

## 5<sup>th</sup> Edition - MapBiomias Award

### 1. BACKGROUND

The MapBiomias is an initiative that involves a multi-institutional network (see the list of NGOs, universities, technology companies, and sponsors on Appendix I) and the collaboration of specialists in each biome, land use and land cover, remote sensing, GIS and computer science.

The initiative's purpose is to reveal the transformations in the Brazilian territory through science, with precision, agility, and quality, making knowledge about land use and land cover accessible to seek conservation, sustainable use of natural resources, and mitigate climate change. To achieve this goal, MapBiomias uses cloud computing and artificial intelligence through the Google Earth Engine platform to produce annual land cover and land use mapping from 1985 to 2021.

MapBiomias' open access data has been used in many different applications. On the MapBiomias platform (<https://plataforma.brasil.mapbiomas.org/>) it is possible to analyze data and transitions in land cover and land use across a number of territorial scales, such as biomes, states, municipalities, hydrographic basins, protected areas, and rural settlements. In addition to the land cover and land use module, the platform also features modules covering deforestation, secondary vegetation, temporal analyses, infrastructure, irrigation, pasture quality, mining, fire, and water. There also is the fire monitor, with monthly data about fire scars in Brazil.

Through the network's collaborative work and by making data, maps, methods and codes available in an open, free and transparent way, the MapBiomias network expanded, involving local institutions in other countries in mapping the land cover and land use in the Amazon (<https://amazonia.mapbiomas.org/>), Chaco (<https://chaco.mapbiomas.org/>), Atlantic Forest (<https://bosqueatlantico.mapbiomas.org/>), Pampa (<https://pampa.mapbiomas.org/>) and Indonesia (<https://mapbiomas.nusantara.earth/>).

In addition, the MapBiomias created the MapBiomias Alerta system (<http://alerta.mapbiomas.org/>), which validates and refines deforestation alerts in all Brazilian biomes using high spatial resolution satellite images and generates reports of confirmed deforestation including land tenure information and evidences of illegality, in addition to the inspection monitor with information on authorizations, assessments and embargoes issued by government agencies for controlling deforestation in Brazil.

The 5th Edition of the MapBiomias Award, in partnership with Ciência Hoje Institute, aims to stimulate and expand studies and works that use data from any MapBiomias initiative, module or product, including initiatives from other countries and different products, such as MapBiomias Alerta, MapBiomias Arida (<https://mapbiomas.org/initiatives>).

MapBiomias will award 8 (eight) works that explore the use and applications of data from any MapBiomias initiative, module, or product, totaling R\$ 80,000 in prize money (eighty thousand reais). Among those awarded works, two will be for the general category, two for the young category, for non-graduated students or recent graduates, one for the category highlight application in public policies and another for the category highlight application in business. In this edition, two new categories were created, with one award for the category application in schools and another for the special category for actions to reduce deforestation.

## **2. OBJECTIVE**

The MapBiomias Award aims to recognize and encourage works that develop solutions and have contributed to the production of knowledge, public policies, in the private and education sectors using data from a MapBiomias' initiative, module, or product.

## **3. ELIGIBILITY**

3.1. Individual or co-authored works (examples: studies, articles, monographs, dissertations, thesis, reports), authored by students from schools, technical level, graduate, teachers, professors, professionals from private companies or from NGOs, public managers, etc., can compete for the MapBiomias Award.

3.2. Eligibility and description of categories for the 5th Edition of the MapBiomias Award:

3.2.1. General Category: Any work eligible for the MapBiomias Award can compete in this category. Works submitted in other categories automatically also compete in the General Category.

3.2.2. Young Category: Only works whose first author is up to 30 years old and has not yet completed graduation or graduated during 2022.

3.2.3. Category Highlight Application in Public Policies: Works that use data from any MapBiomias initiative in public policy projects.

3.2.4. Category Highlight Application in Business: Works that use data from any MapBiomias initiative in businesses that contribute to the conservation and sustainable management of natural resources.

3.2.5. Category Highlight Application in Schools: Works that use data from any MapBiomias initiative in basic education (kindergarten, fundamental or secondary education), such as, for example, in didactic materials, classes and other curricular and extracurricular activities or didactic resources in schools.

3.2.6. Special Category Actions to Reduce Deforestation: Works that use data from any MapBiomias initiative to support actions to reduce, combat and monitor deforestation.

3.3. In the General Category, Highlight Application in Public Policies, Highlight Application in Business, Highlight Application in Schools and Special Category Actions to Reduce Deforestation, works can compete regardless of age and education level.

3.4. The work must be submitted by one of the authors.

3.5. The works must, necessarily and mandatorily, meet the following eligibility criteria:

- a. Use data from any MapBiomass' initiative, module or product;
- b. Works can be unpublished or published from 2022 onwards in scientific articles, thesis, monographs, books, reports, as well as description of applications of MapBiomass' data in public policies, projects and activities developed by the civil society, companies or schools.

3.6. You can submit as many works as you want, individually or collectively. However, each work can only be awarded once.

3.7. If no work meets the award criteria, it may be decided to not award the prize in one or more categories.

3.8. Authors who submit scientific articles published in journals or other restricted access medias (e.g. without the "open access" license format - free of charge to the general public) will be asked to produce an expanded abstract of the work in case it is awarded, in order to ensure its disclosure on the MapBiomass website.

## **4. SELECTION PROCEDURE**

### **4.1. REGISTRATION**

4.1.1. Registrations are free and must be done by **March 31<sup>th</sup>, 2023**.

4.1.2. The author must fill out an online form with information about personal data and regarding the work being submitted.

4.1.3. Authors must send via this online form:

- a. Complete work in digital format (PDF). For scientific works, it is recommended that the work contains an introduction, objectives, materials and methods and results, which may include figures, graphs, maps, tables, photos and/or others. For non-academic works, related to applications in public policies, business or schools and for the Special Category Actions to Reduce Deforestation, it is suggested that the work contains an introduction with the relevance of the work, description of the activity or process in which the MapBiomass data were used, results and impacts achieved by this work, which may include figures, maps, tables, photos and other records about the work. The works can be published articles, thesis, monographs, book chapters, reports, practical applications, however, limit your text to a maximum of 10 (ten) thousand words. Works in portuguese, english and spanish will be accepted
- b. If algorithms and analysis codes were used, they must be public or attached to the work.
- c. Declaration signed by all authors (the model in Appendix II) agreeing to send the work to compete for the Award.

4.1.4. About the word limit mentioned on item 4.1.3: the entire body of the text counts for the 10,000 word limit. What does not count: (1) attachments or supplementary materials, (2) scripts, algorithms and codes used for the analyses, (3) general information about the article such as the title or name and institution of the authors, (4) abstract, (5) references, (6) for

published/submitted articles, information from scientific journals, such as the name of the author or the journal in the footnotes or headers of each page

4.1.5. Applications made by mail will not be accepted. Proposals submitted by any means other than those described in items 4.1.2 and 4.1.3 of this document will not be accepted, nor proposals submitted after the deadline established in item 4.1.1.

4.1.6. All data requested in the registration will be used only for award purposes.

4.1.7. Only candidates who fill in all the mandatory fields of the online form, according to item 4.1.2 of this document, and submit complete documentation as specified in item 4.1.3, will have their application accepted and will participate in the work evaluation stage, described in item 4.2 of this document.

## **4.2. WORK EVALUATION**

4.2.1. An Award Committee will be constituted exclusively for this purpose, with at least 5 (five) members, including specialists and representatives of the partner organizations listed on Appendix I.

4.2.2. The members of the Award Committee will be designated by the MapBiomass team and ICIência Hoje Institute.

4.2.3. The members of the Award Committee will be responsible for the confidentiality of the candidates' information.

4.2.4. The criteria for judging the work are:

- a. Consistency;
- b. Relevance;
- c. Originality;
- d. Innovation;
- e. Potential of technical-scientific, socioeconomic, environmental, and public policy impact.

4.2.5. The result will be widely publicized through MapBiomass' and Ciência Hoje Institute's institutional communication channels.

4.2.6. The results determined by the commission cannot be appealed by participants.

## **5. AWARDING**

5.1. Winners in each category will be awarded as follows:

- a. 1st place in General Category - value of R\$ 15,000.00 (fifteen thousand reais);
- b. 2nd place in General Category - value of R\$ 10,000 (ten thousand reais);
- c. 1st place in the Youth Category - value of R\$ 10,000 (ten thousand reais);
- d. 2nd place in the Youth Category - value of R\$5,000 (five thousand reais);
- e. Highlight Application in Public Policies - value of R\$ 10,000 (ten thousand reais);
- f. Highlight Application in Business - value of R\$ 10,000 (ten thousand reais);
- g. Highlight Applications in School - value of R\$ 10,000 (ten thousand reais);

h. Actions to Reduce Deforestation - value of R\$ 10,000 (ten thousand reais).

5.2. All winners will receive an annual subscription to Ciência Hoje Digital Magazine, in addition to a scholarship for a course on Geoprocessing of satellite images using Google Earth Engine promoted by Solved, and the production of a short video (up to 2 minutes) about the winning work.

5.3. Certificates will be issued for award winning authors.

5.4. Transportation and accommodation will be offered for up to 1 (one) author per awarded work to attend the award ceremony, which will take place on a date and place to be defined, depending on the COVID-19 pandemic scenario.

5.5. Only transportation inside the Brazilian territory will be covered.

## 6. TIMETABLE

Activity	Date
Award`s Notice Publication	December 15 <sup>th</sup> 2022
Registration Period	December 15 <sup>th</sup> 2022 to March 31 <sup>st</sup> 2023
Disclosure of Results and Award Ceremony	June 2023

## 7. GENERAL REGULATIONS

7.1 The winners automatically authorize MapBiomias and Ciência Hoje Institute, free of charge, to reproduce and disseminate, by any electronic, printed or audiovisual means, in whole or in part, in Brazil and abroad, their works, scientific articles, and respective figures and photographs, as well as footage recorded at the awards ceremony.

7.2. Decisions taken by the Award Committee cannot be appealed to.

7.3. Failure to comply with any instruction of this document implies disqualification of the competing work.

7.4. Cases not covered by this document will be analyzed by the Award Committee.

7.5. At any time, this document may be canceled or revoked for reasons of public interest, in whole or in part, without this implying the right to compensation or complaint of any nature.

7.6. Doubts and other information about this document should be sent solely and exclusively to the electronic address <[premio@mapbiomas.org](mailto:premio@mapbiomas.org)>.

## APPENDIX I

### List of institutions of the MapBiomias network

MapBiomias is an initiative of the Climate Observatory's and is produced by a collaborative network of co-creators made up of NGOs, universities, and technology companies organized by biomes and cross-cutting themes.

#### Biomes Coordination:

Amazon – Institute of People and Environment of the Amazon (IMAZON)

Caatinga – Feira de Santana State University (UEFS), Northeast Plants Association (APNE) and GeoDatin

Cerrado – Amazon Environmental Research Institute (IPAM)

Atlantic Forest – SOS Mata Atlantica Foundation and ArcPlan

Pampa – Federal University of Rio Grande do Sul (UFRGS) and GeoKarten

Pantanal – SOS Pantanal Institute and ArcPlan

#### Cross-cutting Themes Coordination:

Pasture – Federal University of Goiás (LAPIG/UFG)

Agriculture – Agrosatelite

Coastal Zone and Mining – Vale Technological Institute (ITV) / Solved

Urban Areas – University of São Paulo (USP - QUAPÁ-FAU e YBY), Federal University of Bahia and Federal University of São Carlos (NEEPC)

#### Technology Partners:

Google

EcoStage

Terras App

#### Financing:

Children's Investment Fund Foundation (CIFF)

Climate and Land Use Alliance (CLUA)

Global Wildlife Conservation (GWC)

Good Energies Foundation

Gordon & Betty Moore Foundation

Norway's International Climate and Forest Initiative (NICFI)

Arapyaú Institute

Institute for Climate and Society (ICS)

Humanize Institute

OAK Foundation

Quadrature Climate Foundation (QCF)

Walmart Foundation (USA)

Sequoia Foundation

Skoll Foundation

#### Institutional Partners:

Arapyaú Institute

WRI Brasil

AVINA Foundation

General Coordination: Tasso Azevedo (Climate Observatory)

Technical Coordination: Marcos Rosa (ArcPlan)

Scientific Coordination: Jula Shimbo (IPAM)

Independent Committee of Scientific Advice:

Alexandre Camargo Coutinho (Embrapa)

Edson Eygi Sano (IBAMA)

Gilberto Camara Neto (INPE)

Joberto Veloso de Freitas (Federal University of Amazonas)

Matthew C. Hansen (Maryland University)

Mercedes Bustamante (University of Brasília)

Timothy Boucher (TNC)

Robert Gilmore Pontius Jr (Clark University)

Technical Partners:

Institute of Agricultural and Forest Management and Certification (IMAFLOA)

Energy and Environment Institute (IEMA)

Socioambiental Institute (ISA)

Life Center Institute (ICV)

Institute for Democracy and Sustainability (IDS)

The Nature Conservancy (TNC)

WWF Brazil

## APPENDIX II

### Author declaration template

The author(s) hereby authorizes the submission of the work entitled **“INSERT WORK TITLE”** to the 4th Edition of the MapBiomass Award, and they are in accordance with the requirements and regulations of this award's notice.

**All people listed as authors must sign this declaration.**

**The original declaration document must be signed, dated and forwarded via the online registration form.**

**Date:**

**Name and signature of all authors participating in e submitted work:**

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