



# PROTECTED AREAS

## COORDINATED AUDIT



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President of the Federal Court of Accounts (TCU-Brazil)  
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# **PROTECTED AREAS**

## **COORDINATED AUDIT**

### EXECUTIVE SUMMARY

COMTEMA – OLACEFS  
Brasília, 2021

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Printed in Brazil

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This coordinated audit is the result of the joint efforts of various Supreme Audit Institutions (SAIs) and Subnational Audit Institutions, with the support of the German Cooperation by means of *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*. The institutions' websites and the names of the participants of this initiative can be found in the Acknowledgments section.

**Latin American and Caribbean Organization of Supreme Audit Institutions.**

Protected areas : coordinated audit / Latin American and Caribbean Organization of Supreme Audit Institutions (OLACEFS), Special Technical Commission for the Environment (COMTEMA); Coordinated by the Federal Court of Accounts (TCU-Brazil). – Brasília : Tribunal de Contas da União, 2021.

56 p. : il. color. – (Executive Summary)

The Coordinated Audit on Protected Areas, carried out in 2019 and 2020 under the leadership of the Special Technical Commission for the Environment (COMTEMA), was coordinated by the Federal Court of Accounts (TCU-Brazil) and was joined by Supreme Audit Institutions (SAIs) from 17 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Ecuador, Spain, Guatemala, Honduras, Mexico, Paraguay, Peru, Portugal and the Dominican Republic.

1. Environmental audit. 2. Protected Area. 3. Environmental Governance. 4. Environmental management. 5. Sustainable development. I. Title. II. Series.

# LIST OF ACRONYMS

<b>ACAP</b>	Coordinated Audit(s) on Protected Areas
<b>CBD</b>	Convention on Biological Diversity (United Nations)
<b>CCC</b>	Capacity Building Committee (OLACEFS)
<b>COMTEMA</b>	Special Technical Commission for the Environment (OLACEFS)
<b>DFOG</b>	Duplications, Fragmentations, Overlaps and/or Gaps
<b>EFSUR</b>	Superior Audit Institutions of Mercosur Countries and Associates
<b>GAO</b>	U.S. Government Accountability Office (SAI of the United States of America)
<b>GBO-5</b>	Global Biodiversity Outlook (CBD)
<b>GIZ</b>	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH</i>
<b>HTCBA</b>	Honorable Court of Accounts of the Province of Buenos Aires
<b>ICMBio</b>	Chico Mendes Institute for Biodiversity Conservation (Brazil)
<b>INDIMAPA</b>	Index of Implementation and Management of Protected Areas
<b>INTOSAI</b>	International Organization of Supreme Audit Institutions
<b>IUCN</b>	International Union for Conservation of Nature
<b>MDG</b>	Millennium Development Goal(s)
<b>METT</b>	Management Effectiveness Tracking Tool
<b>OCCEFS</b>	Central American and Caribbean Organization of Supreme Audit Institutions
<b>OLACEFS</b>	Latin American and Caribbean Organization of Supreme Audit Institutions
<b>PA</b>	Protected Area(s)
<b>RAPPAM</b>	Rapid Assessment and Prioritization of Protected Areas Management
<b>Resex</b>	Extractivism Reserve (Brazil)
<b>SAI</b>	Supreme Audit Institution(s)
<b>SANP</b>	System of Natural Protected Areas (Argentina)
<b>SDG</b>	Sustainable Development Goal(s) (2030 Agenda, United Nations)
<b>SecexAgroAmbiental</b>	Department of External Control for Agriculture and Environment
<b>TCU</b>	Federal Court of Accounts (TCU-Brazil)
<b>UN</b>	United Nations
<b>UnB</b>	University of Brasília (Brazil)
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>UNDP</b>	United Nations Development Programme
<b>UNESCO</b>	United Nations Education, Science and Culture Organization
<b>VTV</b>	<i>Valtiontalouden Tarkastusvirasto</i> (SAI of Finland)
<b>WCPA</b>	World Commission on Protected Areas
<b>WDPA</b>	World Database on Protected Areas
<b>WEF</b>	The World Economic Forum
<b>WGEA</b>	Working Group on Environmental Auditing
<b>WHO</b>	World Health Organization

Photo: Helmut Kohlberg, CC BY-SA 4.0.



Cordillera de Sama Biological Reserve, Bolivia.

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Brown pelican (*Pelecanus occidentalis*), Los Haitises National Park, Dominican Republic.

**Minister Ana Arraes**

President of the Federal Court of Accounts (Brazil)  
President of OLACEFS Special Technical Commission for the Environment

Dear Reader:

We are very pleased to present you with the results of the second edition of the Coordinated Audit on Protected Areas, carried out in 2019 and 2020 under the leadership of the Special Technical Commission for the Environment (COMTEMA) of the Latin American and Caribbean Organization of Supreme Audit Institutions (OLACEFS).

The audit was coordinated by the Federal Court of Accounts (TCU-Brazil) and was joined by Supreme Audit Institutions (SAIs) from 17 countries: 15 from Latin America and the Caribbean and 2 from Europe: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Ecuador, Spain, Guatemala, Honduras, Mexico, Paraguay, Peru, Portugal and the Dominican Republic.

## PRESENTATION

In addition, 9 Subnational Audit Institutions – 8 Brazilian state courts of accounts in the Amazon region and one Argentine provincial court of accounts – took part in the audit.

Of the 17 participating countries, 11 also took part in the first edition of the coordinated audit, conducted in 2014 and 2015, which provided the baseline data for comparative analysis of progress and setbacks in the implementation and management of protected areas.

The objectives of the coordinated audit were to assess the level of implementation and management of protected areas in participating countries, and the contribution of national protected area policies to the achievement of Sustainable Development Goal (SDG) targets and Aichi Biodiversity Target 11, within the framework of the United Nations Convention on Biological Diversity (CBD).

The audit had the support of the OLACEFS Capacity Building Committee (CCC) for the training cycle, and was also supported by the German Cooperation by means of GIZ, within the framework of the Regional Project Strengthening External Control in the Environmental Area.

Despite the health crisis due to the Covid-19 pandemic, declared in March 2020 by the World Health Organization (WHO), it was possible to continue the joint work by maintaining the commitments of participating audit teams and stakeholders. By intensifying dialogue between project teams and partners, and through the use of information and communication technology tools, the workshop on the consolidation of findings and results was held virtually in October 2020, allowing the consolidation of the audit results to be concluded.

Through coordinated audits such as this, SAIs play an important role in promoting the efficiency, accountability, effectiveness and transparency of public administration, contributing to the achievement of national deve-

lopment objectives and priorities, as well as international agreements and internationally agreed development goals, as recognized by the United Nations General Assembly (A/RES/66/209 and A/RES/69/228).

Therefore, through this joint project, SAIs were able to develop a regional panorama on the level of implementation and management of protected areas, and the contribution of these territories to the fulfillment of international commitments, specifically the 2030 Agenda for Sustainable Development and the United Nations Convention on Biological Diversity. In this way, SAIs make a significant contribution so that national governments and stakeholders can take the necessary steps towards sustainable development.





**Minister Augusto Nardes**  
President of CCC

## MESSAGE FROM CCC

Dear readers,

It is a great satisfaction to be able to participate, once again, in the important project that is the Coordinated Audit on Protected Areas (ACAP), carried out within the scope of the Special Technical Commission for the Environment (COMTEMA) of the Latin American and Caribbean Organization of Superior Audit Institutions (OLACEFS). Thanks to the collective efforts of 26 Superior and Subnational Audit Institutions, this initiative managed to assess 2,415 protected areas (PAs) in Latin America and Europe, by means of the innovative methodology called INDIMAPA (Index of Implementation and Management of Protected Areas), created by the Federal Court of Accounts (TCU – Brazil) to assess PAs, communicate audit results, and, starting with this edition of the Coordinated Audit, follow up on the management level of these territories.

I say “participate once again” because I had the honor of being present at the

genesis of this project. In 2012, when I was vice-president of TCU, I proposed an audit in protected areas, parks, and nature reserves, with the goal of determining if there was sustainable development implemented in Brazil. The inspiration for my proposal was the Rio+20 Conference, which I had recently attended. In the following year, 2013, I assumed the presidency of TCU and OLACEFS, and actively participated in the execution of the audit. In May of that year, at the invitation of the Chico Mendes Institute for the Conservation of Biodiversity (ICMbio), we made a technical visit to the Tapajós National Forest and to the Extractivism Reserve (Resex) Tapajós-Arapiuns, in the state of Pará. On that occasion, I recalled the visit to Amazonia made by writer Euclides da Cunha, in 1905, to establish the borders between Brazil and Peru.

On that opportunity, the writer was impressed by the region, with its low social cohesion, that demanded stimuli to ensure the human permanence. More than a hundred years after Euclides da Cunha, we could still feel the anguish that left an impression upon him. What stimuli would be needed? The development of activities like agriculture, cattle raising, mining, industry, and tourism, besides the great scientific interest that exists about the region, demanded an efficient system of governance. We then went in search of the face of Amazonia, the men and women

responsible for good practices which are capable to contribute for the improvement of the management of the protected areas located in the Amazon biome.

There we met people like Antônio Oliveira, known as Mucura, aged 75, who lent his experience to the students at the Forest School, in Santarém, and taught sustainable forms of exploration of natural resources. Or like Raimundo Pedroso, 73, who led the Maguari community, on the banks of the Tapajós river. Women like Maria Odília, president of the association of residents of the Anã community, within the Resex, who, with the support from Dreamer Women in Action (Musa), developed a sustainable project for the farming of tambaqui (an Amazonian fish). Those are some of the examples of good practices collected by the audit that, in the end, would be transmitted to other Amazonian countries.

That pioneering work bore fruit. In the next stage, I proposed the first coordinated audit in Latin America. With the participation of 12 Superior Audit Institutions (SAIs) from Latin America, under the coordination of TCU and the Office of the Comptroller General of the Republic of Paraguay, we joined forces to assess 1,120 protected areas and provide a regional and systemic view of the governance of their national systems of protected areas. Based on this audit, the Manual for Coordinated Audits was produced, which has been serving as a guideline for audits around the world. This was also the time when the INDIMAPA methodology was applied for the first time.

It was a work that took some convincing, first with the nine Brazilian states of the Amazon region. Later, we held a large meeting involving all the Courts of Accounts from states in that region, as well as the Comptroller-General Offices of the Latin American countries that include parts of the Amazon region. We all met in Manaus, capital of the Brazilian state of Amazonas, and we did our best efforts of political articulation to convince them all of the need for audits in remote areas.

This initiative was a milestone in the history of COMTEMA and OLACEFS, since it was the process that launched the systematization and incorporation of coordinated audits as a *modus operandi* for these organizations. This process was developed with the active participation of the Capacity Building Committee (CCC), that has been presided by TCU since 2016 and is currently composed by 14 SAIs.

CCC, whose mission is to organize and promote capacity building among SAIs, has developed strategies to utilize coordinated audits as opportunities for learning and professional/institutional development. By means of the Task Force for Coordinated Audits (FTAC), created in 2017, with the participation of the SAIs from Brazil, Ecuador, El Salvador, Peru, and the Dominican Republic, good practices were shared, and this knowledge was consolidated in the above-mentioned Manual for Coordinated Audits, one of FTAC's main outcomes.

Besides, the Committee continues to support the implementation of these audits, as was the case of this edition of the Coordinated Audit in Protected Areas. One

of the most important stages of an audit is the capacity building cycle, which starts even before the beginning of the actual work, involving the SAIs that will take part in the joint effort. CCC, in partnership with COMTEMA, has supported courses on subjects like performance audits, the 2030 Agenda and the Sustainable Development Goals, and biodiversity and protected areas.

However, the cycle does not end with these courses, but is developed along with the execution of the audit work. Besides these courses, a planning workshop for the audit was held in Guatemala City between November 4 and 8, 2019, and a workshop for the consolidation of results was carried out in a completely virtual fashion between October 19 and 30, 2020, due to the limitations imposed by the Covid-19 pandemic.

In the context of this atypical year, the commitment by all Superior and Subnational Audit Institutions in carrying out this work during a challenging period such as the one in which we are currently living, deserves recognition. The CCC

is proud to have contributed for the integration of all participants in the audit, despite the distance between them, and for enabling the always rich process of learning and exchanging of experiences and knowledge.

The participation of our partners was also extremely relevant. The audit received the support from the German Cooperation implemented by GIZ, within the scope of the Regional Project Strengthening of External Control in the Environmental Field. The International Union for the Conservation of Nature (IUCN) has also collaborated, through its World Commission on Protected areas (WCPA), as has also the United States' SAI, the U.S. Government Accountability Office (GAO). We thank them and all the actors that contributed to making this project possible.

To conclude, I hope the readers will enjoy reading this Executive Summary, that brings relevant contributions to the challenge of protecting nature and conserving biodiversity, reflecting the fundamental role of SAIs to contribute to sustainable development.



# MESSAGE FROM THE MINISTER-RAPPORTEUR

Dear readers,

In 2021, the Federal Court of Accounts took up the task of evaluating the governance of the protected areas of the Amazon biome that are under the responsibility of the Brazilian government. To this end, the Court designed a metric which is cable of expressing – for the purpose of orienting the activities of external control – the existence of the necessary regulatory, institutional, and operational conditions for the protected areas to reach the objectives for which they were created. That metric was the Index of Implementation and Management of Protected Areas (INDIMAPA).

From this pioneering step, a promising method arose for the evaluation, monitoring and communication of results of public policies for the in situ conservation of biodiversity, which is able to capture qualitative aspects of these policies that, previously, were evaluated almost exclusively on the basis of the territorial extension covered by these areas.

Indimapa was built from the aggregation of widely applicable components, which greatly facilitated their utilization in a variety of institutional contexts, favoring the conduction of coordinated



**Substitute Minister Weder de Oliveira**  
Minister-Rapporteur

work in other federative spheres of the Brazilian government, as well as in other countries. This made it possible to replicate Indimapa on the other Brazilian biomes in 2013, and also allowed nine courts of accounts of Brazil's Amazonian states to utilize it on their respective states' protected areas. Besides, in 2014, the time came for Superior Audit Institutions (SAIs) from eleven Latin American countries to apply this evaluation method. On that occasion, 1,120 protected areas in the continent were assessed.

In fact, the replicable nature of Indimapa keeps driving the conduction of great cooperative works and, far beyond the production of diagnostics of public policy per se, it encourages the execution of coordinated audits, and creates magnificent conditions for the exchange of experiences and for the interchange of knowledge.

This new edition of the Coordinated Audit on Protected Areas, carried out between 2019 and 2021 within the scope of the Special Technical Commission for the Environment (COMTEMA), and led by the Department of External Control for Agriculture and Environment of the Federal Court of Accounts (SecexAgroAmbiental), happens exactly in this context, now with the participation of seventeen countries and more than a hundred government auditors grouped into 26 audit teams.

Thanks also to the support from various partners – especially from the German Cooperation implemented by GIZ

and from the OLACEFS Capacity Building Committee (CCC) –, in the work presented here, it was possible to assess more than 2,400 protected areas in Latin America, in the Caribbean, and in Europe. This collective effort made it possible to provide a systemic regional panorama of this in situ biodiversity conservation policy by means of the implementation and management of these especially protected territories.

The information contained in this Executive Summary has the potential to contribute for the transparency of these public policies and to the improvement of environmental governance.



# MESSAGE FROM GIZ

Dear readers:

The second edition of the Coordinated Audit on Protected Areas, carried out between 2019 and 2020 under the leadership of the Federal Court of Accounts (TCU-Brazil), is one of the most relevant initiatives carried out by the Latin American and Caribbean Organization of Supreme Audit Institutions (OLACEFS) in the environmental area. It involved 15 Supreme Audit Institutions (SAIs) in the region, in addition to the SAIs of Spain and Portugal, as well as Subnational Audit Institutions from Argentina and Brazil. Other key actors also contributed, including specialists and international organizations interested in the subject, such as the International Union for Conservation of Nature (IUCN). Therefore, for the German Cooperation, by means of GIZ, it has been a great satisfaction to have contributed technically to the implementation of this initiative.

The main results are presented in this Executive Summary, based on a comprehensive evaluation of the effectiveness of the management of 2,415 protected areas in 15 countries in Latin America and the Caribbean, as well as in Spain and Portugal, using the IN-DIMAPA methodology. It is worth noting that this audit has verified the evolution



**Michael Rosenauer**  
National Director of GIZ in Brazil

of the management of 1,028 protected areas that had been assessed in its first edition, in 2014. The contribution of protected areas to the fulfillment of Aichi Biodiversity Target 11 of the Convention on Biological Diversity and Sustainable Development Goals 14 and 15 was also assessed.

Over the past 30 years, the German Cooperation by means of *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH* has supported SAI capacity building in different regions of the world, thus recognizing the impor-



**Jens Brueggemann**

Director of the Biodiversity, Forests and Climate Program, GIZ Brazil

tance and contribution of governmental external control to promote the efficiency, effectiveness and transparency of public administration. In this context, since 2016, in partnership with TCU and OLACEFS, the regional project for Strengthening External Control in the Environmental Area has been implemented with the objective of contributing to the improvement of environmental governance through the strengthening of SAI capacities, the promotion of cooperation and exchange of experiences between them, and the optimization of communication

with external stakeholders. This audit is a notable result of this cooperation.

The relevance of this initiative's theme for sustainable development is evident, as protected areas are key instruments for the conservation of biodiversity and the maintenance of ecosystem services on which human activities and well-being depend.

Special thanks to the auditors who participated in this important initiative. We also thank TCU and OLACEFS for the partnership and close collaboration, especially our colleagues and collaborators in the Presidency and in the member SAIs of the Special Technical Committee on the Environment (COMTEMA) and the Capacity Building Committee (CCC).

We hope that the results of this coordinated audit will be used by decision-makers in the various government bodies of the participating countries for the continuous improvement of public policies and the management of protected areas. We are also confident that they will serve to promote compliance with multilateral agreements in the environmental area of which countries are signatories, and that this compliance can be reassessed periodically through future editions of the audit. Undoubtedly, these efforts will help protected areas effectively meet their objectives and contribute to the sustainable development of countries in the region.

Photo: OCEANA – Eduardo Sorensen  
Gobierno de Chile. CC BY 2.0.



Marine Park Motu Motiro Hiva, Chile.

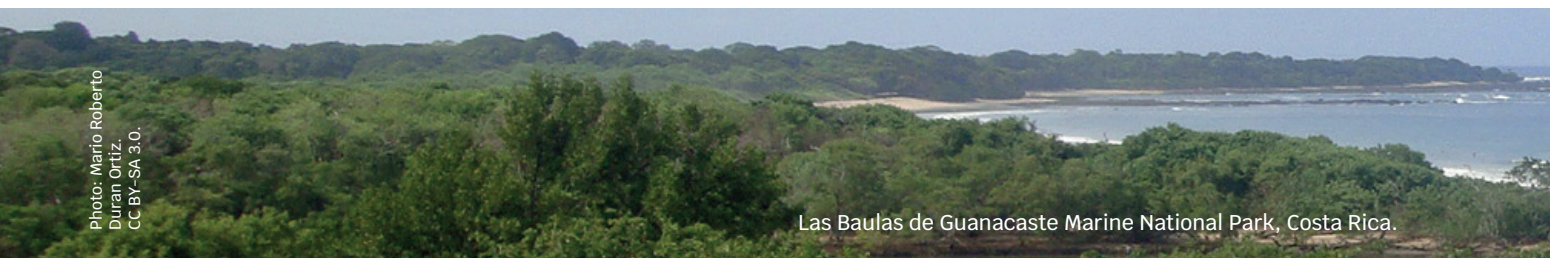
## INTRODUCTION

### Protected Areas

The establishment of **protected areas** is the world's leading strategy for *in situ* biodiversity conservation, contributing to the maintenance of ecosystem services and ecological processes which are essential for human life, and serving as a refuge for multiple species, including those

threatened with extinction. The importance of national protected area systems is recognized in the United Nations **Convention on Biological Diversity (CBD)**, signed by 193 countries. In 2010, the 10th Conference of the Parties to the CBD (CoP-10) approved the second Strategic Plan for Biodiversity for the period 2011-2020 – the decade of

Photo: Mario Roberto  
Duran Ortiz.  
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Las Baulas de Guanacaste Marine National Park, Costa Rica.

biodiversity– which includes the 20 Aichi Biodiversity Targets, in reference to the Japanese province of Aichi where the conference was held.

**Aichi Biodiversity Target 11** states that, by 2020, at least **17%** of land and inland water areas and **10%** of marine and coastal areas – especially those of particular importance for biodiversity and ecosystem services – should be conserved through effectively and equitably managed **protected area systems**, among other attributes.

In 2015, the United Nations General Assembly approved the **2030 Agenda for Sustainable Development** (A/RES/70/1),

which represents a global plan for the 2015-2030 period and includes the 17 Sustainable Development Goals (SDGs) and their 169 associated targets, succeeding the 8 Millennium Development Goals (MDGs) from 2000-2015. Aichi's goals are reflected in the SDGs, especially **SDGs 14 (Life below Water)** and **15 (Life on Land)**, with targets 14.5, 15.1 and 15.9. However, the 2030 Agenda is cross-cutting, and other goals relate to biodiversity conservation, such as the protection of pollinating agents for agricultural food production (SDG 2), water protection (SDG 6), climate change (SDG 13), among many others.

**Figure 1:** The 17 Sustainable Development Goals

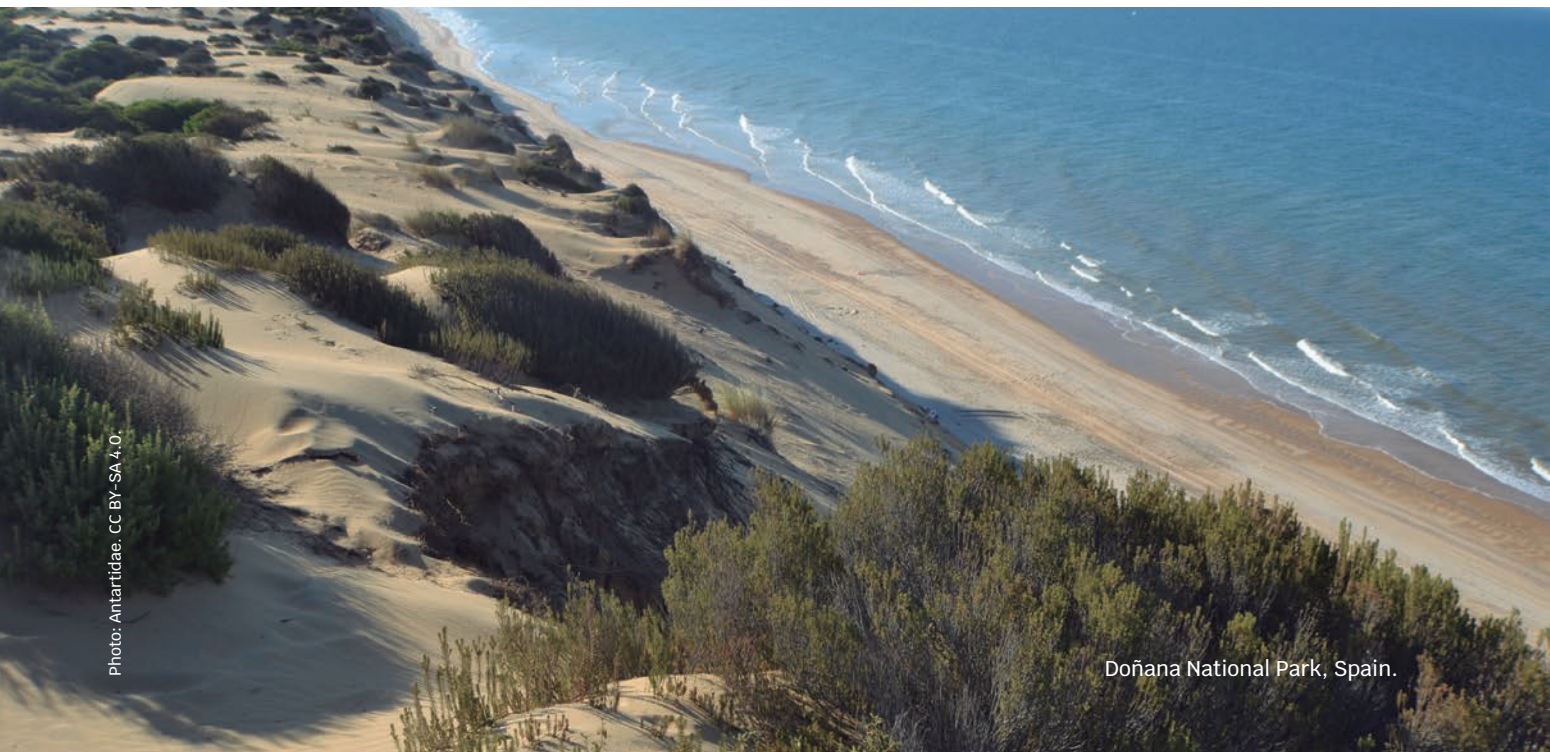


Biodiversity is a cross-border and transgenerational public good, whose conservation requires joint actions, consistent public policies and participatory governance mechanisms. In this sense, Supreme Audit Institutions can join forces through coordinated audits, exercising their role of external control and promoting the effectiveness and results of public policies and the improvement of public administration for the benefit of citizens in their countries.

At the national and local levels, *in situ* biodiversity conservation depends on the implementation of effective public policies by governments and stakeholders. Thus, a central component for biodiversity conservation is the establishment, implementation and

effective management of **protected areas**, preserving and conserving the natural heritage they constitute to guarantee human subsistence and the dignified life of present and future generations of people.

Considering this relevant natural heritage, this coordinated audit on protected areas is a contribution of SAIs to promote the effectiveness of public policies, accountability and transparency of public administration, and efficient use of public resources, contributing to the achievement of national development goals and priorities, as well as international agreements and internationally agreed development goals (UN, A/RES/66/209 and A/RES/69/228).



## Coordinated Audit

This second edition of the Coordinated Audit on Protected Areas (ACAP, for its acronym in Spanish), conducted between 2019 and 2020, aimed to assess the level of implementation and management of protected areas of Latin American, Caribbean and Iberian Peninsula countries, as well as their progress towards achieving Aichi Biodiversity Target 11 within the framework of the Convention

on Biological Diversity (CBD) and the targets of Sustainable Development Goals (SDGs) 14 and 15 of the 2030 Agenda for Sustainable Development.

The 26 participating audit teams, which brought together more than 100 auditors, assessed **2,415** protected areas (PAs), of which **1,028** were assessed in the first edition of the audit, which was conducted in 2014 and formed the baseline for comparisons.

**Figure 2:** PAs assessed in each edition of the audit



Of the 17 countries in Latin America, the Caribbean and Europe that were part of the audit, 11 also participated in the

first edition of the ACAP, as shown on the following map.



**Figure 3:** Countries participating in the audit

The audit used the Protected Areas Implementation and Management Index (**INDIMAPA**), which allows protected areas to be **assessed** in three ranges of implementation and management – low, medium and high – through 13 indicators, to **communicate** the results in a simple way, and **monitor** progress and weaknesses in the implementation and management of protected areas.

The methodology also included **DFOG Analysis** to identify Fragmentations, Overlaps, Duplications and Gaps between the policy on protected areas and public policies on tourism and land use planning. In other words, potential blind spots between public policies or government agencies that can generate

negative effects on the achievement of their objectives were analyzed.

The results of the coordinated audit are structured in five chapters:

1. Terrestrial and marine coverage of protected areas and Aichi Biodiversity Target 11;
2. INDIMAPA and the level of implementation and management of the PAs assessed;
3. DFOG analysis in PA, tourism and land-use public policies;
4. Important governance aspects: participation in management, and monitoring of conservation and socio-economic results;
5. Complementary information identified in the audit.

# TERRESTRIAL AND MARINE COVERAGE

In 2019, 13 of the 17 countries participating in the coordinated audit managed to have at least 17% of their terrestrial and inland water areas under their protected area systems, according to data collected in the audit and available in national reports submitted to the CBD (Bolivia, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Peru, Portugal and Spain). Percentages ranged from 10.9% to 32.8%. Even among the countries with a percentage of less than 17%, there were some significant growths between 2014 and 2019, as in the cases of Argentina and Colombia, which participated in both editions of the audit.

For marine and coastal areas, data were obtained from 14 countries, 8 of which have more than 10% of their marine and coastal areas included in protected area systems (Brazil, Chile, Colombia, Cuba, Ecuador, Spain, Mexico, Portugal and the Dominican Republic). The difference in protection percentages between countries was considerable, from 0.5% to 42.3%. In 2014, the protection of marine and coastal areas was far from Aichi biodiversity target 11, as noted in the first edition of the coordinated audit; in 2019, significant progress was observed,

especially in some countries such as Argentina and Brazil, who participated in the first edition, and Chile, according to its national reports to the CBD.

It should be noted that the methodology for calculating the percentages indicated may change in each country, and from year to year. In addition, international disputes over terrestrial and maritime borders involve additional difficulties in data collection and information production. In the case of marine and coastal areas, the absence of data and a historical series makes more in-depth analysis difficult in some countries.

It is therefore concluded that the contributions of the 17 Latin American, Caribbean and Iberian Peninsula countries were significant in respect of the percentages required by Aichi Biodiversity Target 11 and Target 14.5 of SDG 14, being an important step towards biodiversity conservation through protected area systems. The next step is to provide the regulatory, institutional and operational conditions for these areas to be implemented and managed effectively, to achieve the objectives for which these specially protected territories were created.



Los Estoraques Unique Natural Area, Colombia.

Photo: Julián Ruizp. CC BY-SA 4.0.

### Contributions to Aichi Target 11

Country	Terrestrial	Marine
Argentina	13.1%	7,1%
Bolivia	26.5%	NA
Brazil	18.1%	26.4%
Chile	20.5%	42.3%
Colombia	16.3%	13.8%
Costa Rica	25.5%	2.6%
Cuba	17.2%	25.0%
Dominican Republic	25.0%	10.0%
Ecuador	22.0%	13.0%
El Salvador	24.8%	0.9%
Guatemala	30.9%	0.9%
Honduras	28.4%	No data
Mexico	10.9%	22.1%
Paraguay	15.0%	NA
Peru	17.3%	0.5%
Portugal	25.0%	9.2%*
Spain	32.8%	12.0%

\*Considering the extended continental platform, an area pending of confirmation by the United Nations. Source: compiled from data collected by SAIs between 2019 and 2020. Percentages may have changed since then.

# IMPLEMENTATION AND MANAGEMENT OF PROTECTED AREAS

## Methodology: INDIMAPA

In 2019 and 2020, as a result of the joint effort of participating teams, the coordinated audit managed to assess **2,415 protected areas (PAs)**, which allowed the elaboration of an unprecedented analysis under the perspective of environmental external control.

To this end, the **Index of Implementation and Management of**

**Protected Areas (INDIMAPA)** was used, which seeks to assess PAs, communicate the results obtained and consolidated, and monitor progress and weaknesses in their implementation and management. The data provided to the tool is collected through audit techniques, including electronic surveys sent to park rangers and PA managers, consulting information systems and official databases, review of government reports and conducting interviews, among others.

## Indimapa's Indicators

Acronym	Indicator
G	Management plan/planning instruments
H	Human resources
\$	Financial resources
E	Administrative structure
T	Territorial consolidation
F	Protection
P	Research
B	Biodiversity monitoring
C	Participatory management (management committee)
M	Management by traditional and/or local communities
U	Public use
L	Articulation in the PA
N	Concessions

The index consists of the arithmetic mean of **13 indicators**, representing the various essential inputs and processes

of the implementation and management of PAs. Each indicator is calculated by the sum of **three components** that,

together, describe the aspect measured by the indicator to which they refer. The values of these components are binary (0 or 1), representing fulfillment or not of the aspect measured by the component. The sum of the values of the three components is the value of the respective indicator, representing, on a discrete scale (0, 1, 2 or 3), the level of implementation and management of the PA under the aspect measured.

In turn, the index for each PA is calculated from the arithmetic mean of the indicators applicable to that PA, varying on a continuous scale of 0 to 3, and represents, in the end, the overall level of PA implementation and management, considering the indicators applicable to it. The final index of each PA ( $i$ ) is classified into three ranges of implementation and management: low ( $0 \leq i < 1$ ), medium ( $1 \leq i < 2$ ) or high ( $2 \leq i \leq 3$ ), which are visually represented in maps and graphs with red, yellow, and green colors, respectively.

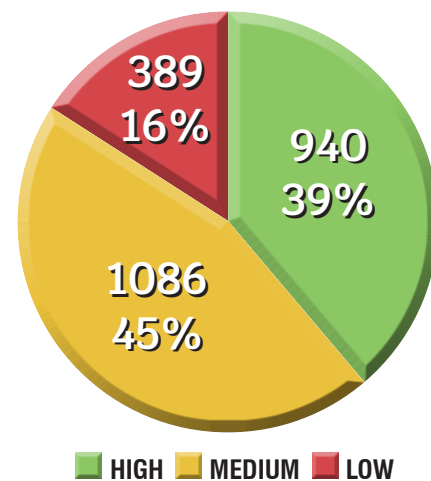
INDIMAPA was created by TCU in the first edition of the coordinated audit, conducted between 2013 and 2015, and based on other internationally recognized methodologies for PA evaluation: RAPPAM (*Rapid Assessment and Prioritization of Protected Areas Management*) and METT (*Management Effectiveness Tracking Tool*). In the 2019-2020 coordinated audit, the Covid-19 pandemic limited some of the data collection and field visits to verify

and contrast the information obtained; however, the methodology includes diverse data sources, compensating for the effects of those circumstances.

## Results

The implementation and management rates of the **2,415 PAs** assessed in this audit were distributed into the three INDIMAPA ranges according to the following graph.

**Figure 4:** INDIMAPA 2019  
2,415 PAs (Latin America, Caribbean  
and Iberian Peninsula)



The average of the indices for all PAs assessed was **1.73**, which is a concise result that incorporates the consolidation and implementation differences of the various protected area systems. While the 596 European PAs assessed averaged 2.27, the average for the 1,819 Latin American and Caribbean PAs was 1.55, and it was found that 97% of the 389

PAs with a low level of implementation and management were located in Latin America and the Caribbean (377 PAs). These differences should be understood in the framework of the different political, environmental, economic, social, legal and historical contexts in which the countries are located.

The implementation and management components that achieved the highest indices in 2019 refer to management inputs (financial and human resources), and implementation of planning and management instruments.

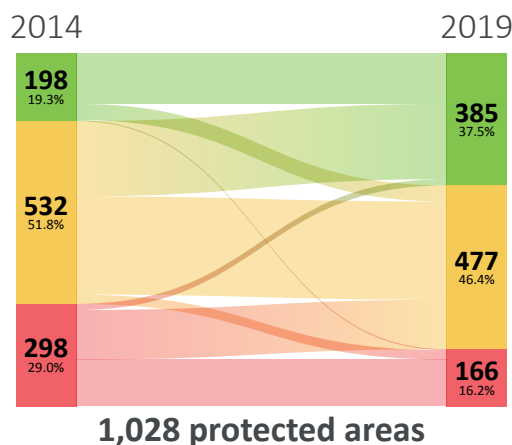
Regarding financial and human resources, the components that assess the impact of the lack of resources on essential management activities stood out; i.e., despite a possible shortage of resources, PAs are managing to execute their essential activities. Specifically, on human resources, it was identified that more than 90% of the assessed PAs have at least one person responsible for their management, and 223 PAs (9% of

the total) have none, which represents an improvement in relation to a problem that had been identified in the 2014 audit.

Among the planning and management instruments, high implementation was found in the components related to mechanisms for prioritization of scientific research topics and use of results in PA management, as well as the existence of management committees or other participatory management mechanisms in PAs, although there are still opportunities for improvement.

Considering the **1,028 PAs** assessed in the two coordinated audits, the average implementation and management index increased from **1.34 (2014)** to **1.59 (2019)**. While this result indicates that these PAs remain at an average level of implementation and management, it is important to note that the transition between the three ranges (low, medium, and high) suggests an improvement, as reflected in the following graph:

**Figure 5:** Transition of PAs between INDIMAPA ranges (2014-2019)

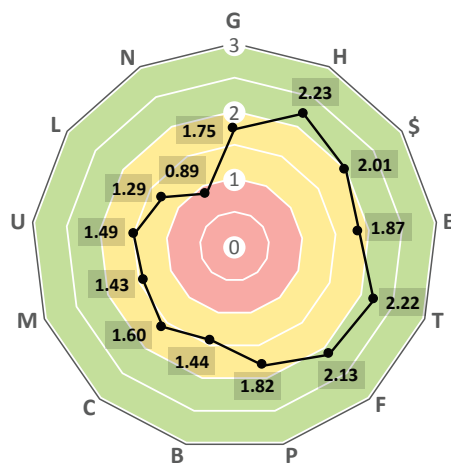


The data also suggest gradual progress in two management aspects that presented problems according to the 2014 audit: the existence of management plans and the allocation of at least one PA management officer. However, these aspects still need due attention from governments and managers.

Despite the progress made, weaknesses were identified in important processes for the implementation and management of protected areas, such as: biodiversity monitoring, natural resource management by traditional and/or local communities, public use, articulation in PAs, and concessions.

In other words, the main challenges of implementing and managing PAs relate to their objectives and expected results: monitoring environmental conservation results, sustainable use of the PA's natural resources and tourism potential, and raising awareness of stakeholders on the importance of the area. These goals correspond to the environmental, social and economic dimensions of sustainable development in the implementation and management of PAs, demonstrating the need for greater integration of these three pillars.

**Figura 6:** Indimapa 2019: average indicators  
2,415 PAs (Latin America, Caribbean and Iberian Peninsula)



Acronym	Indicator
G	Management plan/planning instruments
H	Human resources
\$	Financial resources
E	Administrative structure
T	Territorial consolidation
F	Protection
P	Research
B	Biodiversity monitoring
C	Participatory management (management committee)
M	Management by traditional and/or local communities
U	Public use
L	Articulation in the PA
N	Concessions

These vulnerabilities are detailed in the following chapters.

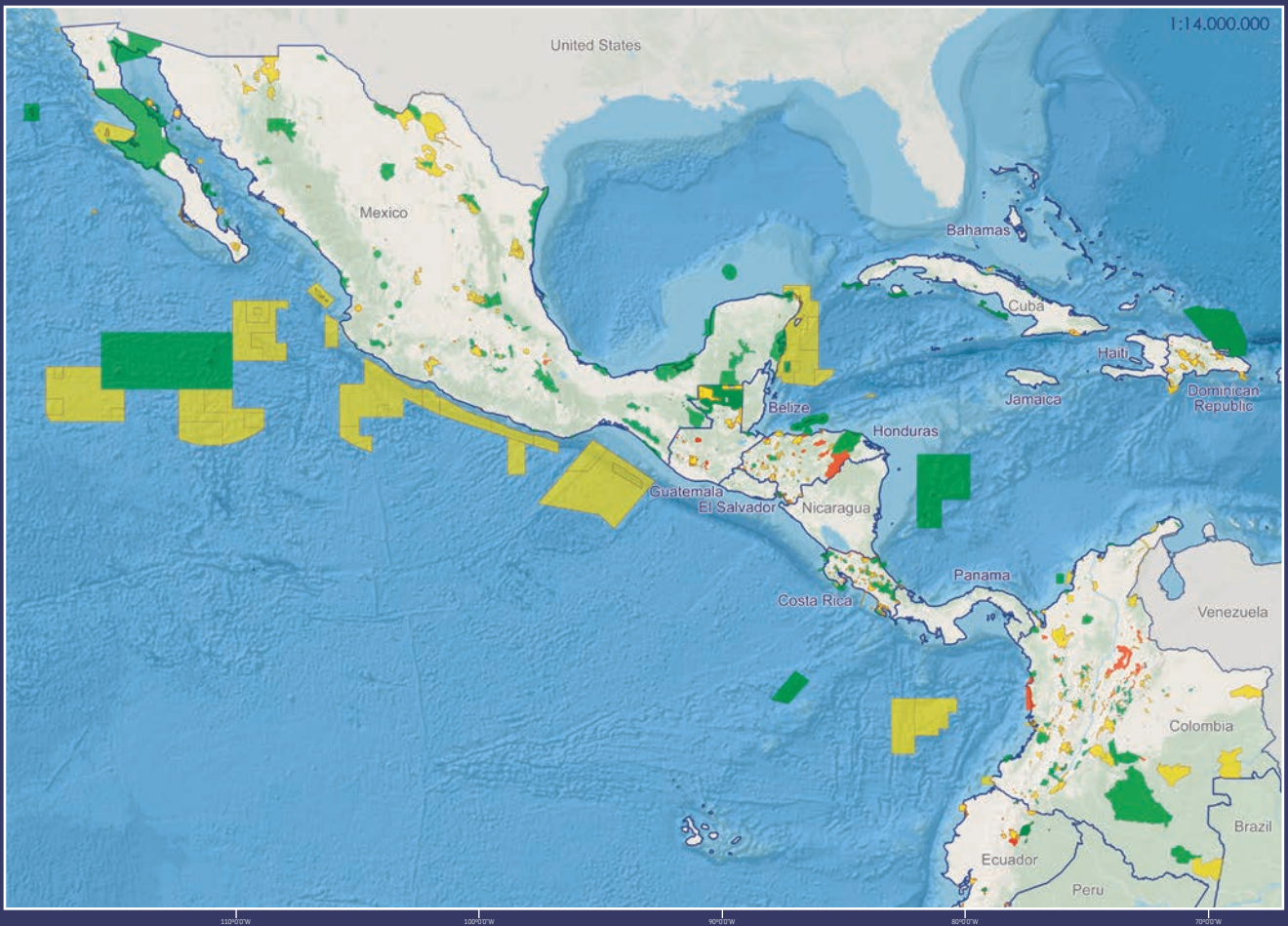
Montecristo National Park, El Salvador.





Photo: Diego Delso. <http://delso.photo/>. CC BY-SA 4.0.

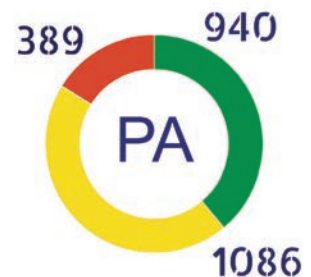
Diamond lizardfish (*Synodus synodus*), Garajau Partial Nature Reserve, Madeira, Portugal.



# PROTECTED AREAS COORDINATED AUDIT

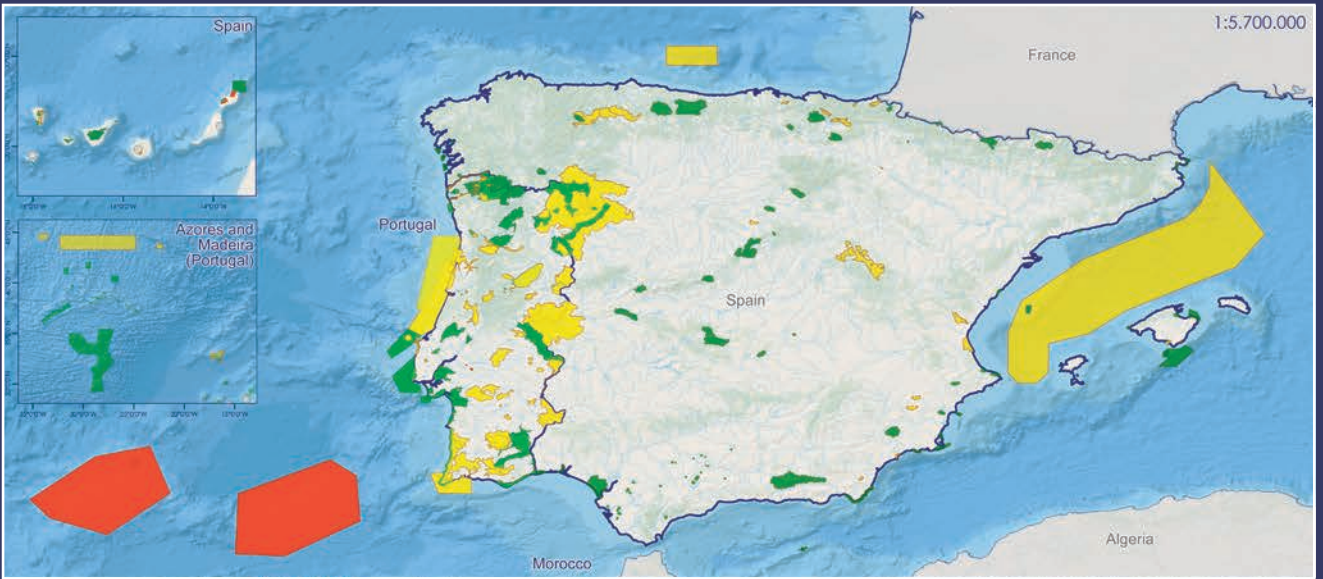
## INDIMAPA 2019

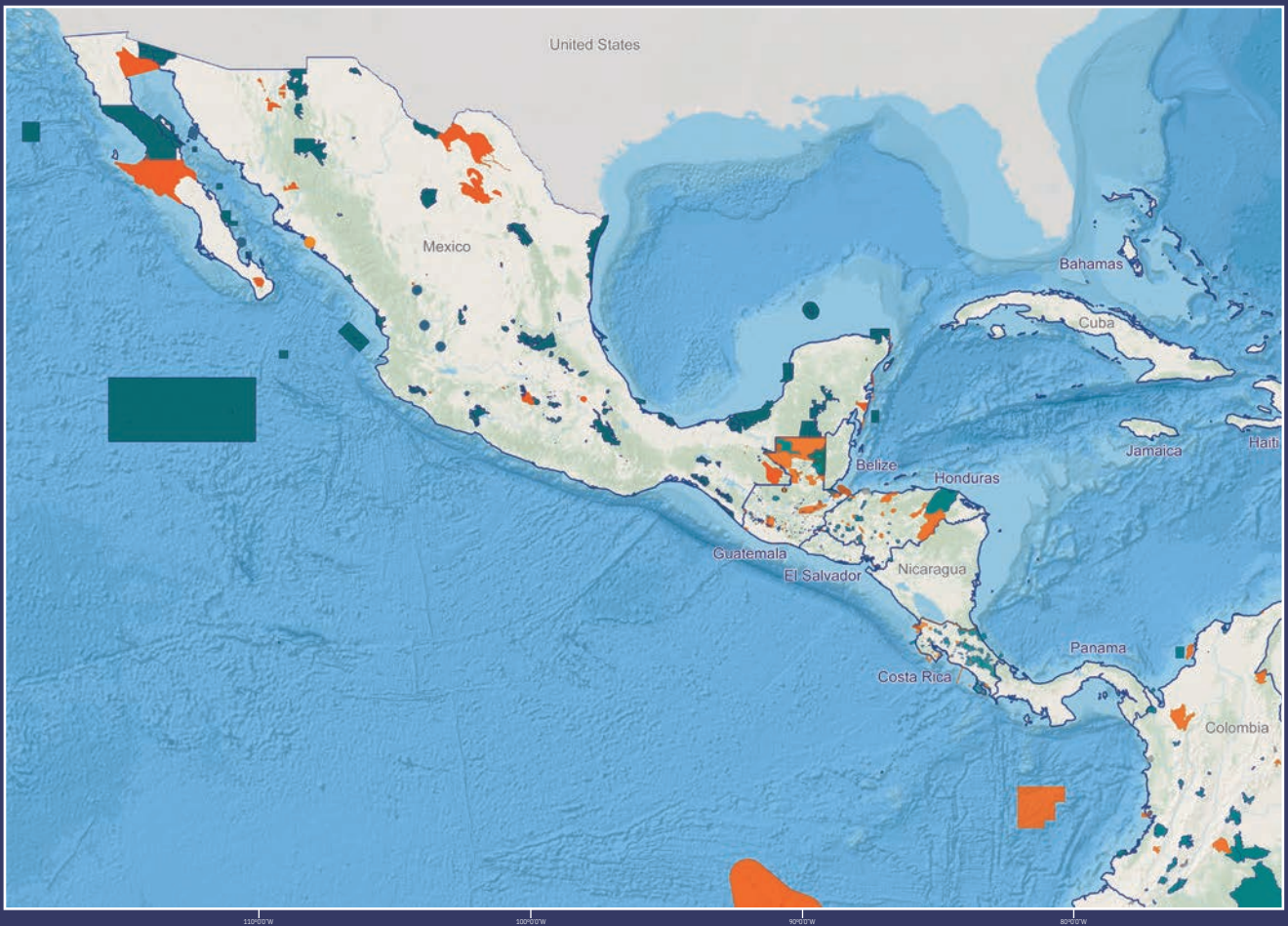
- High  $2 \leq i \leq 3$
- Medium  $1 \leq i < 2$
- Low  $0 \leq i < 1$



Geographic Coordinated System, Datum: WGS 1984, Source, Country boundaries: Natural Earth, Protected Areas: WDPA; Indimapa 2013/2014: files from the Provincial Organism for Sustainable Development (OPDS) of the Province of Buenos Aires, organized by the HICBA's audit team; Brazilian Institute of Geography and Statistics; Chico Mendes Institute for Biodiversity Conservation (Brazil); National Protected Areas Registry of Colombia; National System of Conservation Areas (Costa Rica); Ministry of Environment and Sustainable Development (Paraguay); Environmental and Marine Geographic Information System of the Azores (Portugal); Portuguese Institute for Nature Conservation and Forests. INDIMAPA: supreme and subnational audit institutions participating in the Protected Areas Coordinated Audit.



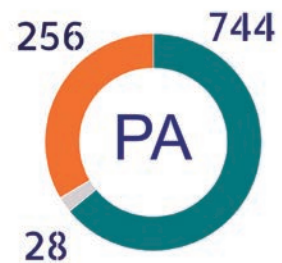




# PROTECTED AREAS COORDINATED AUDIT

## INDIMAPA +5

- Improvement (2014 < 2019)
- Maintenance (2014 = 2019)
- Decline (2014 > 2019)



Geographic Coordinated System. Datum: WGS 1984. Source, Country boundaries: Natural Earth. Protected Areas: WDPA; Indimapa 2013/2014: Brazilian Institute of Geography and Statistics; Chico Mendes Institute for Biodiversity Conservation (Brazil); National Protected Areas Registry of Colombia; National System of Conservation Areas (Costa Rica). INDIMAPA: supreme and subnational audit institutions participating in the Protected Areas Coordinated Audit. \*This map only represents PA with data for both 2014 and 2019.





Photo: Dashiell Veresque

*Ceiba pentandra*, Ilha do Combu Environmental Protection Area, Pará, Brazil.

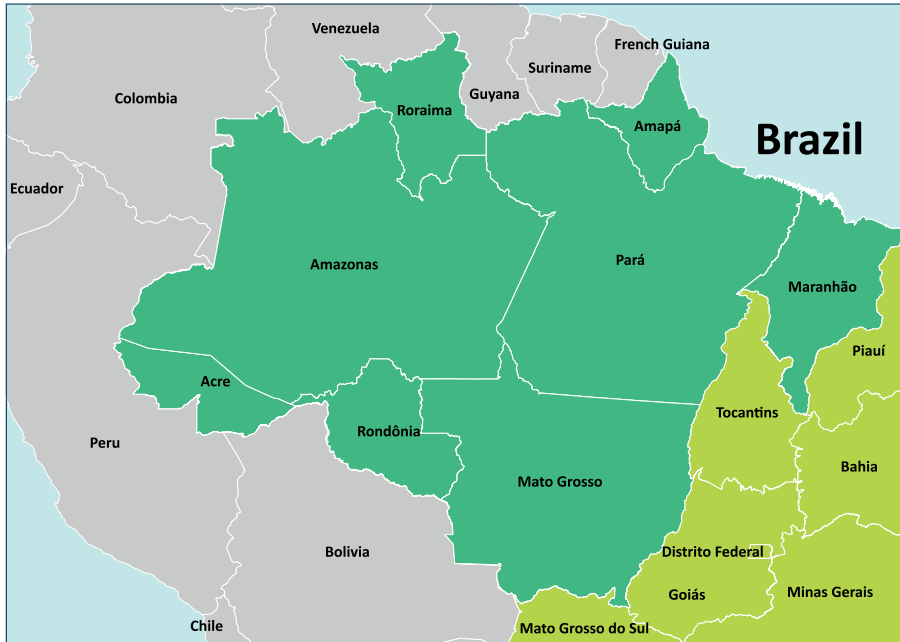
## LOCAL PERSPECTIVE

In Brazil and Argentina, which are organized as federations, competencies to deal with environmental issues are often concurrent between different levels of government, including those of creation, implementation and management of protected areas, so that national and subnational PA systems coexist. Thus, in this coordinated audit, in addition to the 17 SAIs of the Latin American, Caribbean and Iberian Peninsula countries, nine Subnational Audit Institutions have also participated: the Honorable Court of Accounts of the Province of Buenos Aires (HTCBA) and eight Courts of Accounts of the Brazilian States located in the Amazon Biome

(Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia and Roraima). The work of these subnational entities has given the audit a local perspective on the management and implementation of protected areas.

Consolidated results make it possible to conclude that the implementation and management of PAs at the subnational level encounters more difficulties than at the national level. This reinforces the importance of the commitment to the 2030 Agenda and international agreements, such as the CBD, seeking progress not only at the global, regional and national levels, but also at the local level.

**Figura 7:** States of the Brazilian Amazon



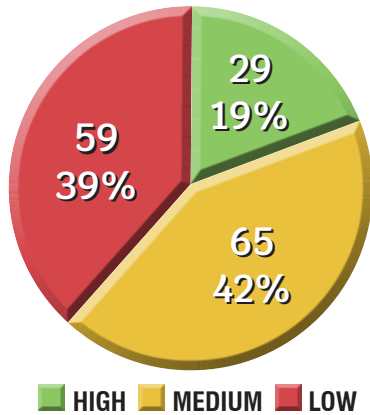
The Brazilian portion of the Amazon biome covers more than four million square kilometers (almost half of the Brazilian territory). In addition to federal protected areas, there is a significant portion of Amazon PAs under state management: about 518,000 km<sup>2</sup>, representing 43% of the total PA area in the biome (“conservation units,” in the terminology of the Brazilian system). Through the participation of the Courts of Accounts of the States of Acre, Amazonas, Amapá, Mato Grosso, Maranhão, Pará, Rondônia and Roraima, it was possible to assess 153 state PAs in 2019, expanding the scope of the audit in the biome. Furthermore, these 8 courts also participated in the first edition of the coordinated audit and have comparative data from Indimapa.

According to Indimapa, the average level of implementation and management of the 153 state PAs assessed in 2019 was **1.22**. 19% of these PAs are at a high level of implementation and management, while 42% are at a medium level, and 39% are at a low level. This result is less successful than at the Brazilian federal level, pointing to greater difficulties in implementing PA public policy at the subnational level.

However, the historical analysis of the implementation and management of PAs at the subnational level showed that progress was made between 2013 and 2019 in most of the state PAs assessed in the two audits.

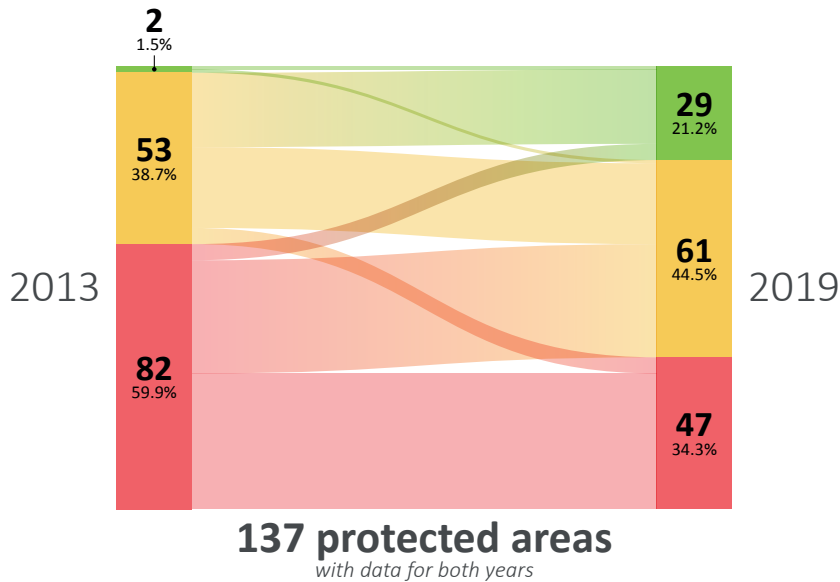
In 2013, the year when the first edition of the audit was carried out at the Brazilian subnational level, more

**Figure 8: INDIMAPA 2019**  
153 state level PA in the Brazilian Amazon Biome



than half of the Amazon’s state PAs were at a low level of implementation and management (84 out of 140) and only two areas attained a high level. The following graph demonstrates PA transitions between Indimapa ranges from 2013 to 2019 (considering only the 137 PAs that have data for both years). It may be noted that, while much fewer PAs were at the low level in 2019, the level of high implementation and management now includes many more areas.

**Figure 9: Transition of state PAs of the Brazilian Amazon between the INDIMAPA ranges (2013-2019)**



In terms of indicators, the evaluation of the 153 Amazonian state PAs exhibited the same trends as the federal ones. Progress was made in the indicators of management plans and human resources, although these topics con-

tinue to present opportunities for improvement. However, the processes of monitoring biodiversity, public use, local articulation and concessions remain weaknesses in the management and implementation of these PAs.

## Province of Buenos Aires

The Province of Buenos Aires covers an area of more than 300,000 square kilometers, overlapping four of Argentina’s 18 ecoregions, three of which are considered high-priority areas for conservation. Although the province has a high level of anthropization and urbanization, previous existing regulations were only legally consolidated as the System of Natural Protected Areas (SANP) in the 1990s. The HTCBA assessed a total of 43 areas, including defined territories and natural monuments, some of which are pending legal consolidation. The total estimated area of the SANP is 16,763.8 km<sup>2</sup>, considering terrestrial, marine and coastal areas.

Regarding the management and implementation of protected areas, the results of the audit at the local level of the province are aligned with the findings observed at the regional level. Opportunities for improvement were noticed, in terms of infrastructure, human resources, institutional articulation, citizen participation, and public information. In addition, a low level of existence of management plans was detected, as well as legal weaknesses regarding their approval.

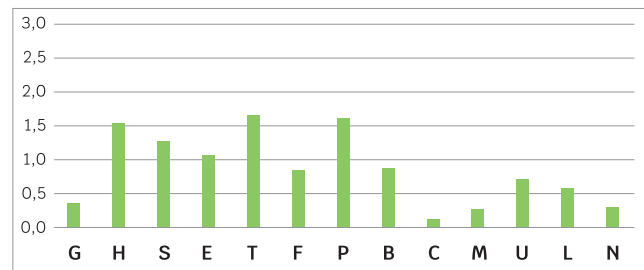
The audit highlighted the value of the provincial system of Natural Protected Areas, and the audited body recognized HTCBA’s work in systematizing information and diagnosing problems, which will enable progress towards improving public policy.

Figure 10: Province of Buenos Aires



Figure 11: Indimapa 2019 – Province of Buenos Aires

Averages for the indicators of all 43 assessed PAs



Ernesto Tornquist Provincial Park, Buenos Aires Province, Argentina.



Photo: Albert Backer. CC BY-SA 3.0.

Cotopaxi National Park, Ecuador.

# THE POLICY OF PROTECTED AREAS AND OTHER PUBLIC POLICIES

## Methodology: DFOG Analysis

Coherence and integration among public policies are fundamental for sustainable development, as recognized by the 2030 Agenda (target 17.14). Public policies, the allocation of public resources, and government agencies must be coherent in order to be efficient and effective, with the commitment to achieve

the expected results for citizens' benefit. However, in the interaction of legal norms and government agencies, there are often blind spots that hinder the implementation of public policies, pose obstacles to the achievement of their objectives, and generate inefficient expenditure of allocated public resources.

**DFOG Analysis** allows investigating the existence of **Duplications, Fragmenta-**

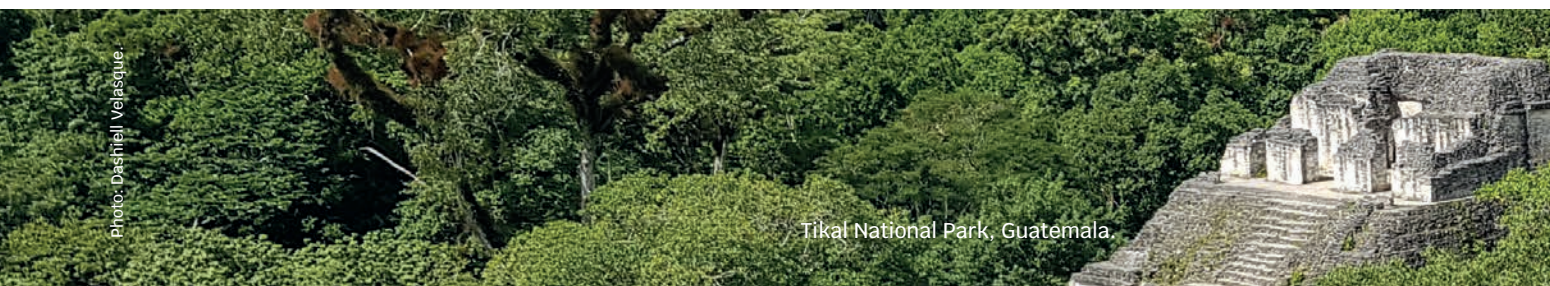


Photo: Dashiell Velasquez.

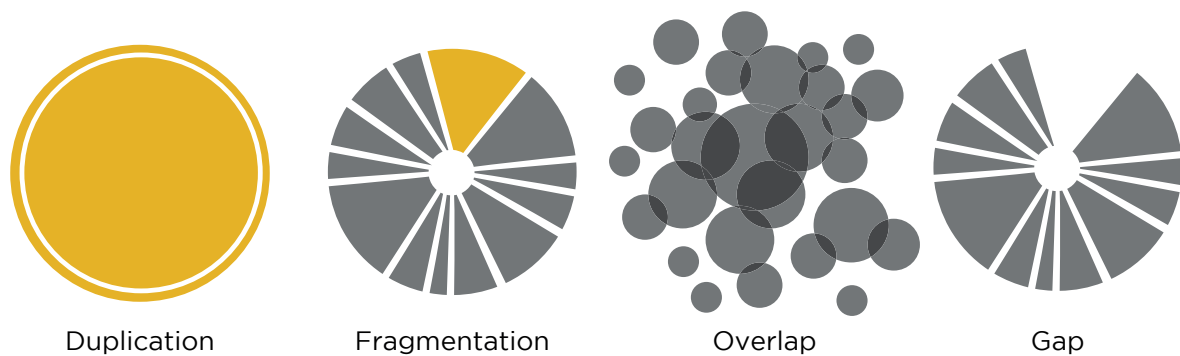
Tikal National Park, Guatemala

**tions, Overlaps and Gaps (DFOG) between** public policies or government agencies, as well as identifying their real or potential negative or positive effects. This technique was adapted by Brazil's TCU from the guide on evaluation and management of fragmentation, overlap, and duplication, by the U.S. Government Accountability Office (GAO), and has been used in coordinated audits

conducted within the framework of the activities of COMTEMA/OLACEFS.

This coordinated audit sought to identify **DFOG** between PA policy and **tourism** and **land-use planning** policies in the respective jurisdictions (national or subnational), as well as the respective **effects** – negative or positive, real or potential. –

**Figure 12:** DFOG analysis

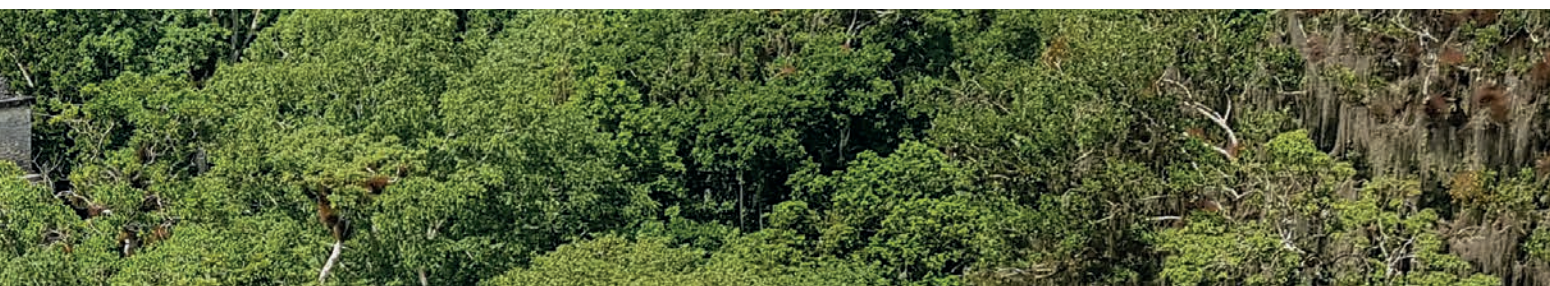


## Public use in PAs

Public use can generate positive impacts on PAs if it is managed in a sustainable manner, always depending on its compatibility with the objectives and category of each PA. For the purposes of this analysis, **public use** in PAs is understood as ecological/natural tourism activities, recreation in natural environments, environmental education and interpretation. The implementation of public use, especially in the case of

ecological/natural tourism, can generate additional income and jobs, promote the local economy and culture, contribute to raising awareness of the importance of environmental conservation, provide financial resources to PAs, among others – contributing to the achievement of target 8.9 of Agenda 2030 and considering CBD decision XII/11. –

The ecological and natural tourism potential of most of the countries participating in the audit is recognized



worldwide. The **World Economic Forum** report on tourism competitiveness (WEF, 2019) considers, in its calculation, the Natural Resources pillar, which includes five key-factors: 1) number of World Natural Heritage Sites (UNESCO); 2) total known species (mammals, birds and amphibians); 3) **total protected areas** greater than 1,000 ha, according to WDPA; 4) digital demand for nature tourism (internet searches); and 5) attractiveness of natural assets (opinion survey). When considering exclusively the Natural Resources pillar, **10** countries participating in the audit stand out, **two** of which lead the ranking of the 140 countries evaluated in the report: Mexico (1st), Brazil (2nd), Costa Rica (8th), Spain (9th), Peru (13th), Argentina (16th), Colombia (19th), Ecuador (23rd), Bolivia (27th) and Portugal (31st). In turn, when considering the 14 pillars of the report, Spain ranks first in the global ranking of tourism competitiveness. All this shows that, in addition to possessing natural resources, the adequate and sustainable use of these resources depends on the proper functioning of the other pillars.

However, the audit found that public use in the assessed PAs presents difficulties, according to the results of INDIMAPA **indicator U (public use)**, whose components measure the capacity and, where appropriate, the performance of public use, the visitor structure and available staff. The indi-

cator was applicable to 2,032 PAs in the audit, and 56% of these presented a low level of implementation in this process (0 or 1), while 44% presented a medium or high level. In most of the PAs assessed for this indicator (81%), public use occurs, although in a disorderly, unsustainable manner, and without visitor control; likewise, it was found that most PAs have insufficient visitor structure (58%) and available staff (74%). These results indicate that most PAs, although they receive visitors, present difficulties in offering minimum structural and operational conditions to support continued public use. These measured conditions are not necessarily prerequisites for public use, but rather factors that improve safety of the experience, mitigate environmental impacts, add value to the natural asset and provide greater social, economic and environmental benefits from public use.

Also, most SAIs identified **DFOG** with negative effects between PA policy and ecological/natural tourism policies, which helps to explain the causes of this finding on the part of public administrations. Such DFOG include:

- lack of a clear government strategy forecological/natural tourism in PAs;
- shortage or absence of staff, resources and tourism support structure, and instruments to assess load or flow capacity;

- fragmentation between ministries and departments responsible for the areas of environment and tourism, and overlapping competencies, with no instruments of coordination and clear definition of how they should act individually and jointly to achieve common objectives.

In summary, it was found that, although PAs are part of the natural heritage, with great relevance in the composition of the tourism product of the countries, in most of them, public use (specifically ecological/natural tourism) does not occur in an efficient and sustainable manner. This situation generates disorderly tourism in PAs, with overloading and deterioration of natural attractions, loss of biological diversity, pollution and environmental impacts, in addition to wasting the socioeconomic potential of sustainable tourism.

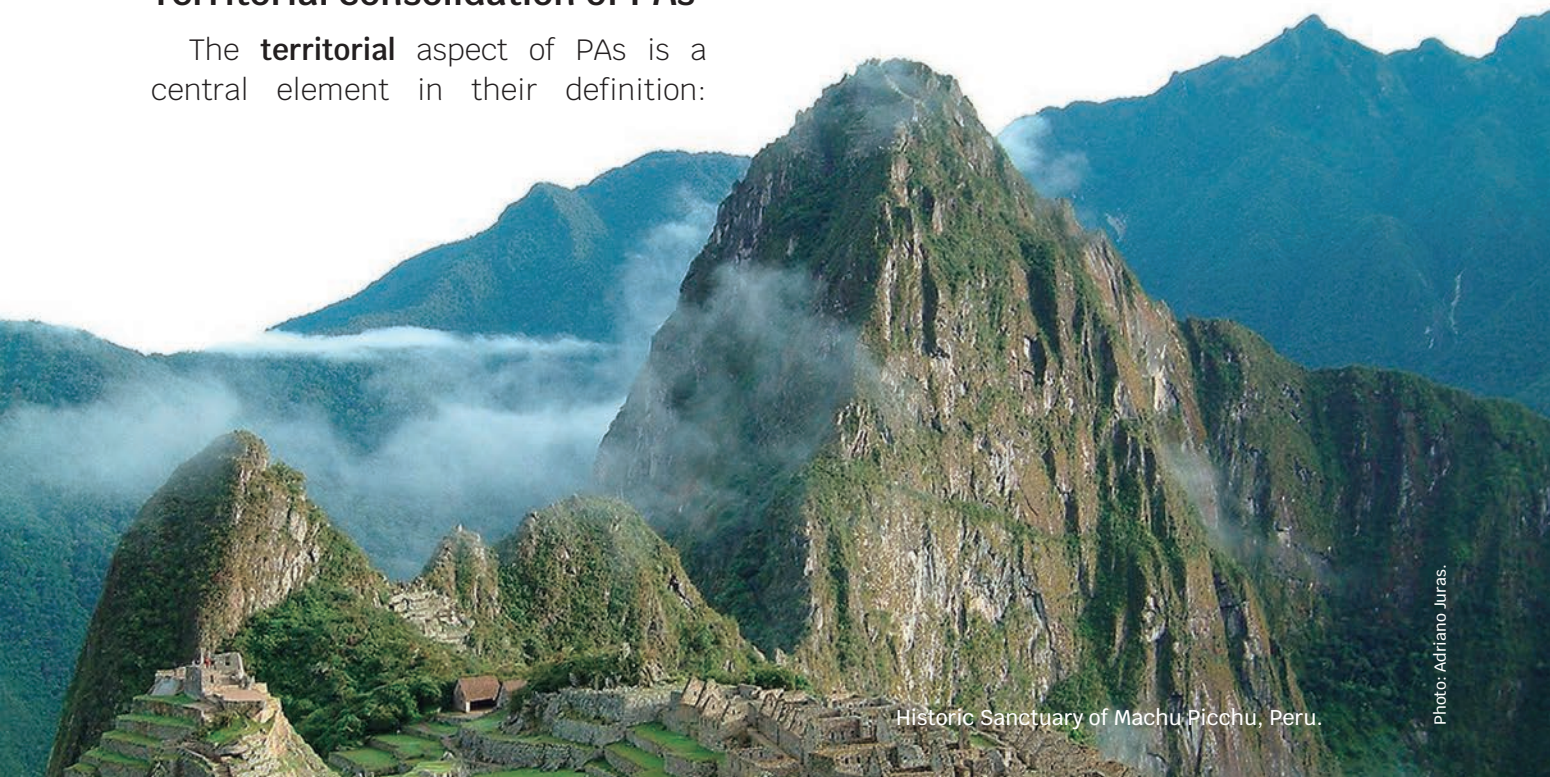
## Territorial consolidation of PAs

The **territorial** aspect of PAs is a central element in their definition:

*“... a geographically defined area that has been designated or regulated and managed in order to achieve specific conservation objectives”* (CBD, Article 2). The PA public policy is essentially a **territorial management** policy for *in situ* conservation, so its territorial consolidation process, which is key to the development of multiple PA implementation and management processes, should be considered within the framework of public **land-use planning** policies.

In INDIMAPA, **territorial consolidation** is assessed by means of **indicator T**, which was applicable to 2,321 PAs. 55% of the PAs assessed presented boundary demarcation and/or signage problems (component T2), i.e., there are weaknesses in the technical operation of placing easily identifiable signs or landmarks in the area.

In addition, several Latin American SAIs identified **DFOG** with negative



Historic Sanctuary of Machu Picchu, Peru.

effects between PA and land-use planning policies. Among these, the following stand out:

- overlap of the territory of PAs with areas that have other legal and tenure regimes;
- divergences in cartographic and territorial registration information in official registers; and
- regulatory gaps related to land-use planning.

These problems correspond to the difficulties reported by the Parties to the CBD to achieve Aichi Biodiversity Target 11, including, among others, “complex land tenure systems; uncertainties regarding land tenure; (...); poor coordination between national agencies” (CBD, 2020, GBO-5).

This situation generates territorial legal uncertainty, lack of definition of

the applicable legal regime, pressure on land and natural resource use, conflicts between the different interests involved (conservation, traditional lifestyles, agriculture, livestock, mining, urbanization, etc.), rejection of the creation and existence of PAs, and undue and illegal access to natural resources – such as illegal species trafficking and biopiracy – threatening biological diversity and PA sustainability.

Territorial management is complex and multilevel, as it involves various stakeholders, such as the national government, local governments, the private sector, and civil society. This context demands the existence of precise strategies and responsibilities, a clear definition of the legal regime applicable to each area, and transparent data and information, among other governance mechanisms.



Los Haitises National Park, Dominican Republic

## Local perspective

The Courts of Accounts of the Brazilian Amazon States have applied the FSDL Analysis to the issues of public use and territorial consolidation of state PAs in the biome. Regarding public use, the absence of an integrated strategy to encourage and promote sustainable tourism in PAs was evidenced, in addition to fragmentation and overlapping between agencies responsible for PA management and those responsible for tourism promotion. With respect to territorial consolidation, fragmentation was detected among agencies involved in land-use planning, land tenure regularization and the allocation of public areas.

However, the Amazonas Dialogue Forum, from the state of Amazonas, was highlighted as a good practice. This forum was a space for debate and negotiation on regularizing PA land tenure in the state, and involved various state and federal public institutions, as well as non-governmental organizations.

In turn, the Honorable Court of Accounts of the Province of Buenos Aires (HTCBA) found a lack of integral, coordinated, and sustained actions to promote tourism activities in natural protected areas. This results in a lack of use of the possibilities provided by such areas to maximize their tourism potential and for the effective fulfillment of their various objectives.

Besides, the HTCBA warned about the lack of integration between the planning of natural protected areas and land-use planning, with most local land-use regulations not requiring the mapping of areas located in their territories.



Photo: Adriano Juras.

Achiote (*Bixa orellana*), a natural resource present in protected areas and used by communities.

## GOVERNANCE MECHANISMS

### Public participation in management

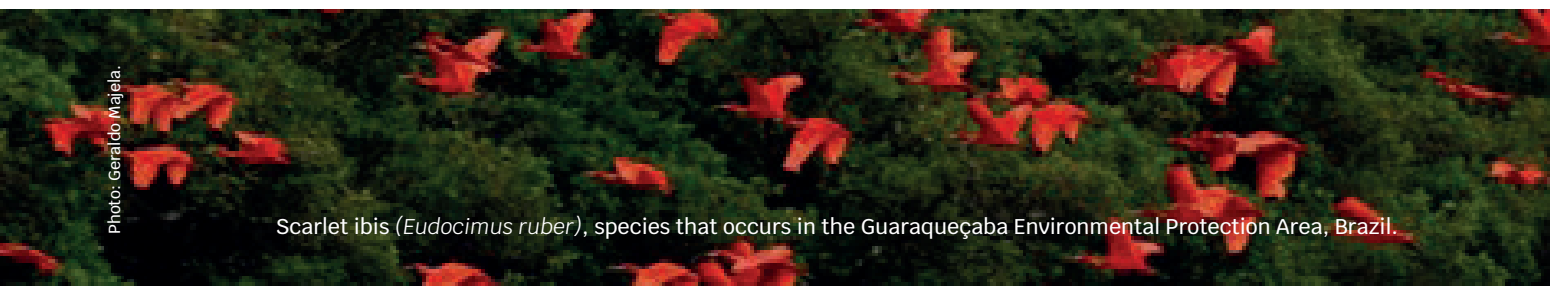
Mechanisms for participation in public policies are fundamental for the achievement of sustainable development. One of the key principles of the 2030 Agenda is to “leave no one behind”, in an inclusive, participatory and representative growth model (target 16.7). Public participation in environmental issues is included in **Principle 10** of the Rio Declaration (1992), detailed in the **Escazu Agreement** (2018), for Latin America, and in the **Aarhus Convention** (1999), for Europe.

Regarding the object of the audit, it was assessed whether the participating

countries had legal provision for public participation mechanisms in PA policy, and it was found that these mechanisms exist in most of the countries – which is corroborated by the **Observatory on Principle 10** in Latin America and the Caribbean, which provides information on laws, policies, treaties and jurisprudence of Latin American countries regarding the rights to information, participation, and justice in environmental matters (<http://observatoriop10.cepal.org/en>).

INDIMAPA **indicator C**, which was applied to 2,383 PAs, measures the existence, representativeness and functioning of PA management committees or

Photo: Geraldo Majela.

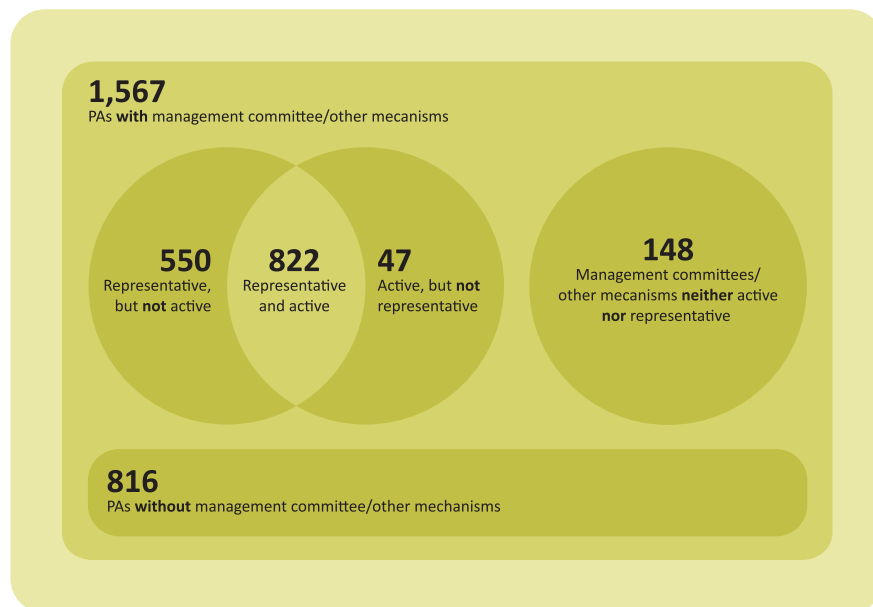
Scarlet ibis (*Eudocimus ruber*), species that occurs in the Guaraqueçaba Environmental Protection Area, Brazil.

other participatory management mechanisms. The audit found that, although these mechanisms exist in most of the PAs assessed (66%), many of them are not active; and only 822 PAs (34%) have committees or participatory management mechanisms that are representative and active.

In spite of these weaknesses, it was found that there has been considerable

progress since the first audit. In the group of PAs that have indicator C data for both 2014 and 2019 (851 PAs), the results show improvement in all three components, especially the one related to representativeness. In other words, today, more areas have representative and active committees or other participatory management mechanisms.

**Figure 13:** Results of indicator C in 2019



2,383 PAs assessed by indicator C (management committee/participatory management)

Likewise, **indicator L**, which assesses articulation in the PA and was applicable to all 2,415 PAs, resulted in only 39% of them being articulated with traditional and/or local communities to ensure their participation in decision-making regarding the improvement of PA

management and sustainable use of natural resources.

In this connection, there is a risk of loss of legitimacy of PA management and that decisions made are not linked to the characteristics, needs, and potential of the local context, as the information

that local actors might provide is not considered.

## Monitoring and follow-up of results

In general, participating countries have environmental monitoring systems in operation, that produce and communicate information on deforestation and endangered species, albeit incompletely and without disaggregating data by PA – making it difficult to analyze the contribution of PAs to the maintenance of ecosystem services.

Specifically for the PAs assessed, biodiversity monitoring and follow-up of management results are deficient

and/or insufficient to provide the necessary information for environmental management decision-making.

INDIMAPA **indicator B**, which assesses biodiversity monitoring and was applied to all 2,415 PAs, indicated that 73% of PAs have some kind of biodiversity monitoring activity, but not enough to generate information on the conservation results achieved (71% of the total), or with insufficient frequency (58% of the total).

This situation prevents the timely identification of vulnerabilities and risks to biological diversity – such as habitat degradation and threats to endangered species – hindering the planning of intervention or ecological restoration measures.



Photo: Dashiell Velasque.

Jabiru (*Jabiru mycteria*), Pantanal Matogrossense National Park, Brazil.

## Local perspective

The Courts of Accounts of the states of the Brazilian Amazon have found opportunities for improvement in the monitoring and follow-up of PA public policy results. Some of the weaknesses detected were the absence of integrated mechanisms to measure PA performance, the absence of indicators to carry out policy follow-up and evaluation, and the absence of reliable and updated information on state protected areas.

In turn, the Honorable Court of Accounts of the Province of Buenos Aires found opportunities for improvement given the absence of medium and short-term strategic planning for determining the direction of the system, setting goals, detecting ecosystems that require greater protection, and potential areas to be conserved. There was also the lack of a robust system for follow-up and evaluation of policy outcomes. In addition, the lack of explicit alignment between PA public policy and the 2030 Agenda was highlighted.

## COMPLEMENTARY INFORMATION

In addition to the results presented above, other topics related to the object of the coordinated audit were analyzed, concerning environmental economic accounts, and the World Database on Protected Areas (WDPA). These analyses generated complementary information that should be considered in the context of public policies and national systems of protected areas.

**Environmental economic accounts** seek to value ecosystem services and biological diversity, considering them part of the natural heritage and, consequently, integrating them into planning and socioeconomic development processes. International commitments set out that these challenges should be met by 2020 (Aichi Biodiversity Target 2, target 15.9 of the 2030 Agenda). The audit found that most of the participating countries (Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Spain, Mexico and Peru) have initiatives, pilot projects, or systems in operation (partially or fully) for environmental economic accounting, although they do not provide information disaggregated by PA. Considering that this is a relevant, complex and broader

topic than the scope of the audit, it is proposed to develop, in COMTEMA, future research, training and audit work on the subject, including SAIs, international organizations and other stakeholders.

In turn, the **WDPA** is the world's main repository of PA data, providing useful information for global and regional analyses. However, some issues were identified in this database that limited some of the analyses in the audit, such as outdated or missing data, deficiencies in the cartographic representation, and divergence with the data referred to in the national reports to the CBD. These aspects were not part of the scope of the audit, so no further analysis was carried out; they may also be due, in part, to methodological differences (scale, layer resolution, coordinate systems, projection, etc.), multiple parties reporting data, differences in data reporting and/or extraction dates, among other causes cited in the user manual of the WDPA itself. In spite of this, the efforts of creation, maintenance, and dissemination of the WDPA, considered the most complete global database on terrestrial and marine protected areas, are acknowledged.





Cumbres de Majalca National Park, Mexico.

Photo: Alex Wild, Dominio público.



Ceiba tree (*Ceiba sp.*), found in Teniente Agripino Enciso National Park, Paraguay.

## CONCLUSIONS

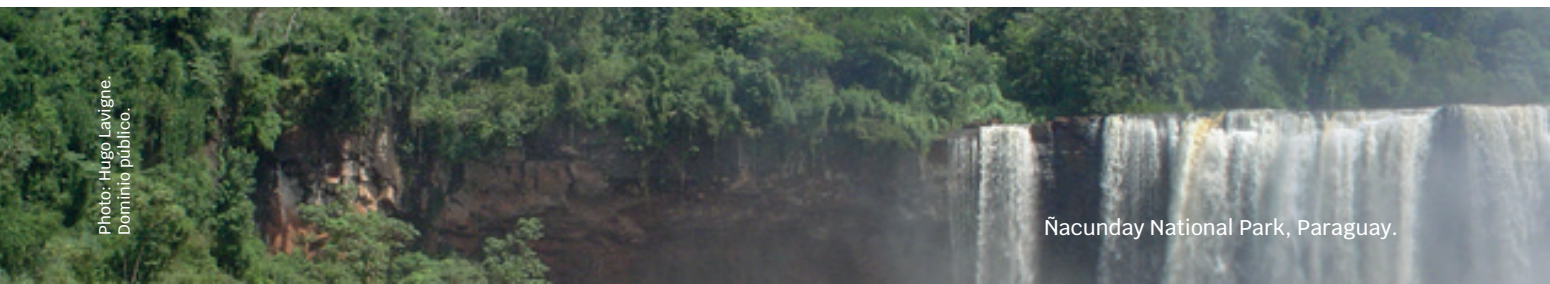
### Results

The audit found that the countries of the participating SAIs, in quantitative terms, make a significant contribution to the percentages stipulated in **Aichi Biodiversity Target 11** within the framework of the CBD. Thus, important efforts must be recognized in the first step of environmental governance of protected areas: their legal creation. Apart from the conservation of terrestrial areas and inland waters, the increase in the extension of countries that is covered by marine and coastal protected areas, whose vulnerability was highlighted in

the first edition of the audit, in 2014, stands out.

Regarding **INDIMAPA**, it was observed that, on average, protected areas in Latin America and the Caribbean presented a medium level of implementation and management, while those in Europe presented a high level. Based on data from the 1,028 PAs that were assessed in the two editions of the coordinated audit, gradual progress was noted in the implementation of public policy between 2014 and 2019, although there are significant challenges to be faced.

Photo: Hugo Lavigne, Dominio público.



Ñacunday National Park, Paraguay.

In turn, the **DFOG Analysis** revealed the existence of fragmentations, overlaps, duplications and gaps between PA public policy and public policies on tourism and land use planning, as well as between the government agencies responsible for them. These DFOG cause negative effects on the implementation of two essential processes in PAs – public use and territorial consolidation – leading to disorderly tourism and to territorial legal uncertainty, that hinders the fulfillment of *in situ* biodiversity conservation objectives.

Likewise, the results indicate a positive evolution with respect to some of the problems identified in the 2014 Coordinated Audit, specifically the percentage of marine area covered by protected areas, the status of PA management plans, and the presence of a person responsible for their management. However, other processes remain a challenge for the adequate implementation and management of protected areas, such as participation in management, biodiversity monitoring, public use, and territorial consolidation, which are fundamental for public policy to be effective and achieve the intended objectives.

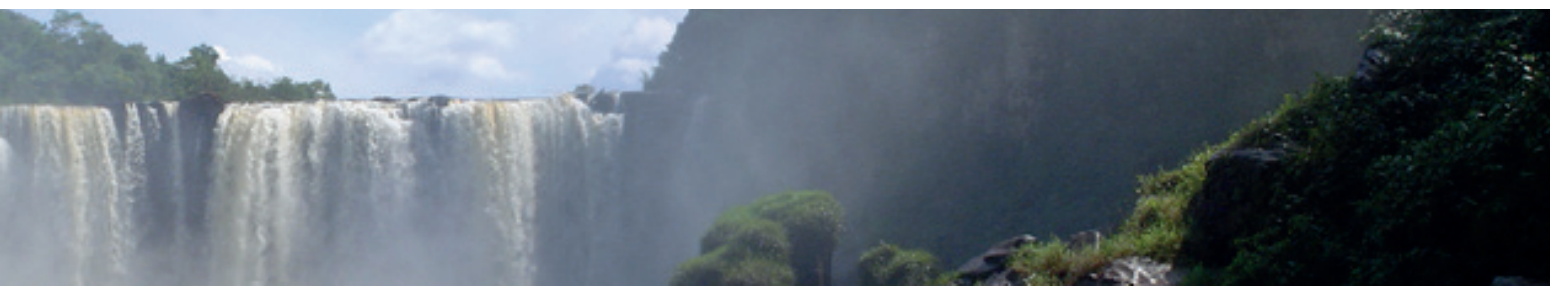
Specific conclusions and recommendations in each national or subnational context can be found in the audit reports issued by the respective SAIs.

## Recommendations and expected benefits

Within the framework of the Convention on Biological Diversity and the 2030 Agenda for Sustainable Development, SAIs communicate the findings contained in this Executive Summary on PA implementation and management to governments and public policy stakeholders.

Although the results towards the percentages of Aichi Biodiversity Target 11 are positive thanks to the creation and expansion of protected areas, this does not mean that the challenges are met. The expansion of protected territory is part of the target, but it is not enough, as such areas must be effectively implemented and managed. In addition, countries have their own national conservation goals and targets, which are not specifically discussed in this Executive Summary. Furthermore, new efforts will be needed to meet global protection commitments that are being proposed for the post-2020 period.

In this regard, it is recommended that governments, in addition to the creation of PAs, establish the necessary mechanisms for the effective implementation and management of protected areas, and adopt adequate measures to manage the vulnerabilities of these territories, especially public use, territorial consolidation, participatory



management and biodiversity monitoring.

In the case of public use, it is recommended that governments establish strategic mechanisms for ecological/natural tourism in PAs, providing the necessary means of tourism support (staff, resources, structure), and integrating government agencies responsible for environment and tourism.

Regarding territorial consolidation, it is recommended that precise strategies and responsibilities are adopted, that the legal regime applicable to each protected area is clearly defined, and that data and official information are more transparent, in order to mitigate the problems of territorial legal insecurity in PAs. Territorial management is complex and multilevel, and the associated challenges had already been noted in the first edition of the audit, in 2014, when the definition of a territorial consolidation strategy in PAs was recommended, considering their technical, legal, social and environmental aspects.

Regarding the governance of PA public policy, it is recommended that mechanisms for public participation in management are active, representative and involve traditional and/or local communities; it is also recommended


that biodiversity monitoring activities are carried out with the necessary frequency and sufficiently to generate information on the conservation results achieved, and for the timely identification of environmental vulnerabilities and risks to biodiversity.

Finally, complementary information is included on environmental economic accounts, the further development of which is proposed to be carried out by COMTEMA, as well as on the WDPA, highlighting its importance in providing global information on protected areas, even though some analyses require the consolidation of methodological criteria and the strengthening of the standardization of data input.

It is expected that, as a result of this coordinated audit, national PA systems will be improved to raise the level of PA implementation and management, as well as to promote coherence between public policies, managing DFOG with negative effects.

Lastly, it is expected that PA public policies will be more effective, achieving their objectives of *in situ* biodiversity conservation and maintenance of ecosystem services for present and future generations towards sustainable development.





Río Plátano Man and Biosphere Reserve, Honduras.

Photo: Marcio Martínez. CC BY-SA 4.0.

## FINAL MESSAGE

Within the framework of international cooperation, coordinated audits have the potential to unite efforts for the production of regional systemic overviews of transnational public problems, and about the fulfillment of international goals and agreements. In this way, SAIs join international efforts to evaluate, follow up and monitor public policies and government actions in different countries, considering national and international development goals.

In this connection, the execution of this coordinated audit represents a good practice in the combined efforts of more than 100 auditors and countless other collaborators in 17 countries in Latin America, the Caribbean and Europe, with the commitment to produce, from the environmental external control perspective, qualified information on the implementation and

management of protected areas and the fulfillment of international goals and agreements, such as Aichi Biodiversity Target 11, in the framework of the CBD, and the targets of SDGs 14 and 15 of the 2030 Agenda for Sustainable Development.

Finally, it is hoped that the process of conducting this coordinated audit may have contributed to the strengthening of the participating SAIs through capacity building, joint work and technical exchanges among audit teams. It is also proposed that COMTEMA's involvement with strategic partners will consolidate institutional alliances to promote the effectiveness of environmental public policies, efficiency in the collection and use of public resources, accountability, and transparency in public administration, to the benefit of both citizens and sustainable development.



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