

## CONCEPT NOTE

### BIO FOOD STP: TRANSFORMATION, ADAPTATION AND FOOD RESILIENCE IN SÃO TOMÉ AND PRÍNCIPE

#### 1 - Context and justification

São Tomé and Príncipe is a small island development state. Due to its small size, location and irregular landscape, São Tomé is prone to natural hazards and climate change.

Climate change impacts are intensifying several negative inter-related development trends in the country, particularly, agricultural income, rural migration, urbanization, poverty, traditional food knowledge and access to healthy diets.

São Tomé and Príncipe have an agricultural area of about 40,000 ha (40.6% of the national area) that is irrigated by several rivers and streams protected by the dense and humid forest massif, covering the center-southwest mountains. The secondary forest, covering land of accessible slope, ensures excellent soil and environmental conditions for the development of forest formations and forestry, indirectly determinants of land suitability for family farming cocoa and coffee production and water and nutrients for horticulture at lower and flatter regions. It is important to note that cocoa production, continues to be the main economic activity in the country (26. 076 ha) and the largest source of income for rural families generating 70% of rural employment and about 80% of export earnings, contributing to the construction of national wealth with 23% of national GDP according to GOP 2019 data. The agroforestry systems (farming under trees shadow) allowed the conservation of flora and fauna species, including forestry by-products such as 300 species of medicinal plants essential to improve the development and accessibility of communities to alternative medicine and agricultural and livestock products such as 'banana prata' (fruit from *Musa paradisiaca* var. *sapientum*), 'matabala' (tuber from *Xanthosoma sagitifolium*) and 'fruta-pão' (fruit of *Artocarpus altilis*), which constitute the traditional staple food of São Tomé. The main fruits harvested in these agro-ecosystems are 'jaca' (*Artocarpus heterophylla*), 'cajá-manga' (*Spondias cytherea*), 'safu' (*Dracryodes edulis*) and 'manga' (*Mangifera indica*). In some sites, under the shade forest, there are also cassava, yam, corn, and vegetable crops.

This traditional, complex and dynamic agro-forestry system is the basis for livelihoods of 85% of families and has been able to reasonably feed a growing population since the country's independency in 1975, but is under particularly pressure during the last three decades. Among other pressures it is possible to mention population growth, price volatility, the degradation of market infra-structures, insularity costs and lower technical and institutional capacities to sectorial react to all these dimensions. The conversion of secondary forests into agricultural land, as well as the opening of new areas for horticulture has been causing a mechanical disintegration of the soil and loss of nutrients at an intensive pace. Therefore, the intensification of conventional agricultural practices is reinforcing the above-mentioned process thereby lowering production, revenues for all farmers and animal breeders.

Therefore, rural population decreased from 57% in 1990 to 27% in 2020 and if nothing is done in the next decade, rural areas in São Tomé will face a tremendous human desertification due to shifts away from (formal or informal) employment in agriculture. It is important to note that new jobs are not being created in other economic sectors at the same pace.

The country's total population that was around 120.000 inhabitants in 1990, reached 212.000 inhabitants in 2020 and in 2050 is expected to sum 400.000 inhabitants. Urbanization is therefore growing fast as well as poverty that is increasing almost 8% per year since 2000 making 65 % of the population living below the national poverty line. This is strongly influencing food security security and nutrition. While 12% of total population is still undernourished, obesity rates (and related diseases) have doubled since 2000, affecting other 12% of the total population. São Tomé e Príncipe is one of the countries in Africa that will face the triple burden of malnutrition. The high cost and low accessibility of nutritious food is becoming an increasingly obstacle for many families. Fruits, vegetables, and protein-rich foods are becoming more expensive in the country making healthy diets four or five times more expensive than a meal with imported rice or flour. At the same time, the loss of soil nutrients explained above influences the nutritional value of the food being produced. To overcome this situation its necessary to widespread the adoption of agroecological practices in the country.

Therefore, contributing to eradicate extreme poverty, hunger and malnutrition are the country's national food and agriculture system biggest challenges in the context of a changing climate and Covid 19 impacts.

Recognizing this challenge, the Minister of Agriculture is calling for a national converging strategy in the country to make food production in São Tomé and Príncipe 100% agroecological as part of a broader transformation of its food system in order to eradicate extreme poverty, hunger and malnutrition.

This project intends to support this transformation. It will take into consideration ongoing best practices in the country, previous sectorial measures and lessons learnt during previous interventions.

One of the best practices is related with the recent consolidation of several farmer cooperatives dedicated to organic and fair-trade production of coffee, cocoa, and other cash crops. This process, combined with better international prices, is contributing to raise farmer's income even if most farmers in the country still have low levels of productivity due to the absence of adequate agro-ecological practices, lack of infrastructures (irrigation systems, rural markets, rural tracks, etc.), deficient technical assistance and difficulties in accessing knowledge to adapt their production systems.

Some previous sectorial measures have succeed such as, the introduction of greenhouses; new techniques of sustainable land management; irrigation systems and reservoirs for the collection and storage of rainwater in several communities; spaces for the development of poultry farming, reforestation to control soil erosion, solar chests and construction of rural tracks in communities of difficult access, amongst others. However, while previous efforts were fundamental to mitigate some of the negative climate change impacts mentioned above, they were not enough to change the existing trajectory in the country. One of the lessons learned during the last decade in several countries is that a more systemic, inter-sectorial and multi-level approach is needed. Investment and innovation in agriculture need to widespread agroecological approaches and to be coordinated with interventions in other sectors such as health, environment, education, trade, and social protection. Different stakeholders should also be involved. Farmers but also the private sector, consumers, development partners, academia, local authorities, and parliamentarians are important to be aligned and coordinated to strengthen adaptation and promote resilience. State's capacity to promote such

coordination and alignment to develop territorial sustainable food systems should also be strengthened.

## **2- Objectives**

### **Objective:**

Contributing to eradicate extreme poverty, hunger, and malnutrition in a changing climate context through the promotion of sustainable territorial food systems in São Tomé and Príncipe.

### **Specific objectives:**

- ✓ Develop a national comprehensive strategy to adapt and build a resilient food and agriculture system.
- ✓ Promote and disseminate agroecological innovations.
- ✓ Improve access to healthy food by the most vulnerable population.
- ✓ Reinforce institutional coordination, alignment, and monitoring capacities.

## **3. Results and Activities**

### **Component 1: Sustainable food and agriculture system's strategy elaborated**

#### **AT1.1 – Food and agriculture system's diagnosis – 600.000**

Territorial food systems diagnosis will be made using a systemic approach in three selected and representative areas. The diagnosis will involve a multi-disciplinary team and local stakeholders in a learning by doing process and, will have the following steps/phases: Landscape analysis and agroecological zoning; identification of farmers typologies and their different strategies; strengths and weakness of production, transformation and distribution sub-systems; identification of most vulnerable groups; food culture; institutional, legal and existing policies, programs and instruments. Due to the lack of quantitative information in the country, the methodology will validate qualitative data involving relevant stakeholders' in selected territories. Local seminars will be organized in each phase as part of a learning by doing exercise. Territorial diagnosis will be the basis for the development of a national comprehensive strategy.

#### **AT1.2 – National strategy and operational plan approved – 150.000**

Based on the inputs from the previous activity, a national strategy and operational plan will be elaborated and politically approved by the National Food Security and Nutrition Council. A national high-level event will be organized to discuss and validate the strategy and its plan of action.

#### **AT1.3 – National campaign implemented – 100.000**

A national campaign to mobilize and capacitate all relevant stakeholders will be implemented. The campaign will strive to foster cooperation between relevant decision makers and development partners for the strategy and will involve local seminars to further mobilize

relevant stakeholders for the project activities', a national event, and the production of audio-visual material.

## **AT2 – Farmer's adaptation and resilience strengthened –**

AT2.1 Innovative social technologies for use and management of water resources developed and disseminated - best practices and lessons learnt from previous initiatives (rain feed storage and distribution) will be the basis for a national program aiming to promote climate resilience and citizenship (access to housing, sanitation, education, social protection and other public services ) in rural areas. Rural families will be mobilized and capacitated to collectively build rain feed water tanks for consumption at the household level and for agriculture use. Rural agricultural workers will be capacitated in construction techniques diversifying family's sources of income. Women will be capacitated to manage the new water systems, increase nutrition and health family care contributing to improve household food security. The National Center for Rural Development (CADR), the Agro-technological research center (CIAT) and other development partners will support the implementation of this activity including knowledge exchanges with other Portuguese speaking countries with similar initiatives (Cape Vert, Brazil, Angola). – 600.000

AT2.2 Access to traditional genetic resources improved – Farmers participating in the previous activity and, other interested producers, will be mobilized to identify, collect, and dynamically preserve traditional genetic resources. The project will support the establishment of traditional seed banks and develop actions to promote the diversification of agricultural production. The Agro-technological research center (CIAT) will promote research and support the identification of traditional species, cultivars, and breeds. – 480.000

AT2.3.- Sustainable use of sloping zones improved - based on the results of the territorial landscape and agroecological zoning developed in AT1.1, the mitigation from the risk of erosion and the use of sloping zones for sustainable agriculture will be improved through terraces, dykes and promotion of agroecological best practices. This activity will be led by the national center for rural development and extension (CADR). 1.000.000

AT2.4– Farmer and civil society representatives capacitated – based on the results of the agroecological zoning and characterization of farmers typologies and respective needs developed during AT1.1, capacities to respond to major climate change challenges in the agricultural sector will be strengthened. Capacity building will involve national and international knowledge exchanges and will focus on agroecology, nutrition sensitive agriculture, soil and water management, pest and disease management, seed production, promotion of business plans for SMEs in the agricultural sector, transformation, and marketing. Capacity building will involve the Technical Center for Agricultural Improvement (CATAP) and the Center for Sustainable Family Farming and Agroecology from the Community of Portuguese Speaking Countries that will be established in São Tomé e Príncipe in 2020. 500.000

AT2.5 – Production support infrastructures and services improved - based on the results of the agroecological zoning and characterization of farmer's typologies and needs identified in At1.1, agricultural implements namely, tractors and motor cultivators will be made available to farmers as well as other relevant equipment, transports and infrastructures (greenhouses, irrigation systems). – 670.000

AT2.6 - Public organizations reinforced and capacitated – the project will reinforce state’s capacity, particularly CIAT, CATAP and CADR to implement the above-mentioned activities. Technical officers from the Ministry of Agriculture, including CIAT, CADR and CATAP will be capacitated and their operational capacity improved. Knowledge exchanges with other Portuguese Speaking Countries will be promoted, amongst other areas, in sustainable fruit and vegetal production and processing; rain feed storage; agriculture sensitive to nutrition, farmers access to institutional markets and short food supply chains, dynamic preservation of important agriculture systems and rural extension management and services. This activity includes the provision of necessary tools, IT equipment and transportation to reinforce the overall capacity of public organizations involved in the project. – 400.000

### **Component 3: Access to healthy food improved**

AT3.1- Territorial Sustainable Short Supply Chains consolidated – based on the information generated by the initial diagnosis and following national strategy (AT1.1 and AT1.2), a specific action aiming to establish and /or strengthen short supply chains will be implemented. This activity will involve technical and financial support to farmers groups, cooperatives and private entrepreneurs to produce, transform and develop marketing strategies for private and public food markets. It will also involve a micro-credit scheme for specific investments either to improve production and marketing capacities and/or to induce agroecological innovations leading to more sustainable and healthy products. Local food hubs and markets will be identified and improved. 700.000

AT3.2 – Traditional food culture strengthened - based on the information generated by the initial diagnosis and strategy (AT1.1 and AT1.2)\_cultural food practices and traditional food knowledge will be strengthened. National dietary guidelines will be elaborated and approved by the National Food Security Council. The guidelines are intended to set out a new dietary ‘vision’ for the country and establish the basis for public food and nutrition, health and agricultural policies and nutrition education programs. National guidelines will be protective and respectful of biodiversity and ecosystems, nutritionally adequate, accessible, economically fair, and affordable. This activity will involve the Ministry of Health and Education and will include a specific component to disseminate the guidelines and advocate for its future use in social food procurement programs such as the National Program of Health and School Feeding (PNASE). -500.000

### **Component 4: Institutional coordination, alignment and monitoring strengthened**

AT4.1 – State’s capacity to promote institutional coordination will be reinforced trough the National Food Security and Nutritional Council. The council offers a unique inter-sectorial platform in the country for coordination and increase inter-sectorial policy coherence. The project will strengthen the technical secretariat of the Council to perform its mandate and will capacitate counselors to actively engage in the formulation, discussions and monitoring of the project’s implementation. 250.000

AT4.2 – Development partners aligned – the project will reinforce the capacity of the Ministry of Agriculture to engage in dialogue and to coordinate activities being developed by all development partners in order to identify synergies, avoid overlaps and (or) uncoherent interventions taking in to consideration the implementation of the approved strategy (AT1.2). Monthly meetings will be held to monitor progress and joint initiatives will be sought. 200.000

#### **4. Benefits and impacts**

The project will directly benefit small and medium sized farmers and their families estimated in 40.000 persons and indirectly the vulnerable population to food and nutrition insecurity in the country estimated in 130.000 inhabitants.

- ✓ Climate change impacts mitigated.
- ✓ Farmers' income, access to housing, health, transport, and other public services improved.
- ✓ Territorial sustainable food and agriculture systems strengthened.
- ✓ Access to healthy food improved.
- ✓ State's capacity strengthened.

#### **5. Project Management**

The project will be implemented through the NIM execution modality, by the Directorate of Agriculture and Rural Development of the Ministry of Agriculture, Fisheries and Rural Development (MAPDR) - in collaboration with its other directorates - as Implementing Partner. This Ministry will provide space for the project's Implementation Unit team, although this space may need reform and better equipping. The main parties involved will be:

Steering committee

It will involve key ministers gathered in CONSAN - STP, mayors, civil society representatives, private sector representatives and the UNDP.

UNDP: As requested by the partner, it will support payment and financial disbursement services, international procurement and contracting, training, conferences, workshops, travel authorizations, all according to the highest standards of transparency already adopted by UNDP.

Project Management Unit (PMU): The proposed team consists of 1 Program Manager (UNDP); International Food Systems expert; 1 Technical and Ground Coordinator (MAPDR); 1 Monitoring and Evaluation Officer (MAPDR/DEP); 1 Administrative and Financial Officer; 1 Driver/Logistics Officer.

This team will be responsible for the routine management of the project, the implementation of activities, according to the procedures.

#### **Monitoring and Evaluation Activities**

Monitoring, control, and evaluation (M&E) is a continuous and participatory process throughout the program. Although the production and/or availability of relevant, reliable and quality information is a shared responsibility of all (UNDP/MAPDR) as well as the implementing partners, the Ministry of Agriculture, Fisheries and Rural Development (MAPDR) will be responsible for coordinating and managing the Program's M&E system through the Directorate of Studies and Planning (DEP), based on a plan developed at the beginning of the Program and adjusted when necessary. All partners are responsible for producing and/or making available relevant information.

The Program, since its conception, foresees an exit strategy that allows the sustainability of the implemented actions and a multiplication of the action results. However, at the end of the Program, the team will organize tasks of technical and financial closure of the Program, adequate reporting and in accordance with the regulations applicable to the contract, delivery of equipment and participative return of results to beneficiaries, partners and relevant actors.

## 6. Budget and duration

Indicative budget (USD) 2021-2024

<b>Component 1: Sustainable food and agriculture system's strategy elaborated</b>	
AT1.1- Food and agriculture system's diagnosis	\$ 600.000,00
AT1.2- National strategy and operational plan approved	\$ 150.000,00
AT1.3- National campaign implemented	\$ 100.000,00
<b>Sub total</b>	<b>\$ 850.000,00</b>
<b>Component 2: Farmer's adaptation and resilience strengthened</b>	
AT2.1 Innovative social technologies for use and management of water resources developed and disseminated	\$ 600.000,00
AT2.2-Access to traditional genetic resources improved	\$ 480.000,00
AT2.3-Sustainable use of sloping zones improved	\$ 1.000.000,00
AT2.4-Farmer and civil society representatives capacitated	\$ 500.000,00
AT2.5 – Production support infrastructures and services improved	\$ 670.000,00
AT2.6 - Public organizations reinforced and capacitated	\$ 400.000,00
<b>Sub total</b>	<b>\$ 3.650.000,00</b>
<b>Component 3: Access to healthy food improved</b>	
AT3.1- Territorial Sustainable Short Supply Chains consolidated	\$ 700.000,00
AT3.2 – Traditional food culture strengthened	\$ 500.000,00
<b>Sub total</b>	<b>\$ 1.200.000,00</b>

<b>Component 4: Institutional coordination, alignment and monitoring strengthened</b>	
AT4.1 – State’s capacity to promote institutional coordination will be reinforced	\$ 250.000,00
AT4.2 – Development partners aligned	\$ 200.000,00
<b>Sub total</b>	<b>\$ 450.000,00</b>
<b>Administrative costs</b>	
GMS, Wages, M&E, Risk Mitigation Costs, Communication, Procurement	\$ 850.000,00
<b>Sub total</b>	<b>\$ 850.000,00</b>
<b>Grand total</b>	<b>\$ 7.000.000,00</b>

## 7. Risks and mitigation measures

### *Risk analysis and contingency plan*

The success of the Action is based on several basic assumptions’ Political stability

- ✓ Absence of military conflict
- ✓ Political authorities cooperate with the program
- ✓ Civil society in general collaborates with the program

There are, however, risks inherent in the implementation of the project that are likely to jeopardize its success, but against which preventive measures and/or contingency measures may be adopted to a greater or lesser extent:

Risks	Preventive and/or Contingency Measures
<ul style="list-style-type: none"> <li>▪ Poor involvement of state entities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Participatory approach, to promote the appropriation of plans</li> <li>▪ Advocacy</li> </ul>
Lack of commitment and demotivation of civil society organizations	<ul style="list-style-type: none"> <li>▪ Use of DRP techniques and pedagogical tools that favor identification for the purposes of the process</li> <li>▪ Participatory approach, to promote the appropriation of concepts</li> </ul>
Insufficient capacity for grant implementation by beneficiary CSOs	<ul style="list-style-type: none"> <li>▪ Rigorous and judicious grant award process</li> <li>▪ Initial training program</li> <li>▪ Permanent technical assistance</li> </ul>
Delays in the publication of studies due to difficulties of consultants	<ul style="list-style-type: none"> <li>▪ Provide for preventive measures in service contracts with penalties and an appropriate timing</li> </ul>



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Inability to manage the Management Unit and coordinate the program

- An operating and management model for the Program will be proposed, based on the models already functional in the country.
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