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PROJECT DOCUMENT
[São Tome & Príncipe]

Project Title: University of California Malaria Initiative: Baseline Data Collection, Evaluation and Engagement.

Project Number: 00131072

Implementing Partner: National Implementation Modality (NIM) with UNDP support

Start Date: June 2021 **End Date:** June 2023 **PAC Meeting date:** 27/05/2021

Brief Description

STP is considered a lower-middle-income country with an estimated Gross National Income (GNI) per capita of \$1,670 in 2014. Population below the poverty line was estimated at 66% in 2009 (WFS) and the country ranks 142nd of 188 countries on the human development index as of 2016.

Malaria is endemic in São Tome and Príncipe despite the significant achievements in its combat in the past. Malaria indicators showed important improvements between 2012 and 2016, with a reduction in the number of malaria cases, hospitalizations and deaths. However the trend has reversed after a decrease in malaria prevention activities since. The significant decrease of 76% in funding for malaria control between 2017 and 2019, calls for new approaches if STP is to reach its goals of malaria eradication by 2025.

The project supports the goals of the National Strategical Malaria Plan, by providing high quality research information about malaria spreading mosquito species and training National Program entomologists in the process, furthermore the project raises awareness through different activities including, university lectures and community education.

The project expected result is the availability of reliable research generated data about the malaria spreading mosquito *Anopheles gambiae* complex and current malaria control efforts to inform the development of new and more effective strategies for malaria combat. In addition, the project is expected to inform communities about malaria transmission and control methods which may help to reduce the number of infections and improve general awareness and understanding.

Contributing Outcome (UNDAF/CPD, RPD or GPD):

UNDAF/CPD Outcome 1: Disparities and inequalities are reduced at all levels through the effective participation of vulnerable and key groups, and the development and use by these groups of social protection and basic social services


Indicative Output(s) with gender marker²:

Output 1: Scientific data and analysis made available on Malaria vector species in STP (GEN1)

Output 2: Information and education provided to Community about UCIMI project, malaria transmission, and malaria control strategies (including genetic controls) to ensure awareness and understanding (GEN1).

Total resources required:	\$516,613	
Total resources allocated:	UNDP TRAC:	0
	Donor:	\$516,613
	Government:	0
	In-Kind:	0
Unfunded:	0	

Agreed by (signatures)¹:

Government	UNDP
Print Name: Minister of Health. Edgar Neves	K. Wawiernia Print Name: UNDP RR. Katarzyna Wawiernia
Date:  07.07.2021	Date: 02.07.2021

¹Note: Adjust signatures as needed

² The Gender Marker measures how much a project invests in gender equality and women's empowerment. Select one for each output: GEN3 (Gender equality as a principle objective); GEN2 (Gender equality as a significant objective); GEN1 (Limited contribution to gender equality); GEN0 (No contribution to gender quality)

I. DEVELOPMENT CHALLENGE (1/4 PAGE – 2 PAGES RECOMMENDED)

Sao Tome and Principe (STP) is an archipelago comprised of two main islands (Sao Tome and Principe) located in the Gulf of Guinea, 240 km West of Gabon with an estimated population of 198,481. STP is considered a lower-middle-income country with an estimated Gross National Income (GNI) per capita of \$1,670 in 2014. The country ranks 142nd of 188 countries on the human development index as of 2016.

The *A. Coluzzii* found in STP is an effective malaria vector and can spread the disease throughout the year, infections peaking during rainy seasons, making the threat of malaria on the islands constant. The disease especially affects children and pregnant women due to their weaker immune systems. And the situation is made worse by the gender disparity of poverty, which also negatively affects women's and children's health and limits their access to healthcare². The continued malaria endemic also negatively affects the whole country through increased health care spending, decreased productivity, reduced work days and poses a risk to development of tourism industry and its supporting sectors. The endemic also carries a more severe human cost in the form of miscarriages and deaths.

The development challenge the project intends to address is the evaluation of potential novel technologies in accordance with WHO guidance framework³ for uses in combination with traditional malaria control strategies to reduce malaria risks and eliminate malaria in STP. The country has had significant achievements in combatting malaria in the past, the malaria indicators showed important improvements between 2012 and 2016, with a reduction in the number of malaria cases, hospitalizations and deaths. During 2012–2016, malaria morbidity (incidence) dropped from 65.5 to 11.3 cases per 1,000 inhabitants, and malaria mortality decreased from 3.9 to 0.5 cases per 100,000 inhabitants. The test positivity rate also dropped, from 8.5 percent in 2012 to 1.8 percent in 2016.

However the trend has reversed after a decrease in malaria prevention activities due largely to the fact that current strategies rely on international funding and human behavior change and compliance. Existing control strategies alone are not financially sustainable without continuous increases in outside funding support. The significant decrease of 76% in funding for malaria control between 2017 and 2019, calls for new, low-cost, sustainable approaches if STP is to reach its goals of malaria eradication by 2025. Although located in three districts, malaria remains a major issue as the risk of spread still exists despite the measures taken to contain it. The Island of Principe, which had not reported more than 4 cases of S1 to S17 per year since 2014, has just reported 26 cases in 2019 among a population that has lost its protection. In addition, its proximity and links with the Island of Sao Tome, which hosts two epidemic districts (Agua Grande and Lemba), are factors that favour the spread of the epidemic. It should be noted that the total population of the three districts with malaria epidemics represents 50.66% of the country's population. The new situation calls for renewed action and change in malaria prevention strategy, especially as it is unlikely that previous levels of funding can be met again.

The project works within the larger National Strategic Malaria framework to eradicate malaria from STP by 2025. This will improve human health and improve the income-security of workers and farmers that might miss crucial events like harvests due to themselves or family members falling sick. Reducing malaria in STP will also improve the country's income security. The economic impact of increased malaria risk can negatively impact potential development investments in the country, specifically tourism. If the number of malaria cases continues to increase, or if death cases are

² Ricci, F. 2012. Social Implications of Malaria and Their Relationships with Poverty. *Mediterranean Journal of Hematology and infectious disease*

³ https://www.who.int/tdr/publications/year/2014/Guidance_framework_mosquitoes.pdf

reported and published on social networks, the tourism sector will likely suffer. Loss of efforts made to promote the tourism sector would also be felt by several other supporting sectors.

II. STRATEGY (1/2 PAGE - 3 PAGES RECOMMENDED)

The project supports the National Goal of eradicating Malaria on the islands by 2025 and preventing its reintroduction. UNDAF/CPD Outcome 1 “Disparities and inequalities are reduced at all levels through the effective participation of vulnerable and key groups, and the development and use by these groups of social protection and basic social services”. It will also contribute to the CPD Output 1.1: “Key and vulnerable groups, particularly children and women, use quality health services, within a legal framework and strengthened national systems”

As indicated, malaria prevalence has been increasing during the last few years, suggesting that the existing policies, strategies and methods of control are not yet effective for the achievement of malaria eradication objective. The challenges to address reducing the burden of malaria are complex and require multi-pronged approaches which are short, intermediate and long-term. These will support poverty reduction, address gender inequality and exclusion, and will be sustainable.

This justifies additional effort to identify new policies and methods that are adjusted to the conditions of the country and the genetics of the *Anopheles gambiae* complex mosquito. The data and information generated from research will provide a better understanding of the main vehicle of malaria transmission in the country, its patterns, behaviour, etc. enabling the design of more effective policies, strategies and methods of control. In addition, the data and information generated from research will be used to educate and inform communities on the most effective methods of mosquito control for malaria prevention.

Moreover, malaria has negative impact on workforce capacity as result of work days lost due to sickness of working adults or time spent in caring for sick members of the family, including children, especially by women. As consequence, it reduces the household income, reducing their livelihoods and increasing levels of poverty.

Therefore, by contributing to better prevention methods, and malaria control policies and strategies, the project may impact household health conditions, thus improving production and productivity capacity. A more productive workforce will contribute to household income, overall livelihood improvement and poverty reduction. In addition, the government expenditures on malaria treatment and hospitalization will reduce as the number of sick people reduce, and the resource savings can be allocated to other national priorities.

Socially and culturally, gender inequalities make it difficult for high risk groups, such as girls, women and children to access health care services; girls and women have low levels of literacy as compared to male (68%) and little decision making power within the family structure limiting their access to health services. The entire country is at risk of malaria, however, the most vulnerable groups are infants and young children and pregnant women⁴. Therefore, the project will contribute to improved education for these groups around one of the main public health challenges faced by them.

⁴ World Health Organization: Gender, Health and Malaria, 2007 and Ricci, F. 2012. Social Implications of Malaria and Their Relationships with Poverty. Mediterranean Journal of Hematology and infectious disease

The project will involve a research component that requires collaborative participation and partnership of the CNE and the PNLP team in the collections of adult and larvae mosquitos at multiple time points, from multiple sites on all islands 2-4 times per year to provide comprehensive information about mosquito ecology, biology and genetics. The data generated from these collections will include information about the prevalence of the insecticide resistance genotype, parasite infection status and blood meal sources. This research will also include mark, release, recapture studies that will provide information about mosquito dispersal and population size across the islands. Mathematical modeling will be conducted to establish an understanding of mosquito movements between the islands and nearest landfall (esp. Angola, Cameroon, Gabon and Ghana) to provide information about the risks of reintroduction of malaria from the mainland. At the end of year two, a free-mating colony of *Anopheles gambiae* complex will be established and local entomologists will have been trained in microinjecting embryos of the mosquitos. Mosquito data will be analysed at UC Davis and all results will then be shared with the STP stakeholders to provide evidence for future malaria prevention strategies, including genetic technologies. Mitigation methods of Malaria reintroduction from mainland will be suggested if the risk is identified.

Project management and oversight of the research component of the project will be supported by a UCIMI Field Station Manager who will be permanently located in STP during Year 2 and who will make regular trips to STP in Year 1. The UCIMI Field Station Manager will report directly to the UCIMI Principle Investigator at UC Davis, Greg Lanzaro. Any and all changes in the research strategy or timeline will be directly communicated to the UNDP and project partners (e.g. Health Ministry, CNE and PNLP) through the UCIMI Field Station Manager.

The project will also include a community education and engagement component intended to improve understanding and awareness, and ultimately support and understanding for alternative control methods. UCIMI and the Ministry of Health have developed a communication and engagement plan which will guide and direct the work during the next two years. This document is included as an appendix item to this document. This component requires the hiring and training of a UCIMI Project Community Engagement Focal Point who will be responsible for working directly with project stakeholders, UCIMI project leaders, community leaders and community educators in São Tomé and Príncipe, manage community assessments and community education and awareness activities related to malaria and the UCIMI project, identify community knowledge gaps and preferred communication pathways, and will act as a communication liaison between STP stakeholders, community, and the UCIMI project team. As communication with stakeholders and community members is critical for the success of this project, all specific engagement and communication activities will be reviewed and approved by the Ministry of Health, the STP Consultant and UCIMI Engagement Manager prior to implementation.

III. RESULTS AND PARTNERSHIPS (1.5 - 5 PAGES RECOMMENDED)

Expected Results

The main goal is to contribute to more effective and efficient methods, policies and strategies of malaria control. The project contribution will be through research and community education/awareness that will result in:

- Evidence based knowledge of the main vehicle of mosquito transmission in São Tomé and Príncipe, including the insecticide resistant genotype, parasite infection status and blood sources;
- Data driven proposal for the national malaria control strategy that includes proposed strategies for eliminating malaria in STP;

- Improved knowledge and awareness within the local population about malaria controls (including new genetic technologies) and transmission, which may help reduce the number of infections;
- Stakeholder and community understanding and support for use of genetic malaria control strategies in combination with existing controls to eliminate malaria in STP.

Resources Required to Achieve the Expected Results

In order to achieve the planned results, the project will need human resources, both for project management and technical work, as well as equipment and a variety of supplies.

The project management team will be constituted by: 1) **UCIMI/UNDP Project Coordinator** that will deal with day to day management of the project, and 2) **UCIMI/UNDP Community Engagement Focal Point** responsible for project communication and engagement activities in STP. Given the complexity of project management systems, the country office will provide support through the services of a (i) Finance Assistant that will assist in processing project related payments; (ii) Procurement Assistant, that will support with procurement of goods and services; (iii) and the Assistant Representative-Program that will be responsible for the overall project management oversight, quality control and communication with the UCIMI team.

The research component of the project will require the following human resources:

- 2 PNLN Entomologists (technicians) at 50% time who will conduct the insectary and laboratory work and who will participate in field collections.
- 6 PNLN technicians at 25% time (1 of these technicians will be resident in Principe) who will participate in the field collections and field research activities.
- Director of CNE administrative time for oversight and support of the PNLN activities
- Coordinator of the PNLN administrative time for oversight and management of the PNLN staff activities related to the project.

The entomologists and technicians working on the project will be assigned directly by the PNLN Coordinator. The project work required of the PNLN technicians will be outlined by the UCIMI/UNDP project team and will be approved by the Ministry of Health and the PNLN Coordinator.

The community education and engagement component of this project will require the following human resources:

- UCIMI/UNDP Community Engagement Focal Point at 100% time (40 hours per week) who will be directly supervised by the UNDP. The project work, deliverables and timeline for this position will be determined by the UCIMI Community Engagement Manager and the Ministry of Health. The UNDP will recruit for this position and the criteria for selection and scope of work for the position will be determined by UCIMI. UCIMI Management and the STP Project Consultant will participate in the selection of the final candidate for the position.
- Community Agents from each of the 7 health districts and Community Educators from an NGO may be asked to assist in specific education and engagement activities. The UCIMI/UNDP Community Engagement Focal Point will work directly with health district supervisors and the Director of the selected NGO to identify the number of agents/educators required, specific individuals who will work on the project and when, and for how much time. The UCIMI/UNDP Community Engagement Focal Point will be responsible for managing the work of any agents or educators selected to assist with project activities.

A vehicle will be purchased to enable project mobility, particularly for regular use by the UCIMI/UNDP Community Engagement Focal Point position, but also will be made available to support the normal administrative work required for the project and project activities.

A variety of supplies and equipment may be required for the research component of the project and, if needed, will be purchased for the implementation. UCIMI will provide UNDP with specifications (brand, model, item number) for all equipment and/or supplies required for the project.

The project will need adequate financial resources for its administrative services, including the purchase of office supplies, vehicle fuel, insurance, external service providers, and office space rental. Resources will be made available for administrative services and vehicle maintenance and fuel costs for project partners related to field activities.

Partnerships

This project is developed, and will be implemented, in partnership with the University of California, the project donor and responsible entity for technical direction of the research and engagement components, with UNDP responsible for the project implementation and management. The University of California will provide high quality malaria vector research, training and capacity building that can be used to develop effective malaria prevention/eradication strategies and policies as well as the identification of potential risks. The assumption is that the knowledge will be utilized and turned into political and programme action to help eliminate malaria from STP and prevent its reintroduction.

At the National level the Ministry of Health is the primary project partner, as the government entity responsible for health policies and strategy development, implementation and monitoring. In that regard, the Ministry of Health is responsible for granting any authorizations or clearances required to undertake the research and for providing guidance for compliance with national policies and regulations. The Ministry will be the recipient of the research results for further translation into policy.

At the local level the CNE will be an administrative and technical project partner in the implementation of field research activities. The CNE will be responsible for management and administration of the PNLP technicians working on the project, including the distribution of payments for completed project work. They will also make available vehicles for use by the PNLP technicians working on the project and will monitor needs and requirements of field research supplies and equipment. The CNE will also be responsible for distribution of payments (as needed) to Health District Delegates for any completed project work done by health agents or district delegates.

At the local level a local NGO will be a technical project partner in the implementation of select community engagement activities. The NGO will be responsible for management and administration of any NGO educators who are selected to work with the UCIMI Community Engagement Focal Point on community education and awareness activities.

In addition, the project will work with the STP Project Consultant who is contracted directly with the University of California, and local community leaders and residents for the community education and engagement component of the project.

Risks and Assumptions

As a malaria vector research project that will involve genotyping related aspects Information and education provided to Community about malaria transmission, and malaria control prevention strategies, faces inherent risks already identified, namely:

- **Opposition from public interest groups on research involving genetics:** If such reaction occurs, it may block the project or delay its implementation. In order to mitigate this risk, the project will, from the beginning, engage stakeholders that may be perceived as sensitive to the research in order to share information about the research project, its risks and benefits, the decision making process, and ensure participation in all key steps of the project;
- **Resistance to behaviour change:** It is not guaranteed that the acquisition of new knowledge by the population will result in behaviour change. This is the type of risk present in development interventions. The risk will be mitigated by extensive work with local communities, not limited to training/awareness, but also to continuous coaching and regular monitoring of the knowledge shared by the communities. The use of role models and leaders of opinion will be key to ensure behaviour change.
- **Malaria strategy and policy makers overlook the new data gathered:** UNDP and its partners, will advocate and lobby with the Government to ensure that the information and data gathered from research is used for policy formulation.
- **Limited Financial Resources:** The project is designed for two years, but the lag between the results of research and their transformation into development policies may take longer than expected. Therefore, UNDP, jointly with its key partners (Ministry of Health and University of California), will work to mobilize stakeholders to demonstrate potential and interest in funding future project activities.

Stakeholder Engagement

The primary project beneficiary is the Government of São Tomé and Príncipe, represented by the Ministry of Health and the National Health Institute. The Government will benefit by accessing high quality research data that will enable the formulation of appropriate policies and strategies to combat malaria. In addition, the government personnel working in research will have their capacity enhanced by their direct involvement in the research accompanying senior international experts. The Government will be engaged from the beginning as a partner of the project.

The secondary beneficiaries are the communities residing in the districts where the research will be conducted. The project will conduct awareness campaigns explaining the process and the benefits of the research in the fight against malaria. The awareness will include education campaigns on the most effective and efficient methods of malaria control at the community level.

By its nature, the project does not expect to have any significant social or environmental impacts. However, the project will identify community leaders that will serve as the focal points for the project activities with the main role of channeling any concerns or issues that may arise from the project implementation, especially its research component. Representatives of the communities will be invited to join the Project Board so that they are fully aware of the project activities and its results.

South-South and Triangular Cooperation (SSC/TrC)

The project does not involve specific SSC/TrC cooperation. However, by studying movement of mosquitos between the islands and nearest landfall (esp. Angola, Cameroon, Gabon and Ghana) the project may promote collaboration or information exchange with the research institutions of these countries, with potential for future collaboration in terms of policy formulation at the regional level. In addition, the University of California will collaborate with the University of Lisbon, Portugal to conduct the field work and capacity building activities, which, indeed creates a basis for future triangular cooperation between the US, Portugal and São Tomé. The project will make efforts to promote SSC/TrC, building from these initial relations to foster cooperation in the future on knowledge exchange, policies and strategy formulation, as well as on program implementation.

Knowledge

The main knowledge generated by the project will be the findings of genetic evaluations and genotyping of the malaria vector; parasite infection status, blood sources, mobility patterns of the *Anopheles gambiae* complex and other associated results of the **research**. These findings and respective policy recommendations will be systematized in a scientific report that will be published and accessible to all interested people. The findings may also be published in scientific journals.

Sustainability and Scaling Up

The research is a one-time effort, but its findings can support a large variety of malaria combatting efforts. This research is to provide foundational information required, by the government of Sao Tome and Principe and the UCIMI research team, to determine whether or not Sao Tome and Principe would be a suitable site for a field trial of a genetically modified mosquito for malaria elimination. If the STP government determines they want to conduct a field trial of a genetically modified mosquito, the research would continue for an additional period of time (likely a minimum of 5 years).

A field trial of a genetically modified mosquito in STP would provide advanced scientific information that is required for the advancement of this technology, not only in Africa but throughout the world. The application of the technology in STP would help ready the technology for field trials in more complex environments such as Madagascar and finally continental Africa.

The involvement of national technicians will enable the creation of a national cadre of experts in the application of research and surveillance methods and could serve as valuable resource for participation in future research, as well as in the analysis and use of generated data.

This phase of the project does not envisage a scaling up, given its nature, but the results will be used upstream for policy and strategy formulation, and future project design and implementation.

IV. PROJECT MANAGEMENT (1/2 PAGES - 2 PAGES RECOMMENDED)

Cost Efficiency and Effectiveness

The interventions that are part of the chosen strategy have been selected on criteria such as international evidence based experience and cost / effectiveness.

The University of California understands that conducting research, without full time physical presence, in a country like São Tomé and Príncipe, requires partnerships capable of providing expertise in the local culture, customs, beliefs, institutions, policies, and geography. In addition, the administrative structures required to manage and monitor the project could be costly and time consuming to establish. Therefore, the option to partner with UNDP for project management and oversight to work directly with the communities and local project partners, was found as the most efficient and cost-effective strategy.

The project will work closely with the GOVREC Portfolio within UNDP STP, especially in exchanging information on malaria in the country that can serve the research purpose, as well as possible resource pooling, including joint field missions and community work activities. The project will engage local community agents that work with the Health and Social Protection Management Unit to take advantage of the knowledge and capacities they already have, as well as their field presence to minimize costs.

Project Management

The Country Office of the United Nations Development Programme (UNDP) in São Tomé is responsible for executing the project and will report regularly to the Government of São Tomé and Príncipe and to the donor (University of California). Ministry of Health will implement the project through the National Implementation (NIM) modality with UNDP support based on the descriptions outlined in the Budget annexed to this Project Document.

In providing implementation support for Ministry of Health NIM, UNDP will work to ensure it remains consistent with its overall strategy in promoting national ownership and leadership, participation and transparency, advocacy, rights-based and multi-stakeholder approach. This will be ensured particularly through close collaboration with the Ministry of Health and through regular Project Board meetings chaired by the Ministry and outlined below in Section VIII of this Project.

The project will be based at UNDP premises, which will facilitate the shared communication infrastructure and general administration services. This will also facilitate UNDP project management oversight and technical advice, which will reduce project cost. In addition and as mentioned, the project will engage with the GOVREC Portfolio that is also based at UNDP premises, which will facilitate information exchange and resources pooling.

The project will be managed under UNDP procedures and regulations, including financial, procurement and human resources aspects. As such, it will be subject to normal UNDP audits as applied, specifically the HACT (Harmonized Approach to Cash Transfer) performed by external auditors and Management Audit, performed by UNDP Office of Audit and Investigation.

V. RESULTS FRAMEWORK⁵

⁵ UNDP publishes its project information (indicators, baselines, targets and results) to meet the International Aid Transparency Initiative (IATI) standards. Make sure that indicators are S.M.A.R.T. (Specific, Measurable, Attainable, Relevant and Time-bound), provide accurate baselines and targets underpinned by reliable evidence and data, and avoid acronyms so that external audience clearly understand the results of the project.

EXPECTED OUTPUTS	OUTPUT INDICATORS ⁶	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)			DATA COLLECTION METHODS & RISKS
			Value	Year	Year1 Q3 2021 – Q3 2022	Year2 Q3 2022- Q3 2023	FINAL	
Output 1 Scientific data and analysis made available on Malaria vector species in STP	1.1 Successful mark release recapture studies have been completed in ST	Project Reports	0	2020	3+	3	6+	Report that includes number of mosquitoes marked and released, number of mosquitoes collected each night, and the number of marked mosquitoes collected each night. Report should include detailed description of protocol followed.
	1.2 Successful mark release recapture studies have been completed in Principe	Project Reports	0	2020	2+	2	4+	Report that includes number of mosquitoes marked and released, number of mosquitoes collected each night, and the number of marked mosquitoes collected each night. Report should include detailed description of protocol followed.
	1.3 An established, self-sustaining colony of <i>A. coluzzii</i> in the PNLIP insectary	Project Reports	0	2020	1 successful colony	1	2	Monthly report detailing the successes and challenges in establishing the colony. Report should include estimated number of adult mosquitoes in the colony when report is submitted.
Output 2 Information and education provided to Community about UCIMI project, malaria transmission, and malaria control strategies (including genetic controls) to ensure awareness and understanding	1.4 Regular monthly larvae collections at pre-determined sites in Principe and Sao Tome.	Project Reports	0	2020	12	12	24	Report of specific numbers of larvae collected at each site and copies of all collection sheets.
	2.1 Community awareness activities completed for general malaria education UCIMI mosquito collection methods, and malaria control methods	Project Reports	0	2020	2+ activity in each health district	2+ activity in each health district	4+ activity in each health district	Participant sign in sheets, photos, written summary of events, and community leader validation
	2.2 Community assessment conducted evaluating understanding of malaria control and transmission	Project report	0	2020	1 assessment across all 7 districts by June 1 2021	-	Minimum 1 assessment across all 7 districts	Detailed report of assessment conducted including total number of participants from each site/community, completed assessment tools, and summary of findings. Summary to include identification of specific knowledge gaps. Assessment tool will be provided.
	2.3 Number of community educators trained in general malaria transmission, control, UCIMI project and communication and engagement techniques.	Project Reports	0	2020	Minimum of 2 in each health district, # TBD	-	Minimum of 2 in each health district, # TBD	Sign in sheet, training curriculum, agenda and activities shared, and educators passed quiz/exam

2.4 Community awareness activities completed for general malaria control methods and new methods including GEM and specific information about malaria transmission and the role of the vector	Project Report	0	2020	1+ activity in each health district	1+ activity in each health district	2+ activity in each health district	Participant sign in sheets, photos, written summary of events, and community leader validation
2.5 Assess community understanding of malaria transmission and control methods	Project Reports	0	2020	-	1 assessment conducted across all 7 districts	1 assessment conducted across all 7 districts	Detailed report of assessment conducted including total number of participants from each site/community, completed assessment tools, and summary of findings. Summary to include identification of specific knowledge gaps. Assessment tool will be provided
2.6 Provide awareness and education activities about the modified mosquito, what it is and how it works for malaria control	Project Reports	0	2020	-	2+ activities in each district	2+ activities in each district	Participant sign in sheets, photos, written summary of events, and community leader validation
2.7 Number of communities engaged	Project Reports	0	2020	-	ALL STP community leaders should be engaged	ALL STP community leaders should be engaged	Assessment of leaders understanding of project
2.8 Number of national media and education campaigns conducted	Project Reports	0	2020	1+	3+	4+	Detailed summary of campaign and audience engagement
2.9 Assessment of community support and understanding of GEM for the control of malaria	Project Reports	0	2020	-	1 assessment conducted that broadly covers the 7 districts and meets STP government requirement for community acceptance/or lack of acceptance of GEM technology	1 assessment conducted that broadly covers the 7 districts and meets STP government requirement for community acceptance/or lack of acceptance of GEM technology	Quantitative and qualitative data provided in a written report with summary findings and recommendations

⁶ It is recommended that projects use output indicators from the Strategic Plan IRRF, as relevant, in addition to project-specific results indicators. Indicators should be disaggregated by sex or for other targeted groups where relevant.

VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans:

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly	Slower than expected progress will be addressed by project management.	University of California	
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	-	
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	Annually	Relevant lessons are captured by the project team and used to inform management decisions.	University of California	
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	-	
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	Annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	University of California	
Project Report	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	Annually, and at the end of the project (final report)	Results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	-	

Project Review (Project Board)	<p>The project's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.</p>	Twice a year	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	University of California	
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Evaluation Plan⁷

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding

⁷ Optional, if needed

VII. MULTI-YEAR WORK PLAN ^{8,9}

EXPECTED OUTPUTS	PLANNED ACTIVITIES	Planned Budget by Year		RESPONSIBLE PARTY	PLANNED BUDGET		
		2021-2022	2022-2023		Funding Source	Budget Description	Amount
Output 1: Scientific data and analysis made available on Malana vector species in STP <i>Gender marker: 1</i>	1.1 Successful mark release recapture studies completed in Sao Tome	12 688	11 688	MoH	UCIMI	Insectary, fuel for activity, CNE admin costs & allowances	24 376
	1.2 Successful mark release recapture studies completed in Principe	12 688	11 688	MoH	UCIMI	Insectary, fuel for activity, CNE admin costs & allowances	24 376
	1.3 Establishment of a self-sustaining colony of <i>A. coluzzii</i> in the PNL ^P insectary	12 688	11 688	MoH	UCIMI	Insectary, fuel for activity, CNE admin costs & allowances	24 376
	1.4 Regularly monthly larval collections at pre-determined sites in Principe and Sao Tome.	12 688	11 688	MoH	UCIMI	Insectary, fuel for activity, CNE admin costs & allowances	24 376
	1.5 All project technicians, entomologists and University of STP partners will have access to English language classes	5 000	5 000	MoH	UCIMI	Training	10 000
Sub-Total for Output 1							
Output 2: Information and education provided to Community about UCIMI project, malaria transmission, and malaria control strategies (including genetic controls) to ensure awareness and understanding	2.1 Community awareness activities completed to provide general malaria education, UCIMI mosquito collection methods, and current malaria control methods.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925
	2.2 Community assessment conducted to evaluate understanding of malaria control and transmission	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925

⁸ Cost definitions and classifications for programme and development effectiveness costs to be charged to the project are defined in the Executive Board decision DP/2010/32

⁹ Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs require a formal budget revision that must be signed by the project board. In other cases, the UNDP programme manager alone may sign the revision provided the other signatories have no objection. This procedure may be applied for example when the purpose of the revision is only to re-phase activities among years.

Gender marker: 1	2.3 Community educators trained in general malaria transmission, control, UCIMI project goals, and communication and engagement techniques.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	2.4 Community awareness activities completed for general malaria control methods and new methods including GEM and specific information about malaria transmission and the role of the vector.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	2.5 Assess community understanding of malaria transmission and control methods.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	2.6 Provide awareness and education activities about the modified mosquito, what it is and how it works for malaria control.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	2.7 Conduct national media campaigns (TV and radio) in alignment with the community awareness activities	15000	15000	MoH	UCIMI	Media communication	30 000	
	2.8 Development of suitable educational materials for the communities in alignment with the awareness activities.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	2.9 Assessment of community support and understanding of GEM for the control of malaria.	7 067	7 067	MoH	UCIMI	Fuel, NGO & MoH admin/ allowances cost	13 925	
	Sub-Total for Output 2							141 397
	UNDP Technical Support							
	Project Salaries	49170	49170	UNDP	UCIMI	Salaries	98 340	
	Travel	15800	15800	UNDP	UCIMI	Travel expenses	31 600	
	PMU running costs, vehicle, office rental, IT materials	37991	17991	UNDP	UCIMI	PMU running costs (vehicle, office rental, IT materials)	55 982	
	Logistics	20500	20500	UNDP	UCIMI	Logistics, UPL, customs	41 000	
Sub-Total for Direct Project activities							226 922	
General Management Support								
	8%+1%	21551	19391	UNDP	UCIMI	GMS	40 790	
TOTAL USD							516 613	

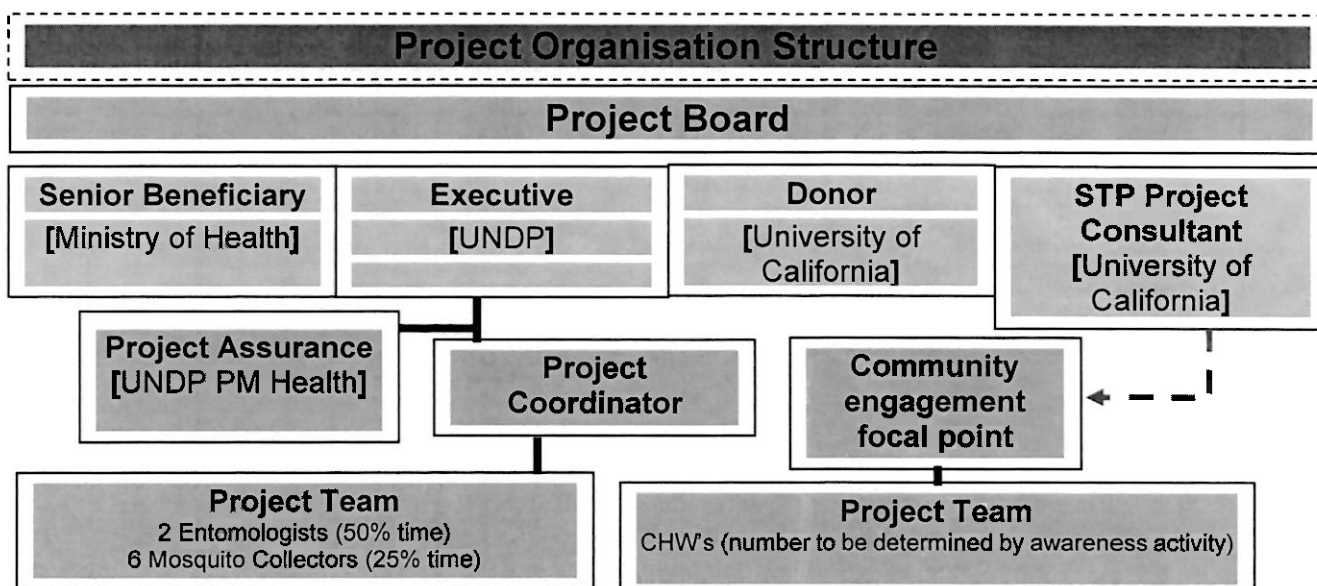
VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

This is a small project with a very simple management structure. As such, it will consist of one Project Coordinator and one Community engagement focal point, while the overall administrative support will be provided by UNDP. The Project Coordinator reports directly to the UNDP Project Manager for Health and Social Services and liaises closely with UNDP Country Office Deputy Resident Representative (DRR-Programme) and the Assistant Resident Representatives for Program, responsible for the project oversight and quality assurance. He/She will also work with the Assistant Resident Representative in charge of Operations on all operations related issues. In addition to the administrative support and oversight, UNDP will provide additional support to and on procurement, M&E, finance related matters.

The project governance structure, the Project Board, is responsible for the project strategic orientation, approved project annual workplans, reports and evaluations. The Project Board is composed by the selected members from UNDP, in its capacity as the implementation agent, the Ministry of Health as Senior Beneficiary, and the University of California as donor, and is chaired by the Ministry of Health. As needed, the Project Board can invite other entities to join the meetings, including the engaged local NGOs and representatives of targeted communities.

The Project Board meets every quarter and the Project Coordinator serves as the secretary of the board. As such, he is responsible for preparation of invitations and key documents to be discussed, as well as for minutes taking.

UNDP will follow standard approaches for Project Management to ensure good governance and effective monitoring as well as ownership of the project and related outputs by the beneficiaries. In line with UNDP's policy and rules, procurement planning will be done in parallel with the work plan and included in the UNDP Country Office consolidated procurement plan for 2020. This is now managed online using the platform known as Procurement Management Platform [PROMPT]. The system assists the programme and procurement team to track the procurement process, ensure seamless and timely availability of required project inputs. Most recently, UNDP has also rolled out the e-Tendering for the on-line management of all international competitive procurement valued at USD 150,000 and above. The use of the e-Tendering innovation became mandatory from 01 September 2019. It is in line with industry best practice to promote value for money and transparency in the procurement of good and services.



IX. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of São Tomé and Príncipe and UNDP. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by Centro Nacional de Endemias (CNE) ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

X. RISK MANAGEMENT

Option a. Government Entity (NIM)

1. Consistent with the Article III of the SBAA *[for the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
 - a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
 - b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.
2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.
3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder 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/sc/committees/1267/aq_sanctions_list.shtml.
4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.
 - (a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").
 - (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.
5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or

improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

- i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
- ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
- iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
- iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
- v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).
7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.
9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
10. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

11. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
12. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

13. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

14. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.
15. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
16. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XI. ANNEXES

- 1. Project Budget.**
- 2. Social and Environmental Screening Template** including additional Social and Environmental Assessments or Management Plans as relevant..
- 3. Risk Analysis.** Use the standard Risk Log template. Please refer to the Deliverable Description of the Risk Log for instructions.
- 4. TORs of key management positions.**
- 5. Monthly progress reports for CNE, Community Engagement Focal Point and any other community partner that is involved in the field activities.**