

TC Document

I. Basic Information for TC

▪ Country/Region:	BRAZIL
▪ TC Name:	Forest Management Information for the Conservation and Valorization of Forest Resources in Brazil
▪ TC Number:	BR-T1463
▪ Team Leader/Members:	Damiani Marti, Octavio Jorge (CSD/RND) Team Leader; Brakarz, Barbara (CSD/CCS) Alternate Team Leader; Carpizo Riva Palacio, Carlos Ignacio (VPC/FMP); Celeste Marzo, Cristina (LEG/SGO); Hintze, Luis Hernando (CSD/RND); Matsubara, Gustavo Custodio (CSD/RND); Restrepo, Lisa Sofia (CSD/RND); Salazar, David Agustin (VPC/FMP); Valente Lins, Paula (CSC/GBR)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	.
▪ Date of TC Abstract authorization:	April 2021
▪ Beneficiary:	Federative Republic of Brazil, through the Ministry of Agriculture, Livestock and Supply (MAPA)
▪ Executing Agency and contact name:	Instituto Interamericano De Cooperacao Para A Agricultura
▪ Donors providing funding:	Strategic Climate Fund(SCX)
▪ IDB Funding Requested:	US\$9,700,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	48 months
▪ Required start date:	March 2022
▪ Types of consultants:	Consulting firms and individual consultants
▪ Prepared by Unit:	CSD/RND-Env, Rural Dev & Disaster Risk
▪ Unit of Disbursement Responsibility:	CSC/GBR-Country Office Brazil
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Institutional capacity and rule of law; Environmental sustainability; Gender equality

II. Objectives and Justification of the TC

- 2.1 The availability of reliable and complete information about forests is key to support national forest policies, and to leverage projects and initiatives based on sustainable forest management (SFM), including the development of forest plantations and bioeconomy-based initiatives and technologies. In Brazil, having available forest information of good quality for all biomes is key to the implementation of government policies, including promoting sustainable forest management, implementing forest concessions, and promoting the development of the bioeconomy.
- 2.2 Despite Brazil being the country with the second largest area of forests (489 million hectares), the available information about forests and their use is deficient. The collection and availability of complete information has faced historically the difficulties of the country's large territorial extension, the diversity of forest formations, and the lack of clear institutional responsibilities regarding data collection and management to support sustainable forest development initiatives. In the 1980s, the federal

government started to implement a National Forest Inventory (NFI), including information about natural and cultivated forests. In 2006, the Brazilian Forest Service (SFB) was created (Law 11,284/2006) to become responsible, among other tasks, of creating and maintaining a National Forest Information System (NFIS) to improve forest management decision making. The NFI is an important part of the NFIS, and is aligned to other instruments of forest development, such as the legal obligation of environmental registration of rural properties that was established in 2012,¹ and the implementation of forest concessions of public forests.² In addition, the National Forest Management Website shares information with states about related forest resources command and control activities (forest management plans, deforestation licenses, enforcement, forest legislation, institutional capacity, and reforestation).

- 2.3 Between 2014 and 2020, the SFB implemented the project “Forest Information to Support Public and Private Sectors in Managing Initiatives Focused on Conservation and Valorization of Forest Resources” (ATN/SX-14218-BR), financed by the Climate Investment Fund (CIF)/Forest Investment Program (FIP), channeled through the IDB. The project supported the creation of a unified and comprehensive database on forests in the Cerrado biome,³ covering 86% of the biome’s area, and making it available to the public in the NFIS. Key information includes estimations of timber volume, biomass, and carbon stocks (timber and soil), distribution of tree species, and forest use and its relevance for local communities, based on close to 11,400 interviews with the population.
- 2.4 Despite the progress made, the NFIS only covers part of the country, and some of the information currently available is incomplete and based on rough estimates and not on evidence. The NFIS only includes field data for 18 of the 27 states of Brazil, totally covering the Pampa biome⁴, but only partially data for the other ones: 86.1% of the Cerrado, 39,8% of the Amazon, 65.9% of the Atlantic Forest, 46.1% of Caatinga, and none of the Pantanal. Areas of high ecological and economic importance for Sustainable Forest Management (SFM) that are not covered by the NFI include the states of Piauí, Bahia and Minas Gerais in the Caatinga; the states of São Paulo, Minas Gerais and Mato Grosso do Sul in the Atlantic Forest; the states of São Paulo and Minas Gerais in the Cerrado, and Mato Grosso and Mato Grosso do Sul in the Pantanal. The limited information available negatively affects private sector investment in forest concessions and other sustainable forest development projects, including bioeconomy development. In addition, it represents an obstacle for having reliable information about forest and carbon stocks.
- 2.5 **Objective.** This TC will address the problems of limited forest information, with a purpose to contribute for the NFI to cover 100% of all biomes. The general objective

¹ The Environmental Rural Registry - CAR was created by Law N°. 12,651/2012, as a mandatory digital registration of rural properties, including information regarding the situation of Permanent Preservation Areas, Legal Reserve Areas, Forests and remnants of native vegetation, restricted use areas and consolidated productive areas. The CAR provides a database of information for monitoring and combating against deforestation.

² Public Forest Management Law (Lei N° 11,284/2006) makes possible concessions to private entities (companies, cooperatives, and community associations) to carry out sustainable forest management to extract wood and non-wood products and to offer tourism services.

³ The Cerrado is one of Brazil’s six biomes: Amazon (49,3%), Cerrado (23,9%), Atlantic Forest (13%) Caatinga (10%), Pampa (2%) and Pantanal (1,8%). The Cerrado is a vast tropical biome composed of savannas and grasslands amid humid and dry forests.

⁴ Although Pampa had 100% of its sample units collected, its data was not processed and analysed.

of the TC is to produce forest information at country level to support and guide management and governance in order to protect forest resources by both the public and private sectors. It will collect, organize, and make broadly available through the NFIS forest information of four biomes in Brazil (Caatinga, Cerrado, Atlantic Forest and Pantanal) for which the Forest National Inventory has not been implemented or completed. It will apply remote sensing for planning and data analysis (upscaling) collect biological samples from all types of landscapes, excluding water and urban areas, and interviews with local communities. In addition, some regions might not be included as they have access restriction, such as agricultural lands, indigenous lands, and other inaccessible forest areas. The remote sensing data will allow better estimations of timber, biomass, and carbon stocks of a forest area at country level.

- 2.6 Based on lessons learned from project ATN/SX-14218-BR, field data collection will include a larger number of samples from undisturbed native forests, thus, gathering information of higher ecological value useful to characterize the richness and diversity of tree species, to better identify forest degradation and the need for restoration. A recent non-profit study of women in the Brazilian forestry sector suggests that women may represent as little as 13% of professional forestry workers.⁵ Gender will be mainstreamed in the project through: (i) higher participation of women in the teams collecting field data for the NFI (at least 50% women); (ii) ensuring gender balance in the local actors interviewed, which is expected to produce unprecedented information about the importance of forest resources for women; (iii) organizing and making available as specific gender-related indicators some variables of the NFIS, such as employment, education, access to forest products for use and sale, and research; and (iv) capacity building and training will also be provided to the team, which will increase specific knowledge on forestry data collection, thus, increasing women participation in the forestry sector.
- 2.7 The TC is consistent with the Second Update to the Institutional Strategy (UIS) (AB-3190-2) and is aligned with the cross-cutting issues of: (i) environmental sustainability, as it focuses on generating forest information helpful to the design and implementation of policies that promote a sustainable use of forests; (ii) promoting gender equality, as it will reduce existing information gaps about the knowledge and uses by women of forest species in different biomes of Brazil; and (iii) Institutional capacity and rule of law, as it contributes to strengthen the capacities to manage forest resources of federal and state institutions. It also contributes to the IDBG Corporate Results Framework 2020-2023 (GN-2727-12), specifically contributing with the area of habitat that is sustainably managed applying ecosystem-based approaches. The TC is also consistent with the Integrated Strategy for Climate Change Adaptation and Mitigation (GN-2609-1) and the Climate Change Sector Framework Document (GN-2835-8), and the Gender and Diversity Sector Framework (GN-2800-8). The TC is also aligned with two priority areas of the Country Strategy for Brazil 2019-2022 (GN-2973): (i) promote national and international integration to boost productive capacity, specifically the objective of integrating the less developed regions, as the increased availability of forest information will contribute to an Increased competitiveness of the less developed regions based on a sustainable development model, and (ii) build a

⁵ <https://www.redemulherflorestal.org/post/pesquisa-in%C3%A9dita-apresenta-panorama-de-g%C3%AAnero-no-setor-florestal-brasileiro>

more effective public sector that promotes fiscal sustainability, specifically the objective of promoting e-government and digital solutions to foster transparency, accountability, and efficiency in delivering public services to citizens and enterprises, as the TC will finance electronic solutions for public service delivery, through the strengthening of the National Forest Information System. Furthermore, it is aligned with the country strategy's cross-cutting themes of environmental sustainability, through its contribution to forest information and the sustainable use of forest resources, and gender and diversity, by contributing to reduce information gaps on the knowledge and use of forest resources by women and traditional communities. According to the multilateral development banks' joint methodology for tracking climate finance, 100% of this TC's resources are invested in climate change mitigation and adaptation activities. The TC is also aligned with the Vision 2025 strategic objectives of strengthening good governance and institutions, through its contribution to strengthening forest information systems, and of reinforcing gender equality and climate change, by improving the information on how women use forest products, as well contributing with better forest management practices.

- 2.8 The TC will complement the results of the Forest Information to Support Public and Private Sectors in Managing Initiatives Focused on Conservation and Valorization of Forest Resources (ATN/SX-14218-BR), as well as of projects that have promoted the conservation and sustainable use of forests, including: the Acre Sustainable Development Program phase I (1399/OC-BR), implemented between 2002 and 2010; the Acre Sustainable Development Program phase II (2928/OC-BR), implemented between 2012 and 2021; the Serra do Mar and Atlantic Forest Mosaics System Socioenvironmental Recovery (2376-OC-BR), implemented between 2010 and 2019; the Recovery and Protection of Climate and Biodiversity Services in Brazil's Southeast Project (GRT/FM-14550-BR), under implementation since 2016, the Conservation, Restoration and Sustainable Management in the Caatinga, Pampa and Pantanal Project (GRT/FM-16661-BR), under implementation since 2018, and the Capacity Building and Institutional Strengthening on the National Framework for Access and Benefit Sharing under the Nagoya Protocol Project (ATN/FM-16166-BR), under implementation since 2017.

III. Description of activities/components and budget

- 3.1 **Component 1: Forest management information and capacity building (US\$7,065,000).** The objective of this component is to implement the field data collection for the NFI in all the biomes of Brazil. The project will cover portions of the Caatinga, Cerrado and Atlantic Forest biomes, and all of the Pantanal biome.⁶ It will finance the contracting of consultants, as well as complementary materials and equipment and travel expenses to carry out field collection, analysis, quality control, processing, and dissemination of forest information, as well as training to public sector professionals on forest management.
- 3.2 The data collected will be integrated with older data available on the NFI, and it will be made available through different channels to improve public policy and promote integration of private and public forest management, including printed reports prepared for specific biomes and states, and the SFB's website. Thematic reports will cover

⁶ Data collection and processing in the Amazon biome will also be implemented with the support from another project.

climate change, biodiversity, and sustainable forest management, gender, and socio-economic related information as primary themes, and might be combined to produce additional reports, results, and information.

- 3.3 Gender issue will be mainstreamed throughout all the activities of this component. Specifically, the following measures will be implemented. (i) at least 50% of the consultants contracted to carry out field data collection will be women; (ii) planning and implementation of field work will ensure gender balance in the local actors interviewed and that questions are included to obtain information about the importance of forest resources for women; and (iii) participation of women in capacity building and training activities, thus increasing their knowledge of forestry data collection.
- 3.4 **Component 2: Consolidation of the National Forest Information System (NFIS) (US\$1,715,000).** The objective of this component is to strengthen the NFIS to become a reference to the public and private sector with respect to information and support of forest development. It will improve the organization of the NFIS's data, disseminate information about the NFIS to encourage its use by the public and private sector, and carry out specific studies focused on the bioeconomy. The component will finance equipment and consultancies to improve the information systems and the organization of information of the NFIS, consultancies to carry out studies, and non-consulting services to implement a communication plan and organize workshops and meetings with key-actors. Specific gender-related indicators will be developed and incorporated into the NFIS, such as employment and education of women in forest-related activities, use and productive use of forest products by women, and involvement of women in forest research.
- 3.5 **Project Management and Administration (US\$920,000).** It will finance costs of consultancies and related to project management and administration, including monitoring, evaluation, and auditing.
- 3.6 The total project cost is US\$9,700,000 of grant resources from the Strategic Climate Fund (SCX)/Forest Investment Program (FIP), channeled through the Bank.

Indicative Budget (in US\$)

Component	SCX	Total Funding
Component 1. Forest management information and capacity building	7,065,000	7,065,000
Component 2. Consolidation of the National Forest Information System (NFIS)	1,715,000	1,715,000
Project Management and Administration	920,000	920,000
<i>Management and Administration</i>	<i>(780,000)</i>	<i>(780,000)</i>
<i>Auditing</i>	<i>(80,000)</i>	<i>(80,000)</i>
<i>Monitoring and Evaluation</i>	<i>(60,000)</i>	<i>(60,000)</i>
Total	9,700,000	9,700,000

- 3.7 **Results.** The TC will produce, and make publicly available, information about forests, contributing to the following results: (i) improved monitoring of forest-related economic activities impacts on local biodiversity; (ii) identification of carbon stocks; (iii) identification of areas of high-value for conservation; (iv) improved estimates of GHG emissions; and (v) production of accurate and updated information useful for

decision-makers. Additionally, by extending NFI available information to most of the Brazilian biomes, this TC will strengthen the remote sensing-based dataset, making possible to improve estimations of timber, biomass, and carbon stocks of forest area at country level. This will also contribute to improve national data on timber volume, biomass, and carbon stocks from all types of forests.

- 3.8 This TC will also generate indirect benefits, such as: (i) detailed information can generate private investment for the development of protection and forest management; (ii) business and income opportunities for local communities, giving value to forests and forest resources; (iii) better adaptation strategies to climate change, benefiting mostly traditional communities and indigenous peoples; (iv) increased tailored educational and training opportunities for traditional communities, farmers and civil society; and (v) provide new employment opportunities for forest-based economy.
- 3.9 NFI data and NFIS available information at country level will also improve the capability of producing national reports at international level, such as the Global Forest Resource Assessment of FAO (FRA), United Nation Forest Forum (UNFF) national voluntary contributions to Global Forest Goals and Sustainable Development Goals (SDG), Climate Change Convention (UNFCCC) and Convention of Biological Diversity (CBD). At national level, NFI data is increasingly being used for the design and implementation of other policies and programs for which having available complete and reliable forest information is essential, such as forest concessions, and payments for environmental services.
- 3.10 **Beneficiaries.** The TC will benefit a variety of stakeholders, who will have access to additional, better-quality forest information, including public sector managers, researchers at universities and other research institutions, potential private sector investors in sustainable forest management and development of bioeconomy products, local communities, and farmers.

IV. Executing agency and execution structure

- 4.1 The executing agency will be the Inter-American Institute for Cooperation on Agriculture (IICA), through its Representation in Brazil. IICA is the specialized agricultural agency of the Inter-American System that supports the efforts of its 34 Member States to achieve agricultural development and rural well-being. It promotes training and institutional strengthening, formulates, and implements projects, promotes, and facilitates the sharing of knowledge and experiences, and supports the formulation and evaluation of public policies for sustainable rural development. Based in San José, Costa Rica, it has been present in Brazil since 1964, when it proactively participated in the creation and structuring of important institutions for the promotion of rural development in Brazil. It has also supported projects to improve the competitiveness of the Brazilian agricultural sector and has implemented technical cooperation projects with the Ministry of Agriculture, Livestock and Food Supply (MAPA) for several years. In addition, it is participating since 2019 as a specialized contracting agency contracted by the Ministry of Agriculture, Livestock and Food Supply (MAPA) to support the implementation of one of the components of the Program to Modernize and Strengthen Agricultural Health and Food Safety Services (4723/OC-BR and 4732/OC-BR), applying IDB procurement policies.
- 4.2 IICA will be responsible of implementing the proposed activities, under the guidance of the SFB/MAPA, and will be responsible for all procurement, accounting, filing, administrative activities, financial management, and monitoring and evaluation. MAPA

will be the beneficiary of the Technical Cooperation and will be responsible, through the Brazilian Forest Service (SFB), of the technical planning, coordination, and supervision of the TC activities, including the supervision of consulting services. The SFB's General Coordination of Forestry Inventory and Information, located within its Forestry Development Department, is responsible for the implementation of the National Forestry Inventory, so it will play a central role in the monitoring and coordination of the TC activities. SFB will appoint a project coordinator who will be responsible for overseeing the progress of the TC activities and coordinate with IICA through regular meetings and reviews.

- 4.3 **Procurement and financial management.** IICA will be responsible for the technical, fiduciary, and financial implementation, and administration of the project in accordance with the Bank's policies and procedures. IICA will use its integrated systems for procurement, administration, financial management, project management and reporting, monitoring and evaluation. The executing agency has extensive experience in implementing projects similar to this TC and is also involved in the implementation of one of the components of Prodefesa (4723/OC-BR and 4732/OC-BR), in which it applies Bank policies. For this reason, the risks are considered low from a procurement and financial management perspective, so the procurement supervision modality will be ex post. No direct procurement is envisioned.
- 4.4 Procurement financed with Bank contribution resources will be carried out in accordance with the existing Procurement Policies for the procurement of works and goods (GN-2349-15), and the selection and recruitment of consulting services (GN-2350-15). It is also established that all purchases to be made must be included in the Procurement Plan (PP) approved by the Bank, as well as the methods and ranges established therein. The financial management of the project will be governed by the Bank's Financial Management Guide (OP-273-12).
- 4.5 Disbursements will be made in US dollars and in the form of advance funds. Requests for advances must meet the actual liquidity needs of the project, documented in the financial plan and for a period of up to six months. For each advance - except for the first - at least 80% of the resources previously advanced and not yet justified shall be accounted for.
- 4.6 For determining the dollar equivalent of the expenses incurred in local currency in relation to the IDB contribution, the applicable exchange rate shall be the exchange rate effective on the date of the conversion of the funds from the approval currency to the local currency (the expected resources internalization rate). In addition, for purposes of determining the equivalency of the reimbursement of the IDB contribution expenses, the agreed exchange rate shall be the buying exchange rate established by the Central Bank of Brazil on the day prior to the date of the reimbursement request.
- 4.7 Financial supervision will be performed through periodic reporting on the project, through the submission of progress reports and the submission of a Final Audited Financial Report (AFR), which shall be audited according to the terms of reference agreed with the IDB, by external auditors eligible to the Bank, within 120 days after the date of the last disbursement of the project.
- 4.8 **Monitoring and evaluation.** The executing agency will submit to the Bank progress reports up to 60 days after the end of each semester during the period of disbursements, including information about the project physical and financial execution. An intermediate evaluation will be submitted within 90 days after the date when 50% of the funds have been disbursed, or after 24 months since the

effectiveness of the cooperation agreement. A final evaluation will be submitted within 90 days after disbursement of 95% of the TC funds. The evaluations will present details about physical and financial execution, identify achievements and obstacles, and present lessons learned useful to similar projects.

- 4.9 **Intellectual property of TC products.** Given the characteristics of the products foreseen for this TC, it is expected that the beneficiary will own the intellectual property rights of the products resulting from this TC and grant a broad use license to the Bank, so that the Bank can use the products created by this TC to develop new products in case there is interest from other countries of the region to replicate the experience. All CIF funded products should also be credited to the CIF in an appropriate manner following CIF visibility and branding guidelines.

V. Major issues

- VI. **Risk management.** The risks of the operation are low and are related to: (i) sustainability of the products generated, which will need an adequate operation and maintenance of the platforms and NFIS; and (ii) constraints and limitations to the implementation of field work due to a continuation of the Covid-19 pandemic, as well as any climate related impact in the areas to be surveyed. To mitigate them, the following actions will be undertaken: (i) the SFB will be responsible for operation and maintenance of the platforms and NFIS, including carrying out adequate maintenance plans, IT security and attention to users, among others; and (ii) protocols for safe field work and interviews will be applied, based on practices applied and lessons learned during the worst phases of the pandemic.

VII. Exceptions to Bank policy

- 7.1 There will be no exceptions to the IDB policies.

VIII. Environmental and Social Strategy

- 8.1 According to IDB's Environment and Safeguards Compliance Policy (OP-703), the TC is classified as Category "C", see (Safeguard Screening Form and Safeguard Policy Filter Report).

Required Annexes:

[Request from the Client - BR-T1463](#)

[Results Matrix - BR-T1463](#)

[Terms of Reference - BR-T1463](#)

[Procurement Plan - BR-T1463](#)