The Global Fund
To Fight AIDS, Tuberculosis and Malaria

STANDARD CONCEPT NOTE

Investing for impact against HIV, tuberculosis and malaria

A concept note outlines the reasons for Global Fund investment. Each concept note should describe a strategy, supported by technical data that shows why this approach will be effective. Guided by a national health strategy and a national disease strategic plan, it prioritizes a country's needs within a broader context. Further, it describes how implementation of the resulting grants can maximize the impact of the investment, by reaching the greatest number of people and by achieving the greatest possible effect on their health.

A concept note is divided into the following sections:

Section 1: A description of the country's epidemiological situation, including health systems and barriers to access, as well as the national response.

Section 2: Information on the national funding landscape and sustainability.

Section 3: A funding request to the Global Fund, including a programmatic gap analysis, rationale and description, and modular template.

Section 4: Implementation arrangements and risk assessment.

IMPORTANT NOTE: ***This template and its main tables may be slightly amended following decisions that are expected in early 2014.***

Applicants should refer to the Standard Concept Note Instructions to complete this template.

SUMMARY INFORMATION			
Applicant Information			
Country	**São Tomé and Príncipe**	**Component**	**Malaria**
Funding Request Start Date	**1st January 2016**	**Funding Request End Date**	**31 December 2017**
Principal Recipients	**United Nations Development Programme (UNDP)**		

Funding Request Summary Table

A funding request summary table will be automatically generated in the online grant management platform based on the information presented in the programmatic gap table and modular templates.

SECTION 1: COUNTRY CONTEXT

This section requests information on the country context, including the disease epidemiology, the health systems and community systems setting, and the human rights situation. This description is critical for justifying the choice of appropriate interventions.

1.1 Country Disease, Health and Community Systems Context

With reference to the latest available epidemiological information, in addition to the portfolio analysis provided by the Global Fund, highlight:

a. The current and evolving epidemiology of the disease(s) and any significant geographic variations in disease risk or prevalence;

b. Key populations that may have disproportionately low access to prevention and treatment services (and for HIV and TB, the availability of care and support services), and the contributing factors to this inequality;

c. Key human rights barriers and gender inequalities that may impede access to health services;

d. The health systems and community systems context in the country, including any constraints.

2-4 PAGES SUGGESTED

Summary of Concept Note

São Tomé and Príncipe (STP) is a small lower-middle-income country with a low human development index, with a population that was estimated at 187,604 in 2014 (*Instituto Nacional das Estatísticas*, INE). STP is classified as a country that is in a phase of moderate malaria control. The two islands of São Tomé and Príncipe have different epidemiological situations, with low transmission in São Tomé and very low transmission in Príncipe. The Island or Autonomous Region of Príncipe (RAP) was reported in 2014 as having an incidence of 0.39 cases per 1,000 inhabitants, which puts it close to pre-elimination.

STP was able to implement the 2001-2010 and 2012-2016 Strategic Plans thanks to grants and technical and financial support from a range of partners including the Global Fund. Implementing these plans led to changes in the epidemiology of malaria in STP, in particular a reduction of over 90 percent in reported cases between 2001 and 2014, with fluctuations in 2012-2013. Currently, STP has 9.3 malaria cases per 1,000 inhabitants. The rate of positive rapid diagnostic tests (RDTs) is 1.9 percent and mortality fell to zero cases in 2014. These results were due to a combination of interventions, including indoor residual spraying (IRS, current coverage 80 percent), distribution of long-lasting insecticidal nets (LLINs, with 100 percent coverage). Larval control features among vector control measures. 100 percent of larva breeding sites have been treated with Bacillus thuringiensis var. israelensis (BTI). Malaria cases are managed by a properly trained health care team. Diagnosis is by RDT. If this is positive, a thick blood smear is obligatory. In accordance with the national protocol, Artemesinin-based Combination Therapy (ACT) is used as a first-line treatment. All cases of malaria are monitored for 28 days by health care workers.

The program is currently primarily funded by the Global Fund. Between 2005 and 2015, STP will have received a total of USD 18,491,338 in approved grants (Rounds 4 and 8 and Single Stream Funding/SSF). This shows that the national response is highly dependent on the Global Fund. In December 2014, the mid-term evaluation of the National Strategic Plan for 2012-2016 (Annex 28) showed that there were weaknesses that could affect the program's performance. This resulted in recommendations designed to boost efforts against malaria. These recommendations included having the Government make available

additional resources (e.g. human resources, operating expenses budgets), and the mobilization of additional resources from the Global Fund and other partners.

While awaiting these additional resources, São Tomé and Príncipe has funding gaps and dwindling national resources, and it is against this background that the country is making a funding application to the Global Fund as part of the New Funding Model (NFM). To fill the identified gaps and to make an impact in the coming years, a sum of **USD 5,764,618** is being requested from the Global Fund. This sum will fund the following priority modules and interventions that are part of the Strategic Plan 2012-2017 of the National Malaria Control Program (in French, *Programme national de lute contre le paludisme*, PNLP, Annex 4):

- ✓ Vector control (IRS, LLIN at antenatal consultations)
- ✓ Management of malaria cases (ACT and RDT)
- ✓ Monitoring and evaluation
- ✓ Community systems strengthening
- ✓ Program management

Specific areas of action:

- Improve coverage of IRS and LLIN to ensure that 90 percent of the at-risk population has at least one effective malaria prevention method
- Detect 100 percent of malaria infections at all levels, with high-quality laboratory diagnosis, and treat such cases appropriately according to the STP national protocol
- Strengthen the epidemiological and entomological monitoring system and monitoring and evaluation nationally, and the detection of and response to epidemics
- Improve social communications so that the population of STP can access at least 80 percent of anti-malaria interventions
- Build institutional, technical and management capacity at the *Centro Nacional das Endemias* (CNE) and of the PNLP at all levels
- Provide suitable grant management under the control of the Principal Recipient (UNDP), which has substantial experience in managing Global Fund grants.

Implementing these priority interventions will enable São Tomé and Príncipe to:

- Increase the coverage of anti-malaria measures
- Strengthen actions that ensure that malaria mortality remains zero and reduce incidence from 9.3 per 1,000 inhabitants in 2014 to 2 per 1000 in 2017.
- With time, adjust the approaches that are not giving satisfactory results, and evaluate the program's impact.
- Strengthen the program's monitoring and evaluation system
- Strengthen program management

Overview of São Tomé and Príncipe

São Tomé and Príncipe (STP) is an archipelago that is made up of two main islands (São Tomé and Príncipe). It is situated in the Gulf of Guinea, to the north-west of Gabon. Its population was estimated at 187,604 inhabitants in 2014 (INE). According to the 2012 general census of population and housing (RGPH), 43.5 percent of the population were aged under 15 years and 63.4 percent lived in urban areas. The annual growth rate is 2.45 percent. It ranks 144th out of 187 countries on the UNDP's Human Development Index (HDI), with a gross national product (GNP) of USD 1,805 per capita. This GNP puts it in the category of lower-middle income countries with a low level of human development. STP has 6 districts within the island of São Tomé, and the island of Príncipe has held the status of Autonomous Region since 1995.

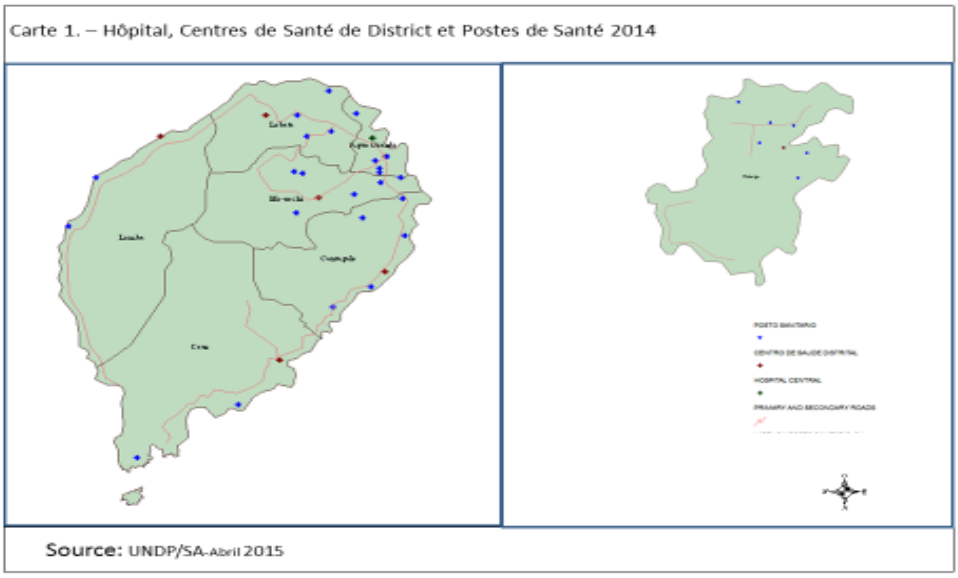
How malaria control is managed in São Tomé and Príncipe

Table 1: Health care facilities and management of malaria cases

Level	Health care services
Central/Sáo Tomé	Hospital: Dr. Ayres de Menezes (HAM)
Peripheral	1 Hospital/Autonomous Region of Príncipe 6 Health centers 30 Health posts 22 Community health posts

The PNLP is organized around the São Tomé and Príncipe health care system (Table 1) with a central co-ordination unit and the Dr. Ayres de Menezes Hospital (HAM). The peripheral level includes district health centers where operate Malaria Focal Points responsible for implementing PNLP activities in each district. All districts manage malaria patients and partake in health promotion and prevention activities. In total, 22 community health posts, 30 health posts, 6 district health centers and two hospitals (HAM and Príncipe regional hospital) are currently involved in anti-malaria activities. The geographical distribution of health care units is shown in the following figure.

Figure 1: Distribution of health care facilities in São Tomé and Príncipe



The geographical distribution of health units is consistent with the areas of concentration of the population in the two islands. The districts of Caué and Lembá, respectively, located in the north-west and south-west of the island of São Tomé, like the island of Préncipe, are mountainous and sparsely populated areas. Moreover, the population of the two islands live more in coastal areas.

a) Epidemiology of Malaria in São Tomé and Príncipe

São Tomé and Príncipe is considered to be **in a control phase with low malaria transmission**. Implementation of the 2001-2010 and 2012-2016 Strategic Plans has resulted in changes in the epidemiology of malaria in this country, and in particular in a 90 percent reduction in the number of cases

reported between 2001 and 2014 (Figure 1). There are, however, fluctuations, and there are still differences between the two islands, which are described below.

National situation

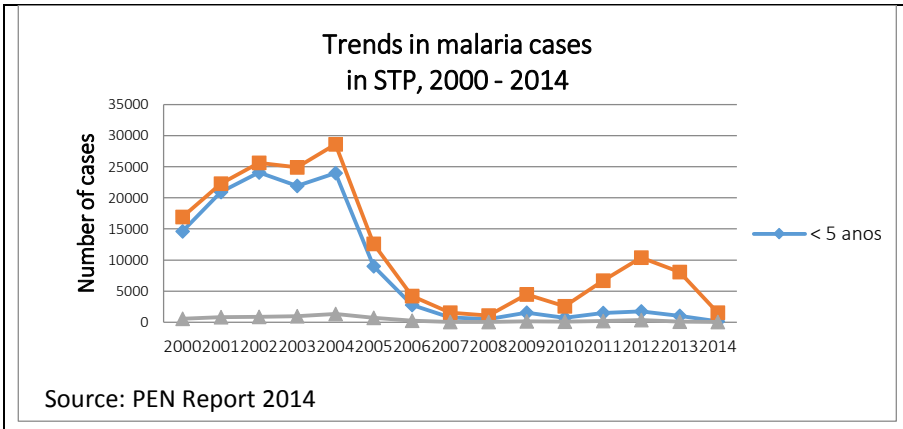
Anopheles gambiae is the vector for malaria transmission in STP. A proportion of this species displays exophagic and exophilic behavior. It has reduced sensitivity to pyrethroids and organochlorides, and has been found to be sensitive to carbamates and organophosphates (Annex 6, Cuamba Report 2012, pages 11-13). According to data from the Centro Nacional das Endemias (CNE - National Endemic Disease Center) the four species of *Plasmodium* that infect humans (*Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*) are all present in STP, with the predominant species being *Plasmodium falciparum* (> 99 percent, Annex 18, Global Malaria Report 2014). Data from patient follow-up show that *Plasmodium falciparum* is sensitive to ACT (Annex 9, R*elatorio de seguimento de casos de paludismo em STP*, 2015). Malaria transmission occurs throughout the year, with a peak incidence in the periods November-January and May-June.

As shown in Figure 2 below, the number of malaria cases fell from over 30,000 cases in 2004 to around 9,261 cases in 2013 (Annex 18, Global Malaria Report 2014). In recent years, malaria has become hypo-endemic in STP. This is the result of intensified and integrated implementation of key interventions, in particular:

- Indoor residual spraying (IRS)
- Distribution of long-lasting insecticidal nets (LLIN)
- Larval control
- Management of the disease using artemisinin-based combination therapies (ACT)
- Intermittent preventive treatment (IPT)
- Behavior change communication (BCC).

A large reduction in malaria cases was observed between 2005 and 2007, and there were fluctuations from 2009, particularly in those aged over 5, with a peak of cases in the period 2012-2013. This peak in 2012-2013 was caused by several factors, particularly a delay in IRS, resistance to Alphacypermetrin and a stock-out of LLINs. Conversely, a large reduction was seen between 2013 and 2014, after a new insecticide (Bendiocarb) was introduced. Using the same epidemiological monitoring system that was used in the Global Malaria Report 2013, **the PNLP recorded 1,754 cases in 2014: a 81.4 percent reduction from 2013 levels.** This data will be used in the Global Malaria Report 2015.

Figure 2: Trends in new malaria cases in STP, broken down by age (under 5 years, over 5 years) and in pregnant women, Jan 2000 - Dec 2014.

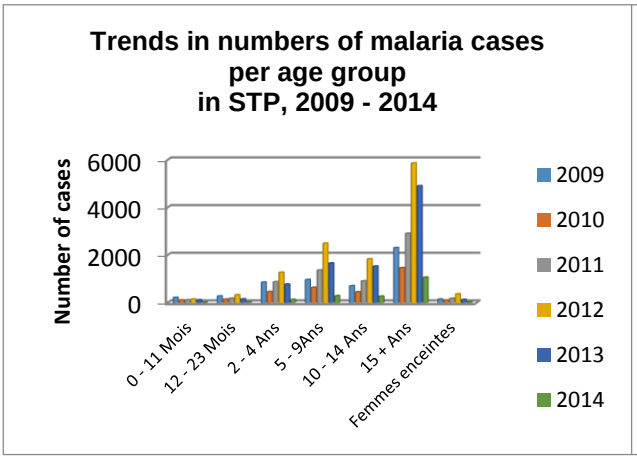


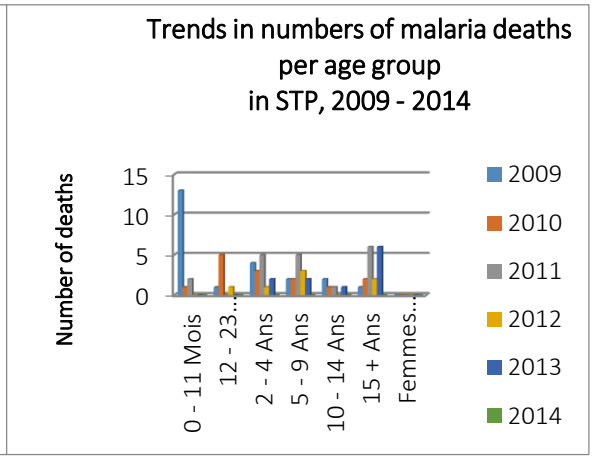
Source: PEN Report 2014

Recent data show that the annual incidence of malaria fell from 38.4 cases per 1,000 inhabitants in 2009 to 9.3 cases per 1,000 inhabitants in 2014. There has also been a clear reduction in malaria-linked morbidity and mortality, which fell from 14 per 100,000 deaths in 2009 to 0 (zero) deaths in 2014. (Figures 3 and 4).

***Figure 3**: Trends in numbers of malaria cases per age group and among pregnant women in STP, 2009 - 2014*

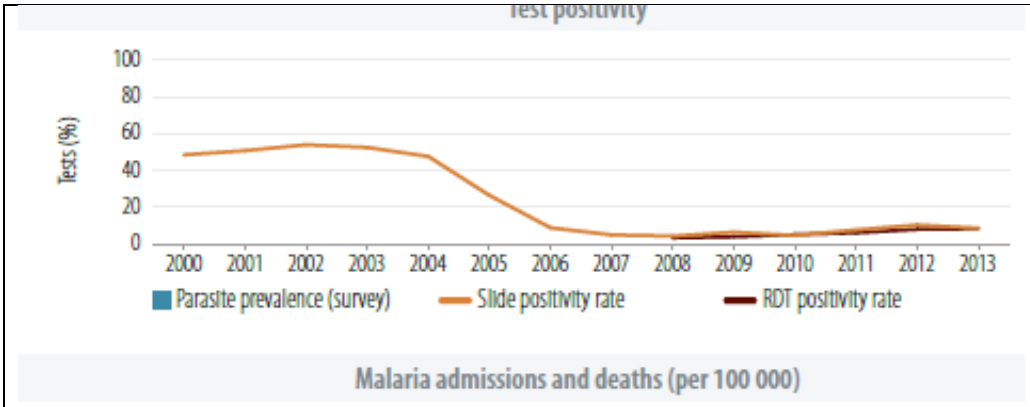
***Figure 4**: Trends in numbers of deaths from malaria per age group and among pregnant women in STP, 2009 - 2014*





Finally, the national rate of positive smears fell from 5.2 percent in 2009 to 1.9 percent in 2014, which is a 63 percent reduction over 5 years (see Figure 5, below). Overall, in 2014, all districts recorded a positive smear rate of less than 3 percent. Over the past two years, Príncipe has seen a rate of less than 1 percent.

Figure 5: Rate of positive smears, 2000 - 2013



Source: Global Malaria Report 2014

Distinctive features of the two islands of São Tomé and Príncipe

According to the available epidemiological data (administrative data from the PNLP) the two islands that make up São Tomé and Príncipe are facing two different epidemiological situations. Using data from the table "Malaria surveillance in different transmission settings and phases of control" (Annex 19, *Disease surveillance for malaria elimination, WHO, page 15),* these two epidemiological situations can be described as follows:

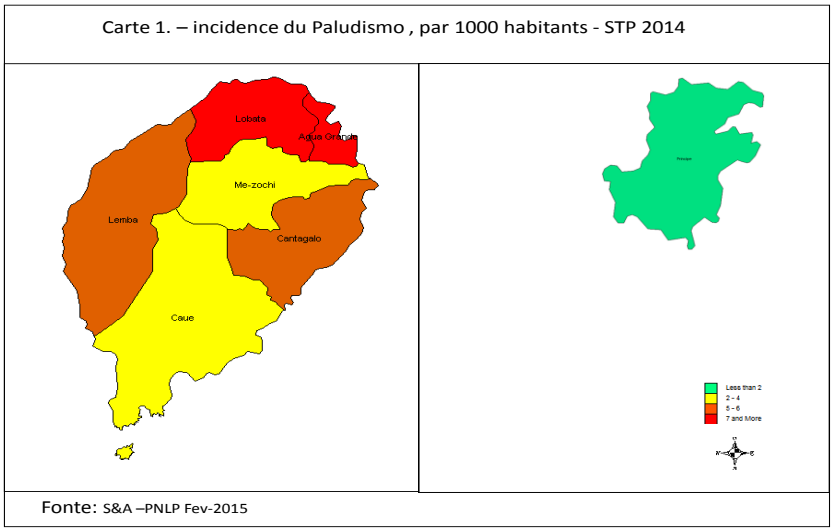
Table 2: Epidemiological features of the two islands of São Tomé and of Príncipe

	São Tomé	Príncipe	Source
Epidemic phase	Control	Pre-elimination	
Malaria transmission	Low	Very low	
Parasite prevalence (less than 5 years old)	Between 0.1% et 0.2%	0%	2014 MICS Report
Parasite prevalence (2-9 years old)	0.5%	0%	2014 Malaria metrics survey data
Incidence	Georgraphical heterogeneity (Figure 6 below)	Imported cases account for a high proportion of the total : 5 out of 8 cases	PNLP data 2014
	Cases and deaths become less common	Sporadic cases : 3 « native » cases in 2014 (i.e. non imported)	
	Cases and deaths are not concentrated but mais distributed according to exposition (Figure 3 and 4)		
	Risk of epidemics (ref. pic of 2012, Figure 2)		
	Variations across the years (Figure 2)		

São Tomé

The island of São Tomé has a surface area of 859 km^2, with a population of 179,975 (INE-Design 2014) and an average population density of 210 inhabitants/km^2. Malaria incidence is not uniform across districts. In 2014, the incidence ranged from 3.7/1000 (Me-zochi) to 15.5/1000 (Agua Grande). According to Table 2 above, São Tomé is in a **low transmission control phase.**

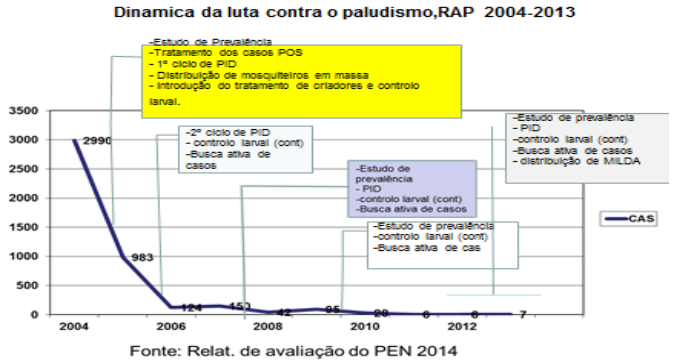
Figure 6: Incidence of malaria per 1,000 inhabitants by district, STP 2014

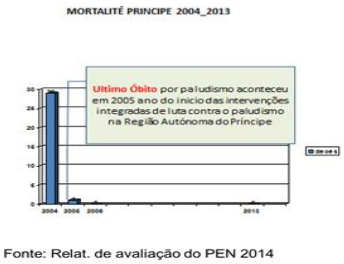


The island of Príncipe

The island of Príncipe (RAP) has a surface area of 142 km^2, with a population of 7,629 (INE-Design 2014) and an average population density of 54 inhabitants/km^2. Despite the similarity between São Tomé and Príncipe in terms of vectors and parasites, disease intensity has historically been lower in Príncipe. As a result of the interventions, and given the significant reduction in positive smear rates, RAP qualified for admission to the pre-elimination program (Annex 16, Malaria Performance Review Report, 2011). In 2013, a prevalence study involving 90.8 percent of the population showed a rate of positive cases of 0.1 percent (Annex 8, *Relatorio Busca Activa* 2013). In 2014, the island of Príncipe reported an incidence of non-imported cases of 0.39 per 1,000 inhabitants (Annex 7, Programme Mid-term Review Report, RRMP, 2014). Since 2006, Príncipe has recorded no deaths from malaria. Figure 5 below shows the changing response to malaria in STP.

Figure 7: Changes in malaria control, Autonomous Region of Príncipe, 2004-2013





According to characterization provided in Table 2, the island of Príncipe is in **pre-elimination phase, with a very low rate of malaria transmission.** The epidemiological context described above results in overall measures on the country level and specific measures for the island of Príncipe, some of which are put forward in this Concept Note.

b) The issue of key populations

In São Tomé and Príncipe the whole population has free of charge access to diagnosis, treatment and preventive measures for malaria, regardless of origin, gender, ethnicity and social status. Malaria care is guaranteed to be free of charge by ministerial decree in STP. Nevertheless, at the mock Technical Review Panel (TRP) in Kampala (February 2015) the São Tomé delegation was advised to address the issue of key populations from the point of view of access to services. As a result, the national dialogue process included consultation with service users with the aim of identifying barriers to access. This consultation was done in two phases (11 and 14 March 2015) and was led by the Red Cross as one of the two members of the Malaria Task Force representing civil society.

The first phase took the form of a consultation workshop bringing together representatives from 18 NGOs that are involved in STP. The second took the form of interviews at grassroots level with inhabitants of three locations chosen at random (Praia Gamboa, Bairro da Liberdade and Cruzeiro). These two phases of dialogue did not reveal any barriers to access, and did not show that there were any groups whose rights to access to prevention and treatment were not respected. Quite on the contrary, the dialogue confirmed that all residents have free access to health care. There are therefore no key populations in terms of human rights or access to services in STP. A report by the Red Cross, the organization that arranged this dialogue, is attached to this concept note (CN, Annex 1).

c) Key human rights barriers and gender inequalities that may impede access to health services

In STP, human rights barriers and gender inequalities do not apply to access to malaria services. Anti-malaria activities cover all districts of São Tomé and Príncipe. Management is standardized for all patients, regardless of the area in which they live, nationality, ethnicity, gender or religion. There are no barriers to access to care based on gender, and women do not have less access to services. Data on febrile cases from 2014 show that 52,535 women and 39,509 men sought help from health care services (source: PNLP).

d) Health systems and community systems, including any constraints

The national health care system includes public and private health services, activities and organizations, on a national, district and community level (Annex 5, National Health Development Plan 2012-2016). It has organizational failings, structural weaknesses, is financially fragile and has inadequate management practices. After analysis of the following pillars of health systems strengthening as recommended by WHO, the following constraints were observed:

"Service Delivery" pillar

The country has good health care services coverage. 95.5 percent of the population is less than one hour on foot from a health care facility (Annex 44, report of survey on Access to Essential Medicines, 2008). According to the Survey of Household Budgets (IOF 2010, INE), 82.1 percent of health care services are provided by public sector health care facilities (hospitals, health centers and health posts). 13.6 percent of health care services are provided by the private sector. The private sector is not in an advanced stage of development, and consists of an informal private sector and an authorized private sector. The authorized private sector involves 11 clinics and 23 pharmacies. Given the current epidemiological situation, management of malaria cases is mainly done in the public sector, and private facilities refer suspected cases to public sector facilities. No information is available about the informal private sector, which consists of traditional healers, market traders selling drugs, unauthorized private medical and nursing clinics.

All public health care facilities have access to RDTs and ACT. Since 2005, these have been available in all public health care facilities and since 2008 they have been free of charge. Facilities also have quinine for serious cases and SP for intermittent preventive treatment (IPT), provided by the Government and UNFPA. The case management protocol prohibits the use of monotherapy (Annex 51). In practice, the Report on diagnosis and treatment of malaria cases (PNLP, 2014) shows that 100 percent of cases were treated according to the national protocol, using the drugs recommended in this protocol. This means that service providers are not using ACT as monotherapy. Marketing authorization for all artemisinin-based oral monotherapies was officially withdrawn in 2015 (Annex 51).

"Human resources" pillar

In São Tomé and Príncipe, there are 32 doctors per 100,000 inhabitants, and for nurses this ratio is 226/100,000. The global averages for these figures are 146 and 334 respectively. These data from the National Health Development Plan (in French, *Plan national de développement sanitaire*, PNDS, 2012-2016 Annex 5) show that there is a lack of health care professionals. In the category of diagnostic and pharmacy support staff, there are 45 laboratory technicians (23.9/100,000), 14 microscopy technicians (7.4/100,000) and 48 pharmacy technicians (38/100,000). There are two (2) pharmacists in STP.

In addition, there is great instability in the health care workforce because of internal and external mobility, caused by poor pay and lack of incentives. As an illustration, the staff working for the PNLP is made up of 34 professionals who are entirely paid from Global Fund grants. The Government is currently establishing strategies to increase its income in order to meet the cost of anti-malaria measures. However, during the period covered by this concept note and in view of STP's economic situation, the Government is not yet able to cover the salaries of these PNLP posts, which are essential to the program's success.

To fill skills gaps and to meet the requirements of a program that is heading towards pre-elimination of malaria, the following additional types of training are required: (i) epidemiology; (ii) malaria strategic information management; (iii) malaria case management; (iv) environmental management and (v) insecticide waste management.

"Health Information" pillar

The Ministry of Health has a National Epidemiology and Statistics Service that is responsible for the management of health information. This service, together with the relevant Directorates and Programs, has adopted a set of standardized indicators that are used in the Health Information System (SIS). The service regularly organizes capacity building for monitoring & evaluation officers at district and central level. It has an Excel database for data processing and analysis, which does not enable the SIS to perform optimally.

For routine data, activity data and epidemiological monitoring data, there are harmonized data collection tools at all levels in the health system. For data that cannot be collected via the routine system, specialist surveys/studies are organized from time to time by each Program in order to collect information. Staff who are responsible for statistics in the districts and centrally are provided with computer equipment for data entry, processing and analysis. This equipment is not available in health posts. Health posts do not have the network connections that would be required to transmit data to the district and central level for centralization purposes. Data are validated at the end of every month by district representatives before being transmitted to the national epidemiology service. Reports are 100 percent on-time and complete in

all districts (PNLP Report 2014). A meeting is held at the ministry every three months to validate health information. In some districts, data from the private sector is not transmitted regularly.

"Technologies and essential medical products" pillar

The National Drugs Fund (FNM) is the Ministry of Health body responsible for assessing drug and health product needs, and for purchasing, storage and distribution of these to public health care facilities. Its staffing levels are insufficient.

Estimates of needs for antimalarial and other inputs are done by the PNLP based on epidemiological data and historical consumption data from previous years. It has been noted at national level that there are weaknesses in quantification, which could lead to stock-outs and/or risk of product expiration. That said, there have been no stock-outs of ACT or RDTs in the supply chain since 2012. STP's partners provide support for the purchase of drugs for uncomplicated malaria cases. The Government purchases quinine for severe cases of malaria and UNFPA purchases sulfadoxine pyrimethamine (SP) for IPT, as stated above.

Drugs are distributed via requests submitted to the FNM, which are validated by the PNLP. Stock monitoring is done via monthly stock reports that are shared by the FNM. Storage conditions in health districts have been described by the Local Fund Agent (LFA) as being inadequate (February 2014). A Plan for quality assurance for pharmaceutical products throughout the procurement cycle was developed as part of the UNDP/Global Fund project in 2014. Although this Plan has not yet been fully implemented, some quality control is being carried out. Management of stocks of IRS products and equipment was delegated by the UNDP/GF project to the FNM in December 2014 as part of the "Bendiocarb Action Plan" drawn up jointly by the Global Fund and UNDP. By dividing up responsibility for storage and distribution of insecticides, this Plan boosted the FNM's capabilities in terms of its warehouses' conditions, equipment, security and in terms of its personnel.

IRS waste products are an increasing problem that requires urgent management, in terms of prevention, storage, reduction of environmental impact or destruction. The malaria programme generates between 2 and 3 cubic meters of waste every month, or nearly 40 m^3 per year. The insecticide warehouse used for the UNDP/GF Project contains large quantities of insecticide, some of which has expired. In addition, in Sao Tomé, there is approximately 120 m^3 of stored waste that could potentially be incinerated (Annex 24, Visavet Report, UNDP/GF Project, August 2014).

"Health system financing" pillar

According to the INE's 2010 IOF, 65.6 percent of the budgets of the poorest households are spent on medications and other treatments. Aside from household budgets, there are four main sources of health system financing: the public authorities, health insurance, the private sector and international aid. 14.12 percent of the Government's budget is allocated to health (Overall State Budget (OGE-STP) 2014). STP does not have a policy or strategy document governing health system financing. With support from the Global Fund, all services, drugs and consumables used in the management of malaria cases are available free of charge throughout the country. Between 2012 and 2014, the São Tomé and Príncipe government made available 17 percent of the health care budget to the PNLP for malaria control purposes. The Government's contribution is used to cover operating costs of public buildings and staff salaries.

"Infrastructure and Equipment" pillar

The general health infrastructure in São Tomé and Príncipe is deteriorating. Most of it dates from the colonial period (the 1800s) and has not been regularly maintained. In some districts, health infrastructure

was built more recently by the Government, with assistance from partners. Some medical and laboratory equipment used in malaria control was recently purchased as part of the UNDP/GF project. However, throughout the health care system, medical equipment for treatment and diagnosis is obsolete and requires urgent replacement. The lack of a logistics department to carry out routine preventive maintenance, excessive use and a lack of spare parts all reduce the useful lifespan of such equipment. In addition, the fact that various makes and models of equipment are used causes problems in purchasing accessories, spare parts and consumables, as each model has specific requirements. All national facilities (central hospital, district hospital, health centers and community posts) carry out RDTs for the diagnosis of malaria. However, microscopy is not available in all health care facilities, because 15 percent of facilities lack microscopes.

Community systems

The community involvement approach was adopted in the STP health sector in the 1980s. This was later strengthened as part of the Bamako initiative, which was introduced in STP in 1995. Following the failure of the Bamako Initiative in STP, community health agents (in French, *agents de santé communautaire*, ASC) were converted into auxiliary service providers in the health care service, to compensate for the lack of nurses. From 2005, malaria activities were officially included in ASC work. ASC are raising awareness among communities, helping with patient follow-up and referring suspected malaria cases. From 2016, it is expected that ASC will perform malaria diagnosis by TDR and contribute to the treatment of simple malaria cases in all age groups. Besides malaria, ASC are already involved in home-based monitoring of tuberculosis patients on treatment (directly observed therapy, DOT) and of people on antiretroviral treatment of HIV / aids. NGOs involved in the UNDP / Global Fund Project such as Cruz Vermelha and Zatona Adil involve ASC while implementing their outreach activities. Part of ASC are involved in integrated management of childhood illnesses (IMCI, management of diarrhea, pneumonia).162 ASC have been trained since 1995, of whom 120 are currently working. The 22 community health posts are run by ASC, most of whom are volunteers. ASC wages are not paid by the Government. Aside from ASC, the community and association sector is brought together in a Federation of NGOs (FONG). The NGO/CBO sector is characterized by organizational weaknesses.

1.2 National Disease Strategic Plans

With clear references to the current **national disease strategic plan(s)** and supporting documentation (include the name of the document and specific page reference), briefly summarize:

a. the key goals, objectives and priority program areas;

b. implementation to date, including the main outcomes and impact achieved;

c. limitations to implementation and any lessons learned that will inform future implementation. In particular, highlight how the inequalities and key constraints described in question 1.1 are being addressed.

d. the main areas of linkage with the national health strategy, including how implementation of this strategy impacts the relevant disease outcomes;

e. For standard HIV or TB funding requests[1], describe existing TB/HIV collaborative activities, including linkages between the respective national TB and HIV programs in areas such as: diagnostics, service delivery, information systems and monitoring and evaluation, capacity building, policy development and coordination processes;

f. country processes for reviewing and revising the national disease strategic plan(s) and results of these assessments. Explain the process and timeline for the development of a new plan (if current one is valid for 18 months or less from funding request start date), including how key populations will be meaningfully engaged.

4-5 PAGES SUGGESTED

In connection with the PNDS 2012-2016 (Annex 5), the long-term vision of the National Malaria Strategic Plan 2012-2016 (NMSP), Annex 28), and its extension into 2017 (Annex 4), is to make São Tomé and Príncipe a malaria-free country (p. 22).

a) Main goals, objectives and priority program areas

Goal: To step up the fight against malaria with a view to eliminating malaria in São Tomé and Príncipe

General objective: To reduce malaria incidence to less than 5 per 1,000 inhabitants in São Tomé and to less than 1 per 1,000 in the Autonomous Region of Príncipe. **Specific objectives** of the revised NMSP 2012-2016 are:

- Between now and 2016 (extended to 2017), strengthen institutional, technical and management capacity of the PNLP at all levels
- Between now and 2016 (extended to 2017), detect 100 percent of malaria infections at all levels, with high-quality laboratory diagnosis, and treat such cases appropriately according to the STP national protocol
- Between now and 2016 (extended to 2017), ensure that 90 percent of the at-risk population has at least one effective malaria prevention method
- Between now and 2016 (extended to 2017), strengthen the epidemiological and entomological surveillance system and monitoring and evaluation nationally, and the detection of and response to epidemics
- Between now and 2016 (extended to 2017), ensure that at least 80 percent of the population of STP has access to anti-malaria interventions

[1] Countries with high co-infection rates of HIV and TB must submit a TB and HIV concept note. Countries with high burden of TB/HIV are considered to have a high estimated TB/HIV incidence (in numbers) as well as high HIV positivity rate among people infected with TB.

Table 3. Priority areas and interventions

Priority areas	Interventions
Programme management	1. Capacity-building
	2. Development of policies, norms and guidelines
	3. Strengthening of partnerships and coordination
	4. Procurement and supply management system
	5. Strengthening of financial management
	6. Advocacy for resource mobilization
Adequate malaria case management	1. Adequate case diagnostic and treatment
	2. Radical treatment with Primaquine
	3. Ongoing training for personnel
	4. Strengthening of the quality control system
	5. ASC involvement in case management
Malaria prevention	1. Integrated vector control
	2. Intermittent preventative treatment
	3. Chemoprophylaxis for travelers from Principe
Epidemiological and entomological surveillance, M&E, early detection and response to epidemics	1. Malaria case detection, investigation and reporting
	2. Active search, investigation and classification of cases
	3. Research, investigation and classification of focal areas
	4. Early detection and responses to epidemics
	5. Operational research
Communication	1. Advocacy
	2. Social mobilization
	3. Behavior change communication

b) Main outcomes and impact achieved

Implementation of the National Strategic Plan for Malaria 2012-2016 has accelerated anti-malaria activity, with use of internal resources and mobilization of resources from technical and financial partners including the Global Fund.

Program Management

The following program management results have been observed:

- 86 percent of central and regional doctors and technicians were trained in the management of malaria in 2013 (321/375)
- 100 percent of technicians at district and central level have been trained in the management of anti-malaria programs
- 95 percent of district epidemiology officers and workers involved in vector control have been trained in strengthening and implementing a system for detecting and identifying cases in the community (22/23)
- Advocacy for the involvement of national and regional authorities has taken place
- The program's capacity in terms of equipment and infrastructure used in malaria control has been strengthened

Case management

The program recommends diagnosis of all suspected malaria cases and treatment of confirmed cases that attend a health care facility according to the national protocol. An active search was carried out in the Autonomous Region of Príncipe and the districts of Caué and Lembá for each diagnosed case of malaria (by positive RDT). Such searches consist of looking for confirmed and other possible cases of malaria in patients' families. This means that, throughout the country, all cases that were positive on RDT are treated. Subsequently, microscopy is done to measure parasite density. With regards to the quality control of smears, in principle, each month, each district has to send to the PNLP laboratory (central reference laboratory) samples of already observed smears, i.e. 5% of negative smears and all positive smears. The quality control system, however, needs to be strengthened. Since 2014, STP has recorded no deaths from malaria. No stock-outs of quinine (used for severe cases) have been noted.

Since the introduction of ACT, the PNLP has yet to carry out research into treatment efficacy according to WHO guidelines, because of the difficulties of obtaining a sample that is sufficiently large to be representative, and that would reach the minimum threshold for parasite density. This difficulty is the result of the large reduction in disease transmission and case numbers. As an alternative, the PNLP has adopted a strategy of following up all treated cases for 28 days in order to evaluate the efficacy of the new fixed-dose combination of artesunate + amodiaquine (art + am). In 2014, of the 1,754 cases notified by the PNLP, over 65 percent were followed up until the 28th day. Results of this follow-up show that ACT and quinine are still effective (*Relatorio de seguimento de casos de paludismo em Sao Tomé and Principe*, Annex 9). 28-day follow-up meets two basic objectives, i.e. i) patients are rigorously followed up; ii) trends in treatment failure can be monitored, by measuring reinfection rates. Follow-up with Polymerase Chain Reaction (PCR) will be introduced to provide genetic analysis of malaria, to align with the strategic aim of achieving pre-elimination of malaria (it will not be a diagnostic tool). Please note that in STP, quinine remains the drug used for the treatment of severe malaria, including among women in the first trimester of pregnancy. It is planned to introduce injectable artesunate (supplied with the support of partners other than the Global Fund) as a treatment for severe malaria from 2017 onwards. The preparation phase for this introduction will take place in 2016 and will include the review of case management Guide.

The 2014 PNLP Supervision Report shows that 92% of health facilities have the means to make a malaria diagnosis by microscopy or RDTs. This report highlights the availability of first line anti-malarials in all health facilities (100%). The report also outlines the correct management of severe malaria reaching 91.7%, cases that are treated in health facilities with hospitalization. This rate is 82.4% for simple malaria. The Autonomous Region of Principe has had zero deaths attributed to malaria since 2006. The supply of medicines and other malaria inputs has contributed to better management of malaria cases and therefore reduced malaria-related mortality in STP.

Prevention

Satisfactory outcomes have been achieved in terms of prevention activities. All entomologists (23) underwent capacity building in 2014. In 2012, 108,128 LLIN were distributed in a mass campaign in STP, while the planned figure was 109,260. This meant that coverage was 98.96 percent. In addition, 7,322 LLIN were distributed by the program's reproductive health services to pregnant women and infants aged less than one year, which was 100 percent of the targeted figure. In 2011, 2012 and 2013 annual cycles of indoor residual spraying (IRS) were carried out, with a coverage of 63 percent, 78 percent and 80 percent respectively in these years using Alphacypermetrin. The 2014 IRS cycle was conducted with the Bendiocarb insecticide, with a coverage of 79.1%. The numbers of people protected by IRS in these years were 115,610, 146,773 and 153,514 respectively (Global Report 2014). Of the permanent mosquito

breeding sites that were identified, 100 percent (121) were treated weekly in 2014 (CNE-PNLP). Finally, 57 percent of pregnant women (3,676 women) received IPT 2 in 2014 (Reproductive Health Programme, in French, Programme pour la santé de la reproduction, PSR Report 2014).Other preventative measures have been taken, namely creation of an ad hoc technical team to adapt the LLIN distribution guide, regular procurement of diagnostic and treatment materials, the provision of insecticide for IRS and implementation of IRS.

Regarding future interventions, a LLIN mass distribution is planned for 2015, as well as two IRS cycles. From 2016 onwards, the country's strategy for vector control includes the following: 1) maintaining a routine LLIN distribution pending the results of the final evaluation of the NSP; 2) continuing IRS as a mass prevention measure; 3) pursuing the treatment of breeding sites with bio larvicides.

Therefore LLINs will be distributed routinely as part of the Reproductive Health Program (PSR) and through charities. The LLIN distribution strategy will be reviewed depending on the results of the final evaluation of the NSP (end of 2016) as indicated above. In addition, the current level of malaria transmission in STP where prevalence is at 0.2% (MICS 2014) implies pursuing IRS on the entire territory, including Príncipe, before moving to a focused approach. It is however important to note that the resistance of the vector to insecticides has been identified as an additional constraint to IRS success throughout the years, with serious implications for the incidence of the disease, as was the case in the 80s. Recently, the country also registered a reduced sensitivity of the vector to Alphacypermetrin (pyrethroid). From a vector resistance management perspective, i.e. potential vector resistance to the insecticide currently used in IRS with two (2) annual cycles (carbamate-Bendiocarb), an insecticide rotation is scheduled for 2017 with an organophosphorus, the Pirimiphos methyl (Actellic CS), in an annual cycle.

Epidemiological surveillance

As part of epidemiological surveillance, the program has incorporated weekly notification of malaria cases into its usual integrated surveillance of patients and response to the disease. A feedback sheet for service providers and partners is produced and distributed each week. In addition, there are weekly meetings between the CNE and National Epidemiological Surveillance Department in order to validate data. A meeting is held every three months to ensure that data are high-quality and reliable at all levels of collection, processing and analysis. To strengthen surveillance, the program has taken a variety of steps, including capacity building for all epidemiology surveillance workers and for all health care workers at all levels in the area of preparedness for and response to malaria epidemics. During the 2012 to 2014 period, entomology surveillance surveys were carried out, including surveillance of insecticide resistance, surveys of health care facilities, and surveys of malaria indicators. The program has improved the monitoring and evaluation system by installing a platform that provides epidemiological and statistical malaria data both centrally and in districts, in which the data are collected by epidemiology and statistics officers. These steps have meant that the Program has improved surveillance of malaria cases and data quality.

Communication

In terms of communication, activities to raise awareness in order to change behavior have been organized jointly with the authorities in tourist areas. Activities to raise public awareness prior to and during LLIN and IRS campaigns are organized periodically via the UNDP/Global Fund project. Other activities have taken place, such as broadcasting of awareness-raising messages via various communications channels and social mobilization for malaria control activities. Messages about prevention, including integrated vector control, were broadcast via radio and television and presented in schools and communities to mark the annual World Malaria Day.

94.6 percent of people have heard about malaria, and 76.6 percent state that the best way to protect against malaria is to sleep under a LLIN (Annex 22, Final report of KAP survey, UNDP/Global Fund Project, page 15, 2014). In addition, 32 workers, NGO members and community health organizations have received training in interpersonal behavior change communication. The program also has IEC/BCC tools. All prevention interventions, as well as management of the disease, are dependent on co-operation from the general population. To achieve such co-operation and high levels of coverage, the program is establishing campaigns to raise awareness of disease management, LLIN and IRS.

Table 4: Main results and impact obtained by the Programme

Indicators	Results 2012	Results 2013	Results 2014	Sources
Number of malaria cases	**10 673**	**9 242**	**1 754**	The Global Malaria Report 2014 is the source of data for the years 2012 and 2013. The 2014 data are from the Annual Report of the PNLP (PNLP data information system).
Mortality rate due to malaria per 1 000 inhabitants	**3,9**	**6**	**0**	
Coverage rate of health facilities with RDT, microscopy and ACT as treatment	**ND**	**100**	**100**	
RDT positivity rate for malaria	**7,8**	**6,2**	**1,3**	
Parasite prevalence rate within communities (children aged 11 to 59 months)	**5% (2009)**	**ND**	**ND**	
IPT 2 coverage	**ND**	**40%**	**57%**	
Percentage of population protected with IRS	**82,9**	**8,5**	**79,6**	IRS Report 2014
Percentage of confirmed malaria cases treated according to the national protocol	**100**	**100**	**100**	PNLP Supervision Report 2014
Percentage of patients with fever attending a health facility and tested via RDT or microscopy	**100**	**100**	**100**	PNLP Supervision Report 2014
Percentage of people who have slept under a LLIN the night before the survey and who have at least one LLIN	**ND**	**75**	**56,1**	KAP 2014, UNDP / FM
Percentage of families who have at least one LLIN	**ND**	**90,2**	**78,5**	KAP 2014, UNDP / FM
Percentage of children aged less than 5 years old who have slept under a LLIN the night before the survey and who have at least one LLIN	**ND**	**ND**	**61,1**	MICS 2014, INE / UNDP / GF / UNICEF

The rate at which the NSP was operationally and financially carried out was 59 percent for the 2012-2014 period (Program Mid-term Review Report, Annex 7).

c) Barriers to implementation and lessons learned

Program management

There is no national malaria elimination committee. The technical secretariat of the National Malaria Commission is not functional. There are no national guidelines on malaria elimination. Implementation of the program in recent years shows that program management and co-ordination must be based on directives from multi-sector committees at the highest level. To ensure effective co-ordination and management of the program in future, it is therefore essential to restructure the National Malaria

Commission and make it operational. The human resources situation in health care are not prepared for the current phase of malaria control, which is targeting pre-elimination. Despite the commitment expressed by the government at the Abuja summit in 2000, the fact that products used in malaria control are still taxed is a constraint. There is a need to make the partnership for malaria elimination more dynamic, in order to mobilize internal and external resources and identify new sources of funding.

Case management

The Case Management Guide is not entirely consistent with the current epidemiological situation. As an example, quality control for laboratory diagnosis of malaria is not carried out, and neither is biological monitoring of malaria cases that are currently being treated. To correct this situation, it is planned to procure 2 LED microscopes (1 for the central Hospital and 1 for the PNLP) as well as 9 optical microscopes (2 for the PNLP and 1 per district). Currently, radical cure of malaria infection using Primaquine is not yet effective. A plan to introduce a new drug (primaquine and artesunate for injection) will be developed together with the PNLP with support from partners. There is currently no pharmacovigilance system in STP. Given the current epidemiological situation in which pre-elimination is the target, the lack of quality control for laboratory testing, radical cure with Primaquine and pharmacovigilance are the constraints that need to be resolved. To improve the situation, it is planned in the NSP to update the Case Management Guide and to include the gametocytocidal treatment of falciparum with primaquine with a single dose of 0.75 mg per kg from 2015 onwards. According to the WHO Guidelines for the Treatment of Malaria (second edition, 2011), this dose has already been applied in Asia, Latin America, and to a lesser extent in Africa (United Republic of Tanzania) with good tolerance.

Prevention

The program does not have a national guide to integrated vector control, which would assist in malaria prevention and larval control. The entomological profile is not up-to-date and there is no mapping of mosquito breeding sites. There are also suspected mosquito breeding sites that have not yet been recorded. In terms of infrastructure, the CNE's insectarium needs equipment, and the Island of Príncipe does not currently have an insectarium. The entomology sector nationally requires capacity building: it does not have the quantity or quality of human resources needed to provide a suitable response to malaria in the elimination phase.

Nationally, preventative measures are used appropriately and coverage is generally good. However, in 2013 and 2014 IRS coverage slightly reduced, from 85 percent to 79.6 percent (UNDP/Global Fund Project, February 2014). Some constraints have been identified, particularly a lack of vehicles for IRS campaigns, which delayed the transport of IRS operators to households, and a reduction in the level of acceptability of IRS in the general population (IRS report, 8th cycle, Zatona Adil, UNDP/Global Fund Project, November 2014). To date, no behavioral study on the acceptability of IRS has been performed in STP. However, anecdotes reported by the IRS stakeholders show a variety of potential motivations for such a resistance: weariness with the need to prepare or empty housing of its contents before the IRS twice a year (perceived as a chore); perception of a low risk of malaria (due to the significant reduction in malaria-related morbidity and mortality); perception of low insecticide efficacy; poor understanding of what constitutes insecticide efficacy (insecticide perceived as ineffective because it does not kill certain pests) etc.

In the first half of 2014, informal reports of a Bendiocarb leak were received by the UNDP/Global Fund Project. After UNDP raised the alarm, a mission to assess the insecticide management situation was led by the LFA in July 2014. This resulted in a series of recommendations. These were translated into an

Action Plan with a budget, which was agreed between UNDP and the Global Fund. This plan has a dual aim: 1) to increase supervision of Bendiocarb storage and distribution; 2) to build national capacity in the storage of Bendiocarb and in the management of IRS data (storage, distribution, and consumption). The plan was implemented by UNDP and its partners as part of the 9th IRS campaign (which began in February 2015). The government has also taken legal action (it has approached the criminal investigation authorities), and has made available to the project the warehouse used by the FNM for storage of IRS products.

The rate of LLIN use among pregnant women is 60.9 percent and among children it is 61.1 percent (MICS 2014) of households with at least one LLIN. However, it is observed that there is poor availability of LLIN distribution guides in health care facilities, there is no incinerator to destroy LLIN, and customs charges are still imposed on LLIN imports. Coverage rates for IPT 2 remain low (57 percent), probably because of poor knowledge and distribution of IPT protocol and late antenatal consultations. One of the essential activities in the elimination phase in the island of Príncipe is chemoprophylaxis for travelers from Príncipe to São Tomé, which is planned from 2016 onwards. Given that malaria incidence is quasi nil in the island of Príncipe, it is planned that RAP residents travelling to São Tomé will be given one dose of mefloquine.

Epidemiological surveillance

There is a national epidemiological surveillance system, which consists of routine (daily) collection of data from health posts to districts, and from districts to the central level. Data is transmitted to the central level via telephone (daily), and via the platform and on paper (weekly). Data is validated each week by all parties involved (government and partners). Nevertheless, there is no malaria surveillance system that is adapted for a pre-elimination context in RAP and the districts of São Tomé that have low transmission rates. There is no surveillance guide for malaria. Epidemiological surveillance staff are not prepared for the new focus on malaria elimination and the extra data quality control that this will require. There is no emergency stock of medications and consumables for epidemics or other emergencies. A geo-referenced database of cases and focal areas of transmission needs to be created. The epidemics alert and response system needs to be adapted to suit a low-transmission country. Alert thresholds also need to be updated periodically.

Communication

The PNLP has no strategy or plan for malaria communication. Communication between sectors is also weak. In the meantime, the drastic reduction in malaria cases appears to have caused a demobilization in relation to the need to prevent the disease, as mentioned earlier. This reduction in mobilization was without doubt caused by other factors, and is reflected in the number of households that refused spraying, as reported by Zatona in the IRS Report, 8th campaign, November 2014 (UNDP/GF Project Sub-Recipient).

There is also a need to train community actors, and to improve monitoring of community workers. Some activities from the communication plan, particularly outreach awareness-raising activities led by ASC, must be integrated with those of other programs in the field. The PNLP must carry out advocacy activities involving decision makers and opinion formers if it is to have an influence on the population's acceptance of interventions. Communication activities that involve the media and social mobilization must also be emphasized.

d) Main areas linked to national health strategy

The national health strategy promotes the principle of universal access to health care for all the population, without discrimination. To bring STP closer to pre-elimination, the PNDS 2012-2016 (Annex 5) contains the following strategies: i) appropriate case management; ii) integrated vector control management; iii)

institutional strengthening; iv) partnerships and co-ordination; v) epidemiological surveillance (particularly early detection of and response to epidemics) and vi) monitoring and evaluation.

The interventions proposed as part of this plan in the context of health systems strengthening (e.g. capacity building in human resources, capacity building for diagnosis and treatment, capacity building for health posts and centers, creation of a laboratory system and a referral and counter-referral system) will help to strengthen the national response to malaria, with the aim of accelerating malaria elimination. The planned actions in the NSP for 2012-2016 (e.g. training/updates for human resources, supervision) are aligned with the PNDS 2012-2016 and will contribute to health systems strengthening. Other interventions have been planned as part of the PNDS (2012-2016 and the previous one), including:

- Construction of new health care facilities (Health Posts at Agua Arroz and S. Marsal)
- Extended opening hours for health centers so that they open for more than eight hours
- Greater availability of human resources (particularly nurses) at district level
- Capacity building for laboratories (introduction of RDTs in all health care facilities) which has improved the management of malaria cases
- Strengthening of integrated malaria surveillance, which has provided data on malaria morbidity that is validated weekly.

e) National review process and amendment of Strategic Plan

At the end of the period covered by the 2001-2010 NSP, the authorities requested technical and financial support from WHO to carry out an evaluation of the PNLP's performance, in December 2011. The group carrying out technical evaluation of program performance was made up of 49 participants, representing the PNLP, health districts, NGOs involved in malaria activities and development partners, supported by eight outside consultants. The recommendations arising from this evaluation led to the development of the 2012-2016 NSP. The memorandum containing the evaluation was signed by the President of the Republic, the Prime Minister, the Head of the Regional Government, mayors, and development partners (WHO, UNICEF, UNDP, UNFPA).

In December 2014, this NSP in turn was subject of a mid-term evaluation, which was carried out by a national team supported by five outside evaluators. The recommendations arising from this evaluation enabled a review of objectives and strategies and meant that years 4 and 5 of the plan (2015 and 2016) could be rescheduled, with an extension to 2017. This new version of the plan was validated in February 2015, with the assistance of experts from the PNLP, the integrated response surveillance unit of the Ministry of Health, the Ministry of Education, the Ministry of Environment, health districts, partners (WHO, UNDP, UNFPA, UNICEF) and NGOs involved in malaria activities (Red Cross for those living with the disease, Zatona Adil, and others).

Results of the mid-term evaluation were used and/or strengthened in the new Strategic Plan, with strategies that are appropriate for a malaria elimination context. These are:

- Radical cure and follow-up of all confirmed cases (infections) nationally
- Active search, identifying and classifying malaria cases, including mandatory declaration in all districts
- System for identifying and classifying focal areas of malaria transmission in low-transmission zones in ST and RAP
- Strengthening communications (advocacy, communication and social mobilisation) to support anti-malaria activities

- Updating and distributing the plan for surveillance of, preparedness for and response to malaria epidemics.

SECTION 2: FUNDING LANDSCAPE, ADDITIONALITY AND SUSTAINABILITY

To achieve lasting impact against the three diseases, financial commitments from domestic sources must play a key role in a national strategy. Global Fund allocates resources which are far from sufficient to address the full cost of a technically sound program. It is therefore critical to assess how the funding requested fits within the overall funding landscape and how the national government plans to commit increased resources to the national disease program and health sector each year.

2.1 Overall Funding Landscape for Upcoming Implementation Period

In order to understand the overall funding landscape of the national program and how this funding request fits within this, briefly describe:

a. The availability of funds for each program area and the source of such funding (government and/or donor). Highlight any program areas that are adequately resourced (and are therefore not included in the request to the Global Fund).

b. How the proposed Global Fund investment has leveraged other donor resources.

c. For program areas that have significant funding gaps, planned actions to address these gaps.

1-2 PAGES SUGGESTED

a) Availability of funds for each program area and the source of such funding

The situation in relation to the availability of funds is as follows:

Table 5. NSP Financial availability per intervention area, 2016-2017

Interventions	Concept Note budget			NSP Amount (in USD) (*)	Funding sources (**)
Malaria case management	**230 508**	**236 024**	**466 532**	**817,807.07**	GF WHO TAIWAN
Prevention et vector control	**1 143 757**	**1 268 544**	**2 412 301**	**3,999,493.55**	GF TAIWAN WHO UNFPA GOVERNMENT
Monitoring & evaluation, Operations research Epidemics management	**299 151**	**397 372**	**696 523**	**2,744,646.38**	GF TAIWAN WHO
Community systems strengthening	**128 288**	**111 483**	**239 771**	**357,124.91**	**GF**

Programme management	**1 212 517**	**73 474**	**1 946 991**	**2,687,025.28**	GF TAIWAN WHO GOVERNMENT
Overall amount	**3.014.221**	**2.747.897**	**5.762.118**	**10,606,097.18**	

(*) NSP amount (in USD) - Total NSP amount (2016+2017) per intervention

(**) Funding sources - NSP donors per intervention

The requirements for the NSP for the period 2016-2017 are USD 10 606 097.14. Funding will be provided in part by the Government and its partners. For this period, the Government's budget will contribute a total sum of USD 1,907,128 to purchasing/funding certain activities (Annex 15, Willingness-to-pay letter from Government, GOV-STP). From 2016-2017, partners' contributions will be as follows:

- Taiwanese anti-malaria team, to fund some monitoring and evaluation activities, advocacy/BCC and program management, corresponding to the value of **USD 2,000,000.00**
- WHO, to fund program management, corresponding to the value of **USD 11,000.00**
- UNFPA to purchase SP for the value of **USD 3,360.00**.

Areas that are entirely covered by funding provided by the government and its partners are as follows:

- Prevention of malaria in pregnant women using IPT
- Treatment of severe malaria cases
- Gametocytocidal treatment of falciparum with primaquine
- Chemoprophylaxis for residents of Príncipe who are traveling to São Tomé

b) How the proposed Global Fund investment has leveraged other donor resources

As part of implementation of grants from Rounds 4, 7 and SSF, support from the UNDP/Global Fund Project has improved malaria indicators and thereby improved health indicators in São Tomé and Príncipe. The results recorded in the management of Global Fund grants have encouraged other partners to become more involved in funding anti-malaria activities. From 2012 to 2014, the contribution from the Government budget rose from USD 98,959.56 to USD 105,455.94, an increase of 3.3 percent. The Brazilian Government joined the country's fight against malaria in 2013. To signify its willingness-to-pay, the Government is increasing its contribution from USD 150,000.00 in 2015 to USD 354,287.00 in 2017, a 42.3 percent increase (ref. *Government's letter of commitment and willingness-to-pay, Annex 29).* The Global Fund remains the main source of funding for the response to malaria in São Tomé and Príncipe. The interventions financed by the Global Fund constitute the foundation for the collaboration between the government's financial partners (Taiwan malaria team, Brazilian Cooperation, World Bank) and its technical partners (WHO, UNDP, UNFPA). In this sense, Global Fund-supported interventions ultimately lead to the mobilization of additional resources.

c) Program areas that have significant funding gaps, and planned actions to address these gaps

The areas with the largest funding gaps are:

- Vector control (IRS, routine use of LLIN)
- Malaria case management (ACT and RDT)
- Monitoring and evaluation

- Community systems strengthening
- Program management

To fill the gaps, the following actions will be taken:

- A request for Global Fund financing via this concept note, including sections on health systems strengthening and community systems strengthening, in order to improve performance
- Advocacy involving partners other than the Global Fund to mobilize additional funding
- Advocacy for mobilization of additional resources from the Government's budget, as part of counterpart financing and "willingness-to-pay".

2.2 Counterpart Financing Requirements

Complete the Financial Gap Analysis and Counterpart Financing Table (Table 1). The counterpart financing requirements are set forth in the Global Fund Eligibility and Counterpart Financing Policy.

a. Indicate below whether the counterpart financing requirements have been met. If not, provide a justification that includes actions planned during implementation to reach compliance.

Counterpart Financing Requirements	Compliant?	If not, provide a brief justification and planned actions
i. Availability of reliable data to assess compliance	☒Yes ☐ No	
ii. Minimum threshold government contribution to disease program (low income, 5 percent; lower lower-middle income, 20 percent; upper lower-middle income, 40 percent; upper middle income-60 percent).	☒Yes ☐ No	
iii. Increasing government contribution to disease program	☒Yes ☐ No	

b. Compared to previous years, what additional government investments are committed to the national programs (TB and HIV) in the next implementation period that counts towards accessing the willingness-to-pay allocation from the Global Fund? Clearly specify the interventions or activities that are expected to be financed by the additional government resources and indicate how realization of these commitments will be tracked and reported.

c. Provide an assessment of the completeness and reliability of financial data reported, including any assumptions and caveats associated with the figures.

2-3 PAGES SUGGESTED

b)

For the period 2015-2017, under the “willingness to pay” requirement, the Government committed USD 179 000 for HIV and USD 98 667 for TB to the national programs as additional investments. These amounts

correspond to an annual average. Interventions or activities which could be funded through these additional public expenditures are the acquisition of anti-TB drugs and the financing of running costs related to the national HIV programme.

The Finance Directorate of Ministry of Health will monitor the committed national investments through the quarterly reports on the State Budget execution. This information shall be available at the end of the year in the Table of State Financial Operations. In the future this will be monitored through the national health accounts.

c)

Sources of financial data reported in this document are comprehensive, reliable, available and verifiable.

SECTION 3: FUNDING REQUEST TO THE GLOBAL FUND

This section details the request for funding and how the investment is strategically targeted to achieve greater impact on the disease and health systems. It requests an analysis of the key programmatic gaps, which forms the basis upon which the request is prioritized. The modular template (Table 3) organizes the request to clearly link the selected modules of interventions to the goals and objectives of the program, and associates these with indicators, targets, and costs.

3.1 Programmatic Gap Analysis

A programmatic gap analysis needs to be conducted for the three to six priority modules within the applicant's funding request.

Complete a programmatic gap table (Table 2) detailing the quantifiable priority modules within the applicant's funding request. Ensure that the coverage levels for the priority modules selected are consistent with the coverage targets in section D of the modular template (Table 3).

For any selected priority modules that are difficult to quantify (i.e. not service delivery modules), explain the gaps, the types of activities in place, the populations or groups involved, and the current funding sources and gaps.

1-2 PAGES SUGGESTED – ***only for modules that are difficult to quantify***

The funding request to the Global Fund relates to two quantifiable modules: vector control (IRS and routine LLIN) and the management of malaria. It also relates to three non-quantifiable modules: monitoring and evaluation, community systems strengthening and program management. As the health systems strengthening (HSS) module did not exist as such in the modular tool, HSS interventions are included in these other modules.

QUANTIFIABLE MODULES

Treatments	Total requirements 2016 - 2017	Quantity purchased with Government Budget	Quantity purchased using other sources	Gaps to be filled by the Global Fund
Routine LLIN	35,978 mosquito nets	0	0	35,978 mosquito nets
Insecticide for IRS	7,483 kg of Bendiocarb 21,107 boxes of Actellic 833mL	0	0	7,483 kg of Bendiocarb 21,107 boxes of Actellic 833 mL
Number of households sprayed per year	115,926	0	0	115,926
Appropriate treatment of malaria cases with ACT	2,137 treatments	0	0	2,137 treatments
High-quality laboratory diagnosis of all febrile cases using RDT	154,944 tests	0	0	154,944 tests

NON-QUANTIFIABLE MODULES

a) Monitoring and evaluation, including epidemiological surveillance

The monitoring and evaluation module, including epidemiological surveillance, is of paramount importance in monitoring the implementation of the program's interventions, to measure their performance, evaluate requirements and improve data quality (PNLP MESST REPORT, UNDP/Global Fund Project 2014, Annex 10).

Gaps

The monitoring and evaluation system for the Malaria Program in São Tomé is not yet prepared for a situation that is heading towards malaria elimination. According to self-evaluation using the MESST tool:

- The program's co-ordination/monitoring and evaluation team has little experience in analysis of program data at the sub-national level.
- Some members of the program team have not been trained in data management processes and tools.
- There is not yet a documented process to analyze the quality of the data that is provided.
- The mechanisms and procedures for correcting discrepancies and errors in reports (from the community to intermediate level) remain weak
- Harmonization of the data collection system is necessary
- ASC are not skilled in using the reporting tools or forms.
- There is no quality control for hard copies.
- For digital data entry, there are no procedures for backup hard copies.
- There are no report forms for analysis of health care facilities for audit purposes.

Types of activity currently in place:

To compensate for the weaknesses of the health information system and to ensure that malaria data are available when needed, the PNLP has established a system in parallel to the health information system via its own database (an Excel file). As mentioned above, the PNLP is currently working with district-level

health delegations on real-time data transmission. In 2015, the UNDP/Global Fund Project will help to extend this pilot project to the HIV and TB components, by establishing a Data Center connected to health districts and covering all three diseases at CNE level. This Data Center will be established as part of the Bendiocarb Action Plan as mentioned above, and the process includes purchase of an additional server and additional computer equipment. Once the Data Center is in place, a second pilot project is planned for 2015-2016, which will involve networking all health posts, the Agua Grande district Health Delegation, the three programs, the CNE, the health information system and the Ministry's department for integrated disease and response surveillance. In 2016-2017, following an evaluation, this pilot will be rolled out to other districts. The program's monitoring and evaluation activities will include epidemiological surveillance, distribution of information via a feedback sheet and weekly data validation.

Populations or groups affected:

The groups affected by monitoring and evaluation are the program's central co-ordination team, the teams in district health delegations, the Principal Recipient's grant management team and civil society organizations involved in anti-malaria activities.

Gaps and current sources of funding:

Funding in this area is partially provided by the Taiwanese anti-malaria team

(26.3 percent).

b) Community systems strengthening

This module aims to compensate for the weaknesses in the health care system in communities. There is currently a joint working framework between the PNLP and community civil society stakeholders. Nevertheless, the following gaps still exist:

Gaps

The imbalance between their workload across all the diseases and their low pay (currently less than USD 20 per month) is a limiting factor on ASC' motivation and, in some cases, on the quality of the service they provide. There is still a need for continuing training, given the new epidemiological context, and there is still a need to train ASC in using the management and reporting tools that are available to them. It has been noted that ASC have low levels of involvement in activities carried out in communities by the programs. NGOs and CBOs that carry out awareness-raising and other activities in communities are unaware of the role of ASC. Although it is necessary that they be involved, and in spite of their organizational weaknesses, NGOs and CBOs have access to few financial or technical resources.

Types of activity currently in place

The CHW supports the implementation of the HIV Program through the following activities: monitoring of condom distribution points, home visits, support for treatment adherence, support of HIV positive pregnant women, search for lost patients. Regarding tuberculosis, they conduct outreach activities, referral of suspected cases to health centers, monitoring patients on treatment, research of lost cases or abandonment of treatment. In connection with malaria, ASC conduct awareness activities for the acceptance of indoor residual spraying, to promote the use of already distributed LLINs and for the early management of fever. From 2016, it is expected that the CHW perform TDR and monitoring of malaria patients.

In 2014, with support from the UNDP/Global Fund Project and the Government, 24 ASC were provided with motorcycles. As part of this Project, ASC are paid for supervision visits and other activities in

communities that are linked to the HIV, Malaria and Tuberculosis components. Currently, NGOs such as Zatona Adil and the Red Cross raise awareness and promote ways of preventing malaria with the involvement of ASC. In 2015, a community involvement strategy was drawn up, as part of STP's grant-making process for the new NFM TB grant. This strategy could help reinforce the community component of the malaria grant.

Populations or groups affected
All those living in rural areas are affected, primarily community leaders. ASC, NGOs and community-based associations are also affected, as are schools, churches, the prison and the army.

Gaps and current sources of funding
Funding in this area is not provided by the Government or by any of the partners.

c) Program management

This module is crucial in ensuring that the whole Program has effective planning of its interventions and good partnership co-ordination.

Gaps
The weaknesses the program is facing can be divided into three categories: actual management of the program, the development of human resources at the CNE and its programs, and the need to strengthen its organizational systems and processes. Gaps in management of the program relate to the lack of co-ordination and the fact that some decision-making bodies such as the National Malaria Elimination Committee and the Technical Secretariat of the National Anti-Malaria Commission are ineffective or non-functional. In addition, the program has to deal with the fact that tax is still levied on anti-malaria products. There is insufficient decentralization of anti-malaria activities to health districts. Heavy dependence on external funding is also a reality. There is not yet a national committee for procurement that is responsible for promoting co-ordination between partners that provide medical supplies (not limited to those that are linked to malaria). If such a committee existed and was functional, it would have helped in assessing national needs, forecasting requirements and in preventing stock-outs.

Analysis of the CNE's institutional and organizational capacity, which was carried out by UNDP in 2012, showed that there were real needs in terms of motivation, retention, training and performance management of human resources within the CNE and its programs. In addition, in 2013 the Global Fund demanded submission of a plan for sustainability of payment of CNE salaries, which are exclusively funded by the Global Fund. From the Global Fund's point of view, the plan must be implemented starting from January 2017, which means that the institution's human resources are in a precarious position. In addition to the human resources issue, during the capacity analysis mentioned above, needs were identified in the areas of systems and processes for internal functioning.

Types of activity currently in place
Program management activities primarily consist of supervision, capacity building, the development of policies, standards and guidelines, strengthening partnership and co-ordination, institutional strengthening and capacity building in human resources. Efforts to create a functional procurement committee were begun by the CNE and UNDP at the end of 2014, and these must continue. A plan for the development of institutional and organizational capacity in the CNE and its programs has been in place since 2012-2013.

Populations or groups affected

Groups affected by program management are: the central and district PNLP co-ordination teams; the CNE team; the PR's grant management team; STP's development partners that import supplies and other pharmaceutical products into Sao Tomé; the São Tomé and Príncipe multisectoral co-ordination committee (CCM).

Gaps and current sources of funding

Funding in this area is partially provided by WHO and the Taiwanese anti-malaria team (39.5 percent).

3.2 Applicant Funding Request

Provide a strategic overview of the applicant's funding request to the Global Fund, including both the proposed investment of the allocation amount and the request above this amount. Describe how it addresses the gaps and constraints described in questions 1, 2 and 3.1. If the Global Fund is supporting existing programs, explain how they will be adapted to maximize impact.

4-5 PAGES SUGGESTED

As part of the distribution by disease validated by the CCM of STP in early 2014, the amount allocated to the fight against malaria is $ 5,764,618. São Tomé and Príncipe's request to the Global Fund as part of the new funding model is based on recommendations arising from the mid-term review of the program in November/December 2014, the portfolio analysis and the analysis of the country dialogue that included all parties involved in this issue. This national dialogue favored the prioritization of interventions against malaria. The funding requested from the Global Fund will, as a result, be used for priority malaria modules and interventions and for the health systems strengthening module, given the constraints that have been noted and the programmatic gaps highlighted, and with a view to maintaining what has been achieved so far. Communication is a cross-cutting intervention that will impact all other modules and interventions. The priority anti-malaria modules are:

1. Vector control (IRS, routine use of LLIN)
2. Malaria case management (ACT and RDT)
3. Monitoring and evaluation
4. Community systems strengthening
5. Program management
6. Health systems strengthening

STRATEGIC PRESENTATION OF FUNDING REQUEST FOR PRIORITY MODULES

1. Vector control

Global Fund resources for this module will supplement those provided by the government's budget, the Taiwanese anti-malaria team and WHO (Table 5). For this module, two priority interventions were chosen: firstly IRS, and secondly continuing distribution of LLINs 1) at antenatal consultations 2) to children aged less than one year 3) via charity organizations that look after orphans and abandoned and street children 4) via educational institutions (as prizes to encourage pupils that win contests). To co-ordinate and optimize vector control interventions, a comprehensive national guide will be developed.

a) Indoor residual spraying of insecticide

IRS will be carried out on the islands of São Tomé and Príncipe, with the aim of reducing malaria transmission and thus reducing the number of non-imported cases on both islands. Two cycles will be carried out, using Bendiocarb in 2016 and a cycle using Actellic CS pirimiphos-methyl (an organophosphate) in 2017, to cover around 44,361 households per cycle (Source: NSP). Nationally, IRS will continue throughout the NSP period (2016-2017) and the period covered by the concept note. IRS activities that are included in this request for funding are as follows:

- Acquisition of insecticide and equipment required for IRS
- Insecticide quality control
- Monitoring of effectiveness of insecticides/sensitivity study (will be included in the M&E module)
- Technical assistance in drawing up a management plan for resistance to IRS among the population
- Strengthening of the program's capacity in the management of waste generated by IRS campaigns
- Implementation of IRS on the ground
- Training of operators and outreach workers
- Remuneration of IRS personnel
- Continuing implementation of the IRS supervision plan
- Supervision and strengthening of control measures during insecticide distribution and spraying
- Carrying out a qualitative KAP survey to identify causes of resistance to IRS
- Technical assistance in developing a communication Plan
- Awareness raising and community mobilization

As IRS results for 2014 were below expectations, with a coverage rate of 79.6 percent, implementation of IRS activities, including awareness raising among the population for them to accept IRS, would improve coverage rates to above 85 percent, in line with WHO recommendations.

b) Distribution of long-lasting insecticidal nets

As mentioned above, from 2016 onwards, and pending the final assessment of the NSP, the main mass prevention measure implemented by the country will be IRS combined with treatment of breeding sites with bio larvicides (with financial support from the Taiwanese malaria team). In each district there is a team which treats breeding sites on a weekly basis. LLINs will be distributed routinely in reproductive health services and via charities.

Rates of LLIN use among pregnant women increased from 51 percent to 60.9 percent (MICS 2014), and for children aged under 5 years increased from 56 percent (EDS 2009) to 61.1 percent (MICS 2014). National requirements for routine distribution are around 35,978 LLINs for 2016-2017. LLINs will continue to be distributed from the 35 peripheral health care facilities, to which 95 percent of pregnant women go for their initial antenatal consultation. Routine distribution of LLIN free of charge will target the most vulnerable groups, namely pregnant women seen at antenatal consultations, and children aged under one year seen at vaccination clinics. The rate of BCG coverage for children aged under one year is 91 percent (MICS 2014). This is a genuine opportunity for LLIN distribution. The aim of activities that are planned for this intervention is to improve use of LLIN by making them available using a more effective communications strategy. These activities are:

- Acquisition of LLINs
- Updating of the LLIN distribution Guide
- Distribution of LLINs in ANC and within the framework of the Expanded Programme on Immunization (EPI)
- IEC/BCC activities of IEC / BCC, promoting the actual use of LLINs, within the framework of the communication plan to be developed as part of the IRS response

The cost of this vector control module for the period 2016-2017 is USD 2,412,301, of which USD 2,173,140 is for IRS and USD 141,690 for continuing LLIN distribution.

2. Case management

The national protocol for the management of malaria states that uncomplicated malaria should be treated using ACT after confirmation of diagnosis using RDT and microscopy. Acquisition of ACT and RDT is largely supported by the Global Fund. Regarding microscopy, the Global Fund also funds the main part of microscopes, laboratory reagents and training of laboratory technicians. The Taiwanese malaria team finances, on an ad hoc basis, extra quantities of RDT for the diagnosis of patient contacts and of ACT for patient and patient contact monitoring during the 28-day period. Any stock-outs of these supplies may compromise the management of the disease, with a renewed risk of malaria deaths. Planned case management activities are as follows:

- Acquisition of ACT drugs
- Acquisition of RDT
- Acquisition of microscopes
- Quality control of pharmaceutical products
- Strengthening of the country's pharmacovigilance system
- Updating of policies, standards and guidelines
- Updating of the Case Management Guide
- Training of health personnel at all levels
- Establishment of a quality control system for treatment
- Supervision of agents
- IEC / BCC

Planned activities for this intervention aim to ensure continuity of management in order to prevent simple cases from turning into complicated cases. Regarding the treatment of severe malaria, the NSP includes the updating of the case management Guide and from 2015 onwards, the integration of gametocytocidal treatment of falciparum with primaquine, in a single dose of 0.75 mg per kg. Also, the quality control system for smears will be strengthened. Communication activities will focus on promoting early seeking of care and treatment monitoring.

The cost of this management module for the period 2016-2017 is USD 466,532. This includes USD 137 615 for the treatment of severe malaria.

3. Monitoring and evaluation, including epidemiological surveillance

This module includes activities relating to health systems strengthening, in the "monitoring and evaluation" components. Other HSS components will be addressed in the program management module. The program has a monitoring and evaluation system that is based on two information systems, one belonging

to the PNLP and the other being a platform that gives access to information about malaria that is updated in real time (from districts to the central data repository). The official channel for data transfer from posts to districts is via hard copy. Monitoring and evaluation needs to be improved to provide better monitoring of interventions and better implementation of other modules in this concept note. With this in mind, the objective is to improve the collection, analysis and quality control of data. An appropriate epidemiological surveillance system is also among the objectives. Planned monitoring and evaluation activities are as follows:

For the whole country (islands of São Tomé and Príncipe):

Preparation for and response to epidemics: Strengthening of epidemiological surveillance in all districts for early detection of epidemics:

- Adapting the epidemics alert and response system used in low-transmission countries to the case of STP
- Updating the Plan (Guide) for epidemic preparedness and response
- Periodic updating of alert thresholds
- Setting up an emergency stock of drugs and consumables to deal with possible epidemics, over and above the security stock

Data quality and analysis:

- Acquisition of 38 computers to cover all health facilities and the CNE
- Extension of the CNE network (platform) to the central department for the Ministry of Health information system and to all remaining health care facilities (33) in 2016-2017
- Integration of HIV and TB data into the CNE platform
- Establishing a data quality control system, including routine secure archiving
- Introduction of a data quality control mechanism, which includes routine and security archiving
- Training for district teams on data collection sheets, data management and analysis
- Quarterly data validation meetings
- Monitoring product efficacy, including insecticides
- Publication of periodic reviews on anti-malaria response in STP

Supervision and evaluations

- Supervision of health care professionals (at district and peripheral level)
- Supervision of CHW activities, by nurses in health posts and by the district health team
- Evaluation of the community-based strategy for the management of uncomplicated malaria cases
- Final evaluation of the National Strategic Plan

Studies

- Entomological studies, including the updating of entomological profile
- Monitoring vector resistance to insecticide
- Treatment effectiveness
- KAP survey in 2016
- Malaria Indicators Survey (MIS) in 2017 to track trends in coverage and use. Furthermore, the MIS will provide the opportunity to assess the achievement of this Concept note targets with reliable data.

For the island of Príncipe:

Management of response in a pre-elimination context

- Development of a surveillance Guide in a malaria pre-elimination context
- Training for staff in monitoring and evaluation and epidemiological and entomological surveillance
- Installation of a geo-referenced database of cases and focal areas of transmission
- Active search for malaria cases, on an annual basis, for the early identification of potential focal areas of transmission
- Monitoring of the genetic profile of Plasmodium strains using the PCR technique, to strengthen monitoring of non-imported and/or imported cases (samples to be sent on filter paper to an external laboratory).

Activities planned as part of this intervention aim to strengthen monitoring and evaluation and ensure the quality of interventions.

The cost of the monitoring and evaluation module for the period 2016-2017 is USD 696,523. This includes 497 906 USD for the regular communication of information, 197,518 for surveys.

4. Community systems strengthening

The community system consists of 120 ASC currently working in malaria. The 22 community health posts are run by ASC, most of whom are volunteers. ASC are raising awareness among communities, helping with patient monitoring and referring suspected malaria cases. Although they have been working in this area since 1995, levels of involvement in malaria activities among ASC remain low. Involvement among community-based organizations is also low. In addition, co-ordination between the community system and district leaders needs to be improved. Planned community systems strengthening activities are as follows:

- Development of a Plan and Guide for malaria management in communities
- Adaptation of the Community involvement strategy, developed for the TB NFM grant to the malaria component (Annex 17)
- Training ASC in diagnosis, treatment and monitoring of uncomplicated malaria cases in the community
- Training ASC in communication techniques and use of data reporting tools
- Payment for ASC (already included in the TB NFM and covering all 3 diseases)
- Supervision of CHW activities, by nurses in health posts and health district team (included in monitoring and evaluation module)
- Co-ordination and periodic meetings of CHW and CBOs with health sector entities
- Strengthening organizational, planning and leadership capacity in the community sector, via training and monitoring
- Evaluation of the community-based strategy for management of uncomplicated malaria cases (included in monitoring and evaluation module).

Planned activities for this module, including IEC/BCC activities which will be led by ASC and associations, aim to improve coverage of case management and preventive measures for malaria. Community-based interventions will be coordinated jointly by the CNE, programs, ASC and the NGOs and CBOs that are involved. 120 ASC will be trained in the management of all three diseases.

The cost of the community systems strengthening module for the period 2016-2017 is USD 239,771, of which 223 600 USD for social mobilization, community systems strengthening, collaboration and coordination.

5. Program management, including purchasing and procurement management

There are weaknesses in program management, in policy implementation, planning, co-ordination, grant management and in procurement and supply management. Planned program management activities are as follows (by intervention):

a) Policy, planning, coordination and management

Building PNLP logistical and material capacity:

- Preventative maintenance of PNLP vehicles once a quarter

Building PNLP technical capacity:

- Development of the 2017-2022 Strategic Plan
- Organizing at national level a course on the management of malaria programs in the elimination phase
- Training in applied epidemiology and environmental management
- International technical assistance (surveillance, monitoring and evaluation, entomological profile monitoring, economic impact study on anti-malaria activities)

Co-ordination

- Creation of a National Malaria Elimination Committee.
- Revitalization of the technical secretariat of the National Commission for the Malaria Response
- Strengthening collaboration between the PNLP and the PSR
- Advocacy to make malaria control products tax exempt

b) Procurement and Supply Management, and other health systems strengthening components

- Revitalization of the National Procurement Committee
- Strengthening co-ordination between the PNLP and its partners, by creating spaces for periodic exchanges
- Advocacy aimed at the private sector relating to use of ACT and RDT in private sector malaria case management
- Development of a Procurement and Supply Management Plan
- Acquisition of insecticides: Bendiocarb (carbamate) and pirimiphos methyl/Actellic CS (organophosphates)
- Acquisition of equipment
- Acquisition of protective equipment for IRS operators
- Acquisition of LLINs
- Acquisition of ACT
- Acquisition of RDTs
- Acquisition of reagents and consumables
- Technical assistance to build inventory capacity
- Implementation of a quality control plan for drugs

- Implementation of the Quality Assurance Plan for pharmaceutical products
- Strengthening quality control and assurance of antimalarial inputs
- Acquisition of equipment to regulate conditions within the district supply chain (air conditioning and electronic thermometers to track temperatures 24/7, which is already covered under the TB component)
- Technical assistance to strengthen national capacity in drug quantification
- Technical assistance for the development of a process Guide for good practices in product warehousing including insecticide
- Technical assistance for the establishment of a pharmacovigilance system

c) Interventions relating to health systems strengthening components

Service delivery

- The government has banned marketing of all oral artemisinin-based monotherapies
- Mapping and monitoring Plan for the informal private sector

Infrastructure and equipment

- Refurbishment of 3 district laboratories as part of the TB NFM grant
- Purchasing of 11 microscopes (2 LED and 9 optical) to replace existing microscopes
- Development of a harmonization strategy for medical equipment to be purchased, in order to facilitate equipment maintenance
- Establishment of a service delivery contract for maintenance of medical equipment

Health system financing

- Pursue the process of establishing National Health Accounts that was begun in 2014, with support from WHO and UNDP/The Global Fund.
- Technical assistance to update the study into the economic impact of malaria

To draw up its health system financing strategy, the government could use the updated study into the economic impact of malaria and the national health accounts.

d) Interventions relating to grant management

In line with the choice of PR, and within the institutional framework described in Section 4 of this concept note, this category of interventions includes:

- Management of the operational costs of the grant's Principal Recipient and sub-recipients
- Carrying out annual financial audits of the PR and SRs
- Running costs of the PR and SR

Performance of UNDP as a PR; the proper functioning of grants managed by UNDP depends on its being able to carry out its functions fully. These include:

- Project monitoring and evaluation
- SR management
- Financial audits
- Management of grant strategic partnerships
- Communication of project outcomes

In addition to these functions, there is human resources management for the project's management unit. The PR's operational costs correlate with its functions and their scope. The same is true for SRs that need institutional support, which has a bearing on operational costs, if the expected results are to be delivered in the context of their grant agreements drawn up with the PR.

For the two-year period, the cost of the program management module, including purchasing and procurement management, is evaluated at 1,989,491 USD including 403 584 USD for policy, planning, coordination and management; 1,347,699 USD for the management of the grant and 87 623 USD for supporting the procurement and supply management system.

Global Fund resources for this module will supplement those provided by the government's budget, the Taiwanese anti-malaria team and WHO (Table 5).

STRATEGIC PRESENTATION OF FUNDING REQUEST FOR HEALTH SYSTEMS STRENGTHENING

1. HSS in the Malaria Concept Note

In addition to these various modules that are directly linked to malaria, a HSS module is planned, to compensate for the weaknesses in the general health care system, described in Section 1 of this concept note. Starting with the National Dialogue for the TB NFM grant (2014), and with CCM agreement, health systems strengthening has emerged as a major component in efforts to combat these diseases. Investments in HSS will maximize impact and lead to sustainable achievements. The CCM has decided to include health systems strengthening activities in each of the three concept notes, which could be of benefit to all three programs, including the PNLP. In addition, São Tomé and Príncipe's funding application to GAVI/HSS describes actions to be taken to strengthen the health system. Taking into consideration the strengthening measures that are planned as part of the TB NFM grant and the GAVI/HSS application (Table 7 below), the following additional actions have been planned, depending on the sum allocated to HSS in this concept note:

a) Procurement and supply management

- Setting up and supporting the work of the National Procurement Committee
- Monitoring the actions of the National Procurement Committee
- Provision of technical assistance in procurement and supply management
- Strengthening of the stock information management system
- Building capacity among those staff that manage stock centrally and in districts, in inventory management and stock data (training is planned for 2015 as part of the current Malaria grant).
- Infrastructure to be made available to improve storage conditions for pharmaceutical and health products in district health care facilities.

b) Health information system

- Building capacity of personnel involved in monitoring and evaluation at all levels
- Developing and printing data management tools
- Training in filling in tools and managing data
- Establishing a platform system in the CNE that integrates data from all districts, health posts, health care units, the CNE, the health information system and all three national programs.

- Organizing data validation workshops involving those responsible for epidemiological surveillance in health districts
- Strengthening the co-ordination mechanism via creation of decentralized technical and co-ordination working groups
- Advocacy for data harmonization among partners
- Enhancing operational research

c) Service delivery

- Building capacity among human resources
- Strengthening supervision activities at all levels
- Implementation a surveillance system to improve quality of care: supervision, quality of service surveys, etc.
- Integration of service activities not just in health care facilities but also at the level of are ASC, which contribute to integrated management of malaria
- Formalizing case referral system and care pathway

d) Financial management

- Capacity building for staff at the CNE and other SRs on the Project's administrative and financial management manual
- Carrying out internal and external audits

e) Waste management

- Finalization and consensus-building in relation to the Waste Management Plan developed in 2015
- Integrating waste prevention in the procurement cycle for IRS equipment
- Purchasing of environmental friendly IRS protective equipment
- Operationalizing the incinerator (acquisition planned as part of the current malaria grant): installation costs, fuel training,
- Recruitment of two incinerator operators (budgeted in this NC)
- Technical assistance for the proper management of waste stockpiles which cannot be incinerated (as Alphacypermetrin)

f) Leadership and management

- Training of managers in disease program management or in technical areas or within the framework of CNE capacity development plan
- Joint planning involving the CNE and its partners as part of Operational Action Plans

The total cost for health systems strengthening is estimated at 696 523 USD.

As mentioned above, HSS activities were planned as part of the TB NFM grant and the GAVI / HSS funding proposal. The HSS component of the new TB NFM grant includes the acquisition of conventional and LED microscopes; Xpert MTB / RIF; and digital radiography equipment. The rehabilitation of 3 laboratories, TB staff training and motivation, ASC motivation for TB patient monitoring are also part of this HSS component as well as the acquisition of equipment and management tools for district pharmaceutical depots. STP proposal to GAVI / HSS includes HSS interventions such as the development

of the institutional framework; the provision of health services; human resources development; strengthening the district level; developing partnerships; developing the pharmaceutical sector and strengthening the health information system.

Organized according to the HSS pillars, the table below provides a comparison of HSS type of activities included, respectively, in this Concept Note, the NFM TB grant and the country's proposal to GAVI HSS. Note that many of these activities are specific each disease Program (PNLP, NTP or EPI). At this stage it is not yet possible to include the HSS activities for HIV component, since the CN will only be submitted in 2016.

Table 7. Mapping of HSS interventions

HSS Pillars	Malaria Concept note	NFM Tuberculose grant	GAVI RSS Submission
Infrastructure and Equipment	4 computers and anti-virus software 3 UPS 8 photocopiers 4 printers Office furniture 4 Air conditioners Rehabilitation of the insectarium Rehabilitation of IRS Washing Centre	1 4x4 vehicle 7 computers and 1 UPS 1 photocopier 1 projector Office furniture Rehabilitation of district laboratories Rehabilitation of the MDR-TB patients ward in the Central Hospital	
Leadership and Governance	Revitalization of the National Commission for the Fight against Malaria Revitalizing the National Procurement Committee Leadership Training Program CNE /PNLP staff salaries	Leadership Training Program NTP salaries NTP	Financing an Expanded Vaccination Programme Unit in the Ministry of Health Department of Health Care
Service Delivery	9 microscopes 2 LED microscopes 230 smears-carriers 1 closet for smears 10 megaphones IRS Materials and equipment	7 microscopes 1 LED microscope X-ray equipment fixed and portable X Health worker training	25 solar refrigerators for health facilities 7 solar refrigerators for district health centres 7 generators for districts and RAP 7 small incinerators for health districts 7 vehicles (1 per health district) for Expanded Vaccination Programme 60 motorcycles for 38 health facilities
Health Personnel	Health workers training IRS teams training Waste Incinerator operators	Training of health workers Payment of CHW (cross-diseases)	Training for district health teams in cold chain management
Health Information	PNLP supervision visits 33 computers (desktop) for the data platform of the 3 programs and anti virus software 33 UPS Remuneration of the CNE Data Centre Manager Data validation meetings	NTP supervision visits Data validation meetings Joint supervision plan (inter Programmes: PNLP, NTP, NACP)	Training of district health teams Focal Points on how to use the GESIS Support for the implementation of an electronic and telephone based data transmission system
Technical and medical products	Laboratory reagents 1 refrigeration system for the FNM warehouse 1 air conditioner for the FNM 1 generator for the FNM 8 thermometers for FNM Setting up a pharmacovigilance system	Laboratory reagents 1 refrigerator for FNM 7 air conditioners for district pharmacies	Setting up of a pharmacovigilance system for vaccination-related products

The

Health system Financing	Monitoring the effectiveness of the government's financial contribution and of the "willingness to pay" requirements Monitoring the implementation of national health accounts, which began in 2015	Monitoring the effectiveness of the government's financial contribution and of the "willingness to pay" requirements	Support for the establishment of a Unit for health financing management and monitoring the within the Ministry's Finance and Administration Directorate Support for the development of the Medium Term Health Expenditure Framework

mapping exercise above demonstrates that there are many opportunities for the coordination of efforts, harmonization and synergy. There are also several HSS activities specific to a disease component on which other disease components can build. That said, the risk of duplication and waste of resources remains. To maximize opportunities and reduce such a risk, a coordination framework will be established between the CNE, the PNLP, the NTP and Directorate of Health Care (in French, Direction des soins de santé, DSS, which will lead the implementation of the upcoming GAVI / HSS project). The CCM will have a vital role to play in minimizing the risk of duplication, including by establishing a regular liaison with the GAVI / HSS Committee at the country level.

3.3 Modular Template

Complete the modular template (Table 3). To accompany the modular template, for both the allocation amount and the request above this amount, briefly:

a. explain the rationale for the selection and prioritization of modules and interventions;

b. describe the expected impact and outcomes, referring to evidence of effectiveness of the interventions being proposed. Highlight the additional gains expected from the funding requested above the allocation amount.

3-4 PAGES SUGGESTED

a. Rationale for the selection and prioritization of modules and interventions

Using as a starting point the aims, objectives and strategies in the 2012-2017 NSP, the portfolio analysis and the national dialogue, the following modules and interventions were chosen:

- Vector control
- Case management
- Monitoring and evaluation, including epidemiological surveillance and the health information system
- Program management, including procurement and supply management
- Community systems strengthening

The Health systems strengthening module is also high-priority. As it is cross-cutting, it is not included in the list below.

1. Vector control

As a result of vector control interventions, the epidemiological profile of malaria has significantly changed in STP, and the disease is now hypo-endemic. The incidence of malaria in 2014 was 9.3 cases per 1,000 people. This achievement is the result of combined vector control strategies (IRS, LLIN and larval control). As STP has not yet reached the elimination phase, these interventions must be continued until pre-elimination and elimination of malaria are achieved.

Introduced in 2004, **IRS** as an intervention has been shown to be effective against malaria in STP over the past decade. In particular, in 2013 and 2014, when Bendiocarb was introduced (an insecticide that is 100 percent effective, according to studies carried out by the PNLP), STP saw an 80 percent reduction in cases over one year. Similarly, malaria mortality fell from 6 per 1000 in 2013 to 0 in 2014. **The current level of malaria transmission in STP, where prevalence is 0.2 percent (MICS 2014) means that IRS should be continued throughout the country, including in Príncipe, before moving to a more focused approach.**

Distribution of LLINs via antenatal consultations to pregnant women and children aged under one year is also a priority, because: (i) it protects these target groups; (ii) when coverage and use of LLINs is satisfactory (80 percent) the number of malaria cases will reduce by between 17 percent and 49 percent; (iii) WHO encourages this approach and recommends that all target populations be covered 100 percent. The aim is to make use of the protective effect of LLINs across the population. Data from the Multiple Indicator Cluster Survey (MICS) carried out in 2014 showed that 78.5 percent of families have at least one mosquito net. 56.1 percent of members of these families slept under a LLIN the night before the survey. 61 percent of children aged under 5 years and 60.9 percent of pregnant women slept under a LLIN the night before the survey. The desired level of coverage is 80 percent. Given the epidemiological and entomological indicators, the PNLP chose this module, which should increase LLIN coverage.

2. Case management

The diagnosis and treatment of malaria are provided in all health facilities for free. The review of the treatment protocol in 2013 recommended that the diagnosis of malaria is made by RDT or microscopy. Although the quality of care has improved year by year, it is still insufficient. Hence, the PNLP conducted a review of malaria management guidelines in 2014. By **making this module a priority module, the goal**

is to maintain the gains achieved by strengthening actions of care, including the implementation of the revised Protocol in contexts of control and pre-elimination.

3. Monitoring and evaluation, including epidemiological surveillance

Monitoring and evaluation is a way of assessing what interventions have achieved, of identifying difficulties and of looking for appropriate solutions. It is essential in order to measure changes in morbidity and mortality, consumption of supplies and economic losses caused by malaria. It helps in monitoring changes in appropriate indicators used for decision-making purposes, planning, evaluation and mobilization of financial resources. In the long term, monitoring and evaluation will show the extent to which the NSP's objectives have been met.

In view of the decision to proceed towards elimination, epidemiological surveillance has become a key intervention. It will enable early detection of epidemic cases, particularly in the island of Príncipe which is already in the pre-elimination phase and is moving towards elimination.

Given the need to monitor expected results, and taking into account the investments and strategies for carrying out the selected interventions, the monitoring and evaluation module is essential if approaches are to be adjusted in a timely way. The outcome of this adjustment process is not yet satisfactory. This module will also enable the program's impact to be evaluated. The monitoring and evaluation system, which is still weak, could be strengthened via this request for funding.

4. Program management, including procurement and supply management

The NSP mid-term review revealed weaknesses in program management. The choice of this module will overcome these weaknesses and improve the program's performance. Program management covers CNE institutional and organizational capacity-building in its capacity as principal sub-recipient.

With the funding requested from the Global Fund, the government's counterpart financing, and the support of its partners, the PNLP would have the optimal level of resourcing (human, material and logistical) to provide effective co-ordination, planning and implementation of NSP activities and those included in this concept note. Funding of this module would enable implementation of other modules submitted to the Global Fund for consideration, and by extension of the NSP.

Procurement and supply management has improved over the past three years, with good levels of availability of anti-malaria supplies. Improved capacity among those involved in procurement and supply management would reduce the risk of stock-outs still further.

The role of principal sub-recipient is a new stage in the CNE’s involvement as a Global Fund grant implementer. So that this proceeds as it should, implementation of the CNE capacity development plan should continue. In doing so, the objective is to provide the institution with the human and institutional capacity it needs to deliver on time the results expected from performance-based funding such as Global Fund grants.

In summary, the program management module has been chosen as a priority to overcome weaknesses in resources, organization and equipment, and as an essential way of supporting activities that are related to all other modules.

5. Community systems strengthening

The community system is largely based on ASC, and to a much lesser extent community-based organizations. The role of ASC in the fight against malaria is centered on raising awareness among the population for the community management of cases of fever, early detection of malaria cases, and use of methods to prevent malaria such as IRS and LLINs. Strategy 2.4 of the NSP, the 2013 protocol and this concept note all plan for an extension of the role of ASC to include diagnosis using RDT, and monitoring of treatment under the supervision of technicians from health districts. All malaria cases for which diagnosis is confirmed on RDT or microscopy will be treated and followed up for 28 days. It is estimated that in STP 95 percent of the population is less than one hour on foot from a health center or post. Despite this geographical accessibility, it is also estimated that 15% of the population does not seek health services. Therefore, it is intended in this concept note that ASC will reach the 15%.

The role of ASC, who are also involved in HIV and tuberculosis, is therefore an essential one. The involvement of community associations is related more to raising awareness among the population in order to improve use of preventive measures and early detection of cases. This concept note states that community mobilization strategies used by these associations should respond to problems of IRS resistance or non-use of LLINs. These problems are real threats to what has already been achieved in the fight against malaria in STP. These associations should therefore have access to increased financial and technical resources as part of communications activities. The PNLP should co-ordinate interventions in this sector.

b. Impact and desired results at the end of the period covered by the concept note (2017)

In terms of impact, the funding request would enable the following indicators to be achieved:

- ✓ Confirmed malaria cases (on microscopy or rapid diagnostic test) per 1,000 inhabitants per year: 4.9/1000
- ✓ Confirmed malaria cases (on microscopy or rapid diagnostic test) per 1,000 inhabitants per year on the island of Príncipe: 0.7/1000
- ✓ Parasite prevalence: proportion of children aged between 6 and 59 months presenting with malarial infection: 0.1 percent
- ✓ Slide positivity rate: 1.5 percent
- ✓ Mortality of children under 5 years per 1000 live births: 38/1,000

Expected outcomes are presented below, broken down by module.

1. Vector control

- Proportion of children aged under five years who slept under an LLIN the previous night: 85 percent
- Proportion of pregnant women who slept under an LLIN the previous night: 85 percent
- Percentage of people protected by IRS: 85 percent
- Proportion of households in target zones that have had IRS: 85 percent
- Proportion of population protected by IRS over the past 12 months: 85 percent
- Number of buildings sprayed: 115,926
- Number of LLINs distributed at antenatal consultations and to children aged under 1 year: 29,978
- Number of LLINs distributed by charitable organizations: 6,000

2. Case Management

- Proportion of suspected malaria cases undergoing parasitology testing in public sector health care facilities: 100 percent
- Proportion of confirmed malaria cases receiving first-line malaria treatment in line with national policy, in public sector health care facilities: 100 percent
- Proportion of suspected malaria cases undergoing parasitology testing in the community: 100 percent
- Proportion of health care facilities with no stock-outs of the main basic products over the reporting period: 100 percent
- Percentage of confirmed cases having been subject to a complete survey (malaria elimination phase): 100 percent

3. Monitoring and evaluation, including epidemiological surveillance

- Percentage of bodies in the health information system and other bodies reporting routine data that present reports within deadline and in line with national directives: 100 percent
- Percentage of epidemics detected and responded to within a maximum of 2 weeks: 100 percent

4. Program management, including purchasing and procurement management

- Number of co-ordination meetings held (National Anti-Malaria Committee): 4
- Number of health care professionals trained in the management of malaria programs: 18

5. Community systems strengthening

- Number of ASC trained in combating malaria: 120
- Number of people made aware of ways to prevent malaria: 21,000

3.4 Focus on Key Populations and/or Highest-impact Interventions

This question is <u>not</u> applicable for low-income countries.

Describe whether the focus of the funding request meets the Global Fund's Eligibility and Counterpart Financing Policy requirements as listed below:

a. If the applicant is a lower-middle-income country, describe how the funding request focuses at least 50 percent of the budget on underserved and key populations and/or highest-impact interventions.

b. If the applicant is an upper-middle-income country, describe how the funding request focuses 100 percent of the budget on underserved and key populations and/or highest-impact interventions.

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SECTION 4: IMPLEMENTATION ARRANGEMENTS AND RISK ASSESSMENT

4.1 Overview of Implementation Arrangements

Provide an overview of the proposed implementation arrangements for the funding request. In the response, describe:

a. if applicable, the reason why the proposed implementation arrangement does not reflect a dual-track financing arrangement (i.e. both government and non-government sector Principal Recipient(s);

b. if more than one Principal Recipient is nominated, how coordination will occur between Principal Recipients;

c. the type of sub-recipient management arrangements likely to be put into place and whether sub-recipients have been identified;

d. how coordination will occur between each nominated Principal Recipient and its respective sub-recipients;

e. how representatives of women's organizations, people living with the three diseases, and other key populations will actively participate in the implementation of this funding request.

1-2 PAGES SUGGESTED

The proposed implementation arrangements for the funding request are as follows:

- **A single Principal Recipient (PR)**, the United Nations Development Programme (UNDP). The option of dual-track financing was not considered by the CCM. The size of the country and of the grants means that such an option is not justified. As a result, the issue of co-ordination between principal recipients does not arise.
- **1 Principal Sub-Recipient / Key Implementer:** the CNE/PNLP
- **4 Sub-Recipients:** the National Reproductive Health Program (PSR), the National Drug Fund (FNM), the National Center for Health Education (CNES), the Higher Institute for Health Sciences (ISCS) and the NGO Zatona Adil.
- **Implementation bodies**, namely health district delegations, central hospitals, health centers and posts
- **Implementers,** namely service providers (doctors, nurses, laboratory technicians, health care

workers), IRS teams, community health workers (ASC) and community-based organizations.

Division of roles and responsibilities

Roles and responsibilities are divided between various implementers in the ways described below.

UNDP as Principal Recipient:

The specific responsibilities of UNDP as a PR include:

- Requesting, receiving, managing and carrying out financial reporting on funds intended for grant implementation
- Selecting, evaluating, drawing up contracts, coordinating and monitoring of SRs, with CNE involvement
- Planning, program management and monitoring and evaluation of grant implementation, with further involvement of PNLP
- Disbursing funds to SRs and paying suppliers of goods and services; monitoring SR financial management of grants via periodic reports and audits
- Procuring inputs and health and pharmaceutical products, as well as equipment required for implementation
- Keeping the CCM updated on grant implementation, on a schedule provided by the CCM or on UNDP's own initiative; communicating any challenges with a view to having the CCM adopt appropriate solutions.
- Periodic communication of grant outcomes to malaria stakeholders in São Tomé and Príncipe (which may or may not be members of the CCM), including the main recipients of the grant and the Global Fund.
- Anticipating, managing and reducing risks associated with grant implementation

CNE/PNLP as Principal Sub-Recipient / Key Implementer

UNDP as the PR is planning to assign a wider role to the CNE as a sub-recipient. By doing this, UNDP's aim is to enable the CNE to develop the essential competencies for the role of PR by carrying out this role alongside UNDP.

As part of this grant, therefore, it is planned that the CNE/PNLP will assume the following new responsibilities:

- Taking part in the process of selecting and drawing up contracts with other SRs
- Developing the operational implementation plan, using as a starting point the grant work plan, along with other SRs.
- Defining grant implementation priorities
- Co-chairing co-ordination meetings for SRs arranged by UNDP
- Ensuring that other SRs provide timely programmatic reporting
- Reviewing programmatic reports from other SRs and providing structured written feedback
- Preparing part 1A of the PU/DR, using data provided by other SRs; sending part 1A of the PU/DR to UNDP
- Promoting, alongside UNDP, the creation of a national process for quantifying malaria inputs, by making the National Procurement Committee operational
- Undertaking increased financial management responsibilities

In addition to these new responsibilities, the CNE/PNLP will carry out the following ongoing responsibilities:

- Supervising implementation agents with the aim of ensuring high-quality services
- Collecting and processing data and filling in data for indicators on the grant's performance framework
- Coordinating requirements for consumibles, health and pharmaceutical products, receiving them and monitoring stock management at all levels

Building CNE capacity in preparation for it to assume the role of PR
In 2015, UNDP and the CNE will continue the process of building the CNE's capacity, by emphasizing human resources development and the development of CNE's internal processes and systems. These two main areas of organizational development were identified as top priorities in the current Capacity Building Plan.

PSR as a SR
PSR is a department within the Health Care Directorate of the Ministry of Health. As part of this grant, the plan is that PSR will take on the responsibility for planning, leading and monitoring distribution of insecticide-treated mosquito nets during antenatal consultations.

ISCS as a SR
The Higher Institute of Health Sciences (ISCS, formerly known as the Victor Sa Machado Institute of Health Sciences, ISCVSM) was established in its current form in 2003. In 2014 it became a part of the University of São Tomé and Príncipe (established in 2014). It is the main body providing initial and continuing training for health care workers in STP (intermediate-level training). The Institute will continue to play a key role in implementing Global Fund grants. Its responsibility will be to design and administer training modules for doctors, nurses, laboratory technicians and health care auxiliaries, together with the CNE and PNLP.

FNM as a SR
The FNM (National Drug Fund) was established in 1986 and is the central purchasing body for medications in São Tomé and Príncipe. The plan is to increase the FNM's role in proactive distribution of inputs and prevention of stock-outs. The FNM's responsibilities will therefore be:
- Warehousing of inputs, pharmaceutical products and health products in a dedicated warehouse
- Monitoring stock together with UNDP and the PNLP, using dedicated tools; submitting stock reports to UNDP and PNLP
- Carrying out monitoring of stocks and supplies, health products and pharmaceutical products on behalf of health delegations
- Actively contributing to the prevention stock-outs via proactive distribution of inputs
- Warehousing of insecticides and equipment for IRS campaigns in a dedicated warehouse
- Monitoring of stocks used for IRS campaigns, including those not stored in FNM facilities; submitting stock reports to UNDP and PNLP
- Carrying out supervision and monitoring missions to look into distribution and consumption of insecticide in IRS campaigns, as part of the IRS Supervision Plan drawn up by all parties involved.

CNES as an SR
CNES (National Center for Health Education) is a department of the Ministry of Health's DSS (Health Care Directorate). Its mission is to promote health-seeking behaviors in the general population. The CNES' responsibility will be to design and disseminate behavior change messages, given the lack of mobilization among the general public and cases of resistance to IRS campaigns.

Zatona Adil as a SR

Zatona Adil was created in 1995 and specializes in community development. This NGO covers the whole country and has significant experience in the role of SR, having been a SR for the UNDP since 2005. Its planned responsibilities are as follows:

- Implement IRS campaign plans together with UNDP, CNE and PNLP
- Implement the part of the IRS campaigns supervision plan that pertains to Zatona Adil
- Implement the community component of grant implementation: design community mobilization strategy, redesign messages, monitor community health workers (ASC), taking inspiration from the community strategy drawn up as part of the new TB NFM grant

Management of sub-recipients

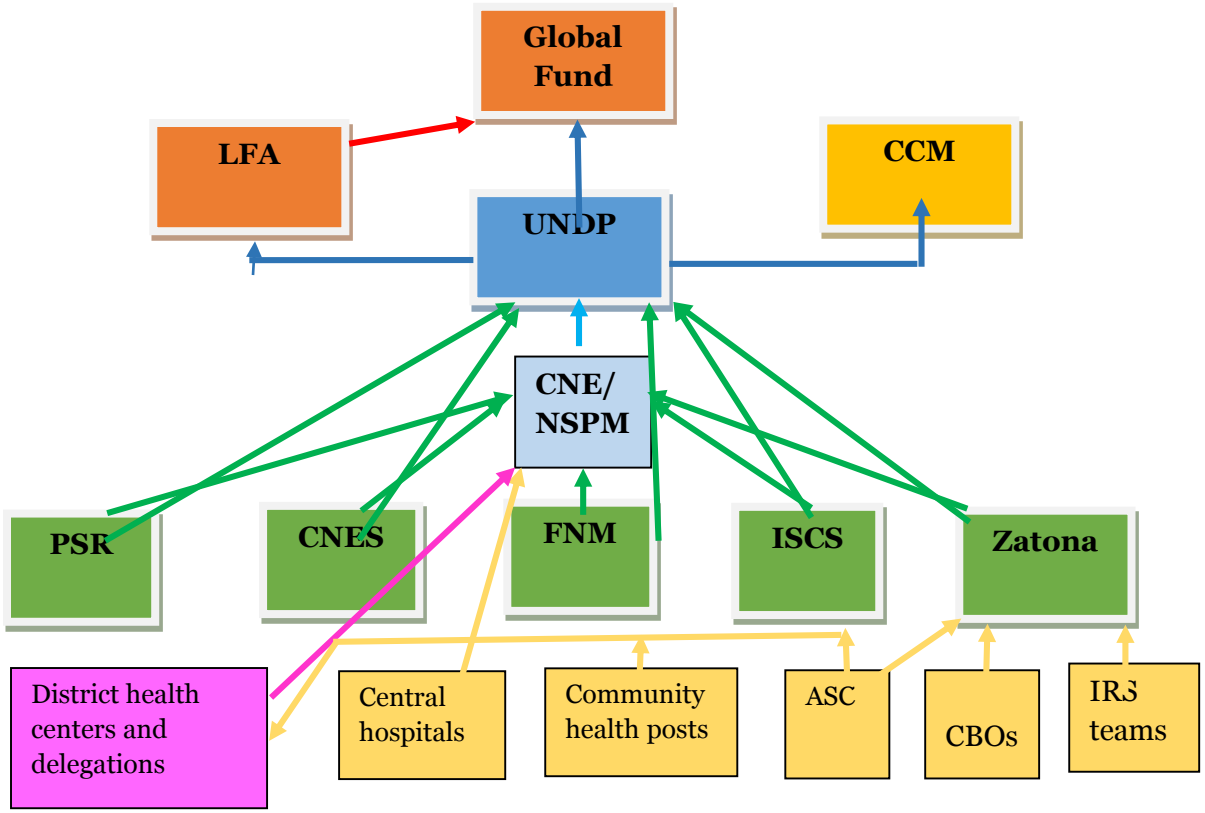
The UNDP will manage sub-recipients, with the involvement of CNE/PNLP, via the following activities:

- Implementation of the SR Management Plan, via regular or ad hoc monitoring visits to SRs
- Design of communications channels and resources for communication between PR and SRs
- Regular identification of SRs' capacity building needs, and filling in any gaps by providing individual or group training, within the limits of the grant's Budget
- Sending management correspondence to SRs, following submission of their programmatic reports, including UNDP's analysis of their performance as SRs
- Managing cases of non-performance and risks associated with SRs, using a risk management process

Institutional arrangements

Given the above information, the institutional arrangements for this grant will be as follows:

Figure 8:



This is a draft diagram of reporting relationships and institutional accountability. The actual implementation map, with information flows, will be drawn up during the grant-making process, as mentioned in the Global Fund's New Funding Model.

Involvement of representatives of women's organizations, people living with the diseases and other key populations in the implementation of this funding request

Since February 2015, following assessment of its performance as measured against the Global Fund's eligibility requriements, São Tomé and Príncipe's CCM has been involved in a reform process, led by a Transition Committee. This Committee includes the Vice-Chair of the CCM, a representative of people living with HIV, the CNE, DSS, CCM Secretariat and UNDP. The mission of this Committee is to ensure that the CCM meets the conditions set by the Global Fund in its eligibility criteria and minimum standards for CCMs.

This Committee is currently working towards greater involvement of representatives of women's organizations, people living with the diseases and other key populations in the implementation of this funding request. A proposal for a new structure for the CCM, with this aim in mind, has been developed. A committee that oversees grant implementation is planned, the members of which will include a representative of people living with the diseases or affected populations. Oversight visits by committee members are planned; these will involve interviews with direct beneficiaries of the grant.

4.2 Ensuring Implementation Efficiencies

Complete this question only if the Country Coordinating Mechanism (CCM) is overseeing other Global Fund grants.

Describe how the funding requested links to existing Global Fund grants or other funding requests being submitted by the CCM.

In particular, from a program management perspective, explain how this request complements (and does not duplicate) any human resources, training, monitoring and evaluation, and supervision activities.

1 PAGE SUGGESTED

São Tomé and Príncipe is currently receiving a Tuberculosis grant, which expires in June 2015, and which will be superseded by a new Tuberculosis grant under the NFM (July 2015 - December 2017). In addition, the country is implementing a HIV grant, which will expire on 31 December 2016. A Malaria grant is currently being implemented, and this will continue until December 2015. In addition, a funding request for health systems strengthening was submitted to the GAVI /RSS Project in January 2015, which should be granted by September 2015.

Areas of overlap, which could be areas of potential co-ordination between the various grants, are as follows:

- Oversight of National Tuberculosis Plan, National HIV/AIDS Plan and National Malaria Plan
- Community health workers (ASC) activities
- Health systems strengthening activities
- Activities linked to building institutional and organizational capacity at the CNE, in preparation for its assumption of the role of PR

Supervision of the three programs

Each Global Fund grant includes supervision of the relevant program. Initial joint planning, facilitated by UNDP as the PR, was carried out as part of the process of negotiating the new NFM Tuberculosis grant. There is now a joint supervision plan for 2015-2017. This harmonization effort is set to continue.

Activities of community health workers

As part of their role, community health workers (ASC) cover all three diseases. In the context of the community involvement strategy that was drawn up in the process of negotiating the new Tuberculosis NFM grant, a set of tools for managing ASC has been redesigned by the PNLT (National Tuberculosis Program) and UNDP. The CNE/PNLP are asked to trust the information collected using these tools or to draw inspiration from it. These tools are:

- ASC register of his/her activities, across all three diseases, to be filled in daily, weekly or monthly
- ASC register of patient monitoring
- ASC fuel consumption form (filled in by Zatona, the SB in charge of ASC management)
- A Health Delegation report on ASC activities
- A revised PNLT supervision form, which includes ASC activities.

Activities linked to HSS, including strengthening of human resources and monitoring and evaluation systems

As analysed under Section 3, each of his Malaria Concept Note, the Tuberculosis NFM grant and the upcoming HIV Concept Note includes an HSS component. The detail of HSS activities in the three disease components as well as corresponding budgetary allocations is presented in Annex 38.
The country's funding proposal to GAVI HSS, of which the main components were listed in Table 7 under Section 3, is additional to the HSS component of Global Fund grants.
The correlation between the HSS components of Global Fund grants and of the future GAVI grant will be analyzed during the grant making process, in order to capitalize on opportunities for synergies and at the same time avoid duplication and waste of resources.

Activities linked to building institutional and organizational capacity at the CNE, in preparation for it to assume the role of PR

Two budget allocations have been planned: in the new NFM TB grant and in the current Malaria grant. As a result, and to avoid duplication, these activities have not been budgeted for in this concept note, although they will be implemented during the concept note's implementation period.

4.3 Minimum Standards for Principal Recipients and Program Delivery			
Complete this table for each nominated Principal Recipient. For more information on minimum standards, please refer to the concept note instructions.			
Name of PR 1	UNDP	**Sector**	UN Agency

Does this Principal Recipient currently manage a Global Fund grant(s) for this disease component or a cross-cutting health system strengthening grant(s)?	X Yes ☐ No
Minimum Standards	**CCM assessment**
1. The Principal Recipient demonstrates effective management structures and planning	• UNDP/Global Fund Project Management Unit already in place, able to effectively plan and manage Global Fund grants • Unit supported by a procurement specialist and two program advisers, based in Geneva and Addis Ababa. • Program and financial management, procurement and supply management, and management of project-related risks done via ATLAS, UNDP's online enterprise resource planning system. • Wide range of Global Fund management tools designed by UNDP (Operations manual, SR management manual, instructions and practical guides, online training, etc.).
2. The Principal Recipient has the capacity and systems for effective management and oversight of sub-recipients (and relevant sub-sub-recipients)	• SR management is in accordance with standardized grant agreements between UNDP and each SR. • SR management in accordance with rules and procedures and UNDP's SR Management Plan • PR monitoring visits to SR, monthly or ad hoc, based on specific terms of reference. • Stakeholder workshop to achieve common understanding of roles and responsibilities. • PR-SR meetings to monitor grant performance.
3. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	• Clear instructions about fraud in Procurement and Fraudulent Practices • Policy on Fraud and other Corrupt Practices (zero-tolerance policy on fraud and other corrupt practices not in line with UNDP's Standards of Conduct or that result in a financial loss for UNDP, including funds and programs that are administered by UNDP. • Global Fund grants managed by UNDP subject to rules and procedures set up by UNDP in terms of audit and surveys • Intensive and detailed audits of Global Fund grants, given the complex environments in which UNDP is requested to manage these grants
4. The financial management system of the Principal Recipient is effective and accurate	• Online management platform (ATLAS) for effective and accurate financial management, procurement management, project asset management, and project risk management. • Broad range of tools and guidelines developed by UNDP (e.g. UNDP/Global Fund Project Operations Manual, UNDP specific guidelines for financial reporting to the Global Fund, financial dashboards)

	• Access to financial analysts at UNDP Headquarters in New York, who provide dedicated support to UNDP Country Offices that manage Global Fund grants. • SR financial reports submitted quarterly to UNDP which verifies and asks for any necessary corrections before validation • Strengthened terms of reference for UNDP SR audits (controls and procedures review).
5. Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products.	• Acceptable storage and security in central warehouses used by UNDP (FNM) • Warehouse conditions comply withgood practices in warehousing • FNM warehousing and stock management capacities evaluated by the LFA in December 2014; areas for improvement identified. • Leasing warehouses that are acceptable options for temporary storage of products when additional capacity is required • Quality assurance plan drawn up by UNDP in 2014
6. The distribution systems and transportation arrangements are effective and can provide continued and secured supply of health products to end users to avoid treatment / program disruptions.	• "Pull" distribution system: Health delegations procure from FNM according to their needs and availability. • Implementation planning process includes forecasting of needs, taking into consideration the minimum required stock to be held centrally, in districts and in RAP. • Regular stock analysis and replenishment by FNM; supervision by FNM of health facilities (monthly for São Tomé and six-monthly for Príncipe). • Product and consumables distribution by FNM during supervision visits. • Product transport by FNM in the required conditions
7. Data-collection capacity and tools are in place to monitor program performance	• PNLP capacity for monitoring and evaluation self-assessed (MESST process, Malaria Report 2014, Annex 10). • Data collection system, consisting of a set of tools, some of which are filled in in triplicate, in order to keep a copy at the data production site at all times. • Supervision visits carried out regularly for the purposes of data verification. • Standardized surveys (e.g. KAP, MIS, DHS) periodically carried out in order to obtain relevant information on specific indicators. • Electronic data management system is being installed.
8. A functional routine reporting system with reasonable coverage is in place to report	• UNDP commitment to communication between PR and others involved

program performance in a timely and accurate way	• Official PR-SR meetings (e.g. launch workshop, SR performance review meetings, reprogramming workshop). • UNDP-CCM communication, either planned or initiated by UNDP. The impending establishment of the CCM Oversight Committee, a result of CCM reform, should increase the opportunities for communication from UNDP to the CCM. • Specially designed communication resources to convey grant outcomes (UNDP São Tomé website, information sheets, short info pieces, Annual Reports)
9. Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain.	Developed in 2014, UNDP's Quality Assurance Plan (see Annex 14) describes the roles and responsibilities of implementers (FNM, other SRs, health delegations, health centers and posts) in quality control. The Plan covers all three diseases, and proposes applying quality control to all steps of the procurement and supply management cycle (product sources; transportation; transit of goods; reception of goods; central and peripheral storage; distribution; waste management; pharmacovigilance)

4.4 Current or Anticipated Risks to Program Delivery and Principal Recipient(s) Performance

a. With reference to the portfolio analysis, describe any major risks in the country and implementation environment that might negatively affect the performance of the proposed interventions including external risks, Principal Recipient and key implementers' capacity, and past and current performance issues. Also describe past and current performance issues.

b. Describe the proposed risk-mitigation measures (including technical assistance) included in the funding request.

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The table below provides an analysis of risks incurred by the PR and the CNE/PNLP in the context of this Concept Note.

Definition of risk	Risk factors	Mitigation measures
Risks in implementation environment		
Resistance of population to IRS (21 percent of households which were either closed or refused IRS during the 8th campaign)	Widespread perception that malaria is less of a threat Poor interpretation of the effect of insecticide Population is tired of repeated IRS campaigns (twice a year, requiring the home to be emptied of its contents before each spraying).	Revisit pre-campaign strategy and ways of mobilizing Redesign mobilization messages Considerably increase budgetary resources allocated to social communication (see Budget)
Continuing reduction in LLIN coverage	Lack of use of mosquito nets among the population Perception that the risk of malaria is reduced	Revisit LLIN distribution strategy for health care providers (open the packaging, explain to the patient how to use it) Revisit awareness-raising messages on malaria prevention

	Perception that there are no mosquitos inside houses Perception of a link between LLIN and heat Lack of explanation as to how to use a mosquito net by health care provider when handing over the LLIN Mosquito nets remain in their packaging at home	Allocate increased budgetary resources to social communication on malaria prevention
Change in vectore behavior in response to insecticide (e.g. mosquitos might only bite outdoors)	Gradual ending of endophagic behavior resulting from repeated indoor residual spraying	Monitor vector behavior Ensure vector control measures are appropriate
Resistance of Plasmodium to ACT and quinine	Inappropriate treatment (sub-therapeutic doses)	Inclusion of need for appropriate treatment in awareness-raising messages
Risks that could negatively affect outcomes		
Delay in starting IRS campaigns	Delays in UNDP having access to funds, and resulting delay in IRS procurement Delay in internal organization of SR (PNLP) Delay in accessing vehicles; PNLP has little capacity to find alternative transport solutions	Put in place an annual disbursement schedule for the PR Continue advocacy aimed at the PNLP and Ministry of Health in favor of better IRS planning
Inadequate assessment of insecticide needs	Lack of correlation between quantification methodology and spraying practices (surface area sprayed greater than quantified surface area) Lack of a multi-party quantification process	Establish a national process for insecticide quantification as part of the work of the National Procurement Committee
Co-ordination is lacking during IRS campaigns	Stakeholders do not own up to their responsibilities IRS Supervision Plan is not put into practice	Raise awareness among stakeholders about division of roles and responsibilities, with emphasis on the co-ordination role
Insufficient IRS oversight: Oversight of action taken by lead SR in carrying out IRS (Zatona) Oversight of storage, distribution and consumption of insecticide	IRS Plan and IRS Supervision Plan not read and not put into practice by organizations involved (CNE, PNLP, CNES, UNDP) IRS supervision tools not used or poorly used by organizations involved Monitoring forms for distribution and consumption are not filled in or not filled in properly by stakeholders (FNM, IRS team leaders)	Develop level of knowledge of content of IRS Plan and IRS Supervision Plan among the organizations involved Close monitoring of each organization by the PR to collect documentary evidence that the IRS Supervision Plan is being put into practice. Close monitoring of FNM and Zatona by the PR to ensure that insecticide stock, distribution and consumption forms are being filled in.

Continued reduction in LLIN coverage (number per family, use by pregnant women)	Delay in arrival of mosquito nets	
Risks likely to affect capacity of Principal Recipient and SRs		
Sudden reduction in human resources capacity at CNE/PNLP	Implementation of the salaries sustainability plan at the CNE/PNLP from January 2017 Government unable to pay staff that will no longer be funded by the Global Fund from this date	Develop CNE funds mobilization capacity via greater institutional autonomy Rapidly access technical assistance planned as part of the CNE capacity building plan Advocacy aimed at the Global Fund for the purpose of revisiting the salaries sustainability plan
Delayed PR access to funds (and in consequence SRs)	Delays in negotiations with the Global Fund followed by disbursement delays	Apply to the Malaria grant the annual funds disbursement schedule agreed for the NFM TB grant.
Slowdown in program implementation because of a lack of ownership of the Principal SR role by the CNE/PNLP	Length of learning curve for role of Principal SR contrasting with the short timescales of Global Fund management	Guidance and repositioning of CNE/PNLP on its new role and its implications UNDP to provide intensive support to CNE/PNLP

CORE TABLES, CCM ELIGIBILITY AND ENDORSEMENT OF THE CONCEPT NOTE

Before submitting the concept note, ensure that all the core tables, CCM eligibility and endorsement of the concept note shown below have been filled in using the online grant management platform or, in exceptional cases, attached to the application using the offline templates provided. These documents can only be submitted by email if the applicant receives Secretariat permission to do so.

☐ Table 1: Financial Gap Analysis and Counterpart Financing Table

☐ Table 2: Programmatic Gap Table(s)

☐ Table 3: Modular Template

☐ Table 4: List of abbreviations and annexes

☐ CCM Eligibility Requirements

☐ CCM Endorsement of Concept Note