

BRAZILIAN COOPERATION AGENCY

SOUTH-SOUTH TECHNICAL COOPERATION

BRA/13/008 - S ____



**EVOLVING FROM SHIFTING AGRICULTURE TOWARDS AGROFORESTRY SYSTEMS
IN SURINAME: FOOD SECURITY FROM SUSTAINABLE PRODUCTION**

BRASIL – SURINAME

Project developed in November 2018

LEGAL FRAMEWORK:

- Basic Agreement on Scientific and Technical Cooperation conducted between the Government of the Federative Republic of Brazil and the Government of the Republic of Suriname, on June 22, 1976 and promulgated on November 23, 1976.

- Complementary Agreement to the Basic Agreement on Scientific and Technical Cooperation between the Federative Republic of Brazil and the Republic of Suriname for the Implementation of the “Evolving from Shifting Agriculture towards Agroforestry Systems in Suriname: food security from sustainable production”.

I. PROJECT IDENTIFICATION

a) **Title:** Evolving from Shifting Agriculture towards Agroforestry Systems in Suriname: food security from sustainable production

b) **Validity:** 24 months, from the date of the last signature.

c) **Estimated Cost:** USD 265.188,00

a) Brazilian Government, through Project BRA/13/008 – TCDC Implementation of Projects with Latin America, Africa and CPLC	172.188,00 USD
b) Brazilian Government, through the Federal University of Viçosa (UFV)	93.000,00 USD
PROJECT TOTAL	265.188,00 USD

II. THE PROJECT

1. IDENTIFICATION OF INSTITUTION

1.1. TECHNICAL IMPLEMENTATION INSTITUTION IN SURINAME

Name: Ministry of Agriculture, Animal Husbandry and Fisheries

Address: Letitia Vriesdelaan # 6 - 8

City: Paramaribo

Country: Suriname

Phone number: + 597 479112 Fax: +597 470830

Name of the Head of the Institution: D. Kasanmoesdiran, MSc.

Name of the Person in Charge of Project Implementation: R. Debie, MSc.

Phone number: +597 479112

E-mail of the Person in Charge of Project Implementation: radebie@hotmail.com

Name: Ministry of Regional Development – Department of Agricultural Development in Hinterland

Address: Roseveltkade # 2

City: Paramaribo

Country: Suriname

Phone number: + 597 471245

Name of the Head of the Institution: L. Jack, MBA

Name of the Person in Charge of Project Implementation: Martha Apai

Phone number: +597 8717770

E-mail of the Person in Charge of Project Implementation: mapai50@hotmail.com

1.2. TECHNICAL IMPLEMENTATION INSTITUTION IN BRAZIL

Name: Universidade Federal de Vicosa

Address: Avenida Peter Henry Rolfs

City: Viçosa **Country:** Brazil

Phone number: + 55 31 3899-2612 Fax: +55 31 3899-2614

Name of the Head of the Institution: Nilda de Fatima Ferreira Soares

Name of the Person in Charge of Project Implementation: Ricardo H. S. Santos e Caetano M. de Souza

Phone number/E-mail of the Person in Charge of Project Implementation: +55 31 3899-1146
rsantos@ufv.br

1.3. COORDINATION INSTITUTION IN SURINAME

Name: The Ministry of Foreign Affairs

Address: Henck Arronstraat #

City: Paramaribo

Country: Suriname

Phone number: Fax:

Name of the Head of the Institution: Mrs Yldiz Pollack-Beighle

Name of the Person in Charge of Project Implementation: Luciano Truideman (Permanent Secretary Geopolitical Affairs and International Development Cooperation (Ag.)

Phone number/E-mail of the Person in Charge of Project Implementation: Ruby Watson-Zuidveen
sec.gbl@foreignaffairs.gov.sr

1.4. COORDINATION INSTITUTION IN BRAZIL

Name: Brazilian Agency of Cooperation (ABC)

Address: SAF Sul Quadra 2, Lote 2, Bloco B. Ed. Via Office, 4º andar

Postal Code: 70070-080

City: Brasília

Country: Brasil

Phone number: 55-61-2030-6881 / 2030-9355

Fax: 55-61-2030-9350

Name of the Head of the Institution: Ambassador João Almino

Name of the General Coordinator of Technical Cooperation in Latin America, the Caribbean and Eastern Europe: Maria Augusta Montalvão Ferraz

Name of the Person in Charge of Project Implementation: Joelma Kremer

E-mail: joelma.kremer@abc.gov.br; mariaaugusta.ferraz@abc.gov.br

2. JUSTIFICATION

2.1 Situation analysis

Agriculture plays an important socio-economic role in Suriname. It generates 11-12% of national employment, 6-7% of the GDP, and more than 12% of total export earnings. In the past thirty years the performance of the sector has been erratic, showing a slowdown pattern in agricultural growth during the 90s and slow recovery at the beginning of the past decade. As a result, in 2010 the national agricultural output was still below the level reached in 1991. During this period, cultivated area shrank by 33%, physical yields of traditional agricultural sub-sectors stagnated, and as a whole the sector showed a low rate of growth in total factor productivity (TFP of 1% during the period 2001-2007, which is half the average LAC rate during this period). In this setting, the Government of Suriname (GoS) acknowledges that a revitalized, more productive, and diversified agricultural sector will contribute to reducing macro-economic uncertainty by insuring against downside risks and external shocks, improve food security, and provide opportunities for employment and income generation that will help to alleviate poverty in rural areas where about 50% of Surinamese live.

Key priorities of the Government include increasing the production of banana and rice and improved production of other crops geared for export with this being driven through the private sector, followed by horticultural production (small-scale, but knowledge and capital intensive), and estate crops such as oil palm and sugarcane (large scale, capital intensive / foreign investors).

National initiatives are being taken to achieve an adaptation of existing concepts and tools to include food production in the interior of Suriname. This aims to protect the Surinamese forestry, which is 95% of the total area of Suriname.

In order to improve the agroforestry production in the interior and protect the forest, the production system should be adopted. Local communities and public sector stakeholders require technical assistance in facing these emerging challenges.

2.2 Brazilian background and Institutional Framework

Concern over the impact of major production systems has been a growing trend since the beginning of the twentieth century. In the mid-1970s the concept of finite natural resources began to be discussed, giving rise to the idea of “sustainable development”, which essentially means striking a balance between economic development, environmental conservation and social benefits.

Agroforestry Systems (AFS) are among the most viable solutions for sustainable agricultural development, and are especially suited to tropical environments, which are notoriously fragile.

Brazil has included Agroforestry Systems in its overarching national public policies because they operate on the principles of agroecology, which make optimal use of available land while respecting both social and environmental issues, generate income for the farmers and ensure food security.

Agroforestry systems are currently being studied worldwide, and Brazil is one of the leading countries in terms of their study and application.

Brazil has produced 105 scientific papers on Agroforestry systems from 2005 to 2015 that have been duly indexed in reputable databases. Most of these papers were published in journals such as *Revista Árvore*, *Revista Brasileira de Ciências do Solo* and *Revista Brasileira de Engenharia Agrícola e Ambiental*, published by the Federal University of Viçosa.

Furthermore, scientific production regarding this body of knowledge has been constant, which goes to show that this research topic is of lasting interest. From these 105 papers, 27.4% focused on the Amazonian biome. The majority of these papers dealt with AFSs as they relate to soils, environmental issues and to recovery of degraded areas.

2.3 Surinamese background and Institutional Framework

Deforestation concerns are such that collaboration amongst many stakeholders on strategic and operational issues provides an excellent opportunity for comprehensive solutions. Hence, the Agroforestry systems should be duly positioned in the national context to ensure stakeholder relations are properly forged and brought to bear in a comprehensive response to an agroforestry strategy.

The Project's institutional arrangement proposal is based on the attempt to effectively implement bilateral cooperation so as to promote mutual assistance, exchange of experiences and combination of different competencies and synergies with the purpose of achieving a common objective. The bilateral arrangement represents a new cooperation experience that arises from the desire to value and share with the Government of Suriname and the Brazilian cooperation experiences, in order to add to and complement the experiences of the both countries.

This initiative will serve as basis and starting point for jointly designing a locally-adapted methodology, which will result from effective cooperation among the parties and the interaction with the community. The partners will capitalize on the experiences acquired, which will thus become important contributions for the development and improvement of a unique methodology that may be adapted to other places in Suriname and in the Region.

2.4 Project Description

The project shall deliver a capacity building program focusing on agricultural production within an agroforestry system. This Program will be designed collectively by both Brazilian and Surinamese stakeholders, and will be thoroughly grounded on the "horizontal approach", which is one of the main tenets of South-South Cooperation. The program shall, furthermore, set up an Agroforestry Technical Demonstration Unit where theoretical information shall be implemented and adjusted to the Surinamese climate, soil vegetation, economic perspectives and interests. This

unit will allow Surinamese participants to test and adjust the acquired knowledge within a specific Amazonian ecosystem, to a specific end.

The following capacity building courses and activities will cover a wide range of subjects that shall provide the basic building blocks with which the Surinamese technicians can design a Program in Agroforestry systems adapted to their needs:

- Theoretical design of agroforestry systems focused on slash and burn areas
- Technical mission to agroforestry system systems and associates farmers organizations in Brazil
- Seed collection, conservation and, plant propagation.
- Farmers organizations, commercialization and, markets
- Recovery and improving strategies for fallow in slash and burn areas
- Conservation of natural renewable resources and on soil and water management and conservation in the slash and burn areas
- Small scale machinery and irrigation
- Socioeconomic diagnostic document of the slash and burn areas.
- Building extensions materials on agroforestry systems in Suriname
- ⊖ Communications skills /techniques for rural communities in the hinterland

2.5 Beneficiaries

On the short term, the project would bring benefits to:

- Surinamese technicians, who will have their capacities built in Agroforestry Systems Programs suitable for the country hinterland conditions.

On the long term, the project would bring benefits to:

- Local communities
- Agriculture producers in the hinterland local communities, who will increase income and have sustainable production system developed.
- Research Institutions (e.g. University of Suriname / CELOS) through the access to subject specialists for agroforestry systems
- Agroforestry researches
- Universities that can have agroforestry modules included in Bachelor's degrees
- College students by training of extension staff in relevant courses offered
- Government institutions
- Ministry of Agriculture, Animal husbandry and Fisheries

2.6. Situation expected at project completion

The expected outcomes include:

- Surinamese technicians capable of designing Agroforestry Systems that are adapted to Suriname's specific needs and requirements.

The project shall provide beneficiaries with knowledge and skills that will support the adoption of a lasting and improved local agricultural production methods, offering the possibility of:

- Reducing slash and burn practices in agriculture;
- Increase of staple food supply;
- Increase in cash crop production and improved farmers organizations;

- Improve the recovery of areas in fallow in the slash and burn agriculture;
- Improve the use of biological-based methods in agriculture.

3. LOGICAL STRUCTURE

3.1 Development Objective

To contribute for increase the food security in Suriname.

Affecting a structural shift in the prevalent agricultural practices in Suriname through the adoption of Agroforestry systems will contribute to end hunger, achieve food security and improved nutrition and promote sustainable agriculture and sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.

3.1.1 Development Objective

SUSTAINABLE DEVELOPMENT GOAL 1, 2, 12 e 15.

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children less than 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
- 2.3: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
- 2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

3.2 Specific Objective

To transfer Brazilian experience in agroforestry systems and adapt this body of knowledge to the Surinamese context in order to develop agroforestry technical capacities of stakeholders institutions technical staff.

3.3 Results / Outcomes

- R. 1 - Technicians of specific stakeholders trained in Agroforestry system design, especially in the slash and burn areas and, in multiplying this body of knowledge;
- R. 2 - Agroforestry systems Program plan specifically designed for Project Focus Areas;
- R. 3 - An Agroforestry Technical Demonstration Unit set up.

3.4 Products

- **P. 1 – Technicians of specific stakeholders trained in Agroforestry systems design, especially in the slash and burn areas and, in multiplying this body of knowledge**
 - P. 1.1 - 15 Technicians of specific stakeholders trained in Agroforestry systems
 - P. 1.2 - 15 Technicians of specific stakeholders trained in improving traditional slash and burn areas
- **P. 2 - An agroforestry systems Program plan specifically designed for Project Focus Areas**
 - P. 2.1 - Diagnostic of project Focus areas conducted
 - P. 2.2 - Plan for agroforestry systems in slash and burn area drafted
 - P. 2.3 – Production of extension materials and, training in communications techniques on agroforestry in Suriname
- **P.3 - An Agroforestry Technical Demonstration Unit set up**
 - P. 3.1 - Agroforestry Technical Demonstration Unit set up
- **P.4 – Project Evaluation**
 - P. 4.1 – Reports of project evaluation

3.5 Activities

R1: Technicians of specific stakeholders trained in Agroforestry system design, especially in the slash and burn areas and, in multiplying this body of knowledge;

- **P. 1.1** - 15 Technicians of specific stakeholders trained in Agroforestry systems

- **A. 1.1.1:** Train Technicians of specific stakeholders on theoretical design of agroforestry systems focused on slash and burn areas in Suriname and Technical mission to agroforestry systems and farmers organizations in Suriname

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 2 professors from UFV and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte-Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2.500,00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translators	1 translator x 750 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

- **A. 1.1.2** - Technical mission to agroforestry system systems and associates farmers organizations in Brazil

Institution: UFV

Estimated duration: 6 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 1 professors from UFV and 1 translators

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Para- Belo Horizonte)	1 ticket x 1 instructors x 1.000,00	1,000.00
71.600 Travel	ABC	Tickets (Paramaribo – Belém – Paramaribo)	6 (5+1) ticket x 1,000.00	6,000.00
71.600 Travel	ABC	Per diem	7 professionals x 6 days x 50.00	2,100.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				15,850.00
TOTAL (USD) FINANCIAL COST				12,580.00
TOTAL (USD) NON FINANCIAL COST				3.000,00

*: Non-financial contribution.

- **A. 1.1.3.:** Surinamese Technicians of specific stakeholders on seed collection, conservation and, propagation.

Institution: UFV

Estimated duration: 5 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 1 professors from UFV and 1 translators

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Paramaribo- Belo Horizonte)	1 ticket x 1 instructor x 2,500.00	2,500.00
71.600 Travel	ABC	Per diem	1 professional x 5 days x 172,00	860.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 3 d	2,250.00
TOTAL				8,610.00
TOTAL (USD) FINANCIAL COST				5,610.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

- **A. 1.1.4:** Train 15 Surinamese Technicians of specific stakeholders on farmers organizations, commercialization and, markets

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 2 professors from UFV and 1 translators

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

- **P.1.2 –15 Technicians of specific stakeholders trained in improving traditional slash and burn areas**

- **A. 1.2.1:** 15 Surinamese technicians of specific stakeholders training on recovery and improving strategies for fallow in slash and burn areas

Institution: UFV

Estimated duration: 9 days, including displacements
 Location (city/country): Paramaribo, Suriname
 Participant: 2 professors from UFV and 1 translators
 Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

- **A. 1.2.2.:** Deliver training for 15 Surinamese technicians of specific stakeholders on conservation of natural renewable resources and on soil and water management and conservation in the slash and burn areas

Institution: UFV
 Estimated duration: 9 days, including displacements
 Location (city/country): Paramaribo, Suriname
 Participant: 1 professors from UFV and 1 translators
 Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Paramaribo- Belo Horizonte)	1 ticket x 1 instructors x 2,500.00	2,500.00
71.600 Travel	ABC	Per diem	1 professionals x 9 days x 172,00	1,548.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				10,798.00
TOTAL (USD) FINANCIAL COST				7,798.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

- **A. 1.2.3:** 15 Surinamese Technicians of specific stakeholders training on small scale machinery and irrigation

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 2 professors from UFV and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

R2 - An agroforestry systems Program plan specifically designed for Project Focus Areas;

- P.2.1 – Diagnostic of project Focus areas

A. **2.1.1:** Identify the responsibilities of each stakeholder institution (MAAHF, MRD, CELOS, UNIVERSITY) and the technicians who will be in charge of carrying the project.

Institution: MAAHF, MRD, CELOS, UNIVERSITY

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 3 professors and 2 translators

Estimated costs: no costs

- A. 2.1.2.:** Choose the location in project focus areas and, run a field visit for diagnostic purposes with 15 Surinamese technicians of specific stakeholders

Institution: UFV, MAAHF, MRD, CELOS, UNIVERSITY

Estimated duration: 5 days, including displacements

Location (city/country): project focus areas, Suriname

Participant: 1 professor and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Paramaribo- Belo Horizonte)	1 ticket x 1 instructor x 2,500.00	2,500.00

71.600 Travel	ABC	Per diem	1 professional x 5 days x 172,00	860.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 3 d	2,250.00
TOTAL				8,610.00
TOTAL (USD) FINANCIAL COST				5,610.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

- **A. 2.1.3:** Built an environmental, technical and socioeconomic diagnostic document of the slash and burn areas.

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): project focus areas, Suriname

Participant: 2 professors and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

- **P.2.2 Plan for agroforestry systems Program in slash and burn area drafted**

- **A. 2.2.1:** To draft an Agroforestry Systems Program document by 15 Surinamese technicians of specific stakeholders

Institution: UFV, MAAHF, CELOS, UNIVERSITY

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 2 professors from UFV and 1 translators

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

- **P.2.3** – Production of extension materials and training in communications techniques on agroforestry in Suriname

- **A. 2.3.1:** Training 15 Surinamese technicians of specific stakeholders on building extensions materials on agroforestry systems in Suriname

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 1 professor from UFV and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Paramaribo- Belo Horizonte)	1 ticket x 1 instructor x 2,500.00	2,500.00
71.600 Travel	ABC	Per diem	1 professional x 5 days x 172,00	860.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 3 d	2,250.00
TOTAL				8,610.00
TOTAL (USD) FINANCIAL COST				5,610.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

- **A. 2.3.2.** Training 15 Surinamese technicians of specific stakeholders on communications skills /techniques for rural communities in the hinterland

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Paramaribo, Suriname

Participant: 1 professor from UFV and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte - Paramaribo- Belo Horizonte)	1 ticket x 1 instructor x 2,500.00	2,500.00
71.600 Travel	ABC	Per diem	1 professional x 5 days x 172,00	860.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 3 d	2,250.00
TOTAL				8,610.00
TOTAL (USD) FINANCIAL COST				5,610.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

R3 -An Agroforestry Technical Demonstration Unit set up

- P.3.1 – Setting up an Agroforestry Technical Demonstration Unit.

- A. 3.1.1: Design and detail Surinamese technicians of specific stakeholders to design and set up a Agroforestry Technical Demonstration Unit in project focus area

Institution: UFV

Estimated duration: 9 days, including displacements

Location (city/country): Project focus areas, Suriname

Participant: 2 professors from UFV and 1 translator

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte – Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 9 days x 172,00	3,096.00
71.200 International Consultants	UFV	man-hour	2 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 5 d	3,750.00
TOTAL				17,846.00
TOTAL (USD) FINANCIAL COST				11,846.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

R4 –Project Evaluation

- P.4.1 – Report on Project Evaluation.

- A.4.1.1: Mid-term evaluation meeting

Institution: UFV

Estimated duration: 4 days, including displacements

Location (city/country): Project focus areas, Suriname

Participant: 1 professors from UFV

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte-Paramaribo- Belo Horizonte)	1 ticket x 1 instructors x 2,500.00	2,500.00
71.600 Travel	ABC	Per diem	1 professionals x 4 days x 172,00	688.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	3.000,00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 2 d	1,500.00
TOTAL				7,688.00
TOTAL (USD) FINANCIAL COST				4,688.00
TOTAL (USD) NON FINANCIAL COST				3,000.00

*: Non-financial contribution.

- A.4.1.2: Final evaluation meeting

Institution: UFV

Estimated duration: 4 days, including displacements

Location (city/country): Project focus areas, Suriname

Participant: 2 professors from UFV

Estimated costs: as stated below

BUDGET LINE	INSTITUTION IN CHARGE	INPUTS	CALCULATION	COST
71.600 Travel	ABC	Tickets (Belo Horizonte-Paramaribo- Belo Horizonte)	1 ticket x 2 instructors x 2,500.00	5,000.00
71.600 Travel	ABC	Per diem	2 professionals x 4 days x 172,00	1,376.00
71.200 International Consultants	UFV	man-hour	1 instructors x 40 hours x 75,00	6,000.00*
72.100 Services	ABC	Translator	1 translator x 750.00 x 2 d	1,500.00
TOTAL				13,876.00
TOTAL (USD) FINANCIAL COST				7,876.00
TOTAL (USD) NON FINANCIAL COST				6,000.00

*: Non-financial contribution.

4. IMPLEMENTATION STRATEGY AND SUSTAINABILITY

4.1 Implementation strategy

Project implementation strategy shall emphasize training on basic theoretical Agroforestry concepts and methodologies for a group of technicians appointed by the specific stakeholders in Suriname, MAAHF, MRD, CELOS and, University. The acquired knowledge will be further explored through the design and implementation of an Agroforestry Technical Demonstration Unit and by its continuous management and assessment, which will afford these Surinamese technicians the opportunity of observing and managing the temporal and spatial transformations that occur in such settings. A complementary strategy will include technical study visits to project focus areas, where environmental assessments of areas under conservation, of anthropized environments. Such assessments shall be grounded on the identification and understanding of bio-indicator vegetation and on production of a reference exsiccate/herbarium handbook. The implementation strategy will also encompass drafting reports, other reference handbooks and audiovisual materials.

Methodology

There must be a counterpart of the Surinamese stakeholders in the programming of every activity. These counterparts are crucial for detailing the focus of the training, adjusting it to actual Suriname needs.

Both Brazilian and Surinamese institutions should indicate technicians that are committed to the goals and objectives of the project.

The first step is the choosing the technicians of specific Surinamese stakeholders that would participate, coordinate and co-work in all activities of the project along two years. These technicians should both have field and institutional experience, develop activities related to the project focus and, be able to make connections and contacts to address operational issues in Suriname. The focal technicians from the stakeholder institutions will compose a committee for evaluating and making adjustments in the program.

The second step is the choosing the precise location of the focal area –slash and burn agriculture – and where it will be set up the Agroforestry Demonstration Unit. This location should be of feasible access during the year in order to allow Surinamese technicians to monitor and work on it, but also represent as much as possible the actual environmental conditions of slash and burn farmers.

The details of the concept, uses and structure of the Agroforestry Demonstration Unit should be addressed since the initial visits and trainings.

The third step is to provide the specific technical courses on specific issues listed in the project.

The Agroforestry Systems Program should address not only technical proposals but also the institutional, legal and socioeconomic dimensions of the systems. This output should be ready after at least one year of the beginning of the project, in order to reflect the learning process and maturity of the Surinamese stakeholders.

The extension materials and communications skills training is intended to improve the already existing extension activities carried by the stakeholder institutions. This material and training should be addressed in the last quarter of the project.

The chosen project methodology centers on theoretical/practical training courses to be delivered by Universidade Federal de Viçosa professors and technical staff of specific stakeholders in Paramaribo and in project focus areas in Suriname. Supporting methodologies, such as technical study visits to project focus areas and on-site assessments of natural, anthropized and contaminated environments shall also be employed, qualifying Surinamese technicians to design a Technical Demonstration Unit that will be operational within its given context. The group will run assessments to identify bio-indicators plants and thus determine environmental data such as overall quality and degradation statuses in project focus areas.

4.2 Sustainability

The Project aims to effectively build capacities related to mutual assistance, exchange of experiences and combination of different competencies and synergies with the purpose of achieving a common objective. So as to accomplish such purpose, the action rationale is described as follows:

- Staff has technical capabilities in agroforestry system.
- To build up an agroforestry technical demonstration unit.

4.3 Risks and mitigation measures

- 1- Disruption in the Brazilian government in providing funds for the project.
- 2- Not have enough available Surinamese technicians for project activities due to other responsibilities.
- 3- Discontinuity and variability of technicians of specific stakeholders who take part in the project.
- 4- Extreme climate conditions can impair the implementations of field activities.
- 5- Lack of budget for the project internal activities in Suriname such as transportation and, implementation and maintenance of the Agroforestry Demonstration Unit
- 6- Communications/translations difficulties among Non-speaking English technicians and partners.

ALGUNS JÁ ERA MESMO. OUTROS, O ACOMPANHAMENTO CONSTANTE PODE PERMITIR AJUSTES E CORREÇÕES PARA REORGANIZAR AS ATIVIDADES E OBJETIVOS DO PROJETO.

Their involvement is in the following areas:

- provide access to subject specialists for agroforestry systems
- research related to agroforestry
- agroforestry modules may be included in Bachelor's degrees;
- training of extension staff in relevant course offered by universities;
- joint research programs may be conducted with shared costs; development of agroforestry systems/
database;
- introduction of new species in certain systems

P2																			
A.2.1.1	X																		
A.2.1.2		X																	
A.2.1.3			X																
A.2.2.1														X					
A.2.3.1															X				
A.2.3.2																X			
P3																			
A.3.1															X				
P4																			
A.4.1.1												X							
A.4.1.2																			X

6. INPUTS AND BUDGET

6.1 Budget

Total budget by results and source of resources			
Budget line	ABC	UFV	Total
Result 1	97.536,00	48.000,00	145.536,00
Result 2	64.008,00	36.000,00	100.008,00
Result 3	10.644,00	9.000,00	19.644,00
TOTAL (USD)	172.188,00	93.000,00	265.188,00

Total budget by budget line and by source of resources			
Budget line	ABC	UFV	Total
71.600 Travel	172.188,00	---	172.188,00
71.200 International Consultants	---	93.000,00	93.000,00
TOTAL (USD)	172.188,00	93.000,00	265.188,00

6.2 Inputs

6.2.1 Description of Inputs to be acquired with financial resources from the Operational Budget

The head of the agricultural extension in collaboration with the professionals of UFV will determine the number of sessions. Our goal is to train fifteen people so that they can transfer to others. As long as the instructors have an agricultural background and enough experience. The location will be the headquarters of the Ministry of Agriculture, Animal Husbandry and fisheries. There will be no costs regarding travel and we have consultants.

6.2.1 Description of Non-Financial Contributions from Project Partners

It will be shaped a Committee compounded by a representative and/or deputy representative from the Governments of Brazil and of Suriname. The Committee will act at the strategic level and its main role will be to follow up on, to monitor and to evaluate the Project, as well as carry out all of its activities in a strategic way.

The Committee will promote effective cooperation among the parties, which is the purpose of the bilateral cooperation, in addition to providing the means for efficient and effective Project management, as well as permanent exchange of experiences between the executing Surinamese institution and the international partner institutions. Its members will meet 4 (four) times during the 24-month period in the city of Paramaribo; the first meetings will be dedicated to analyzing and approving the Annual Operating Plan, whereas the last one will be focused on Project completion. Moreover, there may be ad hoc meetings, including via videoconference.

During the meetings, the Committee will analyze progress reports, the annual schedule encompassed by the Annual Operating Plan, documents previously submitted for the appraisal of the Committee members, who shall approve progress reports (both on technical and financial matters) and the Operating Plan. If deemed necessary, ad hoc meetings may be held with the purpose of addressing critical issues related to project implementation.

Brazil is one of the leading producers of foodstuffs worldwide, and as such practices different agricultural methods, both from the technological standpoint and regarding the adaptations that are required for the very diverse Brazilian biomes. Brazil is a country of continental proportions, and the challenges it faces follow suit – we may find farmers employing the highest technological solutions (precision agriculture) working alongside producers who practice the least advanced procedures (“slash and burn” - shifting agriculture). Precision agriculture today requires next to no government support for technology development; conversely, for those who employ low-technology solutions, government support is a true lifeline.

In this context, Brazilian public universities have been employing their best efforts to study and come up with solutions for these farmers, so they may also contribute to the economy while conserving the environment with significant ensuing social gains.

The Amazonian region in Brazil is under the same soil and climate conditions as Suriname. In both countries we find “slash and burn” shifting agriculture practices prevailing in the Amazon. This convergence supports the exchange of Brazilian experiences in agroforestry systems, duly adapted to specific Surinamese needs and conditions, with excellent chances of succeeding from both the economic perspective and from the social benefits and environmental preservation standpoints.

Therefore, this project is expected to be a milestone for an important shift in Surinamese agricultural production structure, which is what happened in Brazil in the locations where Agroforestry systems were set up.

7. PARTIES LINE OF DUTIES:

1. The Surinamese Government, through the Ministry of Agriculture, Animal Husbandry and Fisheries, is responsible for the following:

- a) coordinating the implementation of this project;
- b) providing support to Brazilian technicians when they are in mission in Suriname;

- c) ensuring the technical development of the work, through the designation of technicians and specialists to act in the agreed activities;
- d) providing physical space and logistical support for training activities;
- e) keeping close relationship with the coordinating institution of Suriname, throughout the project, conducting all official communications through this institution;
- f) keeping a close relationship with the implementing Brazilian institution;
- g) receiving and assess proposals presented by the Brazilian government;
- h) keeping the salary/wage and other benefits of the professionals of Suriname who will participate in the project;
- i) observing the norms and procedures of the South-South Cooperation Implementation Manual during the application of the present instrument;
- j) monitoring the development of technical activities and report and inform to the Surinamese coordinating institution;
- k) drafting mission reports and forward them to the Surinamese coordinating institution within 30 days after completion of each one of the activities;
- l) contacting the Surinamese coordinating institution to clarify any eventual doubt on the implementation of the present instrument;
- m) ensuring the execution of the activities under their responsibility.

2. The Brazilian Government, through Federal University of Viçosa (UFV), is responsible for:

- a) supporting the coordination and implementation of this project;
- b) providing support to technicians from UFV whilst in mission in the Federative Republic of Brazil;
- c) ensuring the technical development of activities, by identifying experts to participate in the activities agreed upon;
- d) providing physical space and logistical support for training activities;
- e) keeping close relation with the Brazilian coordinating institution, throughout the project, conducting all official communications through this institution;
- f) keeping close relation with the implementing institution from Brazil;
- g) receiving and assessing proposals presented by the government of Brazil;
- h) keeping the salaries or wages and other benefits of the Brazilian professionals who will be part of the project;
- i) observing the norms and procedures of the South-South Cooperation Implementation Manual during the application of the present instrument;
- j) monitoring the development of technical activities and report and inform to the Brazilian coordinating institution;
- k) drafting mission report and forwarding them to the Brazilian coordinating institution within 30 days after completion of each one of the activities;

- l) contacting the Brazilian coordinating institution to clarify any doubts regarding the implementation of the present instrument;
- m) ensuring the execution of the activities under their responsibility.

3. The Government of Suriname, through Ministry of Foreign Affairs, is responsible for the following:

- a) Coordinating the implementation of the project;
- b) Articulating with the parties involved in the process of implementation of the tasks, when changes and adjustments are required for the good development of the activities;
- c) Receiving partner institutions performance reports, aiming at fulfilling obligations related with the monitoring and the assessment of the ongoing works;
- d) Keeping close relation with the Brazilian coordinating institution, aiming at monitoring the project.

4. The Government of Brazil, through the Brazilian Cooperation Agency (ABC), the Ministry of External Relations of Brazil is responsible for the following:

- a) Coordinating the implementation of the current project;
- b) Paying for the costs foreseen in the implementation of the Project that are under ABC's scope of responsibility;
- c) Articulating with the parties involved in the process of implementation of the tasks, when necessary changes and indispensable adjustments for the welfare of the tasks;
- d) Receiving performance reports from partner institutions, aiming at fulfilling their obligations related with the monitoring and the assessment of ongoing tasks;
- e) Keeping close relation with the Surinamese coordinating institution, aiming at monitoring the project

8. APPLICABLE RULES AND PROCEDURES:

The administrative and financial Rules and Procedures are those governing the Manual Guide of National Implementation of Technical Cooperation Projects between Developing Countries (TCDC).

The original documentation should remain in the power of ABC, which will make it available to the Brazilian audit and control institutions, as well as to the international audit.

9. GENERAL DISPOSITIONS:

About changes that may be made in the project :

- a) ABC may unilaterally revise the project in the case of:
 - [i] deadline deferral;
 - [ii] increase in resources for cooperation actions, which are to be included in the project budget, if such does not result in expenses to other participant institutions.

b) According to other clauses in the subproject and upon request from the parties, in writing, ABC may conduct a revision and, in such case, will send copies to all institutions involved.

Brasilia, of , 2018.

Brazilian Agency of Cooperation ABC/MRE

Ministry of Foreign Affairs of Suriname

Federal University of Viçosa (UFV)

Ministry of Agriculture, Animal Husbandry and Fisheries