The Global Fund

FUNDING REQUEST APPLICATION FORM
Full Review

SUMMARY INFORMATION			
Applicant	Lao People's Democratic Republic		
Component(s)	Malaria		
Principal Recipient(s)	Ministry of Health		
Envisioned grant(s) start date	1 January 2018	**Envisioned grant(s) end date**	31 December 2020
Allocation funding request	*$13,403,967*	**Prioritized above allocation request**	$3,583,258

IMPORTANT:

To complete this funding request, please:

- Refer to the accompanying ***Funding Request Instructions: Full Review****;*
- Refer to the Information Note for each component as relevant to the funding request, and other guidance available, found on the Global Fund website.
- Ensure that all mandatory attachments have been completed and attached. To assist with this, an application checklist is provided in the Annex of the *Instructions*;
- Ensure consistency across documentation.

Applicants are encouraged to submit a joint funding request for eligible disease components and resilient and sustainable systems for health (RSSH).

Joint TB/HIV submissions are compulsory for a selected number of countries with highest rates of co-infection. See the related guidance for more information.

This funding request includes the following sections:

Section 1: Context related to the funding request
Section 2: Program elements proposed for Global Fund support, including rationale
Section 3: Planned implementation arrangements and risk mitigation measures
Section 4: Funding landscape, co-financing and sustainability
Section 5: Prioritized above allocation request

SECTION 1: CONTEXT

This section should capture in a concise way relevant information on the country context. Attach and refer to key contextual documentation justifying the choice of interventions proposed. To respond, refer to additional guidance provided in the *Instructions*.

1.1 Key reference documents on country context

List contextual documentation for key areas in the table provided below. If key information for effective programming is not available, specify this in the table ("N/A") and explain in Section 1.2 how this was dealt with within the context of the request, including plans, if any, to address such gaps.

Applicant response in table below.

Key area	Applicable reference document(s)	Relevant section(s) & pages nb.	N/A
Resilient and Sustainable Systems for Health (RSSH)			
Health system overview	Lao People's Democratic Republic Health System Review	Annex 1	☒
Health system strategy	Sector Reform Framework Lao PDR to 2025	Annex 2	☒
Human rights and gender considerations (cross-cutting)			☐
Disease-specific			
Epidemiological profile (including interventions for key and vulnerable populations, as relevant)	CMPE epidemiological data 2015 up to November 2016	Annex 3	☒
Disease strategy (including interventions for key and vulnerable populations, as relevant)	National Strategic Plan for Malaria Control and Elimination 2016-2020	Annex 4	☒
Program reviews and/or evaluations	Second Malaria Community Survey of Ethnic Minority Groups (EMGs) in selected areas in Lao PDR 2012	Annex 5	☒
	Results of Population and Housing Census 2015	Annex 6	☒
	World Health Statistics 2015	Annex 7	☒
	The Millennium Development Goals and Lessons Learnt for the Post-2015 Period: A Summary Review	Annex 8	☒
Add rows as relevant, for any additional key area as relevant to the funding request			

1.2 Summary of country context

To complement the reference documents listed in Section 1.1 above, provide a summary of the critical elements within the context that informed the development of the funding request. The brief description of the context should cover disease-specific and RSSH components, as appropriate, as well as human rights and gender-related considerations.

(maximum 2 pages per component)

The Lao People's Democratic Republic is a landlocked country bordering China, Vietnam, Cambodia, Thailand and Myanmar. The country is comprised of 18 provinces, subdivided into 147 districts. The latest census[1] conducted in 2015 showed that the total population was 6,492,228 of which 32% aged 0 to 14 and 63.7% between 15 to 64. The growth rate slightly reduced to 1.45%. The rural population accounted for 67% of the nation's overall population, of which 59% lived in rural areas with road access and 8% without road access. The population density was 27 people per square km with an average household size of 5.3. The total number of households amounted to 1,198,272. The Lao ethnic group accounted for 53 percent, followed by Khamu (11%), Hmong (9%) and other ethnic groups (27%). The official national language is Lao though 240 distinct languages are spoken by ethnic minorities in different parts of the country. The main religion in the country is Buddhism, practiced by 65% of the population.

Lao PDR is highly mountainous with elevations frequently above 500 meters[2]. The tropical monsoon climate produces a significant rainy season which lasts from May until October. From November till February, there is a cooler, dry season, which is then followed by a hot dry season in March and April. There is a broad range of temperatures across the country, as areas along the Mekong River can reach 40° C during the hot season, or as low as 5° C during the cold season in the Northern parts of the country.

Malaria is endemic in most parts of the country, but the intensity of transmission varies greatly between the different ecological zones, from low transmissions in the plains along the Mekong River and in areas of high altitude (greater than 1000m) to intense transmission in hilly forested areas. Urban zones and villages located at altitudes above 1200m are generally considered free from malaria. In some areas of the Northern part of the country, the transmission of *Plasmodium falciparum (P.f.)* may be temporarily interrupted during the cold season.

Lao PDR is classified by the World Bank as lower-middle income economy[3] with a GNI per capita of $1,730 in 2015 and an averaged GDP growth of 7%. As a member of the Association of Southeast Asian Nations (ASEAN), Lao PDR is increasing its integration into the regional and global economy, and is the chair of ASEAN in 2016. Lao PDR has been a member of the World Trade Organization since February 2013.

Lao PDR has made good progress on a number of Millennium Development Goals (MDGs), including halving poverty, reducing hunger, and improving education and health outcomes. However, certain MDGs remain off track, most crucially on nutrition, with an estimated 44 percent of under-five children being stunted and 27 percent severely underweight. Lao PDR still has a high maternal mortality rate and limited skilled birth attendance. The Sustainable Development Goals (SDGs) post-2015, built on the MDGs, will provide a framework for the Government to monitor and evaluate the progress in its development plan implementation and commitments.

[1] Ministry of Health, Lao Statistics Bureau, *Results of Population and Housing Census 2015*
[2] Ministry of Health, Centre of Malariology, Parasitology and Entomology. *National Strategic Plan for Malaria Control and Elimination 2016-2020.*
[3] The World Bank World Development Indicators, Lao PDR. http://www.worldbank.org/en/country/lao/overview

Historically, a total of 2% of the GDP has been allocated for health-related expenditures. There are 1.8 physicians and 8.8 nurses/midwifes per 10,000 population[4]. The most significant diseases affecting the population include both communicable and non-communicable diseases. Lao PDR has reduced its maternal mortality ratio (MMR) by 75%, achieving MDG 5; however, MMR is still high (around 220 per 100,000 in 2013). Less than half the births are assisted by skilled health personnel (40% in 2007/14). At birth, the life expectancy is 66.

The economic growth is not equally distributed and is mainly concentrated in urban areas. Disparities between urban and rural areas are still pronounced. The 2015 census found that 84% of households reported to have access to electricity (97% in urban households compared with only 37% in rural areas without road access) and 61% to improved sources of drinking water. Poverty is higher in remote and highland areas and inversely correlates with road or river access.

In December 2012, the National Assembly endorsed the Health Sector Reform Framework 2013–2025[5] and increased the allocation for health to 9% of the GDP. The goals and phasing of the reform framework include: 1) Phase I [2013-2015]: achieve health related Millennium Development Goals by 2015 and lays out a solid foundation for universal access to essential health services, 2) Phase II [2016-2020]: ensure that essential health services with reasonable good quality are available and accessible, and 3) Phase III [2021-2025]: achieve universal health coverage with an adequate service benefits and appropriate financial protection to a vast majority of the population. The Government has committed to strengthening the health system through a focus on five priorities of the Health Sector Reform Framework. These are (i) strengthening human resource capacity, (ii) improving health sector financing, (iii) improving the governance, organization and management of the health system, (iv) improving health service delivery and hospital management and (v) improving the overall monitoring and evaluation framework and the Health Information System. The quality and deployment of health staff requires significant attention, including prioritizing the deployment of skilled health workers in rural and remote areas, strengthening the capacity of health professions education and training, and addressing specific skill gaps remain due to mismatches between training programs and demand by provincial health services.

There are three administrative levels in the public health system: central (Ministry of Health (MOH)), provincial (provincial health offices (PHOs)) and district (district health offices (DHOs)) and four levels of service delivery: (1) central-level providers (hospitals) managed directly by the MOH; (2) provincial-level providers, managed by the PHOs; (3) district-level providers, managed by the DHOs; and (4) community-level providers (health centres), also managed by the DHOs. At village level, there are a large number of village health volunteers (VHVs), village malaria workers (VMWs), members of community health committees, and traditional birth attendants (TBAs).

[4] World Health Organization. *World Health Statistics 2015*.
[5] Government of the Lao PDR and the United Nations, 2015. *The Millennium Development Goals and Lessons Learnt for the Post-2015 Period: A Summary Review*. Vientiane: Ministry of Foreign Affairs and United Nations.

The National Malaria Control Program (NMCP) has extensive experience in implementing its malaria control program. It provided access to prevention and treatment commodities regardless of gender or age or socio-economic status and with a particular attention to pregnant women and other vulnerable populations (i.e. infants, army soldiers and family, etc.) in the malaria transmission area. The NMCP has also contributed to the design of adapted IEC materials with respect to the variety of ethnicities found in the target population.

1.3 Past implementation and lessons-learned from Global Fund and other donor investments

a) List recent disease-specific Global Fund grants from the 2014-16 allocation period and summarize key lessons learned from their implementation.
b) Include lessons-learned from specific HSS grants or any HSS investments embedded in the disease-specific grant(s) from the 2014-16 allocation period as applicable.
c) Outline lessons learned from investments by other donors as applicable.

For each of the above, explain how these lessons learned are taken into account in this funding request.

(maximum 1 page per component)

Lao PDR was approved for funding by the Global Fund from 2014 to 2016 for the following disease specific areas:

Diseases grant	2014	2015	2016	Sub-total
Malaria NFM		2,886,082	3,390,570	**6,276,652**
Malaria TFM	1,270,768			**1,270,768**
Malaria RAI	1,582,564	1,992,092	1,816,999	**5,391,655**
HIV SSF	5,420,473	3,268,381		**8,688,854**
HIV NFM			4,422,704	**4,422,704**
TB SSF	2,847,593	1,908,456		**4,756,049**
TB NFM		2,250,449	3,015,208	**5,265,657**
HSS			2,185,114	**2,185,114**
Total	**11,121,398**	**12,305,460**	**14,830,595**	**38,257,453**

The following table summarizes lessons learned reported to the Global Fund through the latest PU/DR covering the period of Jan to Dec 2016.

	Lessons learned
HIV	During the first 6-month implementation period of 2016, the following key operational issues were identified. • to improve peer outreach activities for MSM groups to reach more targeted population and to promote the VCCT/HCT services among MSM • to enhance timely and complete report submission of each reporting unit under CHAS and • to collaborate closely with MCH service providers to promote the accessibility of PMTCT activities for both pregnant mothers and babies born from HIV + ive women • to collaborate more closely with NTC to improve the cooperation and better performance of key activities related to TB/HIV. CHAS received the fund transfer just before the end of Feb 2016 however, CHAS could transfer money to PCCAs at the end of Feb. As a result, the implementation activities for the MSM were delayed. Besides, most of the MSM peer educators of NGOs and CBOs were very new and they need more orientation and trainings to reach more targeted population. In addition, it needs the friendly environment of DICs especially for the MSM target groups to improve the HCT services for MSM. Because of the limited funding, CHAS could not conduct the refresher training and regular review workshop among PCCAs and ART service providers to improve the timely and quality reporting.
TB	Operational and programmatic issues of TB Programme during 2016 are : • to increase the contribution of TB case notification by CBOs , NGOs and private sector and • to improve the referral system for proper TB diagnosis of Under 5 children with TB contact and to begin the IPT • to enhance the area of retreated TB patients to receive Drug Sensitivity Testing and • to improve the implementation of MDRTB decentralized programme in other provinces. In addition, among 18 provinces, there were more than (50) staff turnover at the District level and 3 staff turnover at the Provincial TB Coordinator level. NTC plans to conduct the orientation trainings for those new staff and will also mentor by on-the-job training. However, it has an effect on TB programme implementation as the incoming employees need time to learn the TB management as well as reporting.
Malaria	**The best program management practices identified are as follow:** • Develop a comprehensive financial management practices guide and implementation at central and provincial level. • Train staff at all levels on best financial management practices • Hire an adequate number of trained financial staff at all levels (CMPE and provinces). • Offer on-the-job training to all central and provincial level staff on a regular basis • Purchase accounting software for monthly financial reporting • Conduct quarterly field visits to monitor and evaluate performance and troubleshoot issues • Perform external audits annually to ensure compliance with guidelines

	Key issues learned from the implementation of previous GF grants are as follow: • Late submission of the financial reports delays the disbursement of funds and the implementation of activities. This represents one of the biggest challenges of CMPE since the initiation of the program and it is the main cause of the low absorption rate of the budget. • Most finance staff don't have a business background (e.g. nursing), which makes the understanding of finance management tools quite challenging. Therefore, the reporting and development of related supporting documents are delayed and often have multiple errors. • Limited financial management on-the-job training during the grant implementation augments the issues discussed above. • High turnover of staff at provincial level due to low salaries. • Central staff capacity to provide feedback on reporting errors is limited due to GF submission time constraints. • Low number of laptops at provincial level. Not all finance staff has laptops to report required data. Some laptops are outdated and need to be replaced. • Low speed or spotty internet connection. To exemplify some of the challenges and how this impacts running the malaria elimination operations, the second shipment of LLINs supported by the government was delayed in 2016 resulting in several underperformance of indicators related to their distribution. Some operational challenges were identified at PAMs and DAMs level. Staff at these levels of care was not familiar with the overall guidelines for reaching the MMP populations. This operational issue was addressed and discussed with all MMP implementing partners in Oct 2016.

SECTION 2: FUNDING REQUEST (Within Allocation)

This section should describe and provide a rationale for the program elements proposed for this funding request. Attach and refer to completed **Programmatic Gap Table(s), Funding Landscape Table(s), Performance Framework and Budget**, and refer to national strategy documents as applicable.

To respond, refer to additional guidance provided in the *Instructions.*

Ensure that the funding request as described in questions 2.1 and/or 2.2 meets the focus of application requirement as outlined in section 2.3.

2.1 Disease-specific funding request

Not applicable if the application is a standalone RSSH request.

Given the context and lessons learned outlined in Section 1,

a) Describe the disease-specific funding request(s), the rationale for prioritizing modules and interventions, and how these choices ensure the highest possible impact with a view to ending the three diseases and removing human rights and gender-related barriers to accessing services.

   For any priority modules for which gaps are difficult to quantify in the programmatic gap tables, explain here the barriers being addressed, the proposed interventions and the population or groups involved.

b) Explain how the funding request addresses the key funding gaps reflected in the Funding Landscape Table(s) for the disease program(s) in the current allocation cycle, and specify other actions planned to cover remaining gaps.

For funding requests including both HIV and TB components:

c) Describe the coordination of joint TB and HIV strategies, policies and interventions at different levels of the health system, including community systems, and expected impact and efficiencies from the joint programming.

Ensure the answer appropriately reflects the separate disease programs in addition to cross cutting modules where appropriate.

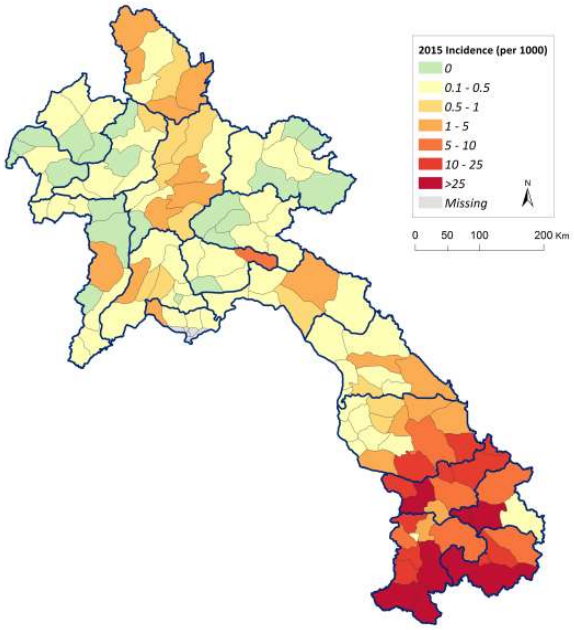
(maximum 4 pages per component)

Malaria control began in Lao PDR in 1953, when the insecticide dichloro-diphenyl-trichloroethane (DDT) was first used with chloroquine mass drug administration, despite a period of inactivity from 1961 to 1969 because of the Lao civil war. *Plasmodium falciparum* remained the predominant parasite specie in Lao PDR accounting for about 99% of the annually reported cases until 2010, when the trend reversed to an increasing reporting of *Plasmodium vivax* (*P.v.*) infection up to 58% versus 42% for *P.f* in 2015. Insecticide treated nets (ITNs) and artemisinin based combination therapy (ACT) as the first line treatment along with the use of rapid diagnostic tests (RDTs) were first introduced respectively in 1988 and 2004 by CMPE. Ordinary ITNs have been progressively replaced by long lasting impregrated mosquitonets (LLINs) with the NMCP accessing to the Global Fund funding. Various donors (World Bank, Asian Development Bank, Lao EU Malaria Control Program, government of Japan, Vietnam and more recently from the Global Fund) used to fund the NMCP, contributing to a significant decrease in the overall malaria burden in Lao PDR.

There are four recognized malaria vectors in Lao PDR: *Anopheles dirus*, *An. minimus*, *An. maculatus*, and *An. jeyporiensis*. Among these, *An. dirus* and *An. minimus* are considered primary vectors. While *An. minimus* has been identified in all provinces, *An. dirus* was formerly

most common in the central and southern parts of the country and found more recently in Phongsaly and Luang Prabang in the North in 2014-2015.

Lao PDR has a long history of a nationwide coverage of its malaria control interventions, where transmission could be formally found; however, the latest data 2016 shows that it is now more localized to the Southern provinces and few districts of Phongsaly in the North.



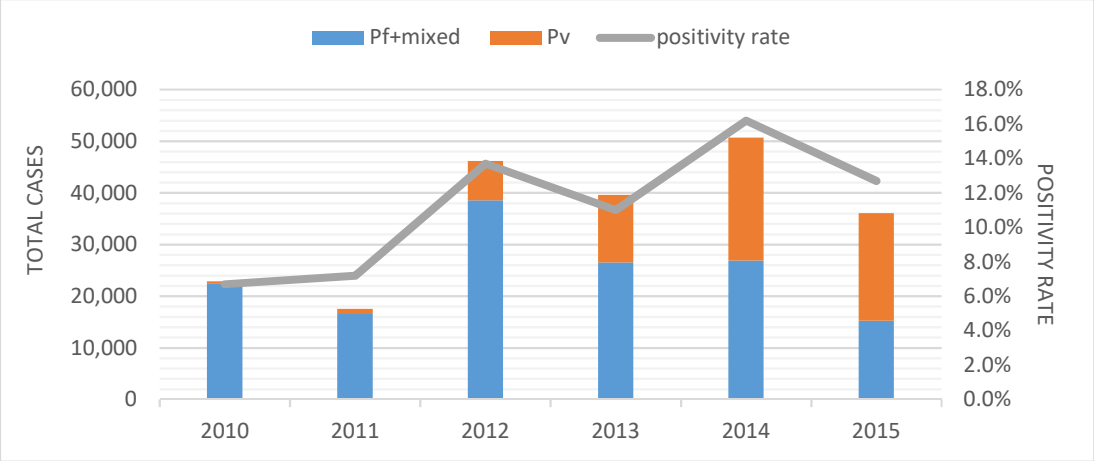
The population at risk of malaria can be divided into two different groups: the static and the mobile and migrant populations (MMPs) as shown below. The static populations refer to people who live in at risk villages (mainly ethnic minorities) and who live in formal settlements in large-scale development, construction projects, plantations or army camps. The MMPs are defined as any Lao or foreign workers or their family members who migrate or reside for less than 6 months (mobile people) or between 6 to 12 months (migrant people) for economic or labour-related reasons within Lao PDR or across borders in neighbouring countries. They are a high-risk group for malaria infection due to their heightened exposure in remote or forest-areas, the access they lack to quality public health services and other reasons.

STATIC POPULATIONS	MOBILE POPULATIONS
• At risk villages including ethnic minority villages • Formal settlements associated with large scale construction projects (DAMN, bridges, mines) • Plantations (rubber, oil palm, food) • Army camps • Informal settlements e.g. roadside economic migrants, settlements adjacent to construction projects	• Forest workers - formal sector (army patrols, police, border guards, forest/wildlife protection services) • Forest workers - informal sector (hunters, small-scale gem/gold miners, people gathering forest products [timber, rattan, bamboo] • Traditional slash-and-burn and paddy field farming communities (commonly ethnic minority groups -EMGs) • Seasonal agricultural labourers • Camps associated with development and commercial projects (road/railway construction, large-scale logging)

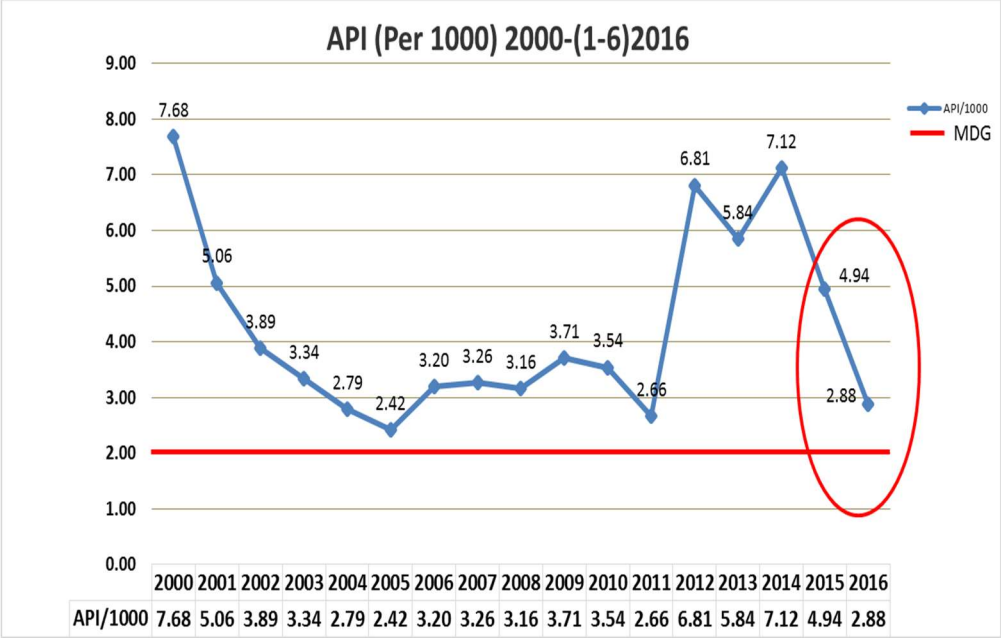
From 2005-2012, several therapeutic efficacy studies in north, central and southern Lao PDR found over 97% efficacy using artemisinin-lumefantrine (AL), the first-line anti-malarial for treatment of *P. falciparum* infection. However, in 2013, therapeutic

efficacy studies (TES) in two districts (Khong and Pathoumpone) of Champasack province reported increasing antimalarial drug resistance with 90% cure rate and 22.2% Day 3 positivity with K13 mutations found in 77% of the samples tested, similar to the K13 mutations present on the borders of Ubon Ratchathani in Thailand and Steung Treng in Cambodia that same year. Further TES conducted in 3 southern provinces (Sekong, Attapeu, and Champassak) in 2014-2015 found similar results with 86% adequate clinical and parasitological response, 20% Day 3 positivity and presence of K13 mutations in 52% of the Day 0 isolates tested. In 2017, TES will be performed in 4 sentinel sites in Saravane, Champassak and Sekong to test separately AL and dihydroartemisinin-piperaquine (DHA-PIP).

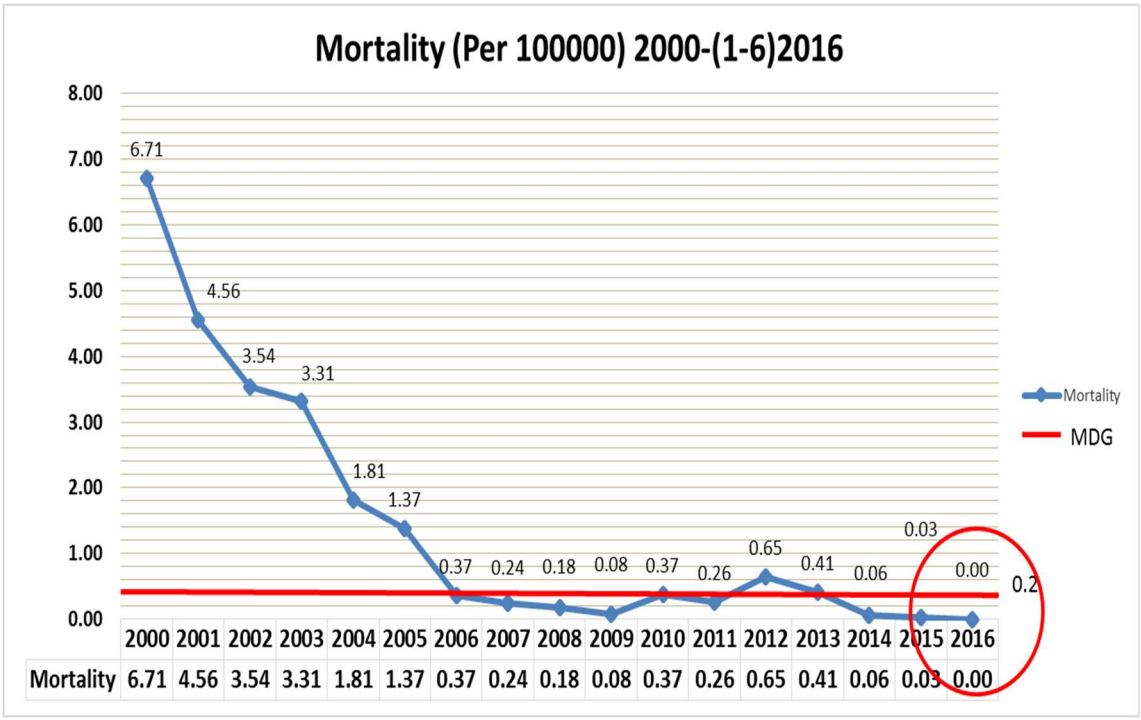
The epidemiology data collected in Lao PDR from 2000 to 2015 showed a decreased by 87% in the number of probable and confirmed cases from 279,903 to 36,093 cases and currently 14,882 cases from Jan to Nov 2016 with increasing proportion of *P.v.* infections up to 61% versus 39% of *P.f.* infections.



From 2000 to 2015, the annual parasite incidence decreased by 36% only from 7.68 per 1000 to 4.94 per 1000 because of an outbreak which occurred from 2011 to 2015 more likely related to economic activities in the south, particularly in forest areas and large-scale development projects, which have attracted workers and families from less endemic areas of Lao PDR or neighbouring countries, where people are less familiar with malaria and may be more susceptible to severe malaria or death due to lack of immunity. The current annual parasite incidence is at 2.88 per 1000 for the period from Jan to Nov 2016.



From 2000 to 2015, the malaria mortality decreased by 100% from 6.71 per 100,000 to below 5 maintained up to our most recent data of November 2016.



With the significant decrease of the malaria burden, a revised stratification of the population at risk was established with WHO technical assistance and other partners, defining four different strata of the population at risk as described below:

Stratification Category	Definition
Strata 1 (Malaria Free)	At least 6 tests/year and Zero Cases
Strata 2a (Low/medium burden, imported)	At least one malaria case and API < 10 and all cases imported

Strata 2b (Low/medium burden, local transmission)	At least one malaria case and API < 10 and potential local transmission
Strata 3 (High burden)	API >10

For the elaboration of this funding request, two separate consultative workshops were organized: one for Civil Society Organizations (CSOs) on 19 January 2017 and one country dialogue on 20 January 2017.

The CSO workshop gathered participants representing national and international organizations as well as Village Malaria Workers (VMWs) from malaria transmission provinces. Three main areas of intervention have been identified for the CSO component: the strengthening of the community level in being more responsive to malaria elimination, the strengthening of the VMW activity especially in approaching MMPs, including forest goers, and the strengthening of health education of the population at risk for the sustainability of the elimination status to be achieved.

The country dialogue gathered key stakeholders involved in malaria and provincial malaria staff, including representatives of the CSO consultative workshop. The importance of targeting the army was expressed for eliminating malaria. Some additional need for intervention have been identified, i.e. the conduct of the household survey prior to procurement of LLIN, assessing the adapted type of net which would increase the use of LLIN by household members.

The funding request for malaria control and elimination in Lao PDR is aligned with the 2016-2020 National Strategic Plan, as well as the GMS Regional Elimination Strategy (2015-2030) and the WHO Global Technical Strategy (2015-2030), including the GTS' three pillars.

Pillar 1) Ensure access to malaria prevention, diagnosis and treatment
Pillar 2) Accelerate efforts towards elimination and attainment of malaria-free status
Pillar 3) Transform malaria surveillance into a core intervention

The success of achieving these pillars both nationally and regionally is tied to the *Global Technical Strategy*'s supporting elements including 1) Harnessing innovation and expanding Research and 2) Strengthening the enabling environment. This request will tie the four priority modules for malaria (Vector Control, Case Management, Specific Prevention Interventions, Program Management) and related interventions with these pillars to successfully achieve country and regional elimination goals by 2020. Lao PDR's goals include: reduce cases of P.f in the Southern provinces to less than 5 per 1000 by 2020, reduce cases of P.v in the Northern provinces to less than 1 per 1000 by 2020, and eliminate cases of P.f in the Northern provinces by 2018.

The funding request includes the contribution from CSOs, representing 22% of the implementation cost ($1,891,486). Hence, the funding request includes the following priority interventions as described in the NSP 2016-2020:

Pillar 1) Ensure access to malaria prevention, diagnosis and treatment

Priority Module 1: Vector Control

From 2016 to 2020 (NSP Phase 1), the objective of the NMCP is to protect 90% of all populations in burden reduction provinces with appropriate vector control interventions. This began through LLIN mass distribution in 2016. Vector control efforts can be enhanced through use of new stratification data enabling effective targeting of at-risk populations in burden-reduction provinces. The disproportionate load of malaria cases in the Southern Provinces

provides impetus to prioritize control measures in these regions, without which, elimination will not be possible by 2030. Sufficiently high coverage through vector control will reduce or ideally interrupt transmission.

Intervention: Long Lasting Insecticidal Nets – Mass Campaign

Mass distribution of LLINs will occur in 2019 in Strata 3 across the country and in Strata 2b in the five prioritized southern provinces (Savannakhet, Saravane, Sekong, Champasack, and Attapeu). Funds are requested for the procurement of 928,795 LLINs for Mass Distribution to cover a population of 1,685,417. Additional funds related to LLIN mass distribution are requested for training on SOPs, data collection, planning of distribution, and alignment of LLIN distribution plans across all provinces. One third of the total cost for LLIN procurement and distribution is covered by the co-financing from the Lao government.

Intervention: Long Lasting Insecticidal Nets – Continuous Distribution

Continuous distribution will occur from 2018-2020 in order to target mobile migrant populations (MMPs) and the military at risk of malaria.

These targeted groups are assumed to be covered in part by the Mass Distribution campaign with an additional 2.5% of the at-risk population estimated to require specific intervention for reach outside of key villages annually. Funds are requested for the procurement of 176,981 nets to cover an equal number of people over three years, at one net per person. This distribution will occur annually

Intervention: Indoor Residual Spraying

Indoor residual spraying (IRS) interventions have been planned as part of the outbreak and focus response. Procurement of IRS commodities for spraying have been included in the funding request as part of outbreak response.

Intervention: Other Vector Control Measures

Other vector control measures include the distribution of effective personal protection tools to high risk populations, including Mobile Migrant Populations (MMPs). These activities are included in the PAAR funding request. Activities include selection and procurement of personal protection tools such as hammocks and/or treated personal clothing items, and the development of a distribution scheme to ensure that all target at-risk mobile and migrant populations are reached.

Intervention: Information Education and Communication/ Behavior Change Communication

The poorest populations in the most hard to reach areas are often those who face other barriers to prevention and treatment. IEC/BCC campaigns will be designed with the goal to reach the population at risk in order to improve their access to healthcare. Implementation of IEC/BCC campaigns by CSOs is intended to target these populations to ensure effective use of LLINs.

Priority Module 2: Case Management

The continued extension of quality diagnosis and treatment services via public health facilities, community health workers, and the private sector is a priority for Lao PDR. In addition to ensuring uninterrupted access to quality commodities, this funding request seeks to strengthen the quality of existing services, while leveraging the existing community healthcare worker and public-private mix models to extend access to rural populations residing in forest

fringe and forested areas as well as mobile populations who may be moving in and out of high transmission areas.

Intervention: Facility-Based Treatment

To maintain quality of care and access to diagnosis and treatment services across Lao PDR's 1150 health facilities, including the 486 health facilities that currently exist in strata 3 and 2b, funding is requested for the procurement and distribution of diagnosis commodities including RDTs and microscopy supplies, antimalarials including ACTs and primaquine, and G6PD tests. Additional funding is requested for trainings and training materials, including job aids. CMPE and partners will lead trainings for PAMS/DAMS staff, which in turn will train provincial and district hospital staff and healthcare workers at health facilities within their catchment areas. Training of healthcare providers on malaria diagnosis, rapid diagnostic testing and malaria treatment is planned at province and district level.

Intervention: Integrated Community Case Management

Lao PDR will seek to strengthen existing village malaria volunteer network and extend village volunteers to every endemic village in the five southern provinces and all of strata 3 villages in the Northern provinces. The number of VMVs providing diagnosis and treatment services for malaria will increase to 1265 by 2020, 1170 of which will be placed in the south. These will cover 30% of the villages in South and all Strata 3 at-risk villages. Funding is requested for RDTs and ACTs, trainings and monthly travel stipends for all village malaria volunteers to pick up new commodities as necessary and submit routine passive case detection data at health centres. Training of VMVs will occur in 2018 with refresher training in 2020 and will be coordinated by CMPE and CSOs jointly. It will cover PSM, malaria diagnosis, treatment of uncomplicated malaria, and data collection and reporting.

Intervention: Severe Malaria

Treatment of severe malaria or treatment failure will be done with IV artesunate. Training costs, and procurement and distribution costs of artesunate injection to health facilities are all requested under the GF funding. 2,532 of artesunate 60 mg vials will be purchased and distributed from 2018-2020.

Intervention: Private Sector Case Management

In collaboration with local partners, CMPE will extend the public-private mix program to continue to extend access to care to populations seeking care outside the public sector. To improve oversight over PPM program, funding is requested to map all private sector providers in targeted high-burden areas. Funds are also requested for CMPE and CSO partners to train PPM facilities within targeted districts on diagnosis, treatment, stock management and reporting in exchange for free commodities. Commodities for diagnosis and treatment will also include those for distribution to PPM providers, both at current requirements and to cater for scale-up in coming years.

Intervention: Information, Education and Communication/Behavior Change Communication

IEC/BCC interventions are proposed for CSO implementation in Lao PDR. These activities will ensure the successful development of IEC/BCC messages for malaria control and elimination, targeting relevant populations. A mass communication campaign for malaria will include posters, pamphlets, radio adverts, signs, billboards, social event involvement, and

pharmacist scrubs. Community mobilization to improve awareness about malaria risk, prevention, diagnosis and treatment will be conducted through meetings for community engagement and world malaria day annually. Site visits are planned for supervision and monitoring of IEC/BCC activities.

Pillar 2) Accelerate efforts towards elimination and attainment of malaria-free status

Priority Module 2: Case Management

Intervention: Active Case Detection and Investigation

Case investigation in elimination-targeted provinces is a priority for Lao PDR. This funding request will support the development of case classification and foci investigation manual, trainings for PAMS and DAMS on case classification, foci investigation and response, the design, print and distribution of case classification and foci investigation forms at health facilities and the production of case classification and foci investigation dashboards into the DHIS2 system.

Supervision and Monitoring for Surveillance activities will be conducted through central site visits to PAMS, visits by PAMS to DAMS visits by DAMS to HCs, and visits by HCs to villages.

Pillar 3) Transform malaria surveillance into a core intervention

Priority Module 1: Vector Control

Intervention: Entomological Monitoring

Implement entomological surveillance of vector habits, effectiveness of vector control interventions and monitor insecticide resistance

Priority Module 2: Case Management

Intervention: Epidemic Preparedness

Epidemic preparedness includes the implementation of outbreak alert and response systems through MOH rapid response teams at provincial and district level. These will be implemented through updating guidelines and thresholds for outbreak preparedness and response, training of PAMS and DAMS on outbreak preparedness and response, review of weekly data to monitor for outbreaks, and visits to health centres to determine source of outbreak, if needed.

The national disease surveillance system will be revised to include malaria into its early warning system allowing a rapid response in case of outbreak in elimination settings.

Intervention: Therapeutic Efficacy Surveillance

Conducting Therapeutic Efficacy Surveillance is planned under operational research. This activity will complement the TES surveillance activities currently conducted by WHO in 2 provinces in the South.

Intervention: Ensuring Drug and Other Health Product Quality

Strengthening quality assurance and control systems for malaria diagnosis and antimalarial drugs is planned through training on QA/QC of PAMS, DAMS, district hospital staff and provincial hospital staff. QA/QC of commodities and supplies will be conducted internally and externally as well as through assessment during supervision visits. QC for antimalarials is planned through training and inspection of PPM facilities.

Surveillance, Monitoring and Evaluation

Intervention: Information System Strengthening

Main activities under the Information System Strengthening are:

- Institutionalize upgraded malaria information system;
- Ensure timely and complete reporting of all malaria data captured through the passive case detection system, including all health facilities, village workers, mobile teams, and PPM facilities; and
- Ensure analysis of data in order to take targeted and well informed decisions.

At present, reporting occurs through paper submission form by some provincial hospitals, PPMs, district hospitals, all VMWs/VHVs, and all health centres. Reports are fed into the DHIS2 system at DAMS and PAMS. The data is immediately available at all the health care levels that have access to DHIS2. Data completeness, timeliness, and accuracy vary widely across health-system levels.

Strengthening the surveillance system will be supported by purchasing necessary hardware, providing training to HCs, VMVs on data collection and reporting, conducting training on IT equipment use and maintenance, and conducting monthly reporting trainings.

<u>Supporting Element 2) Strengthening the enabling environment</u>

Priority Module 4: Program Management

Intervention: Policy, planning, coordination and management of national disease programs

- Development and/or update of SOPs and tools for malaria elimination activities with a further training of provincial and district level staff; the organization of annual review and planning meeting with PAMS; salaries for the Program Management Unit (PMU) and WHO technical assistance.
- CSOs as advocacy meetings at provincial level to ensure an enabling environment for malaria elimination.
- PAMS and DAMN will help establish Provincial Malaria Elimination Committees, including provincial government leadership, key health staff, NGO and community partners, and other essential stakeholders, to meet semi-annually to discuss progress in implementation and adapt interventions to their respective local contexts.
- CMPE will seek to participate in semi-annual meetings with the national malaria programs in Cambodia, Myanmar, Thailand, and Vietnam to synchronize the implementation of border-related activities with neighbouring countries. CMPE, PAMS, and DAMN will work together to establish twin-city collaborations with neighbouring countries' border districts to establish regular planning meetings as well as joint monitoring and supervision visits with neighbouring country health officials.
- CMPE will conduct needs assessment at central, provincial, and district-level to determine building issues and gaps in transportation vehicles, furniture, and information technology and laboratory equipment.
- Programmatic supervision for provinces (finance, logistics, program supervision) in coordination with MOH (onsite data verification - OSDV), internal inspections, and M&E.
- This includes the implementation by CSOs of workshop to identify weaknesses in the surveillance, monitoring and evaluation (SME) and actions to address them, followed with training of staff in the revised SME.

Intervention: Grant Management

- To ensure effective use of funds, CMPE will upgrade its accounting system to improve resource tracking and ensure timely disbursement of funds. CMPE will ensure that the PAMS will also use similar accounting software. CMPE finance staff will update standard operating procedures for utilizing updating system and training will be provided. CMPE will also work with the MOH's Principal Recipient's Office, PAMS, DAMN, and technical assistance to develop a payment mechanism for district health offices, health centres, and community healthcare workers to reduce implementation bottlenecks due to delayed resource disbursement, and improve tracking at central level.

2.2 RSSH funding request		
The Global Fund strongly encourages funding requests for RSSH investments to be submitted within a ***single*** application, and preferably to be requested in the first submission.		
Does this funding request include an RSSH component?	☒ Yes	☐ No

If yes, describe the request below and how it is strategically targeted.

Referring to the national health strategy, gaps and lessons learned outlined in the previous section, describe the funding request for RSSH and how the investment is strategically targeted to strengthen systems for health and achieve greater impact on the diseases. In your explanation, refer to the Funding Landscape Table on 'government health spending', Performance Framework and Budget as appropriate. Note that it is optional to complete a Programmatic Gap Table for RSSH.

(maximum 3 pages)

A comprehensive and integrated RSSH component is currently under discussion with a tentative date for submission by 10 March 2017.

If no:

a) Indicate when the RSSH funding request was/will be submitted; and,
b) **If the RSSH funding request has not yet been submitted**, highlight below the elements of the planned RSSH investment that will directly support the disease program in this funding request.

(maximum ½ page)

N/A

2.3 Focus of application requirement [6] This question is required for Lower-Middle Income (LMI) and Upper-Middle Income (UMI) countries. It is <u>not</u> applicable for Low-Income (LI) countries. To respond, refer to guidance provided in the *Instructions.*	
For LMI countries: - Does the funding request focus at least 50% of the budget on: disease-specific interventions for key and vulnerable populations; programs that address human rights and gender-related barriers and vulnerabilities; and/or highest impact interventions?	☒ Yes ☐ No
- For RSSH, does the funding request primarily focus on improving overall program outcomes for key and vulnerable populations in two or more of the diseases, and is it targeted to support scale-up, efficiency and alignment of interventions?	☒ Yes ☐ No
For UMI countries: - Does the funding request focus 100% of the budget on interventions that maintain or scale-up evidence-based approaches for key and vulnerable populations, including programs that address human rights and gender-related barriers and vulnerabilities?	☐ Yes ☐ No
Ensure that the funding request as described in questions 2.1 and/or 2.2 meets this focus of application requirement.	

[6] Refer to the Global Fund 2017 Eligibility List for income level. LMI and UMI countries have specific requirements in terms of the focus of applications as set forth in the Global Fund Sustainability, Transition and Co-Financing Policy.

SECTION 3: OPERATIONALIZATION AND RISK MITIGATION

This section describes the planned implementation arrangements and foreseen risks for the proposed program(s). Applicants are encouraged to **attach an updated Implementation Arrangements Map.** To respond, refer to additional guidance provided in the *Instructions.*

3.1 Implementation arrangements summary

Do you propose major changes from past implementation arrangements, e.g. in key implementers, flow of funds or commodities?	☐ Yes ☒ No

If **yes**, provide an overview of the new implementation arrangements and elaborate how these changes affect the operationalization of the grant.

If **no**, provide a summary of high-level implementation arrangements focusing only on lessons learned for the next period.

In **both cases**, detail how representatives of women's organizations, key populations and people living with the disease(s), as applicable, will actively participate in the implementation.

Include a description of procurement mechanisms.

(maximum 1 page)

With the consolidation of both RAI and NFM grants, the following implementation arrangements is envisioned for the government component:

- Lao Principal Sub-recipient (to be selected by the national CCM);
- Consolidation of central level positions at CMPE:
    - 1 single RAI Coordinator, as contract staff, instead of 2;
    - 7 contract staff instead of 9 under M&E, Finance and Procurement supply management; and
    - New recruitment of 4 administration staff as contract staff, including 1 secretary, 2 drivers and 1 cleaner;
- Capacity strengthening of provincial and district staff to cope with the absence of salary incentive coming with this funding request:
    - 1 “Provincial project and M&E Coordinator” and 1 “Provincial finance and logistic officer” per province as contract staff to strengthen coordination, reporting and logistic implementation of activities; and
    - 1 “District project and M&E Coordinator” per district as contract staff in the 5 provinces at risk targeted with the funding request.

The implementation arrangement by CSOs will be determined following the submission of the funding request through a transparent selection process, which will be endorsed by the national CCM.

3.2 Key implementation risks

Using the table below, outline key risks foreseen, including those that were provided in the *Key Program Risks* table shared by the Global Fund during the Country Dialogue process. You can also add key operational and implementation risks, which you identified as outstanding over the previous implementation period, and the specific mitigation measures planned to address each of these challenges/risks to ensure effective program performance in the given context.

Applicant response in table below.

Risk Category (Functional area)	Key Risk	Mitigating actions	Timeline
Programmatic and performance	**1.3 Not achieving grant output targets** a) Limited transport support for VHW in remote areas to bring people who have clinical signs of malaria to health facilities for microscopic blood test. Risk of under-achievement of Output CM-1a. b) No/limited availability of RDTs for use by NGO peer-educators, thus reducing capacity for on-site testing of suspected malaria cases. Risk of under-achievement of Output CM-1b c) Cross-cutting risk - Multiple sources highlighted HR limitations at decentralised levels. A particular concern is the limited capacity of provincial level staff across all programs to monitor, supervise and support district level staff. In particular, concerns that the roll-out of eLMIS at district level will need strong provincial level support.	a) The NMCP includes the training of Village Malaria Workers in malaria transmission area; whereas, Village Health Workers are under a different department of the MoH and their recruitment does not take into account the malaria transmission area. RDTs are provided only to VMW and can't be supplied to VHW who are not located in unrecognised transmission area. b) To allow NGOs in providing case management care to patients is against the law. Such change in policy would involve the change of law and regulation, which should be approved by the Parliament and the Lao Medical Council. A mitigation action might be that NGOs get the Health Center staff involved with the peer education activities, so that the latter could bring RDTs for testing if needed. c) The RSSH component will address this risk.	N/A N/A Jan 2018
Governance, oversight and management	**4.5 Inadequate SR/PMU Governance & Oversight**		

	a) Some SRs implement multiple activities under 2 or even 3 Global Fund malaria grant agreements (e.g. NFM, RAI and ICC) – sometimes in the same districts, in addition to malaria activities supported by other donors. This is imposing a significant strain on management, coordination and implementation, as well as financial and programmatic reporting at both central and decentralised levels. A key concern is avoiding overlap and duplication of activities, including with other actors implementing malaria activities in the same districts. b) There has been a high reliance on TA for technical support and capacity building within the national program. However, TA provided by WHO has left, and there are likely to be delays before a replacement is in place.	a) In the funding request, trainings have been integrated at the provincial level. b) The national WHO malaria expert is currently in place. In addition, a short term consultant will be provided through WHO until a longer term position will potentially be created in Sept 2017.	Jan 2018 On-going
Governance, oversight and management	**4.6 Inadequate SR/PMU Reporting & Compliance** a) The issue of implementing activities for multiple funding sources with different timeframes and reporting requirements is impacting on reporting efficiency (and M&E). Implementation, monitoring and reporting are driven largely by the various grants, rather than by the national strategic plan. b) Reporting is often significantly delayed because the malaria program implements down to village level; however, this situation has persisted for over a decade, and there is a need to find creative solutions to	a) With this funding request, malaria will be funded through a single source, integrating all grants together. b) The funding request includes transportation cost for VMWs to come to the HC to report their data on a monthly basis.	Jan 2018 Jan 2018

	improve the efficiency of reporting. Cross-cutting risk: Persistent weak financial and M&E reporting by some SRs; training and support provided by PR financial team to SRs is sometimes inadequate	The Lao PR reported that trainings on the new PUDR template (GF reporting template), PF and GF Indicators have been already conducted for all SRs and on-the-job trainings and job shadowing (M&E) are continuously provided to all SRs.	Ongoing
Program management	The Lack of incentive for government staff might impact on the motivation of staff to continue working on Global Fund activities.	Contract staff are included in the funding request mainly to support provincial and district level activity implementation.	Jan 2018
Case management	Lack of G6PD test or late pre-qualification of G6PD tests	Clinical algorithm could be used prior prescription of primaquine with close patient monitoring of side effects	Jan 2018
Vector control	Protective measures for army	Camouflage color LLIN to be procured by UNOPS	Jan 2018
Surveillance	Integration of malaria into the national disease surveillance system	Use of temporary parallel system as early warning system	Dec 2018
IEC/BCC	Diversity of ethnic minorities	Translation of IEC materials into the various ethnic languages	Dec 2018
Add rows for additional key risks as necessary			

SECTION 4: FUNDING LANDSCAPE, CO-FINANCING AND SUSTAINABILITY

This section details trends in overall health financing, government commitments to co-financing, and key plans for sustainability. Refer to the **Funding Landscape Table(s)** and supporting documents as applicable. To respond, refer to additional guidance provided in the *Instructions.*

4.1 Funding Landscape and Co-financing		
a) Are there any current and/or planned actions or reforms to increase domestic resources for health as well as to enable greater efficiency and effectiveness of health spending? **If yes,** provide details below.	☒ Yes	☐ No
b) Is this current application requesting Global Fund support for developing a health financing strategy and/or implementing health-financing reforms? **If yes,** provide a brief description below.	☐ Yes	☒ No
c) Have previous government commitments for the 2014-16 allocation been realized? **If not**, provide reasons below.	☒ Yes	☐ No
d) Do current co-financing commitments for the 2017-19 allocation meet minimum requirements to fully access the co-financing incentive, as set forth in the Sustainability, Transition and Co-financing Policy?[7] **If not**, provide reasons below.	☒ Yes	☐ No
e) Does this application request Global Fund support for the institutionalization of expenditure tracking mechanisms such as National Health Accounts? If yes or no, **specify** below how realization of co-financing commitments will be tracked and reported.	☐ Yes	☒ No
(maximum 2 pages)		

Based on the World Health Statistics 2015, the general government expenditure on health over the total government expenditure reduced from 5.8% in 2000 to 2.6% in 2012 with a slight reduction in the proportion of the total expenditure on health from 35.1% in 2000 to 31.8 in 2012. The per capita government expenditure on health increased from $4 in 2000 to $9 in 2012 with a reduction in the out-of-pocket expenditure of the private expenditure on health from 91.8% in 2000 to 83.6% in 2012 and an increase in the proportion of private prepaid plans over the private expenditure on health from zero in 2000 to 1.5% in 2012.

The Global Fund requirements in accessing to the current funding request are that the Lao government contributes to a minimum of $1,664,288 as co-financing incentive and that at least 50% must be invested in malaria program interventions.

Based on the VIII th Health Sector Development plan, the need of the health sector amounts $1,968,875,000 for the period of 2018 to 2020, which comprises external funding to health. In 2017, the National Assembly approved $266,182,559 for health representing 7% of the government overall expenditure. The Lao government contribution to the malaria program through the Willingness to Pay process is expected to total $5,114,176 from 2018 to 2020.

[7] Refer to the Sustainability, Transition and Co-Financing Policy.

4.2 Sustainability

Describe below how the government will increasingly take up health program costs, and actions to improve sustainability of Global Fund financed programs. Specifically,

a) Explain the costs, availability of funds and the funding gap for major program areas. Specify in particular how the government will increasingly take up key costs of national disease plans and/or support health systems; including scaling up investments in programs for key and vulnerable population, removal of human rights and gender-related barriers and enabling environment interventions.
b) Describe actions to improve sustainability of Global Fund financed programs. Specifically, highlight key sustainability challenges of the program(s) covered by the funding request, and any current and/or planned actions to address them.

(maximum 1 page)

The funding request aims at sustaining malaria elimination in Lao PDR, targeting the malaria at risk population through the implementation of MSAT in addition to the continuation of prioritized NMCP activities. It plans to maintain the coverage of people protected in country and across the border, strengthen program management, case management, vector control, surveillance and behaviour change. It provides an update on the stratification of malaria transmission areas and a further engagement of CSOs to the elimination strategy.

To ensure sustainability, emphasis will be given through an investment of 6% of the national malaria component into the RSSH component, the maintenance of already achieved elimination provinces and the strengthening of the community level in becoming more responsive to malaria recognition and outbreak response. While the malaria trend will be decreasing, the community level in country and across borders will become more aware and responsive to any potential malaria outbreaks and therefore, malaria elimination will be maintained.

In addition, the increasing contribution from the Lao government will benefit to the sustainability of the NMCP strategy.

SECTION 5.1: PRIORITIZED ABOVE ALLOCATION REQUEST

All applicants are requested to detail a prioritized above allocation request. To respond, refer to guidance in the *Instructions* and fill in the table below.

Provide in the table below a prioritized above allocation request which, following the TRP review, could be funded using savings or efficiencies identified during grant-making or put on the register of UQD to be financed should additional resources become available. The above allocation request should include clear rationale and should be aligned with programming of the allocation for maximum impact. In line with the Global Fund's Strategy to maximize impact and end the epidemics, the prioritized above allocation request should be ambitious (for example, representing at least 30-50 percent of the within allocation amount).

Applicant response in the table below.

[*Component*] – *Copy table as needed, if your funding request includes more than one component*

	Module	**Amount requested** [*Specify US$ or EUR*]	**Brief Rationale, including expected outcomes and impact** (how the above allocation request builds on the allocation)
1	*Program Management*	$ 699,836	Activities under PAAR in program management include TA to support curriculum development, updating SOPs for program management, TA to support CMPE, dissemination of operational plans, support in enacting decree for organizations involved in forest work, and purchase of equipment. These activities supplement existing activities and will enable improved implementation and overall program management.
2	Case Management	$ 1,598,577	Strengthening of the health sector in case management of malaria from central to village level, including the strengthening of the M&E system, the disease surveillance and outbreak response system and the provision of continued TA were selected as first PAAR priority. This request also includes the purchase of microscopes and microscopy training, supportive supervision visits, reporting of supportive supervision, incorporation of private providers into the PPM network, training PPM providers on diagnosis, treatment, stock management, and reporting, activities to further support village malaria workers through training on VMW management, through VMW operational planning, and monitoring activities. In addition are work plans for MMTs and associated field visits to detect and treat patients, activities to improve quality controls for anti-malarials.
3	Vector Control	$ 509,909	Vector control activities under the PAAR funding request includes all IRS activities, creation of an improved sop for data collection and microplanning of LLIN mass

			distribution campaigns, and development of entomological surveillance capacity through TA and field visits to collect samples.
4	Surveillance	$ 748,559	Strengthening of the surveillance system was selected as second amongst PAAR priorities. This portion of the PAAR request includes additional VMV training to improve data collection and reporting, electronic equipment to improve capacity for reporting, training at central and province level on DHIS2 usage, and supplementary training to improve outbreak preparedness and response.
5	IEC/BCC	$ 26,376	PAAR funding request under IEC/BCC is intended for use towards a study on the efficacy of IEC/BCC materials in order to improve the efficacy and targeting of these in future interventions.
TOTAL AMOUNT		$3,583,258	