Nações Unidas
SÃO TOMÉ E PRÍNCIPE

Green Infrastructure for Health and Education in Sao Tome and Principe

The Green Infrastructure for Health and Education project is based on Sao Tome and Principe Council of Ministers Resolution 59/2022 of 15 June 2022, for an integrated United Nations joint work proposal on health and schools infrastructure and subject to validation for related sectoral ministries.

Joint Programme: Green Infrastructure for Health and Education

Total approved budget: 2.5 M USD
Duration: 2 years
Main results:

- Solar panel installation in 7 health centres and 20 schools
- WASH installations in 7 health centres and retrofitting in 20 schools
- Health services: back-up energy for 2-3 hours per day for the basic health services including consultations, family planning and immunization
- Strengthened environmental-friendly school feeding program
- Sustainability is ensured through 5-year coverage in operation and maintenance costs and training of the photovoltaic system until full transfer to the Ministry of Health
- Improved access and new market dynamics for 20 smallholder producers
- Estimated number of potential beneficiaries: 219,077
- Estimated number of school kids: 5,578

The joint program will contribute to improved water and energy access in the health and school facilities, further contributing to improved quality in health and educational outcomes, school feeding, and smallholders producers market dynamics in Sao Tome and Principe. The principal indicators of success:

- School-aged children with improved access to nutritious food at school canteens
- Individuals benefiting from safe water, better sanitation, and hygiene in health/schools
- Better quality services in health centres thanks to reliable energy
- Sustainability of school-feeding at targeted schools
- Smallholder farmers' livelihood
- Hours of energy optimization at selected facilities
- Equitable access to health services
- Hours of teaching, health care provision and school attendance
- Quality of services by improved conditions in health facilities
- Increased knowledge and improved behavior with regard to hygiene practices and disease prevention
- Better knowledge about preservation and care of the environment

JOINT PROGRAMME DOCUMENT

GREEN INFRASTRUCTURE FOR HEALTH AND EDUCATION

Country: Sao Tome and Principe

Programme Title: Green Infrastructure for Health and Education

Joint Programme Outcome:

Build an economically efficient, energy-sustainable, and climate-resilient health and education systems in São Tomé and Príncipe (STP), which is fundamental for its better quality and management capacity.

Reference to the Outcomes of the UN Development Cooperation Framework 2023-2027

Institutional capacities are strengthened - with active community participation - to implement the national health policy and strategies, including nutrition and WASH, for universal health coverage.

Institutional capacities are strengthened - with active community participation - to achieve quality learning results including behavioral changes and market-oriented skills.

Programme Duration: 2 years Anticipated start/end dates: May 2023 / April 2025 Fund Management Option(s): pass-through Managing or Administrative Agent: MPTFO	Total estimated budget*: 2,500,000 USD Out of which: 1. Funded Budget: 2,500,000 USD 2. Unfunded budget: 0.00 USD * Total estimated budget includes both programme costs and indirect support costs
Sources of funded budget: • Donor 2,500,000 Additional contributions:	Total budget by participating agency UNDP 1,072,026 WFP 714,437 WHO 688,535

UN organizations
Representative: Joseph Oji *Signature* *UNDP Resident Representative a.i.* *Date & Seal* 25-04-23
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Executive Summary

The proposed UNDP, WHO, and WFP joint program will contribute to improved water and energy access in the health and school facilities, further contributing to improved quality in health, school feeding and education sectors in Sao Tome and Principe. Based on approved budget modifications by the Council of Ministers, this proposal was adjusted to fit the availability of funds with the greatest possible impact and as pilot in selected facilities and districts. This initial phase considers a modular approach that can be scaled up with additional funding to increase the program cover to all Health Centres and all Schools in the country.

By addressing better access to quality and safe health services, through improved energy supply, water, sanitation, and hygiene (WASH) in 7 district health care facilities (WASH), the programme will contribute to accelerating universal health coverage, the linchpin for all SDGs health related targets. Additionally, it will provide the country with a more sustainable and environmentally friendly school feeding program, powered by renewable energies and able to deliver daily nutritious hot meals to more than 5 000 school children 180 days per school year, while also creating new market dynamics for 20 smallholder producers.

This program entails four layers of interventions, namely the installation of hybrid solar photovoltaic systems with solar photovoltaic generators and batteries in 7 district health facilities, as back-up system and support continuity of energy during outages; the improvement of WASH conditions in these 7 health facilities and 20 schools; the provision to 20 schools with access to solar energy and water for adequate preparation and preservation of food; and the strengthening of 20 smallholder farmers productive and marketing capacities.

To achieve the expected change of improving the quality and safety of health and school feeding services in São Tomé and Príncipe, by means of adequate infrastructure and processes, the program will focus on delivering two main outcomes, namely:

i) Infrastructure improvements: the benefits to the population of STP from better service delivery in health and school feeding facilities, by means of adequate infrastructural conditions; and

ii) Capacity building: the increased capacity of workers, technicians and local communities in the areas of healthcare, education, and energy to leverage on delivered WASH and energy infrastructure.

This joint programme will advance the achievement of the Sustainable Development Goals (SDGs 3, 4, 6, 7, 10, 12), with an emphasis on **health and well-being**, the **quality of education**, the sustainable management of **water and sanitation**, the access to **renewable energy** and the **reduction of inequalities**.

The partnership will ensure that the Government of Sao Tome and Principe has strengthened its capacity to implement a sustainable school feeding program with local purchases, focusing on access to reliable energy and WASH to improve the in-school **food storage and preparation conditions** and increase the **near-by smallholder food production**.

To this end, the program also will contribute to solving infrastructural challenges identified in selected primary schools served by the PNASE with regard to access to water and energy, with special attention to the use of green and cost-effective technologies. These investments will be key pieces to foster the optimal implementation of the PNASE – with adequate conditions for the production, preparation, and consumption of food.

Introduction

Sao Tome and Principe is the second smallest economy in Africa, located in the Gulf of Guinea and it covers two islands and several – mostly uninhabited – islets. With an estimated total population of 220,000 inhabitants in 2021[1], living in 6 national districts and the Autonomous Region of Principe. The country is a Small Island Developing State (SIDS) with 72,8% of the population settling in urban areas.

Notable progress has been achieved in terms of human development in recent years, especially with regard to health and education indicators. STP's score on UNDP's Human Development Index (HDI) rose from 0.542 to 0.625 between 2010 and 2019[2], placing the country above average for Sub-Saharan Africa (0.547), but below the average for countries in the human development group (0.645). These improvements are largely attributable to an increase in average life expectancy from 67.4 years in 2010 to 70.2 years in 2018, an improvement in GNI per capita from $2,567 in 2010 to $3,024 in 2018, and an increase in the expected and average years of schooling from 10.6 to 12.7 and from 4.9 to 6.4 respectively over the period 2010 to 2018[3]. Notwithstanding the progress registered in the different sectors, Sao Tome and Principe still face significant challenges to achieving the Sustainable Development Goals (SDGs) and inclusive economic growth on the horizon of 2030.

Preliminary assessment conducted by energy specialist and consultations carried out with different Ministries and interested partners, identifies that the main problem to be faced by this joint program is the poor quality and safety of health services in São Tomé and Príncipe, due to deficient infrastructure and processes. To respond to the key development problem identified, the following main components were identified for the Joint Programme: energy, health, education and agriculture. These components are aligned with the recommendations of the Zero Hunger Strategic Review Report, the Government programs and strategies for the education, school feeding, agriculture and energy sectors, and the new United Nations Sustainable Cooperation Framework 2023-2027.

[1] Based on INE IOF 2017
[2] UNDP Report, 2019
[3] UNDP Report, 2019

Situation Analysis

At an aggregated level, the intervention is based on an integrated and comprehensive approach to advance in achieving results directly related to the Sustainable Development Goals, with an emphasis on energy access, health and well-being, education, and the reduction of inequalities.

Energy is critical to the delivery of health services. When healthcare facilities have sufficient and reliable electricity, women can give birth more safely at night, medical equipment can be maintained and better sterilized, and clinics, life-saving vaccines for newborns, children, and adults can be preserved and facilities are better able to respond to emergencies.

By addressing better access to safe and quality health services through improved water, sanitation, and hygiene (WASH) in health facilities, the project will contribute to accelerating universal health coverage. Urgent investments must be made in areas that will have an immediate and substantial impact on the access and acceptability of health care and, ultimately, on health. Investments in infrastructure, capacity building, and process development for water, sanitation, and electricity in health facilities will be realized. The proposed activities will send a strong message to the population and health professionals about improving health facilities and services, improving the acceptance of long-term reforms and mobilization of resources for the implementation of an ambitious national health development plan.

Access to water and electricity are essential conditions for the development of any food value chain, but particularly to build an energetically, financially, and socially sustainable school feeding model, with a positive impact on the education and school retention of boys and girls. If, on the one hand, access to water is crucial for proper sanitization of food, hand hygiene and for the irrigation of school gardens, permanent access to electricity is essential for the lighting of school spaces and the use of food preservation equipment (such as refrigerators).

There is a need to develop a national sustainable school feeding program in São Tomé and Príncipe, through investments in environmental-friendly energy sources to generate electricity for schools and agricultural plots near the schools. There is also a need to build basic infrastructure at schools for cooking and to refurbish the school kitchen with equipment to better prepare, store and preserve daily school meals, while addressing the issue of water scarcity in schools.

Energy

Sao Tome and Principe's energy mix is mostly characterized by biomass consumption and by diesel consumption, according to the latest National GHG Inventory Report for 2016. The country has made significant progress in electricity supply, reaching 83% of the population in 2019, of which 83.3% of the urban population and 81.8% of the rural population (WDI, 2020). Available energy production is insufficient to meet maximum demand. No matter how high the access to electricity is, the quality of the network, the reduced number of hours of electricity service, and the constant and long power outages are hampering socio-economic activities in the country.

According to EMAE, only 5% of the energy produced in the country is generated through clean sources (hydro) and 95% through the use of fossil fuels. Only one in twenty homes and large institutions (hotels, government buildings, etc.) and companies have a diesel-powered generator to keep working during power outages. Importing diesel for electricity has created a very significant debt over time, creating a cycle of late payments of around 30% of GDP (according to IMF data).

However, the country has recently committed to an ambitious agenda of reduction of 27% of GHG emissions by 2030[4], by "the production of renewables injecting 50% into the national grid by

[4] Nationally Determined Contributions (NDC-STP) Updated, June 2021

2030". Increasing its target of renewable energy generation from 26 MW to 49 MW and by reducing power grid losses and decarbonizing the transport sector. The highest solar potential in Sao Tome and Principe for susceptible areas to PV solar power plants is concentrated mainly in the north and northeast regions, although there are successful examples of solar initiatives in all regions. with occasional projects in rural locations, in schools or under private initiatives. The challenges of electricity production and distribution have stimulated the Government's interest in creating a favorable environment for investments in the energy sector in general and in green energy in particular, which can leverage services and industries, thus leading to robust socio-economic development. This is particularly the case in critical sectors such as healthcare, whose reliability is fundamental to the well-being of society.

Health

Health is an essential sector for triggering and sustaining national development. In Sao Tome and Principe, health facilities face numerous challenges related to precarious infrastructure that hamper the provision of adequate, safe, and reliable services.

Unreliable electricity access leads to life-saving vaccine and medicines spoilage, laboratories cannot function optimally, medical equipment cannot be powered and sterilized properly, and facilities cannot respond to emergencies at any time of the day. Essential healthcare services such as laboratories or operating rooms in hospitals have also been frequently disrupted due to power outages and lack of fuel supply and poor maintenance of generators. Government and donor investments in health systems, infrastructure, and equipment are very low, as advanced technological systems will be needed to deal with the diagnosis and treatment of diseases.

The maintenance of water, sanitation, and hygiene (WASH) services in health facilities is a key element of several health objectives, including quality universal health coverage, prevention, and control of infections and communicable diseases, patient safety, and child and maternal health. According to the WASH-FIT assessment that was carried out by the WHO from September to November 2021, 100% (40) of the health facilities assessed in the country do not have adequate WASH infrastructure. Without this basic element, healthcare facilities cannot guarantee adequate hygiene of daily procedures, equipment, and staff, increasing the risk of infections and communicable diseases spread among patients and staff.

Access to WASH services in health facilities remains alarmingly poor. Maintaining water, sanitation, and hygiene services in health care facilities is a critical element of several health objectives, including quality universal health coverage, prevention, and control of infections and communicable diseases, patient safety, and child and maternal health.

Education

Electricity is crucial to all environments, particularly school kitchens, canteens, and classrooms, greatly influencing children's learning ability and facilitating school feeding. 80 schools are not connected to the grid or do not have adequate lighting for classrooms, kitchens, and canteens. Without safe and bright lighting, cooking at school and studying after dark or during the rainy season is not possible.

The National School Feeding and Health Program (PNASE) is the main food safety network in the country, benefiting more than 25% of the country's population (more than fifty thousand children in 181 pre-schools and primary schools), aged between 3 and 14 years. The PNASE plays an essential role in ensuring food security and nutrition of school children, especially the most vulnerable, and the school retention of thousands of boys and girls.

Access to water and energy are essential conditions for the development of any food value chain, but particularly for the construction of an energetic-, financially- and socially sustainable school feeding model. On the one hand, access to

water is crucial for the proper hygiene of hands and food, in addition to the irrigation of school gardens. On the other hand, guaranteed and constant access to an energy source is what allows for clean cooking, allows the pumping of water for use in the school environment, allows for lighting environments such as kitchens and classrooms and allows the use of tools for conservation (such as refrigerators) and minimal processing of food.

Despite the great advances achieved by the program since 2012, the Government, through the PNASE, faces serious challenges to ensure a daily hot meal for students, 180 days per school year. Its financial sustainability is still a concern, especially in the current context of the economic crisis and COVID-19 pandemic, which impairs regular purchases of local products and a more varied and healthier menu for school meals. In addition, financial constraints prevent investments in basic infrastructure at schools for cooking, food conservation, and storage.

Agriculture

Even though agriculture is an important and potential key sector for Sao Tome and Principe's economy (representing 14% of the country's GDP)[5], it is still an extremely fragile one. The country's small-scale agricultural production is low-tech and dependent on rainwater to irrigate crops. The country is also increasingly exposed to the effects of climate change, which could contribute to shorter rainy seasons and longer periods of drought. These factors result in a small-scale agricultural sector with low and unstable productivity throughout the year. These issues, coupled with the poor outflow and market access to agricultural products are causing severe food insecurity in the country, which has been aggravated by the COVID-19 pandemic.

The Government's efforts to promote food security of school-aged children and implement the home-grown school feeding program will fall short without electricity in the schools for cooking and food preservation. Energy is also crucial to power water pumps that feed hand washing facilities, kitchens, and school gardens and to allow for healthy, efficient, and convenient cooking, avoiding constant spoilage and challenging logistics for foodstuffs supply.

There is a need to develop a national sustainable school feeding program in Sao Tome and Principe, through investments in environmental-friendly energy sources to generate electricity for schools and agricultural plots near the schools. There is also a need to build basic infrastructure at schools for cooking and to refurbish the school kitchen with equipment to better prepare, store and preserve daily school meals, while addressing the issue of water scarcity in schools.

Additionally, the smallholder's productivity is still hindered by underdeveloped and poorly integrated agriculture markets, a lack of underdeveloped infrastructures for irrigation, for food conservation and storage, and the lack of a value chain for nutritious food.

There is a need to improve infrastructure for irrigation to increase the levels of agricultural productivity in local smallholder lands surrounding the school areas and link the smallholder farmers to the school feeding programme, allowing them to sell fresh products for school meals. The linkage between the smallholder farmers and the school feeding market will reduce the food price and the consumption of imported products at schools, while also ensuring the sustainability of the school feeding programme over the years.

[5] National Institute of Statistics (INE), 2020

UN added value

The ONE United Nations approach for the joint program provides strong relationship with Ministries of Health, Education and Infrastructure; ensures complementarity with other initiatives (energy sector, soft assistance, agricultural production); conducts initial assessments carried out and funded by agencies; facilitates data collection, monitoring, and evaluation -based on Results Based Management approach.

The operational capacity and previous experience of the UN System ensure best value for money based on long-term agreements for lowest price and capacity for implementation. For this project, the acquisition and installation of solar panels and batteries required for health facilities and schools will be conducted by one single bulk acquisition process led by UNDP global procurement unit.

The integrated multidisciplinary approach of the program, and the Resident Coordinator Office participation in the oversight of the program, ensure better coordination and knowledge transfer. Also, the project benefits from agencies comparative advantages such as: UNDP has been working on Clean Energy for several years. In partnership with UNIDO and with the African Development Bank, additionally has worked on the policy and regulatory environment for clean energy transition has made concrete investments in a solar energy park of 2.2MW Santo Amaro and has launched some pilot projects such as the solar rooftop system in the Ministry of Infrastructure/Environment, and also established a partnership with IRENA (Institute of Renewable Energies in Abu Dhabi). WHO is the lead agency for the UN on health and has carried out an in-depth analysis of the health sector, including the water and sanitation needs, in collaboration with the Ministry of Health. It provides both advisory services through its expertise in health and hygiene as well as investments in physical upgrading of health centers.

WFP is the lead agency on school feeding and has been partnering with the Ministry of Education in developing a more sustainable school feeding program, using adequate infrastructure for the preparation and preservation of food in pre-schools and primary schools with modern equipment for cooking and strengthening the capacity of small holder farmers to supply the school feeding market. WFP aims to support the implementation of a sustainable gender-transformative and nutrition-sensitive school feeding program based on local products, as well as related food security and nutrition policies and programs in Sao Tome and Principe.

UN agencies are able to leverage additional funding to complement the infrastructure-heavy focus of the proposal, in partnership with Government: training on sanitation/hygiene with WHO, technical support to agricultural production of school feeding program with WFP, assessment on energy needs of public buildings by IRENA is used by UNDP to inform the technical details for solar panels/batteries. Training of local entrepreneurs on solar panel assembling and maintenance; support to design and implement policies to facilitate the commercialization of solar panels and improve regulatory framework for renewable energy; and strengthening of energy private sector landscape to provide energy solutions aiming at long-term sustainability with UNIDO.

Strategies and proposed joint programme

The intervention consists of the installation of hybrid photovoltaic solar systems with photovoltaic solar generators and batteries in district level health centers in Agua Grande, Cantagalo, Lobata, Mé Zóchi, Caué, Lembá and Central Hospital in the Autonomous Region of Principe. All health establishments are currently connected to the national electricity grid, but they suffer constant electricity power cuts that affect the quality of the service provided. This is estimated at around 2-3 hours per day on average. The selected facilities at district level have a large geographical coverage and thus, an increased impact of the project on the access to quality health services. A specific assessment study has been conducted in each facility to confirm suitability for instalment of equipment needed.

Table 1: Health Facilities selected

No.	*District*	*Health facility*	*Potential beneficiaries (district inhabitants)*
1	Agua Grande	Centro de Saúde Água Arroz	84,300
2	Cantagalo	Centro de Saúde de Água Izé	21,057
3	Lobata	Centro de Saúde de Guadalupe	23,881
4	Mé Zóchi	Centro de Saúde de Trindade	55,197
5	Caué	Centro de Saúde de Angolares	7,845
6	Lembá	Centro de Saúde de Neves	17,648
7	Principe	Hospital	9,149
	Total		**219,077**

Photovoltaic systems will act as a secondary source of energy filling the frequent gaps left by the grid. The photovoltaic systems will ultimately be owned by the Ministry of Health (MoH), which will eventually be responsible for their operation and maintenance (O&M). **Through this intervention, the UN plans to cover the O&M costs of the PV system for 5 years until the full transfer of responsibilities to the MoH.** During these 5 years, all O&M costs (including spare parts) resulting from hiring a local company will be covered by the project budget. To ensure the quality of the O&M service, the project includes a training component on photovoltaic systems, as well as activities to publicize the benefits of solar energy through community maintenance commissions. This capacity-building component is common to UN Agencies' interventions.

The proposed intervention will also consist of the installation of hybrid photovoltaic solar systems with photovoltaic solar generators and batteries in 20 schools, benefiting more than 5,000 students and smallholder plots located in Lobata, Cantagalo, Caué. Lembá, Mé Zóchi, and in the Autonomous Region of Principe. The selected schools require urgent intervention with regards to access to basic energy and water infrastructure, focusing on districts and communities with the highest rates of poverty and highest levels of food insecurity and malnutrition, particularly among children. A specific assessment study will be conducted in each school to confirm suitability for instalment of equipment needed.

Table 2: Schools selected

No.	*District*	*School*	*Students*
1	Lobata	Escola básica de Santa Luzia	197
2	Lobata	Escola básica de Conde 2° ciclo	268
3	Lobata	Escola básica de Conde 1° ciclo	513
4	Cantagalo	Escola de Praia Rei (Agua Ize)	668
5	Cantagalo	Escola básica Adao Deus Lima	701
6	Caué	Escola básica de Porto Alegre	351
7	Caué	Escola básica de Vila José (Agripalma)	55
8	Caué	Escola básica de Angolares	538
9	Caué	Escola básica de Iô Grande	68
10	Caué	Escola básica de Angra Toldo	176
11	Lembá	Escola básica de Esprainha	43
12	Lembá	Escola básica de Diogo Vaz	347
13	Lembá	Escola básica de Ponta Figo	134
14	Lembá	Escola básica de Ribeira Funda	110
15	Mé Zóchi	Escola básica de Monte Café	330
16	Mé Zóchi	Escola básica de Capela	334
17	Principe	Escola de Abade	43
18	Principe	Jardim Mino quetê	90
19	Principe	Jardim Nhamizinho	74
20	Principe	Escola Santo Antonio II	538
	Total		**5,578**

The objective is to support the Government of São Tomé and Principe to build an energy-, financial- and socially sustainable school feeding model that generates positive impacts on the nutrition of school-aged children, education, and the creation of markets for local farmers. To this end, the intervention will solve the main infrastructural challenges identified in selected primary schools served by the PNASE with regard to access to water and energy, with special attention to the use of green and cost-effective technologies. These investments will be key pieces to fostering the optimal implementation of the PNASE – with adequate conditions for the production, preparation, and consumption of food.

In addition, the project will address one of the Government's main concerns, which is access to WASH infrastructure, also investing in WASH facilities at targeted schools. Simultaneously, with better storage and conservation conditions for fresh products in schools, purchases of food from local smallholder farmers by the PNASE will also be stimulated. Availability of lights/fans in the evening hours will also contribute to evening classes (literacy) and social programs as schools are often used for other educational activities in evening hours.

Energy design

The assessment of needs and rationale of energy use for health facilities and schools provides the following energy design scenarios and options for the implementation of the project.

Figure 1. Base scenario energy design

Base scenario for USD 2.5 Million budget **7 Health Facilities** **20 Schools**		
Facility	**Health Centre**	**School ****
System Design*	Secondary system	Secondary system
Energy Requirements	Total units: 7,912 Wh Solar panel: 6 kWp Solar battery: (12V) 2240 Ah Solar inverter: 7.5 kVA, 96V	Total units: 1,528.5 Wh Solar panel: 1.2 kWp Solar battery: (12V) 400 Ah Solar inverter: 2 kVA, 48V
Total loads assumptions	1,544 W	379 W
Services available	Consultation + Family planning + Immunization	Classroom, food storage and conservation, canteen, and irrigation
Value added	Secondary back-up system energy supply, including batteries, during power cuts. Load segregation highly optimized: all AC's being on the non-critical loads, and only some lights, servers and computers remaining on the critical breaker. This scenario considers 80% of the loads will be disconnected in case of outages.	Provides required energy for educational activities, food storage and preparation and additional afternoon community activities in non-school hours.

The **base scenario** of the project includes:

- solar panel installation as secondary system in 7 health facilities that will provide back-up energy for 2-3 hours per day for the basic health services including consultations, family planning and immunization;
- solar panel installation as secondary system for 20 schools - providing the energy loads for 2-3 hours per day that are required for classroom, food storage and conservation, canteen, and irrigation. This will benefit around 25% of all schools and around 10% of the children receiving support from PNASE.

This energy design will provide a practical solution for compensating the power outages. Based on assessment analysis of charge curves, the peak power and average power during daytime, the solar panel / batteries system will support continuity of energy during outages, and therefore, continuity of health services.

For a greater impact on the quality, safety and access of health services, a full impact proposal is being prepared to optimize the investment in renewable energy capacity, that provides for self-sufficiency of the 7

district health centres, in terms of energy needs (apart from air conditioners which are to be delinked from the solar power system). This is the optimal scenario of the project and additional cost are to be approved through Council of Ministers. In this full impact scenario with solar panel installation as primary system in health facilities, electricity will be provided 24/7 as autonomous energy source for the basic health services including consultations, family planning, immunization, pharmacy, laboratory, maternity, cold room and administration, reducing pressure on the grid, and also providing for the possibility in future to sell energy back to the grid.

Expected results

The results of the first phase of the program will increase the availability and reliability of energy services to ensure uninterrupted service delivery for basic healthcare services in the 7 district facilities. Better health care facilities are a direct benefit to women and families. Project benefits are expected to be widespread but one of the top priorities are emergency wards, maternity department, pharmacy and laboratory services.

For the education sector, the outputs of the program will provide the Government, through the PNASE, with a more sustainable and environmentally friendly school feeding program, powered by renewable energies and able to deliver daily nutritious hot meals to more than 5,000 school children 180 days per school year, to improve the health condition in canteen cooks, access to basic water, sanitation and hygiene conditions at schools and to increase school retention, particularly of vulnerable boys and girls, contributing to food and nutritional security of students during the school term. Increased electricity supply will also ensure continuity of evening educational programs that are provided by schools (e.g. literacy programs).

The program will indirectly benefit the Government, through the activities that will be implemented in the country, as well as the evidence generated on the sustainable school feeding model driven by renewable energy.

In addition, this program will directly benefit 20 smallholder producers in Sao Tome and Principe, through access to energy and, consequently, water to irrigate their plots. Further, access to the school feeding market of PNASE will also be stimulated for these producers.

This joint program contributes to improve the quality and safety of health services by strengthening the infrastructure and technical capacity of the Health and Educations sectors of Sao Tome and Principe. To achieve the expected change, results and respective outputs must be achieved, as follows:

1. The population of STP benefits from a better provision of services in the health units, through adequate infrastructural conditions.
    - Adequate WASH infrastructure is installed at 7 health centers
    - Clean and reliable energy sources (solar panels) are installed in 7 healthcare facilities
    - Training is provided by international suppliers to local companies to ensure equipment maintenance beyond the program end date
2. Health workers, local communities, district authorities, national technicians, the private sector, and health inspection services have increased their capacity to leverage WASH infrastructure and energy provided.

- Training sessions are organized for healthcare workers and communities on the benefits of improved WASH and clean energy sources to promote hygiene and safety practices
- WASH/SOLAR committees at different levels are created and trained in O&M to ensure sustainability of results
- Feasibility study conducted for installation and environmental impact of incinerators

3. The Government of São Tomé and Príncipe, through the PNASE, has strengthened capacity to implement a financially and socially sustainable and environmental-friendly school feeding program in the country.
    - The quality of food preparation and storage in 20 schools is improved as a result of the good functioning of the infrastructure and equipment
    - Access to solar energy and water is ensured in a sustainable and lasting way in school spaces benefiting both 20 schools, 20 smallholder farmers and communities in general
    - Training in handling of the new canteen equipment, in adequate food conservation techniques and hygiene is provided for canteen cooks working at schools

4. 20 Smallholder Farmers have access to clean energy and adequate technology for irrigation to enhance their productivity and improve their access to markets
    - Adequate energy and water infrastructure is built in the smallholder farmers agricultural plots near school areas to provide smallholders with access to water for irrigation
    - Agricultural inputs such as seeds are provided to smallholder farmers
    - Training sessions are organized to strengthen smallholders' capacities in sustainable agricultural techniques and improve their access to markets

Results Framework

The intended change is "to improve the quality and safety of health services in São Tomé and Príncipe, through adequate infrastructure and processes". To this end, main preliminary changes must be triggered through the implementation of strategies, as follows:

- Create adequate infrastructural conditions for a better provision of services in the health units.
- Strengthen the existing human capacity in the country to leverage the infrastructure delivered in health facilities.
- Provide the schools with access to solar energy and water for adequate preparation and preservation of food in pre-schools and primary schools.
- Provide the schools with access to adequate infrastructure and modern equipment for cooking and for food storage and conservation.
- Strengthen the capacities of smallholder farmers close to the targeted schools and support their connection with the school feeding market.

Table 3. Joint Programme Monitoring Framework

Expected Results	Indicator	Baseline	Target	Means of verification / Collection methods	Responsibilities
Improve the availability of safe health infrastructure					
% of Health facilities with WASH improved		0 (2022)	7 (2024)	Activity reports	WHO
# of Health facilities with reliable solar energy to bridge power cuts for 2-3 hours per day		0 (2022)	7 (2024)	Activity reports	UNDP
Operation and maintenance training on photovoltaic systems		0 (2022)	7 (2024)	Activity reports	UNDP
Awareness activities for benefits of solar energy through community maintenance commissions		0 (2022)	7 (2024)	Activity reports	UNDP
% of operation and maintenance service providers passing assessment on applied training		0 (2022)	100 (2024)	Activity reports	UNDP
% of increased hours of health care provision		0 (2022)	X (2024)	Activity reports	WHO
% of increased numbers of people accessing healthcare, disaggregated by sex and age		0 (2022)	X (2024)	Activity reports	WHO
Strengthen community involvement at the district level to act on health determinants					
# of WASH commissions established		0 (2022)	2 (2024)	Activity reports	WHO
Foundations for continuous quality and safety improvement processes					
# of national guidelines for quality and safety improvement processes		0 (2022)	2 (2024)	Activity reports	WHO
# of healthcare professionals trained in WASH-related topics, disaggregated by sex		0 (2022)	100 (2024)	Activity reports	WHO
% of health care professionals passing WASH competence assessment on applied WASH practices, disaggregated by sex		0 (2022)	100 (2024)	Activity reports	WHO
In-depth assessment of the country's need for waste incinerators for the safe disposal of materials hazardous to health		0 (2022)	1 (2024)	Activity reports	WHO
The Government of São Tomé and Príncipe, through the PNASE, has strengthened capacity to implement a financially and socially sustainable and environmental-friendly school feeding program in the country					
Number of capacity-strengthening activities implemented under this project		0 (2022)	5 (2024)	Activity reports	WFP
The quality of food preparation and storage in schools is improved as a result of the good functioning of the infrastructure and equipment					
Number of schools receiving infrastructure (retrofitted kitchen and canteen) provided by the Project		0 (2022)	20 (2024)	Data from PNASE (Ministry of Education) / WFP Reports	WFP
Number of schools canteens receiving equipment (refrigerators and kitchen appliances) provided by the Project		0 (2022)	20 (2024)	Data from PNASE (Ministry of Education) / WFP Reports	WFP
Number of schools canteens receiving modern stoves provided by the Project		0 (2022)	20 (2024)	Data from PNASE (Ministry of Education) / WFP Reports	WFP
% of schools using new equipment after 6 and 12 months		0 (2022)	100 (2024)	Activity report	WFP
Access to solar energy and water is ensured in a sustainable and lasting way in school spaces benefiting both schools, smallholder farmers and communities in general					

# of schools with reliable solar energy to bridge power cuts for 2-3 hours per day	0 (2022)	7 (2024)	Activity reports	UNDP
Operation and maintenance training on photovoltaic systems	0 (2022)	7 (2024)	Activity reports	UNDP
Awareness activities for benefits of solar energy through community maintenance commissions	0 (2022)	7 (2024)	Activity reports	UNDP
% of operation and maintenance service providers passing assessment on applied training	0 (2022)	100 (2024)	Activity reports	UNDP
% of increased hours of teaching	0 (2022)	X (2024)	Activity reports	WFP
% of increased school attendance, disaggregated by sex	0 (2022)	X (2024)	Activity reports	WFP
Number of schools with access to electricity	0 (2022)	20 (2024)	Data from (PNASE) / Monitoring visits	WFP, UNDP
Number of schools receiving water intervention	0 (2022)	20 (2024)	Data from (PNASE) / Monitoring visits	WFP
Training in handling the new canteen equipment, in adequate food conservation techniques and hygiene is provided for canteen cooks working at schools				
Number of canteen cooks benefiting from training in handling the canteen equipment	0 (2022)	20 (2024)	Activity Report	WFP, WHO
Number of training sessions organized	0 (2022)	20 (2024)	Activity report	WFP, WHO
Awareness campaigns on food security, nutrition and healthy eating habits are organized for the entire community				
Number of awareness campaigns organized	0 (2022)	1 (2024)	Activity reports	WFP
Number of people reached (disaggregated by sex and age)	0 (2022)	X (2024)	Activity reports	WFP
Smallholder Farmers have access to clean energy and adequate technology for irrigation to enhance their productivity and improve their access to markets				
Number of smallholder farmers implementing adequate irrigation	0 (2022)	20 (2024)	Monitoring visits and Activity reports	WFP
Number of smallholder farmers benefiting from access to water as a result of irrigation equipment provided by this project	0 (2022)	20 (2024)	Monitoring visits and Activity reports	WFP
Number of smallholder farmers delivering food to targeted schools	0 (2022)	20 (2024)	Data from PNASE / Monitoring visits	WFP
Adequate energy and water infrastructure is built in the smallholder farmers agricultural plots near school areas to provide smallholders with access to water for irrigation				
Number of irrigation equipment installed	0 (2022)	20 (2024)	Data from Ministry of Agriculture / Monitoring visits	WFP
Number of infrastructures built	0 (2022)	20 (2024)	Data from Ministry of Agriculture / Monitoring visits	WFP
Agricultural inputs such as seeds are provided to smallholder farmers				
Number of smallholder farmers who have received inputs (seeds, tools) as a result of this project	0 (2022)	20 (2024)	Monitoring visits and Activity reports	WFP
Training sessions are organized to strengthen smallholders' capacities in sustainable agricultural techniques and improve their access to markets				
Number of smallholder farmers benefiting from training on sustainable agricultural techniques and access to markets	0 (2022)	20 (2024)	Activity Report	WFP
Number of pieces of training organized	0 (2022)	1 (2024)	Data from PNASE (Ministry of Education)	WFP

Risks and mitigation

Investing in self-sustainable energy solutions cannot be limited to the procurement and installation of solar equipment. Failing to recognize the importance of building sustainable value chains for energy products and services may seriously affect the successful implementation of this project. Therefore, to mitigate this risk, the joint program will monitor the correct functioning of the PV systems and the impact of the renewable energy solutions at schools in terms of improved cooking, education, nutrition, health and environment.

Table 4: Risks and mitigation measures

Risks	Likelihood	Impact	Mitigating measures
Risk of lack of Government resources to ensure any follow-up or maintenance. The project is seen as a donor project without buy-in from the authorities.	High	High	Early engagement with new government counterparts to sensitize them on key development issues and constant follow-up with technical counterparts, who will be the institutional memory and advocates for all initiatives developed in 2021.
The infrastructure built in school kitchens, canteens and gardens is not well maintained and stops functioning after the project ends.	Medium	High	The sustainability of this project will require a high level of community engagement throughout. Training for school professionals (cooks, teachers, gardeners and principals) will be crucial to guarantee the adequate use of kitchen appliances and water supply appliances. Further, sensitization sessions will be held with the entire school community (including students and parents) to promote ownership of the structure that will be delivered to the schools that serve them.
Solar energy equipment is not well maintained and stops functioning after the project ends	Low	High	The sustainability strategy of this project aims to guarantee maintenance of the energy equipment installed. Additionally, the project will pair national and international suppliers, to build the capacities of national companies to deliver maintenance while guaranteeing quality assistance.
Despite capacity building activities and UN's advocacy efforts, changes in government in 2022 result in lowered priority for PNASE related policies.	Low	High	Early engagement with new government counterparts to sensitize them on key development issues and constant follow-up with technical counterparts, who will be the institutional memory and advocates for all initiatives developed in 2021.
Delay in programme implementation caused by the restrictive measures adopted by the Government due to the COVID-19 pandemic.	Low	Medium	Although schools in Sao Tome and Principe have reopened in October after a third wave of the COVID-19 pandemic and the epidemiological situation in the country has seen much improvement, end-of-the-year travel and new surges of the disease coming from Europe might cause a fourth wave in early 2022. UN agencies have been supporting the government in monitoring schools reopening processes and will continue to advocate for the maintenance of classes and school feeding as much as possible.

Budget increases due to instability of global components market and transport prices	Medium	High	Request cost estimates with at least 4 months validity, quick contracting process and fast-track delivery and installation of solar systems thanks to LTAs with suppliers, including transport companies
Lack of engagement of national counterparts	Medium	High	Continue engaging the government and updating the government about the project. Capacity building activities at the institutional level. Strong collaboration with local actors, at the district and mayors, to ensure grassroot engagement and limit impact of potential changes at the national level
PV is a relatively new technology in STP with the potential delay of implementation risks associated with it.	Medium	Medium	With its experience and expertise in both the health, energy and environment sectors, UN role in project implementation will significantly mitigate this risk. In addition, a participatory management model involving facility managers, ministry, donors, and the surrounding community will be implemented.

Management Strategy and Monitoring Actions

- Partnership agreement and provision to actively manage reputational and project-related risks as they arise.
- Public sustainability report on reduction and offsetting GHG emissions.
- Adherence to UN Principles, Social and Environmental Screening Procedure (SESP) and Environmental and Social Management Plan (ESMP).
- Project board with civil society actors to monitor and ensure project activities adhere ESMP.
- Engage additional partners such as the Green Climate Fund.
- Develop and update the communications strategy to promptly respond to issues as they arise.
- Technical inputs from the Nature Climate and Energy Team and Comms BERA
- Update the Risk Assessment Tool periodically.

Sustainability of results

This intervention proposes a sustainability strategy highly dependent on three basic pillars: involvement of decision makers, capacity building at all levels and community involvement.

The strategy involves three levels of intervention:

a) Involvement of leaders and stakeholders in decision-making at central government and district authorities at all stages of the project cycle
b) Establishment of two levels of technical committees:
    i. Unit-level WASH/SOLAR Operating committee, composed of 3 health facility staff, 2 community members, and 1 health district delegate
    ii. Supervision committee composed of 3 officials from the ministry of health of the inspection department, 1 delegate from the district authority and UN agencies
c) Provider of technical O&M services contracted for each health unit.

Operational committees will be established and trained in each location where the program operates. These committees, formed and funded by the program, will be on the front lines of basic maintenance of WASH and solar PV equipment and infrastructure. Members will be community residents and equipment users (health centers) and will be led by the high-level district health authority (District Health Delegate). Their role will

include regular surveillance of installed equipment, basic maintenance and cleaning, providing early warning to the unit responsible for O&M, as well as raising awareness/informing the surrounding community and other end-users about the benefits of PV and WASH equipment and the need to protect them to ensure their long-term durability. All members will receive adequate training to perform assigned responsibilities.

To complement the sustainability model, officials from the Ministry of Health's inspection services, district authorities and UN agencies will compose the Supervision Committee. All members will receive adequate training to perform assigned responsibilities. The strategy model also includes higher levels of maintenance, where an independent and qualified service provider will carry out regular supervision and technical O&M. The cost of this service will be paid by the program over a period of 5 years, after which the UN agencies will support the Government in creating a funding mechanism. In addition, a guaranteed period of 5 years of O&M coverage following completion of the UN program will ensure that installed equipment is operational during this period. During the 5-year coverage, the program will provide O&M services and spare parts. O&M is expected to be done through national service providers trained and qualified by the program, potentially in partnership with international service providers if necessary.

During these 5 years, the UN agencies will jointly support the government in the development and adjustment of the equipment management model and in the mobilization of internal and external funds to guarantee the maintenance of the equipment and even the increase of the coverage of the photovoltaic systems and WASH equipment in the long term. An important element of the strategy is that the UN is using a modular approach that can be scaled up in order to achieve much greater impact in the long run. This initial phase is a pilot phase and is to be evaluated before its completion. Based on results and with a resources mobilization strategy, additional funding will increase the program cover to all Health Centres and all Schools in the country.

Table 5: Phasing of Joint Program

Phase	*Objective*	*Target*	*Components*
(I) 2022-2024 **Improvement of access to electricity in health facilities and schools**	Improvement of Clean Energy and wash infrastructure in health facilities and schools is part of the first pilot through Shell funding	7 district health centres and 20 schools	• Low cost of solar panels thanks to bulk procurement with EPC company (through UNDP Copenhagen procurement centre) • Improved water supply, sanitation and hygiene in selected facilities • Selection and training of local company for operation/maintenance • Training of local education and health staff on maintenance and use of solar panels • Capacity building of health and education technicians, local communities, small farmers
(II) 2024-2026 (TBD – pending legal framework/EMAE) Energy as a service (Subject to additional funding and results of phase I)	Expansion of the green infrastructure for health and education through new funding in future	43 health posts and 60 schools	• Energy is sold to EMAE • Current bottlenecks: no legislation and insufficient management capacity of EMAE • Training of local entrepreneurs and technicians on solar panel assembly/maintenance

Assumptions

Everyone to be trained (communities and health center staff, ministry inspectorate staff, national WASH and electricity technicians) will be successfully involved in awareness-raising and training campaigns provided by the program.

With proper training, health professionals and users committees will increase their knowledge and apply appropriate procedures to improve safety and hygiene, as well as energy efficiency principles in health centers and their communities.

With proper training, communities will increase their knowledge of how clean energy sources can contribute to their daily lives and work, and a sense of ownership of the infrastructure provided will be created.

Once trained, national technicians will be able to carry out basic maintenance of photovoltaic panels (cleaning or reconnecting wires) and identifying problems that require specialized assistance.

Through partnerships with international suppliers, local companies will be able to provide long-term maintenance services for photovoltaic panels in health centers.

Engagement with local authorities, target groups and community leaders will be vital for the successful implementation of the project, to ensure the community support and that project implementation and project components are aligned and adjusted to the community needs.

In addition, it is important to highlight that target groups and the communities they are inserted in are not only beneficiaries, but crucial actors who will actively contribute to this project implementation, to share information on local context, challenges, pressing needs and support on the day-to-day monitoring of the project. These groups have been and will continue to be consulted throughout the implementation and monitoring phases, including on the scheduled training and sensitization activities that the project will develop.

Work plan and budget

JP Outcome: Build an economically efficient, energy-sustainable, and climate-resilient health system in São Tomé and Príncipe (STP), which is fundamental for its better quality and management capacity.											
UN organization-specific Annual targets	UN organization	Activities	TIME FRAME					Implementing Partner	PLANNED BUDGET		
			Y1 Q1	Q2	Q3	Q4	Y2		Source of Funds	Budget Description	Amount
JP Output 1: The population of STP benefits from a better provision of services in the health units, through adequate infrastructural conditions											
Adequate WASH infrastructure is installed at health centers	WHO	Rehabilitation/construction of WASH infrastructure of health facilities		x	X	x			Joint Programme	Infrastructure, Equipment	$100,000
		Materials and equipment for rehabilitation of WASH facilities		x	x	x			Joint Programme	Infrastructure, Equipment	$212,575
Clean and reliable energy sources (solar panels) are installed in healthcare facilities	UNDP	Solar equipment and technical components procurement, including spare parts		x	x	x			Joint Programme	Infrastructure, Equipment	$804,600
		Transport, storage, distribution and installation		x	x	x			Joint Programme	Infrastructure, Equipment	$82,200
		Management and implementation of technical support			x	x			Joint Programme	Operation	$69,118
Training is provided by international suppliers to local companies to ensure equipment maintenance	UNDP	Technical training and capacity building in PV					x		Joint Programme	Training	$9,000
		Workshop – communication and promotion of solar energy					x		Joint Programme	Operation	$5,000
JP Output 2: Health workers, local communities, district authorities, national technicians, the private sector, and health inspection services have increased their capacity to leverage WASH infrastructure and energy provided											
Feasibility study for impact of incinerators	WHO	Feasibility study conducted for installation and environmental impact of incinerators in STP	x	x					Joint Programme	Infrastructure, Equipment	$20,000
Training session for healthcare workers and communities on the benefits of	WHO	Establishment of a maintenance taskforce					x		Joint Programme	Training	$28,000
		Facilitation, technical assistance for operation of maintenance taskforce					x		Joint Programme	Training	$32,000

improved WASH and clean energy sources		Training for maintenance of infrastructure (initially for WASH, then expand scope)					x		Joint Programme	Training	$16,000
WASH/SOLAR commissions at different levels are created and trained in O&M	WHO	Establishment of WASH commissions in districts					X		Joint Programme	Operation	$21,000
		Facilitation and technical assistance for operation WASH commissions in the districts					X		Joint Programme	Operation	$29,000
		Printing and distribution of risk communication and community engagement material and seed funding available to WASH commissions in pilot districts					X		Joint Programme	Operation	$38,000
JP Output 3: The Government of São Tomé and Príncipe, through the PNASE, has strengthened capacity to implement a financially and socially sustainable and environmental-friendly school feeding program in the country											
Quality of food preparation and storage in schools is improved as a result of the good functioning of the infrastructure and equipment	WFP	Retrofitting of the existing kitchen, canteens and school gardens		x	x	x			Joint Programme	Operation	$200,000
		Procurement of kitchen equipment	x	x					Joint Programme	Infrastructure, Equipment	$20,000
		Procurement of improved cooking stoves	x	x					Joint Programme	Infrastructure, Equipment	$4,000
		Procurement of quality institutional EPCs	x	x					Joint Programme	Infrastructure, Equipment	$16,000
		Procurement of quality refrigerators	x	x					Joint Programme	Infrastructure, Equipment	$20,000
		Internal travels	x	x	x	x			Joint Programme	Travel	$9,600
Access to solar energy and water is ensured in a sustainable and lasting way in school spaces benefiting both schools, smallholder farmers and communities in general	WFP	Study Baseline on fuel consumption, energy needs assessment, nutrition, and market	x	x					Joint Programme	Operation	$9,000
		Retrofitting of WASH in schools		x	x	X			Joint Programme	Operation	$100,000
		Retrofitting of the existing electrical connection		x	x	x			Joint Programme	Operation	$16,000
		Procurement of illumination equipment and installation	x	x					Joint Programme	Infrastructure, Equipment	$6,000
		Technical assessment of energy (electricity connection) and water supply	x	x					Joint Programme	Operation	$4,000
		Monitoring / advising	x	x					Joint Programme	Travel	$10,000

Training in handling new equipment, adequate food conservation and hygiene	WFP	Training of trainers on cooking with EPC					x		Joint Programme	Training	$4,000
		Training of school cooks					x		Joint Programme	Training	$8,000
		Monitoring					x		Joint Programme	Training	$40,000
JP Output 4: Smallholder Farmers have access to clean energy and adequate technology for irrigation to enhance their productivity and improve their access to markets.											
Adequate energy and water infrastructure	WFP	Retrofitting of the existing water supply		x	x	x			Joint Programme	Operation	$10,000
		Procurement of irrigation equipment	X	x					Joint Programme	Infrastructure, Equipment	$20,000
Agricultural inputs to smallholder farmers	WFP	Developing guidelines on recipes & research			x	x			Joint Programme	Contractual services	$5,000
Training sessions to smallholders	WFP	Workshops with school administrators & private sector - induction					x		Joint Programme	Training	$30,000
Total Planned Budget (Programme Cost, excluding admin & management cost)											**$1,998,093**

UNSDG BUDGET CATEGORIES	**WHO**	**UNDP**	**WFP**	**Total**
1. Staff and other personnel				
2. Supplies, Commodities, Materials				
3. Equipment, Vehicles, and Furniture (including Depreciation)	$332,575	$886,800	$86,000	$1,305,375
4. Contractual services	$76,000	$9,000	$87,000	$172,000
5. Travel			$19,600	$19,600
6. Transfers and Grants to Counterparts				
7. General Operating and other Direct Costs	$88,000	$74,118	$339,000	$501,118
Total Direct Costs	**$496,575**	**$969,918**	**$531,600**	**$1,998,093**
8. Indirect Support Costs (7%)	$34,760	$67,894	$37,212	$139,867
Total Budget Categories	**$531,335**	**$1,037,812**	**$568,812**	**$2,137,960**

Administrative & Management Costs	$157,200	$34,214	$145,625	$337,040
Total	**$688,535**	**$1,072,026**	**$714,437**	**$2,475,000**

Management and Coordination Arrangements

With a holistic and integrated approach, UN agencies will lead the implementation of the interventions, working closely with the Government from the design stage to ensure ownership and long-term sustainability. In this regard, a high-level multisectoral Steering Committee composed of the heads of UN agencies, ANP and the relevant ministers (infrastructure and health) and the donor will be established to hold semi-annual meetings coordination meetings to monitor program implementation and ensure alignment and complementarity with existing government strategies and policies.

The Steering Committee (SC), Chaired by the United Nations Resident Coordinator, is the Joint Programme oversight and advisory authority, representing the highest body for strategic guidance, fiduciary and management oversight/coordination. It facilitates collaboration between participating UN organizations, donor and the host government for the implementation of the Joint Programme. Advisory in nature, the SC reviews and endorses the Joint Programme Document and annual work plans. It provides strategic direction and oversight, advises on allocation criteria for resources, reviews implementation progress and addresses problems. The SC also receives progress reports, approves budget revisions/reallocations, notes evaluation and audit reports (published in accordance with each PUNOs' disclosure policy), and initiates investigations if needed. The SC is supported by a Joint Coordination Unit and meets at least semi-annually.

In addition, technical committees will be established to track progress and monitor program implementation at a technical level and issue recommendations to the high-level multistakeholder steering committee. These cross-sectoral technical committees will be composed of technical representatives from government and UN agencies and will work closely with implementing partners, including local authorities, community leaders, civil society, etc., to ensure ownership and sustainability of the results.

The involvement of private sector companies operating in the energy and WASH sector will be essential to ensure successful implementation and long-term sustainability of the project. The contracting will be formalized through PPP/O&M agreements or contracts, after consultation with the government.

Strategic contributions from Public Institutes, Companies and NGOs will be fundamental to guarantee access to baseline data and facilitate dialogue, training and awareness-raising sessions. These entities will work closely with the intersectoral technical committees led by UN agencies.

Monitoring

Implement a specific monitoring plan and will count on the support of several implementing partners to provide community feedback and an adequate registry of the activities performed on the ground (financial reports, logbooks, meeting notes, training summaries, construction work updates, facilitated monitoring visits, among others). The National School Feeding and Health Programme, the Rural Development Support Center, National Institutes, NGOs, and community leaders, particularly, have the capacity to easily engage with actors on the ground, making the collection of information more efficient and effective.

A communications strategy is to be prepared which will limit the visibility for UN agencies but maximize the visibility for the national authorities and the donor, with strong community participation.

The UN agencies will adhere to the HSSE norms (Health, Safety, Security and Environment procedures), in line with the guidelines of their respective Executive Boards and internationally recognized safety and health requirements[6]. This will be specifically monitored during the implementation phase.

Reporting

Annual narrative progress reports on pre-selected key indicators to measure the project's impact at a community level. The narrative reports will include achieved results, risks identified, and mitigation measures adopted. Annual financial reports will also be submitted, detailing the annual expenditure and balance.

Short six-month progress reports will be provided during the implementation period and monthly follow-up technical meetings between donor and UN agencies will ensure continuous communication and monitoring.

Mid-term progress review report to be submitted halfway through the implementation of the project; and final consolidated narrative report, including a final financial report and research reports, after the completion of the project and closure of the activities.

Fund Management Arrangements

This UN Joint Programme will follow the pass-through fund management modality according to the United Nations Development Group (UNDG) Guidelines on UN Joint Programming. As outlined, the UNDP MPTF Office, serving as the Administrative Agent (AA) for the Joint Programme, as set out in the Standard Memorandum of Understanding (MoU) for Joint Projects using pass-through fund management, will perform the following functions:

- Establish a separate ledger account under its financial rules and regulations for the receipt and administration of the funds received from donor(s) pursuant to the Administrative Arrangement. This Joint Programme Account will be administered by the AA in accordance with the applicable rules, regulations directives and procedures, including those relating to interest;
- Make disbursements to Participating UN Organizations from the Joint Programme Account as instructed by the Steering Committee, in line with the budget set forth in the Joint Programme Document.

The Participating UN Organizations will:

- Assume full programmatic and financial responsibility and accountability for the funds disbursed by the AA as detailed in the Management Arrangements and Coordination section;
- Establish a separate ledger account for the receipt and administration of the funds disbursed to it by the AA.

Each UN organization is entitled to deduct their indirect costs on contributions received according to their own rules and regulations, considering the size and complexity of the programme. Each UN organization will deduct seven percent as overhead costs of the total allocation received for the agency.

Convening Agent

Under the current Project arrangements, UNDP is the Convening Agent and will provide joint coordination support, management and administration. The Convening Agent will be responsible for the operational and programmatic coordination, including compiling annual work plans and narrative reports, short progress reports, and mid-term progress review reports, based on submissions provided by each Participating UN

[6] https://procurement-notices.undp.org/view_file.cfm?doc_id=271986

Organization. It will establish a Joint Coordination Unit, which will be responsible for: i) coordinating all Joint Programme partners, ii) coordinating the monitoring of annual targets, iii) reporting on Steering Committee meetings, and iv) coordinating evaluation(s).

Administrative Agent

According to the pass-through modality, the UNDP Multi-Partner Trust Fund Office (MPTF Office) will serve as the Administrative Agent (AA) of the Joint Programme. The AA will be accountable for effective and impartial fiduciary management and financial reporting. The AA will be responsible for financial/administrative management that includes: i) receiving donor contributions, ii) disbursing funds to Participating UN Organizations based on the Steering Committee instructions, and iii) consolidating periodic financial reports and the final financial report.

Participating UN Agencies: Participating UN organizations operate in accordance with their own regulations, rules, directives and procedures. They assume full programmatic and financial accountability for funds disbursed by the Administrative Agent and are responsible for the implementation and delivery of results under each activity result. PUNOs will have dedicated resources to achieve results, including personnel and consultants (technical assistance) that are directly contributing to Project activities, and allocated budgets for associated costs, such as office structure, and operability of field visits for quality assurance.

PUNOs Financial Management: PUNOs have bank accounts set up in ... These accounts will be managed by authorized staff who will maintain comprehensive records of local bank account transactions (including clearly labelled receipts) and produce monthly reconciliations. This will also be summarized for inclusion in the bi-annual reports. The operational departments in each organization will support the financial management of the Programme by approving timesheets, expenses and contractor invoices, and by preparing internal financial reports, including periodic financial reports.

Legal Context or Basis of Relationship

Participating UN organization	Agreement
UNDP	This Joint Programme Document shall be the instrument referred to as the Project Document in Article I of the Standard Basic Assistance Agreement between the Government of Sao Tome and Principe and the United Nations Development Programme, signed by the parties in March 1976.
WFP	With the World Food Programme (WFP), a Basic Agreement concerning assistance from the World Food Programme, which Agreement was signed by the Government and WFP in November 1977.
WHO	With the World Health Organization (WHO), a Basic Agreement for the Provision of Technical Advisory Assistance signed by the Government and WHO in July 1976.

The Implementing Partners/Executing Agency[7] agree to undertake all reasonable efforts to ensure that none of the funds received pursuant to this Joint Programme are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by Participating UN organizations do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this programme document.

[7] Executing Agency in case of UNDP in countries with no signed Country Programme Action Plans

Annex 1. WASH Infrastructure in health facilities

Estimate of the total cost per health infrastructure

Nº	Health facility	Custo/USD	%
1	Angolares	24,411.67	11.5%
2	Trindade	23,430.00	11.0%
3	Água Izé	17,879.58	8.4%
4	Neves	33,738.23	15.9%
5	Guadalupe	26,555.47	12.5%
6	Água Arroz	10,054.25	4.7%
7	Hospital Dr. Manuel Q. D. Graça (RAP)	76,506.02	36.0%
Total cost		212,575.21	100.0%

Rehabilitation of the Health Center / Post (WASH)

	Angolares	Trindade	Água Izé	Neves	Guadalupe	Água Arroz	Hospital Dr. Manuel Q. D. Graça (RAP)
Preliminary / Foundation	✓	✓	✓	✓	✓	✓	✓
Water and sewage	✓	✓	✓	✓	✓	✓	✓
Framing				✓	✓	✓	✓
Mortuary							✓
Roof	✓	✓	✓	✓	✓	✓	✓
Masonry	✓	✓	✓	✓	✓	✓	
Conditioning						✓	✓
Floors	✓	✓		✓	✓		✓
Drainage		✓					
Sanitary equipment	✓	✓	✓	✓	✓	✓	✓
Painting	✓	✓	✓	✓	✓	✓	✓
Waste	✓	✓	✓	✓	✓	✓	✓
Laundry							✓
Others	✓	✓	✓				✓