

TC ABSTRACT

I. Basic Project Data

▪ Country/Region:	BRAZIL/CSC - Southern Cone
▪ TC Name:	Low-Carbon Agriculture for Avoided Deforestation Phase II – Caatinga Biome
▪ TC Number:	BR-T1378
▪ Team Leader/Members:	Octavio Damiani (CSD/RND) Team Leader; Barbara Brakarz (CSD/CCS) Alternate Team Leader; Adriana Da Cruz, (CSC/CDR); Carlos Carpizo Riva (VPC/FMP); Cristina Celeste (LEG/SGO); David Salazar (VPC/FMP); Lorayne Olivera Santos (CSC/CDR); Paula Valente Lins (CSC/CDR); Yuka Maekawa (CSC/CDR); Elizabeth Chávez (CSD/RND)
▪ Taxonomy:	Client Support
▪ Number and name of operation supported by the TC:	N/A
▪ Date of TC Abstract:	02 Nov 2018
▪ Beneficiary:	Ministry of Agriculture, Livestock, and Food Supply
▪ Executing Agency:	FUNDACION BRASILEIRA PARA EL DESARROLLO SOSTENIBLE
▪ IDB funding requested:	\$ 5,000,000.00
▪ Local counterpart funding:	\$ 0.00
▪ Disbursement period:	36 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	Env, Rural Dev & Disaster Risk
▪ Unit of Disbursement Responsibility:	Country Office Brazil
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Institutional capacity and rule of law; Climate change

II. Objective and Justification

- 2.1 The objective of this technical cooperation (TC) is to mitigate greenhouse gas emissions and increase income through the adoption of low carbon technologies among small and medium-sized farmers in the Caatinga biome.
- 2.2 The Caatinga biome or Brazilian semi-arid is considered one of the most biodiverse and populated semi-arid regions in the world, covering ten states of Brazil's Northeast region that represent 11% of the country's territory. About 45% of the biome has been deforested and degraded, and only 1,3% is under full protection. Climate projections point to an increase of the biome's temperature by 3.5-4.5 degrees and decrease of rainfall by 40-50%. Agriculture plays a vital role, with about 32% of the country's farmers, most of whom are family based. Brazil's Northeast is the poorest region in the country, with the largest number of rural properties in the country and the highest proportion of rural poor, most of whom are small, family farmers who live in the Caatinga biome, having agricultural activities as their main source of income. These family farms are the most vulnerable to climate change, and they have limited access to technical assistance, credit, and sometimes unsecure land tenure. In 2014, the agricultural sector was responsible for the release of 59.4 million CO₂eq, which represents 14% of Brazil's agriculture-related emissions. This relates with traditional farming methods such as slash and burn, overgrazing and unsustainable resource management practices. Low carbon technologies such as agro-forestry and integrated crop-livestock-forestry systems are key to greenhouse gas emission reduction and

could contribute with food security, production efficiency and rise in farmers' income. Access of small farmers to adequate technical assistance and financing are key constraints to the adoption of low carbon technologies and practices in the Caatinga biome.

III. Description of Activities and Outputs

3.1 Project activities will be organized in two components:

3.2 **Component 1.** Implementing a Low Carbon and Sustainable Agriculture in the Caatinga. This component will focus on (i) assessing the Caatinga biome and its resources to identify the most suitable technologies for its recovery, preservation and socioeconomic transformation and (ii) providing technical assistance, will include the provision of technical assistance, establishment of collective benefits, improved access to finance, capacity building, knowledge production and awareness raising among small and medium-scale rural producers. It will include the following sub-components:

- a. Assessment of Caatinga's environmental needs, which will consist of desk and field assessment of the biome's environmental, social and economic conditions (e.g. hydro resources, land use, priority areas for restoration, productive supply chain), using high-resolution RapidEye satellite imagery to produce maps at municipal level of land use, hydrography and vegetation cover and debt in Permanent Preservation Areas (APP) according to the New Forest Code.
- b. Assessment of impact of low carbon technology in the restoration and conservation of the Caatinga, which will consist of joint-research between universities and research institutions from the region to assess the impact of low carbon agriculture technologies in the restoration and conservation of the Caatinga.
- c. Promotion of farmers' adoption of Low Carbon Agriculture Practices, including technical assistance and training activities, including among others the support to Demonstration Units and Multiplication Units, training sessions, field days, and support to the access to existing credit for low-carbon technologies.
- d. Supporting Wider Supply Chains, including the support to production clusters for tropical fruits, vineyards, irrigated cattle ranching – combined with water management systems – and grain production (e.g. corn, cotton)

3.3 **Component 2.** Creating a Sustainable Legacy in the Caatinga. This component will focus on creating an enabling environment to ensure the continuity of low carbon and sustainable practices in the Caatinga, including:

- a. Design of a Caatinga Facility/Fund: design a financial mechanism, in form of a fund or facility, to provide grants and credit to small and medium-sized farmers, which will ensure the sustainability of future low carbon production and restoration initiatives after the project is completed.
- b. Engagement with Strategic Stakeholders: promote a network of government and non-government institutions and players in the Caatinga, involving them in the project to create multiplying actions aimed at scaling up the project results. FBDS has already mapped many of the potential players.
- c. Dissemination of Knowledge and Best Practices, including the organization of a series of targeted workshops and seminars to share the results of the project with academia, government and private sector. In addition, an online platform will be created with data on low carbon agricultural and social technologies.

3.4 **Component I: Implementing a Low Carbon and Sustainable Agriculture in the Caatinga.** This component will focus on (i) assessing the Caatinga biome and its

resources to identify the most suitable technologies for its recovery, preservation and socioeconomic transformation and (ii) providing technical assistance, will include the provision of technical assistance, establishment of collective benefits, improved access to finance, capacity building, knowledge production and awareness raising among small and medium-scale rural producers.

- 3.5 **Component II: Creating a Sustainable Legacy in the Caatinga.** This component will focus on creating an enabling environment to ensure the continuity of low carbon and sustainable practices in the Caatinga, including the studies necessary to analyze and propose the basic structure of a Caatinga facility/fund, creation of a network of stakeholders, and dissemination of knowledge generated by the project
- 3.6 **Project management.** Project administration, financial management, monitoring and evaluation, and auditing

IV. Budget

Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Implementing a Low Carbon and Sustainable Agriculture in the Caatinga.	\$3,990,000.00	\$0.00	\$3,990,000.00
Creating a Sustainable Legacy in the Caatinga	\$510,000.00	\$0.00	\$510,000.00
Project management	\$500,000.00	\$0.00	\$500,000.00

V. Executing Agency and Execution Structure

- 5.1 The executing agency will be the Brazilian Foundation for Sustainable Development (FBDS), a not-profit organization based in Rio de Janeiro specialized in environmental research and extension projects in the Caatinga biome. A Project Management Unit (PMU) will be created within FBDS's organizational structure for the technical and financial execution of the project, including five full-time technical staff. Field project activities, including awareness raising, selection of potential beneficiaries, implementation of Demonstration Units and Multiplying Units, provision of training, capacity building and technical assistance to farmers and their organizations, will be implemented with the support of local specialized institutions that will be selected through calls for proposals made by FBDS. FBDS will give support to these local institutions and monitor their activities. A Steering Committee with representatives from DEFRA, IDB, MAPA, EMBRAPA, FBDS and technical experts in the Caatinga biome will guide project implementation. In addition, technical state committees will also be created with local stakeholders.
- 5.2 The proposed executing agency, the Brazilian Foundation for Sustainable Development (FBDS), has substantial experience in research and promotion activities in the Caatinga. Founded in 1992, it has 26 years of experience working with sustainable development projects, and sustainable agriculture is one of its main intervention areas. FBDS has given support to the implementation of the Forest Code, especially through the Environmental Rural Registry (CAR), and it has been working since 2015 in a project known as High Resolution Mapping of Brazilian Biomes. Under this project, important data have been produced, such as primary data on land use, watercourses and Permanent Preservation Areas. The project's results have been used to support the elaboration of public policies and the implementation of CAR. The implementation of field activities with the participation of local institutions selected through calls for proposals will make possible to strengthen field presence and take advantage of local knowledge and networks.

VI. Project Risks and Issues

- 6.1 The main risks faced by the project are: (i) low participation from rural producers in capacity building sessions and other project activities; and (ii) potential difficulties in the access of farmers to financing necessary for adopting low-carbon technologies.

VII. Environmental and Social Classification

- 7.1 The ESG classification for this operation is "undefined".