

Creating Synergies between the 2030 Agenda for Sustainable Development and the G20

Maps Module







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Foreword

The publication **Creating Synergies between the 2030 Agenda for Sustainable Development and the G20**, published by the Brazilian Institute of Geography and Statistics (IBGE), introduces a collection of thematic modules that will be released in 2024, the year in which Brazil, for the first time, assumes the presidency of the Group of Twenty, the G20¹.

This volume, dedicated to **Maps**, constitutes the third thematic module of this collection and presents world maps for all the indicators presented in the previous modules, **Inequalities** and **Environment**, with Brazil at the center of the map projection, illustrating, in a particular way, this moment when the G20 is chaired by the country. Its proposal is to visually represent these indicators for the entire world, always with the purpose of highlighting Brazil, which is at the center, comparing it to surrounding countries.

In this Module, the QR Codes give access to interactive graphs, some of which show the evolution of indicators for the G20 member countries as of 2015, whenever these statistics are available at the United Nations Global SDG Indicators Database. These maps and graphs will also be available in the School Atlas, in the digital version designed by the IBGE, in a specific section for the Sustainable Development Goals (SDGs).

With this publication, the IBGE advances with the purpose of disseminating sustainable development indicators, thus reinforcing its commitment to making information, in its multiple analytical dimensions, available to society.

Marcio PochmannPresident of the IBGE

¹ The thematic modules that make up the collection will also be available on the IBGE website.

Introduction

In the evolutionary process of humanity, the ceaseless quest for development and innovation has been propelled by a complex dynamics between cooperation and competition. While competition is marked by exploitation of resources and territorial disputes, having shaped borders and drawn maps throughout the history, cooperation has fostered the storage and the dissemination of information. Cooperative efforts, ambition and competition make knowledge an infinite upscaling: each advance reveals new questions and challenges in an endless journey towards resilience. Technology advance has made instant communication possible, breaking the geographic boundaries and expanding commercial transactions towards a global connected community.

The innate insatiable hunger of the human being for news, for comprehension of the world, comfort and uninterrupted happiness has brought, with no doubt, extraordinary accomplishments, but in contrast, it has not yet succeeded in overcoming the problem of inequality, poverty, malnutrition and the lack of access to high-quality education and sanitation for everyone. In addition, intoxicated by the false sensation that natural resources will never come to an end, we, humans, are causing negative chain effects on the ecosystem balance. When we need to face global issues, like climate crisis, extinction of species, pollution and pandemics, we understand that cooperation is the only solution.

The 2030 Agenda, with its 17 Sustainable Development Goals – SDGs, is an emblematic example of the efforts to further a global cooperation in order to build a resilient path, bringing reflections about anthropic activities and their consequences, fostering a collective re-education that goes beyond the mere damage mitigation. More than providing an answer to the crisis, the SDGs invite us to think about the future generations, re-imagining our role in the web of life, in a way as to recognize that each choice, even the

small ones, resonates in the planet web. Thus, the 2030 Agenda makes us think of a deep transition in which sustainability becomes the main guide for the harmony between societies and nature on behalf of a shared intention. Each SDG has a set of associated goals, which are directives for the transition towards sustainable paradigms. Each goal is monitored by specific indicators that indicate the reach of its performance, and the IBGE is the body responsible in Brazil for gathering and producing indicators to monitor the progress of the country. Effective decision makers understand the importance of basing their choices on science and concrete data, an approach that not only increases the accuracy of decisions, but also promotes transparency and responsibility.

The G20 can be mentioned as another important example of cooperation between nations. Conceived at the end of the 20th century with a strictly economic focus, it has inevitably evolved to recognize the social and environmental challenges that are intrinsically linked to global economic stability. With the urgent need of integrated solutions for a more resilient and equitable future, the G20 has adopted the 2030 Agenda as a guiding framework to address sustainable development issues at a global level.

Brazil, as the host of the G20 throughout the year of 2024, provides a context of opportunities to influence on discussions and decisions that affect the global scenario and strengthen the Global South, especially as it belongs to such a significant troika: India-Brazil-South Africa. The Brazilian protagonism has provided the perfect moment for the IBGE to establish the "Brazil at the Center of the Map" movement.

When Paulo Manoel Protasio² visited Japan in 1985, he realized that the country had its geopolitical vision from the point of view of itself; in its official cartographic representation of the world map, the Japanese archipelago is at the center. In that moment, Protasio began to question

² Executive Secretary of the United Nations Conference on Environment and Development, also known as the Earth Summit, held from June 3-14, 1992, in the city of Rio de Janeiro, and Executive Director of the Sustainable Development Authority of the State of Rio de Janeiro.



himself: if any place of the Earth could be at the center of the map, why in Brazil do we grow up with a Eurocentric view? He understood that our way of thinking about the world starting from our place of origin is so important for personal development, bringing this logic to a reflection on rights, duties, challenges, impacts and mission in relation to the world. Placing itself at the center of the map, for a nation, means to assume a proactive perspective of global positioning. So, immediately, when Protasio returned, he started the "Brazil at the Center of the Map" movement, thus also bringing all of South America to the center.

By putting itself at the center, Brazil understands its potential to lead the building of a fair world and a sustainable planet, especially concerning efforts of cooperation for a fair, inclusive and sustainable energetic transition, aiming at mitigating the global issues that we, humans, have created by competing among ourselves. This leadership inevitably brings the responsibility of adopting strong public policies of circular economy and practices that converge to a low carbon economy.

When we see this integration of Brazil with the other countries of South America and we put all these bi-oceanic continent at the center of the map, we give due emphasis to the expanse of the ocean, highlighting its importance to the sustainability of oceans and of blue economy in the discussions of the major economic powers in the world. Furthermore, by creating the Oceans 20 Engagement Group³ as one of the milestones of the Brazilian Presidency in the G20, Brazil recognizes its crucial role in the engagement for fighting marine pollution and protecting marine ecosystems.

Putting yourself at the center is also understanding when others can be at the center too. For the deep transition to happen, it is necessary an intense cooperation for sharing technology, experiences and resources. This way of thinking and acting, both locally and globally, shapes the new "gLocal" model. As we cooperate in a network, we can create a significant and lasting impact, building a more sustainable future for everyone.

Ágatha Tommasi

Environmental Engineer with a Master's Degree in Metrology, Quality, Innovation and Sustainability at the Pontifical Catholic University (PUC/RJ)

³ For detailed information about the topic, please visit: https://www.g20.org/pt-br/g20-social/grupos-de-engajamento/oceans-20



A global portrait of inequalities by means of SDG indicators⁴



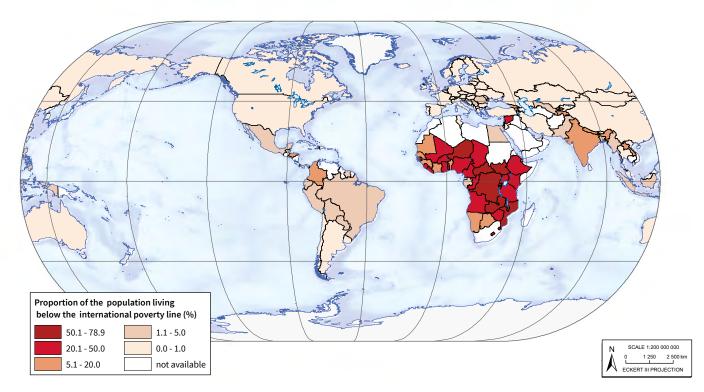
SDG 1 End poverty in all its forms everywhere

Eradicating extreme poverty, expanding social protection programs and extending access to essential services are some of the challenges in achieving SDG 1 in the countries.





Indicator 1.1.1
Population living below the international poverty line - 2015-2022



Source: POVERTY headcount ratio at \$2.15 a day (2017 PPP), 2015-2022. In: WORLD BANK. World Development Indicators. Washington, DC, 2024. Available from: https://data.worldbank.org/indicator/SI.POV.DDAY. Cited: Aug. 2024.
Notes: 1. Considering the poverty line of \$2.15/day.

2. Most recent data for each country for the period 2015-2022.

See the proportion of population living below the international poverty line from 2015 to 2022.



⁴ The icons that illustrate the descriptions of the indicators were taken from the SDG & COVID-19 Data Visualization Toolkit, made available by the United Nations Statistics Division (UNSD). For detailed information on the topic, please visit: https://unstats.un.org/capacity-development/UNSDFCDO/sdgs-data-visualization-toolkit/





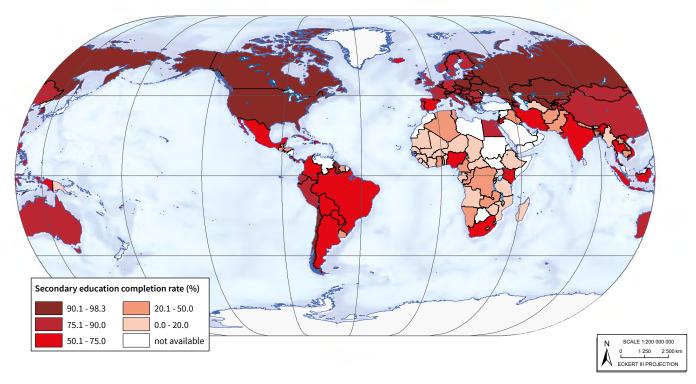
SDG 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Ensuring equity of access to education, improving quality, funding and international cooperation, as well as building schools and improving their infrastructure, and eliminating inequalities are some of the challenges in achieving SGD 4 in the countries.





Indicator 4.1.2 Secondary education completion rate - 2015-2021



Source: COMPLETION rate, upper secondary education, both sexes, 2015-2021. *In:* UNESCO. Institute for Statistics. *Sustainable Development Goal 4 (SDG 4) Data.* Montreal: UIS, 2024. Indicator 4.1.2. Available from: https://sdg4-data.uis.unesco.org/. Cited: Aug. 2024.

Note: Most recent data for each country for the period of 2015-2021.







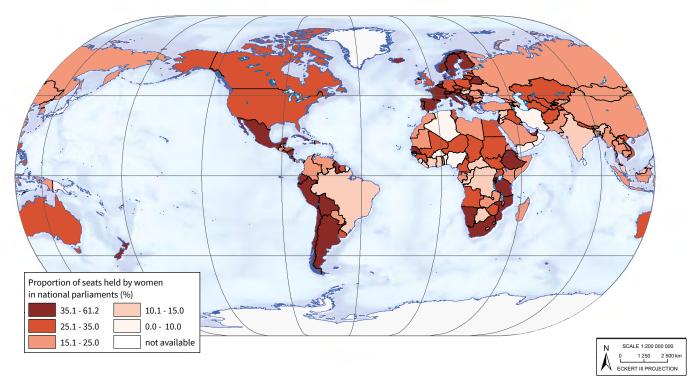
SDG 5 Achieve gender equality and empower all women and girls

Expanding the representation of women in positions of power and leadership, eliminating violence against women and eradicating all forms of discrimination and harmful practices are some of the challenges in achieving SDG 5 in the countries.





Indicator 5.5.1Seats held by women in national parliaments - 2015-2022



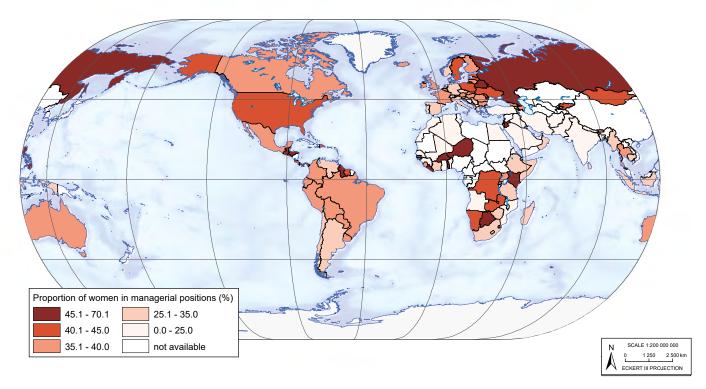
Source: PROPORTION of seats held by women in national parliaments, 2015-2022. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 5.5.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Aug. 2024. Note: Most recent data for each country for the period 2015-2022.







Indicator 5.5.2Women in managerial positions - 2015-2021



Source: PROPORTION of women in managerial positions - 19th ICLS, 2015-2021. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 5.5.2. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Aug. 2024. Note: Most recent data for each country for the period 2015-2021.







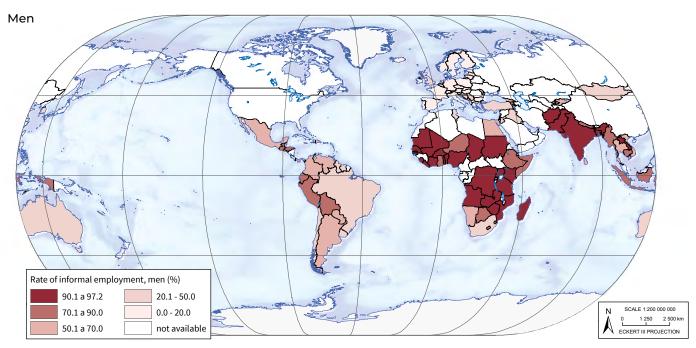
SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

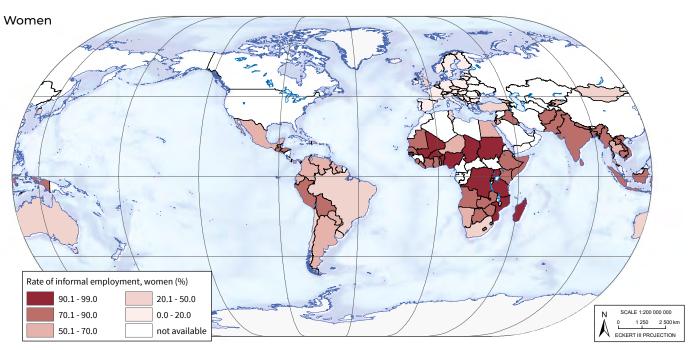
Economic growth, employment generation, decent work for all, irrespective of sex,

age, color or race or disability status are major global challenges in achieving SDG 8.



Indicator 8.3.1 Rate of informal employment of persons aged 15 and over employed in the week of reference, by sex - 2015-2022



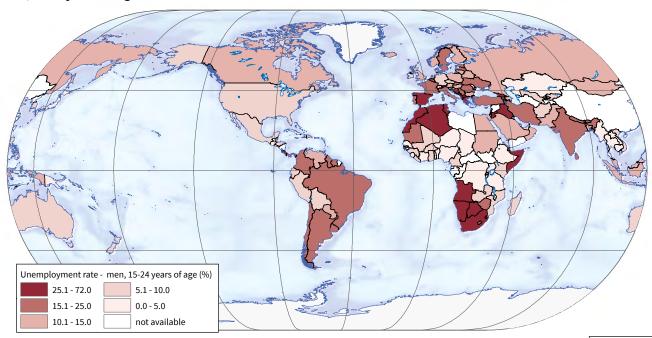






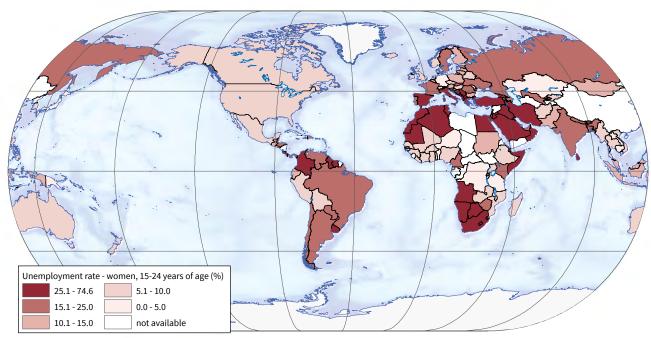
Indicator 8.5.2 Unemployment rate, by sex and age groups - 2015-2022

Men, 15-24 years of age



N SCALE 1:200 000 000
0 1 250 2 500 km
ECKERT III PROJECTION

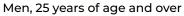
Women, 15-24 years of age

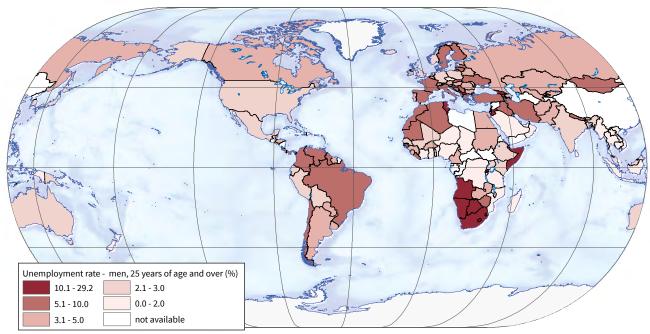


N SCALE 1:200 000 000

0 1 250 2 500 km

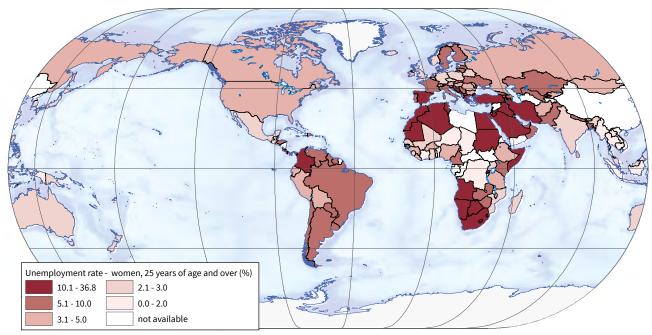
ECKERT III PROJECTION





N SCALE 1:200 000 000
0 1 250 2 500 km
L J J
ECKERT III PROJECTION

Women, 25 years of age and over



N SCALE 1:200 000 000
0 1 250 2 500 km
L J J
ECKERT III PROJECTION

Source: UNEMPLOYMENT rate, by sex and age, 2015-2022. *In:* UNITED NATIONS. Statistics Division. *Global SDG Indicator Database*. New York: UNSD, 2024. Indicator 8.5.2. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Aug. 2024.

Note: Most recent data for each country for the period 2015-2022.







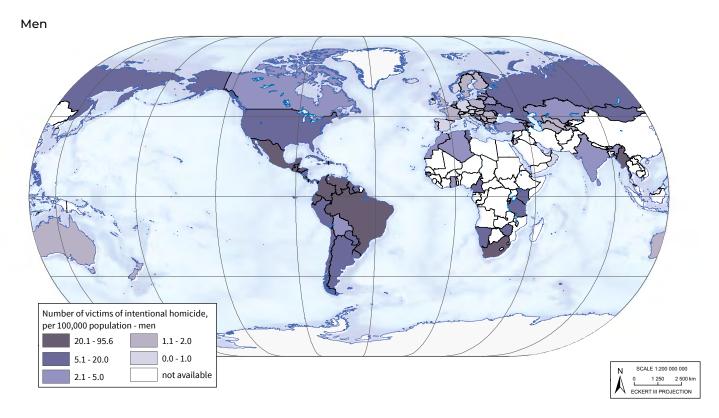
SDG 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Promoting peace and inclusive societies, combating corruption, strengthening institutions, and increasing society

participation in decision-making are among the challenges in achieving SDG 16.



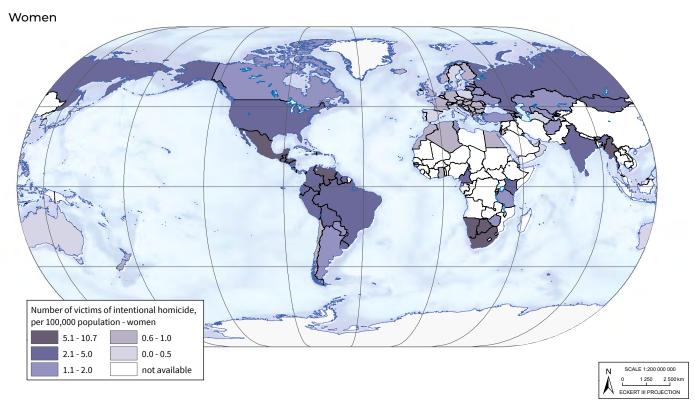
Indicator 16.1.1 Victims of intentional homicide, per 100 000 population, by sex - 2015-2021



Source: NUMBER of victims of intentional homicide per 100,000 population, by sex, 2015-2021. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 16.1.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Aug. 2024.

Note: Most recent data for each country for the period 2015-2021.





Source: NUMBER of victims of intentional homicide per 100,000 population, by sex, 2015-2021. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 16.1.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Aug. 2024.

Note: Most recent data for each country for the period 2015-2021.

A global portrait of the environment by means of SDG indicators



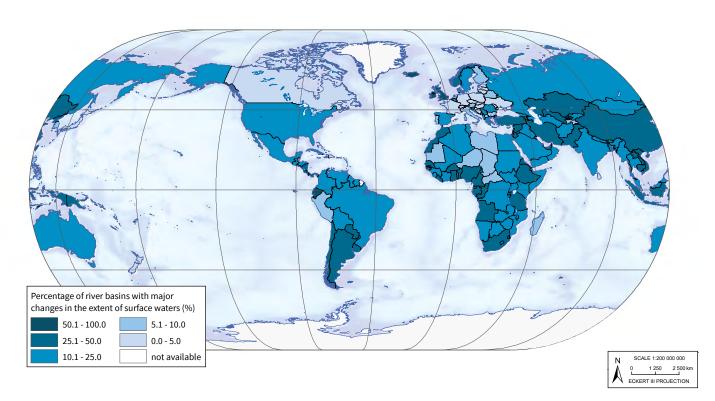
SDG 6 Ensure availability and sustainable management of water and sanitation for all

Universal access to drinking water and sanitation, integrated and participatory management to ensure quality and quantity of water, as well as protection and restoration of ecosystems providing this essential asset.





Indicator 6.6.1Percentage of river basins with major changes in the extent of surface waters - 2020



Source: PROPORTION of hydrological basins showing high surface water extent changes, 2020. *In*: UNITED NATIONS. *UN-Water*. New York, 2024. Indicator 6.6.1. Available from: https://sdg6data.org/en/tables. Cited: Sept. 2024.







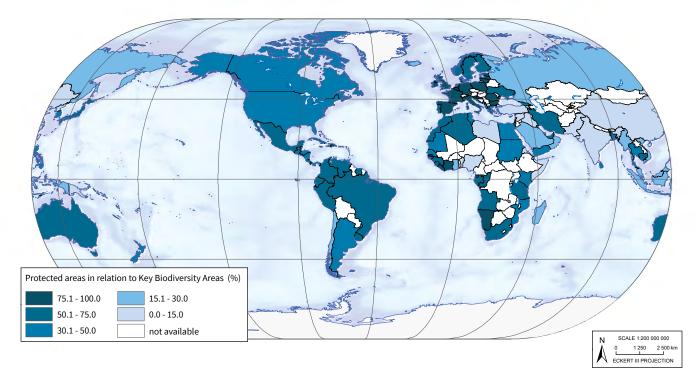
SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Conservation and sustainable use of the oceans, thus mitigating the impacts of acidification, pollution and overfishing and ensuring the access to economic benefits by all, by means of management based on scientific knowledge and of the protection of coastal and marine zones.





Indicator 14.5.1Percentage of marine protected areas in relation to Key Biodiversity Areas - 2023

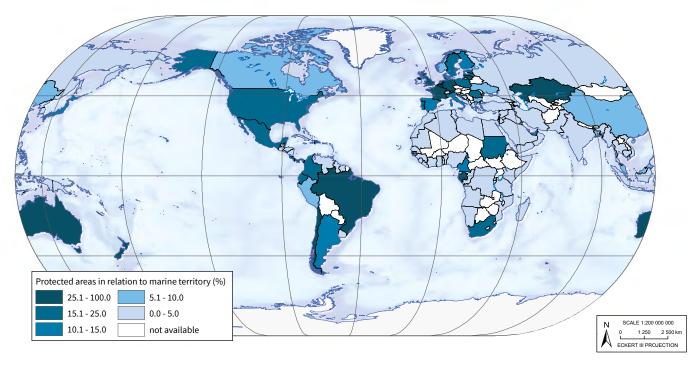


Source: AVERAGE proportion of Marine Key Biodiversity Areas (KBAs) covered by protected areas, 2023. In: UNITED NATIONS. Statistics Division. SDG Indicators Database. New York, 2024. Indicator 14.5.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.





Indicator 14.5.1Percentage of marine protected areas in relation to marine territory - 2022-2023



Sources: 1. MARINE protected areas, 2022. *In*: WORLD BANK. *World Development Indicators*. Washington, DC, 2024. Available from: https://data.worldbank.org/indicator/ER.MRN.PTMR.ZS. Cited: Sep 2024. 2. PROTECTED areas, 2023. *In*: UNITED NATIONS ENVIRONMENT PROGRAMME. WORLD CONSERVATION MONITORING CENTRE; INTERNATIONAL UNION FOR CONSERVATION OF NATURE. *World Database on Protected Areas - WDPA*. Cambridge [Reino Unido]: UNEP-WCMC; Gland: IUCN, set. 2024. Available from: https://www.iucn.org/theme/protected-areas/our-work/quality-and-effectiveness/world-database-protected-areas-wdpa. Cited: Sept. 2024.





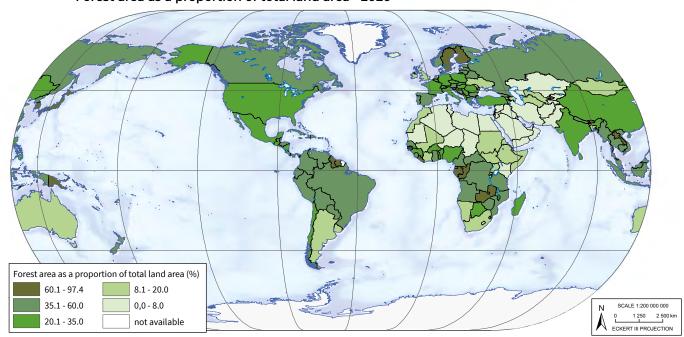
SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Conservation, recovery and sustainable use of terrestrial ecosystems and of inland waters, combating degradation, biodiversity loss, illegal trafficking and reducing the impact of invading exotic species by protecting ecosystems and strengthening the management and integration of their assets to the planning process.





Indicator 15.1.1 Forest area as a proportion of total land area - 2020

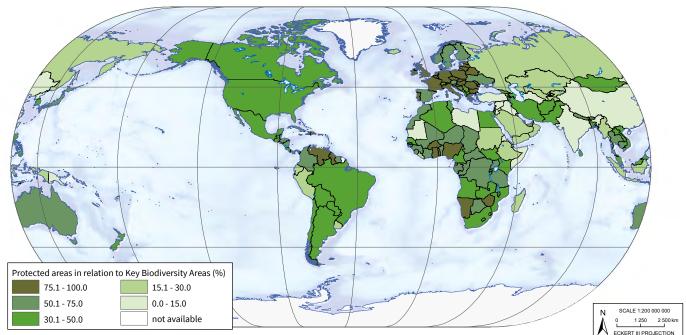


Source: FOREST area as a proportion of total land area, 2020. *In:* UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 15.1.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.





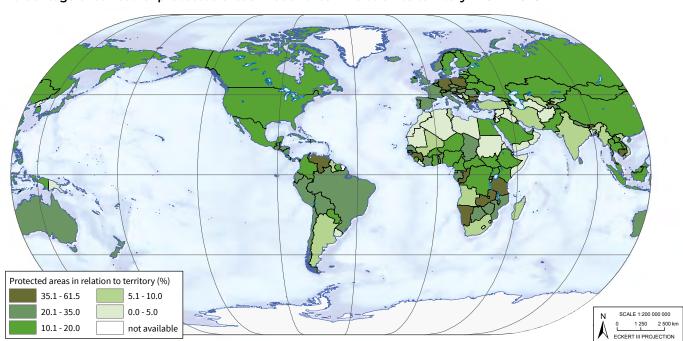
Indicator 15.1.2Percentage of terrestrial protected areas in relation to Key Biodiversity Areas - 2023



Check the evolution of this indicator over time.



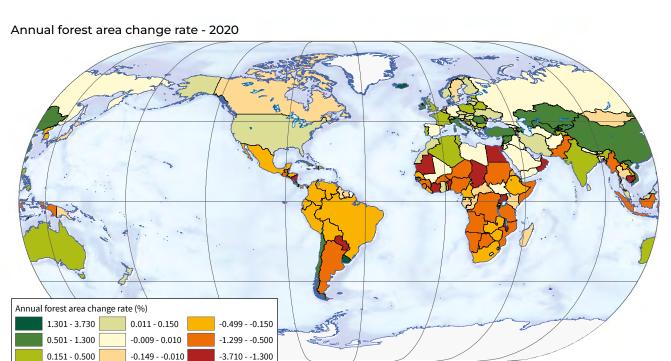
Indicator C15.1.c Percentage of terrestrial protected areas in countries in relation to territory - 2022-2023



Sources: 1. AVERAGE proportion of Terrestrial Key Biodiversity Areas (KBAs) covered by protected areas, 2023. In: UNITED NATIONS. Statistics Division. SDG Indicators Database. New York, 2024. Indicator 15.1.2. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024. 2. TERRESTRIAL protected areas, 2022. In: WORLD BANK. World Development Indicators. Washington, DC, 2024. Available from: https://data.worldbank.org/indicator/ER.LND.PTLD.ZS. Cited: Sep 2024. 3. PROTECTED areas, 2023. In: UNITED NATIONS ENVIRONMENT PROGRAMME. WORLD CONSERVATION MONITORING CENTRE; INTERNATIONAL UNION FOR CONSERVATION OF NATURE. World Database on Protected Areas - WDPA. Cambridge [Reino Unido]: UNEP-WCMC; Gland: IUCN, sept. 2024. Available from: https://www.iucn.org/theme/protected-areas/our-work/quality-and-effectiveness/world-database-protected-areas-wdpa. Cited: Sept. 2024.

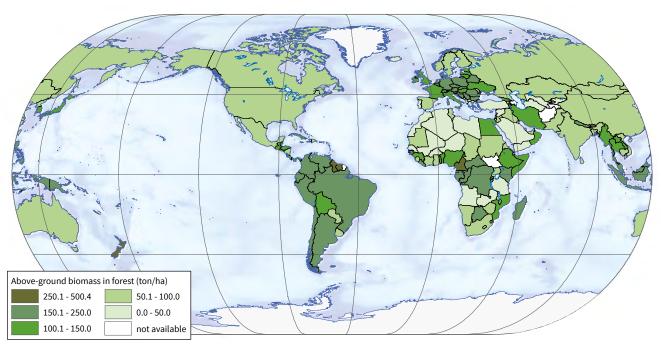


Indicator 15.2.1 Progress towards sustainable forest management





Above-ground biomass in forest - 2020



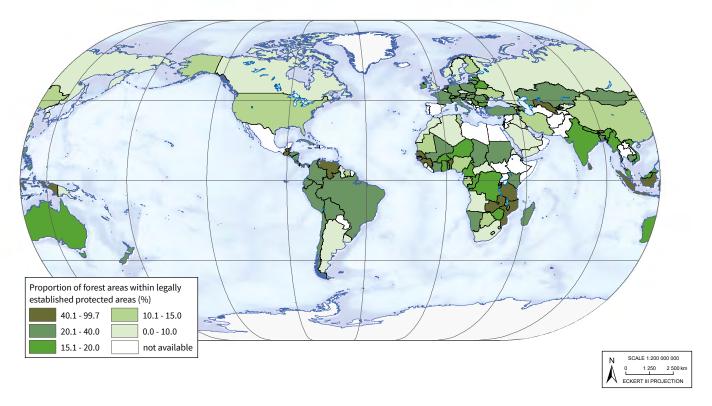
N SCALE 1:200 000 000

0 1 250 2 500 km

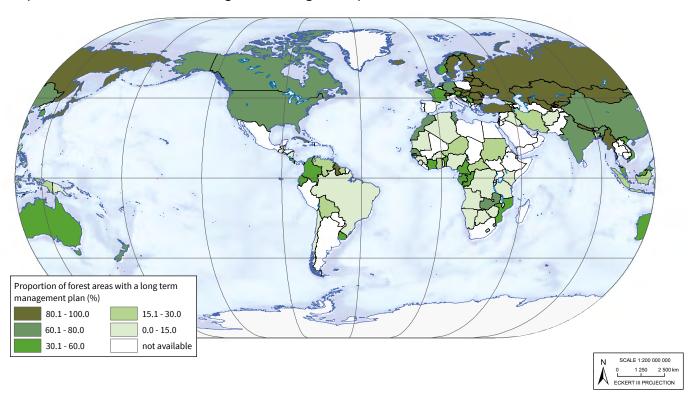
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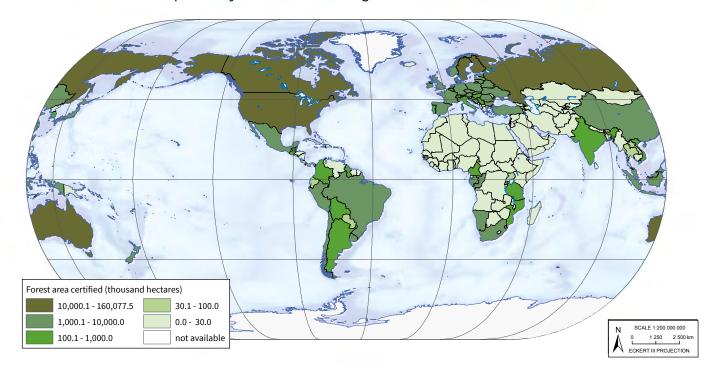
Proportion of forest areas within legally established protected areas - 2020



Proportion of forest areas with a long-term management plan - 2020



Forest area under an independently verified forest management certification scheme - 2020



Source: FOREST area certified under an independently verified certification scheme, 2020. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 15.2.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.

1 250 2 500 km

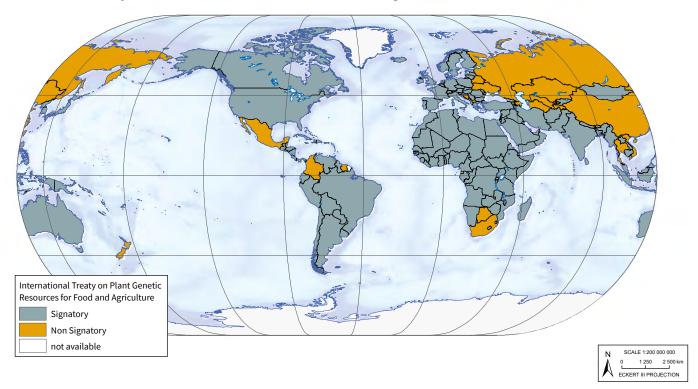




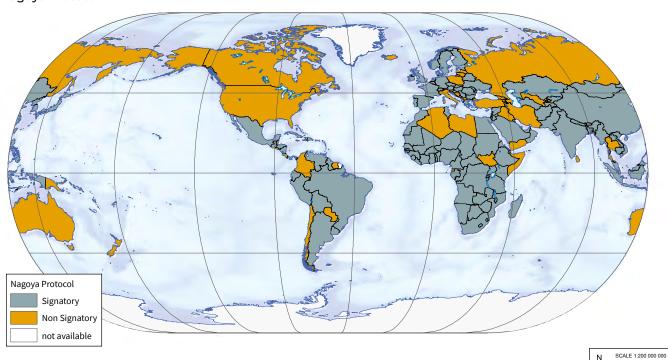
Indicator 15.6.1

Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits - 2023

International Treaty on Plant Genetic Resources for Food and Agriculture



Nagoya Protocol



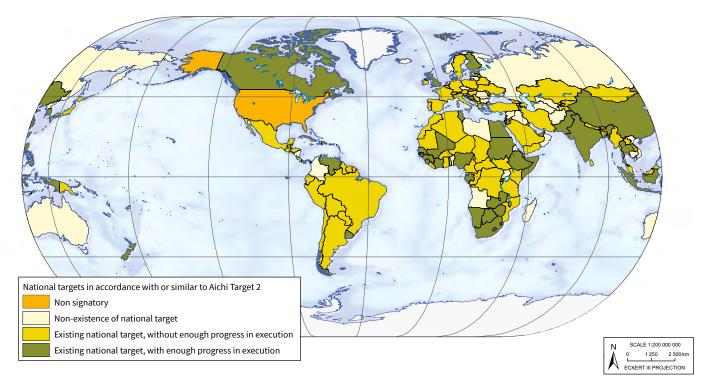
Sources: 1. COUNTRIES that are contracting parties to the International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA), 2023. In: UNITED NATIONS. Statistics Division. SDG Indicators Database. New York, 2024. Indicator 15.6.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024. 2. COUNTRIES that are parties to the Nagoya Protocol, 2023. In: UNITED NATIONS. Statistics Division. SDG Indicators Database. New York, 2024. Indicator 15.6.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.





Indicator 15.9.1a

Number of countries that have established national targets in accordance with or similar to Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 in their national biodiversity strategy and action plans and the progress reported towards these targets - 2022



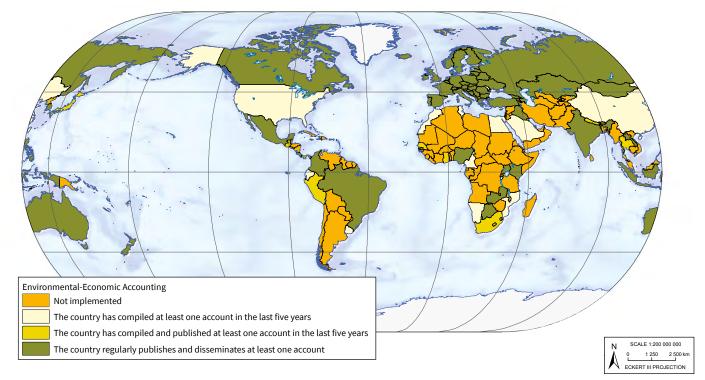
Source: COUNTRIES that established national targets in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 in their National Biodiversity Strategy and Action Plans. In: UNITED NATIONS. Statistics Division. SDG Indicators Database. New York, 2024. Indicator 15.9.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.





Indicator 15.9.1b

Integration of biodiversity into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting - 2023



Source: COUNTRIES with integrated biodiversity values into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting, 2022. *In*: UNITED NATIONS. Statistics Division. *SDG Indicators Database*. New York, 2024. Indicator 15.9.1. Available from: https://unstats.un.org/sdgs/dataportal/database. Cited: Sept. 2024.

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Creating Synergies between the 2030 Agenda for Sustainable Development and the G20

Maps Module

In 2017, the United Nations General Assembly approved the framework of global indicators for monitoring the 2030 Agenda for Sustainable Development, which had been under discussion since 2015, with a total of 231 indicators. In consideration of these directives, the IBGE started the generation of indicators in Brazil, in collaboration with other entities that produce official data for the country. This work, therefore, adds to international efforts aimed at monitoring the achievement of the 17 Goals and 169 targets of the 2030 Agenda.

The SDG indicators are constructed based on methodologies developed by their custodian agencies and validated by a Group of Experts (Inter-agency and Expert Group on Sustainable Development Goal Indicators - IAEG-SDGs), following international standards. In this group, coordinated by the United Nations Statistics Division (UNSD), the IBGE also represents the Mercosur countries and Chile.

In the year when Brazil holds the presidency of the G20 for the first time, the release of this publication by the IBGE proposes a new approach to the themes presented in the previous modules, **Inequalities** and **Environment**, by means of world maps where Brazil is placed at the center of the projection. The Inequalities theme, as a cross-cutting issue, is present not only in discussions held by the G20 Working Groups, but in a number of SDGs within the 2030 Agenda, whereas discussions on the Environment have grown in significance in the global scenario, as a result of challenges posed by climate-related issues and their impact on people's lives.



