

**REFERENCE MAPS - MAPBIOMAS BRAZIL COLLECTION 10**

MAP	SOURCE	DESCRIPTION	DOWNLOAD LINK
Agriculture Irrigated by Center Pivots in Brazil	ANA / Embrapa	Mapping of the area and number of central pivot irrigation equipment in Brazil between 1985 and 2017. Study carried out through a partnership between the National Water Agency - ANA and Embrapa Milho e Sorgo.	<a href="https://metadados.ana.gov.br/geonetwork/srv/pt/main_home?uuid=e2d38e3f-5e62-41ad-87ab-990490841073">https://metadados.ana.gov.br/geonetwork/srv/pt/main_home?uuid=e2d38e3f-5e62-41ad-87ab-990490841073</a>
Favelas and Urban Communities 2019	IBGE	This preliminary version incorporates updates through December 2019 and is comprised of 13 152 Subnormal Agglomerations. These agglomerations are located in 734 Municipalities, in all States and in the Federal District, and total 5 127 747 household	<a href="https://www.ibge.gov.br/geociencias/organizacao-do-territorio/tipologias-do-territorio/15788-aglomerados-subnormais.html?=&amp;t=saiba-mais-edicao">https://www.ibge.gov.br/geociencias/organizacao-do-territorio/tipologias-do-territorio/15788-aglomerados-subnormais.html?=&amp;t=saiba-mais-edicao</a>
Atlas of the Atlantic Forest	SOS Atlantic Forest/INPE	Mapping of forest formations and associated ecosystems, reference year 2023/2024	<a href="https://www.sosma.org.br/iniciativas/atlas-da-mata-atlantica">https://www.sosma.org.br/iniciativas/atlas-da-mata-atlantica</a>
Atlas of the Mangroves of Brazil	MMA / ICMBio	Partnership between the Chico Mendes Institute for Biodiversity Conservation and the Project "Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil", implemented by the United Nations Development Program - Brazil (UNDP), with the support of the Global Fund for the Environment Environment (GEF).	<a href="https://www.gov.br/icmbio/pt-br/centrais-de-conteudo/atlas-dos-manguezais-do-brasil-pdf">https://www.gov.br/icmbio/pt-br/centrais-de-conteudo/atlas-dos-manguezais-do-brasil-pdf</a>
CAR Thematic Digital Vector Base - State of Tocantins	Tocantins State Secretariat for the Environment and Water Resources	Prepared from satellite images (Plêiades Year 2015), and constitutes a vectorial, digital base, compatible with a 1: 25,000 scale, consisting of features of the hydrographic grid, municipal boundaries, road system grid, transmission lines and special areas of the State of Tocantins, cut and articulated according to sheets 1:25,000 of the National Cartographic System – SCN.	<a href="https://www.to.gov.br/semarh/base-vectorial-digital-tematica-do-car/1knojozyng4n">https://www.to.gov.br/semarh/base-vectorial-digital-tematica-do-car/1knojozyng4n</a>
Global Distribution of Mangroves USGS	USGS	This dataset shows the global distribution of mangrove forests, derived from earth observation satellite imagery	<a href="http://sedac.ciesin.columbia.edu/data/set/lulc-global-mangrove-forests-distribution-2000/data-download">http://sedac.ciesin.columbia.edu/data/set/lulc-global-mangrove-forests-distribution-2000/data-download</a>
Global Human Settlement Layer (GHS-BUILT e GHS_BUILT_S2)	European Commission Joint Research Centre (JRC)	A layer of multitemporal information on the presence of built-up area derived from Landsat image collections (GLS1975, GLS1990, GLS2000 and Landsat 8 ad-hoc 2013/2014 collection).	<a href="https://ghsl.jrc.ec.europa.eu/download.php">https://ghsl.jrc.ec.europa.eu/download.php</a>
Global Land Analysis Discovery - Commodity Crop Mapping and Monitoring in South America	University of Maryland	Annual Soy Coverage Maps in South America, Soy Coverage 2000 onwards to enable tracking of indirect effects of soy expansion on deforestation and inform multi-stakeholder negotiations on soy sustainability, Corn Coverage Maps in South America South America, updated semi-annually.	<a href="https://glad.umd.edu/projects/commodity-crop-mapping-and-monitoring-south-america">https://glad.umd.edu/projects/commodity-crop-mapping-and-monitoring-south-america</a>
Index of Roads and Structures (IRS)	Justiniano et. al	Presents a new easily reproducible methodology for urban mapping. The methodology allows the combined processing of OpenStreetMap and Remote Sensing data, where a metric called the road and structure index (LVI) is proposed for mapping urban areas. The IVE is used with NDVI and MNDWI to map the urban surface with high accuracy, with a reference year of 2020.	<a href="https://www.sciencedirect.com/science/article/pii/S0303243422011179?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0303243422011179?via%3Dihub</a>
IV National Inventory of Greenhouse Gas Emissions (LULUCF sector)	MCTIC	Map of agricultural areas (annual, semi-perennial and perennial)	<a href="https://www.gov.br/mcti/pt-br/centrais-de-conteudo/publicacoes-mcti/quarta-comunicacao-nacional-do-brasil-a-unfccc/sumario_executivo_4cn_brasil_web.pdf">https://www.gov.br/mcti/pt-br/centrais-de-conteudo/publicacoes-mcti/quarta-comunicacao-nacional-do-brasil-a-unfccc/sumario_executivo_4cn_brasil_web.pdf</a>
Census Tracts 2021	Instituto Brasileiro de geografia e Estatística (IBGE)	The 2021 Sectoral Mesh was updated for the collection stage of the 2022 Demographic Census, taking into account the updated situation of the Brazilian Political-Administrative Division – DPA, in force on 04/30/2021.	<a href="https://www.ibge.gov.br/geociencias/downloads-geociencias.html?caminho=organizacao_do_territorio/malhas_territoriais/malhas_de_setores_censitarios_divisoes_intramunicipais/2021/Malha_de_setores_(shp)_Brasil">https://www.ibge.gov.br/geociencias/downloads-geociencias.html?caminho=organizacao_do_territorio/malhas_territoriais/malhas_de_setores_censitarios_divisoes_intramunicipais/2021/Malha_de_setores_(shp)_Brasil</a>
Brazilian Mining Map	Brazil-Germany Chamber of Commerce and Industry / GeoAnsata Projects	Portraits of the mining industry and intermediation of interested parties in the area, experts and producers in the sector with mining companies.	<a href="https://www.google.com/maps/d/viewer?mid=19ps2n5f62X-ib2V2teFhaqcUCbS2BZJ&amp;ll=-14.64391762573763%2C-58.49807411843837&amp;z=4">https://www.google.com/maps/d/viewer?mid=19ps2n5f62X-ib2V2teFhaqcUCbS2BZJ&amp;ll=-14.64391762573763%2C-58.49807411843837&amp;z=4</a>
Deforestation Alert Map - Mining Class - DETER Project	INPE	Mining Class of the Near Real Time Alert System (DETER), maintained by the National Institute for Space Research (INPE)	<a href="http://terrabilis.dpi.inpe.br/">http://terrabilis.dpi.inpe.br/</a>
Amazon Mining Watch Network Mining Map	AMW	Amazon Mining Watch Mining Activity Data	<a href="https://amazonminingwatch.org/">https://amazonminingwatch.org/</a>
Planted forests map	GFW/WRI	Map of planted forests for Brazil	<a href="http://data.globalforestwatch.org/datasets/baae47df61ed4a73a6f54f00cb4207e0_5">http://data.globalforestwatch.org/datasets/baae47df61ed4a73a6f54f00cb4207e0_5</a>
Biomes Boundary Map 1: 250,000	IBGE	Together with the methodological report that brings new limits between the six Brazilian biomes, Amazon, Atlantic Forest, Caatinga, Cerrado, Pantanal and Pampa, compatible with the 1:250 000 scale.	<a href="https://www.ibge.gov.br/geociencias/informacoes-ambientais/estudos-ambientais/15842-biomas.html?=&amp;t=acesso-ao-produto">https://www.ibge.gov.br/geociencias/informacoes-ambientais/estudos-ambientais/15842-biomas.html?=&amp;t=acesso-ao-produto</a>
Amazon Mining Map	Social and Environmental Institute - ISA	Mining data in the Brazilian Amazon compiled by Instituto Socioambiental - ISA	<a href="https://www.amazoniasocioambiental.org/es/mapas/#descargas">https://www.amazoniasocioambiental.org/es/mapas/#descargas</a>
Brazil Mineral Resources Map	Geological Survey of Brazil (CPRM) - GeoSGB	The spatial representation of Brazil's mineral resources is maintained by the Geological Service of Brazil (CPRM) through its geoportal called GeoSGB.	<a href="https://geoportal.cprm.gov.br/geosgb/">https://geoportal.cprm.gov.br/geosgb/</a>
Map of mangroves in northeastern Brazil	Pereira, E.A., Souza-Filho, P.W.M., et al.	Map of mangrove areas from Ponta de Tubarão-MA to the south of the State of Bahia from the classification of Landsat and ALOS PALSAR images from 2008	

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Map of mangroves in the northern region of Brazil	Nascimento Jr, W.R.; Souza-Filho, P.W. M., et al.	Map of mangrove areas from Oiapoque-AP to Ponta de Tubarão-MA generated from the classification of Landsat and ALOS PALSAR images from 2008	<a href="http://dx.doi.org/10.1016/j.ecss.2012.10.005">http://dx.doi.org/10.1016/j.ecss.2012.10.005</a>
Synthesis Map of Pastures of Brazil - v8	LAPIG/UFG	Mapping of pasture areas, from TerraClass Amazon data compilation; Funcate; PROBIO; Canasat and TNC.	<a href="http://maps.lapig.iesa.ufg.br/?layers=pa_br_areas_pastagens_250_2016_lapig">http://maps.lapig.iesa.ufg.br/?layers=pa_br_areas_pastagens_250_2016_lapig</a>
Vegetal Coverage Maps of Brazilian Biomes - ProBio	UEFS/APNE/EMBRAPA-Solos/UFCE/UFRN/UFRPE/UFPB/CRA/SEMARH-MMA	Survey of vegetable coverage and land use of the Caatinga Bioma	<a href="http://mapas.mma.gov.br/geodados/brasil/vegetacao/vegetacao2002/mosaicos_vegetacao/caatinga.zip">http://mapas.mma.gov.br/geodados/brasil/vegetacao/vegetacao2002/mosaicos_vegetacao/caatinga.zip</a>
Mapping of the Upper Paraguay Basin	SOS Pantanal/WWF Brasil	Monitoring the use and vegetation cover of the Upper Paraguay Basin, which includes the Pantanal and its headwaters. Data available for 2002, 2008, 2010, 2012, 2014 and 2016	<a href="https://www.sospantanal.org.br/atlas/">https://www.sospantanal.org.br/atlas/</a>
Mapping of the Vegetal Coverage of the Atlantic Forest of Minas Gerais	State Forest Institute (IEF)	Mapping carried out a sweep of 30,673,854.99 hectares, which included the legal limit of the biome established by Federal Law 11,428/2006, plus a five-kilometer buffer, considering the transition areas for the other biomes.	<a href="https://geoportal.meioambiente.mg.gov.br/">https://geoportal.meioambiente.mg.gov.br/</a>
Mapping of Native Vegetal Coverage and Land Use 1/25,000 in the State of Espírito Santo	State Institute for the Environment and Water Resources (IEMA)	Mapping carried out through orthophotos with 25cm and photointerpretation and manual vectorization of limits between use and coverage classes with a minimum area of 0.5ha.	<a href="https://geobases.es.gov.br/downloads">https://geobases.es.gov.br/downloads</a>
Land use mapping for the Cerrado and Atlantic Forest	FBDS	Land use mapping for the Cerrado and Atlantic Forest. Based on RapidEye high resolution images with 5m resolution.	<a href="http://geo.fbds.org.br/">http://geo.fbds.org.br/</a>
Land Use and Coverage Mapping of the State of Paraná	State Secretariat for Planning and Structuring Projects	Mapping carried out through orbital images of high spatial resolution (2 meter) satellites for the period 2011 to 2016 - WorldView2 and Pleiades 1A and 1B). Supervised automatic classification (GEOBIA).	<a href="https://geopr.iat.pr.gov.br/portal/apps/dashboards/1eca83bf72e44193ae62f282574da52f">https://geopr.iat.pr.gov.br/portal/apps/dashboards/1eca83bf72e44193ae62f282574da52f</a>
Mapping of Irrigated Rice in Brazil	National Water Agency (ANA) / National Supply Company (Conab)	Mapping of Irrigated Rice in Brazil	<a href="https://metadados.snirh.gov.br/geonetwork/srv/por/catalog.search#metadata/1ac9b37f-0745-44f9-a60b-6a2bd366bbe1">https://metadados.snirh.gov.br/geonetwork/srv/por/catalog.search#metadata/1ac9b37f-0745-44f9-a60b-6a2bd366bbe1</a>
Mapping of the Forest Inventory of the State of São Paulo	Infrastructure and Environment Secretariat of the State of São Paulo - Forestry Institute	Mapping carried out using orbital satellite images of high spatial resolution (0.5 meter), for the period 2017 to 2019, belonging to the collection of the Infrastructure and Environment Department.	
OpenStreetMap	OpenStreetMap Foundation	OpenStreetMap is an initiative to create and provide free geographic data, such as street maps, to anyone.	<a href="https://www.openstreetmap.org/">https://www.openstreetmap.org/</a>
Prodes	INPE	Satellite monitoring of clear-cut deforestation in the Legal Amazon which provides, since 1988, the annual deforestation rates in the region used by the Brazilian government to	<a href="http://www.dpi.inpe.br/prodesdigital/dadosn/">http://www.dpi.inpe.br/prodesdigital/dadosn/</a>
Terra Class Cerrado	MMA, IBAMA, EMBRAPA, INPE, UFG e UFU	Cerrado Land Use and Coverage Mapping	<a href="https://www.terraclass.gov.br/download-de-dados">https://www.terraclass.gov.br/download-de-dados</a>
Use and vegetation cover in the State of Rio Grande do Sul – situation in 2002.	Hasenack, H.; Cordeiro, J.L.P.; Weber, E.J. (Org.). Porto Alegre: UFRGS IB Centro de Ecologia, 2015. 1a ed. ISBN 978-85-63843-15-9.	Vegetation Cover Map of Rio Grande do Sul - 2002 base year, obtained by visual interpretation of Landsat images. Level of detail compatible with 1:250,000 scale	<a href="https://www.ufrgs.br/labgeo/index.php/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2002/">https://www.ufrgs.br/labgeo/index.php/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2002/</a>
Use and vegetation cover in the State of Rio Grande do Sul – situation in 2009.	Weber, E.J.; Hofmann, G.S.; Oliveira, C.V.; Hasenack, H. (Org.). Porto Alegre: UFRGS IB Centro de Ecologia, 2016. 1a ed. ISBN 978-85-63843-20-3.	Vegetation Cover Map of Rio Grande do Sul - base year 2009, obtained by visual interpretation of Landsat images. Level of detail compatible with 1:250,000 scale	<a href="https://www.ufrgs.br/labgeo/index.php/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2009/">https://www.ufrgs.br/labgeo/index.php/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2009/</a>
Use and vegetation cover in the State of Rio Grande do Sul – situation in 2015.	Hofmann, G.S.; Weber, E.J.; Hasenack, H. (Org.). Porto Alegre: UFRGS IB Centro de Ecologia, 2018. 1a ed. ISBN 978-85-63843-22-7.	Vegetation cover map of Rio Grande do Sul - base year 2015, obtained by visual interpretation of Landsat images. Level of detail compatible with 1:250,000 scale	<a href="https://www.ufrgs.br/labgeo/index.php/downloads/dados-geoespaciais/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2015/">https://www.ufrgs.br/labgeo/index.php/downloads/dados-geoespaciais/uso-e-cobertura-vegetal-do-rio-grande-do-sul-situacao-em-2015/</a>
Mapping of the Evolution of Vegetation Cover.	Bahia Forestry Forum	The objective of the independent monitoring of the vegetation cover and soil use of the Discovery Coast, Extremo Sul, and South Coast Parcel (areas where Suzano and Veracel operate), is to map the evolution of the vegetation cover.	<a href="https://forumflorestalbahia-worldresources.hub.arcgis.com/">https://forumflorestalbahia-worldresources.hub.arcgis.com/</a>
Coffee Map	CONAB	The mapping of agricultural crops is carried out by means of remote sensing. It aims to contribute to the estimation of area and productivity, offering precise information about the geographic distribution in each state. In area estimation, the mapping result helps in the analysis of the declared information, as a verifiable data in the field. In the productivity estimation, the knowledge of the location of the cultivation areas enables the monitoring of the productive areas through agrometeorological parameters, offering indicatives on the forecast of the yield of the crops. The mappings are available for download in shapefile format.	<a href="https://www.conab.gov.br/info-agro/safras/mapeamentos-agricolas">https://www.conab.gov.br/info-agro/safras/mapeamentos-agricolas</a>
Urban Areas 2019	IBGE	Spatial representation of the urban phenomenon, obtained through visual interpretation of satellite imagery, based on the year 2019.	<a href="https://www.ibge.gov.br/geociencias/organizacao-do-territorio/tipologias-do-territorio/15789-areas-urbanizadas.html?edicao=35569&amp;t=acesso-ao-produto">https://www.ibge.gov.br/geociencias/organizacao-do-territorio/tipologias-do-territorio/15789-areas-urbanizadas.html?edicao=35569&amp;t=acesso-ao-produto</a>
Google Open Buildings v3	Sirko et al.	Large-scale open dataset contains the outlines of buildings derived from high-resolution satellite imagery.	<a href="https://sites.research.google/gr/open-buildings/">https://sites.research.google/gr/open-buildings/</a>

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VIIRS Stray Light Corrected Nighttime Day/Night Band Composites Version 1	NASA		<a href="https://eogdata.mines.edu/download_dnb_composites.html">https://eogdata.mines.edu/download_dnb_composites.html</a>
Map of Wetlands in the Amazon Basin	Hess, L.L., J.M. Melack, A.G. Affonso, C.C.F. Barbosa, M. Gastil-Buhl, and E. M.L.M. Novo. 2015. LBA-ECO LC-07 Wetland Extent, Vegetation, and Inundation: Lowland Amazon Basin. ORNL DAAC, Oak Ridge, Tennessee, USA. <a href="https://doi.org/10.26434/chemrxiv-2015-09-01">https://doi.org/10.26434/chemrxiv-2015-09-01</a>	Map of the extent of wetlands, vegetation type and flooding status in two seasons throughout the lower Amazon basin	<a href="https://daac.ornl.gov/cgi-bin/dsvviewer.pl?ds_id=1284">https://daac.ornl.gov/cgi-bin/dsvviewer.pl?ds_id=1284</a>
Global Wetlands Map	Gumbrecht, T., Román-Cuesta, R.M., Verchot, L.V., Herold, M., Wittmann, F., Householder, E., Herold, N., Murdiyarto, D., 2017. An expert system model for mapping tropical wetlands and peatlands reveals South America as the largest contributor. Global Change Biology 23(9):3581-3599 doi: <a href="http://www.cifor.org/pid/6419">http://www.cifor.org/pid/6419</a>	Hydro-geomorphological model based on an expert system approach to estimate wetland areas.	<a href="https://www2.cifor.org/global-wetlands/">https://www2.cifor.org/global-wetlands/</a>
Global Wetlands Map	Tootchi, Ardalan; Jost, Anne; Ducharme, Agnès (2018): Multi-source global wetland maps combining surface water imagery and groundwater constraints. Sorbonne Université, Paris, France. PANGAEA, <a href="https://doi.org/10.1594/PANGAEA.892657">https://doi.org/10.1594/PANGAEA.892657</a>	Composite wetland maps that combine two classes of wetlands: (1) regularly flooded wetlands and (2) groundwater-driven wetlands.	<a href="https://doi.pangaea.de/10.1594/PANGAEA.892657?format=html#download">https://doi.pangaea.de/10.1594/PANGAEA.892657?format=html#download</a>
Pedology Map of Brazil	IBGE	Soil map of Brazil at scale 1:250,000	<a href="https://geoftp.ibge.gov.br/informacoes_ambientais/pedologia/vetores/escala_250_mil/versao_2023/">https://geoftp.ibge.gov.br/informacoes_ambientais/pedologia/vetores/escala_250_mil/versao_2023/</a>
Prodes Cerrado	INPE	PRODES Cerrado project that includes mapping the suppression of native vegetation in the biome from 2000 to 2023	<a href="https://terrabrasilis.dpi.inpe.br/downloads/">https://terrabrasilis.dpi.inpe.br/downloads/</a>
MapBiomias Alerta	MapBiomias	System for validating and refining deforestation alerts from various detection systems since 2019	<a href="https://plataforma.alerta.mapbiomas.org/downloads">https://plataforma.alerta.mapbiomas.org/downloads</a>
Remnants of Murundus Fields or Covais in the State of Goiás	SEMAD - GO	Map of murundus fields at cartographic scale 1:50,000 in the state of Goiás in 2020	<a href="https://siga.meioambiente.go.gov.br/catalogue/uuid/a8764228-277f-11ec-b499-005056829b53">https://siga.meioambiente.go.gov.br/catalogue/uuid/a8764228-277f-11ec-b499-005056829b53</a>
Global Canopy Height 2020	EcoVision Lab, Photogrammetry and Remote Sensing, ETH Zürich	Global canopy top height for the year 2020 at 10 m sampling distance from the ground.	<a href="https://nlang.users.earthengine.app/view/global-canopy-height-2020">https://nlang.users.earthengine.app/view/global-canopy-height-2020</a>
Land Use and Cover Map of the Federal District	SISDIA - DF	Mapping the land cover of the Federal District on a 1:100,000 regional scale in 2019	<a href="https://sisdia.df.gov.br/porta/home/item.html?id=609c066c72a94111ab843c76b4074ea2">https://sisdia.df.gov.br/porta/home/item.html?id=609c066c72a94111ab843c76b4074ea2</a>
Rocky outcrop map	SGB/CPRM	Mapping of rock outcrops contained in the GeoSGB database.	<a href="https://geoportal.sgb.gov.br/server/rest/services/geologia/afloramentos/MapServer">https://geoportal.sgb.gov.br/server/rest/services/geologia/afloramentos/MapServer</a>
Map of non-forest areas	INPE	Mask of non-forest areas in the Amazon	<a href="https://terrabrasilis.dpi.inpe.br/downloads/">https://terrabrasilis.dpi.inpe.br/downloads/</a>
Map of the distribution of mapped municipalities (G75) that make up the study area and the location of Sentinel-2A and 2B images obtained on the Earth Explorer platform	EMBRAPA	Mapping of excavated ponds for aquaculture in Brazil using remote sensing - Map of the distribution of municipalities that concentrate 75% of the aquaculture production of each Federal Unit	<a href="https://ainfo.cnptia.embrapa.br/digital/bitstream/doc/1152279/1/6105.pdf">https://ainfo.cnptia.embrapa.br/digital/bitstream/doc/1152279/1/6105.pdf</a>
Global Distribution of Coral Reefs	UNEP-WCMC	Global Distribution of Coral Reefs	<a href="https://data.unep-wcmc.org/datasets/1">https://data.unep-wcmc.org/datasets/1</a>
Allen Coral Atlas	The Allen Coral Atlas	Global Coral Reef Mapping and Monitoring Coastal Ecosystem Threats	<a href="https://allencoralatlas.org/">https://allencoralatlas.org/</a>
Atlas of Coral Reefs in Brazilian Conservation Units	PRATES, A. P. L. 2003	Mapping of coral reefs in different Brazilian regions, priority areas, maps of biological importance	<a href="http://mtc-m12.sid.inpe.br/rep/sid.inpe.br/sergio/2005/01.31.11.00">http://mtc-m12.sid.inpe.br/rep/sid.inpe.br/sergio/2005/01.31.11.00</a>
Panorama Database for the conservation of coastal and marine ecosystems in Brazil	MMA. Management of Aquatic Biodiversity and Fisheries Resources.	Overview of the Conservation of Coastal and Marine Ecosystems in Brazil - MMA	<a href="https://www.marinha.mil.br/secirm/sites/www.marinha.mil.br/secirm/files/mma-205_publicacao27072011042233.pdf">https://www.marinha.mil.br/secirm/sites/www.marinha.mil.br/secirm/files/mma-205_publicacao27072011042233.pdf</a>
Map of priority areas of the coastal and marine zone	MMA	PRIORITY AREAS OF THE COASTAL AND MARINE ZONE	<a href="https://www.gov.br/mma/pt-br/assuntos/biodiversidade-e-biomass/ecossistemas/conservacao-1/areas-prioritarias/zona_costeira.jpg">https://www.gov.br/mma/pt-br/assuntos/biodiversidade-e-biomass/ecossistemas/conservacao-1/areas-prioritarias/zona_costeira.jpg</a>

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MAP	SOURCE	DESCRIPTION	DOWNLOAD LINK
Cartographic Base of Southeast Tocantins (Wetlands)	SEPLAN/TO	These are thematic data in shapefile format at 50,000 and 100,000 scales, referring to the data generated from the Delimitation and Cartographic Characterization of Areas Vulnerable to Water Scarcity in the Southeast Region of the State of Tocantins. Work carried out by the then Secretariat of Finance and Planning in 2019.	<a href="https://geoportal.to.gov.br/gvsigonline/servicos/">https://geoportal.to.gov.br/gvsigonline/servicos/</a>
Cartographic Base of Southeast Tocantins (Land Cover and Land Use)	SEPLAN/TO	These are thematic data in shapefile format at 50,000 and 100,000 scales, referring to the data generated from the Delimitation and Cartographic Characterization of Areas Vulnerable to Water Scarcity in the Southeast Region of the State of Tocantins. Work carried out by the then Secretariat of Finance and Planning in 2019.	<a href="https://geoportal.to.gov.br/gvsigonline/servicos/">https://geoportal.to.gov.br/gvsigonline/servicos/</a>
MERIT Hydro: Global Hydrography Datasets	Yamazaki D., D. Ikeshima, J. Sosa, P.D. Bates, G.H. Allen, T.M. Pavelsky. MERIT Hydro: um mapa global de hidrografia de alta resolução com base nos mais recentes conjuntos de dados de topografia. Water Resources Research, vol.55, pp.5053-5073, 2019	MERIT Hydro is a new global flow direction map with 3 arc-second resolution (~90 m at the equator) derived from version 1.0.3 of the MERIT DEM elevation data and water body datasets (G1WBM, GSWO and OpenStreetMap). Access to publication: doi:10.1029/2019WR024873	<a href="https://hydro.iis.u-tokyo.ac.jp/~yamada/MERIT_Hydro/">https://hydro.iis.u-tokyo.ac.jp/~yamada/MERIT_Hydro/</a>
MERIT DEM: Multi-Error-Removed Improved-Terrain DEM	Yamazaki D., D. Ikeshima, R. Tawatari, T. Yamaguchi, F. O'Loughlin, J.C. Neal, C.C. Sampson, S. Kanai & P.D. Bates. Um mapa de alta precisão das elevações do terreno global. Geophysical Research Letters, vol.44, pp.5844-5853, 2017.	A high-precision global DEM with 3 arc-second resolution (~90 m at the equator) produced by eliminating major error components from current DEMs (NASA SRTM3 DEM, JAXA AW3D DEM, Viewfinder Panoramas DEM). Access to publication: doi:10.1002/2017GL072874	<a href="https://hydro.iis.u-tokyo.ac.jp/~yamada/MERIT_Hydro/">https://hydro.iis.u-tokyo.ac.jp/~yamada/MERIT_Hydro/</a>
Overview of Fish Farming in the State of Rio Grande do Sul, Brazil	DA ROCHA, Andrea Ferretto; ROTTA, Marco Aurélio; SAMPAIO, João Alfredo de Oliveira; TORRES, Pietra Fialho; CAVALLI, Lissandra Souto; DE BRITO, Kelly Cristina Tagliari; DE BRITO, Benito Guimarães. Panorama da Piscicultura no Estado do Rio Grande do Sul, Brasil. Pesquisa Agropecuária Gaúcha, [S. l.], v. 30, n. 1, p. 15–37, 2024.	Mapping of confirmed fish farming in Rio Grande do Sul, Brazil.	<a href="https://revistapag.agricultura.rs.gov.br/ojs/index.php/revistapag/article/view/788">https://revistapag.agricultura.rs.gov.br/ojs/index.php/revistapag/article/view/788</a>
Map points of Photovoltaic Power Plant localization		Map of location points of Photovoltaic Power Plants (UFV) in Brazil, registered on the ArcGis online platform of the National Electric Energy Agency (ANEEL) Map of location points of Photovoltaic Power Plants (UFV) in Brazil, registered on the ArcGis online platform of the National Electric Energy Agency (ANEEL)	<a href="https://www.arcgis.com/apps/mapviewer/index.html?url=https://sigel.aneel.gov.br/arcgis/rest/services/Features_DEEP_UFV2/MapServer&amp;source=sd">https://www.arcgis.com/apps/mapviewer/index.html?url=https://sigel.aneel.gov.br/arcgis/rest/services/Features_DEEP_UFV2/MapServer&amp;source=sd</a>