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PROJECT DOCUMENT
GUINEA BISSAU – GF – NFM3 MALARIA

Project Title:	GF - NFM 3 MALARIA	Project Number:	**130819**
		Project Output Number:	**124029**
Implementing Partners:	**Ministry of Health (PNLP, PS BANDIM, CECOME)** **United Nations (UNICEF)** **INGOs (PLAN International)**		
Start Date:	**1 January 2021**	End Date:	**31 December 2023**
LPAC Meeting date:	**11 December 2020**		

Brief Description

Briefly describe the overall development challenge and the expected results of the project.

Executive Summary: The current project is to be supported under the New Funding Model (NFM3) at total of 24.7 million Euros is a continuation of previously awarded Global Fund to Fight Against AIDS, TB, Malaria (GF) grants 2018-2020 in Guinea Bissau (GNB), with the United Nations Development Programme (UNDP) selected by the Country Coordination Mechanism (CCM) to act as the grants' principal recipient (PR). The previous GF malaria grants contributed to dramatic achievements in prevention and treatment, as well as to four national long-lasting insecticidal nets (LLIN) campaigns of 2011, 2014,2017 and 2020. Although the Evaluation of the 2020 LLIN Campaign is under preparation, the previous 2011 to 2017 LLIN was found to be associated with the reduction of malaria prevalence, in children under 5 years by over 93% and in 81% for people aged over 5 years (MIS, 2017). It also resulted in 98% of suspected malaria cases receiving rapid diagnostics tests (RDT) in first semester of 2020 (through the case management strategy), and 92% of positive cases treated with first-line malaria treatment in public sector health facilities.

The project will continue with the six priority strategies of intervention employed by UNDP and its project partners in the NFM2 Malaria grant. These strategies are designed to achieve the established objective of reducing morbidity and mortality attributed to malaria and were drawn up in accordance with WHO recommendations. These strategies are:

1. Prevention of malaria through maintaining universal LLINs coverage, increasing Intermittent Preventive Treatment (IPTp) adherence rate in pregnant women, and carrying out seasonal malaria chemoprevention (SMC) in 3 target regions (Bafata, Gabu and Tombali);
2. Case management of malaria illness to reduce mortality, leading towards elimination;
3. Monitoring and evaluation of implemented strategies;
4. Information Education and Communication/Behavior Change Communication (IEC/BCC);
5. Improvement of procurement and supply chain management systems;
6. Strengthening program management.

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The delivery structure will take on a multi-pronged, coordinated approach with partnerships at the central, regional and community levels, across public and private sectors, to advance evidence-based prevention and curative interventions. UNDP's key implementing partners are 3 Ministry of Public Health organizations: 1) National Malaria Control Program (PNLP) for implementation of Malaria control strategies, 2) the Bandim Health Project (Bandim) for M&E and research, and 3) the Central Medical Stores (CECOME). The United Nations Children's Fund (UNICEF) and INGO Plan International are Sub-Recipients for community health in the NFM3 Malaria grant.

Expected Benefits:

The six interconnected strategies above are expected to produce the following project outputs in continued support to the National Strategic Malaria Control Plan (NSP) 2018-2022:

(i) At least 95% of the population is sleeping under a Long-Lasting-treated Net by the end of 2023;
(ii) At least 62% of pregnant women receive at least three doses of directly observed intermittent prophylactic therapy via Intermittent Preventive Treatment in pregnancy (IPTp) by the end of 2023;
(iii) At least 97% of children aged 3 to 59 months are covered by Seasonal Malaria Chemoprophylaxis (SMC) in targeted areas by the end of 2023;
(iv) At least 99% of malaria cases are properly managed in health facilities according to the national diagnosis and treatment protocol, by the end of 2023;
(v) By 2023, Management and coordination capacities are strengthened at the Ministry of Health (MOH), the National Malaria Control Program (PNLP), the Central Medical Stores (CECOME) and at the Bandim Health Project (BANDIM);
(vi) Procurement & Supply, the Monitoring and Evaluation Systems, Laboratory and community health systems strengthened by the end of 2023.

Contributing Outcome (UNDAF/CPD): Output 3 Indicative Output(s): Contribution towards National Strategic Malaria Control Plan (NSP) 2018-2022 with overall objectives: 1. Malaria-related mortality - 6 deaths per 100,000 inhabitants in health facilities 2. Confirmed malaria cases per year: 70 per 100,000 inhabitants	**Total resources required:**		€24,660,550
	Total resources allocated:		
		UNDP TRAC:	
		Donor:	€24,660,550
		Donor:	Global Fund
		Government:	
		In-Kind:	
	Unfunded:		

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Agreed by (signatures)[1]:

UNDP Resident Representative	MINSAP Minister of Health
Tjark Marten Egenhoff	António Deuna
Date: 31-Dec-2020	Date: 31-Dec-2020

Jose LEVY

george ionita

[1] Note: Adjust signatures as needed

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

By measure of years of life lost (YLLs) due to premature mortality in Guinea-Bissau, malaria had been the leading cause as far as in 1990 and remaining so in 2018 (INASA, 2018). Malaria remains an important public health threat and is the 8th leading cause of morbidity in Guinea-Bissau (statistics year book, INASA 2018). The country is still in the malaria control phase and malaria remains endemic throughout the country, with seasonal and regional variations. UNDP and its partners seek to address its impacts in this proposed project which can be contextualized environmentally, systematically, economically, and in a sociocultural lens (Annex IV: ToC Context (C) 1, 2.1-2.4).

The West Africa region, which hosts nine (9) of the fifteen (15) countries with lowest Human Development Indices (HDI, 2019), has about 381 million people at risk of the disease (WHO World Malaria Report, 2019). And according to WHO's commission on Macroeconomics and Health, where malaria prospers most, human populations have prospered least (Sachs & Malaney, 2002). Global distribution of per-capita GDP shows similar correlation between malaria and poverty, where endemic countries experience lower rates of economic growth (World Bank, 2016). In the context of Guinea Bissau, results of the Poverty Assessment according to DENARP II (ILAP 2/2010) indicate that 69% of Guineans are poor and 33% are extremely poor. The poorest especially do not have adequate access to services. Because medical procedures and drugs need to be paid out-of-pocket (in relation to the Bamako Initiative on cost recovery mechanisms), the majority of the poor resort to self-medication and to soliciting traditional healers, leading to diagnostic errors, to further delays in receiving proper treatment, and to high risk of mortality. The poverty-driven behaviour in community settings poses threats to disease control and case management. In short, malaria damages economic development potential in a country and its eradication is hampered by poor economic outcomes (Annex IV: ToC C2.4).

Malaria remains one of the major public health problems in the country. In 2019, out of 844,092 cases of diseases treated at health structures and in the community in the country, 160,907 (19%)_were confirmed as malaria, representing a burden rate of 19 percent (District Health Information Software 2 [DHIS 2] data and *Instituto Nacional Saúde Pública* [National Institute of Public Health – INASA] 2019). *Plasmodium falciparum* is the most common parasite (98 percent), followed by *Plasmodium malariae* representing 2 percent (Malaria Indicator Survey [MIS] 2017, p. 35). The whole population is at risk of malaria, especially children aged under 5 years and pregnant women, although recent changes indicate that the highest prevalence is in children aged 5-14 years (2.4 percent) (MIS 2017, p. 36). Under the current GF grant, access to and coverage of several malaria control interventions such as LLINs, free diagnosis and treatment at the community level and through public services, intermittent preventive treatment in pregnancy (IPTp), and seasonal malaria chemoprevention in Bafatá and Gabú, have demonstrated a positive impact with a significant decrease in morbidity and mortality in children aged under 5 years and among pregnant women, as shown in the figures representing cases, deaths and incidences below.

Between 2016 and 2019, there was a slight increase of 7 percent in the total number of malaria cases. Improved data collection and the inclusion of private sector data may have contributed to this, although this increase is entirely concentrated in children aged over 5 years (Figure 1), while for children aged under 5 years, there is a regular reduction of approximately 7 percent per year over the same period. Data on malaria deaths show a decreasing trend over the past five years, with the biggest impact on children aged under 5 years (Figure 2), helping achieve one of the Malaria

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Control Program targets, and thus malaria is 8th leading cause of death in the country (INASA, 2018, p. 47).

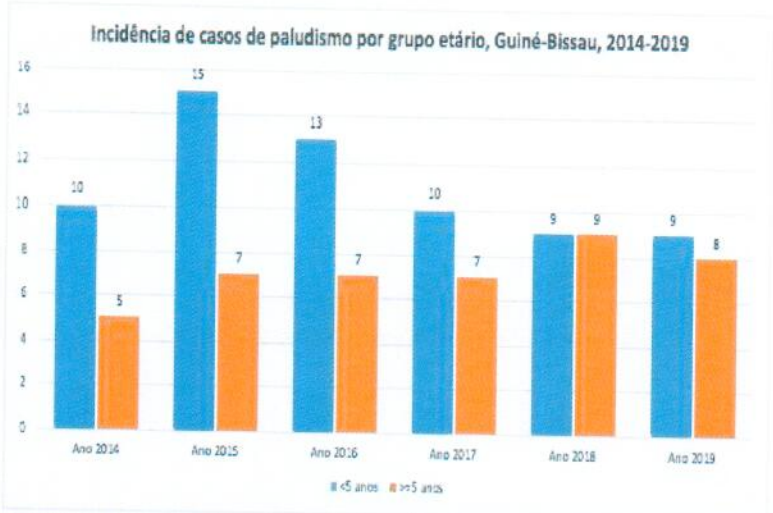


Figure 1: incidence of malaria cases by age group, Guinea-Bissau, 2014-2019

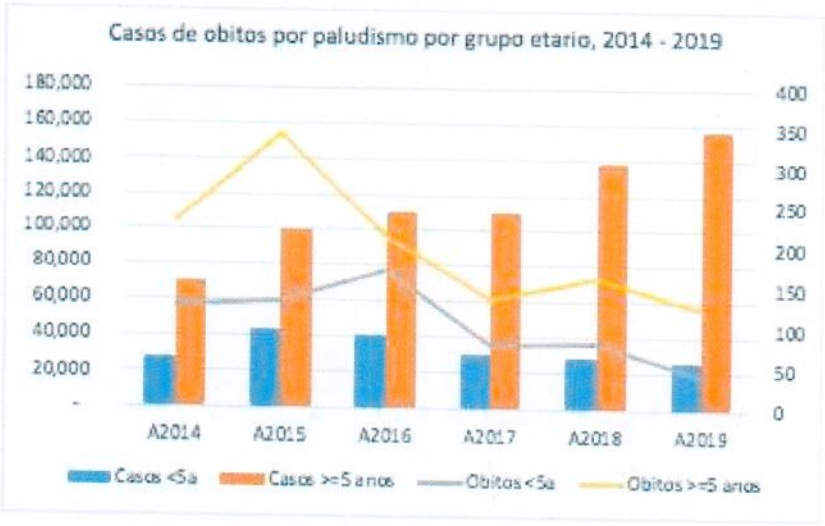


Figure 2: number of cases and deaths from malaria by age group, Guinea-Bissau, 2014-2019

The incidence per thousand inhabitants (Essential Data Tables [EDT] 2019) appears to have stagnated after the initial reduction in 2015 and 2017. However, the differences between age groups show a tendency for a decrease in children aged under five years and an increase in those aged over five years.



The MIS survey conducted in 2017 (MIS 2017, p. 49) showed a similar trend, with malaria prevalence continuing to decline by 90 percent between 2012 and 2017, specifically in children aged under 5 years, and increase in people aged over five years (see Table 1).

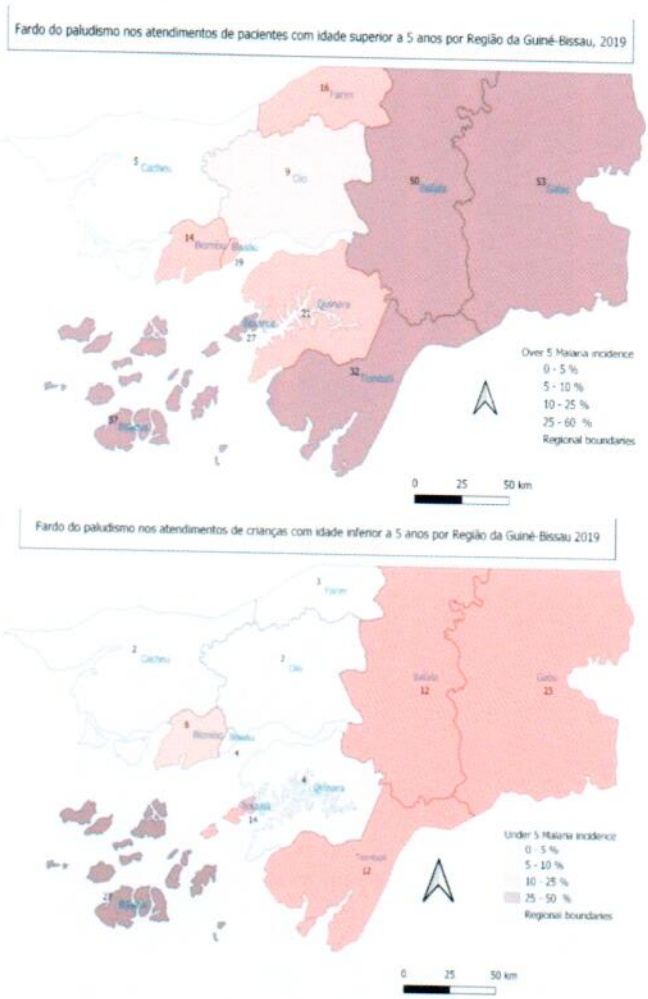
Table 1: results of malaria prevalence studies (%) by age group, Guinea-Bissau, 2014-2017

	MALARIA PREVALENCE (%)		
Age	2012 (MIS)	2014 (MIS)	2017 (MIS)
6-59 months	9.9%	1.3%	0.7%
Over 5 years	7.9%	0.7%	1.5%

Based on routine data (INASA, 2019), the country's regions were divided into four different transmission strata, as shown on the following maps (Maps 1 and 2) for children aged under and over 5 years. Unfortunately, there is no disaggregated data for children aged 5-14 years at this time, but the maps clearly show the differences in malaria burden between the two age groups and the heterogeneity between regions, with some regions – Oio and Cacheu – on the path to malaria pre-elimination. The greatest malaria burden is in the two eastern regions of the country (Bafata and Gabu), and in Bolama and the Bijagós islands. These differences in disease burden will be used to determine interventions for the next grant, which will include a strong epidemiological monitoring component, using more granular data down to health area level, with more age ranges, and results from formative studies such as Matchbox Malaria (MMB), to support the NMCP in making more accurate decisions.

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Figures 3 and 4 Malaria disease burden per 100 outpatient consultations by age group and region, Guinea-Bissau, 2019

In Guinea Bissau, nonattendance of clinics for routine and repeated antenatal care (ANC) by a majority of pregnant women, coupled with weak health services, limit the effectiveness of IPTp when drugs are to be administered under direct observation of health care professionals during ANC visits, to prevent malaria in pregnant women. New approaches to scale up IPTp are urgently needed to cover this high risk-exposed group accounting for 4.5% out of the total population (MIS, 2017), especially as indirect effects of malaria can begin even before birth. Pregnant women are at a higher risk of infection, and malaria in pregnancy can result in miscarriages, neonatal and infant mortality, low birth weight and congenital infection. Acute and chronic malaria infections can alter the immune system and the body's response to vaccines, and increase vulnerability to other infections, including HIV. And malaria-related anaemia in mothers is related to low birth weight among babies (Guyatt & Snow, 2004), thus bearing significant negative influences over an early life stage of a child. Low birth weight can be shown to lead to a two to four-times likelihood of school failure in children when compared against those born with a normal birth weight.

Gender inequality by social and cultural design also makes access to health care services difficult for high risk groups such as girls and women, who in general have lower levels of literacy (42%) and little decision making power within family structure, despite the fact that IPTp and LLINs are provided for free with GF support. According to the Malaria Matchbox study (page 13), approximately 15% of

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pregnant women do not attend antenatal consultations and thus do not benefit from intermittent preventive treatment for the above reasons, including socioeconomic constraints that stop them from attending antenatal consultations on a regular basis and taking advantage of the services provided. This is in addition to the reality that 40% of the population lives more than five kilometres from a health care facility, representing a geographic barrier for pregnant women to comply with routine ANC (Annex IV: ToC C 2.4).

Children under 5 yrs are especially vulnerable, particularly in areas of stable endemic transmission with about 25% of all-cause mortality in children aged 0 to 4 years attributed directly to malaria (WHO, 2015). The World Malaria Report states that malaria during pregnancy is estimated to cause between 75,000 and 200,000 infant deaths per year (WHO, 2019). And while adults generally develop partial immunity to symptoms of the disease in high endemic areas, young children bear considerable burden in malaria morbidity and especially mortality. The most vulnerable group aside from pregnant women are children under 5 yrs (17% of total population). In school aged children it has long-term adverse effects in education attainment, with one study attributing 13–50% of medically-related school absences to malaria (Brooker, et al., 2000). Absenteeism goes beyond the number of days lost in schooling, as it increases rates in failure, school-year repetition, and student drop-out (Annex IV: ToC C2.4). Malaria also severely impacts children's cognitive development and learning ability. For example, children with the disease are found to have poorer nutritional status than non-malarial children, an outcome that can impair brain development. In relation to fine motor functions, it has been found that infected children perform worse in school than their non-infected counterparts.

To counter malaria incidence, government and partners have increased efforts to improve coordination in the health sector by creating coordination committees and homes for mothers, where women in the late stages of pregnancy stay close to health care facilities so that they can be attended promptly and protected by LLINs. Other community prevention activities have been increased, including distributing LLINs during expanded program of immunization (EPI) and antenatal consultation (ANC) routines, supplying sulfadoxine-pyrimethamine (SP) during ANC, the LLIN campaign and training for CHWs in these regions, all of which will help to reduce this rate.

The proposed project builds on the achievements of the GF NFM2 Malaria Project, whose implementation strategies took into account both the populations that are most vulnerable to the disease, and the general population. They involve strengthening the health system and coordinating malaria control activities. There is a notable progress made in the implementation of the NFM2 grant, it is pertinent to maintain these same strategies for the third phase of new funding model.

II. STRATEGY

The strategies outlined in the Project are designed to achieve the established objective of reducing morbidity and mortality attributed to malaria and are based upon WHO recommendations. Previous interventions have been modified to address the effects of underlying and immediate environmental, systematic, economic, gender and sociocultural attributes highlighted in section I. These strategies are:

i. Prevention of malaria through maintaining universal LLINs coverage, increasing Intermittent Preventive Treatment (IPTp) adherence rate in pregnant women, and carrying out seasonal malaria chemoprevention (SMC) in 3 target regions (Bafata, Gabu and Tombali);

ii. Case management of malaria illness to reduce mortality, leading towards elimination;

iii. Monitoring and evaluation of implemented strategies;

iv. Information Education and Communication/Behavior Change Communication (IEC/BCC);

v. Improvement of procurement and supply chain management systems;

vi. Strengthening program management.

Each of the outlined strategies will also be evaluated via a set of outcome indicators chosen under the *Results Framework* of this project.

1. Vector Control

The Vector Control component (Annex IV: ToC I1, Outcome Indicators VC) of the project involves interventions designed to maintain universal access of LLINs, combat seasonal surges in malaria prevalence in children under 5 yrs by introducing SMC (Seasonal Malaria Chemoprophylaxis), and promote LLIN usage and IPTp (Intermittent Preventive Therapy in pregnancy) through public Information, Education and Communication (IEC). Mass LLIN distribution campaigns in 2011, 2014, 2017 and 2020 achieved coverage rates of almost 100% with utilization rates of over 80%.

To ensure and maintain universal coverage of preventive measures, vector control interventions with long-lasting insecticidal nets will continue to be prioritized in this grant. This will be done through the 2023 mass distribution campaign and maintained by routine distribution to pregnant women and children aged under 1 year, except in Bolama and the Bijagós islands, where the target will be children aged under 5 years. Long-lasting insecticidal net requirements were optimized during microplanning to ensure that there will be sufficient stocks to reach the target of 1 long-lasting insecticidal net for every 2 people. With evidence of resistance to pyrethroids (PSB 2018, p. 33, p. 39-40), the country intends to distribute long-lasting insecticidal nets (LLINs) with the synergist piperonyl butoxide (PBO) to manage resistance and achieve greater impact in the zones with high and persisting incidence while LLINs with pyrethroid or other available options approved by WHO prequalification will be used in the low incidence zones.

Entomological surveillance will be strengthened, as will the technical capacity to carry this out. The aim is to collect more up-to-date information on both vector sensitivity to insecticides and on the density and species of vectors present, as well as the impact of other integrated vector management measures, such as the use of ivermectin, already being trialed in partnership with PSB and the

London School of Hygiene and Tropical Medicine on the Bijagós islands, and environmental sanitation of drainage ditches in partnership with Bissau Municipal Council (CMB). To ensure more effective long-lasting insecticidal net interventions, a formative study will be carried out under this grant to aid understanding of behavior and practices regarding the use of long-lasting insecticidal nets on the Bijagós islands, a region with a high incidence. This may be related to the rapid deterioration of long-lasting insecticidal nets due to flimsy housing materials, rendering mosquito nets useless within one year, as well as the presence of groups of nomadic fishermen, from both Guinea-Bissau and neighbouring countries, who camp on the uninhabited islands. In addition, in Gabú, where morbidity and mortality rates are stagnant and there is also a nomadic herder population, information, education and communication/behaviour change communication will be strengthened in preventive interventions.

Meanwhile, behavior change communication (BCC) will be used as a major support strategy in order to increase knowledge among target populations of LLIN use. To that effect, development, reproduction and distribution of IEC materials (posters, banners) are planned, as well as dissemination of prevention information by media channels (radio, television, newspapers).

2. Case Management

The slogan "no malaria without confirmation" will be reinforced and used at all levels of the health pyramid to ensure full compliance from public, private and community sectors. Accordingly, free diagnosis and treatment, training, refresher training, follow-up and training supervision are priorities in the new strategic plan and this grant will serve to ensure universal access to the various services.

From 2015 to 2019, there was a 52% decrease in malaria deaths, although there was a 20% increase in cases. This demonstrates improved access to diagnosis and treatment at the community level and to free services for children aged under 5 years and pregnant women, which has helped Guinea-Bissau achieve the target of reducing mortality by 50% with respect to 2015, which is in line with the RBM target of reducing mortality by 40% by 2030. Although morbidity has increased, this may reflect improved data reporting and climate change.

Children aged under 5 years receive integrated management of childhood illness services in their community through trained community health workers in 11 regions of the country. However, uncomplicated malaria diagnosis and treatment is only conducted in 7 regions. (Bafatá, the Bijagós islands, Biombo, Bolama, Gabú, Quinara and Tombali).

In addition, in the public sector, children aged under 5 years and pregnant women will receive all malaria services, including free consultations. The intention is to offer the same interventions for children aged 5-14 years, which will reduce inequities in access to health services and contribute to reducing morbidity and mortality in this age group.

Community Health Workers (CHWs) are the most cost-effective resources to test for malaria and deliver antimalarial therapies in local settings, due to their proximity to communities. Thus, integration of diagnosis and treatment activities among CHWs is planned as a component within the Case Management project strategy (Annex IV: ToC I2, Outcome Indicators CM). Support to diagnostic testing and treatment using 2,000 CHW through the supply of rapid diagnostic tests

(RDTs) and treatment (ACTs) will be provided to the 7 regions with the highest incidence of malaria: Bafata, Bijagos, Biombo, Bolama, Gabu, Quinara and Tombali in children <5 yrs. In these 7 regions CHWs will continue to be trained and supervised in Integrated Community Case Management (ICCM) tools and modules, and be provided with antimalarial supplies (RDTs, ACT, AQ/SP) by UNICEF and their NGO partners with European Union funding under PIMI 2. Supplementary supplies such as amoxicillin, enriched flour, and contraceptives will be given out by EU funded partners. CHWs will also be tasked to ensure universal LLIN access and use within communities. To achieve universal access to malaria diagnosis and treatment, CHWs will treat all cases of uncomplicated malaria in the community nationwide, except for pregnant women.

3. Specific Preventive Interventions

The administration of intermittent preventive treatment in pregnancy will continue to prevent mother-to-child malaria transmission. This grant will support behaviour change communication activities aimed at improving antenatal consultation attendance and adherence and integrated supervision visits, as well as drugs (intermittent preventive treatment in pregnancy) and piperonyl butoxide long-lasting insecticidal net antenatal consultation services. The program has managed to increase the number of pregnant women who receive 3 doses of intermittent preventive treatment: 7.9% (2016), 20% (2017), 34% (2018) and 48% (2019). Targets for 2018 and 2019 were achieved due to the inclusion of three doses of intermittent preventive treatment in the new antenatal consultation register, improvement in supply chain management, frequent visits to service delivery facilities (participation in regional coordination meetings, quarterly data quality control, training and training supervision).

There are losses to follow-up due to barriers to access and continuous use of services. To improve management of losses to follow-up (intermittent preventive treatment 1: 86%; intermittent preventive treatment 2: 65%; intermittent preventive treatment 3: 50%), all the measures described above will be maintained to increase demand, including informative studies and formulation of behavior change strategies targeted at men to be piloted in 4 regions (Biombo, Gabú, Oio and Tombali). The program will conduct community-based awareness-raising for men with respect to health and (pregnant) women. In addition, community health workers will be responsible in their community for following up pregnant women and encouraging them to attend antenatal consultations.

The high coverage of seasonal malaria chemoprevention (SMC) in children aged 3-59 months in the regions of Bafatá and Gabú may be the cause of decreased mortality (see Table 2), particularly in this age group. Building on this success, the program aims to expand to two more regions (Quinara and Tombali) that meet WHO eligibility criteria under the next grant.

SMC (children under 5 yrs old) and IPTp (in pregnant girls and women) coverage are equally considered sustainable and cost effective within the Specific Prevention Interventions strategy (Annex IV: ToC I3, Outcome Indicators SPI). Behavior change communication (BCC) strategy will be used to increase knowledge among pregnant girls and women of IPT coverage in ANC healthcare facilities. As per preventive intervention via SMC, the following IEC/BCC activities will be planned: (i) organization of advocacy meetings with national and local authorities, opinion leaders, and partners on SMC; (ii) design, development and dissemination of messages on SMC in national languages via local radio (both before and during the LLIN distribution as part of an integrated campaign).

4. Health Systems Strengthening

The health systems strengthening (HSS) strategy (Annex IV: ToC I4, Outcome Indicators HSS) has the following components; namely monitoring and evaluation (M&E), procurement and supply (and inventory) management (PSM), laboratory systems and community health systems.

a. Monitoring and Evaluation

UNDP will support malaria data collection and organization, reporting, and analysis on the effectiveness of the project intervention strategies. These M&E activities shall take place at all levels of Guinea Bissau's health system (health facility, regional and national) in close collaboration with government counterparts. The aim is to improve the quality of collected and reported malaria data from interventions within the scope and constraints of the national M&E system, through the DHIS2 (District Health Information System) and by assessing the impact of interventions. However, UNDP with project stakeholders will also aim to integrate data from the private and NGO sectors, and community settings into DHIS2.

Validation of data in the field is a priority to obtain reliable information through verification, collection, analysis and quality control of data at the level of health care facilities. For national authorities, grant managers and donors, it is imperative that quality data are produced and made available in a timely manner at all levels of the health system, and that data are compatible when compared.

According to the various performance reports and the twice-yearly and quarterly field missions to monitor/audit and ensure the quality of malaria data, in collaboration with national health programs and institutions (INASA, NMCP, Management Unit – NHDP) and a regional team (health information system, directors of major endemics, regional directors and deputy regional directors), problems related to data quality and security persist. To address the problems identified, this grant proposes the following:

- conduct quarterly and twice-yearly verification, analysis, audit/security and data quality control missions, including analysis of bottlenecks affecting the coverage of certain indicators, through decentralized monitoring;
- improve availability of the Internet, and related equipment, at all levels of the health pyramid, according to needs and in synergy with other funds. It is also planned, as far as possible, to expand coverage to health areas not reached by telecommunications networks;
- integrate disaggregated data into the various studies, in accordance with objectives;
- mobilize the technical assistance needed to carry out certain studies, taking into account the country's limited technical capacity;
- create and implement an information system management mechanism.

A new initiative, based on mobile technology, aims to change this situation. The partnership between UNDP, the Global Fund, the government and the World Bank made it possible to introduce a real-time monitoring system in 2018, using tablets to scan malaria and compulsorily notifiable disease data produced at 45 health care facilities. The aim is to cover all 169 health care facilities in the country by 2023.

The use of this technology has strengthened the government's capacity to map, track, prevent and treat malaria outbreaks in real time. Consequently, 223 people, including those working in health care facilities and hospital data managers, have been trained in the use of this technology, launched

in 2018 at 45 health care facilities. This technology also helps ensure the availability of the required quantities of drugs.

As part of the integration of community health data into the DHIS 2 platform, a pilot project was initiated in three health regions (Autonomous Sector of Bissau, Biombo and Cacheu). Through this grant, it is intended to extend the project to the 8 remaining regions. This will include Internet provision to make this possible.

b. Procurement and Supply Chain Management (PSM)

UNDP will support project sub-recipients (SR) to improve PSM approaches aiming to ensure: (i) rational management of antimalarials and supplies (ACT, RDTs, AQ, AS, Quinine, SP, LLINs), (ii) systematization of quality control on same products before and after their purchase, (iii) functionality of the country's pharmacovigilance system, (iv) Finalisation of the new warehouse for storage and distribution according to the best practices. The improved results of the procurement and supply chain system will allow CECOME to deliver products correctly and timely at all three levels of the health system. To achieve effective reduction in overall malaria-related burden (morbidity and mortality), UNDP recognizes the need for an adequate, well-trained, and supervised health workforce, working in good conditions and following national protocols. In this regard, human resource capacity building, and enhanced surveillance and coordination will be implemented as part of the overall HSS intervention strategy. The goal of technical support is to improve the management and coordination capacities within the Ministry of Health's National Health Development Program – Project Management Unit, the PNLP, CECOME, as the Ministry of Health is responsible for the overall coordination, supervision, review, and training.

The creation of the new pharmaceutical regulatory authority by the Ministry of Public Health, and the strengthening of the Procurement and Supply Management Committee, are important steps for pharmaceutical regulation and for improving the coordination of pharmaceutical activities in the country. Technical and logistical assistance is thus needed to enable them to fulfil their regulatory and coordinating role.

Continuous training of human resources in stock management is necessary to guarantee effective management of products, ensuring their availability. Training in stock management will be carried out at all levels. Regular technical assistance will also be provided to all health care facilities to ensure proper stock management.

Under the NFM2, Global Fund financed the construction of a new drug warehouse to ensure storage and distribution capacity that complies with international best practices. The warehouse will be built by March 2021. However, there is a gap with respect to equipping the warehouse. Funds are therefore provided for the procurement of equipment (insulation systems, air conditioning system, cold rooms, cabinets for controlled products, pallets, forklift trucks, batteries, cardboard compactor and waste treatment machine) to ensure full operation of the new infrastructure.

Procurement of pharmaceutical products (antimalarials) and health products (rapid tests, laboratory reagents, long-lasting insecticidal nets), should ensure continuous availability and avoid stock-outs.

c. Laboratory Systems

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Until late 2011 and early 2012, malaria diagnosis was based on both laboratory tests as well as clinical symptoms such as fever, chills and chills, abdominal, joint and muscle pain, etc., which are non-specific, often leading to misdiagnosis and misuse of antimalarials.
With the review of the programme's performance and the preparation of the new strategic documents 2013-2017, the PNLP adopted for the first time the slogan "no malaria without confirmation", thus requiring the testing of all suspected cases of malaria. In the same context, the National Policy on Malaria has determined that Quality Assurance of laboratory services, through quality control of TDR and Thick Drop Slides is a very important activity to ensure that diagnoses and treatments are correctly performed and consequently antimalarials are used rationally. Still in the same context, it determined that all TDRs before being put into circulation must be submitted to a quality control, to ensure that their quality complies with the standards required by the country
From that time until today, the National Public Health Laboratory (LNSP) has been assigned the mission of supervision and quality control of laboratory diagnosis, with a view to obtaining reliable information through the verification, collection, analysis and quality control of microscopy and TDR slides at the level of health structures.
For national authorities, grant managers and donors, it is imperative that this important activity is maintained at all levels of the health pyramid and that the results are compatible when compared. Therefore, the PNLP will continue to work in collaboration with the LNSP to carry out quality control of biological diagnosis every six months. GE and TDR slide collections from the peripheral level will be performed for examination at the LNSP.

d. Community Health Systems

The 2009 Política Nacional de Saúde Comunitária (National Community Health Policy – PNSC) is the reference document for community health activities and actions that address key health challenges faced by the population of Guinea-Bissau. The PNSC was developed based on the principles of consolidation of primary health care, improved access to health services, equitable distribution of resources, operation of services, quality of delivery, decentralization of the health system and improved cross-sector collaboration.
The national community-based intervention policy aims to optimize services and care for people in their community, within the framework of universal access to health services and informed by the Sustainable Development Goals.
To achieve this, community systems must be challenged or even supervised to ensure potential sustainability of gains. In line with the partnership development approach set out among the priorities of the NHDP and the NSP, community partnership is, more than ever, a priority for all health programs.
Accordingly, a pilot study is being conducted in community systems that aims to reduce access barriers related to community perceptions. This is supported by funding from NOVAFRICA. The results of this study will make it possible to design and implement concrete strategies to reduce access barriers to services.
NOVAFRICA works in partnership with the Ministry of Public Health and the NGO VIDA to support the government of Guinea-Bissau.
In the same context, a socio-anthropological study will be carried out to identify the main factors that influence the demand for traditional medicine over conventional health care.
To facilitate coordination, planning, implementation, monitoring and evaluation of community activities, community health committees will be established.
By the end of 2020, there will be no funding for community health workers' supervisory activities, monthly health area coordination meetings (health areas/Supervisores Operacionais de Terreno [Field Operation Supervisors]/community health workers), replenishment of CHW work kits and drugs, or for the participation of the regional heath teams in health area coordination meetings and

training for 15% of new CHWs per year. It should be noted that the payment of monthly incentives for CHWs is covered by the $25m World Bank Maternal Child Health grant, and revision and updating of policy and strategy documents by UNICEF.
Accordingly, the Global Fund grant will make it possible to continue to promote the 16 Key Family Practices in synergy with the above funding. The activities will be implemented in a cross-cutting manner to strengthen the areas of maternal and child health and active case detection of TB, HIV and AIDS, as well as recovery of losses to follow-up, through the creation of a mechanism for following up diagnosed cases of TB and HIV, linking these with mapping by community health workers.

5. Programme Management

In relation to capacity building for institutions and staff, additional management and supervision support will be provided as part of the program management intervention strategy. This will be integrated into project delivery to ensure compliance with national treatment policies and protocols and consistency with the NSP (National Strategic Plan). The program's approach is to ensure that partners adhere to the "Three Ones" principle: one national strategic plan, one monitoring and evaluation plan and one malaria control coordination mechanism only. This coordinated approach is expected to improve private sector involvement and engagement and facilitate advocacy with the government to increase domestic resources for malaria control.

6. Promoting Human Rights and Gender Equality

Ministerial decrees 001/SEGH/2014 (which establishes free consultations for children under 5 and for older people), and 004/GSEGH/2015 of May 2015 (which introduces free malaria diagnosis and treatment for the entire population), have helped improve access to health services.

Barriers reducing access to health services prevent the early diagnosis and treatment of malaria cases, and the referral of severe cases to health care facilities. Actions to overcome the barriers are: 1) training CHWs at the national level in the 16 Key Family Practices (KFP), 2) strengthening the advanced strategy (community outreach), 3) free malaria diagnosis and treatment and availability of malaria control products in the community. In this context, CHWs have already been identified and trained nationwide.

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

In May 2018, the PNLP (National Malaria Control Program) in collaboration with various partners launched the 2018-2022 National Strategic Plan (NSP). UNDP and the Global Fund will work alongside with partners to develop 2023-2027 NSP. As the epidemiological context has not changed markedly, it is anticipated that the 2023-2027 NSP will contain and continue most strategies from the previous period, but will increasingly emphasize pre-elimination.

Resources Required to Achieve the Expected Results

The following tables outline the overall costs of the eleven modules, detailing specific resources required.

Table 1. Overall Costs 2021-2023 (EUR)

Modules	Total costs 2021-2023 (EUR)	Intervention as a % of total programme costs
Case management	1,521,254	6.2%
Programme management	8,028,721	32.6%
RSSH: Community systems strengthening	1,158,913	4.7%
RSSH: Health Information Systems and M&E	1,927,165	7.8%
RSSH: Health products management Systems	1,618,561	6.6%
RSSH: Health sector governance and Planning	74,912	0.3%
RSSH: Human resources for health, including community health workers	444,111	1.8%
RSSH: Integrated service delivery and quality improvement	238,199	1%
RSSH: Laboratory systems	244,189	1%
Specific prevention interventions (SPI)	3,285,086	13.3%
Vector control	6,119,095	24.8 %
Total	**24,660,205**	**100 %**

Table 2. Detailed Inputs, outputs and costs

Cost Grouping	Costs (EUR)	% of Total	2021	2022	2023
Human Resources (HR)	4,798,567	19.5%	1,786,671	1,529,948	1,481,948
Travel related costs (TRC)	6,543,690	26.5%	1,788,330	1,702,099	3,053,260
External Professional services (EPS)	511,699	2.1%	199,739	104,885	207,076
Health Products - Pharmaceutical Products (HPPP)	1,067,304	4.3%	533,652	266,826	266,826
Health Products - Non-Pharmaceuticals (HPNP)	4,495,143	18.2%	3,699,472	397,835	397,835
Health Products - Equipment (HPE)	93,226	0.4%	93,226		
Procurement and Supply-Chain Management costs (PSM)	1,694,464	6.9%	1,133,974	194,913	365,578
Non-health equipment (NHP)	1,362,393	5.5%	1,177,507	79,485	105,401
Communication Material and Publications (CMP)	781,866	3.2%	275,795	249,576	256,495
Indirect and Overhead Costs	3,311,853	13.4%	1,304,088	948,183	1,059,581
Total for 3 years	**24,660,205**	**100**	**11,992,454**	**5,473,751**	**7,194,001**

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Table 3: Budget by PR and SR (maximum amount by SR, with UNDP undertaking procurement under GF ASP and 0 Cash Advance Policy)

	01/01/2021 - 31/03/2021	01/04/2021 - 30/06/2021	01/07/2021 - 30/09/2021	01/10/2021 - 31/12/2021	Total Y1	01/01/2022 - 31/03/2022	01/04/2022 - 30/06/2022	01/07/2022 - 30/09/2022	01/10/2022 - 31/12/2022	Total Y2	01/01/2023 - 31/03/2023	01/04/2023 - 30/06/2023	01/07/2023 - 30/09/2023	01/10/2023 - 31/12/2023	Total Y3	Grand Total	% of Grand Total
PR	**€7,503,728**	**€711,593**	**€633,583**	**€731,758**	**€9,580,662**	**€1,481,744**	**€610,751**	**€577,441**	**€598,324**	**€3,268,261**	**€2,121,512**	**€611,718**	**€564,615**	**€614,162**	**€3,912,006**	**€16,760,930**	**68.0 %**
United Nations Development Programme	€7,503,728	€711,593	€633,583	€731,758	€9,580,662	€1,481,744	€610,751	€577,441	€598,324	€3,268,261	€2,121,512	€611,718	€564,615	€614,162	€3,912,006	€16,760,930	68.0 %
SR	**€698,725**	**€540,060**	**€617,739**	**€555,268**	**€2,411,792**	**€682,167**	**€492,668**	**€494,922**	**€535,733**	**€2,205,489**	**€1,211,757**	**€638,075**	**€485,770**	**€946,392**	**€3,281,994**	**€7,899,275**	**32.0 %**
CECOME	€17,779	€17,779	€17,779	€17,779	€71,114	€8,889	€8,889	€8,889	€8,889	€35,557	€8,889	€8,889	€8,889	€8,889	€35,557	€142,228	0.6 %
UNICEF	€279,715	€204,221	€105,295	€105,295	€694,526	€361,452	€92,756	€105,602	€105,602	€665,413	€361,452	€92,756	€105,917	€105,917	€666,042	€2,025,981	8.2 %
PLAN	€4,119			€620	€4,739	€4,119	€91,469		€620	€96,208	€145,105	€4,444		€620	€150,169	€251,116	1.0 %
PNLP	€213,020	€318,060	€485,519	€431,574	€1,448,174	€164,148	€299,553	€380,430	€420,622	€1,264,753	€493,973	€531,986	€370,964	€419,028	€1,815,950	€4,528,877	18.4 %
PROJETO SAUDE BANDIM	€184,092		€9,147		€193,239	€143,558				€143,558	€202,338			€411,938	€614,276	€951,073	3.9 %
Grand Total	**€8,202,452**	**€1,251,653**	**€1,251,323**	**€1,287,026**	**€11,992,454**	**€2,163,911**	**€1,103,419**	**€1,072,363**	**€1,134,057**	**€5,473,751**	**€3,333,269**	**€1,249,793**	**€1,050,385**	**€1,560,554**	**€7,194,001**	**€24,660,205**	**100.0 %**

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In order to ensure the effective delivery of the results, UNDP will maintain a Project Management Unit (PMU) structure and oversight mechanisms including internal control and financial management systems to drive the project. UNDP Guinea Bissau provides technical support and supervision to the Project Management Unit staff.

Project tasks will be conducted under the guidance and direct supervision of the UNDP Deputy Resident Representative – Program in Guinea Bissau. UNDP Program and Operation Staff will provide direct support to project coordination in order to ensure that the Project Management Unit is coherent and effective in achieving its results. UNDP's Country Office programme coordination specialists will facilitate and provide overall technical support to its annual, mid - term review and final review with the view to drawing lessons and good practices within the UN System. The UNDP Guinea Bissau PMU led by a Project Manager will coordinate the daily activities, implementation and provide general guidance on Global Fund and UNDP rules and procedures to all 5 SRs.

The PMU is comprised of 4 units: 1) Coordination, 2) Procurement and Supply Chain Management (PSM), 3) Monitoring and Evaluation (M&E), and 4) Finance.

The 5 Sub-Recipients (SRs) were approved by the CCM and GF in the grant development phase. SRs will be contracted by UNDP (after evaluation) and will implement activities on the basis of agreed activity plans. Payments will be based on obtained results.

Partnerships

The Theory of Change process demonstrates the inter-connectivity with key enablers, which includes developing and maintaining partnerships, as reflected in the Malaria Mapping Implementation diagram below (details in Annex 3).

Table 4. Mapping partnerships and stakeholders

Partners	Amount allocated	Funding period	Indicative area of collaboration
Global Fund	€29.6	2018-2020	Malaria, TB, HIV and HSS
World Bank	US$21m	2017-2021	Strengthening the surveillance and information system for the early detection and analysis of neglected diseases and capacity building for laboratories including infrastructures.
European Union	€22m	2017-2021	Strengthening the maternal/child health component and motivation for health workers and community health workers
	€3m	2017-2021	RSSH – Strengthening the health information system (training supervision, monthly supervision, etc.) and supply chain capacity
GAVI	US$3m	2017-2021	RSSH - Strengthening of the prevention component (vaccines and other consumables).
UNDP	US$15m	2018-2020	RSSH - Improve working conditions for health technicians (solar panels).
Ministry of Health			National Programme Governance and Technical guidance.

Risks and Assumptions

Table 5: Risk Matrix

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
1	Lack of resources to cover the financial needs of the health care sector (the national health budget is less than 15% of government budget)	December 2020	FINANCIAL	Probability for this risk to occur is high but with low impact on the project	UNDP works with stakeholders to ensure adequate planning, budgeting and staffing for the Project. There is sufficient coordination among key players i.e MOH, the European Union, UNICEF, NGOs on extending EU PIMI funding. MoH departments remain functional and open to dialogue on priority interventions.	Ministry of Health	Health Working Group in Guinea Bissau	Dec 2020	**Reducing**; COVID-19 is increasing the support to the health sector in Guinea-Bissau
2	Political instability, pandemics such as COVID-19, and national disasters may affect people's ability to exercise their right to health through access to treatment, as well as stock distribution, due to overlapping NMCP and Ministry of Public Health activities.	December 2020	POLITICAL	Probability for this risk to occur is high with likely high impact on project implementation	The Principal Recipient UNDP and partners focused only on the technical aspects of the project. Advocacy meetings and collaboration with relevant authorities will effectively ensure that all actors are made aware of the importance of the availability of services and products to the population at all times. Buffer stocks for diagnostic and treatment products have already been included in the product quantification.	PNLP/ CECOME	UNDP	Dec 2020	

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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
3	Despite the availability of products at central level, accessing them is difficult, as poor road maintenance and lack of flood prevention measures can delay deliveries, leading to the likelihood of product shortages in remote sites.	December 2020	ENVIRONMENTAL / INFRASTRUCTURE	**The probability to occur is high but with moderate impact on the project**	Proper planning of distribution in advance of the rainy season can reduce this risk to a minimum. The Principal Recipient UNDP will monitor the situation in areas of intervention and develop contingencies as deemed appropriate.	UNDP/ CECOME	UNDP	Dec 2020	
4	Poor identification of national and regional stock levels/imprecise consumption data resulting in poor estimation of needs.	December 2020	ENVIRONMENTAL	**The probability to occur is moderate but with high impact on the project**	The Principal Recipient UNDP has established a procurement and logistics working group within the Procurement Support Office Committee (quarterly meetings). UNDP and the Ministry of Public Health will continue to conduct regular stock checks and will strengthen their capacity to routinely monitor products at the facility level through product chain monitoring.	Ministry of Public Health	UNDP	Dec 2020	This remains a potential risk to project implementation as a whole.

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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
5	Program management: overlaps and gaps in program implementation.	December 2020	OPERATIONAL	The risk to project impact is high but its probability to happen is low.	The action involves high-level collaboration and synergy with other initiatives that support the NMCP in the country such the EU and UNICEF's PIMI II, the World Bank, WHO, United Nations Population Fund, INASA, , UNDP and others. UNDP will present joint annual work plans to the Ministry of Public Health for programs that cover malaria, which will help key actors support the Ministry of Public Health.	Ministry of Health	UNDP	Dec 2020	**Changing** UNDP will continue to work with partners and civil society on specific prevention interventions with other programmes e.g. Integrated management of childhood illness, integrated Child and Maternal Health Programme (PIMI), EPI, etc. A Health Sector Coordination mechanism was established by the WB with UNDP PMU support.

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
6	A delay in the processing of advance payments to suppliers of products by UNDP will occasionally impact the process of procuring and reserving products available on the international market, to be sent to Guinea-Bissau, and may result in stock depletion.	December 2020	OPERATIONAL	During the negotiations between the Global Fund, MOH and UNDP it was noted that obstacles to timely disbursement of funds may arise. This could cause delays in the procurement process and cause potential stock-outs and treatment interruptions. **This risk remains low**	The Programme Management Unit of the UNDP Country Office will cooperate with stakeholders to ensure that transactions are completed in a timely manner. Close coordination between partners will help to reduce this risk. The UNDP will request quotes, confirm product availability with suppliers and work with the Global Fund to resolve any delays that may arise in processing funds for procurements.	UNDP	CCM	Dec 2020	**No Change**

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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
7	Unreliable data can have a major impact on programming, quantification and procurement plans, ultimately leading to stock-outs or surpluses.	December 2020	OPERATIONAL	The risk to impact on the project is moderate	Through technical assistance, a logistic management information system for stock will be established and used regularly at all sites offering treatment. In addition, there will be ongoing training of managers on the use of available tools to drastically reduce this risk. Real-time monitoring of 45 health care facilities and use of additional product chain monitors will strengthen UNDP's capacity to monitor the status of products.	Ministry of Health	UNDP	Dec 2020	**Unchanged** The LMIS system is not optimal and data remains inconsistent with the realities on the ground. This often forces UNDP to use forecasts as targets for quantification. A new LMIS system will be rolled out in 2021.
8	New types of long-lasting insecticidal nets will not have the desired impact.	December 2020	OPERATIONAL	The risk to impact on the project is high but unlikely to happen	A robust entomological and epidemiological assessment during implementation will provide local evidence of the impact made possible by the change in procurement in this grant. This will mean that a better value- for-money strategy can be targeted on the basis of this evidence.	Ministry of Health	CCM	Dec 2020	

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Stakeholder Engagement

The human rights situation in Guinea-Bissau is related to the country's political, social, economic and cultural conditions. This contributes to the country's low human development index (HDI) of 0.480, ranking 175 out of 189 countries according to the United Nations Development Programme (UNDP) Human Development Report 2020.

In 2018, a study on malaria vulnerability, protection of rights and barriers to access to health services was conducted using the Malaria Matchbox Analysis Tool, which identified that the following groups are more vulnerable to malaria (Malaria Matchbox page 24):

- Children aged under 5 years, who constitute 17% of the population, due to their mothers' conditions as reflected below.
- Pregnant women and women in general, who constitute 5% and 50% of the population, respectively, due to: (i) low level of schooling; (ii) gender-related problems (lack of decision-making power to use health services); (iii) lack of economic power.
- Children aged 5-14 years, who constitute 26% of the population, mainly due to lack of access to free health services.
- Population in rural areas far from health care facilities and on islands. The limited river and land transport network, which mainly covers large urban centres and limits the lack of geographical access to health services. In addition, there is an itinerant or seasonally migrating population, particularly on the islands and in Gabú.

Knowledge

The implementation of interventions will include activities included in the National Monitoring and Evaluation Plan resulting in adapted data collection and monitoring tools, supervision guides, updating the national malaria database, a website and bulletin on malaria prevention and control. Routine data will be strengthened to evaluate the implementation of community-based activities, LLIN distribution, National LMIS, and quality control of antimalarial drugs and LLINs.

Sustainability and Scaling Up

A Health Sector Coordinating Committee – CCSS has been set up to ensure donor coordination by government and development partners. CCM represents the Global Fund projects at this committee. The focus of the institutional support component is on addressing 'building blocks' of the health system, that are not or insufficiently supported by other donors, i.e. 'The Global Fund is currently the only external health sector funder to support the strengthening of the *Central de Compras de Medicamentos Essenciais* [Central Medical Store of Guinea Bissau – CECOME] and the PSM system) and, management of human resources by MoH. Through the CCSS there is a potential for other elements of the health system, such as pharmaceuticals, research, health services, health financing, to be reasonably covered and sustained by support from other key developing partners.

Regarding financial aspects, the funding allocated to the country within the scope of the NFM3 is an opportunity for the Republic of Guinea Bissau to maintain and expand universal coverage of malaria prevention, diagnosis and treatment services. Moreover, the government is committed to increasing the health sector budget by 5% annually[2]. In order to address the funding gaps identified, it will also be essential for the Government to commit to advocating and encouraging future partners to support the fight against malaria.

[2] Ministry of Finance (2015) Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding with IMF.

Furthermore, in order to achieve the reduction in the overall malaria morbidity and mortality, an adequate, well-trained and supervised workforce, who works in good conditions and follow well designed working practices, and national protocols is needed. For this, health system strengthening will be implemented through capacity building, enhanced surveillance and coordination. The procurement and supply chain system will be improved to allow CECOME to deliver products at the three levels of the health care system. The management and coordination of the National Health Development Program – PMU and National Malaria Control Program will be improved, as Ministry of Health is responsible for all coordination, supervision, review and training aspects, to which UNDP and other stakeholders bring technical support.

In order to guaranty the sustainability of actions, all capacity building activities foreseen in the project will be designed to have a lasting impact, both at the local level and at the national level.

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

Cost Efficiency and Effectiveness

The interventions that are part of the chosen strategy have been selected on criteria such as international evidence-based recommendations, and cost / effectiveness. Strong internationally evidence suggest that most malaria morbidity and mortality results from lack of accessible prevention, misdiagnosis and the absence of health care services.

The major activity of the project is the April 2023 mass LLIN campaign for malaria parasite vector control, a follow up to the successful Global Fund supported campaigns of 2011, 2014 and 2017, which resulted in a dramatic decrease in malaria prevalence in children (over 90%) and adults (over 80%) between 2011 and 2016.

Improving case management, through continued implementation of the 3Ts (Test, Treat, Track), systematic diagnosis and monitoring and evaluation, has been selected as an effective intervention. Based on the theory of change lessons learned, strengthening logistics, access to free tests and treatments and monitoring and evaluation system, are essential interventions.

CHWs test for malaria and deliver anti-malaria therapy and prevention and are considered cost effective due to their proximity to communities. In this project the use of CHWs will ensure universal access to LLIN and their high use. This will be done in synergy with the EU funded PIMI2 and World Bank MCH projects. Equally sustainable and cost effective are the administering of antimalarial preventive treatment to children during the rainy season (SMC) and increasing coverage of intermittent preventative treatment (IPTp) for pregnant girls and women.

Based on the results of the theory of change analysis, awareness raising, advocacy and communication campaigns with community and religious leaders is a relevant strategy for behaviour change and addressing gender inequalities. Behavioural Communication Change (BCC) has been found throughout the world and in other sub Saharan countries to strengthen all strategic components of malaria prevention and control programmes by supporting delivery of interventions like: integrated vector control, case management, diagnosis and care in the community and through the private non-profit sector. The interactive process with communities will include developing tailored messages to increase knowledge of malaria, stimulating social and communication dialogue, promoting essential attitude change and creating demand for information and services. These communication strategies will enable rights holders to increase their knowledge for prevention of malaria, proper utilization of long-lasting insecticide treated nets (LLINs) and seeking prompt diagnosis and treatment for malaria/fever within 24 hours to reduce the burden of malaria throughout the country.

The theory of change also highlighted that stock outs and over-ordering of malaria inputs (tests, ACTs, SP for IPT, LLINs, etc) are issues which need to be addressed. This will be done through improving CECOME supply, inventory, stock and distribution systems, as well as the logistics management information system (LMIS).

Theory of change lessons learned led to implementation of Health System Strengthening and program management interventions, including Ministry of Public Health capacity building, in order to improve the quality and number of staff.

The implementation synergy with other projects will improve the cost-effectiveness of this project, such as with the Integrated Child and Maternal Health Program (PIMI) project financed by the European Union (EU) through UNICEF, EMI and IMVF, and the World Bank health sector programmes. These projects also cover maternal and child health, ante natal care (ANC), childbirth, laboratory tests, and in this way contribute to improving project coverage in terms of prevention interventions for children under 5 years old (SMC) and pregnant girls and women (IPTp). Moreover, the importance of assistance of other partners has to be noted, such as the implication of UNICEF in the support of CHW interventions.

In addition, the Global Fund Country Team has endeavoured to balance the considerable operational risks with the need to provide reliable and safe services to those in need under this project. This has included allocating to UNDP resources to maintain the Project Management Unit (PMU), and placing the country under the Additional Safeguards Policy to provide flexibility in modifying the existing funding mechanisms to ensure that funds are provided swiftly but responsibly to help affected populations

Project Management

The UNDP Country Office in Guinea Bissau was selected by the CCM as PR. It is responsible for executing the project and will report regularly to the CCM and Global Fund on the management of funds and programmatic progress. UNDP will implement the project through the Direct Implementation Modality (DIM) in close collaboration and partnership with the CCM, MINSAP, key partners and GF sub-recipients (PNLP, Bandim, CECOME, PLAN and UNICEF), and continuous interaction with the Local Fund Agent (LFA).

While implementing the project through DIM modality, UNDP will be consistent with its overall strategy in ensuring national ownership and leadership, participation and transparency, advocacy, rights-based and multi-stakeholder approach. This will be ensured particularly through close collaboration with CCM and through regular Project Board meetings, where UNDP will inform partners about project activities, and will consult on key decisions.

More specifically, in terms of management arrangements for this project:

→ UNDP will sign contracts with 5 identified SRs:

a. PNLP = National Malaria Program (for programmatic, M&E, PSM issues)
b. PS Bandim = Projeto Saude Bandim (Monitoring and Evaluation issues)
c. CECOME = Central Medical Stores (for PSM issues)
d. PLAN International
e. UNICEF

→ The contracts will be negotiated directly with each of the 5 sub-recipients, based on upon the Global Fund approved project documents (Concept Note, Performance Framework, PSM Quantification, and Budgeted workplan). Standard contracts used by UNDP projects will be employed. Each SR agreement will contain a specific performance framework with a

budgeted workplan, and will be signed by UNDP and sub-recipients. These contracts will be governed by the UNDP Program Operating Policies and Procedures (POPP) and the GF-UNDP Corporate Framework Agreement for UNDP projects with the Global Fund.

→ The procurement of goods and services will be governed by UNDP policies and procedures for such services, and specific arrangements for projects between UNDP and the Global Fund. Purchases will be made in accordance with the PSM Quantification approved by the Global Fund.

→ UNDP will devise a capacity building program to be developed and implemented with national partners.

→ On a quarterly basis, the sub-recipients will provide UNDP with a programmatic and financial report with supporting documents.

→ A systematic on-site verification of these results will be done in partnership with SRs on a semi-annual basis.

→ UNDP will submit semi-annual reports to the GF and the CCM to enable them to evaluate and guide the project.

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Results Framework

Intended Outcome as stated in the UNDAF/Country [or Global/Regional] Programme Results and Resource Framework:
N/A GNB Management Project

Outcome indicators as stated in the Country Programme [or Global/Regional] Results and Resources Framework, including baseline and targets:
N/A GNB Management Project

Applicable Output(s) from the UNDP Strategic Plan: N/A Management Project

Project title and Atlas Project Number: GF NFM3 Malaria

EXPECTED RESULTS	OUTPUT INDICATORS3	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	FINAL		
Outcome 1 *Specify each output that is planned to help achieve the outcome.*	***1.1*** proportion of the population at risk potentially covered by the distribution of long-lasting insecticide-treated mosquito nets	*CMILDA 2017 Final Report*	93.9%	2017 MIS							*Method: MICS every four years*
	1.2 Number of long-lasting insecticide-treated nets distributed continuously to target risk groups	*CMILDA 2017 Evaluation Report*	*101.417*	2019 HMIS							
	1.3 Proportion of targeted risk groups receiving long-lasting insecticide-treated mosquito nets		*NA*								
	1.4 Proportion of outbreaks in targeted areas that benefited from indoor residual spraying during the reporting period		NA								

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

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EXPECTED RESULTS	OUTPUT INDICATORS3	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	FINAL		
Outcome 2	***2.1*** Proportion of suspected malaria cases tested for parasitological testing in public sector health facilities	*INASA DHIS 2 Software reports*	98.6%	2019 HMIS							*Method: Compilation of site reports using INASA's DHIS 2 software*
	2.2 Proportion of suspected cases of malaria subjected to parasitological testing in the community		96.3%	2019 HMIS							
	2.3 Proportion of suspected cases of malaria subjected to parasitological testing in private sector premises		98.9%	2019 HMIS							
Outcome 3	***3.1*** Proportion of confirmed malaria cases receiving first-line antimalarial treatment in accordance with national policy in public sector health facilities		93.6%	2019							
	3.2 Proportion of confirmed malaria cases receiving first-line antimalarial treatment in accordance with national policy in the community		84.3%	HMIS							
	3.3 Proportion of confirmed malaria cases receiving first-line antimalarial treatment, in accordance with national policy, in private sector premises		87.4%	2019							
	3.4 Proportion of estimated malaria cases (suspected and confirmed) receiving first-line antimalarial treatment in public sector health facilities		*NA*								
	3.5 Proportion of estimated malaria cases (suspected and confirmed) receiving first-		*NA*								

EXPECTED RESULTS	OUTPUT INDICATORS3	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	FINAL		
	line antimalarial treatment in the community										
	3.6 Proportion of estimated malaria cases (suspected and confirmed) receiving first-line antimalarial treatment in private sector premises		NA								
	3.7 Proportion of health facilities with no stock-outs of major commodities during the reporting period		NA								
	3.8 Percentage of confirmed cases have been fully investigated (malaria elimination phase)		NA								
	3.9 Percentage of malaria outbreaks have been fully investigated		NA								
Outcome 4	4 Proportion of pregnant women attending antenatal clinics receiving at least three doses of intermittent preventive treatment for malaria		50.9%	2019 HMIS							
Outcome 5	5 Percentage of health facilities with tracer medicines for the three diseases available on the day of the visit or day of reporting		NA?								
Outcome 6	6.1 Percentage of entities SNIS and other routine data reporting entities submitting their reports on time according to national guidelines		92.9%	2019 HMIS							
	6.2 Proportion of institution reports received based on expected reports during the reporting period		98.0%	2019 HMIS							

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EXPECTED RESULTS	OUTPUT INDICATORS3	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	FINAL		
	6.3 Percentage of registered deaths (reported in civil registers, sample registration systems, hospitals, community communication systems) on total deaths for the same period and geographic area.		*NA*								
Outcome 7	***7 Programme management***										

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V. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Project data against the results indicators in the performance framework will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Biannually	Slower than expected progress will be addressed by project management.	PNLP, Bandim, CECOME, PLAN	
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	MOH	
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.	MOH	
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness Will be reviewed by project management and used to inform decisions to improve project performance.		
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.		

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VI. MULTI-YEAR WORK PLAN [45]

All anticipated programmatic and operational costs to support the project, including development effectiveness and implementation support arrangements, need to be identified, estimated and fully costed in the project budget under the relevant output(s). This includes activities that directly support the project, such as communication, human resources, procurement, finance, audit, policy advisory, quality assurance, reporting, management, etc. All services which are directly related to the project need to be disclosed transparently in the project document.

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

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

EXPECTED OUTPUTS	PLANNED ACTIVITIES	RESPONSIBLE PARTY	Planned Budget by Year (€)		
			Y1 2021	Y2 2022	Y3 2023
Output 1: Programme Management	1.1 Grant Management		2,643,047	1,977,328	2,100,132
	1.2 Coordination and management of national disease control programs		514,889	390,199	368,116
Output 2: Specific prevention interventions (SPI) At least 97% of children aged 3 to 59 months are covered by Seasonal Malaria Chemoprophylaxis (SMC) in targeted areas by the end of 2023	2.1 Seasonal Malaria Chemoprophylaxis (SMC) conducted in targeted regions	UNDP & PNLP	1,053,462	931,136	941,985
At least 62% of pregnant women receive at least three doses of directly observed intermittent prophylactic therapy via Intermittent Preventive Treatment in pregnancy (IPTp) by the end of 2023	2.2 Intermittent preventive treatment for pregnant women (IPTp) at national level	UNDP & PNLP	182,421	82,649	82,649
Output 3: Vector control At least 95% of the population is sleeping under a Long-Lasting-Insecticide treated Net by the end of 2023	3.1 Other vector control measures	UNDP & PNLP	739,740	42,921	42,921
	3.2 IEC/BCC	UNDP & PNLP	14,261	11,251	11,251
	3.3 LLIN mass campaign	UNDP & PNLP	2,837,836	0	1,280,019
	3.4 LLIN routine - Expanded Programme on Immunization (EPI)	UNDP & PNLP	27,900	13,950	13,950
	3.5 LLIN routine - Expanded Programme on Immunization (EPI)	UNDP & PNLP	525,919	262,960	262,960
	3.6 Entomological surveillance: vector insecticide sensitivity and LLIN quality control	UNDP & BANDIM	58,118	33,345	15,905
Output 4: **Case management** At least 99% of malaria cases are properly managed in health facilities according to the national diagnosis and treatment protocol, by the end of 2023.	4.1 IEC/BCC	UNDP & PNLP	11,251	11,251	11,251
	4.2 Case management in the private sector	UNDP & PNLP	5,189	5,189	0
	4.3 Integrated Case Management at the Community Level (ICM-C)	UNDP& PNLP	27,028	13,514	13,514
	4.4 Therapeutic Effectiveness Monitoring	UNDP & PNLP	57,161	16,627	57,161
	4.5 Hospital Treatment (public)	UNDP & PNLP	635,889	320,768	320,768

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Output 5: **RSSH: Integrated Service Delivery and Quality Improvement**	5.1 Organization of services and management of health facilities	UNDP & PNLP	79,400	79,400	79,400
Output 6: **RSSH: Health sector governance and planning**	6.1 National disease control program policy and planning	UNDP & PNLP	24,971	24,971	24,971
Output 7: **RSSH: Health sector governance and planning**	7.1 Social Mobilization, Community Linkages and Coordination	UNDP & PNLP	60,630	60,630	60,630
	7.2 Institutional Capacity Building, Leadership Development Planning	UNDP & PNLP	118,231	118,231	118,231
	7.3 Community Monitoring	UNDP & PNLP	207,443	207,443	207,443
Output 8: **RSSH: Human resources for health, including community health workers**	8.1 Community Health Workers: Continuing Education	UNDP & PNLP	29,720	29,720	29,720
	8.2 Continuing Education (excluding Community Health Workers)	UNDP & PNLP	81,369	0	0
	8.3 Health Human Resources (HHR) Policy and Governance	UNDP & PNLP	91,194	91,194	91,194
Output 9: **RSSH: Health Information Systems and M&E**	9.1 Analysis, evaluation, review and transparency	UNDP & PNLP	95,913	120,507	104,361
	9.2 Investigations	UNDP & PNLP	98,188	89,041	552,571
	9.3 Data Quality and Programs	UNDP & PNLP	251,372	237,069	246,089
	9.4 Routine Data Reporting	UNDP & PNLP	48,053	37,333	46,667
Output 10: **RSSH: Laboratory systems**	10.1 Infrastructure and Equipment Management Systems	UNDP & PNLP	158,706	0	0
	10.2 Quality management systems and certification	UNDP & PNLP	30,845	30,845	23,794
Output 11: **RSSH: Health products management Systems**	11.1 Storage and distribution capacity	UNDP & CECOME	981,740	59,633	59,633
	11.2 Supply Capacity	UNDP & CECOME	70,844	70,844	70,844
	11.3 Policy, strategy, governance	UNDP & CECOME	24,172	0	0

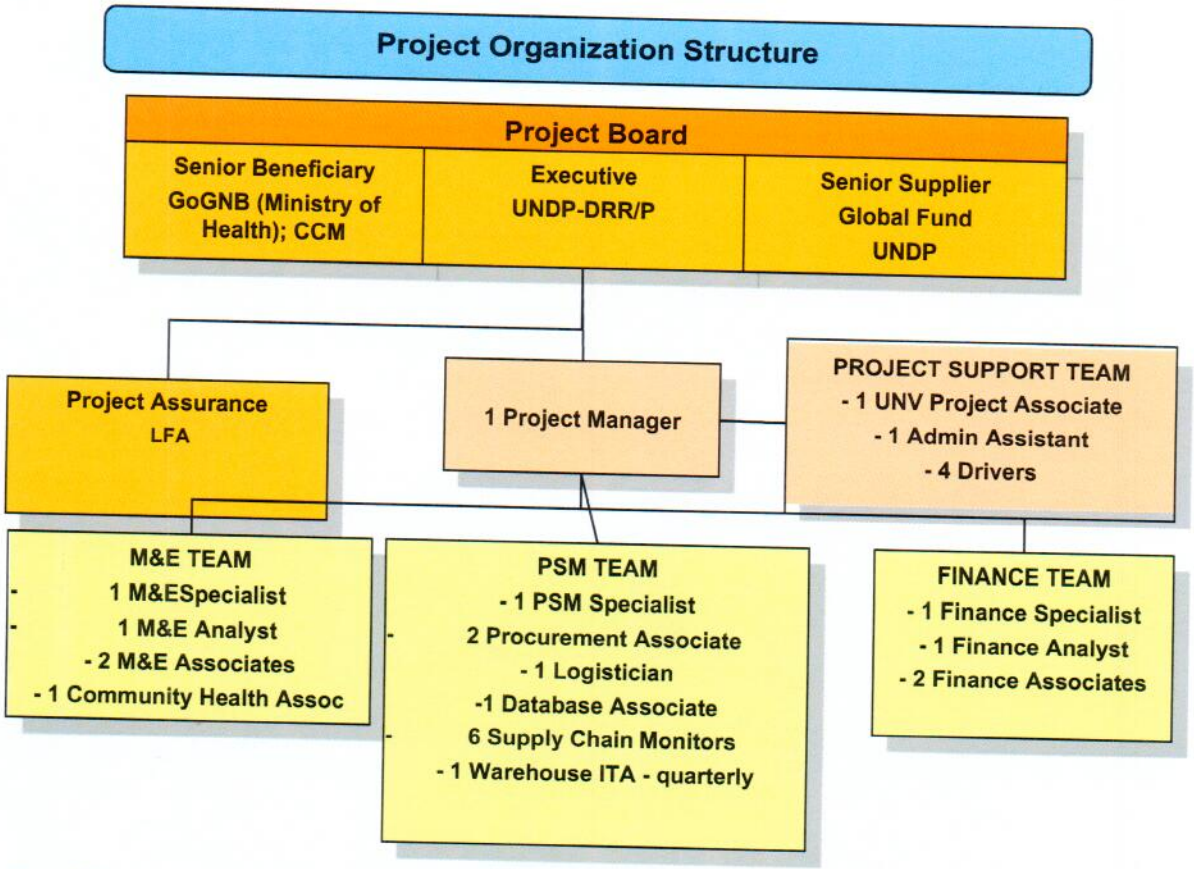
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	11.4 Quality Assurance/Regulation Support	UNDP & CECOME	112,112	76,557	76,557
	TOTAL		**11,899,012**	**5,446,506**	**7,314,687**
	GRAND TOTAL		**24,660,205**		

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VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

In the Project Management Unit (PMU), the Project Manager manages day to day activities of the project, supported by four teams: 1) Coordination, 2) PSM, 3) M&E, 4) Finance. Each team is led by one international specialist with several experienced national professionals. The Project Manager reports directly to the UNDP Country Office Deputy Resident Representative in charge of Programmes (DRR-Programme) and liaises closely with the Deputy Resident Representative in charge of Operations (DRR-Operations). In addition to PMU personnel, UNDP Guinea-Bissau will provide additional support to and supervision of the PMU in the areas of programme, procurement, M&E, finance.



The PSM unit will work in close collaboration with CECOME, UNDP Procurement Support Offices in Geneva and Copenhagen, and the National PSM Committee. Under this project the PMU PSM personnel will work with national and international partners on improvements of storage and distribution systems, quantifications and Logistics Information System for health products at all levels and the monitoring of the supply chain. The PSM Specialist will provide guidance and expertise on the most suitable systems for supply chain management of health products in Guinea Bissau.

The M&E unit works with Bandim, Ministry of Public Health, UNICEF and PLAN International for the regular collection of and control of the quality of data for project indicators.

The Finance unit works in close collaboration with the sub-recipients on the project, the Country Office Operations Unit, and project staff in the Country Office, in ensuring successful GF Project and Country Office performance in financial management.

The CCM holds regular meetings to monitor the implementation of the grant on the basis of reports prepared by UNDP. The CCM endorses the work plan and budget of the program before the

implementation of activities, and subject to the approval by the Global Fund. The CCM will play the role of interface between the donor (GF) and UNDP.

Quarterly Project Board meetings with SRs and partners to review progress of the work plan and revise accordingly.

VIII. LEGAL CONTEXT AND RISK MANAGEMENT

Option a. Where the country has signed the Standard Basic Assistance Agreement (SBAA)

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of (country) and UNDP, signed on (date). All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by 3 Ministry of Public Health organizations: the National Malaria Control Programme (PNLP), Bandim Health Project (Bandim) and the Central Medical Stores (CECOME) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Also, INGO Plan International and the United Nations Children's Fund (UNICEF) are Sub-Recipients of the NFM3 Malaria grant.

Where the financial governance of an Implementing Partner or Sub-Recipient (SR) does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

A. RISK MANAGEMENT STANDARD CLAUSES

Option b. UNDP (DIM)

1. UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)

2. UNDP agrees to undertake all reasonable efforts to ensure that none of the [project funds][6] [UNDP funds received pursuant to the Project Document][7] are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

3. Consistent with UNDP's Programme and Operations Policies and Procedures, social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

4. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

[6] To be used where UNDP is the Implementing Partner

[7] To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

5. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

IX. ANNEXES

Annex I - Project Quality Assurance Report

The project has an analysis and theory of change with a clear and plausible change pathway backed by credible evidence that has been used to define the project priorities. Before the current award was approved by the Global Fund, credible evidence was analysed that supports the engagement of UNDP and the 3 Ministry of Public Health entities (PNLP, Bandim, CECOME), Plan, UNICEF partners through the programme, including through evaluations and past lessons learned.

Project priorities explicitly reflect one or more areas of development work as specified in the Strategic Plan (SP.) It integrates among project priorities one or more of the proposed new and emerging areas[2] and the programme's performance framework includes at least one outcome indicator per outcome. This project aims to reduce mortality and morbidity linked to malaria and contribute to the goal of prevention by expanding the activities which are conducted under the projects supported by the Global Fund Rounds 7 (2013-2016), New Funding Model (2016-2017) and New Funding Model 2 (2018-2020).

The UNDP Country Programme Document (CPD) explicitly describes how women will benefit from programme opportunities and benefits. The CPD has identified and fully addressed any relevant risks related to potential gender inequality and discrimination against women and girls. The project aims to reach at least 60% of pregnant women receive at least three doses of directly observed IPT by the end of 2023.

The size and scope of the programme is very congruent with the indicative resources available for the programme and resource mobilization opportunities emerging from donor intelligence. The CPD outlines a "Plan B" to scale down the expected results if there are challenges raising the required funds. In the negotiations with the Global Fund, it was recognised that despite this difficult environment, the Global Fund Country team has endeavoured to balance the considerable operational risks with the need to provide reliable and safe services to those in need. This has included allocating a dedicated Fund Portfolio Manager, and placing the country under the Additional Safeguards Policy to provide flexibility in modifying the existing funding mechanisms to ensure that funds are provided swiftly but responsibly to help affected populations.

Annex II - Capacity Assessment

Results of capacity assessments of Implementing Partner (including HACT Micro Assessment)

An assessment of partners implementing this project will be initiated by December 2020. The working team will visit Non-Government organizations and Government Institutions that would benefit from NFM3.

The standard UNDP implementing partner template was adapted to include additional aspects relevant to Global Fund project realities. The exercise with PNLP, Bandim and CECOME, was conducted in French, Portuguese and English. Its mains sections include:

1. Leadership and Governance,
2. Technical capacity and staffing,

[2] Sustainable production technologies, access to modern energy services and energy efficiency, natural resources management, extractive industries, urbanization, citizen security, social protection, and risk management for resilience

3. Project Management processes,
4. Financial and administrative processes,
5. Monitoring and Evaluation.

This assessment has informed the UNDP Project Management Unit to initiate actions to improve weaknesses. The institutional capacity assessments of the Sub recipients will be attached to this project document.

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Annex III - Project Board Terms of Reference and TORs of key management positions

Country Coordinating Mechanisms are central to the Global Fund's commitment to local ownership and participatory decision-making. These country-level multi-stakeholder partnerships develop and submit grant proposals to the Global Fund based on priority needs at the national level. After grant approval, they oversee progress during implementation. Country Coordinating Mechanisms include representatives from both the public and private sectors, including governments, multilateral or bilateral agencies, non-governmental organizations, academic institutions, private businesses and people living with the diseases. For each grant, the Country Coordinating Mechanism nominates one or more public, private or other organizations to serve as Principal Recipients.

Following the military coup d'état of April 2012, the Global Fund instituted the Additional Safeguards Policy (ASP) to address risk related to financial/procurement irregularities and the political instability in the country. Until 2016 the country was under a Zero Cash Policy (which means that cash advances are not provided by the PR to implementing partners / SRs). Since 2016 the GF and CCM have gradually lifted the 0 cash advance policy. For UNDP, the MOH PNDS-CG and Bandim Health project were waived of the Zero Cash Advance Policy. PNLP must be HACT assessed before receiving direct cash transfer modality from UNDP.

Additional GF provisions foreseen by the ASP are:

1. Coordinate the development and submission of national request for funding.
2. Nominate the Principal Recipient.
3. Oversee implementation of the approved grant.
4. Approve any reprogramming requests.
5. Ensure linkages and consistency between Global Fund grants and other national health and development programs.

Annex IV – Theory of Change (ToC)

Theory of Change: Outcome Pathway

For each intervention strategy, the outcome pathway follows this I.D.R.O.U. mapping: Intervention Strategy (I) → Operational Deliverables (D) → Programmatic Results (R) → Exp. Outputs (Results) (NSP Specific Objectives) (O) → NSP Overall Objectives. Each strategy, along the pathway in the delivery of the intended outcomes, is also linked to certain set of assumptions (A), Evidences (E), and Key Enablers (K) that have a potentially substantial impact over the success of said strategy.

Theory of Change: Narrative

Context (C)

Synoptic backdrop on and factors affecting in-country prevalence and on project objectives

1. Malaria is highly endemic in Guinea-Bissau with transmissions more frequent than that within its two neighboring countries, and averaging a case rate of 84/1000.
2. Numerous factors exist and persist, affecting prevalence and incidence in Guinea Bissau:
   2.1. Endemicity (per point 1. above)
   2.2. Seasonality factor with a 44%-79% prevalence surge during rainy period (Jul. to Nov.)
   2.3. Vector (Anopheles) resistance to insecticide (to pyrethroid deltamethrin and permethrin)
   2.4. Socio-economic determinants implicating access to disease prevention and treatment services: lack of (health) education, poverty, geographical barriers, disparity in human rights (across gender, ethnicity, religion)

Intervention Strategies (I)

Intervention strategies / activities to be carried out during project

1. Vector Control: Prevention interventions focusing on vector control, especially through the universal distribution of long lasting insecticidal nets (LLIN) planned for April 2023
2. Case Management
3. Specific Preventions: Interventions for children under 5 yrs, and pregnant girls and women
4. Health System Strengthening: Supportive HSS activities, including M&E and PSM
5. Programme Management

Operational Deliverables (D)

Operational deliverables defined to be attained through the chosen strategies

a) Approx. 2 million at-risk populations through the April 2023 mass distribution campaign
b) Another 744,900 LLIN to reach to targeted risk groups through routine distribution
c) By 2023 (100%) suspected cases from all health districts receive parasitological tests
d) By 2023, (99%) confirmed cases from all districts receive first-line antimalarial according to national policy
e) Nationwide IEC and BCC campaigns on use of LLIN launched
f) IPTp administered during ANC visits in all districts according to WHO protocol adopted by GNB
g) Development in programme planning and management tools, coordination strategy, M&E framework, and capacity building of human and material / supply resources
h) Through facility coaching visits (conducted by MOH staff), periodic malaria data review meetings carried out in regions to address issues and share best practices on malaria data reporting

Programmatic Results (R)

Development-based results to be targeted by this project

1. (Malaria I-6) All-cause under-5 mortality rate per 1,000 live births
2. (Malaria O-1c) Proportion of pregnant women who slept under an insecticide-treated net* the previous night
3. (Malaria O-1a) Proportion of population that slept under an insecticide-treated net the previous night
4. (Malaria O-1b) Proportion of children aged under 5 years who slept under an insecticide-treated net* the previous night
5. (Malaria O-4) Proportion of households with at least one insecticide-treated net for every two people
6. (VC-1) Number of long-lasting insecticidal nets distributed to at-risk populations through mass campaigns
7. (VC-3) Number of long-lasting insecticidal nets distributed to targeted risk groups through continuous distribution
8. (HSS-1) Entomological surveillance
9. (SPI-1) Proportion of pregnant women attending antenatal clinics who received three or more doses of intermittent preventive treatment for malaria
10. (SPI-2) Percentage of children aged 3-59 months who received a complete SMC (3 or 4 treatments) per transmission season in target areas

Expected Outputs (O)

The six interconnected strategies above are expected to produce the following project outputs in continued contribution to the National Strategic Malaria Control Plan (NSP) 2018-2022:

(i) At least 95% of the population is sleeping under a Long-Lasting-treated Net by the end of 2023;

(ii) At least 62% of pregnant women receive at least three doses of directly observed intermittent prophylactic therapy via Intermittent Preventive Treatment in pregnancy (IPTp) by the end of 2023;

(iii) At least 97% of children aged 3 to 59 months are covered by Seasonal Malaria Chemoprophylaxis (SMC) in targeted areas by the end of 2023;

(iv) At least 99% of malaria cases are properly managed in health facilities according to the national diagnosis and treatment protocol, by the end of 2023;

(v) By 2023, Management and coordination capacities are strengthened at the Ministry of Health (MOH), the National Malaria Control Program (PNLP), the Central Medical Stores (CECOME) and at the Bandim Health Project (BANDIM);

(vi) Procurement & Supply, the Monitoring and Evaluation Systems, Laboratory and community health systems strengthened by the end of 2023.

Assumptions (A)

1. Sustained reduction in malaria is a long-term process that can only be achieved in conjunction with health service strengthening and population behavior change efforts.
2. Multisectoral approaches are more likely to have impact if interventions are coordinated at multiple levels through intersectoral collaboration. Other sectors (e.g. sanitation, transportation, etc.) are also a determinant of health and conducive setting for health promotion.
3. Long-term sustained success of reduction and eradication depend on other development challenges to be addressed: Eliminating gender inequality, improving education for women, tackling poverty and rights-based issues.
4. Leadership, provision of adequate resources, and accountability are present.
5. All levels of the health system (community, local, national, international) work in partnership.
6. Multiple prevention and vector control activities, including campaign on routine free LLIN distribution, and entomological surveillance, reduce the disease burden of malaria.

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7. Malaria case management including cases treated in hospitals, in community-level integrated services, and severe incidents in non-for-profit and private sectors, along with surveillance of therapeutic efficacy, reduce the burden of malaria.
8. Health systems strengthening across health care services and community setting provide the backbone to deliver effective interventions.
9. Enhanced monitoring and evaluation provide accurate data in order to develop policy and to make informed decisions on focus / strategic direction of intervention as required.
10. Capacity building effort, the intention and act to develop a well-trained workforce and enhance working conditions, create a conducive environment for service delivery.
11. Government continues to be committed to address accessibility of services from the current situation where 40% of population live far distance from nearest health care center.
12. Safeguarding of pharmaceutical products is present to ensure universal access.
13. Political stability in the country is ensured.
14. Government continues to be committed to national health system funding and sector reform.
15. Programme management, including policy setting, project planning, resource and activity coordination, and performance management, to be driven by Ministry of Health and other ministries.
16. Specific prevention interventions, including IPTp and SMC, reduce the burden of malaria.
17. IEC / BCC underpin the success of sustained adoption to interventions by targeted populations.

Evidence (E)

1. Outcome (in relation to vector control intervention strategy): Universal access and usage of LLINs increase with routine free distribution and reduce malaria-related burdens. Evidence: Impact survey on a distribution campaign (conducted by GB MOH and partners) observed that, approx. 6 months post-campaign, 81% of households continued to sleep under a LLIN (84% for pregnant women, 82% for children under 5 yrs), reaching both the RBM and 6th MDG targets (INASA, 2015). Re. burden reduction, meta-analysis on Sub-Saharan Africa setting by Cochrane concluded that through universal coverage of LLINs, infant mortality (all causes combined) decreased by 17% (Lengeler, C., Cochrane Database Sys. Rev. 2004;(2):CD000363). Same study observed that number of uncomplicated malaria episodes caused by P. falciparum / P. vivax decreased by a proportion of 39% to 62% compared with no or untreated nets. Separate study (Hill, Lines, Rowland., Adv Parasitol. 2006;61:77-128) also showed 45% reduction in severe malaria incidence.
2. Outcome (in relation to case management intervention strategy): Use of trained and supervised CHWs increases consumption of health services by target populations. Evidence: Routine data gathered under the National Policy against Malaria to offer free consultations for target groups (ministerial decree No. 001/GSEGH/2015) shows increase in % of patients who received RDTs from 64.03% in 2012 to 96.71% in 2014. A three-country synthesis of lessons from Malaria-in-Pregnancy (MIP) programming also revealed CHWs as key in ANC attendance (Jhpiego, 2011).
3. Outcome (in relation to case management intervention strategy): Orientation and awareness-raising effort in health workers focused on importance of the systematic 3T protocol increases accuracy in disease diagnosis. Evidence: Systematic review on health system barriers to IPTp coverage in Sub-Saharan Africa revealed that major human resource challenges inclusive of inadequate skills (Tanzania), and lack of training and incorrect knowledge (Nigeria), contributed to low utilization levels (Thaim et al., Malaria Journal 201312:353).
4. Outcome (in relation to HSS intervention strategy): An improved data reporting and M&E system enhances epidemiological surveillance. Evidence: New malaria data-collection tool deployed by the National Public Health Institute since 2010 saw its use in collecting weekly and monthly data and its inherence to most recently WHO guidelines (NMCP Performance Review Report, 2012).
5. Outcome (in relation to HSS intervention strategy): Addressing capacity in managing procurement and supply, and quality control to attain pooled procurement and early acquisition reduces problems in distribution chain and stock-outs. Evidence: Systematic review on health system barriers to IPTp coverage in Sub-Saharan Africa revealed that "drug stock-outs and poor management of information and supply chains impair sustained availability of drugs for IPTp" (Tanzania, Zambia) (Thaim et al., Malaria Journal 201312:353).

6. Outcome: (in relation to specific prevention intervention strategy) Administration of SMC for children effectively reduces the majority of malaria cases and related mortality during rainy season. Evidence: According to WHO, in the Sahel sub-region, it has been shown that providing an antimalarial treatment at monthly intervals during rainy period provides protection of up to 75% against uncomplicated and severe cases of malaria in children under 5 (WHO, 2016). Another study conducted in Burkina Faso on SMC for children observed a 69% reduction in incidence of severe malaria and 56% reduction in incidence of moderate anemia (PLOS, 2011). Meanwhile, similar research conducted in Mali indicated that prevalence of malarial infection was reduced by 85% during intervention period and by 46% at the end of intervention period. The prevalence of moderate anemia was also been reduced to 47% (PLOS, 2011).
7. Outcome: (in relation to specific prevention intervention strategy) Specific target-group interventions are additionally an effective strategy towards malaria reduction. Evidence: Coverage rate of 99% in 2011 when conducted through ANC and EPI for children under 5 yrs and enabling women to access intermittent preventive treatment through health care and community decreases incidence. After 2 years of large-scale epidemics the incidence of malaria again decreased in 2012. In November 2011, 880 000 LLIN were distributed in Guinea-Bissau and 95% of the population in Bissau of all age groups slept under an LLIN. Most probably, the cause of the reduction of malaria in all 3 age groups in 2012 was a direct consequence of this mass distribution of LLINs (Ursing, et al., 2014). A randomized placebo-controlled trial of IPTp in Mozambican pregnant women has shown that administering two IPTp-SP doses to women concurrently using LLITNs was safe. The intervention was associated with a moderate reduction in the incidence of clinical malaria during pregnancy, and with a statistically significant reduction in the prevalence of parasitemia at delivery and at 8 weeks postpartum. the efficacy of SP for malaria prevention varied between 60% and 90% in the month after SP administration (Menéndez, et al., 2008)

Key Enablers (K)

1. Governance in partnerships and relationship building with beneficiaries through community-level engagement and working alongside religious and community leaders

During the process of preparing for the Country Dialogue Conference, the CCM Secretariat team worked with the representative from the Association of People Infected and Affected by Malaria, who took part in the conference working sessions.

In the group working sessions during the Country Dialogue, important points were raised by people and stakeholders involved in the process of controlling and implementing actions to combat this national scourge, including the way in which the implementation process of the new grant should be managed. These are set out in the Conclusions and Recommendations chapter of the final report, and include: **i)** Continue with the program in the manner that it is currently structured; **ii)** Provide the program with more space to improve conditions for human resources; **iii)** When devising IEC for populations: **a)** Train health workers and CHWs to ensure more clarity on malaria prevention and treatment; **b)** Use more accessible language for IEC/BCC. **iv)** Include sanitation component as a vector control strategy; **v)** In the post-campaign evaluation, include a question on the fabric quality of the mosquito nets in use; **vi)** In future orders take into account the size of mosquito nets for specific (single) beds in hospitals, prisons, barracks and hotels; and **vii)** Improve capacity to absorb available funds, optimizing efficiency in the implementation of the activities and tasks that have been allocated. The implementation of the NFM grant strengthened the relationship between UNDP and the key implementation stakeholders (PNLP CECOME, and Bandim).

2. Working in partnership and strengthening the capacity of and support to CECOME

Related Context: To ensure universal access of essential medicine and particularly by those most vulnerable, the GB government aims to improve its capacity to manage the pharmaceutical supply chain at all health system levels. Emphasis is also placed on setting quality control mechanism and pharmaco-vigilance system for safeguarding of products.

In response to the 2016 Audit recommendations on Inventory management and quality assurance, the projected recruitment of the international warehouse consultant was completed in February 2017. He updated SOPs on logistics management Information system and stock management,

trained CECOME staff on the computerized warehouse management information system (MACS). In addition, UNDP GF-PMU has initiated a working group of all relevant partners and stakeholders to update the quality assurance plan that will include all Global Fund Recommendations. A quality control plan has been developed and being implemented.

In the context of combating malaria, these measures minimize supply stock-outs and ensure quality of GNB's antimalarial needs (RDTs, ACT, LLINs, SP, etc.). Commitment by the government is vital to ensure CECOME receives the capacity building support intended by this project.

3. Awareness-raising effort at community level through CHW network, religious and community leaders, and mass media to drive behavior change in local populations
4. Management, development and enhancement of healthcare workface through capacity building and training of staff
   Relevant Context: To counter significant shortage in human resource for health (HRH), GNB's government is committed to focus on local training, via necessary pursuit of a policy on bilateral cooperation with countries such as Cuba and China. Regarding HRH enhancement, the government also recognizes that healthcare workforce has the rights to a decent and regular salary, appropriately-equipped and technically-organized work environment, ongoing training and supervision, and career prospects. In return, workers are required to respect patients' dignity, and standards and procedures for good practice. These rights and duties are recognized as key in relation to malaria control and context of this project to carry out activities within the case management intervention strategy (I2), in accordance with national protocols.

5. Establishment of national coordination committee and subcommittee(s) for multiple prevention activities (in relation to vector control and specific prevention intervention strategies, and overall inter-sectoral collaboration and health promotion)
   Related Context: Interventions from social sectors other than health, inclusive of water and sanitation, agriculture and food security, education and youth, transport, construction and urban planning, impact the health of GNB's population. A framework is currently set to facilitate consultation and collaboration between stakeholders from said sectors with counterparts in health. At the intra-sectoral level, various vertical programmes also maintain relationships, with the NMCP particularly working collaboratively with EPI, reproductive health, IMCI, community health, and nutrition Programmes in the context of malaria control. Such intra- and inter-sectoral interfaces are critical for the success of the project, especially on administration of IPTp.
6. Development of essential case and referral system(s)
   Related Context: A health map review of GNB is envisaged which will document various levels of use of health services, and help chart a referral and counter-referral system. Specifically, severe malaria cases identified at community level will be redirected to health centres as designated first level of referral, in place of current health stations. This design enables early and proper management of severe malaria incidents envisioned also in the project.
7. Development of a national plan for management of vector resistance to insecticides to augment entomological surveillance
8. Monitoring and evaluation
9. Continued commitment by government and providers to set free universal access to health care via infrastructure, equipment and outreach strategies
   Related Context: Question on accessibility to services is a major concern for Guinea Bissau government, where 40% of its population settles more than 5 km from a health centre. To increase access, the state aims to construct new and expand on/renovate existing infrastructure, strengthen community outreach strategy, and improve referral mechanism (re. K7). These efforts not only increase access to healthcare services, but also act as an enabler to help realize the positive outcomes set out by and post-project interventions.
10. IPTp implementation reaching all 114 health districts in accordance with WHO protocol
11. Implementation of malaria prevention policy for children under 5 using SMC in high transmission areas (NSP 2018-2022)
12. Strengthen the health care system
13. Implementation of National M&E Plan, and promotion of operational research

Related Context: This project will benefit from the establishment of a national M&E system with a database to contain malaria epidemiological and consumption data. In same light, an effective Logistic Management Information System shall be put in place progressively. Operational research

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is also planned to uncover challenges and determinants as implementation success and scale-up factors towards malaria control, including studies that focus on: (i) testing vector sensitivity to insecticides and adapting appropriate vector resistance management strategies, (ii) evaluating therapeutic efficacy of antimalarials, (iii) assessing quality of case management, and (iv) determining impact of the LLIN mass distribution strategy.

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X. GLOSSARY

3T	Testing, Treat, Track
ACT	Artemisinin-based Combination Therapies
ANC	Antenatal Care
AQ	Amodiaquine
AS	Artesunate
BANDIM	Bandim Health Project
BCC	Behaviour Change Communication
CCM	Country Coordination Mechanism
CECOME	Central Purchasing Agency for Essential Drugs
CHW	Community Health Worker
EPI	Expanded Programme on Immunisation
EU	European Union
GNB / GB	Guinea Bissau
HIS	Health Information System
HSS	Health Systems Strengthening
ICCM	Integrated Community Case Management
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
INASA	National Public Health Institute (Instituto Nacional Saúde Pública)
IPT(p) / IPTp	Intermittent Preventive Treatment (in Pregnancy) / in Pregnancy
LLIN	Long Lasting Insecticide Treated Net
LMIS	Logistics Management Information System
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MSF	Médecins Sans Frontières
NFM	New Funding Model
NFC	New Funding Cycle
NMCP	National Malaria Control Program (equivalent to **PNLP**)
NSP	National Strategic Malaria Control Plan
PIMI	Programme Initiatives for Prevention of Maternal and Infant Mortality
PMU	Programme Management Unit
PNDS	Health Development Programme Support Project
PNLP	Programa Nacional de Luta contra o Paludismo (National Anti-Malaria Programme)
PR	Principal Recipient
PSM	Procurement and Supply (and inventory) Management
RBM	Roll Back Malaria Partnership
RDT	Rapid Diagnostic Tests
SMC	Seasonal Malaria Chemoprevention
SP	Sulfadoxine-Pyrimethamine
SR	*Sub-recipient*
TS	Thick blood Smear
TDR/RDT	Rapid Diagnostic Tests
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNPAF	Guinea-Bissau/UN Partnership Framework 2016-2020 (UNPAF)

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