law 9,989	
PE	ZN	Conservation Unit	RESEC Mata da Serra do Cumaru		
PE	ZN	Conservation Unit	RESEC Mata da Usina São José		
PE	ZN	Conservation Unit	RESEC Mata de Camaçari		
PE	ZN	Conservation Unit	RESEC Mata de Caraúna		
PE	ZN	Conservation Unit	RESEC Mata de Contra Açude		
PE	ZN	Conservation Unit	RESEC Mata de Dois Unidos		
PE	ZN	Conservation Unit	RESEC Mata de Duas Lagoas		
PE	ZN	Conservation Unit	RESEC Mata de Jaguarana		
PE	ZN	Conservation Unit	RESEC Mata de Jaguaribe		
PE	ZN	Conservation Unit	RESEC Mata de Jangadinha		
PE	ZN	Conservation Unit	RESEC Mata de Lanço dos Cações		
PE	ZN	Conservation Unit	RESEC Mata de Manassu		
PE	ZN	Conservation Unit	RESEC Mata de Miritiba		
PE	ZN	Conservation Unit	RESEC Mata de Mussaíba		
PE	ZN	Conservation Unit	RESEC Mata de Passarinho		
PE	ZN	Conservation Unit	RESEC Mata de Quisanga		
PE	ZN	Conservation Unit	RESEC Mata de Santa Cruz		
PE	ZN	Conservation Unit	RESEC Mata de São Bento		
PE	ZN	Conservation Unit	RESEC Mata de São João da Várzea		
PE	ZN	Conservation Unit	RESEC Mata de Serra do Cotovelo		
PE	ZN	Conservation Unit	RESEC Mata de Tapacurá		
PE	ZN	Conservation Unit	RESEC Mata do Bom Jardim		
PE	ZN	Conservation Unit	RESEC Mata do Camucim		
PE	ZN	Conservation Unit	RESEC Mata do Curado		
PE	ZN	Conservation Unit	RESEC Mata do Eng. Salgadinho	Ecologic State Reserve - Law 9,989	
PE	ZN	Conservation Unit	RESEC Mata do Engenho Amparo		
PE	ZN	Conservation Unit	RESEC Mata do Engenho Macaxeira		
PE	ZN	Conservation Unit	RESEC Mata do Engenho Moreninho		
PE	ZN	Conservation Unit	RESEC Mata do Engenho Salgadinho		



PE	ZN	Conservation Unit	RESEC Mata do Engenho São João		
PE	ZN	Conservation Unit	RESEC Mata do Engenho Tapacurá		
PE	ZN	Conservation Unit	RESEC Mata do Engenho Uchôa		
PE	ZN	Conservation Unit	RESEC Mata do Janga		
PE	ZN	Conservation Unit	RESEC Mata do Outeiro do Pedro		
PE	ZN	Conservation Unit	RESEC Mata do Sistema Gurjaú		
PE	ZN	Conservation Unit	RESEC Mata do Toró		
PE	ZN	Conservation Unit	RESEC Mata do Urucu		
PE	ZN	Conservation Unit	RESEC Mata do Zumbi		
PE	ZN	Conservation Unit	RPPN (without names)		
PE	ZN	Conservation Unit	RPPN Fazenda Bituti		
PE	ZN	Conservation Unit	RPPN Fazenda Brejo	IBAMA Ruling 090/02	
PE	ZN	Conservation Unit	RPPN Fazenda Laje Bonita	CPRH/SECTMA Joint Ruling 002/06	
PE	ZN	Conservation Unit	RPPN Fazenda Santa Beatriz do Carnijó	IBAMA Ruling 024/01	
PE	ZN	Conservation Unit	RPPN Fazenda Santa Rita		
PE	ZN	Conservation Unit	RPPN Fazenda Tabatinga	CPRH Ruling 039/97	
PE	ZN	Conservation Unit	RPPN Frei Caneca	IBAMA Ruling 091/02	
PE	ZN	Conservation Unit	RPPN Nossa Senhora do Outeiro de Maracaípe	IBAMA Ruling 058/00	
PE	ZN	Conservation Unit	RPPN Riacho Home		
PE	ZN	Core Zone - Phase IV			
AL	ZA	Indian Land	Wassu-Cocal		
AL	ZA	Conservation Unit	RESEC Saco da Pedra	Decree 6,274 of 06.05.1985	1985
AL	ZA	Conservation Unit	APA of the Coral Reefs		1997
AL	ZA	Conservation Unit	RESEC Mangroves of the Roteiro Lagoon	Decree 32,355 of 08.03.1987	1987
AL	ZA	Conservation Unit	Marine RESEX of the Jequiá Lagoon		2001
AL	ZA	Conservation Unit	APA of Piaçabuçu		1983
AL	ZN	Estuary			
AL	ZN	Mangrove			
AL	ZN	Coastal Reefs			
AL	ZN	Forest Reminders			
AL	ZN	Sand banks and Dunes			
AL	ZN	Conservation Unit	RPPN Faz. Vila Flor		
AL	ZN	Conservation Unit	APA of the Una River Estuary		
AL	ZN	Conservation Unit	RPPN Purcel		
AL	ZN	Conservation Unit	RESEC Mangroves of the Roteiro Lagoon		
AL	ZN	Conservation Unit	RPPN Aldeia Verde		
AL	ZN	Conservation Unit	RPPN Oswaldo Timóteo (Faz. Santa Maria)		
AL	ZN	Conservation Unit	REBIO of Pedra Talhada		1989
AL	ZN	Conservation Unit	RPPN Faz. Boa Sorte		
AL	ZN	Conservation Unit	ESEC of Murici		2001
AL	ZN	Conservation Unit	RESEC Cado da Pedra		
AL	ZN	Conservation Unit	RPPN Faz. Canadá		



SE	ZA	Conservation Unit	APA of the Northern Coast of the State of Bahia	Decree 1,046 of 03.17.1992	1992
SE	ZA	Conservation Unit	FLONA Ibura		2005
SE	ZN	? (doubts)			
SE	ZN	Estuary			
SE	ZN	Conservation Unit	PARNA Serra de Itabaiana		2005
SE	ZN	Conservation Unit	REBIO of Santa Isabel		1988
SE	ZN	Conservation Unit	RESEX of the Southern Coast		
SE	ZN	Conservation Unit	RPPN Fazenda Bonfim da Cachoeira		
SE	ZN	Conservation Unit	RPPN Fazenda Castelo		
SE	ZN	Conservation Unit	RVS Mata do Junco (under creation)		
SE	ZN	Core Zone - Phase IV			
BA	ZA	Micropassages	Boa Nova Poções		
BA	ZA	Micropassages	Condurú		
BA	ZA	Micropassages	Marinho		
BA	ZA	Micropassages	Monte Pascoal Descobrimento		
BA	ZA	Micropassages	Papuã - Pratigi		
BA	ZA	Micropassages	Pau - Brasil		
BA	ZA	Micropassages	Restinga		
BA	ZA	Micropassages	Serra das Onças		
BA	ZA	Micropassages	Una - Baixão - Lontras		
BA	ZA	Indian Land	Águas Belas	Certificate No. 02	05/03/04
BA	ZA	Indian Land	Barra Velha	Certificate 060	09/27/96
BA	ZA	Indian Land	Caramuru/Paraguassu		
BA	ZA	Indian Land	Coroa Vermelha	Certificate 054	06/30/99
BA	ZA	Indian Land	Fazenda Bahiana	Registration 1,787 Book 2-RG PG. 192	12/04/87
BA	ZA	Indian Land	Imbiriba	Ruling No. 2580, of September 21, 2004	09/21/04
BA	ZA	Indian Land	Mata Medonha	Certificate 051	08/29/97
BA	ZA	Conservation Unit	APA Águas do Cariri		
BA	ZA	Conservation Unit	APA Bacia do Cobre / São Bartolomeu	Decree 7,970 of 06.05.2001	2001
BA	ZA	Conservation Unit	APA Baía de Camamu	Decree 8,175 of 02.27.2002	2002
BA	ZA	Conservation Unit	APA Baía de Todos os Santos	Decree 7,595 of 06.05.1999	1999
BA	ZA	Conservation Unit	APA Caminhos Ecológicos da Boa Esperança	Decree 8,552 of 06.05.2003	2003
BA	ZA	Conservation Unit	APA Caraíva/Trancoso	Decree 2,215 of 06.14.1993	1993
BA	ZA	Conservation Unit	APA Coroa Vermelha	Decree 2.184 of 06.07.1993	1993
BA	ZA	Conservation Unit	APA Costa de Itacaré / Serra Grande	Decree 2,186 of 06.07.1993, amended by Decree 8,649 of 09.22.2003	1993
BA	ZA	Conservation Unit	APA of Serra do Ouro	State Decree No. 10,194 of 12.27.06	
BA	ZA	Conservation Unit	APA of Tinharé and Boipeba Islands	Decree 1,240 of	1992



				06.05.1992	
BA	ZA	Conservation Unit	APA Guaibim	Decree 1,164 of 05.11.1992	1992
BA	ZA	Conservation Unit	APA Joanes / Ipitanga	Decree 7,596 of 06.05.1999	1999
BA	ZA	Conservation Unit	APA Lago de Pedra do Cavalo	Decree 6,548 of 07.18.1997	1997
BA	ZA	Conservation Unit	APA Lagoa Encantada and Rio Almada	Decree 2,217 of 06.14.1993, amended by Decree 8,650 of 09.22.2003	1993
BA	ZA	Conservation Unit	APA Guarajuba Lagoons	CEPRAM Resolution No. 387 of 02.27.1991	1991
BA	ZA	Conservation Unit	APA Abaeté Lakes and Dunes	Decree 351 of 09.22.1987, amended by Decree 2,540 of 10.18.1993	1993
BA	ZA	Conservation Unit	APA of the Northern Coast of the State of Bahia	Decree 1,046 of 03.17.1992	1992
BA	ZA	Conservation Unit	APA Mangue Seco	Decree 605 of 11.06.1991	1991
BA	ZA	Conservation Unit	APA Marimbu/Iraquara	Decree 2,216 of 06.14.1993	1993
BA	ZA	Conservation Unit	APA Continental Platform of the Northern Coast	Decree 8,553 of 06.05.2003	2003
BA	ZA	Conservation Unit	APA Ponta da Baleia / Abrolhos	Decree 2,218 of 06.14.1993	1993
BA	ZA	Conservation Unit	APA Pratigi	Decree 7,272 of 04.02.1998, amended by Decree 8,036 of 09.20.2001	1998
BA	ZA	Conservation Unit	APA Capivara River	Decree 2,219 of 05.14.1993	1993
BA	ZA	Conservation Unit	APA Santo Antônio	Decree 3,413 of 08.31.1994	1994
BA	ZA	Conservation Unit	APA São Joaquim da Cabonha APA I, APA II		
BA	ZA	Conservation Unit	RESEX Iguape Bay		
BA	ZA	Conservation Unit	RESEX Cassurubá		
BA	ZA	Conservation Unit	RESEX Canavieiras		2006
BA	ZA	Conservation Unit	RESEX Cassurubá Island		
BA	ZA	Conservation Unit	Marine RESEX of the Iguapé Bay		2000
BA	ZA	Conservation Unit	Marine RESEX of Corumbau		2000
BA	ZA	Conservation Unit	RESEX Ponta do Corumbau		
BA	ZN	? (doubts)			
BA	ZN	APP			
BA	ZN	Lake			
BA	ZN	Mangrove			
BA	ZN	Coastal Reefs			
BA	ZN	Forest Reminders			
BA	ZN	Sand banks and Dunes			



BA	ZN	Conservation Unit	ESEC Wenceslau Guimarães	Decree 6,228 of 02.21.1997, amended by Decree 7,791 of 04.13.2000	1997
BA	ZN	Conservation Unit	MONA of the Ferro Doido Waterfall	Decree 7,412 of 08.17.1998	1998
BA	ZN	Conservation Unit	MONA of the Subaé Canyons	State Decree No. 10,018 of 06.05.06	
BA	ZN	Conservation Unit	MONA Pancada Grande		
BA	ZN	Conservation Unit	MONA Serras Itamaraju		
BA	ZN	Conservation Unit	PARNA Alto Cariri		
BA	ZN	Conservation Unit	PARNA of Chapada Diamantina		1985
BA	ZN	Conservation Unit	PARNA of Descobrimento		1999
BA	ZN	Conservation Unit	PARNA of Monte Pascoal		
BA	ZN	Conservation Unit	PARNA of Pau Brasil		1999
BA	ZN	Conservation Unit	Historic PARNA of Monte Pascoal		1961
BA	ZN	Conservation Unit	Marine PARNA of Abrolhos		1983
BA	ZN	Conservation Unit	PARNA Pau Brasil Taípe (w/ PARNA)		
BA	ZN	Conservation Unit	PARNA Pratigi		
BA	ZN	Conservation Unit	PARNA Santo Antônio		
BA	ZN	Conservation Unit	PARNA Serra das Lontras		
BA	ZN	Conservation Unit	State Park Alto Cariri		
BA	ZN	Conservation Unit	State Park of Serra do Conduru	Decree 6,227 of 02.21.1997, amended by Decree 8,702 of 11.04.2003	1997
BA	ZN	Conservation Unit	State Park of Sete Passagens	Decree 7,808 of 05.25.2000	2000
BA	ZN	Conservation Unit	State Park of Itaúnas	Decree 4,967-E of 11.08.1991	1991
BA	ZN	Conservation Unit	State Park Muriquis (Alto Cariri)		
BA	ZN	Conservation Unit	State Park Verde Grande	Decree 39,953 of 10.08.1998	1998
BA	ZN	Conservation Unit	PM of Boa Esperança		
BA	ZN	Conservation Unit	Marine PM Recife de Fora		
BA	ZN	Conservation Unit	REBIO of Una		1980
BA	ZN	Conservation Unit	REBIO of Córrego Grande		1989
BA	ZN	Conservation Unit	REBIO Mucuri		
BA	ZN	Conservation Unit	REBIO Poções		
BA	ZN	Conservation Unit	REBIO Frades River		
BA	ZN	Conservation Unit	REBIO Serra das Lontras		
BA	ZN	Conservation Unit	REBIO Wenceslau Ubaira		
BA	ZN	Conservation Unit	Fugidos RESERVE		
BA	ZN	Conservation Unit	NATURAL RESERVE of Serra do Teimoso		
BA	ZN	Conservation Unit	Panema RESERVE		
BA	ZN	Conservation Unit	RPPN (without names)		
BA	ZN	Conservation Unit	RPPN Agda		
BA	ZN	Conservation Unit	RPPN Araçari		
BA	ZN	Conservation Unit	RPPN Córrego dos Bois		



BA	ZN	Conservation Unit	RPPN of Mata Atlântica da Mamona		
BA	ZN	Conservation Unit	RPPN Santo Antônio Dunes		
BA	ZN	Conservation Unit	RPPN Una Ecopark		
BA	ZN	Conservation Unit	RPPN Vera Cruz Station		
BA	ZN	Conservation Unit	RPPN Manacá Resort		
BA	ZN	Conservation Unit	RPPN Fazenda Água Branca		
BA	ZN	Conservation Unit	RPPN Fazenda Arapauna		
BA	ZN	Conservation Unit	RPPN Fazenda Arte Verde		
BA	ZN	Conservation Unit	RPPN Fazenda Avaí		
BA	ZN	Conservation Unit	RPPN Fazenda Bom Sossego		
BA	ZN	Conservation Unit	RPPN Fazenda Coqueiros		
BA	ZN	Conservation Unit	RPPN Fazenda Itacira		
BA	ZN	Conservation Unit	RPPN Fazenda Kaybi		
BA	ZN	Conservation Unit	RPPN Fazenda Lontra/Saudade		
BA	ZN	Conservation Unit	RPPN Fazenda Paraíso		
BA	ZN	Conservation Unit	RPPN Fazenda São João		
BA	ZN	Conservation Unit	RPPN Juerama		
BA	ZN	Conservation Unit	RPPN Lagoa do Peixe		
BA	ZN	Conservation Unit	RPPN Mãe da Mata		
BA	ZN	Conservation Unit	RPPN Mata da Califórnia		
BA	ZN	Conservation Unit	RPPN Portal Curupira		
BA	ZN	Conservation Unit	RPPN Peninha Reserve		
BA	ZN	Conservation Unit	RPPN Salto Apepique Reserve		
BA	ZN	Conservation Unit	RPPN Taquara		
BA	ZN	Conservation Unit	RVS Belmonte		
BA	ZN	Conservation Unit	RVS Boa Nova		
BA	ZN	Conservation Unit	RVS Pocos		
BA	ZN	Conservation Unit	RVS Ponta Grande		
BA	ZN	Conservation Unit	RVS Frades River		
BA	ZN	Conservation Unit	RVS Serra do Baixão		
BA	ZN	Conservation Unit	RVS Taípe		
BA	ZN	Conservation Unit	RVS Tinharé Boipeba		
BA	ZN	Conservation Unit	RVS Una		
BA	ZN	Conservation Unit	RVS Vitória da Conquista		
MG	ZA	Mosaic	Mantiqueira Mosaic		
MG	ZA	Indian Land	Fazenda Guarani		02/12/98
MG	ZA	Indian Land	Krenak		12/18/01
MG	ZA	Indian Land	Luiza do Valle		01/22/79
MG	ZA	Indian Land	Maxacali		12/27/96
MG	ZA	Indian Land	Xacriabá		05/21/96
MG	ZA	Indian Land	Xakriabá Rancharia		05/19/04
MG	ZA	Conservation Unit	APA Águas Vertentes	Decree 39,399 of 01.21.1998	1998
MG	ZA	Conservation Unit	APA Cachoeira das Andorinhas	Decree 20,264 of 10.16.1989	1989
MG	ZA	Conservation Unit	APA Cavernas do Peruaçu		1989
MG	ZA	Conservation Unit	APA of Serra da Mantiqueira		1985
MG	ZA	Conservation Unit	APA Fernão Dias	Decree 38,925 of 07.17.1997	1997
MG	ZA	Conservation Unit	APA Lajedão	Decree 39,951 of 10.08.1998	1998



MG	ZA	Conservation Unit	APA Seminário Menor de Mariana	Decree 23,564 of 05.11.1984	1984
MG	ZA	Conservation Unit	APA Serra São José	Decree 30,934 of 02.16.1990	1990
MG	ZA	Conservation Unit	Fazenda Pedra da Onça (Mantiqueira Conservation Unit proposed)		
MG	ZA	Conservation Unit	FLONA of Ritópolis		1990
MG	ZA	Conservation Unit	FLONA Passa Quatro		1989
MG	ZA	Conservation Unit	Mata da Imbel - Reserve (Mantiqueira Conservation Unit proposed)		
MG	ZA	Conservation Unit	Mata da Imbel (Mantiqueira Conservation Unit proposed)		
MG	ZA	Conservation Unit	PARNA Mantiqueira (Mantiqueira Conservation Unit proposed)		
MG	ZA	Conservation Unit	Serra de São Domingos (Mantiqueira Conservation Unit proposed)		
MG	ZA	Conservation Unit	Serra dos Poncianos (Mantiqueira Conservation Unit proposed)		
MG	ZN	? (doubts)			
MG	ZN	Conservation Unit	ESEC Água Limpa	Decree 36,072 of 09.27.94 and Law 11,731 of 12.30.94	1994
MG	ZN	Conservation Unit	ESEC Cercadinho	Law No. 15,979 of 01/13/06	
MG	ZN	Conservation Unit	ESEC Córrego dos Fechos	Decree 36,073 of 09.27.1994	1994
MG	ZN	Conservation Unit	ESEC Fechos	Decree 36,073 of 09.27.1994	
MG	ZN	Conservation Unit	ESEC Ipanema		
MG	ZN	Conservation Unit	ESEC Mar de Espanha	Decree 16,580 of 09.23.74 amended by Decree 36,069 of 09.27.94 and Law 11,731 of 12.30.94	1974
MG	ZN	Conservation Unit	MUNICIPAL ESEC Ipanema	Law No. 1,194 of 12/07/2001	
MG	ZN	Conservation Unit	ESEC Tripuí	Decree 9,157 of 04.24.78 and Decree 21,340 of 06.04.81	1978
MG	ZN	Conservation Unit	PARNA Alto Cariri		
MG	ZN	Conservation Unit	PARNA Peruaçu Caves	Decree without number of 09/21/99	1999
MG	ZN	Conservation Unit	PARNA of Serra da Canastra		1972
MG	ZN	Conservation Unit	PARNA of Caparaó	Decree No. 50,646 of 05/24/61	1961
MG	ZN	Conservation Unit	PARNA Itatiaia	Decree No. 1,713 of 06/14/37 and Decree No. 87,586 of	1937



				09/20/82	
MG	ZN	Conservation Unit	State Park Alto Cariri		
MG	ZN	Conservation Unit	State Park Baleia	Law 8,022 of 07/23/81 and Decree No. 26,162 of 07/06/88	
MG	ZN	Conservation Unit	State Park Campos do Jordão	Decree 11,908 of 03.27.1941	1941
MG	ZN	Conservation Unit	State Park of Rio Doce	Decree Law 1,119 of 07.14.1944, amended by Decree No. 5,831 of 07.06.1960	1944
MG	ZN	Conservation Unit	State Park Ibitipoca	Law 6,126 of 07.04.1973	1973
MG	ZN	Conservation Unit	State Park Itacolomi	Law 4,495 of 06.14.1967	1967
MG	ZN	Conservation Unit	State Park Lagoa do Cajueiro	Decree 39,954 of 10.08.1998	1998
MG	ZN	Conservation Unit	State Park Mata Seca	Decree 41,479 of 12.20.2000	2000
MG	ZN	Conservation Unit	State Park Montezuma	Decree without number of 09/28/2007	
MG	ZN	Conservation Unit	State Park Nova Baden	Decree 16,580 of 09.23.74 amended by Decree 36,069 of 09.27.94 and Law 11,731 of 12.30.94	1974
MG	ZN	Conservation Unit	State Park Pico do Itambé	Decree 39,398 of 01.21.1998	1998
MG	ZN	Conservation Unit	State Park Rio Corrente	Decree 40,168 of 12.17.1998	1998
MG	ZN	Conservation Unit	State Park Rio Doce	Decree Law 1,119 of 07.04.44 and Decree Law 5,831 of 07.06.60	
MG	ZN	Conservation Unit	State Park Rio Pardo		0
MG	ZN	Conservation Unit	State Park Rola Moça		
MG	ZN	Conservation Unit	State Park Serra da Boa Esperança	Decree No. 44,520 of 05/16/2007	
MG	ZN	Conservation Unit	State Park Serra da Candonga	Decree 40,170 of 12/17/1998	
MG	ZN	Conservation Unit	State Park Serra do Brigadeiro	Law 9,655 of 07.20.88 and Decree 38,319 of 09.27.96	1996
MG	ZN	Conservation Unit	State Park Serra do Papagaio	Decree 39,793 of 08.05.98	1998
MG	ZN	Conservation Unit	State Park Serra do Rola-Moça	Decree 36,071 of	



				09.27.94	
MG	ZN	Conservation Unit	State Park Serra Negra	Decree 39,907 of 09.22.1998	1998
MG	ZN	Conservation Unit	State Park Serra Nova	Decree without number of 10/21/03	
MG	ZN	Conservation Unit	State Park Sete Salões	Decree 39,908 of 09.22.1998	1998
MG	ZN	Conservation Unit	State Park Verde Grande	Decree 39,953 of 10.08.1998	1998
MG	ZN	Conservation Unit	State Park /RVS Cariri		
MG	ZN	Conservation Unit	PM Aggeo Pio Sobrinho	Law No. 5,755, 07/24/90	
MG	ZN	Conservation Unit	PM Brejo Grande	Law No. 907, 08/06/80	
MG	ZN	Conservation Unit	PM Caratinga	Law No. 002,434 of 12/23/97	
MG	ZN	Conservation Unit	Ecologic PM M Sagui da Serra	Decree No. 1,545 of 06/05/99	
MG	ZN	Conservation Unit	PM Elci Rolla Guerra	Law No. 219 of 10/05/98	
MG	ZN	Conservation Unit	Forest PM Chácara do Lessa	Law No. 856 of 06/14/99	
MG	ZN	Conservation Unit	PM Mangabeiras	Decree No. 1,466 of 10/14/66	
MG	ZN	Conservation Unit	PM Mata das Borboletas	Decree No. 7,278 of 07/14/92	
MG	ZN	Conservation Unit	PM Pouso Alegre	Law No. 3,411 of 03/13/98	
MG	ZN	Conservation Unit	PM Roberto Burle Marx	Law No. 6,804 of 12/24/94 and Decree No. 2,939 of 09/27/7	
MG	ZN	Conservation Unit	PM São Francisco de Assis		
MG	ZN	Conservation Unit	REBIO of Mata Escura		2003
MG	ZN	Conservation Unit	REBIO Lapinha	Decree 16,580 of 09.23.1974	1974
MG	ZN	Conservation Unit	REBIO Mata Escura	Decree without number of 06/05/03	
MG	ZN	Conservation Unit	MUNICIPAL REBIO Engenho Velho	Law No. 1,062 of 11/14/94 and Law No. 1,942 of 08/16/97	
MG	ZN	Conservation Unit	MUNICIPAL REBIO Poços d'Antas	Decree No. 2,794 of 09/21/82	
MG	ZN	Conservation Unit	MUNICIPAL REBIO Pouso Alegre	Law No. 3,412 of 03/13/98	
MG	ZN	Conservation Unit	MUNICIPAL REBIO Serra dos Toledos	Law No. 1.211, 05/06/79 e Law No. 2.088/96	
MG	ZN	Conservation Unit	MUNICIPAL REBIO Serra Pedra do Coração	Decree No. 327 of 12/06/88	
MG	ZN	Conservation Unit	REBIO Serra Azul	Decree 39,950 of 10/08/98	
MG	ZN	Conservation Unit	RPPN Alto Gamarra		



MG	ZN	Conservation Unit	RPPN Antônio Lopes Merson	IEF Ruling No. 119 of 10/28/03 Approved 12/02/03	
MG	ZN	Conservation Unit	RPPN Belgo Mineira	IBAMA Ruling No. 17/93-N of 02/19/93	
MG	ZN	Conservation Unit	RPPN Brejo Novo	IBAMA Ruling No. 137/02-N of 10/14/02	
MG	ZN	Conservation Unit	RPPN Commodate Peti Reserve	IBAMA Ruling No. 99/01 of 09/13/01	
MG	ZN	Conservation Unit	RPPN Faz. Pedra Bonita	IBAMA Ruling No. 044/92 of 04/27/92	
MG	ZN	Conservation Unit	RPPN Fazenda Boa Esperança	IEF Ruling No. 59 of 05/03/02, Approved 06/27/02	
MG	ZN	Conservation Unit	RPPN Fazenda Boa Vista	IEF Ruling No. 150 of 12/26/01 Approved 01/11/02	
MG	ZN	Conservation Unit	RPPN Fazenda Bulcão	IEF Ruling No. 081 of 10/07/98	
MG	ZN	Conservation Unit	RPPN Fazenda da Gruta	IEF Ruling No. 60 of 05/03/02 Approved 08/08/02	
MG	ZN	Conservation Unit	RPPN Fazenda da Serra	IBAMA Ruling No. 67/00 of 10/17/00	
MG	ZN	Conservation Unit	RPPN Fazenda dos Cordeiros	IEF Ruling 0083 of 10/09/98	
MG	ZN	Conservation Unit	RPPN Fazenda Floresta	Ruling No. 082 of 10/15/98	
MG	ZN	Conservation Unit	RPPN Fazenda João Pereira / Poço Fundo	IBAMA Ruling No. 36/95-N of 06/02/95	
MG	ZN	Conservation Unit	RPPN Fazenda Pedra Bonita		
MG	ZN	Conservation Unit	RPPN Fazenda São Lourenço	IEF Ruling No. 61 of 05/03/02 Approved 19/06/02	
MG	ZN	Conservation Unit	RPPN Fazenda São Lourenço / Matinha	IEF Ruling No. 154 of 12/16/02 Approved 07/15/03	
MG	ZN	Conservation Unit	RPPN Feliciano Miguel Abdalla	IBAMA Ruling No. 116/01-N of 09/03/01	
MG	ZN	Conservation Unit	RPPN Guilman Amorim		
MG	ZN	Conservation Unit	RPPN Itajuru or Sobrado	IBAMA Ruling No. 109/02-N of 04/08/02	
MG	ZN	Conservation Unit	RPPN Lavrinha		



MG	ZN	Conservation Unit	RPPN Mata da Califórnia	IBAMA Ruling No. 127/97-N of 12/29/97	
MG	ZN	Conservation Unit	RPPN Mata do Jambreiro	Ruling No. 070 of 09/11/98, Approved 12/20/99	
MG	ZN	Conservation Unit	RPPN Mata do Sossego	IBAMA Ruling 020/98-N of 02/16/98	
MG	ZN	Conservation Unit	RPPN Mata Samuel de Paula	IEF Ruling No. 76 of 10/06/00 Approved 12/07/00	
MG	ZN	Conservation Unit	RPPN Minas Tênis Clube	IEF Ruling No. 17 of 04/12/2000 Approved 10/30/00 Amended by Ruling No. 167 of 12/30/03	
MG	ZN	Conservation Unit	RPPN Mitra do Bispo		
MG	ZN	Conservation Unit	RPPN Morro Grande 1,2,3,4	Ruling No. 130 of 10/28/2003 and approved 02/12/2004	
MG	ZN	Conservation Unit	RPPN Panelão dos Muriquis	IBAMA Ruling No. 134/2001 of 10/05/2001	
MG	ZN	Conservation Unit	RPPN PAQE		
MG	ZN	Conservation Unit	RPPN Sarandi Reserve	IBAMA Ruling No. 90/00 of 11/14/2000	
MG	ZN	Conservation Unit	RPPN Resgate I	IEF Ruling No. 21/99 of 04/16/99	
MG	ZN	Conservation Unit	RPPN Santuário da Serra do Caraça	IBAMA Ruling 32/94-N of 03/30/94	
MG	ZN	Conservation Unit	RPPN Sitio Estrela da Serra	IBAMA Ruling No. 114/97-N of 10/01/97	
MG	ZN	Conservation Unit	RPPN Sítio Grimpas	Ruling IBAMA No. 108/95-N of 12/27/95	
MG	ZN	Conservation Unit	RPPN Usina Maurício	IBAMA Ruling No. 63/99-N of 07/19/99	
MG	ZN	Conservation Unit	RPPN Vila Ana Angélica		
MG	ZN	Conservation Unit	RVS Libélulas da Serra São José	Decree No. 43,908 of 11/05/2004	
MG	ZN	Conservation Unit	RVS Pandeiros River	Decree No. 43,910 of 11/05/04	
MG	ZN	Core Zone - Phase V			
GO	ZA	Conservation Unit	APAs to be created		
GO	ZN	Forest Reminders			



GO	ZN	Conservation Unit	State Park ?		
ES	ZA	Micropassages			
ES	ZA	Indian Land	Caieiras Velha		04/01/03
ES	ZA	Indian Land	Caieiras Velha II		06/25/04
ES	ZA	Indian Land	Comboios		04/01/03
ES	ZA	Indian Land	Pau Brasil		04/01/03
ES	ZA	Conservation Unit	APA of Conceição da Barra	Decree 7,305 of 11.13.1998	1998
ES	ZA	Conservation Unit	APA of Goiapaba-Açu	Decree No. 3,796-N of 12.27.1994	1994
ES	ZA	Conservation Unit	APA of Guanandy	Decree No. 3,738-N of 08.12.1994	1994
ES	ZA	Conservation Unit	APA of Mestre Álvaro	Law No. 4,507 of 11.08.1991	1991
ES	ZA	Conservation Unit	APA of Praia Mole	Decree No. 3,802-N of 12.29.1994	1994
ES	ZA	Conservation Unit	APA of Três Ilhas	Decree No 3,747-N of 09.12.1994	1994
ES	ZA	Conservation Unit	FLONA of Goytacazes		2002
ES	ZA	Conservation Unit	FLONA of Pacotuba		2002
ES	ZA	Conservation Unit	FLONA of Rio Preto		1990
ES	ZN	?	Monte Aghá	RESOLUTION No. 6 of 12/08/1985 - CEC	
ES	ZN	?	Morro do Cruzeiro	RESOLUTION No. 2 of 07/02/1992	
ES	ZN	?	O Frade e a Freira	RESOLUTION No. 7 of 06/12/1986 - CEC	
ES	ZN	?	Pedra do Elefante	RESOLUTION No. 4 of 08/30/1984 - CEC	
ES	ZN	APP	APP and/or Protected Esp.	Municipal Law 4438/97	
ES	ZN	APP	APP Baleia Island	CMPDU Resolution No. 15/87	
ES	ZN	APP	APP Fumaça Island	Municipal Law No. 4167/94	
ES	ZN	APP	APP Campinho Island	Municipal Law No. 4167/94	
ES	ZN	APP	APP Crisógono Island	CMPDU Resolution No. 15/87	
ES	ZN	APP	APP Dr. Américo de Oliveira Island	CMPDU Resolution No. 12/87	
ES	ZN	APP	APP Mangroves of Bubu River Mouth	Municipal Law 4438/97	
ES	ZN	APP	APP UFES Mangroves	Municipal Law 4438/97	
ES	ZN	APP			



ES	ZN	Listed Area/Property	NATURAL Property belonging to the Island Chain: Gamba, do Meio, and dos Cabritos Islands	RESOLUTION No. 3 of 01/23/1986 and RESOLUTION No. 6 of 12/05/1989 - CEC	
ES	ZN	Listed Area/Property			
ES	ZN	Islands			
ES	ZN	Forest Remainers			
ES	ZN	Conservation Unit	APA of Mestre Álvaro		
ES	ZN	Conservation Unit	REBIO of Santa Lúcia		
ES	ZN	Conservation Unit	ESEC of Barra Nova	Law No. 1 of 04/05/1990	
ES	ZN	Conservation Unit	ESEC of Barra Nova		
ES	ZN	Conservation Unit	MUNICIPAL ESEC Lameirão Island	Municipal Law No. 3377/86	
ES	ZN	Conservation Unit	Municipal ESEC Papagaio	Law No. 17 of 07/26/1992	
ES	ZN	Conservation Unit	REBIO of Santa Lúcia		
ES	ZN	Conservation Unit	FLONA of Goytacazes		
ES	ZN	Conservation Unit	FLONA of Rio Preto		
ES	ZN	Conservation Unit	PARNA of Caparaó	Decree No. 50,646 of 05/24/1961	1961
ES	ZN	Conservation Unit	PARNA of Pontões Capixabas	Decree of 12/19/2002	2002
ES	ZN	Conservation Unit	MUNICIPAL ECOLOGIC PARK of Jabaeté		
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of the North-Western Bay	Municipal Decree No. 10179/98	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of Jacarenema	Law No. 5427 of 07/28/97	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of São Lourenço		
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of São Lourenço	Decree No. 297 of 2005	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK Gruta da Onça	Municipal Law No. 3564/88	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK Pedra dos Olhos	Municipal Decree No. 11824/03	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK Vale do Mulembá-Conquist	Municipal Decree No. 11505/02	
ES	ZN	Conservation Unit	MUNICIPAL NATURAL PARK Von Schilgen	Municipal Decree No. 12137/04	
ES	ZN	Conservation Unit	MUNICIPAL URBAN PARK Horto de Maruípe	Municipal Decree No. 9758/95	
ES	ZN	Conservation Unit	MUNICIPAL URBAN PARK Pedra da Cebola	State Decree No. 4179/97	
ES	ZN	Conservation Unit	MUNICIPAL URBAN PARK São Benedito	Municipal Decree No. 10025/97	
ES	ZN	Conservation Unit	State Park of Cachoeira da Fumaça	Decree 2.791-E of 08.24.1984	1984
ES	ZN	Conservation Unit	State Park of Fonte Grande	Law 3,875 of 08.07.1986	1986



ES	ZN	Conservation Unit	State Park of Pedra Azul	Law 4,503 of 01.03.1991	1991
ES	ZN	Conservation Unit	State Park of Forno Grande	Law 312 of 10.31.1960 (Law No. 4,507 of 01/31/1991)	1960
ES	ZN	Conservation Unit	State Park of Itaúnas	Decree 4,967-E of 11.08.1991	1991
ES	ZN	Conservation Unit	State Park of Mata das Flores	Law 4,617 of 01.02.1992	1992
ES	ZN	Conservation Unit	State Park of Pedra Azul	Law No. 4,503 of 01/03/1991	
ES	ZN	Conservation Unit	State Park Fonte Grande	Law Est. No. 3875/86	
ES	ZN	Conservation Unit	State Park Ilha das Flores		
ES	ZN	Conservation Unit	State Park Paulo César Vinha	Decree 2,993-N of 06.05.1990	1990
ES	ZN	Conservation Unit	PEC Morro do Penedo	Decree No. 58 of 06/16/1994	
ES	ZN	Conservation Unit	MUNICIPAL PEC of Jabaeté	Decree No. 59 of 1995	
ES	ZN	Conservation Unit	PM of Itabira	Decree No. 6,117 of 08/04/1988	
ES	ZN	Conservation Unit	PM of Morro da Manteigueira	Law No. 2836 of 06/08/93	
ES	ZN	Conservation Unit	PM Morro da Pescaria	MUNICIPAL Law No. 1,673 of 07/29/1997	
ES	ZN	Conservation Unit	REBIO Augusto Ruschi	Decree No. 87,589 of 09/20/1982	
ES	ZN	Conservation Unit	REBIO Córrego do Veado	Decree No. 87,590 of 09/20/1982	
ES	ZN	Conservation Unit	REBIO of Comboios	Decree No. 90,222 of 09/25/1984	1984
ES	ZN	Conservation Unit	REBIO of Córrego Grande	Decree No. 97,657 of 04/12/1989	
ES	ZN	Conservation Unit	REBIO of Duas Bocas	Law 4,503 of 01.03.1991; Decree No. 5336-E	1991
ES	ZN	Conservation Unit	REBIO of Sooretama	Decree No. 87,588 of 09/20/1982	1982
ES	ZN	Conservation Unit	REBIO of Córrego do Veado		1982
ES	ZN	Conservation Unit	REBIO of Córrego Grande		1989
ES	ZN	Conservation Unit	RESEC of Jacarenema	Law 5,427 of 07.28.1997	1997
ES	ZN	Conservation Unit	MUNICIPAL RESEC Mata Paludosa	Municipal Decree No. 10028/97	
ES	ZN	Conservation Unit	MUNICIPAL RESEC Morro da Gamela	Municipal Decree No. 8905/92	
ES	ZN	Conservation Unit	MUNICIPAL RESEC Morro do Itapenambi	Municipal Decree No. 8906/92	



ES	ZN	Conservation Unit	MUNICIPAL RESEC Restinga de Camburi	Municipal Law No. 3566/89	
ES	ZN	Conservation Unit	NATURAL RESERVE of Linhares		
ES	ZN	Conservation Unit	RPPN of Linhares		
ES	ZN	Conservation Unit	RPPN Fazenda Cafundó	IBAMA Ruling No. 62-N of 05/10/1998	
ES	ZN	Conservation Unit	RPPN Fazenda Santa Cristina		
ES	ZN	Conservation Unit	RPPN Mutum Preto		
ES	ZN	Conservation Unit	RPPN Oiutrem		
ES	ZN	Conservation Unit	RPPN Recanto das Antas		
ES	ZN	Conservation Unit	RPPN Restinga de Aracruz		
ES	ZN	Conservation Unit	RPPN Sayonara	Federal Decree No. 1922 of 06/05/96	
ES	ZN	Conservation Unit	RPPN Três Pontões	Decree No. 4.756 DE 20/06/2003	
ES	ZN	Core Zone - Phase V			
RJ	ZA	Mosaic	Bocaina Mosaic		
RJ	ZA	Mosaic	Fluminense Mosaic		
RJ	ZA	Mosaic	Mantiqueira Mosaic		
RJ	ZA	Indian Land	Guarani Araponga		04/16/96
RJ	ZA	Indian Land	Guarani de Bracui		09/01/97
RJ	ZA	Indian Land	Parati-Mirim		04/16/96
RJ	ZA	Conservation Unit	APA of the Guandu River Basin		
RJ	ZA	Conservation Unit	APA of the Macacu River Basin	Law No. 4,018 of 12.05.2002	
RJ	ZA	Conservation Unit	APA of the São João River Basin/Golden Lion Tamarin		2002
RJ	ZA	Conservation Unit	APA of the Petrópolis Mountain Region		1982
RJ	ZA	Conservation Unit	APA of Serra da Mantiqueira		1985
RJ	ZA	Conservation Unit	APA of Serra da Sapatiba	Decree 15,136 of 07.20.1990	
RJ	ZA	Conservation Unit	APA of Serras do Gericinó-Mendanha	Law 1,331 of 07.12.1988	
RJ	ZA	Conservation Unit	APA of Cairuçu		1983
RJ	ZA	Conservation Unit	APA of Guapi-Mirim		1984
RJ	ZA	Conservation Unit	APA of Macaé de Cima		
RJ	ZA	Conservation Unit	APA of Mangaratiba	Decree 9,802 of 03.12.1987	
RJ	ZA	Conservation Unit	APA of Maricá	Decree 7,230 of 04.23.1984	
RJ	ZA	Conservation Unit	APA of Massambaba	Decree 9,529-C of 12.15.1986	
RJ	ZA	Conservation Unit	APA of Tamoios	Decree 9,452 of 12.05.1986	
RJ	ZA	Conservation Unit	APA of Pau Brasil	Decree 31,346 of 06.06.2002	
RJ	ZA	Conservation Unit	APA of Frades	Decree 1,755 of 11.21.1990	
RJ	ZA	Conservation Unit	APA AND PERMANENT CONSERVATION of Flor. do Jacarandá		
RJ	ZA	Conservation Unit	ARIE of the Cagarras Islands Archipelago		1989



RJ	ZA	Conservation Unit	FLONA Mário Xavier		1986
RJ	ZA	Conservation Unit	PARNA Mantiqueira (Mantiqueira Conservation Unit proposed)		
RJ	ZA	Conservation Unit	Marine RESEX of Arraial do Cabo		1997
RJ	ZN	Forest Reminders			
RJ	ZN	Conservation Unit	ESEC of Guanabara		2006
RJ	ZN	Conservation Unit	ESEC of Guaxindiba		
RJ	ZN	Conservation Unit	ESEC of Tamoios		1990
RJ	ZN	Conservation Unit	ESEC of Paraíso	Decree 9,803 of 03.12.1987	
RJ	ZN	Conservation Unit	ESEC Monte das Flores		
RJ	ZN	Conservation Unit	MONA Pedra das Flores		
RJ	ZN	Conservation Unit	PARNA of Restinga de Jurubatiba		1998
RJ	ZN	Conservation Unit	PARNA of Serra da Bocaina		1971
RJ	ZN	Conservation Unit	PARNA of Serra dos Órgãos		1939
RJ	ZN	Conservation Unit	PARNA of Tijuca		1961
RJ	ZN	Conservation Unit	PARNA Itatiaia		1937
RJ	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of Araponga		
RJ	ZN	Conservation Unit	MUNICIPAL NATURAL PARK of Taquara		
RJ	ZN	Conservation Unit	State Park of Chacrinha	State Decree 2,853 of 05.22.1969	
RJ	ZN	Conservation Unit	State Park of Ilha Grande	Decree 15,273 of 07.28.1971	
RJ	ZN	Conservation Unit	State Park of Pedra Branca	Law 2,377 of 06.28.1974	1974
RJ	ZN	Conservation Unit	State Park of Serra da Concórdia		
RJ	ZN	Conservation Unit	State Park of Serra da Tiririca	Law No. 1,901 of 11.29.1991	
RJ	ZN	Conservation Unit	State Park of Lazer de Parati-Mirim		1972
RJ	ZN	Conservation Unit	State Park of Desengano	Decree Law 250 of 04.13.1970	1969
RJ	ZN	Conservation Unit	State Park of Grajaú	Decree 1,921 of 06.22.1978, amended by Decree 32,017 of 10.15.2002	
RJ	ZN	Conservation Unit	State Park of Três Picos	Decree 31,343 of 06.05.2002	
RJ	ZN	Conservation Unit	Marine SP of Aventureiro	Decree 15,983 of 11.27.1990	
RJ	ZN	Conservation Unit	State Park Serra do Mar - N. Picinguaba	Decree 10,251 of 08.30.1977	1977
RJ	ZN	Conservation Unit	State Park of Cachoeira da Fumaça		
RJ	ZN	Conservation Unit	State Park of Serrinha do Alambari		
RJ	ZN	Conservation Unit	REBIO of Praia do Sul	Decree 4,972 of 12.02.1981	1981
RJ	ZN	Conservation Unit	REBIO of Araras	Decree 12,814 of 03.31.1989	1989
RJ	ZN	Conservation Unit	REBIO of Tinguá		1989



RJ	ZN	Conservation Unit	Archaeological and REBIO of Guaratiba	Decree 7,549 of 11.20.1974	1974
RJ	ZN	Conservation Unit	National REBIO of Poço das Antas		1974
RJ	ZN	Conservation Unit	REBIO União		1998
RJ	ZN	Conservation Unit	RESEC of Juatinga		
RJ	ZN	Conservation Unit	RESEC of Jacarepia		
RJ	ZN	Conservation Unit	RESEC of Massambaba		
RJ	ZN	Conservation Unit	RPPN Graziela Maciel Barroso		
RJ	ZN	Conservation Unit	RPPN Querencia		
RJ	ZN	Intangible Zone of APA			
RJ	ZN	Core Zone - Phase V			
SP	ZA	Mosaic	Bocaina Mosaic		
SP	ZA	Mosaic	Mantiqueira Mosaic		
SP	ZA	Indian Land	Araribá		11/19/04
SP	ZA	Indian Land	Boa Vista Sertão do Promirim		09/09/98
SP	ZA	Indian Land	Guarani Araponga		04/16/96
SP	ZA	Indian Land	Guarani da Barragem		09/09/98
SP	ZA	Indian Land	Guarani do Aguapeu		11/19/04
SP	ZA	Indian Land	Guarani do Ribeirão Silveira		08/18/87
SP	ZA	Indian Land	Itaóca		04/17/00
SP	ZA	Indian Land	Jaraguá		09/09/98
SP	ZA	Indian Land	Jaraguá		09/09/98
SP	ZA	Indian Land	Krukutu		09/09/98
SP	ZA	Indian Land	Peruíbe		06/20/94
SP	ZA	Indian Land	Piaçaguera		01/28/03
SP	ZA	Indian Land	Ribeirão Silveira		12/17/03
SP	ZA	Indian Land	Rio Branco Itanhaém		09/08/98
SP	ZA	Indian Land	Serra do Itatins		09/09/98
SP	ZA	Conservation Unit	APA Cabreúva		
SP	ZA	Conservation Unit	APA Cabuçú		
SP	ZA	Conservation Unit	APA Cajamar		
SP	ZA	Conservation Unit	APA Campos do Jordão		
SP	ZA	Conservation Unit	APA Corumbataí, Botucatu e Tejuπά - Perímetro Tejuπά		
SP	ZA	Conservation Unit	APA of Serra da Mantiqueira		1985
SP	ZA	Conservation Unit	APA of Cairuçú		1983
SP	ZA	Conservation Unit	APA of Cajati		
SP	ZA	Conservation Unit	APA of Cananéia-Iguapé e Peruíbe		1984
SP	ZA	Conservation Unit	APA of Banhado		
SP	ZA	Conservation Unit	APA of Planalto do Turvo		
SP	ZA	Conservation Unit	APA Fernão Dias	Decree 38,925 of 07.17.1997	1997
SP	ZA	Conservation Unit	APA Guaraqueçaba	Decree 1,228 of 03.27.1992	1992
SP	ZA	Conservation Unit	APA Haras de São Bernardo		
SP	ZA	Conservation Unit	APA Ibitinga		
SP	ZA	Conservation Unit	APA Ilha Comprida		
SP	ZA	Conservation Unit	APA of the Islands and Flooded Areas of Paraná River		1997
SP	ZA	Conservation Unit	APA Itupararanga		
SP	ZA	Conservation Unit	APA Jundiáí		
SP	ZA	Conservation Unit	APA Center Coast (Carijó Sector)		



SP	ZA	Conservation Unit	APA Center Coast (Guaíbe Sector)		
SP	ZA	Conservation Unit	APA Center Coast (Itaguaçu Sector)		
SP	ZA	Conservation Unit	APA Northern Coast (Alcatrazes Sector)		
SP	ZA	Conservation Unit	APA Northern Coast (Cunhambebe Sector)		
SP	ZA	Conservation Unit	APA Northern Coast (Maembipe Sector)		
SP	ZA	Conservation Unit	APA Southern Coast		
SP	ZA	Conservation Unit	APA Springs of Vale do Paraíba do Sul		
SP	ZA	Conservation Unit	APA Mata do Iguatemi		
SP	ZA	Conservation Unit	APA Morro de São Bento		
SP	ZA	Conservation Unit	APA Parque e Fazenda do Carmo		
SP	ZA	Conservation Unit	APA Piracicaba and Juqueri-Mirim - Área II		
SP	ZA	Conservation Unit	APA Quilombos do Médio Ribeira		
SP	ZA	Conservation Unit	APA Bairro da Usina Dam		
SP	ZA	Conservation Unit	APA Rio Batalha		
SP	ZA	Conservation Unit	APA Vermelho and Pardinho Rivers		
SP	ZA	Conservation Unit	APA São Francisco Xavier		
SP	ZA	Conservation Unit	APA Sapucaí Mirim		
SP	ZA	Conservation Unit	APA Serra da Mantiqueira		
SP	ZA	Conservation Unit	APA Serra do Mar		
SP	ZA	Conservation Unit	APA Silveiras		
SP	ZA	Conservation Unit	APA Sistema Cantareira		
SP	ZA	Conservation Unit	APA Tietê		
SP	ZA	Conservation Unit	APA Várzea do Rio Tietê		
SP	ZA	Conservation Unit	ARIE Alcatrazes		
SP	ZA	Conservation Unit	ARIE Apara		
SP	ZA	Conservation Unit	ARIE Boiçucanga		
SP	ZA	Conservation Unit	ARIE Cerrado Pé-de-Gigante		1990
SP	ZA	Conservation Unit	ARIE Guará-Vermelho		
SP	ZA	Conservation Unit	ARIE Figueira Island		
SP	ZA	Conservation Unit	ARIE Moela Island		
SP	ZA	Conservation Unit	ARIE Ameixal Island		1984
SP	ZA	Conservation Unit	ARIE Bom Abrigo Island		
SP	ZA	Conservation Unit	ARIE Mar Virado Island		
SP	ZA	Conservation Unit	ARIE Toque-Toque Island		
SP	ZA	Conservation Unit	ARIE Itaçucê Island		
SP	ZA	Conservation Unit	ARIE Monte de Trigo Island		
SP	ZA	Conservation Unit	ARIE Queimada Grande and Queimada Pequena Islands		1985
SP	ZA	Conservation Unit	ARIE Laje da Conceição		
SP	ZA	Conservation Unit	ARIE Maçaguaçu-Tamanduá		
SP	ZA	Conservation Unit	ARIE Ponta da Armação		
SP	ZA	Conservation Unit	ARIE Tamoio		
SP	ZA	Conservation Unit	ARIE Ypautiba		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Buri		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Casa Branca		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Itapetininga		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Jaú		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Marília		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Mogi Guaçu		



SP	ZA	Conservation Unit	EXPERIMENTAL STATION Mogi Mirim		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Santa Rita		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION São José do Rio Preto		
SP	ZA	Conservation Unit	EXPERIMENTAL STATION Tupi		
SP	ZA	Conservation Unit	FE Bebedouro	Decree 2,931 of 1937	1937
SP	ZA	Conservation Unit	FE Edmundo Navarro de Andrade	Decree 46,819 of 2002	2002
SP	ZA	Conservation Unit	FE Manduri	Decree 40,988 of 11.06.1962	1962
SP	ZA	Conservation Unit	FE Piraju	Decree 14,594 of 04.09.1945	1945
SP	ZA	Conservation Unit	FLONA of Lorena		1934
SP	ZA	Conservation Unit	Palmital Conservation Area		
SP	ZA	Conservation Unit	Mata da Imbel - Reserve (Mantiqueira Conservation Unit proposed)		
SP	ZA	Conservation Unit	Mata da Imbel (Mantiqueira Conservation Unit proposed)		
SP	ZA	Conservation Unit	PARNA Mantiqueira (Mantiqueira Conservation Unit proposed)		
SP	ZA	Conservation Unit	Pedra do Baú (Mantiqueira Conservation Unit proposed)		
SP	ZA	Conservation Unit	PM Alfredo Volpi		
SP	ZA	Conservation Unit	PM Anhanguera		
SP	ZA	Conservation Unit	PM Buenos Aires		
SP	ZA	Conservation Unit	PM Burle Marx		
SP	ZA	Conservation Unit	PM Chácara das Flores		
SP	ZA	Conservation Unit	PM Chico Mendes		
SP	ZA	Conservation Unit	PM Cidade de Toronto		
SP	ZA	Conservation Unit	PM of Aclimação		
SP	ZA	Conservation Unit	PM of Luz		
SP	ZA	Conservation Unit	PM of Carmo		
SP	ZA	Conservation Unit	PM of Ibirapuera		
SP	ZA	Conservation Unit	PM of Nabuco		
SP	ZA	Conservation Unit	PM of Piqueri		
SP	ZA	Conservation Unit	PM of Eucaliptos		
SP	ZA	Conservation Unit	PM Guarapiranga		
SP	ZA	Conservation Unit	PM Independência		
SP	ZA	Conservation Unit	PM Jardim Felicidade		
SP	ZA	Conservation Unit	PM Lina e Paulo Raia		
SP	ZA	Conservation Unit	PM Tucuruvi Lions Clube		
SP	ZA	Conservation Unit	PM Luís Carlos Prestes		
SP	ZA	Conservation Unit	PM Previdência		
SP	ZA	Conservation Unit	PM Raposo Tavares		
SP	ZA	Conservation Unit	PM Raul Seixas		
SP	ZA	Conservation Unit	PM Rodrigo de Gasperi		
SP	ZA	Conservation Unit	PM Santa Amélia		
SP	ZA	Conservation Unit	PM Santo Dias		
SP	ZA	Conservation Unit	PM São Domingos		
SP	ZA	Conservation Unit	PM Severo Gomes		
SP	ZA	Conservation Unit	PM Tenente Siqueira Campos		



SP	ZA	Conservation Unit	PM Vila dos Remédios		
SP	ZA	Conservation Unit	PM Vila Guilherme		
SP	ZA	Conservation Unit	RDS Barreiro/Anhemas		
SP	ZA	Conservation Unit	RDS of Lavras		
SP	ZA	Conservation Unit	RDS of Pinheirinhos		
SP	ZA	Conservation Unit	RDS Quilombos Barra do Turvo		
SP	ZA	Conservation Unit	RDS Tumba and Itapanhapima		
SP	ZA	Conservation Unit	RESEX of Mandira		2002
SP	ZA	Conservation Unit	RESEX Taquari		
SP	ZA	Conservation Unit	RESEX Tumba		
SP	ZA	Conservation Unit	Serra dos Poncianos (Mantiqueira Conservation Unit proposed)		
SP	ZN	Islands			
SP	ZN	Forest Reminders			
SP	ZN	Conservation Unit	APA Capivari Monos (WLZ)		
SP	ZN	Conservation Unit	ESEC Bananal	Decree 26,890 of 03.12.1987	1987
SP	ZN	Conservation Unit	ESEC Banhados de Iguape (Banhado Grande)		
SP	ZN	Conservation Unit	ESEC Banhados de Iguape (Banhado Pequeno)		
SP	ZN	Conservation Unit	ESEC Bauru	Decree 26,890 of 1987	1987
SP	ZN	Conservation Unit	ESEC Caetetus	Decree 26,718 of 02.06.1987	1987
SP	ZN	Conservation Unit	ESEC Chaúas	Decree 26.719 de 06.02.1987	1987
SP	ZN	Conservation Unit	ESEC of Tupinambás		1987
SP	ZN	Conservation Unit	ESEC of the Black Lion Tamarin		2002
SP	ZN	Conservation Unit	ESEC of Tupiniquins		1986
SP	ZN	Conservation Unit	ESEC Itapeti	Decree 26,890 of 03.12.1987	1987
SP	ZN	Conservation Unit	ESEC Jataí	Decree 18,997 of 1982	1982
SP	ZN	Conservation Unit	ESEC Juréia-Itatins	Decree 24,646 of 01.20.1986	1986
SP	ZN	Conservation Unit	ESEC Mogi Guaçú	Decree 22,336 of 06.07.1984	1984
SP	ZN	Conservation Unit	ESEC Paulo de Faria	Decree 17,724 of 09.23.1981	1981
SP	ZN	Conservation Unit	ESEC Ribeirão Preto	Decree 22,691 of 1984	1984
SP	ZN	Conservation Unit	ESEC Valinhos	Decree 26,890 of 03.12.1987	1987
SP	ZN	Conservation Unit	ESEC Xituê	Decree 26,890 of 03.12.1987	1987
SP	ZN	Conservation Unit	PARNA of Serra da Bocaina		1971
SP	ZN	Conservation Unit	PARNA of Superagui		1989
SP	ZN	Conservation Unit	State Park Aguapeí	Decree 43,269 of 1998	1998
SP	ZN	Conservation Unit	State Park Alberto Lofgren	Decree 40,319 of 07.037.1962	1962



SP	ZN	Conservation Unit	State Park Ara	Decree 51,988 of 06.04.1969	1969
SP	ZN	Conservation Unit	State Park Campina do Encantado	Decree 8,873 of 08.18.1974	1974
SP	ZN	Conservation Unit	State Park Campos do Jordão	Decree 11,908 of 03.27.1941	1941
SP	ZN	Conservation Unit	State Park Cantareira	Decree 41,626 of 01.30.1983 ???	1983
SP	ZN	Conservation Unit	State Park Carlos Botelho	Decree 19,499 of 09.10.1982	1982
SP	ZN	Conservation Unit	State Park Caverna		
SP	ZN	Conservation Unit	State Park of Serra do Mar		
SP	ZN	Conservation Unit	State Park of Itinguçu		
SP	ZN	Conservation Unit	State Park of Prelado		
SP	ZN	Conservation Unit	State Park of Rio Peixe		
SP	ZN	Conservation Unit	State Park of Rio Turvo		
SP	ZN	Conservation Unit	State Park Embu-Guaçu		
SP	ZN	Conservation Unit	State Park Guarapiranga	Decree 30,442 of 09.20.1989	1989
SP	ZN	Conservation Unit	State Park Anchieta Island	Decree 96.29 of 03.29.1977	1977
SP	ZN	Conservation Unit	State Park Cardoso Island	Decree 40,319 of 07.03.1962	1962
SP	ZN	Conservation Unit	State Park Eucaliptos Island		
SP	ZN	Conservation Unit	State Park Ilhabela	Decree 9,414 of 01.20.1977	1977
SP	ZN	Conservation Unit	State Park Intervalos	Decree 40,135 of 06.08.1995	1995
SP	ZN	Conservation Unit	State Park Jacupiranga	Decree 145 of 08.08.1969	1969
SP	ZN	Conservation Unit	State Park Jaraguá	Decree without number of 1961	1961
SP	ZN	Conservation Unit	State Park Juquery	Decree 36,859 of 06.05.1993	1993
SP	ZN	Conservation Unit	State Park Jurupará	Decree 12,185 of 08.30.1978, amended by Decree 35,703 of 09.22.1992	1978
SP	ZN	Conservation Unit	State Park Cananéia Salty Lagoon		
SP	ZN	Conservation Unit	State Park Mangroves		
SP	ZN	Conservation Unit	State Park Campos do Jordão Mangroves	Decree 37,539 of 09.27.1993	1993
SP	ZN	Conservation Unit	Marine State Park of Santos Table	Decree 37,539 of 09.27.1993	1993
SP	ZN	Conservation Unit	Marine State Park of Santos Table		
SP	ZN	Conservation Unit	State Park Morro do Diabo	Decree 25,342 of 06.04.1986	1986
SP	ZN	Conservation Unit	State Park Porto Ferreira	Decree 26,891 of 03.12.1987	1987
SP	ZN	Conservation Unit	State Park Serra do Mar		
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Caraguatatuba	Decree 10,251 of 08.30.1977	1977



SP	ZN	Conservation Unit	State Park Serra do Mar - N. Cunha-Indaiá	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Curucutu	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Cutatão	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Itariru/Pedro de Toledo		
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Itutinga Pilões		
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Pedro de Toledo	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Picinguaba	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. Santa Virgínia	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	State Park Serra do Mar - N. São Sebastião	Decree 10,251 of 08.30.1977	1977
SP	ZN	Conservation Unit	Turistic State Park Alto do Ribeira	Decree 32,283 of 05.19.1958	1958
SP	ZN	Conservation Unit	State Park Vassununga	Decree 52,546 of 1970	1970
SP	ZN	Conservation Unit	State Park Xixová-Japuí	Decree 37,536 of 09.27.1993	1993
SP	ZN	Conservation Unit	PEC Embu-Guaçu		
SP	ZN	Conservation Unit	PM Pedroso (Santo André)		
SP	ZN	Conservation Unit	PMN Paranapiacaba		
SP	ZN	Conservation Unit	RDS of Barra do Una		
SP	ZN	Conservation Unit	RDS of Despraiado		
SP	ZN	Conservation Unit	RDS Una da Aldeia		
SP	ZN	Conservation Unit	REBIO Paranapiacaba		
SP	ZN	Conservation Unit	STATE RESERVE Águas da Prata		
SP	ZN	Conservation Unit	STATE RESERVE São Paulo Lagoon		
SP	ZN	Conservation Unit	STATE RESERVE Morro Grande		
SP	ZN	Conservation Unit	RVS Abrigo and Guararitama		
SP	ZN	Intangible Zone of APA			
SP	ZN	Core Zone - Phase V			
PR	ZA	Indian Land	Apucarana		09/19/55
PR	ZA	Indian Land	Avá-Guarani do Ocoí		08/29/83
PR	ZA	Indian Land	Barão de Antonina		07/31/98
PR	ZA	Indian Land	Boa Vista - PR		08/12/04
PR	ZA	Indian Land	Faxinal		04/09/92
PR	ZA	Indian Land	Cotinga Island		01/21/99
PR	ZA	Indian Land	Ivai		01/12/99
PR	ZA	Indian Land	Mangueirinha		02/01/61
PR	ZA	Indian Land	Marrecas		07/01/85
PR	ZA	Indian Land	Palmas		01/21/04
PR	ZA	Indian Land	Queimadas		07/31/91
PR	ZA	Indian Land	Rio Areia		03/02/99
PR	ZA	Indian Land	Rio das Cobras		02/19/99
PR	ZA	Indian Land	São Jerônimo		07/31/98
PR	ZA	Indian Land	Tekoha Anetete		06/27/00



PR	ZA	Indian Land	Tibagy/Mococa		07/31/96
PR	ZA	Conservation Unit	APA of Escarpa Devoniana	Decree 1,231 of 03.27.1992	1992
PR	ZA	Conservation Unit	APA of Serra da Esperança	Decree 9,905 of 01.27.1992	1992
PR	ZA	Conservation Unit	APA of Guaratuba	Decree 1,234 of 03.27.1992	1992
PR	ZA	Conservation Unit	APA of Irai River	Decree 1,753 of 05.06.1996	1996
PR	ZA	Conservation Unit	APA of Passauna River	Decree 458 of 06.05.1991	1991
PR	ZA	Conservation Unit	APA of Pequeno River	Decree 1,752 of 05.06.1996	1996
PR	ZA	Conservation Unit	APA of Piraquara River	Decree 1,754 of 05.06.1996	1996
PR	ZA	Conservation Unit	APA of Verde River	Decree 2,3575 of 07.31.2000	2000
PR	ZA	Conservation Unit	APA Guaraqueçaba	Decree 1,228 of 03.27.1992	1992
PR	ZA	Conservation Unit	APA Serra do Mar	Decree 22,717 of 09.21.1984	1984
PR	ZA	Conservation Unit	APA de Guaraqueçaba		1985
PR	ZA	Conservation Unit	APA Islands and Flooded Areas of Paraná River		1997
PR	ZA	Conservation Unit	ARIE of Cabeça do Cachorro	Decree 7,456 of 11.27.1990	1990
PR	ZA	Conservation Unit	ARIE of Serra do Tigre	Decree 7,456 of 11.27.1990	1990
PR	ZA	Conservation Unit	ARIE of São Domingos	Decree 7,456 of 11.27.1990	1990
PR	ZA	Conservation Unit	ARIE of Buriti	Decree 7,456 of 11.27.1990	1990
PR	ZA	Conservation Unit	ARIE Ilha do Mel		
PR	ZA	Conservation Unit	FE of Santana	Decree 4,264 of 11.21.1994	1994
PR	ZA	Conservation Unit	FE of Palmito	Decree 4,493 of 06.17.1998	1998
PR	ZA	Conservation Unit	FE of Passa Dois	Decree 6,594 of 02.22.1990	1990
PR	ZA	Conservation Unit	FLONA Irati		1968
PR	ZA	Conservation Unit	FLONA Piraí do Sul		2004
PR	ZN	APP			
PR	ZN	Islands			
PR	ZN	Forest Reminders			
PR	ZN	Conservation Unit	ESEC of Ilha do Mel	Decree 5,454 of 07.21.1982	1982
PR	ZN	Conservation Unit	ESEC of Mata Preta		2005
PR	ZN	Conservation Unit	ESEC of Guaraqueçaba		1982
PR	ZN	Conservation Unit	ESEC of Caiúa	Decree 4,263 of 11.21.1994	1994
PR	ZN	Conservation Unit	ESEC of Guaraguaçu (Pro-Atlantic Sema)	Decree 1,230 of 03.27.1992	1992
PR	ZN	Conservation Unit	ESEC Fernandes Pinheiro	Decree 4,230 of 06.05.2001	
PR	ZN	Conservation Unit	ESEC Rio dos Touros	Decree 4,229 of 06.05.2001	2001



PR	ZN	Conservation Unit	MONA Gruta de Lancinha		
PR	ZN	Conservation Unit	PARNA of Ilha Grande		1997
PR	ZN	Conservation Unit	PARNA of Saint-Hilaire/Lange		2001
PR	ZN	Conservation Unit	PARNA of Iguaçu		1939
PR	ZN	Conservation Unit	PARNA of Superagui		1989
PR	ZN	Conservation Unit	PARNA of Campos Gerais		2006
PR	ZN	Conservation Unit	State Park Cabeção do Cachorro		
PR	ZN	Conservation Unit	State Park Caverna		
PR	ZN	Conservation Unit	State Park of Graciosa	Decree 7,302 of 10.24.1990	1990
PR	ZN	Conservation Unit	State Park of Ilha do Mel	Decree 5,506 of 03.21.2002	2002
PR	ZN	Conservation Unit	State Park of Mata do Godoy	Decree 5,150 of 06.05.1989	1989
PR	ZN	Conservation Unit	State Park of Mata São Francisco	Decree 4,333 of 12.05.1994	1994
PR	ZN	Conservation Unit	State Park of Serra da Baitaca	Decree 5,765 of 06.05.2002	2002
PR	ZN	Conservation Unit	State Park of Lauráceas	Decree 729 of 06.27.1979	1979
PR	ZN	Conservation Unit	State Park of Campinhos	Decree 31,013 of 07.20.1960, amended by Decree 5,768 of 06.05.2002	1960
PR	ZN	Conservation Unit	State Park of Ibicatu	Decree 4,835 of 02.15.1982	1982
PR	ZN	Conservation Unit	State Park of Ibiporã	Decree 2,301 of 04.30.1980	1980
PR	ZN	Conservation Unit	State Park of Palmas	Official letter 190 of 08.04.1989	1989
PR	ZN	Conservation Unit	State Park of Vila Velha	Law 2,192 of 10.12.1953, amended by Decree 5,767 of 06.05.2002	1953
PR	ZN	Conservation Unit	State Park of Bogaçu	Decree 4,056 of 02.26.1998	1998
PR	ZN	Conservation Unit	State Park of Caxambu	Decree 6,351 of 02.23.1979	1979
PR	ZN	Conservation Unit	State Park of Lago Azul	Decree 3,256 of 06.30.1997	1997
PR	ZN	Conservation Unit	State Park of Monge	Law 4,170 of 02.22.1960	1960
PR	ZN	Conservation Unit	State Park of Pau-Oco	Decree 4,266 of 11.22.1994	1994
PR	ZN	Conservation Unit	State Park of Verde Cliff	Decree 457 of 05.05.1991	1991
PR	ZN	Conservation Unit	State Park of Pico Marumbi	Decree 7,300 of 10.24.1990	1990
PR	ZN	Conservation Unit	State Park of Rio da Onça	Decree 3,825 of 06.04.1981	1981
PR	ZN	Conservation Unit	State Park of Rio Guarani	Decree 2,322 of 07.19.2000	2000
PR	ZN	Conservation Unit	State Park of Rio Turvo		



PR	ZN	Conservation Unit	State Park Ilha do Cardoso	Decree 40,319 of 07.037.1962	1962
PR	ZN	Conservation Unit	State Park Jacupiranga	Decree 145 of 08.08.1969	1969
PR	ZN	Conservation Unit	State Park Cananéia Salty Lagoon		
PR	ZN	Conservation Unit	State Park Morro do Diabo	Decree 25,342 of 06.04.1986	1986
PR	ZN	Conservation Unit	State Park Pico do Murumbi - Ampliação		
PR	ZN	Conservation Unit	State Park Pico Paraná	Decree 5,769 of 06.05.2002	2002
PR	ZN	Conservation Unit	State Park Professor José Wacchowicz	Decree 5,766 of 06.05.2002	2002
PR	ZN	Conservation Unit	State Park Roberto Ribas Lange	Decree 4,267 of 11.21.1994	1994
PR	ZN	Conservation Unit	State Park Santa Clara		
PR	ZN	Conservation Unit	State Park São Camilo		
PR	ZN	Conservation Unit	State Park Vila Rica do Espírito Santo	Decree 17,790 of 06.17.1965	1965
PR	ZN	Conservation Unit	REBIO of São Camilo	Decree 6,595 of 02.22.1990	1990
PR	ZN	Conservation Unit	REBIO of Araucárias		2006
PR	ZN	Conservation Unit	REBIO of Perobas		2006
PR	ZN	Conservation Unit	REBIO of São Camilo		
PR	ZN	Conservation Unit	RPPN (without names)		
PR	ZN	Conservation Unit	RVS Campos de Palmas		2006
PR	ZN	Conservation Unit	RVS of Pinhão		
PR	ZN	Core Zone - Phase V			
MS	ZA	Indian Land	Aldeia Limão Verde		06/07/65
MS	ZA	Indian Land	Amambai		01/06/94
MS	ZA	Indian Land	Arroio Corá		08/17/04
MS	ZA	Indian Land	Cerrito		01/13/94
MS	ZA	Indian Land	Guaimbé		11/07/84
MS	ZA	Indian Land	Guasuti		01/12/94
MS	ZA	Indian Land	Jaguapiré		06/21/94
MS	ZA	Indian Land	Jaguari		01/17/94
MS	ZA	Indian Land	Jarara		11/26/93
MS	ZA	Indian Land	Kadiwéu		11/06/84
MS	ZA	Indian Land	Pirajuí		03/01/92
MS	ZA	Indian Land	Porto Lindo		01/04/94
MS	ZA	Indian Land	Potrero Guaçu		04/17/00
MS	ZA	Indian Land	Rancho Jacaré		12/17/84
MS	ZA	Indian Land	Sassoró		
MS	ZA	Indian Land	Sete Cerros		11/26/93
MS	ZA	Indian Land	Takuaraty/Yvykuarusu		11/26/93
MS	ZA	Indian Land	Taquaperi		
MS	ZA	Indian Land	Yvy-katu		02/27/04
MS	ZA	Conservation Unit	APA Amambai		
MS	ZA	Conservation Unit	APA Islands and Flooded Areas of Paraná River		1997
MS	ZA	Conservation Unit	APA Rio Perdido		
MS	ZA	Conservation Unit	APA Apa and Dourados Rivers		
MS	ZN	? (doubts)			



MS	ZN	Forest Reminders			
MS	ZN	Conservation Unit	PARNA of Serra da Bodoquena		2000
MS	ZN	Conservation Unit	PARNA of Ilha Grande		1997
MS	ZN	Conservation Unit	State Park of Ivinhema	Decree 9,278 of 12.17.1998	1998
MS	ZN	Conservation Unit	RPPN Fazenda Floresta Negra		
MS	ZN	Conservation Unit	RPPN Laranjal		
MS	ZN	Conservation Unit	RPPN São Geraldo		
SC	ZA	Indian Land	Aldeia Kondá		
SC	ZA	Indian Land	Cachoeira dos Inácios		01/08/99
SC	ZA	Indian Land	Ibirama		07/03/96
SC	ZA	Indian Land	Ibirama-La Klanô		12/18/03
SC	ZA	Indian Land	Morro dos Cavalos		01/06/03
SC	ZA	Indian Land	Palmas		01/21/04
SC	ZA	Indian Land	Toldo Chimbanguê		08/30/94
SC	ZA	Indian Land	Toldo Chimbanguê II		07/29/04
SC	ZA	Indian Land	Toldo Imbu		12/04/02
SC	ZA	Indian Land	Toldo Pinhal		01/17/02
SC	ZA	Indian Land	Toldo Pinhal		09/29/03
SC	ZA	Indian Land	Xaçecó		09/05/03
SC	ZA	Conservation Unit	APA Anhatomirim		1992
SC	ZA	Conservation Unit	APA of Baleia Franca		2000
SC	ZA	Conservation Unit	APA of Alto Rio Preto Dam		
SC	ZA	Conservation Unit	APA of Serra do Brilhante		
SC	ZA	Conservation Unit	APA of Guaratuba	Decree 1,234 of 03.27.1992	1992
SC	ZA	Conservation Unit	APA of Alto Rio Turvo		
SC	ZA	Conservation Unit	APA of Bateias		
SC	ZA	Conservation Unit	APA of Rio dos Bugres		
SC	ZA	Conservation Unit	APA of Rio Vermelho/Humboldt		
SC	ZA	Conservation Unit	APA of Campos do Quiriri		
SC	ZA	Conservation Unit	Municipal APA of Rio Ferreira		
SC	ZA	Conservation Unit	APA Quiriri		
SC	ZA	Conservation Unit	APA Rio Itajaí Mirim Botuvera		
SC	ZA	Conservation Unit	APA Rota do Sol	Decree 37,346 of 04.11.1997	1997
SC	ZA	Conservation Unit	APA Serra Dona Francisca		
SC	ZA	Conservation Unit	ARIE Costeira de Zimbros		
SC	ZA	Conservation Unit	ARIE Serra da Abelha / Rio da Prata		1990
SC	ZA	Conservation Unit	FLONA Caçador		1968
SC	ZA	Conservation Unit	FLONA Chapecó		1968
SC	ZA	Conservation Unit	FLONA of Caçador		
SC	ZA	Conservation Unit	FLONA of Chapecó		
SC	ZA	Conservation Unit	FLONA of Ibirama		1988
SC	ZA	Conservation Unit	FLONA Três Barras		1968
SC	ZA	Conservation Unit	Marine RESEX of Pirajubaé		1992
SC	ZN	? (doubts)			
SC	ZN	APP	APP Tapera Mangrove		
SC	ZN	APP	APP Itacorubi Mangrove		
SC	ZN	APP	APP Pontal da Daniela		
SC	ZN	APP			



SC	ZN	APP / Forest Reminders			
SC	ZN	Listed Area/Property	Listed Area Campeche Dunes		
SC	ZN	Listed Area/Property	Listed Area Pantano do Sul Dunes		
SC	ZN	Listed Area/Property	Listed Area Santinho Dunes		
SC	ZN	Listed Area/Property	Listed Area Ingleses Dunes		
SC	ZN	Listed Area/Property	Listed Area Campeche Island		
SC	ZN	Listed Area/Property	Listed Area Chica Lagoon		
SC	ZN	Listed Area/Property	Listed Area Lagoinha Pequena		
SC	ZN	Listed Area/Property	Listed Area Ponta do Sambaqui		
SC	ZN	Listed Area/Property	Listed Area Region of Conceição Lagoon Coast		
SC	ZN	Listed Area/Property	Listed Area Restinga of Ponta das Canas		
SC	ZN	Listed Area/Property			
SC	ZN	Islands			
SC	ZN	UBR Florianópolis			
SC	ZN	Forest Reminders			
SC	ZN	Conservation Unit	ESEC of Mata Preta		2005
SC	ZN	Conservation Unit	ESEC of Carijós		1987
SC	ZN	Conservation Unit	ESEC of Bracinho	Decree No. 22,768 of 07.16.1984	1984
SC	ZN	Conservation Unit	PARNA of Serra do Itajaí		2004
SC	ZN	Conservation Unit	PARNA of Serra Geral		1992
SC	ZN	Conservation Unit	PARNA of Araucárias		2005
SC	ZN	Conservation Unit	PARNA of Aparados da Serra		1959
SC	ZN	Conservation Unit	PARNA of São Joaquim		1961
SC	ZN	Conservation Unit	BOTANIC PARK of Morro do Baú		
SC	ZN	Conservation Unit	State Park Acarai		
SC	ZN	Conservation Unit	State Park of Serra do Tabuleiro	Decree No. 1,260 of 11.01.1975	1975
SC	ZN	Conservation Unit	State Park of Serra Furada	Decree No. 11,233 of 06.20.1980	1980
SC	ZN	Conservation Unit	State Park of Araucárias	Decree No. 293 of 05.30.2003	2003
SC	ZN	Conservation Unit	State Park of Acarai	To be issued	
SC	ZN	Conservation Unit	State Park of Rio Vermelho		
SC	ZN	Conservation Unit	State Park Fritz Plaumann	Decree No. 793 of 09.24.2003	2003
SC	ZN	Conservation Unit	State Park Rio Canoas	Decree No. 1,871 of 05.29.2004	2004
SC	ZN	Conservation Unit	PEC Maracaja		
SC	ZN	Conservation Unit	PEC Prefeito Rolf Colin		
SC	ZN	Conservation Unit	PM of Galheta		
SC	ZN	Conservation Unit	PM of Lagoa do Peri		
SC	ZN	Conservation Unit	PM of Lagoinha do Leste		
SC	ZN	Conservation Unit	PM of the Conceição Lagoon Dunes		
SC	ZN	Conservation Unit	PM of Macico da Costeira		
SC	ZN	Conservation Unit	PM of Morro do Macaco		
SC	ZN	Conservation Unit	PM Galheta		
SC	ZN	Conservation Unit	PM Morro do Amaral Island		



SC	ZN	Conservation Unit	PM Morro do Finder		
SC	ZN	Conservation Unit	NATURAL PM Garcia Springs		
SC	ZN	Conservation Unit	NATURAL PM São Francisco de Assis		
SC	ZN	Conservation Unit	NATURAL PM Vale do Rio do Peixe		
SC	ZN	Conservation Unit	REBIO of Canela Preta	Decree No. 11,232 of 06.20.1980	1980
SC	ZN	Conservation Unit	REBIO of Aguai	Decree No. 19,635 of 07.01.1983	1983
SC	ZN	Conservation Unit	REBIO of Sassafrás	Decree No. 2,221 of 02.04.1977	1977
SC	ZN	Conservation Unit	Marine REBIO of Arvoredo		1990
SC	ZN	Conservation Unit	RPPN (without names)		
SC	ZN	Conservation Unit	RPPN Águas Mornas		
SC	ZN	Conservation Unit	RPPN Ano Bom		
SC	ZN	Conservation Unit	RPPN Araquari		
SC	ZN	Conservation Unit	RPPN Barra do Rio do Meio		
SC	ZN	Conservation Unit	RPPN Barracas		
SC	ZN	Conservation Unit	RPPN Águas Cristalinas Bio Station		
SC	ZN	Conservation Unit	RPPN Caetezal		
SC	ZN	Conservation Unit	RPPN Caraguatá e Caraguatá II		
SC	ZN	Conservation Unit	RPPN Chácara Edith		
SC	ZN	Conservation Unit	RPPN of Vega do Sul (?)		
SC	ZN	Conservation Unit	RPPN of Caetezal		
SC	ZN	Conservation Unit	RPPN Fazenda Araucária		
SC	ZN	Conservation Unit	RPPN Fazenda do Salto		
SC	ZN	Conservation Unit	RPPN Fazenda Palmital		
SC	ZN	Conservation Unit	RPPN Fazenda Pousada Serra Pitoco		
SC	ZN	Conservation Unit	RPPN Gralha Azul		
SC	ZN	Conservation Unit	RPPN Guaxinim		
SC	ZN	Conservation Unit	RPPN JHR		
SC	ZN	Conservation Unit	RPPN Maijoma		
SC	ZN	Conservation Unit	RPPN Menino Deus (Charity Hospital)		
SC	ZN	Conservation Unit	RPPN Morro da Palha		
SC	ZN	Conservation Unit	RPPN Morro das Aranhas (Costao do Santinho)		
SC	ZN	Conservation Unit	RPPN Morro do Zimbros		
SC	ZN	Conservation Unit	RPPN Morro Redondo		
SC	ZN	Conservation Unit	RPPN Emílio Battistella Park		
SC	ZN	Conservation Unit	RPPN Contestado Forest Park		
SC	ZN	Conservation Unit	RPPN Pequeno Vale		
SC	ZN	Conservation Unit	RPPN Pinheirinho		
SC	ZN	Conservation Unit	RPPN Praia do Estaleiro		
SC	ZN	Conservation Unit	RPPN Prima Luna		
SC	ZN	Conservation Unit	RPPN Rã Bugio		
SC	ZN	Conservation Unit	RPPN Recanto das Marés		
SC	ZN	Conservation Unit	RPPN Bugarkopf Reserve		
SC	ZN	Conservation Unit	RPPN Passarin Reserve		
SC	ZN	Conservation Unit	RPPN Rio das Furnas Reserve		
SC	ZN	Conservation Unit	RPPN Rio das Lontras		
SC	ZN	Conservation Unit	RPPN Rio do Júlio		



SC	ZN	Conservation Unit	RVS Campos de Palmas		2006
SC	ZN	Conservation Unit	Environmental Conservation Unit of Desterro		
SC	ZN	Core Zone - Phase V			
RS	ZA	Indian Land	Aldeia Kondá		
RS	ZA	Indian Land	Cacique Doble		12/29/94
RS	ZA	Indian Land	Cantagalo		08/09/04
RS	ZA	Indian Land	Capivari		01/08/03
RS	ZA	Indian Land	Carreteiro		12/29/94
RS	ZA	Indian Land	Guarani Barra do Ouro		06/04/02
RS	ZA	Indian Land	Guarani de Águas Brancas		02/13/96
RS	ZA	Indian Land	Guarita		12/29/94
RS	ZA	Indian Land	Inhacorá		12/29/94
RS	ZA	Indian Land	Kaingang de Iráí		04/05/94
RS	ZA	Indian Land	Ligeiro		12/29/94
RS	ZA	Indian Land	Monte Caseros		07/02/99
RS	ZA	Indian Land	Nonoai		12/23/02
RS	ZA	Indian Land	Nonoai/Rio da Várzea		09/16/03
RS	ZA	Indian Land	Pacheca		01/15/01
RS	ZA	Indian Land	Rio dos Índios		12/23/04
RS	ZA	Indian Land	Salto Grande do Jacuí		11/20/02
RS	ZA	Indian Land	Serrinha		12/24/03
RS	ZA	Indian Land	Varzinha		09/12/03
RS	ZA	Indian Land	Votouro		06/04/02
RS	ZA	Conservation Unit	APA of Banhado Grande	Decree 88,971 of 10.23.1998	1998
RS	ZA	Conservation Unit	State APA of Jacuí Delta	Law 12,371	11/11/05
RS	ZA	Conservation Unit	APA Rota do Sol	Decree 37,346 of 04.11.1997	1997
RS	ZA	Conservation Unit	ARIE Pontal dos Latinos and Pontal do Santiago		1984
RS	ZA	Conservation Unit	FLONA of Canela	IBDF Ruling 561	10/25/68
RS	ZA	Conservation Unit	FLONA of Passo Fundo	IBDF Ruling 561	10/25/68
RS	ZA	Conservation Unit	FLONA of São Francisco de Paula	IBDF Ruling 561	10/25/68
RS	ZA	Conservation Unit	Guarita Park	Decree 21,540	03/11/47
RS	ZA	Conservation Unit	Caracol Park	Decree 22,576 (date amended 07/21/78) (Decree amended 27,389)	08/01/73
RS	ZA	Conservation Unit	RVS of Ilha dos Lobos	Decree 88,463 (date amended '07/04/05)	07/04/83
RS	ZN	? (doubts)			
RS	ZN	APP			
RS	ZN	APP / Forest Reminders			
RS	ZN	Drainage Basin			
RS	ZN	Estuary			
RS	ZN	Conservation Unit	APA of Itapeva Lagoon		
RS	ZN	Conservation Unit	APA of General Câmara		
RS	ZN	Conservation Unit	APA of Arroios 12 and 19		
RS	ZN	Conservation Unit	APA Guajuviras		



RS	ZN	Conservation Unit	APA Morro da Borússia		
			AREA OF RELEVANT ENVIRONMENTAL INTEREST of São Francisco de Paula		
RS	ZN	Conservation Unit	ESEC Aratinga	Decree 37,345	04/11/97
RS	ZN	Conservation Unit	ESEC of Aracuri-Esmeralda	Decree 86,061	06/02/81
RS	ZN	Conservation Unit	ESEC of Taim	Decree 81,606	07/21/86
RS	ZN	Conservation Unit	State ESEC Aratinga	Decree 37,345 of 04.11.1997	1997
RS	ZN	Conservation Unit	MUNICIPAL FOREST of Sertão		
RS	ZN	Conservation Unit	CONSERVATION AREA of Cachoeirinha		
RS	ZN	Conservation Unit	PARNA of Lagoa do Peixe	Decree 93,546	11/06/86
RS	ZN	Conservation Unit	PARNA of Serra Geral	Ruling 531	05/20/92
				Decree 47,446 (date amended 03/17/72) (Decree amended 70,296)	
RS	ZN	Conservation Unit	PARNA of Aparados da Serra		12/17/59
RS	ZN	Conservation Unit	Parque da Guarita	Decree 21,540 of 03.11.1947	1947
RS	ZN	Conservation Unit	State Park of Itapeva	Decree 42,009 of 12.12.2002	2002
				Decree 22,575 of 07.14.1973, amended by Decree 33,886 of 03.11.1991	
RS	ZN	Conservation Unit	State Park of Itapuã		1973
RS	ZN	Conservation Unit	State Park of Rondinha	Decree 30,645 of 04.22.1982	1982
RS	ZN	Conservation Unit	State Park of Camaquã	Decree 23,798 of 03.12.1975	1975
RS	ZN	Conservation Unit	State Park of Caracol	Decree 22,576 of 08.01.1973	1973
RS	ZN	Conservation Unit	State Park of Jacuí Delta	Decree 24,385 of 01.14.1976	1976
RS	ZN	Conservation Unit	State Park of Espigão Alto	Decree 658 of 03.10.1949	1949
RS	ZN	Conservation Unit	State Park of Ibitiriá	Decree 23,798 of 03.12.1975	1975
RS	ZN	Conservation Unit	State Park of Podocarpus	Decree 23,798 of 03.12.1975	1975
RS	ZN	Conservation Unit	State Park of Tainhas	Decree 23,798 of 03.12.1975	1975
RS	ZN	Conservation Unit	State Park of Turvo	Decree 21,312 of 03.11.1947	1947
RS	ZN	Conservation Unit	State Park Quarta Colônia	Decree 44,186	12/19/05
RS	ZN	Conservation Unit	PM of Ronda		
RS	ZN	Conservation Unit	PM of Sertão		
RS	ZN	Conservation Unit	PM Doutor Tancredo Neves		
RS	ZN	Conservation Unit	PM Dr. Tancredo Neves		
RS	ZN	Conservation Unit	PM Longines Malinowski		
RS	ZN	Conservation Unit	PM Morro do Osso		



RS	ZN	Conservation Unit	NATURAL PM Imperatriz Leopoldina		
RS	ZN	Conservation Unit	NATURAL PM Tupancy		
RS	ZN	Conservation Unit	PM Saint' Hilaire		
RS	ZN	Conservation Unit	REBIO of Serra Geral	Decree 30,788 of 07.27.1982	1982
RS	ZN	Conservation Unit	REBIO of Aguai		
RS	ZN	Conservation Unit	REBIO of Ibicuí Mirim	Decree 30,950 of 11.12.1982	1982
RS	ZN	Conservation Unit	REBIO of Lami		
RS	ZN	Conservation Unit	REBIO of Mato Grande	Decree 23,798 of 03.12.1975	1975
RS	ZN	Conservation Unit	REBIO Mata Paludosa	Decree 38,972 of 10.23.1998	1998
RS	ZN	Conservation Unit	REBIO Morenos Fortes		
RS	ZN	Conservation Unit	RPPN Bosque de Canela	Ruling 118/98-N	
RS	ZN	Conservation Unit	RPPN Chácara Sananduva	Ruling 038/99-N	
RS	ZN	Conservation Unit	RPPN Costa do Serro	Ruling 20/2000	
RS	ZN	Conservation Unit	RPPN of Capão Grande	Ruling 98/98-N	
RS	ZN	Conservation Unit	RPPN Santa Rita Resort	Ruling 167/98-N	
RS	ZN	Conservation Unit	RPPN Farroupilha	Ruling 57/2005	
RS	ZN	Conservation Unit	RPPN Fazenda Curupira	Ruling 28/99-N	
RS	ZN	Conservation Unit	RPPN Fazenda das Palmas	Ruling 20/01	
RS	ZN	Conservation Unit	RPPN Fazenda Morro de Sapucaia	Ruling 94/02	
RS	ZN	Conservation Unit	RPPN Fazenda Rodeio Bonito	Ruling 021/92-N	
RS	ZN	Conservation Unit	RPPN Jardim da Paz	Ruling 53/01	
RS	ZN	Conservation Unit	RPPN Mariana Pimentel	Ruling 06/99-N	
RS	ZN	Conservation Unit	RPPN Pontal da Barra	Ruling 080/99	
RS	ZN	Conservation Unit	RPPN Prof. Delamar Harry dos Reis	Ruling 047/99-N	
RS	ZN	Conservation Unit	RPPN Rancho Mira da Serra	Ruling 124/97-N	
RS	ZN	Conservation Unit	RPPN Recanto do Robalo	Ruling 55/02	
RS	ZN	Conservation Unit	RPPN Schuster	Ruling 020/92-N	
RS	ZN	Conservation Unit	RPPN Sítio Porto da Capela	Ruling 62/95-N	
RS	ZN	Conservation Unit	RVS Banhado dos Pachecos	Decree 41,559 of 04.24.2002	2002
RS	ZN	Conservation Unit	RVS of Lobos Island		1983
RS	ZN	Conservation Unit	RVS Mato dos Silva		
RS	ZN	Conservation Unit	RVS Molhe Leste		
RS	ZN	Core Zone - Phase V			

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE ZONING OF THE
MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



Annex 2

Support Letters to the RBMA - Phase VI Proposal

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE ZONING OF THE
MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



Annex 3

General Mapping

Mata Atlântica Biosphere Reserve – Fase VI
São Paulo City Green Belt Biosphere Reserve– Fase II

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

REVIEW AND UPDATE OF THE ZONING OF THE
MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE



Annex 4

Digital Cartographic Base in CD

THE MATA ATLÂNTICA BIOSPHERE RESERVE

PHASE VI / 2008

**REVIEW AND UPDATE OF THE ZONING OF THE
MATA ATLÂNTICA BIOSPHERE RESERVE
IN DIGITAL CARTOGRAPHIC BASE**



BIBLIOGRAPHY



BIBLIOGRAPHY

SOURCE 1:

Excerpts from the book:

Mata Atlântica - Uma Rede pela Floresta (a network for the forest)

Organizers: Maura Campanili and Miriam Prochnow

Brasília: RMA, 2006 / 332p.: il.; 30cm / ISBN: 85-99824-01-5

1. Mata Atlântica. 2. Florestas Tropicais – Conservação I.

Campanili, Maura II. Prochnow, Miriam

CDD: 333.7

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Site da Agência Ambiental de Goiás:

http://www.agenciaambiental.go.gov.br/pq_mat_atlantica/estudo_tec_I.php

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SOURCE 2:

International Conservation 2008. Annual Planning of the Marine Program. Salvador, Bahia

SOURCE 3:

Publications of Mata Atlântica Biosphere Reserv

Caderno 04 – Plano de Ação para a Mata Atlântica, 2ª Ed./2000.

Caderno 06 – Avaliação da Reserva da Biosfera da Mata Atlântica, 2ª Ed./2000.

Caderno 08 – A Mata Atlântica do Sul da Bahia, 1998.

Caderno 11 – A Reserva da Biosfera da Mata Atlântica no Rio Grande do Sul, 1998.

Caderno 12 – A Reserva da Biosfera da Mata Atlântica em Pernambuco, 1998.

Caderno 13 – Diretrizes para a Política de Conservação e Desenvolvimento Sustentável da Mata Atlântica, 1999.

Caderno 15 – Mata Atlântica: Ciência, Conservação e Políticas, 1999.

Caderno 18 – SNUC – Sistema Nacional de Unidades de Conservação, 2ª Ed./2004.

Caderno 22 – A Reserva da Biosfera da Mata Atlântica no Estado do Rio de Janeiro, 2002.

Caderno 24 – Construção do Sistema de Gestão da RBMA, 2004.

Caderno 25 – Planejamento Estratégico da Reserva da Biosfera da Mata Atlântica, 2003.

Caderno 28 – RPPN – Reservas Particulares do Patrimônio Natural da Mata Atlântica, 2004.

Caderno 29 – A Reserva da Biosfera da Mata Atlântica no Estado de Alagoas, 2004.

Caderno 32 – Mosaico de Unidades de Conservação no Corredor da Serra do Mar, 2007.

Caderno Recursos Florestais da Mata Atlântica: Manejo Sustentável e Certificação, 2003.

Livro Não Matarás – A Reserva da Biosfera da Mata Atlântica e sua aplicação no Estado de São Paulo, 1998.

SOURCE 4:

Sites Found:

Reserva da Biosfera da Mata Atlântica – www.rbma.org.br

Ministério do Meio Ambiente – www.mma.gov.br

Instituto Florestal de São Paulo – www.iflorestal.sp.gov.br

SOS Mata Atlântica – www.sosmatatlantica.org.br

AMANE – www.amane.org.br