PROPOSAL FORM

SIXTH CALL FOR PROPOSALS

The Global Fund to Fight AIDS, Tuberculosis and Malaria is issuing its Sixth Call for Proposals for grant funding. This Proposal Form should be used to submit proposals to the Global Fund. **Please read the accompanying Guidelines for Proposals carefully before filling out the Proposal Form**.

Timetable: Sixth Round

Deadline for submission of proposals: 3 August 2006
Board consideration of recommended proposals: 31 October - 3 November 2006

Resources available: Sixth Round

As of the date of the Sixth Call for Proposals, the funding available for this Call is forecast to be in the range of US$ 0 to US$ 565 million, depending mainly on the amount and timing of new pledges to the Global Fund. The amount forecast to be available will be updated on the Global Fund website.

Geneva, 5 May 2006

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PROPOSAL SECTIONS FOR COMPLETION BY APPLICANTS

ATTACHMENTS TO THE PROPOSAL FORM FOR COMPLETION BY APPLICANTS

A list of all annexes to be attached to the Proposal Form by the applicant can be found at the end of sections 3 and 5 the Proposal Form

OTHER REFERENCE DOCUMENTS FOR APPLICANTS

(These and other documents are available at http://www.theglobalfund.org/en/apply/call6/documents/)

Country Coordinating Mechanisms:	The Global Fund's Revised Guidelines on the Purpose, Structure and Composition of Country Coordinating Mechanisms and Requirements for Grant Eligibility (**CCM Guidelines**)
Monitoring and Evaluation:	Multi-Agency 'Monitoring and Evaluation Toolkit', Second Edition, January 2006 (**M&E Toolkit**)
Procurement and Supply Management:	The Global Fund's "Guide to Writing a Procurement and Supply Management Plan" (**PSM Guide**)

How to use this form

1. **Before you start** - Ensure that you have all documents that accompany this form:
   - The Guidelines for Proposals (Sixth Call for Proposals)
   - A complete copy of this Proposal Form
   - The Attachments to this Proposal Form.

2. Please read the accompanying **Guidelines for Proposals** before filling out this Proposal Form.

3. For detailed information on how to use the electronic version of the Proposal Form, please see Attachment 4 to the Guidelines for Proposals.

4. In **this Proposal Form** further guidance for completing specific sections is also included in the Form itself, printed in *blue italics*. Where appropriate, indications are given as to the approximate length of the answer. Please try to respect these indications.

5. To **avoid duplication of effort**, we recommend you to make maximum use of existing information (e.g., program documents written for other donors/funding agencies).

6. **Complete the Checklists** at the end of sections 3 and 5 of the Proposal Form to ensure that you are sending a fully completed proposal.

7. **Attach all documents** requested throughout the Proposal Form.

8. Consult our "Frequently Asked Questions" link: *http://www.theglobalfund.org/en/apply/call6/*

Please note that any information submitted to the Global Fund may be made publicly available.

WHAT IS DIFFERENT COMPARED TO ROUND 5?

The main difference compared to the Round 5 Proposal Form is that **Health Systems Strengthening** is no longer a separate component. It is important to recognize that applicants can still apply for funding for health systems strengthening activities by including such activities in the specific disease components.

In other respects the Round 6 Proposal Form is similar to the Round 5 Proposal Form, and changes have mainly been made for the purpose of improved clarity and presentation.

1 Proposal Overview

1.1 General information on proposal

Applicant Name	Partnership Co-ordination Mechanism (PCM)
Country/countries	Bhutan

Applicant Type

Please tick one of the boxes below, to indicate the type of applicant. For more information, please refer to the Guidelines for Proposals, section 1.1 and 3A.

- ☒ National Country Coordinating Mechanism
- ☐ Sub-national Country Coordinating Mechanism
- ☐ Regional Coordinating Mechanism (including small island developing states)
- ☐ Regional Organization
- ☐ Non-Country Coordinating Mechanism Applicant

Proposal component(s) and title(s)

Please tick the appropriate box or boxes below, to indicate components included within your proposal. Also specify the title for each proposal component chosen. For more information, please refer to the Guidelines for Proposals, section 1.1.

	Component	Title
☒	HIV/AIDS[1]	Scaling-up HIV prevention services among youth and other vulnerable population groups through multi sectoral approach
☒	Tuberculosis[1]	Strenthening Quality TB control in Bhutan.
☒	Malaria	Scaling up of malaria control in Bhutan through sustainable strategies

Currency in which the Proposal is submitted

Please tick the appropriate box. Please note that all financial amounts appearing in the proposal should be denominated in the selected currency only.

- ☒ US$
- ☐ Euro

[1] In contexts where HIV/AIDS is driving the tuberculosis epidemic, HIV/AIDS and/or tuberculosis components should include collaborative tuberculosis/HIV activities. Different tuberculosis and HIV/AIDS activities are recommended for different epidemic states; for further information see the 'WHO Interim policy on collaborative TB/HIV activities,' available at http://www.who.int/tb/publications/tbhiv_interim_policy/en/.

1 Proposal Overview

1.2 Proposal funding summary per component

Funds requested for each component (i.e. HIV/AIDS, tuberculosis and/or malaria) in table 1.2 below must be the same as the totals of the corresponding component budget in table 5.1.

Table 1.2 – Total funding summary

Component	Total funds requested (Euro / US$)					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
HIV/AIDS	**867,625**	**945,200**	**593,450**	**649,600**	**540,450**	**3,596,325**
Tuberculosis	**438,590**	**446,100**	**262,460**	**334,770**	**297,215**	**1,779,135**
Malaria	**1,190,625**	**640,500**	**772,150**	**571,000**	**602,000**	**3,776,275**
Total	**2,496,840**	**2,031,800**	**1,628,060**	**1,555,370**	**1,439,665**	**9,151,735**

1.3 Previous Global Fund grants

Table 1.3 – Previous Global Fund grants

Component	Previous grants	
	Rounds	Current Amount* (Euro / US$)
HIV/AIDS	N/A	N/A
Tuberculosis	4th Round	994,298
Malaria	4th Round	1,737,604
HSS/Other		

* *Aggregate all past grants, including approved but as yet unsigned amounts. These amounts should include Phase 2 where this has been approved/signed. For more detailed information, see the Guidelines for Proposals, section 1.3.*

2 Eligibility

Only those Proposals that meet the Global Fund's eligibility criteria will be reviewed by the Technical Review Panel.

Eligibility is a multi-step process that depends on the income level of the country (or countries) applying for funding and, in some cases, disease burden.

Please read through this section carefully and consult the Guidelines for Proposals, section 2, for further guidance on the steps to be followed by each applicant.

2.1 Technical eligibility

2.1.1 Country income level

*Please tick the appropriate box in the table below. **For proposals from multiple countries**, complete the referenced information separately for each country (see the Guidelines for Proposals, section 2.1).*

Country/countries	Bhutan

☒	Low-income	➔ *Complete section 2.2 only*
☐	Lower-middle income	➔ *Complete sections 2.1.2, 2.1.3 and 2.2*
☐	Upper-middle income	➔ *Complete sections 2.1.2, 1.2.3, 2.1.4 and 2.2*

2 Eligibility

2.1.2 Counterpart financing and greater reliance on domestic resources

Please enter information on counterpart financing in table 2.1.2 below if the country(ies) listed above are classified as Lower-middle income or Upper-middle income.

Non-CCM Applicants do not have to fulfill the counterpart financing requirement.

The table should be filled in for each component included in this proposal. For definitions and details of counterpart financing requirements, see the Guidelines for Proposals, section 2.1.2.

***Important note:** The field "Total requested from the Global Fund" in table 2.1.2 below should equal the request in section 5 and table 5.1 for each corresponding component.*

Table 2.1.2 – Counterpart financing

Component	Financing sources	(Euro / US$)				
		Year 1	Year 2	Year 3 estimate	Year 4 estimate	Year 5 estimate
HIV/AIDS	**Total requested** from the Global Fund **(A)** [from table 5.1]					
	Counterpart financing (B) [linked to the disease control program]					
	Counterpart financing as a **percentage** of total financing: **[B/(A+B)] x 100 = %**					

2 Eligibility

Table 2.1.2 – Counterpart financing continued

Component	Financing sources	(Euro / US$)				
		Year 1	Year 2	Year 3 estimate	Year 4 estimate	Year 5 estimate
Tuberculosis	**Total requested** from the Global Fund **(A)** [from table 5.1]					
	Counterpart financing (B) [linked to the disease control program]					
	Counterpart financing as a **percentage** of total financing: **[B/(A+B)] x 100 = %**					

Table 2.1.2 – Counterpart financing continued

Component	Financing sources	(Euro / US$)				
		Year 1	Year 2	Year 3 estimate	Year 4 estimate	Year 5 estimate
Malaria	**Total requested** from the Global Fund **(A)** [from table 5.1]					
	Counterpart financing (B) [linked to the disease control program]					
	Counterpart financing as a **percentage** of total financing: **[B/(A+B)] x 100 = %**					

2 Eligibility

2.1.3 Focus on poor or vulnerable populations

*All proposals from Lower-middle income and Upper-middle income countries must demonstrate a focus on poor or vulnerable population groups. Proposals may focus on both population groups but **must** focus on at least one of the two groups. Complete this section in respect of each component.*

Describe which poor and/or vulnerable population groups your proposal is targeting; why and how these populations groups have been identified; how they were involved in proposal development and planning; and how they will be involved in implementing the proposal *(Maximum half a page per component)*.

2.1.4 High disease burden

Proposals from Upper-middle income countries must also demonstrate that they face a very high current disease burden. Please enter such information in the section below in respect of each component. Please note that if the applicant country falls under the "small island economy" lending eligibility exception as classified by the World Bank/International Development Association, this requirement does not apply (see section C in Attachment 1 to the Guidelines for Proposals).

Confirm that the country(ies) is(are) facing a very high current disease burden, as evidenced by data from WHO and UNAIDS. *(Please see the Guidelines for Proposals, section 2.1.4 for more information on the definition of high disease burden.)*

2.2 Functioning of Coordinating Mechanism

To be eligible for funding, all applicants, other than Non-CCM Applicants and Regional Organizations must meet the Global Fund's minimum requirements for Coordinating Mechanisms.

For additional information regarding these requirements, see:

- *The Guidelines for Proposals, section 2.2 and*
- *The CCM Guidelines.*

Please note that your application must provide documentation to show how the applicant meets these minimum requirements. You will be asked to re-confirm this in the Checklist at the end of section 3.

2.2.1 Broad and inclusive membership
a) People living with and/or affected by the disease(s) Provide evidence of membership of people living with and/or affected by the disease(s). *(This may be done by demonstrating corresponding Coordinating Mechanism membership composition and endorsement in table 3B1.2, and 3B.1.3 in section 3B of the Proposal Form.)*
To adequately involve and draw on experience of affected persons, the PCM includes: • A cured TB patient • A person who is living in malaria endemic area and has suffered from the disease. • A representative of PLWHA .(*The letter of correspondace on the nomination of the people affected with the disease is attached as annexure 1. The list of the PCM members are referred to in section 3B.1.2 under " Membership information.)*

2 Eligibility

b) Selection of non-governmental sector representatives

Provide evidence of how those Coordinating Mechanism (CM) members representing each of the non-governmental sectors (*i.e. academic/educational sector, NGOs and community-based rganizations, private sector, religious and faith-based organizations, and multi-/bilateral development partners in country)* have been selected by their own sector(s) based on a documented, transparent process developed within their own sector.

(Please summarize the process and, for each sector, attach as an annex the documents showing the sector's transparent process for CM representative selection, and the sector's minutes or other documentation recording the selection of their current representative. Please indicate the applicable annex number.)

The PCM comprises of 17 members representing government, NGOs, faith based organisations, private sector, education sector, UN /Multilateral and Bilateral agencies .The membership of the PCM consist of more than 40% from the non governmantal sector.These includes two members from the UN multilateral agencies, two members from the bilateral agencies, three members affected by the disease, two members from theNGOs, one member representing the community, one member from faithbased organization, five members representingthe government, one from the Bhutan Broadcasting Service(corporate organization)-media and one from the civil society .

The PCM members are selected based on the wider interest of the sector in question. They are not an individual representing only his/ her own interest.There is also membership from the National Women Association of Bhutan(NWAB), a NGO representing the wider interest of women in terms of combating the prevention of the disease in question.

The PCM secretariat sent formal letters of invitation to the members from the various sectors. Once the letter of invitation is reeived, the particular member was nominated by the head of the sector/organization in question representing the broader interest of the concerned sector. The nominations were then endorsed and approved during the PCM meeting.

Attached as **annexure 1** are the correspondence of letters of nominations to the PCM members who representing a wider view from their respective agencies.

2.2.2 Documented procedures for the management of conflicts of interest

Where the Chair and/or Vice-Chair of the Coordinating Mechanism are from the same entity as the nominated Principal Recipient(s) in this proposal, describe and provide evidence of the applicant's documented conflict of interest policy to mitigate any actual or potential conflicts of interest arising in regard to the applicant's operations or responsibilities.

(Please summarize and attach the policy as an annex. Please indicate the applicable annex number.)

The chair and the vice chair are from different organizations from the nominated principal recipient. The 3rd PCM meeting endorsed and agreed that chairman of the PCM is the secretary of the Ministry of Health and the Vice Chairman is the WHO representative for Bhutan. The PR is the Department of Debt & Aid Management (DADM), Ministry of Finance . Thus there is no conflict of interest between the Chair/Vice Chair and the PR.

2 Eligibility

2.2.3 Documented and transparent processes of the Coordinating Mechanism

As part of the eligibility screening process for proposals, the Global Fund will review supporting documentation setting out the CCM's proposal development process, the submission and review process, the nomination process for Principal Recipient(s), as well as the minutes of the meeting where the CCM decided on the elements to be included in the proposal and made the decision about the Principal Recipient(s) for this proposal.

Please describe and provide evidence of the CCM's documented, transparent and established:

a) Process to solicit submissions for possible integration into this proposal.
(Please summarize and attach documentation as an annex and indicate the applicable annex number.)

To ensure transparent solicitation and review process,a call for the proposal in the form invitation to participate in the proposal development for the 6th Round of the GFATM has been published in one of the print media of the country (Bhutan Observer) .The announcement called for the participation of all the relevant and interested stakeholders for (TB/HIV/AIDS, Malaria) , private and the non governmental organization in the proposal development.

A copy of the invitation through the media for proposal is attached as **annexure 2**

Meetings were held with partners before the proposal was developed and in particular with the civil society , private sector, non governmental organization and other social and professional groups. One such meeting was the day long consultative meeting that was held with the relevent stakeholders including the PCM members on the 7th July 2006. The meeting was chaired by the secretary of the ministry of health. The main aim of the meeting was to ensure the participation of broad range of stakeholders in the proposal's development process and that all the stakeholders have a voice in determining its appropriateness to the countrys particular situation. This level of involvement ensures that the proposal's goals are owned by the affected and concerned stakeholders and not just a handful of the proposal writers. The meeting made it possible to review the conditions and criteria for drawing up proposal to the 6th Round of GFATM. The letters of invitation to the meeting (Annexure 2), minutes of the 3rd &4th PCM meeting **(annexure 3)** .

b) Process to review submissions received by the CCM for possible integration into this proposal.
(Please summarize and attach documentation as an annex and indicate the applicable annex number.)

Although there were no other independent proposal submitted to the PCM,this proposal is owned by the stakeholders and includes their needs and requirements.Consultative discussions as well as review of this proposal were done with the stakeholders along with the PCM members in several meetings till the finalization of the proposal.

c) Process to nominate the Principal Recipient(s) and **oversee** program implementation.
(Please summarize and attach documentation as an annex and indicate the applicable annex number.)

The Department of Aid & Debt Management under the Ministry of Finance is the *defacto* Principal Recipient and the focal agency of the Royal Government of Bhuatn in co-ordination and management of external resources.The department has proven its experience in managing large amounts of external funds The department has the following mandates:

1. Review , appraise and recommend project proposals of the line ministries and other agencies for external financing.
2. Identify development partners for financing of approved project proposals.
3. Execute project agremments for financing of project proposal with development partners.
4. Interface with the RGoB implementing agencies and development partners for the smooth implementation of projects.

5. Ensure the terms and conditions of the agreements are fulfilled.
6. Ensuring the certification of projects and forwarding of the same to the development partners
7. Maintaining information on all grant assistance and laons received by the government and ensuring that intiation on suh receipts are made available to the implementing authorities.
8. Submission of project accounts , progress reports, economic briefs on DP assistance , arranging refund of unspent funds to DPs and servicing of the government debts in time.

The PCM aggreed that the mechanism was satisfactory and that the Global Fund will also be channalised through this agency and this has been formally minuted during the 3rd PCM . The department will be the principal recipient of the grant as endorsed during the 3rd PCM , the minutes are attached as **annexure 3.**The principal recipient is also a member of the PCM making the process much integrated.

d) Process to ensure the input of a broad range of stakeholders, including CCM members and non-CCM members, in the proposal development process and grant oversight process. *(Please summarize and attach documentation as an annex and indicate the applicable annex number.)*

The PCM Bhutan has organised a day long consultative meeting with the relevent stakeholders on the 7th July 2006. The main aim of the meeting was to discuss and agree on the 6th round proposal for the submission to the GFATM. The meeting saw active participation and inputs from the stakeholders.The meeting decided that the HIV/AIDS required multi sectroal approach since it was a concern beyond the ministry of health. The meeting decided that the relevent stakeholders Ministry of Education, Minsitry of Labour and Employment, Monastic body (Faith based organizations), private sectors, and uniform personnel, would be the key implementing partners. The ministry of health was endorsed as the sub reipient of the fund. The Minutes are attached in the **annexure 3 and 4.**

The Ministry also had the 4th PCM meeting on the 13th July . The PCM discussed wide range of issues like the channel of funds, need for GFATM secretariat , nominations of the sub recipients etc. The 5th PCM held on 25th July 06 endorsed the proposal . The minutes are attached as **annexure 6.**

3B Proposal Endorsement

This section contains information on the applicant. Please see the Guidelines for Proposals, section 3A, for more information regarding the nature of different applicants.

***All Coordinating Mechanism Applicants** (whether national, sub-national, regional (C)CMs) and Regional Organizations **must also** complete section 3B of this Proposal Form and provide the documented evidence requested.*

***Non-CCM Applicants** do not complete section 3B. These applicants must fully complete section 3A.5 of this Proposal Form and provide documentation as an attachment to this proposal supporting their claim to be considered as eligible for Global Fund support outside of a Coordinating Mechanism structure.*

3A.1 Applicant

Table 3A.1 – Applicant

Please tick the appropriate box in the table below, and then go to the relevant section in this Proposal Form, as indicated on the right hand side of the table.	
☒National Country Coordinating Mechanism	➔*complete sections 3A.2 and 3B*
Sub-national Country Coordinating Mechanism	➔*complete sections 3A.3 and 3B*
Regional Coordinating Mechanism (including small island developing states)	➔*complete sections 3A.4 and 3B*
Regional Organization	➔*complete section 3A.5 and 3B*
Non-CCM Applicants	➔*complete section 3A.6*

3A.2 National Country Coordinating Mechanism (CCM)

For more information, please refer to the Guidelines for Proposals, section 3A.2, and the CCM Guidelines.

Table 3A.2 – National CCM: basic information

Name of national CCM	**Date of composition** (yyyy/mm/dd)
Partnership Coordination Mechanism.(PCM), Bhutan .	2002/06/12

3B Proposal Endorsement

3A.2.1 Mode of operation

Describe how the national CCM operates. In particular:

- **The extent to which the CCM acts as a partnership between government and other actors in civil society**, including the academic and educational sector; non-government and community-based organizations; people living with and/or affected by the diseases and the organizations that support them; the private sector; religious and faith-based organizations; and multi-/bilateral development partners in-country; and
- **How it coordinates its activities with other national structures** (such as National AIDS Councils, Parliamentary Health Commissions, National Monitoring and Evaluation Offices and other key bodies).

(For example, address topics including decision-making mechanisms and rules, constituency consultation processes, the structure and key focus of any sub-committees, frequency of meetings, implementation oversight processes, etc. The recommended length of response is a maximum of one page. Please provide terms of reference, statutes, by-laws or other governance documentation relevant to the CCM, and a diagram setting out the interrelationships between all key actors in the country as an annex to this proposal. Please indicate the applicable annex number.)

The PCM acts as a strong linkage between the government and other sectors of the society. Becasues of the nature of the multi sectral compostionof the the PCM , the coorindation for the implementation of the proposed activities in all the three programmes will be easily facilatited. Some members are represented from the National Planning Commission where they see coordination of overall setoral development plans thereby streamlining the decision in accordance with the broad developmental national policies. It also coordinates overall sectoral development five year plans and monitoring & evaluation of the developmental plans .At the same time the representations from the people living with the diseases ebables to PCM to gain the first hand experiences which facilitates the decision making process. Also the PCM is linked to other key organizations such as National HIV/AIDS Commission(NHAC) which is the apex policy making body on HIV/AIDS with the representations from all the relevant ministries and other bodies. Some of the members of the NHAC are also represented in the PCM which enhances better coordination and decision making among the two entities.

The PCM is scheduled to meet thrice a year, however on the request of PCM to the chair person and on the discretion of the chairman the meeting will be convened as and when required. The member secretary of the committee shall notify the date , time and the venue and shall also circulate the minutes of the meeting to all the members. The decision making process is through consensus seeking by the chair. In cases of disagreements, voting with two third majority would take place. The PCM will provide input to the proposal during its development process and endorse the final draft . If the proposal is successful the PCM will monitor the progress of implementation of these at regular review meetings with the principal recipient. In this the principal recipient , the Department of Debt & Aid Management is also represented in the PCM.

Terms of Reference of the PCM is as follows (as per the 3rd PCM meeting)

- The PCM will act as the sole custodian of the GFATM fund for Bhutan
- Prepare and submit country coordination proposal for GAVI and GFATM secretariat as relevant.
- Periodically monitor, review progress and advice on the policy and strategies relating to EPI,AIDS,TB and Malaria in the country in the light of new findings and changing global and regional priorities.
- To advise on capacity building and on the implementation of innovation strategies and approaches.
- To assist in mobilizing internal and external resources from various sources including GAVI and GFATM and ensure proper use of these resources.
- To promote and facilitate partnership building including the involvement of NGOs and the civil society in the disease control programmes.

3B Proposal Endorsement

- The PCM may constitute sub- committees for a specific purpose, consisting of relevant members of the relevant ministries/ departments for in-depth review and recommendations on any matter related to GAVI /GFATM program activities as deemed fit by it from time to time.

Attached for reference the TOR for PCM, TAC and PCM as annexure 5.

There is also a Technical Advisory Committee (TAC)formed under the directions of the 3rd PCM .The members are technically competent in the specific disease with experience in GFATM implementation process. The technical committee will meet every two months, however TAC shall meet as and when required and as assigned by the PCM.

Mandates of the TAC:

1. The TAC shall be technical advisory body to the PCM
2. To co-ordinare proposal development team including TA and provide technical inpouts in the proposal submission to the PCM
3. To periodically monitor, review progress and do monitor amendments of the GFATM ctivities.
4. To update PCM on the implementation ststus of the GFATM activities as and when required
5. To provide technical inputs to the programmes in planning and strategy developments
6. To carry out any works assigned b ythe PCM for the GFATM related activities.

➔ *After completing this section, complete section 3B.1.*

3A.3 Sub-national Country Coordinating Mechanism

For more information, please refer to the Guidelines for Proposals, section 3A.3, and the CCM Guidelines.

Table 3A.3 – Sub-national CCM: basic information

Name of sub-national CCM	**Date of composition** (yyyy/mm/dd)

3A.3.1 Mode of operation

Describe how the sub-national CCM operates. In particular:

- **The extent to which the sub-national CCM acts as a partnership between government and other actors in civil society**, including the academic and educational sector; non-government and community-based organizations; people living with and/or affected by the diseases and the organizations that support them; the private sector; religious and faith-based organizations; multi-/bilateral development partners in-country; and
- **How it coordinates its activities with other national structures** (such as National AIDS Councils, Parliamentary Health Commissions, National Monitoring and Evaluation Offices and other key bodies).

(For example, address topics including decision-making mechanisms and rules, constituency consultation processes, the structure and key focus of any sub-committees, frequency of meetings, implementation oversight processes, etc. The recommended length of response is a maximum of one page. Please provide terms of reference, statutes, by-laws or other governance documentation relevant to the sub-national CCM, and a diagram setting out the interrelationships between all key actors as an annex to this proposal. Please indicate the appropriate annex number.)

3A.3.2 Rationale
a) Explain why a sub-national CCM has been chosen. *(Maximum of half a page.)*
b) Describe how this proposal is consistent with and complements the national strategy for responding to the disease and/or the national CCM plans. *(Maximum of half a page.)*

➔ *After completing this section, complete section 3B.1.*

3A.4 Regional Coordinating Mechanism (including small island developing states)

For more information, please refer to the Guidelines for Proposals, section 3A.4, and the CCM Guidelines.

Table 3A.4 – Regional Coordinating Mechanism: basic information

Name of regional Coordinating Mechanism (RCM)	**Date of composition** (yyyy/mm/dd)

3A.4.1 Mode of operation

Describe how the RCM operates. In particular:

- **The extent to which the RCM acts as a partnership between government and other actors in civil society**, including the academic and educational sector; non-government and community-based organizations; people living with and/or affected by the diseases and the organizations that support them; the private sector; religious and faith-based organizations; multi-/bilateral development partners in-country; and
- **How it coordinates its activities with the national structures of the countries that are included** in the proposal (such as national AIDS councils, national CCMs, or the national strategies of small island developing states who do not have their own national CCM or other national coordinating body.)
- **The RCM's governance structure and processes,** and how the implementation strategy and timelines have taken into account the regional context, including the need to coordinate between multiple entities.

(For example, address topics including decision-making mechanisms and rules, constituency consultation processes, the structure and key focus of any sub-committees, frequency of meetings, implementation oversight processes, etc. The recommended length of response is a maximum of one page. Please provide terms of reference, statutes, by-laws or other governance documentation relevant to the RCM, and a diagram setting out the interrelationships between key actors across the included countries as an annex to this proposal. Please indicate the appropriate annex number.)

3A.4.2 Rationale
a) Explain why a RCM approach has been chosen. *(Maximum of half a page.)*

3B Proposal Endorsement

b) Describe how this proposal is consistent with and complements the national strategies of countries included and/or the national CCM plans. *(Maximum of half a page.)*
c) Provide details of how this proposal will achieve cross-border or multi-country outcomes that would not be possible with only national approaches. *(Maximum of half a page.)*
d) Explain how the RCM represents a natural collection of countries and describe what measures will be taken to maximize operational efficiencies in administrative processes of the RCM. *(Maximum of half a page.)*

➔ *After completing this section, complete section 3B.1.*

3A.5 Regional Organizations (including Intergovernmental Organizations and International Non-Government Organizations)

For more information, please refer to the Guidelines for Proposals, section 3A.5.

Table 3A.5 – Regional Organization: basic information

Name of Regional Organization
Sector represented by the Regional Organization

3A.5.1 Mode of operation

In addition to answering the sections below, Regional Organizations should provide, as additional annexes to this proposal documentation describing the organization, such as:

- *Statutes, by-laws of organization (official registration papers); and*
- *A summary of the main sources and amounts of funding.*

Describe how the Regional Organization operates. In particular:

- The manner in which the Regional Organization gives effect to the principles of **inclusiveness and multi-sector consultation** and partnership in the development and implementation of regional cross-border projects; and
- **The coverage and past experience** of the Regional Organization's operations. *(Maximum of half a page.)*

3B Proposal Endorsement

3A.5.2 Rationale
a) Explain why a Regional Organization has been chosen and the added value of the proposed regional approach beyond the national response of individual countries. *(For example, address cross-border or regional issues. Maximum of half a page.)*
b) Describe how this regional proposal is consistent with and complements the national plans for responding to the disease of each country involved. *(Maximum of half a page.)*
c) Provide details of how this proposal will achieve cross-border or multi-country outcomes that would not be possible with only national approaches. *(Maximum of half a page.)*
d) Explain how the Regional Organization represents a natural collection of countries and describe what measures will be taken to maximize operational efficiencies in administrative processes. *(Maximum of half a page.)*

➔ *After completing this section, complete section 3B.2.*

3A.6 Non-CCM Applicants

*Non-CCM proposals are **only eligible for funding under exceptional circumstances listed in section 3A.6.2 below**. For more information, please refer to the Guidelines for Proposals, section 3A.6.*

In addition to answering the sections below, all Non-CCM proposals should include as annexes additional documentation describing the organization, such as: statutes and by-laws of organization (official registration papers) or other governance documents, documents evidencing the key governance arrangements of the organization; a summary of the organization, including background and history, scope of work, past and current activities; and a summary of the main sources and amounts of existing funding.

Table 3A.6 – Non-CCM Applicant: basic information

Name of Non-CCM Applicant	
Street address	

	Primary contact	Secondary contact
Name		
Title		
Organization		
Mailing address		
Telephone		

3B Proposal Endorsement

Fax		
E-mail address		

Indicate the type of your sector (tick appropriate box):

- ☐ Academic/educational sector
- ☐ Government
- ☐ NGOs/community-based organizations
- ☐ People living with and/or affected by HIV/AIDS, tuberculosis and/or malaria
- ☐ Private sector
- ☐ Religious/faith-based organizations
- ☐ Multilateral and bilateral development partners in country
- ☐ Other
  (please specify):

3A.6.2 Rationale for applying outside a Coordinating Mechanism
a) Non-CCM proposals are **only eligible** if they satisfactorily explain that they originate from one of the following: i) Countries without legitimate governments; ii) Countries in conflict, facing natural disasters, or in complex emergency situations (which will be identified by the Global Fund through reference to international declarations such as those of the United Nations Office for the Coordination of Humanitarian Affairs [OCHA]); or iii) Countries that suppress, or have not established partnerships with civil society and NGOs. Describe which of the **above conditions** apply to this proposal. (*Maximum of two pages. Please refer to the Guidelines for Proposals, section 3A.6.2 for further information.)*

b) Describe your organizations **attempts to include this proposal in the relevant CCM's final approved country proposal** and the responses, if any, from the CCM. *(Maximum of one page. Please provide documentary evidence of these attempts and any response from the CCM (national, sub-national or regional) as an annex to the proposal.)*

*If this Non-CCM proposal originates from a country in which no CCM exists (for example, a small island developing state), please **also** complete section 3A.6.3.*

3B Proposal Endorsement

3A.6.3 Consistency with national policies Describe how this proposal is consistent with, and complements, national policies and strategies (or, if appropriate, why this proposal is not consistent with national policy). *(Maximum of one page. Provide evidence (e.g., letters of support) from relevant national authorities in an annex to the proposal.)*

➔ *After completing this section, complete section 4.*

3B.1 Coordinating Mechanism membership and endorsement:

All national, sub-national and regional Coordinating Mechanisms must complete this section. Regional Organizations must complete section 3B.2.

National/Sub-national/Regional Coordinating Mechanisms

3B.1.1 Leadership of Coordinating Mechanism

Table 3B.1.1 – National/Sub-national/Regional (C)CM leadership information (not applicable to Non-CCM and Regional Organization applicants)

	Chair	Vice Chair
Name	Dr. Gado Tshering	Dr. Ei Kubota
Title	Secretary	WHO Representative
Organization	Ministry of Health	World Health Organisation
Mailing address	Ministry of Health, P.O. Box 108 . Thimphu, Bhutan	World Health Oragnisatio Post Box 175 Thimphu, Bhutan
Telephone	00975-2-326626	00975-2-322864
Fax	00975-2-324649	00975-2-323319
E-mail address	drgado@hotmail.com	wrbhu@searo.who.int

3B Proposal Endorsement

3B.1.2 Membership information

Please note that to be eligible for funding, national/sub-national/regional Coordinating Mechanisms must demonstrate evidence of membership of people living with and/or affected by the diseases. It is recommended that the membership of the CCM comprise a minimum of 40% representation from non-governmental sectors. For more information on this, see the Guidelines for Proposals section 3B.1, and the CCM Guidelines.

*The table below must be completed for **each** national/sub-national/regional Coordinating Mechanism **member**, and the table will therefore need to be extended to cover numerous members.*

*Under "**Type**", please specify which sector the CCM member represents: academic/educational; government; non-governmental and community-based organizations; people living with HIV/AIDS, tuberculosis and/or malaria; the private sector; religious/faith-based organizations; or multi-/bilateral development partners in country.*

Table 3B.1.2 – National/sub-national/regional (C)CM member information

National/Sub-national/Regional (C)CM member details			
Member 1			
Agency/organization	Ministry of Health	Website	www.health.gov.bt
Type	Government		
Name of representative	Dr Gado Tshering	CCM member since	2005
Title in agency/organization	Secretary (Chairman of PCM)	Fax	0097-2-324694
E-mail address	drgado@health.gov.bt	Telephone	00975-2-326626/17110142
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical input	Mailing address	Ministry of Health Kawajansa, Post Box 108 Thimphu Bhutan
National/Sub-national/Regional (C)CM member details			
Member 2			
Agency/organization	World Health Organisation	Website	www.who.int
Type	Multilateral development partner / UN		
Name of representative	Dr Ei. Kubota(Vice chairman of PCM)	CCM member since	2005
Title in agency/organization	WR Bhutan	Fax	00975-2-326038
E-mail address	wrbhu@searo.who.int	Telephone	00975-2-326454
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Technical Input and review, Proposal development	Mailing address	World Health Organisation Kawajansa, Thimphu Bhutan

3B Proposal Endorsement

National/Sub-national/Regional (C)CM member details			
Member 3			
Agency/organization	Ministry of Health	Website	www.health.gov.bt
Type	Government		
Name of representative	Dr. Kunzang Jigme	CCM member since	April, 2006
Title in agency/organization	Offtg. Director, Department of Public Health.	Fax	00975-2-326038
E-mail address	kjigmi@health.gov.bt	Telephone	00975-2-326454
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Component coordinator, review & technical input	Mailing address	Ministry of Health Kawajansa, Post Box 108 Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 4			
Agency/organization	Department of Aid & Debt Management (Principal Recipient)	Website	www.mof.gov.bt
Type	Government		
Name of representative	Mr. Sonam Wangchuk	CCM member since	August 2005
Title in agency/organization	Director General	Fax	00975-2-326779
E-mail address	swangchuk@mof.gov.bt	Telephone	00975-2-326776
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review , appraise and recommend project proposals of the line ministries and other agencies for external financing. Identify development partners for financing of approved project proposals.	Mailing address	Department of Aid & Debt Management. Ministry of Finance Thimphu Bhutan.

3B Proposal Endorsement

National/Sub-national/Regional (C)CM member details			
Member 5			
Agency/organization	Planning Commission Secretariat	Website	www.pc.gov.bt
Type	Government		
Name of representative	Mr Karma Weezer	CCM member since	2006 / February
Title in agency/organization	Joint Director	Fax	00975-2-323936
E-mail address	kweezir@pc.gov.bt	Telephone	00975-2-322742
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Oversees and examines multisectoral MDGs Corodination of sectoral developmental plans. Monitoring 7 Evaluation of the plans and projects. Technical Input and review.	Mailing address.	Planning Commission Secretariat Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 6			
Agency/organization	Ministry of Health	Website	www.health.gov.bt
Type	Government (District Health Services Representative)		
Name of representative	Mr Rinchen Namgyel	CCM member since	February 2006
Title in agency/organization	District Health Officer	Fax	00975-2-478388
E-mail address		Telephone	00975-2-478388.
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Technical Input, proposal preparation and review.	Mailing address	District Health Officer Dzongkhag Administration Chukha Bhutan

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National/Sub-national/Regional (C)CM member details			
Member 7			
Agency/organization	UNICEF	Website	www.unicef.org
Type	UN/Multilateral Development Partner		
Name of representative	Dr Abdulhaq Waheed	CCM member since	
Title in agency/organization	Project Officer	Fax	00975-2-323238
E-mail address	awaheed@unicef.org	Telephone	00975-2-331369
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical input	Mailing address	UINCEF Office Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 8			
Agency/organization	Japan International Cooperation Agency	Website	www.jica.go.jp
Type	Bilateral development partner		
Name of representative	Ms. Megumi Shuto	CCM member since	2005
Title in agency/organization	Project Formulation Advisor	Fax	00975-2-323089
E-mail address	Shuto.megumi@jica.go.jp	Telephone	00975-2-322030
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical inputs	Mailing address	JICA Bhutan Office P.O Box No. 217 Doy-bum Lam, Thimphu Bhutan.

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National/Sub-national/Regional (C)CM member details			
Member 9			
Agency/organization	Liaison Office of Denmark	Website	www.um.dk
Type	Bilateral Development Partner		
Name of representative	Mr Tek.B.Chhettri	CCM member since	2006
Title in agency/organization	Deputy Head	Fax	00975-2-323936
E-mail address	tekchh@um.dk	Telephone	00975-2-323331
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review , proposal preparation, technical input.	Mailing address	Liasion Office of Denmark Post Box. 614 Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 10			
Agency/organization	Bhutan Chamber of Commerce & Industry	Website	
Type	Private sector		
Name of representative	Mr Naichu	CCM member since	2006 / February
Title in agency/organization	Offtg. Secretary General	Fax	00975-2-323936
E-mail address	naichu@gmail.com	Telephone	00975-2-322742
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical input.	Mailing address	Bhutan Chamber of Commerce & Industry Post Box. 147 Thimphu Bhutan

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National/Sub-national/Regional (C)CM member details			
Member 11			
Agency/organization	Bhutan Broadcasting Service	Website	www.bbs.com.bt
Type	Corporate organization with the chairman appointed by the government.		
Name of representative	Ms.Nima Yangchen	CCM member since	April 2006
Title in agency/organization	Assistant Administrative Officer	Fax	00975-2-323073
E-mail address	Nima772001@yahoo.com	Telephone	00975-2-322600
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical input	Mailing address	Bhutan Broadcasting Service Chubachu, Post Box 101 Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 12			
Agency/organization	Dratsang Lhentshog	Website	
Type	Faith based organizations		
Name of representative	Mr Tashi Gaylay	CCM member since	
Title in agency/organization	Project Officer	Fax	00975-2-327116
E-mail address	Nil	Telephone	0097-2-322754
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review & technical input	Mailing address	Dratsang Lhentshog Thimphu Bhutan

3B Proposal Endorsement

National/Sub-national/Regional (C)CM member details			
Member 13			
Agency/organization	National Women Association of Bhutan	Website	
Type	NGO (Focus on women)		
Name of representative	Ms Yangchen Pelden	CCM member since	
Title in agency/organization	Asssitant Administrative Officer	Fax	00975-2-323083
E-mail address	Yang-tsel@hotmail.com	Telephone	00975-2-322910
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Review, proposal preparation & role to represent the interest of women in Bhutan to ensure gender equality.	Mailing address	NWAB Post Box. 379 Thimphu Bhutan

National/Sub-national/Regional (C)CM member details			
Member 14			
Agency/organization	Gewog Yargey Tshochung (GYT) Bloc Development Commitee	Website	
Type	CommunityBased Organisation(a part of grassroots administrative structure)		
Name of representative	Mr Kanjur	CCM member since	
Title in agency/organization	Gup (elected member of GYT)	Fax	
E-mail address	N/A	Telephone	17600667 (M)/351237
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Proposal preparation & review.	Mailing address	Chang gewog Thimphu Bhutan

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National/Sub-national/Regional (C)CM member details			
Member 15			
Agency/organization	Civil Society	Website	
Type	_		
Name of representative	Ms Sangay Lhamo	CCM member since	2006
Title in agency/organization	N/A	Fax	_
E-mail address	N/A	Telephone	00975-2-371009
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Proposal development	Mailing address	C/O Kunzang Gyeltshen Minning Khariphu Khasadrapchu Thimphu

National/Sub-national/Regional (C)CM member details			
Member 16			
Agency/organization	Civil Society	Website	
Type	_		
Name of representative	Mr Passang	CCM member since	2006
Title in agency/organization	N/A	Fax	_
E-mail address	N/A	Telephone	_
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Proposal development	Mailing address	 N/A

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National/Sub-national/Regional (C)CM member details			
Member 17			
Agency/organization	Civil Society	Website	
Type	_		
Name of representative	Mr Namgay Dorji	CCM member since	2006
Title in agency/organization	N/A	Fax	_
E-mail address	N/A	Telephone	00975-2-3331369
Main role in the Coordinating Mechanism and the proposal development *(proposal preparation, technical input, component coordinator, financial input, review, other)*	Proposal development	Mailing address	

3B.1.3 National/Sub-national/Regional (C)CM endorsement of proposal

*Coordinating Mechanism members must endorse the proposal. Limited exceptions are described in the Guidelines for Proposals in section 3B.1.3. Please note that the **original** (not photocopied, scanned or faxed) signatures of the CCM members should be provided in table 3B.1.3. The minutes of the CCM meetings at which the proposal was developed and endorsed must be attached as an annex to this proposal. The entire proposal, including the signature page and minutes, must be received by the Global Fund Secretariat before the deadline for submitting proposals.*

Applicant name	Partnership Co-ordination Mechanism(PCM)
Country/countries	Bhutan

"Each of the undersigned, hereby certify that s/he has reviewed the final proposal and supports it."*Table 3B.1.3 – National/sub-national/regional (C)CM endorsement of*

3B Proposal Endorsement

3B.1.3 National/Sub-national/Regional (C)CM endorsement of proposal

*Coordinating Mechanism members must endorse the proposal. Limited exceptions are described in the Guidelines for Proposals in section 3B.1.3. Please note that the **original** (not photocopied, scanned or faxed) signatures of the CCM members should be provided in table 3B.1.3. The minutes of the CCM meetings at which the proposal was developed and endorsed must be attached as an annex to this proposal. The entire proposal, including the signature page and minutes, must be received by the Global Fund Secretariat before the deadline for submitting proposals.*

Applicant name	Partnership Co-ordination Mechanism.
Country/countries	Bhutan

"Each of the undersigned, hereby certify that s/he has reviewed the final proposal and supports it."

Table 3B.1.3 – National/sub-national/regional (C)CM endorsement of proposal

Agency/organization	Name of representative	Title	Date (yyyy/mm /dd)	Signature
Ministry of Health	Dr Gado Tshering	Secretary / Chairman		
World Health Organisation	Dr Ei.Kubota	WR/ ~~Vice Chairman~~		
Ministry of Health	Dr Kunzang Jigme	Offtg .Director /Member		
UNICEF	Dr Abdulhaq Waheed	Project Officer/ Member		
Department of Debt & Aid Management	Mr Sonam Wangchuk	Director General/ Member		
JICA	Ms Megumi Shuto	Project Formulation Advisor/ Member	06-07-25	
Liasion Office of DANIDA	Mr Tek.B Chhettri	Deputy Head/ Member		
Planning Commission Secretariat	Mr Karma Weezer	Joint Director/Member		
Dratsang Lhentshog	Mr Tashi Gaylay	Project Officer/ Member		
Bhutan Chamber of Commerce & Industry (BCCI)	Mr Naichu	Offtg. Secretary General/ Member		
Bhutan Broadcasting Service (BBS)	Ms Nima Yangchen	Assistant Adminitrative Oficer/ Member		
District Health Representative Chukha	Mr Rinchen Namgyel	District Health Oficer/ Member		
Community Based Organisations	Mr Kanjur	Peoples representative / member		
National Women Association of Bhutan	Ms Yangchen Pelden	Admin Officer- Member		
N/A	Ms Sangay Lhamo	People affected by the disease/ Member		
N/A	Mr Pasang	People affected by the disease/Member		
Civil Society	Mr Namgay Dorji	Unicef /Member		

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For sub-national and regional Coordinating Mechanisms only, *the Chair and the Vice Chair of the national CCM of each country must also endorse the proposal. Please refer to the Guidelines for Proposals, section 3B.1.3.*

3B Proposal Endorsement

List below each of the national CCMs that have agreed to this proposal and provide documented evidence of this endorsement.

Table 3B.1.3b – Sub-national or regional (C)CM proposal endorsement by national CCMs

Country	Name of CCM	Annex number

3B Proposal Endorsement

3B.2 Regional Organization contact information and proposal endorsement:

3B.2.1 Regional Organization contact information

Please provide full contact details for two persons; this is necessary to ensure fast and responsive communication.

Table 3B.2.1 – Regional Organizations: contact information

	Primary contact	Secondary contact
Name		
Title		
Organization		
Mailing address		
Telephone		
Fax		
E-mail address		

3B.2.2 National CCM endorsement of Regional Organization proposal:

Please note that Regional Organizations must receive the agreement of the national CCM membership of each country in which they wish to work.

List below each of the national CCMs that have agreed to this proposal and provide documented evidence of this endorsement. (If no national CCM exists in a country included in the proposal, include evidence of support from relevant national authorities.)

Table 3B.2.2 – Regional Organization proposal endorsement by national CCMs

Country	Name of CCM	Annex number

LIST OF ANNEXES TO BE ATTACHED TO PROPOSAL

The table below provides a list of the various annexes that should be attached to the proposal. Please complete this checklist to ensure that everything has been included. Please also indicate the applicable annex numbers on the right hand side of the table.

Relevant item on the Proposal Form	**Description of the information required in the Annex**	**Name/Number given to annex in application**
Section 2: Eligibility		
Coordinating Mechanisms only:		
2.2.1 b)	Comprehensive documentation on processes used to select non-governmental sector representatives of the Coordinating Mechanism.	Annexure 1
2.2.2	Documented procedures for the management of potential Conflicts of Interest between the Principal Recipient(s) and the Chair or Vice Chair of the Coordinating Mechanism.	n/a
	Documentation describing the transparent processes to:	
2.2.3 a	- solicit submissions for possible integration into the proposal.	Annexure 2
2.2.3 b	- review submissions for possible integration into the proposal.	Annexure 2
2.2.3 c	- select and nominate the Principal Recipient (such as the minutes of the CCM meeting at which the PR(s) was/were nominated).	Annexure 3
2.2.3 d	- ensure the input of a broad range of stakeholders in the proposal development process and grant oversight process.	Annexure 4
Section 3A: Applicant Type		
Coordinating Mechanisms:		
3A.2.1, 3A.3.1 **or** 3A.4.1	Documents that describe how the national/sub-national or regional Coordinating Mechanism operates (terms of reference, statutes, by-laws or other governance documentation and a diagram setting out the interrelationships between all key actors)	Annexure 5
Regional Organizations:		
3A.5.1	Documents that describe the organization such as statutes, by-laws (official registration papers) and a summary of the main sources and amounts of funding.	n/a
Non-CCM Applicants:		
3A.6	Documentation describing the organization such as statutes and by-laws (official registration papers) or	n/a

LIST OF ANNEXES TO BE ATTACHED TO PROPOSAL

Relevant item on the Proposal Form	Description of the information required in the Annex	Name/Number given to annex in application
	other governance documents, documents evidencing the key governance arrangements of the organization, a summary of the organization, including background and history, scope of work, past and current activities, and a summary of the main sources and amounts of funding.	
3A.6.2 b	Documentary evidence of any attempts to include the proposal in the relevant CCM's final approved country proposal and any response from the CCM.	n/a
3A.6.3 *(if from country where no CCM exists)*	Provide evidence from relevant national authorities that the proposal is consistent with national policies and strategies.	n/a
Section 3B: Proposal Endorsement		
3B.1.3 *(Coordinating Mechanisms)*	Minutes of the meeting at which the proposal was developed and endorsed. For Sub-CCMs and RCMs, documented evidence that national CCM(s) have agreed to proposal.	Annexure 6
3B.2.2 *(Regional Organization)*	Documented evidence that the national CCMs have agreed to proposal.	n.a
Other documents relevant to sections 1-3 attached by applicant:		

4 Component Section *HIV/AIDS*

PLEASE NOTE THAT THIS SECTION AND THE NEXT MUST BE COMPLETED FOR EACH COMPONENT. *Thus, for example, if the proposal targets three components, sections 4 and 5 must be completed three times.*

For more information on the requirements of this section, please refer to the Guidelines for Proposals, section 4.

4.1 Indicate the estimated start time and duration of the component

Please take note of the timing of proposal approval by the Board of the Global Fund (described on the cover page of the Proposal Form). The aim is to sign all grants and commence disbursement of funds within six months of Board approval. Approved proposals must be signed and have a start date within 12 months of Board approval.

Table 4.1.1 – Proposal start time and duration

	From (yyyy/mm)	**To** (yyyy/mm)
Month and year:	**2007/07**	**2012/06**

4.2 Contact persons for questions regarding this component

Please provide full contact details for two persons; this is necessary to ensure fast and responsive communication. These persons need to be readily accessible for technical or administrative clarification purposes, for a time period of approximately six months after the submission of the proposal.

Table 4.2 – Component contact persons

	Primary contact	**Secondary contact**
Name	**Dr Gampo Dorji**	**Ms Jambay Zangmo**
Title	**NACP Manager**	**Senior Programme Officer**
Organization	**Department of Public Health, Ministry of Health**	**Department of Aid and Debt Management, Ministry of Finance**
Mailing address	**Ministry of Health, Thimphu, Bhutan**	**DADM, Ministry of Finance, Thimphu, Bhutan**
Telephone	**+975-2-322602 ext. 225**	**+975-2-326779**
Fax	**+975-2-326038**	**+975-2-326779**
E-mail address	**gampo_73 @yahoo.com**	**jzangmo@mof.gov.bt**

4.3 Component executive summary

4.3.1 Executive summary

Describe the overall strategy of the proposal component, by referring to the goals, objectives and main activities, including expected results and associated timeframes. Specify the beneficiaries and expected benefits (including target populations and their estimated number). *(Please include quantitative information where possible. Maximum of one page.)*

Bhutan remains one of the rare countries that still has a low HIV level epidemic and where there is still an opportunity to stop the epidemic in its tracks. According to UNAIDS, there are an estimated 500 HIV-infected people in Bhutan. Bhutan's epidemic, though more recent than other South-Asian countries, has a younger and more feminine face. Of the 90 HIV infected cases reported so far, more than a third were in the age group 15-24, and almost half were female. The increasing trends in injecting drug use and commercial sex work can fuel the epidemic in Bhutan, but of greater concern is the reported widespread

casual sex among both men and women which can potentially cause a large-scale heterosexual epidemic in the general population. Youth aged 10-24 years constitute 35% of the population and represent a particularly vulnerable group. A recent survey showed that both sexes become sexually active at an early age, have multiple partners and only 60% used a condom during their last sexual encounter.

With this epidemiologic context in mind, this proposal aims to scale up HIV prevention services among youth and other vulnerable populations in Bhutan using a multisectoral approach. It was developed in the framework of Bhutan's draft National HIV/AIDS Strategy and the country's MDG target of containing HIV below 0.1% among adults aged 15-49 years. It builds on the activities and achievements of the World Bank funded project (2004-2009) which have focused on: creating awareness and reducing stigma in the general population as well as some vulnerable groups; free distribution of condoms; improving access to HIV counseling and testing in urban settings; care, support and treatment for PLHA; STI diagnosis and treatment; blood safety; waste management and infection control in hospitals; and, strengthening research and surveillance systems. This proposal addresses key gaps in the current response. It underscores the emphasis on mainstreaming HIV into other sectors and addresses the following programmatic gaps: life-skills based HIV education for in-school and out-of school youth; comprehensive prevention services for substance users/IDUs, sex workers and mobile populations (specifically transport workers); HIV education for special populations such as uniformed personnel and their families, and Buddhist monks and religious leaders; access of the rural populations to HIV testing and counseling. The proposal also addresses the following gaps in implementation capacity: shortages in health care workers who are trained in HIV/AIDS prevention, treatment care and support and areas related to patient safety; coordination and management within the NACP; monitoring and evaluation capacity within the MoH; capacity of the NGO sector as partners in the response. Finally, the proposal addresses the need to ensure a sustainable supply of ARV and OI drugs through the endowment of an innovative capital trust fund.

This proposal has three objectives: (1) To increase access to prevention services for youth and other vulnerable populations; (2) To increase the national capacity to plan, implement, coordinate, monitor and evaluate HIV/AIDS programmes; and, (3) To ensure a continued supply of ARV and OI drugs for the treatment and care of PLHA.

At the end of the proposal, there would be increased access to HIV prevention services each year for:

- 90,000 in-school youth
- 17,000 out-of-school youth
- 25,000 uniformed personnel and their families
- 6,000 religious leaders and monks
- 22,000 transport workers
- >500 most-at-risk individuals (primarily substance users and sex workers)

In addition, the proposal will lead to institutional strengthening of the health system, educational system, armed forces, religious institutions, and non-governmental organizations:

- 140 schools will be providing life-skills based HIV/AIDS education in grade 7 and above
- 30 district-level hospitals providing youth-friendly health services
- Royal Institute of Health Sciences producing 200 graduates a year with training in HIV/AIDS prevention, care support and areas related to patient safety
- 3 uniformed service training institutes providing HIV/AIDS education in their curricula
- 35 major Buddhist institutions providing STI/HIV/AIDS education in 'Religion and Health'
- 2 additional VCT centers in the South and 1 HIV/AIDS hotline in Thimpu
- 192 additional health facilities providing HIV counseling and testing
- 1 STI/HIV/AIDS hotline established in Thimpu
- 2 regional laboratories upgraded with Elisa readers (one each in Mongar and Gelephu)
- 200 District Health Officers/Health Assistants trained in data management
- >5 civil society organizations will be providing HIV prevention packages to vulnerable groups

4.3.2 Synergies

If the proposal covers more than one component, describe any synergies expected from the combination of different components—for example, TB/HIV collaborative activities. *(By synergies, we mean the added value that the different components bring to each other, or how the combination of these components may have broader impact.)*

(Bhutan's proposal covers HIV/AIDS, Tuberculosis and Malaria)

In Bhutan, the HIV/AIDS, TB and Malaria programmes are fully integrated. At the central level, the department of Public Health under the Ministry of Health organizes quarterly review meetings that bring the staff of all the three diseases together to ensure coordination, enhance interaction and avoid duplication. From the regional level down to the BHU level, the three programmes share the same health workers. This facilitates coordination, cross-referrals, cost savings and synergies between the programmes.

Synergies between the three programmes are expected in the following three areas:

Human resources development in the formal and informal school system: The faculty will learn student-centered, participatory and experiential techniques as they are trained in the life-skills approach to HIV/AIDS education.

Human resources development at the Royal Institute of Health Sciences (RIHS) and the three armed forces: The faculty's capacity to develop curricula will be enhanced. In addition, the faculty of the RIHS will receive advanced training in communication and counseling skills. These BCC skills are relevant to all three diseases.

Programme management and coordination: All three disease components will be coordinated, managed and monitored by a common Project Management Team (PMT) that will serve as the Secretariat of the PCM. The composition of the PMT is described in 4.8.1 in the proposal.

Monitoring and evaluation: The M&E capacity of the MoH will be strengthened down to the BHU level through the HIV/AIDS component but will benefit all three programmes. Hiring of an in country HIV M&E consultant in the research unit of the MoH will provide cross-consultation to other programmes. Additional data entry operators will help in prompt data entry and analysis of HMIS data. Long term and short term capacity building of staff in epidemiology will benefit all programmes. In-country course in programme monitoring, basic research and epidemiology of district and national level health officers will lead to strengthening of overall skills in programme monitoring not only for HIV but also for other health programmes. .

Strengthening regional laboratory capacity: Laboratory capacity will be strengthening both in terms of equipment (two ELISA readers and one CD4 counter) as well as in skills (laboratory technicians will be trained to use the ELISA readers as well as on quality assurance). Both equipment and skills are cross-cutting.

Reaching special groups such as monks: Health education related to HIV/AIDS and TB will be integrated into health education activities (the Religion and Health Programme) developed for theses special groups.

TB/HIV collaborative efforts: While TB patients constitute one of the sentinel groups for HIV surveillance, routine HIV testing and counseling is not currently available to them. Thanks to the expansion of HIV testing and counseling services envisaged in the HIV/AIDS component , HIV counseling and testing will be offered to TB patients with a right of refusal and the counseling and testing skills of the district level TB focal persons will be enhanced.

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Financing of essential medicines: All three programmes will contribute separately to the Bhutan Health Trust Fund which was established to ensure continued and timely supply of essential medicines and vaccines and minimize uncertainties in the financing of these crucial components of the health including the purchase of ARV and OI drugs.

4.4 National program context for this component

The information below helps reviewers understand the disease context, and which problems the proposal will address. Therefore, historical, current and projected data on the epidemiological situation, disease-control strategies and broader development frameworks need to be clearly documented. Please refer to the Guidelines for Proposals, section 4.4.

4.4.1 Indicate whether you have any of the following documents (tick appropriate box), and if so, please attach them as an annex to the Proposal Form:

☒	National Disease Specific Strategic Plan and M and E (DRAFT)
☐	National Disease Specific Budget or Costing
☐	National Monitoring and Evaluation Plan (health sector, disease specific or other)
☐	Other document relevant to the national disease program context (e.g. the latest disease surveillance report) *Please specify:*

1. HIV/AIDS and Bhutan-Annual Health Bulletin 2005
2. Survey report of KABP on HIV/AIDS among University Graduates of 2005
3. Study Report on Risk and vulnerability of Layap Community for STI and HIV infection, under Laya Geog in Gasa District
4. Study Report on People Living With HIV/AIDS in Bhutan
5. Assessment of Risk and Vulnerability to STIs and HIVAIDS in Bhutan
6. Operational Manual for World Bank Project

4.4.2 Epidemiological and disease-specific background

Describe, and provide the latest data on, the stage and type of epidemic and its dynamics (including breakdown by age, gender, population group and geographical location, wherever possible), the most affected population groups, and data on drug resistance, where relevant. With respect to malaria components, also include a map detailing the geographical distribution of the malaria problem and corresponding control measures already approved and in use. Information on drug resistance is of specific relevance if the proposal includes anti-malarial drugs or insecticides. In the case of TB components, indicate, in addition, the treatment regimes in use or to be used and the reasons for their use.

Background

Bhutan is a landlocked country, with a total population of 635,000 situated in the Himalayas bordering China, the northeast states of India, close to Nepal and Bangladesh. The borders are increasingly porous with greater commerce and trade. Some places, such as Nepal and the northeastern Indian states of Manipur, Nagaland, and Mizoram, are already experiencing "concentrated" HIV epidemics, while others, such as the Indian states of Sikkim and Meghalaya, maintain a relatively low prevalence. A high level of

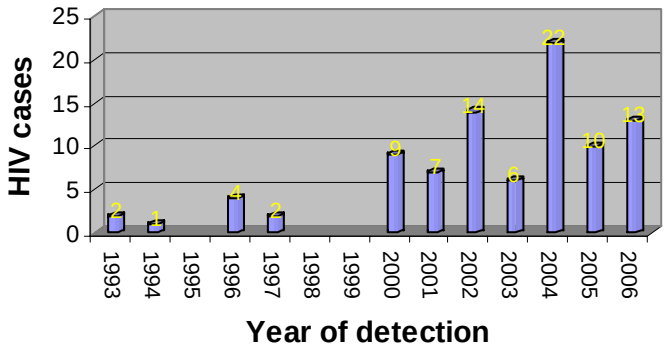
inter mobility across these borders indicates an urgent need for sharing information and collaborative programs on HIV/AIDS prevention efforts in the region.

Overview

According to UNAIDS, there are an estimated 500 HIV-infected people in Bhutan. Bhutan's epidemic, though more recent than other South-Asian countries, has a younger and more feminine face. Of the 90 HIV infected cases reported so far, more than a third were in the age group 15-24, and almost half were female. The increasing trends in injecting drug use and commercial sex work can fuel the epidemic in Bhutan, but of greater concern is the reported widespread casual sex among both men and women which can potentially cause a large-scale heterosexual epidemic in the general population. Youth aged 10-24 years constitute 35% of the population and represent a particularly vulnerable group. A recent survey showed that both sexes become sexually active at an early age, have multiple partners and only 60% used a condom during their last sexual encounter.

Based on the available data, UNAIDS, estimates that the number of people living with HIV in Bhutan is <500 and the prevalence of HIV infection among adults 15-49 is <0.1%. This classifies Bhutan as a low prevalence country. Since the first case was detected in 1993, the cumulative number of HIV cases as of the end of June has increased to 90 cases, half of them within the last 2.5 years. The cases have been detected through a combination of sentinel surveillance, clinical testing and contact tracing. While cases have been detected in 15 of the 20 districts, almost half have been detected in the capital city of Thimpu and Phuentsoling, a bustling town near the border with India. HIV cases are not restricted to any particular geographic or population group and have been identified in a wide range of occupational groups. As suggested earlier, the ratio of infected males to females is approximately 1:1. More than one third of reported cases are among youth 15-24 years of age. Of the 90 people known to be infected 22 have died with 75% of HIV-related deaths occurring within two years of detection suggesting that detection takes place late. While the heterosexual route appears to be the primary mode of transmission, two of the HIV cases detected in the first half of 2006 were among IDUs. In addition, nine cases of mother to child transmission have been reported.

HIV Case detection from 1993 through June 2006



The current surveillance system

The current HIV surveillance system in Bhutan began in 1988 and is primarily based on sero-surveillance. However, a behavioral surveillance is being added where appropriate and feasible. Monitoring HIV in Bhutan, where the epidemic is still at a low level and the risk groups are not obvious has been very challenging to put into place and sustain. Although the system has been changing over time, data have been collected at more or less regular intervals in several populations, including STI patients, TB patients, and ANC women in up to 25 sentinel sites. In addition, in an effort to "stay abreast" of the epidemic, data

have also been collected on an ad hoc basis from other populations including blood donors, hospital patients, military recruits, female sex workers, truck drivers, and prisoners. The third biennial round was completed in 2004. Out of 4,882 blood samples tested in 2004, four tested HIV positive including one pregnant woman and three drivers, one from Bumthang in the north and two from Phuentsholing.

Most-at-risk and other vulnerable population groups
Sex workers: While the full extent of commercial sex remains to be studied, it appears to play less of a role relative to other countries. There appear to be pockets of clandestine Indian and Nepali sex workers in the southern part of the country, along the border with India, as well as some free-lance Bhutanese sex workers in the interior districts where there has been an influx of migrant workers around major development projects such as the construction of hydropower plants and the expansion of the road networks. However, there is no large-scale, organized commercial sex industry. In 2005, a situation assessment in Phuntsholing, a bustling border trade town, identified 50 to 60 sex workers operating on both sides of the border. The great majority of sex workers were from neighboring India and Nepal where HIV the epidemic is more advanced.

Clients of sex workers: The risk and vulnerability survey completed in 2004 found that army men, businessmen, police, drivers civil servants on tour, students from Delhi and Kanglung, Indian tourists from Darjeeling and Kalimpong and occasional expatriate workers constituted the main client groups of sex workers in Pheuntsoling.

Mobile and migrant populations: There are four groups of mobile populations among Bhutanese that are the focus of HIV-prevention efforts: (i) those traveling abroad for studies, conferences, and trade; (ii) military personnel; (iii) migrant workers, primarily from West Bengal, Assam, Bihar and Orissa; and, (iv) mobile populations such as truck drivers and traders. The extent of risk behaviors—and level of exposure to HIV—among these subpopulations in Bhutan is not known and requires further study. Furthermore, with socioeconomic development, the Bhutanese are becoming increasingly mobile in pursuit of jobs, educational and career opportunities abroad, and expansion of trade and business. The National Population and Housing Census conducted in 2005 revealed that more than a sixth of the population had migrated from rural villages to urban centers.

Substance users: Alcohol use is extensive in Bhutanese society and there are indications of increasing use of amphetamines, particularly among youth. Heroin and injecting drug use in Bhutan is, however, currently minimal, unlike in neighboring countries such as Nepal, the Northeastern states of India, and the Southern provinces of China. Nonetheless, this situation can change rapidly, as happened in Nepal when an outbreak of bupenorphine injecting erupted in the mid-1990s leading to rapid increases in the number of IDUs in the country and also rapid increases in HIV infection during the mid to late 1990s. A rapid assessment of IDUs conducted in Thimpu in 2006 indicates that there are between 50 to 100 IDUs. Not all have been tested. Thus far, 2-HIV infected IDUs have been reported in the capital Thimpu. The drug-using situation in the country needs be carefully monitored through rapid assessments of drug and opiate use on an annual or bi-annual basis so that any changes in the status quo will be detected in a timely manner.

MSM: Current information on MSM is anecdotal and requires further research before interventions can be considered.

Youth: Over one third of HIV cases detected in Bhutan are among young people 15-24 years of age. Considering that about 45 percent of Bhutan's population is <15 years old and 63 percent <25 years, youth constitute an important target group for prevention. A survey conducted in 2002 among high school students in Punakha, a district adjacent to Thimpu, found that, although awareness of HIV was high, misconceptions about how it is transmitted abound. For example, there is the belief that even casual contact can result in HIV transmission. There is a sharp school drop-out rate after grade 10, particularly among girls, and out-of-school youth are a particularly important target group. A risk and vulnerability survey conducted among out-of-school youth in 2004-2005, revealed that both sexes have multiple sexual partners, ranging from 1 to 8 partners within the previous 3 months. Condom use during the last sexual

encounter was 60 percent for both sexes.

Risk factors

The following factors set the stage for a potentially large-scale HIV epidemic in the general population in Bhutan:

High rates of STIs: In a sample of 345 military personnel, although none tested positive for HIV, 5.3 percent tested positive for syphilis and 6.2 percent for hepatitis B. In a sample of 60 sex workers in Phuntsholing border town, two tested positive for HIV, 72 percent for syphilis, and 3.4 percent for hepatitis B. Among pregnant women attending ANC clinic in Thimpu, 4.5% were positive for syphilis in 2005. A survey in nomadic tribe in 2005 in northern border of Bhutan showed that prevalence of syphilis was 14%. Among the 2,300 armed forces screened for syphilis in 2006, 2.1 % of them were RPR reactive and THPA positive.

Liberal sexual norms: Bhutanese society has more liberal attitudes towards sex than neighboring countries India, Nepal and Bangladesh. Premarital sex, concurrent relationships and casual sexual encounters are prevalent. A study in Laya in the north of Bhutan in 2005 revealed that premarital and extramarital affairs were socially accepted traditions. Many communities in Bhutan share similar traditions. A baseline survey of sexual behaviors in the general population is underway in four major urban centres (Thimpu, Phuntsholing, Samdrup Jongkhar and Punakha) and in eight of the twenty Dzongkhags (districts). The findings will help to assess the frequency and degree of sexual networking in the country and give a better sense on the extent of risk for a large-scale heterosexual epidemic should the number of HIV infections start to increase.

Low condom use: Awareness on condom was as high as 80% in out of school youth survey, 2004, while the use of condoms with the last sexual encounter with a non regular partner was 67%. The condom use among the general population will not be better either. There is a need to improve the rate of condom use and increase risk of perception among the general population. The focus group discussion with the sex workers in Phuntsholing in 2005 also revealed that inconsistent condom use as among the sex workers.

High stigma: Greater involvement of the positive people is being facilitated with antidiscrimination decree issued by His Majesty the King, and the government policies and support for the infected and affected people. But still the HIV related stigma is very high among the Bhutanese. Survey of the 638 graduate who completed university carried out in 2005, 30.4 % felt discomfort in attending annual religious ceremony at a home of HIV infected person, and 4.5 % mentioned that they would refuse invitation and not visit the home of the PLHA. 8. 6 % felt that PLHA should be imprisoned for their bad behavior, and 22.6 % stated that they should be made known to everyone and segregated for the sake of prevention. A survey of the PLHA conducted in 2003 through telephonic interview among nine Bhutanese reported that they lived in extreme fear and discomfort of being discriminated. Very few have been able to talk out on their status other than their spouses. There is no net work of the positive people. Through greater involvement, greater participation of the positive people are expected. So far two PLHA have anonymously shared their stories in the National News Paper, and on the radio broadcast. Informal meeting of the few positive people have already been initiated.

4.4.3 Disease-control initiatives and broader development frameworks

Proposals to the Global Fund should be developed based on a comprehensive review of disease-specific national strategies and plans, and broader development frameworks. This context should help determine how successful programs can be scaled up to achieve impact against the three diseases. Please refer to the Guidelines for Proposals, section 4.4.3.

a) Describe comprehensively the current disease-control strategies and programs aimed at the target disease, including all relevant goals and objectives with regard to addressing the disease. (Include all donor-financed programs currently implemented or planned by all stakeholders and existing and planned commitments to major international initiatives and partnerships.)

Background

The National STD/AIDS Control Program was established in 1988 as in integrated HIV and STI control programme. The National AIDS Committee was constituted in 1993 and was upgraded to the National HIV/AIDS Commission (NHAC) in February 2004. The NHAC functions as the coordinating body in national response to HIV/AIDS prevention and control activities, formulating policies on prevention and control of STDs and HIV/AIDS and mobilizing active commitment and collaboration of publicly/private sectors, civil societies and communities. The Commission includes 19 members from different line ministries, civil society and the private sector. Multi-sectoral Task Forces (MSTF) for HIV/AIDS have been established in each of the 20 Dzongkhags.

HIV/AIDS STI policy statements and the MDG goal

The overall approach to HIV prevention and control is in tandem with internationally recommended approaches. Bhutan's approach is also to achieve the Millenium Development Goals (MDGs) of reversing and halting the spread of HIV/AIDS by 2015. The existing policy framework and policy statements are as follows:

- Maintain confidentiality of HIV positive peoples.
- Practice Universal Precaution in all health care settings.
- Screen all blood and blood products for HIV.
- Provide free ART to its PLWHA citizens needing the treatment.
- Intensify PMTCT programs based on the four prong approach.
- Implement program activities through Multi Sectoral Approach.
- Provide 100 % access to condoms.
- Conduct spouse/partner notification in consultation with the index.
- Addressing stigma and discrimination to PLWHA effectively.
- Address gender equality and human rights in all areas of care and support to people living with HIV/AIDS.
- Treatment of STI through a syndromic management approach.
- Expanding VCT services to aim for universal access to prevention treatment , care and support

Goal and objectives for HIV/AIDS in the Ninth Five-Year Plan (2002-2007)

Bhutan is entering into the final year of the Ninth Five-Year Plan (FYP). It has hover decided to extend the plan period by one year so that the Tenth FYP coincides with the entry of the new government in 2008. The Ninth FYP has identified HIV/AIDS and STI prevention and control a priority programme with the following specific objectives:

- To reduce the risk of STI and HIV transmission in the country through a multi-sectoral approach
- To reduce the morbidity and mortality associated with HIV/AIDS and STI
- To mitigate the social and economic impact of HIV

- To expand HIV counseling and testing to all 20 districts by 2007
- To expand HIV surveillance to all 20 districts by 2007

The key strategies in the Ninth Five-Year Plan include:

- Stigma reduction
- Prevention of sexual transmission of HIV
- Prevention of transmission through blood and blood products
- Prevention of maternal to child transmission (PMTCT)
- HIV counseling and counseling (CT)
- Treatment, care and support for those infected
- Strengthening the capacity of multi-sectoral stakeholders
- Mass awareness raising through information on safer sex

WHO, UNICEF, UNODC, UNFP, the World Bank and DANIDA have all provided support to Bhutan's NACP. WHO has provided support in the areas of surveillance and together with UNICEF is providing support for PMTC. UNODC has provided support for a rapid assessment of substance abuse and IDU and the creation of a peer support group for IDU in Thimpu. UNFPA is providing support in the form of condoms. The World Bank is currently supporting the NACP with a five-year International Development Association (IDA) grant of USD5.7 million for a multi-sectoral project which is described below.

DANIDA has provided a grant through the Health Sector Support Programme Phase III (HSSP III) which is being used in part to strengthen the health planning and management capacity of the MoH.
Two areas of DANIDA's support are of particularly relevance to the current proposal: strengthening the Health Management and Information System (HMIS) within the Programme Planning Department (PPD), and development of the Information and Communication Bureau (ICB). The ICB is the focal institution for health education and communication within the MoH. Building its capacity will be critical to the development of behavior change communication strategies and materials within the HIV/AIDS programme.

The National HIV/AIDS and STI Prevention and Control Project

Bhutan's national HIV/AIDS strategy is being implemented through the 'National HIV/AIDS and STI Prevention and Control Project' which is being funded by the World Bank. The five-year project was effective as of July 2004 is in its second year of implementation. The goal of the project is to reduce the risk of HIV and STI transmission in the population, particularly among vulnerable groups.

The project has four main components:

- Prevention of HIV/AIDS and STI which includes improving access to condoms, promoting safer behaviors among high-risk population groups, and reducing stigma among the general population.
- Institutional strengthening and capacity building which includes strengthening laboratory services, blood transfusion services, and the strategic planning and management capacity of the implementing agencies.
- Care, support and treatment for HIV/AIDS and STIs which includes increasing access and use of VCT centers, providing care, support and treatment for PLHA, strengthening the management of STIs, and instituting universal precautions and waste management at healthcare facilities.
- Strategic information for HIV/AIDS and STIs which includes strengthening management information systems, enhancing the capacity to conduct operational and social-behavioral research; and establishing second generation surveillance and monitoring systems.

NACP's achievements to date

4 Component Section *HIV/AIDS*

The NACP has succeeded in mobilizing a strong multisectoral response to HIV/AIDS. His Majesty the King issued a Royal decree on HIV/AIDS in May 2004 reminding all citizens of their individual responsibilities towards containing the epidemic. The Royal Decree also ensures that those infected are treated with compassion and are not discriminated against. Her Majesty the Queen Ashi Sangay Choden Wangchuck, UNFPA Goodwill Ambassador, paved the way for a coordinated multi-sectoral response to the epidemic and the creation of multi-sectoral task forces (MSTFs) at the Dzongkhag level. The NACP has strengthened the capacity of MSTFs as well as line ministries (other than health), and other government agencies to mount sustained prevention efforts designed to raise awareness and reduce stigma among their constituencies. A summary of specific achievements are listed below.

In the area of prevention:

- Promotion and free distribution of condoms was intensified throughout the health system, down to the village level by Volunteer Health Workers (VHWs), as well as at over 800 non-government outlets including hotels, workplaces and entertainment zones
- National guidelines for the syndromic management of STIs have been updated based on current antibiotic resistance patterns and training is planned for health staff
- Free-standing centers for VCT have been established at two Health Information Service Centers (HISC) in the capital Thimphu and in Phuentsholing, a major urban center near the Indo-Bhutanese border
- Health workers at the HISC in Phuentsholing have started outreach education for a small group of female sex workers
- A peer support group for drug users has been established in Thimpu with support from a civil socity group called REWA
- Two health workers per district hospitals have been trained in HIV counseling and testing
- A blood safety programme is in place and national guidelines are being drafted with WHO's input
- Waste management and infection control measures have been instituted in hospitals and training of hospital staff is underway
- A strategy for Behavior Change Communication (BCC) has been developed and IEC materials for the general population and youth are being developed

In the area of treatment, care and support:

- PMTCT have been established at eight hospitals with assistance from WHO and UNICEF
- Two CD4 count flow cell cytometers are operating in the national referral hospital in Thimpu and the regional referral hospital in Mongar in the eastern region, one more is still required in the South
- Management of PLHA with ARV is available to all who need it —currently nine PLHAs

Research, monitoring and evaluation

- A sero-surveillance system monitoring HIV prevalence in three sentinel groups, STI patients, TB patients, and women attending antenatal clinics (ANC), is operational
- A study on "People living with HIV/AIDS in Bhutan" was completed in 2004
- A survey to assess the risk and vulnerability of sub-populations considered at higher risk for HIV/AIDS/STI was completed in 2004—this survey was a first step in identifying priority sub-populations for behavioral surveillance
- A survey to assess the risk and vulnerability of the Laya community in Gasa district near the border with Tibet was completed in 2005
- A rapid assessment of substance abuse and IDU in Thimpu was completed in 2006 by REWA with support from the Youth Development Fund and funding from UNODC

Activities planned by the NACP under the World Bank project

4 Component Section *HIV/AIDS*

The following activities are underway or planned within the upcoming months:

- A baseline risk and vulnerability survey in the general population is underway in four major urban centres (Thimpu, Phuntsholing, Samdurpjongkhar and Punakha) and in eight of the twenty Dzongkhags
- PLHA peer support groups are being established
- A facility-based survey is planned in the near future to assess services as well as provider attitudes, knowledge and practices
- A second generation surveillance system that includes a behavioral component is being developed
- Facility-based STI reporting will be strengthened
- HIV counseling and testing will be established at three district hospitals
- District health teams will be trained in HIV/AIDS management and care
- A proposal for a condom social marketing programme is currently being reviewed under the World Bank project

National Strategic Plan for HIV/AIDS and STIs (2006-2012)

A new strategic plan for HIV/AIDS and STIs has been drafted for 2006-2012. Its goal is to prevent transmission of sexually transmitted infections and HIV, and reduce HIV-associated morbidity, mortality and social impact.

The specific objectives are:

- To increase the coverage and effectiveness of primary STI and HIV prevention services among the general population;
- To increase the coverage and intensity of STI and HIV prevention services among most-at-risk and vulnerable population subgroups
- To increase survival and quality of life of people living with HIV through treatment, care and support; and
- To reduce HIV-associated stigma and discrimination.

The targets to be reached include:

- Percentage of the general population and youth who both correctly identify ways of preventing sexual transmission of HIV and who reject major misconceptions about HIV increased from 30% to 80%.
- Percentage of the general population receiving HIV test, the results and the post-test counselling increased from 5% to 50%.
- Percentage of patients with STIs at health care facilities who are appropriately diagnosed, counselled and treated increased from 30% 90%.
- Percentage of most-at-risk and vulnerable population (youth, armed forces, migrants) covered with prevention services increased from 10% in 2006 to 80% in 2010.
- Percentage of young people aged 15-24 years reporting the consistent use of condom with non-regular sexual partners in the last year.
- Percentage of people with advanced HIV receiving combined antiretroviral treatment is increased from 25% to 90%.
- Percentage of people with a positive attitude towards PLHA increased from 40% in 2005 to 90% in 2010.

Links to international health initiatives

The GFATM proposal was developed in line with the “Universal Access Initiative”—Bhutan’s national

response to HIV/AIDS is country-driven, multi-sectoral and guided by a national policy to extend HIV prevention, treatment, care and support to all its citizens. counseling and testing aims for universal access to HIV prevention, treatment , care and support.

Bhutan's national AIDS response adheres to "The Three Ones" principles:

- The national HIV/AIDS Strategy developed within the framework of the Ninth (and soon the Tenth) Five-Year Plan/PRSP constitutes Bhutan's 'One agreed HIV/AIDS Action Framework'
- The National HIV/AIDS Commission (NHAC) constitutes Bhutan's 'One National AIDS Coordinating Authority'
- The NHAC is developing a common Monitoring & Evaluation framework which will be used by all stakeholders to report on HIV/AIDS/STI related programmes and activities. In addition, the national Planning Commission has established a National Monitoring and Evaluation System (NM&ES) to which all sectors will report. These constitute the framework for Bhutan's 'One agreed country-level Monitoring and Evaluation System'.

Bhutan's National AIDS Policy endorses the 'Four Ps' of the "Unite for Children, Unite against AIDS" initiative:

- Prevent mother-to-child transmission of HIV— Bhutan's PMTCT strategy is based on the four pronged approach: 1) prevent HIV infection in parents-to-be; 2) prevent unintended pregnancies among HIV-positive women; 3) prevent transmission of HIV from infected women to their infants; and, 4) provide care for HIV-positive mothers and their infants
- Provide paediatric treatment—Bhutan has produced guidelines for paediatric management of HIV/AIDS
- Prevent infection among adolescents and young people— youth, school- and community-based life skills interventions and youth-friendly health services are key components of Bhutan's national strategy
- Protect and support children affected by HIV/AIDS

b) Describe the role of HIV/AIDS-, tuberculosis- and/or malaria-control efforts in broader developmental frameworks such as Poverty Reduction Strategies, the Highly-Indebted Poor Country (HIPC) Initiative, the Millennium Development Goals or Sector-Wide Approaches. Outline any links to international initiatives such as the WHO/UNAIDS 'Universal Access Initiative' or the Global Plan to Stop TB or the Roll Back Malaria Initiative.

The principle of Gross National Happiness (GNH) guides Bhutan's distinctive approach to development and has four pillars: the promotion of equitable and sustainable socio-economic development, the preservation and promotion of cultural values, the conservation of the natural environment, and the establishment of good governance. The principle emphasizes the need to find an appropriate balance between material, spiritual, emotional and cultural well-being. 'Bhutan 2020: a Vision for Peace, Prosperity and Happiness' translates the notion of GNH into a series of national objectives or precepts that guide policymaking and are central to all government programmes.

Bhutan's Poverty Reduction Strategy Paper (PRSP) for 2002-2007 is built on the long-term vision of Bhutan 2020. It consists of the Ninth Five-Year Plan for national development and a Cover Note that delineates several key areas including a medium term expenditure framework (MTEF), sectoral strategies, and a poverty monitoring and evaluation plan. The PRSP defines a comprehensive poverty reduction strategy that is consistent with the Millennium Development Goals (MDGs). The Plan addresses cross-cutting issues, such as gender, the environment, improved governance and decentralization. Recognizing that a healthier and better educated population is also a more productive and happy one, the Plan gives great importance to the social sectors, especially to health and education which are allocated 24 percent of

the total budget. Acknowledging the potential negative on health and economic growth, HIV/AIDS, the Ministry of Health of the main strategies in the health sector strategy for 2002-2007 is 'monitoring and preventing STI/HIV/AIDS'.

The RGoB has already initiated the preparation of the Tenth Five-Year Plan for 2008-2012. The next Plan will be based on achieving the MDGs and has poverty reduction as its overarching goal. Each line ministry is identifying objectives, indicators and targets to be achieved within the Tenth FYP. The draft HIV/AIDS strategy developed by the MoH for the Tenth FYP targets the poor, the vulnerable and the unreached. It seeks to find a good balance between activities that reach the general population and reduce stigma, and those that reach the most-at-risk populations and are likely to have the most impact on the spread of the disease. The strategy will adopt the revised set of indicators recommended by the UN General Assembly on HIV/AIDS (UNGASS) for countries with low-prevalence epidemics. These will include HIV prevalence in STI patients, TB patients and antenatal women. The national target will be to maintain HIV prevalence below 0.1%.

The RGoB is proactive in managing donor assistance to ensure that external aid objectives are aligned with its Five-Year Plan/PRSP. Since 2002, the RGoB has also developed SWAps in sectors such as health and education to encourage external partners to fund sectors rather than specific projects. Danida's current support to the health sector within the Ninth FYP is through a Swap.

4.4.4 National health system

a) Briefly describe the (national) health system, including both the public and private sectors, as relevant to reducing the impact and spread of the disease in question.

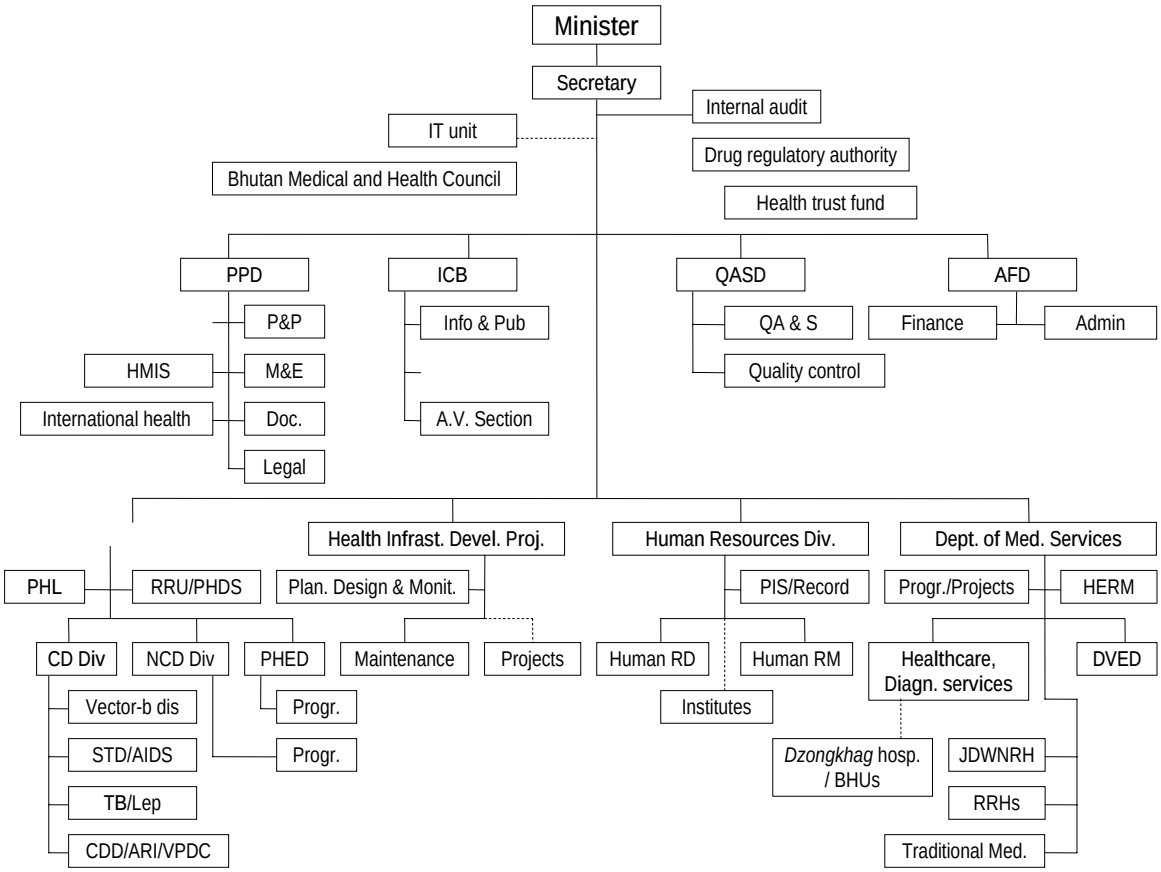
Bhutan gives great importance to the social sectors, especially education and health. Health services, including diagnostic, curative, and overseas referral services (mainly to India), are provided free of charge to the people. The health sector will receive 10 percent of the total development budget during the current Five-Year Plan. Approximately 6.5% of the health care budget is allocated to the purchase of essential drugs, vaccines and equipments. To ensure adequate resources to sustain the delivery of free healthcare services, the government has established the Bhutan Health Trust Fund to ensure the supply of essential medicine and vaccines.

HIV prevention, treatment, care and support are integrated within the health delivery system. Until the early 1960s, Bhutan had no organized health care system and most of the infrastructure development only took place as of the early 1980s. Today it is estimated that 90% of the population now lives within three hours walking distance from a health facility. Basic health care services delivered through a network of one National Referral Hospital at Thimphu , two Regional Referral Hospitals in Mongar and Gelephu, 27 hospitals at the district level, 176 Basic Health Units (BHUs), 454 Out Reach Clinics (ORCs) and approximately 1000 volunteer Village Health Workers (VHWs) across the country. In addition, there are three military hospitals and 16 military health units spread out across the country which, while administratively independent, work closely with the Ministry of Health (MoH) to deliver preventive and curative services. Both allopathic and traditional health care are provided from the same hospital in the districts and there is often inter-referral of patients between the two systems. Private practice has not been introduced to Bhutan and, with the exception of private chemist shops, there is no private health sector in Bhutan. All health services are provided by the public sector.

HIV prevention, treatment, care and support are delivered at all levels of the health system. At the BHU and ORC levels, health workers conduct HIV education of the community, training of VHWs and community peers, and counseling and referral for HIV testing and syndromic treatment of STIs. At the District level, HIV testing is being offered, and screening of syphilis is done with RPR/TPHA. ART monitoring and follow up is done at the district hospitals. The DHO/DMO also serves as the technical advisor to the District MSTF. The national referral hospital and the regional referral hospitals initiate treatment with ART and OI and is sent for further follow up at the district.

The Health services function under the Ministry of Health. The administration of the Ministry is headed by

the Secretary of Health. At the *dzongkhag* (district) level, the district Health officer is in charge and reports to the dzongkhag governor. The District Health Officer (DHO) also looks after the community and public health affairs. The District Medical Offcer (DMO) is in- charge of the curative health services and is also advisor to the district health sector. The National HIV/AIDS and STI program under the Department of Public Health, MoH, is the key central agency undertaking implementation and coordination of HIV/AIDS in the Ministry. The National Program also functions as the technical body for the response to HIV epidemic in the country. The National HIV/AIDS Commission (NAHC) is the is AIDS authority and policy formulation body at the national level. Funding for HIV is released from the central level and is channeled through the dzongkhag administration. There are dzongkhag Multi-Sectoral Task Forces (MSTFs) for HIV/AIDS in every district which is chaired by the district Governor. The main mandate of the MSTFs is to coordinate HIV prevention and conduct mass advocacies in their respective dzongkhags in an integrated manner. At the sub district level, the administrative unit is called *geog* or block. Each geog has about 2000-4000 people and is headed by an elected community leader (*gup*). Each of the 202 geogs has a council known as Geog Yargye Tshokchung (GYT) which is chaired by the gup is the chairman of the GYT and is also the chairperson for the Geog MSTFs for HIV/AIDS.



b) Given the above analysis, explain whether the current health system will be able to achieve and sustain scale up of HIV/AIDS, tuberculosis and/or malaria interventions. What constraints exist?

Bhutan's health system faces a number of challenges that are not unique to HIV/AIDS programming. These include:

- *Shortages of qualified human resources:* Bhutan's Royal Institute of Health Sciences (RIHS) only has the capacity to train paramedical and allied health workers and technicians. All other professional staff including medical doctors, nurses (beyond the most basic level), laboratory technologists and pharmacists, must be trained outside the country. As a result there is a shortage of medical doctors and of nurses with diploma level training.

- *Harsh geography and scattered population:* Bhutan is situated in one of the world's most rugged and mountainous regions with scattered and remote settlements and many parts of the country being inaccessible. This, coupled with the scarcity of qualified manpower, makes delivery of health and other social services extremely difficult.

- *Dependency on imports for all health supplies:* Bhutan imports 100 percent of its health supplies including medical equipment, diagnostics, essential medicines and vaccines.

Despite these constraints, Bhutan has achieved commendable improvements in its health indicators and is on track with the health-related MDGs. This is attributed to:

- a healthcare structure that ensures 90 percent coverage thanks to an extensive network of BHUs, supplemented by outreach clinics and supported by village health workers and an effective referral system

- a small but motivated and dedicated health workforce that is supported by a continuous education programme, solid career prospects, in-service training, supportive supervision, and a strong referral system

- efficient systems for channeling funds and for the procurement and distribution of medicines and supplies across the country

c) Please describe national health systems strengthening plans as they relate to these constraints. If this proposal includes a request for resources to help overcome these constraints, describe how the proposal will contribute to strengthening health systems.

With the launch of the Ninth Five-Year Plan in 2003, Bhutan entered an unprecedented phase of decentralization which parallels the political changes towards democratic representation at all levels. Decentralization has profound implications for the health sector in terms of management, upgrading competencies and quality of services, and of meeting the demand of the population for care while maintaining a strong preventive framework. The health sector strategy for the Tenth Five Year Plan for 2008-2012 is under development and will emphasize continued:

- development of the infrastructure to ensure equitable coverage
- development of human resources though: continued overseas training of health professionals in medicine, nursing, public health, epidemiology, and health economics; intensified recruitment of paramedical staff; upgrading of existing cadres[2]; continuing education, pre- and in-service training
- gradual decentralization (strategies and policies)
- strengthening of quality control systems, health information systems, and logistics systems
- attention to patient safety including: safe and rational blood transfusions, safe and rational

[2] Upgrading health worker cadres include phasing out (male) basic health workers (BHU) and (female) auxiliary nurse midwives (ANM) and replacing them respectively with (male and female) health assistants (HA) and general nurse midwives (GNM) with more extensive training. HA with good performance track records can opt for further training to become assistant clinical officers (ACO) or district health service officer (DHSO) at district hospitals. GNM can now also opt for 'conversion' training towards a BSc in nursing.

injections, healthcare waste management, rational use of medicines, and instituting essential health technology and promoting appropriate medical devices and their effective maintenance

The proposed HIV/AIDS programme will strengthen the system capacity of the national HIV/AIDS programme in two key areas:

- programme management and coordination
- monitoring & evaluation capacity

In addition, to overcome human resource constraints, the proposed HIV/AIDS programme will:

- focus on the most vulnerable population groups and districts
- focus on HIV prevention thus reducing the future need for curative services
- take a multi-sectoral approach engaging other sectors such as education from the central to the MSTF level (HIV/AIDS focal persons in the line ministries and all the MSTFs have already received basic training on HIV/AIDS)
- make efficient use and build the skills of the existing workforce such as delegating the simpler tasks to less skilled workers able to deliver them competently,
- building a pool of health care professional within the MoH within key technical areas such as monitoring and evaluation, behavior change communication (BCC), counseling & testing, STI diagnosis and treatment.
- build the capacity of indigenous NGOs/CBOs and faith-based organizations who are best placed to work with some of the most-at-risk populations
- empower communities and individuals as active partners
- tap into the 'third workforce' that VHWs constitute-- with sufficient supervision and support, VHWs with limited training can improve efficiency of health services.
- Mainstream HIV into pre-service curriculum such as in schools, vocational training institutes, health workers course, and uniformed personnel.

4.5 Financial and programmatic gap analysis

Interventions included in relation to this component should be identified through an analysis of the gaps in the financing and programmatic coverage of existing programs. Such an analysis should also recognize gaps in health systems, related to reducing the impact and spread of the disease. Global Fund financing must be additional to existing efforts, rather than replacing them, and efforts to ensure this additionality should be described. For more information on this, see the Guidelines for Proposals, section 4.5.

Use table 4.5.1-3 to provide in summarized form all the figures used in sections 4.5.1 to 4.5.3.

4.5.1 Overall needs assessment

a) Based on an analysis of the national goals and careful analysis of disease surveillance data and target group population estimates for fighting the disease component, describe the overall **programmatic** needs in terms of people in need of these key services. Please indicate the quantitative needs for the 3-5 major services that are intended to be delivered (e.g. anti-retroviral drugs, insecticide-treated bed nets, Directly Observed Treatment Short-Course for TB treatment). Also specify how much of this need is currently covered in the full period of the proposal by domestic sources or other donors. *Please note that this gap analysis should guide the completion of the Targets and Indicators Table in section 4.6. When completing this section, please refer to the Guidelines for Proposals, section 4.5.1.*

Overall programmatic needs in terms of people in need of key services

4 Component Section *HIV/AIDS*

1. In-school and out-of-school lifeskills-based education

There is currently no lifeskills-based HIV/AIDS education in Bhutan. Both in- and out-of-school youth will start to receive lifeskills-based education on HIV/AIDS starting at 18 months into the GFATM project. At the end of the GFATM project, likeskills-based education will reach:

- 90,000 children in 140 schools from grade 7 and above; and
- 17,000 out of an estimated 20,000 out-of-school youth

2. Testing and counseling

By the end of 2006, it is anticipated that 1,500 persons will have received HIV testing and counseling since services were first introduced in 2005 under the World Bank project. Testing and counseling services are currently available at two stand-alone VCT centers (HISCs) in Thimphu and Phuntsholing and at 30 district level hospitals throughout the country. By the end of the GFATM project it is anticipated that 30,000 persons will have received HIV testing and counseling thanks to an increase in both demand and access. Demand will increase due to intensified and targeted BCC, 'know your status' campaigns which will help to reduce stigma, as well as provider-initiated counseling and testing for pregnant women (15,000 per year), STI patients (3,000 per year) and TB patients (at least 1,000 per year). Access to services will be increased thanks to two additional stand-alone VCT centers in Samdrup Jongkhar and Gelephu and the expansion of testing and counseling services to 16 military health units and to 176 BHUs. The number of STI patients seeking STI services at government clinics is expected to increase thanks to the strengthening of services under the World Bank project down to the BHU level.

3. BCC for special groups

Uniformed servicemen

Mass awareness campaigns are currently being conducted for all three wings of armed forces, namely the Royal Bhutan Army, Royal Body Guards, and the Royal Bhutan Police. The Women's Police Association in the Police Department is expanding its network and conducting routine awareness campaigns for female police and their families with funding under the World Bank project. It is anticipated that 6,000 uniformed service men and women and their families will have received HIV prevention messages by the end of 2006 thanks to ongoing efforts. By the end of the GFATM project, this number will be increased to about 25,000 thanks to the integration of HIV/AIDS/STI education into the pre-service training of 200-300 recruits per year at the three training institutes of the armed forces, namely the Police Training Institute in Jigmiling, the Army Training Center in Tehncholing, and the Police Training College in Chukha. Expansion of testing and counseling services to the 16 military health units will also contribute to the increased number of armed forces personnel received HIV prevention messages.

Members of the religious community

There are over 7,000 religious leaders and monks in the country. Currently less <500 member of the community have been exposed to HIV/AIDS messages. By the end of this project, 7,000 monks will have received HIV/AIDS education through the Religion and Health Program at 35 major Bhuddist institutions.

4. BCC for most-at-risk groups

Substance users/IDUs

A rapid assessment of IDUs conducted in Thimpu in 2006 indicates that there are between 50 and 100 IDUs. However there is an increasing trend in IDU and two HIV cases were detected among them this year. To date, only a handful of IDUs have received HIV/AIDS messages. By the end of the project it is anticipated that at least 200 IDUs will be reached.

Sex workers

The total number of sex workers in the country is not known. A rapid assessment in the border town of Phuntsholing identified roughly 50 sex workers, the vast majority from neighboring India and Nepal. There are no further estimates in other urban settings However, an assessment of sex workers in Thimphu is planned later this year under the World Bank project. At the end of this project a conservative estimate of 100 sex workers will be reached.

Transport workers

Transport workers are an important target group within mobile populations. They include workers employed in both the public as well as the private transport sector. In Bhutan the private transport sector is relatively small and consists of people who own their private carriers which they operate to carry their own goods or hire out. According to the Road Safety and Transport Authority (RSTA), there are approximately 22,000 drivers and handy boys in the country. In the past two years, roughly 200 transport workers received HIV/AIDS messages through a half day seminar organized by MSTFs in a limited number of districts. At the end of this project, it is anticipated that all the 22,000 transport workers registered with the RSTA will be reached. *Note: Migrant workers were excluded as a target population because they are covered under a separate GFATM regional proposal prepared by the South Asian Association for Regional Cooperation (SAARC).*

MSM: Current information on MSM is anecdotal and requires further research before interventions can be considered.

b) Based on an analysis of the national goals and objectives for fighting the disease component, describe the overall **financial** needs. Such an analysis should recognize any required investment in health systems linked to the disease. Provide an estimate of the costs of meeting this overall need and include information about how this costing has been developed (e.g., costed national strategies, medium term expenditure framework). *(Actual targets for past years and planned and estimated costing for future years should be included in table 4.5.1-3 [line A].)*

The estimated cost of meeting the overall national goal and objectives over the next two years (2007-2009) is USD$4,146,512. This was calculated based on the sum of:

- Estimated MoH budget allocations of USD$73,687 to the HIV/AIDS programme for fiscal years 2007-08 and 2008-09 assuming a 5% increase per year from the 2006-2007 budget allocation of USD$34,233
- Total funds of USD$2,250,000 programmed over 2007-09 under the World Bank Project which ends 30 June 2009.
- Total funds of USD $10,000 pledged by the WHO for short term technical assistance in 2008-09
- Total of USD$1,812,825 to cover the cost of implementing the first two years of the workplan under the GFATM proposal assuming the project begins on 1 July 2007

Beyond 2009, the cost of meeting the overall national goal and objectives includes USD$514,332 per annum required to cover recurrent costs to sustain activities implemented under the World Bank project

4.5.2 Current and planned sources of funding

a) Describe current and planned financial contributions, from all relevant domestic sources (including loans and debt relief) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line B].)*

The program implementation frame work is integrated with the health care delivery system of the

government. All the overhead costs like salary, office space, transportation and incremental operating cost will be borne by the government. The RGOB does support one or two activities in a year but contribution are minor compared to the needs. An increase for the tenth five year plan is about 20-25%, keeping pace with increasing salary cost of local staff.

b) Describe current and planned financial contributions, anticipated from all relevant external sources (including existing grants from the Global Fund and any other external donor funding) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line C].*)

The World Bank Grant project is from 2004 -2009 with a total support of USD$ 5.7 million. The project has satisfactorily completed two years of implementation and will receive a grant of USD$ 3.8 million for the next three years of the project period.

No major financial assistance is foreseen from the other donors except for the forecast of USD 10,000 per year from WHO .

4.5.3 Financial gap calculation

Provide a calculation of the gap between the estimated overall need and current and planned available resources for this component in table 4.5.1-3 and provide any additional comments below.

(No additional comments)

4 Component Section *HIV/AIDS*

Please summarize the information from 4.5.1, 4.5.2 and 4.5.3 in the table below.

Table 4.5.1-3 - Financial contributions to national response

	Financial gap analysis (*please specify currency:* Euro / US$)						
	Actual		Planned		Estimated		
	2004	2005	2006	2007	2008	2009	2010
Overall needs costing (A)	668,632	1,425,199	1,577,999	2,028,570	2,117,942	1,157,411	1,215,543
Current and planned sources of funding:							
Domestic source: Loans and debt relief (*provide donor name*)	0	0	0	0	0	0	0
Domestic source: National funding resources	53,365	33,660	34,233	35,945	37,742	39,629	41,611
Total domestic sources of funding(B)	53,365	33,660	34,233	35,945	37,742	39,629	41,611
External source 1 (World Bank)	597,267	1,336,444	1,518,266	1,125,000	1,125,000	0	0
External source 2 **(WHO)**	18,000	7,000	3,500	0	10,000	10,000	10,000
External source 3 **(UNICEF)**	0	21,095	22,000	0	0	0	0
External source 4 **(UNODC)**	0	27,000	0	0	0	0	0
Total external sources of funding (C)	615,267	1,391,539	1,543,766	1,125,000	1,135,000	10,000	10,000
Total resources available (B+C)	668,632	1,425,199	1,577,999	1,160,945	1,172,742	49,629	51,611
Unmet need (A) - (B + C)	0	0	0	867,625	945,200	1,107,782	1,163,932

4.5.4 Additionality

Confirm that Global Fund resources received will be additional to existing and planned resources, and will not substitute for such sources, and explain plans to ensure that this will continue to be true for the entire proposal period.

The activities and programmes included in the GFATM proposal are not funded in the 9th or 10th Five Year Plan or in the IDA package of the WB assisted project or from other multilateral or bilateral sources such as WHO, UNICEF, UNODC or DANIDA. The resources received under GFATM will be additional to the existing and planned resources. The country is unlikely to receive large scale support for HIV from other sources during the 2007-2012 project period.

4.6 Component strategy

This section describes the strategic approach of this component of the proposal, and the activities that are intended in the course of the program. Section 4.6 contains important information on the goals, objectives, service delivery areas and activities, as well as the indicators that will be used to measure performance.

For more detailed information on the requirements of this section, see the Guidelines for Proposals section 4.6.

In support of this section, all applicants must submit:

- A **Targets and Indicators Table.** This is included as **Attachment A** to the Proposal Form. *(When setting targets in this table, please refer explicitly to the programmatic need and gap analysis in section 4.5.1 a. All targets should show clearly the current baseline. For definitions of the terms used in this table, see the M&E Toolkit provided by the Global Fund. Please also refer to the Guidelines for Proposals, section 4.6.*

and

- A component **Work Plan** covering the first two years of the proposal period. The Work Plan should also be integrated with the detailed budget referred to in section 5.2.

*The **Work Plan** should meet the following criteria (Please refer to the Guidelines for Proposals, section 4.6):*

a. *It should be structured along the same lines as the Component Strategy - i.e. reflect the same goals, objectives, service delivery areas and activities.*

b. *It should cover the first two years of the proposal period and should:*
   - *i **be detailed for year 1, with information broken down by quarters;***
   - *ii **be indicative for year 2.***

c. *It should be **consistent with the Targets and Indicators Table** (Attachment A to the Proposal Form) mentioned above.*

d. *It should be integrated with the first two years of the **detailed budget** (please refer to section 5.2).*

Please note that narrative information in this section 4.6 should refer to the Targets and Indicators Table (Attachment A to this Proposal Form), but should not consist merely of a description of the table.

4 Component Section *HIV/AIDS*

4.6.1 Goals, objectives and service delivery areas

Provide a clear description of the program's goal(s), objectives and service delivery areas (provide quantitative information, where possible).

Goal and objectives

The goal is to reduce the risk of HIV transmission among youth and other vulnerable population groups.

There are three main objectives:

- To increase access to prevention services for youth and other vulnerable groups
- To increase the national capacity to manage, implement, coordinate, monitor and evaluate HIV/AIDS
- To ensure a continued supply of ARV and OI drugs to sustain the treatment and care of PLHA

OBJECTIVE 1: Scaling up prevention services targeting vulnerable population sub-groups

A. Adolescents and youth

While HIV prevalence is still low in Bhutan, over one third of the HIV infections detected in Bhutan are among young women and men between the ages of 15-24 years. Young people are at special risk for STIs including HIV because they lack the information, skills, health services and support they need to need to make informed choices. In this project, a variety of channels will be used to reach in- and out-of school youth to give them the knowledge, skills and services they need to assess their risk of STIs including HIV/AIDS, and take steps to safeguard themselves against them. The four interventions described below incorporate a lifeskills approach as well as peer education, two approaches that have been proven to be effective in influencing attitudes and behaviors.

1.1 Providing life-skills-based HIV/AIDS education to over 90,000 youth in 140 schools (grade 7 and above)

Schools provide a good opportunity to reach a large number of young people at an age when they are developing patterns of thought and behaviour that will stay with them for most of their lives. While information on HIV/AIDS is currently covered in schools as part of the social sciences curriculum, it does not use a lifeskills approach and does not include the development of essential skills such as problem solving, decision making, negotiation, self-esteem and respecting the right of other. In this project, teachers will learn student-centered, participatory, experiential techniques to teach lifeskills successfully. They will also learn to develop curricula based on the lifeskills approach. Youth will also be trained as peer educators.

1.2 Providing life-skills-based HIV/AIDS education to over 17,000 out-of school youth through non-formal education centres, vocational schools and through the youth unemployment counter at the Department of Employment

The project will also support a range of lifeskills and HIV/AIDS prevention interventions outside the formal school setting. According to national statistics, there are an estimated 20,000 youth who are out-of-school. Approximately 15,000 of these will be reached through the network of 669 non-formal education (NFE) centers established across the country for youth and adults who missed the opportunity of a formal school education. The NFE centers offer basic literacy and post literacy evening courses over three years. Another 1,000 youth will be reached through seven vocational training institutes based in

urban centers across the country and through the youth unemployment counter in the Department of Employment of the Ministry of Labor and Human Resources.

1.3. Reaching youth through the private sector in 8 towns via 200 hotels, nightclubs and entertainment zones

The project will support outreach education at 50 hotels, discotheques/night clubs and entertainment zones that are popular with youth in Thimphu, Phuntsholing, Paro, Samdrup Jongkhar, Gelephu, Mongar, Trongsa, and Bumthang. Establishment owners and managers will be oriented to the project and educated about HIV/AIDS. Condom 'boxes' will be place in the premises. A peer education approach will be used to distribute condoms and youth-positive IEC materials with information about STI including HIV, prevention methods, proper condom use, as well as information on counseling and testing sites and youth-friendly STI and other reproductive health services. Music, plays and skits about real life issues will be developed and used to discuss the topic of STI/HIV/AIDS in the hotels, night clubs and entertainment zones.

1.4 Establishing youth-friendly health services in 30 district-level hospitals and a hotline in Thimpu

Young people need access to condoms and the skills to correctly use them, to youth -friendly services for VCT, reproductive health services including the diagnosis and treatment of STI.
Existing services at 30 district-level hospitals will be made youth-friendly through special training of providers and the development of special IEC materials for youth. The two existing free-standing VCT centers in Thimpu and the border town of Phuentsholing, and the two centres that are planned in Samdrup Jonkhar, and Gelephu during the project, will be remain youth-friendly and serve as convenient one-stop drop-in centers where youth can access information, counseling, condoms and referrals. These centers will be staffed by professional health or social workers as well as by volunteer peer educators. Furthermore, an HIV/AIDS/STI hotline will be established at the VCT drop-in center in Thimpu.

B. Other vulnerable populations
Among those frequently observed to be in need of targeted interventions are sex workers and their clients, mobile populations such as long-distance truck drivers and migrant workers who are at increased risk of infection primarily because of their mobility and high risk sexual contacts, men who have sex with men, substance users, and uniformed services, including military and police. Under Objective 1, part B, HIV/AIDS prevention programmes will be developed for these special populations using a variety of approaches. These are described below.

1.5 Intensifying HIV prevention among 25,000 persons in the armed forces including their families

One fifth of HIV cases detected in Bhutan so far has been among the uniformed services. A survey was conducted among 2,300 members of the armed forces in 2006 showed an HIV prevalence of 0.17 percent and syphilis seroprevalence of 2.1 percent. Those who serve in the Royal Bhutan Army (RBA), the Royal Body Guards (RBG) and Royal Bhutan Police (RBP) are at increased risk of HIV and other STIs because they are often posted or required to travel for extended periods away from home both within the country as well as in India. The three divisions of the armed forces have therefore agreed to mainstream STI/HIV/AIDS education into their respective curricula for new recruits at the three military training institutes, namely the Army Training Center in Tencholing, the Police Training Center in Jigmiling, and the Police Training College in Tsimalakha. In addition, the Police Women Volunteer Association has placed STI/HIV/AIDS high on their agenda for Health and Women's Issues in the police force. A group of female volunteers in the RBP will be trained as outreach educators among peers and their families. Uniformed services and their families will have access to targeted educational materials, testing and counseling at the 16 military health units (SDA 1.8) and a condom distribution programme will be strengthened with their participation.

1.6 Increasing participation in HIV prevention by 7,000 religious leaders and monks through Buddhist institutions

There are more than 35 major Buddhist institutions consisting of schools, colleges, monastic institutions, and retreat centers with total enrollment of 7000 monks. Young boys are ordained as monks at a young age and enter the monastic educational system. Monastic education is highly revered and is considered prestigious within the society, but for many poor families, it is also a source of education for children with minimal financial burden.

In this project, the MoH will work closely with the Central Monastic Body and the Commission for the Monastic Body (Dratsang Lhengtshog) based in Thimphu to mainstream STI/HIV/AIDS education into the existing Religion and Health curriculum at 35 major Bhuddhist institutions.

Religious leaders and monk communities have an important role to play in awareness raising, prevention education, encouraging tolerance and compassion for PLHA in the community, and providing direct spiritual support to people and families affected by HIV/AIDS. Buddhist monks and nuns will establish a peer education programme to raise awareness about HIV/AIDS in their own community as well as to carry out prevention and care activities in the wider communities. Members of the monk community will also have the opportunity to visit HIV/AIDS programmes being implemented by other groups of monks and nuns in other countries in the Mekong region.

1.7 Providing a package of prevention services to most-at-risk populations through the non-government sector

Key technical strategies will be combined to develop a comprehensive package of preventive services for sex workers, transport workers and substance users in Thimpu, Phuentsholing, Samdrup Jongkhar and Gelephu. Note: *Migrant workers were excluded as a target population because they are covered under a separate GFATM regional proposal prepared by the South Asian Association for Regional Cooperation (SAARC).*

The prevention package will include behavior change communication (BCC), voluntary counseling and testing (VCT), and access to quality condoms (and clean syringes as the case may be) and STI services. These components will combined in a set of interventions that will be designed with the full participation of the target populations, the staff at the four VCT centers, the BHU staff who will be providing STI and perhaps HIV testing and counseling services, and any other key stakeholder.

BCC will be the pivotal element in the strategy and provide the link between the other programme components (VCT, STI services and condoms). BCC will encourage individual behavior change and increase demand for condoms, VCT services and STI services . It will also contribute to stigma reduction. IEC materials will developed based on formative research and will be pre-tested on the target audience. BCC will have an outreach component and involve peer educators.

1.8 Expanding testing and counseling services to 2 additional VCT centers, 176 BHUs and 16 army health units

Counseling and testing for HIV is recognized as the key to prevention services and entry point for the treatment and care services. VCT is currently available at two free-standing Health Information Service Centers (HISC) in the capital Thimphu and the border town of Phuentsholing. In this project, two additional free standing VCT (HISCs)will be established in Samdrup Jongkhar and Gelephu, two towns along the transport route along the Bhutanese-Indian border.

In addition, counseling and testing will be made a part of standard care down to the BHU level as well as 16 army health units. Both client-initiated and provider-initiated testing will be offered. HIV testing will

be offered routinely to pregnant women, TB patients, and STI patients. The rights of the clients will be respected in each of these settings to ensure that an ethical testing process. The purpose of the test and its benefits will be explained to the client, confidentiality of all medical information will be maintained, and the right of refusal by the client will be respected. Village Health Workers (VHWs) will be trained as community outreach educators and will help to promote and implement a 'Know your status' campaign that will help to reduce stigma and encourage use of VCT.

The regional laboratories in Mongar and Gelephu will be strengthened. An ELISA reader for confirmatory testing will be purchased for each laboratory and a CD4 counter will be purchased for the laboratory in Gelephu (the laboratory in Mongar is already equipped with a CD4 counter). Staff will be trained in the use of the ELISA reader as well as in quality assurance.

OBJECTIVE 2: Increasing the national capacity to plan, implement, coordinate, monitor and evaluate HIV/AIDS programmes

2.1 Strengthening STI/HIV/AIDS pre-service training and continuous education at the Royal Institute of Health Sciences (RIHS)

HIV/AIDS/STI education will be mainstreamed into the pre-service training and continuing education programme of the Royal Institute of Health Sciences (RIHS). The curriculum will include topics on: STI/HIV/AIDS prevention (BCC, VCT, STI and condoms), HIV/AIDS treatment, care and support; patient safety including blood safety, safe injection, waste management and other areas related to healthcare associated infections.

2.2 Strengthening the national monitoring and evaluation plan and system for HIV/AIDS

With the increase participation of the agencies involved in the HIV/AIDS response from different funding arrangements, it becomes an ardent task to harmonize all the activities implemented under the one national frame work of the National Monitoring and Evaluation System (NM&ES) established by the national Planning Commission. All the implemented activities by different organizers will be collected, reported and the information will be generated under the one National AIDS authority of the National HIV/AIDS Commission.

2.3 Strengthening the management and technical capacity of the NACP

The capacity of the technical and managerial capacity of the national AIDS programme will be enhanced in order to plan, implement, coordinate and monitoring the wide ranging HIV activities. Strategies to enhance capacity will include:

- Staffing up the Project Management Team which will serve as a Secretariat to the PCM
- Developing a technical pool of human resources in the country for key technical areas such as BCC, counselling and testing, STI, ART and surveillance
- Mobilizing financial resources to hire contractual staff
- Mobilizing short-term technical assistance as needed

2.4 Building the capacity of the non-governmental sector as partner in the national HIV/AIDS response

In order to build the capacity of the NGO sector in HIV prevention, an innovative grants programme will be developed. Civil society organizations will be invited to participate in a series of capacity building workshops. In the first workshop, participants will develop proposals that will be reviewed for possible funding through the grants programme. Participants will be encouraged to develop HIV/AIDS prevention interventions targeting the most-at-risk populations. All proposals will be developed in the framework of

the needs identified in the national HIV/AIDS strategy. This will help ensure that the individual proposals add up to a meaningful national response to priority target sub-populations. Participants whose proposals are selected will participate in a programme management workshop in which programme and financial planning, monitoring and reporting will be covered. Once projects are underway, a series of workshops will be offered to train staff in communications skills and as outreach educators who in turn will be able to recruit and train peer educators. Sustained efforts will be made to support the activities of these implementing organizations and provide networking opportunities between them.

OBJECTIVE 3: Ensuring a continued supply of ARV and OI drugs to sustain the treatment and care of PLHA

The Bhutan Health Trust Fund (henceforth the Fund) was initiated in 1997 and formally launched on 12 May 1998 at the WHO Headquarters in Geneva. The primary objective of the Fund is to ensure continued and timely supply of essential medicines and vaccines and minimize uncertainties in the financing of these crucial components of the health system. The Fund is building a capital investment fund that will generate sufficient income to cover the annual expenditures on essential medicines and vaccines. As of 30 June 2006, the Fund has reached US$19 million or about 80% of its target of US$24 million. The Fund is invested in fixed deposits and Druk Air bonds with average annual return of 5%. The Fund is managed by a Board that is chaired by the Honorable Minister of Health. A copy of the Royal Charter of the Bhutan Health Trust Fund is included in the Annex of this proposal.

3.1 Sustaining the financing of ARV and OI drugs through the Bhutan Health Trust Fund (BHTF)

Based on a projected estimate of the number of PLHA who will require ARV and OI over the five years of the GFATM, an estimated US$40,000 a year will be invested into the Bhutan Health Trust Fund toward the purchase of ARV and OI drugs.

4.6.2 Link with overall national context

Describe how these goals and objectives are linked to the key problems and gaps arising from the description of the national context in section 4.4. Demonstrate clearly how the proposed goals fit within the overall (national) strategy and how the proposed objectives and service delivery areas relate to the goals and to each other.

Priority areas for the GFATM proposal

The current proposal will build on progress achieved under the World Bank project and other partners to fill programmatic gaps identified in the National Strategic Plan (2006-2012) and ensure a comprehensive and sustainable response that can keep HIV prevalence at the current low levels.

While there has been a lot of awareness raising activities implemented by multi-sectoral partners under the World Bank project, there is a lack of sustained, institutionalize prevention services for vulnerable groups:

- in- and out-of-school adolescents and youth
- special groups such as the uniformed services and their families, and the religious community
- most-at-risk populations including sex workers, mobile populations, and substance users (as of yet visible networks of MSM have not been identified in Bhutan—if found to be a sufficient problem, they will be included as a priority target group for prevention messages)

Furthermore, there is a need to expand access to high quality counseling and testing (CT) services beyond the two free-standing VCT centers in Thimpu and Phuentsoling and the CT services that will be rolled out at district hospitals over the next three years of the World Bank project. Although Bhutan does not have a generalized epidemic, the HIV epidemic already affects a broad cross-section of society including farmers, housewives, and civil servants as well as sexually active youth, in both urban and rural areas. Such a trend requires that prevention services, including access to CT services, focus on both the vulnerable groups as

well as the general population:

- youth need access to youth-friendly integrated or free-standing services
- people living in rural areas need access to both client and provider-initiated services at the BHU level
- most-at-risk populations need access to client-initiated, free-standing VCT centers
- pregnant women for PMTCT need access to provider-initiated, integrated CT services
- STI and TB patients—need access to provider-initiated, integrated CT services

In addition, there is a need to continue to build the national capacity to plan, implement, coordinate, monitor and evaluation the national response beyond what has been achieved or planned with DANIDA and World Bank funding. The capacity of government and non-governmental stakeholders needs to be strengthened:

- HIV/AIDS/STI needs to be streamlined into pre-service and continuing education for allied health workers at the Royal Institute of Health Sciences (RIHS)

- The capacity of the NACP itself needs to be strengthened in particular:
  - the capacity to monitor and evaluate the national response
  - the capacity to manage, coordinate and provide technical oversight to the national response

- Finally, there is a need to engage and build the capacity of the non-health and non-government sectors as partners in the national response. In particular:

  - Civil society organizations such as REWA and RENEW, and NGOs such as the National Children's Fund and the Tarayana Foundation are in a better position to reach marginalized populations such as sex workers and substance users but they lack the technical, financial, and often, managerial capacity to design, implement, monitor and evaluate such interventions.

  - Faith-based organizations-- religious communities have an important role to play in awareness raising, prevention education, encouraging tolerance and compassion for PLHA in the community, and providing direct spiritual support to people and families affected by HIV/AIDS.

  - PLHA networks are being formed under the World Bank and their capacity will need to be built so that they can participate meaningfully in HIV planning, policy development and coordination mechanisms (such as the PCM) as well as in program implementation/service delivery.

Multi-sectoral Task Forces (MSTFs) at the district level

4.6.3 Activities

Provide a clear and detailed description of the activities that will be implemented within each service delivery area for each objective. Please include all the activities proposed, how these will be implemented, and by whom. *(Where activities to strengthen health systems are planned, applicants are also required to provide additional information at section 4.6.6.)*

SDA 1.1: Providing life-skills-based HIV/AIDS education to over 90,000 youth in 140 schools grade 7 and above

The basic activities will be designing the curriculum and developing the training manual and conducting a

cascade of trainings to reach all the schools in very districts. The first year, the project will focus on curriculum development which would require a series of consultative meetings and consensus building within the Ministry of Education. During the curriculum development, an external technical consultant will assist the core team in the ministry of education in execution of design and the printing of the curriculum.

Second year will include capacity building; a team of 20 master's trainers, representing three regions will undergo three day training on conducting training on the revised curriculum. After successful completion of the training, the master's trainers shall conduct regional trainings of the teachers in all selected schools. The training will cover 40, 60, and 40 schools in second, third and fourth years respectively. During the teacher's training program, 700 teachers, five from each school will be trained on effective implementation of the curriculum. An overhead projector will be provided to each school to assist in delivery of the information under going the training.

A two day refreshers training is planned on fifth year for all the 700 teachers. This will be implemented through the district education sector.

Evaluation and Monitoring:
At the initial stage of the program, a cross sectional baseline survey, KABP will be conducted among school children, which would help establish information regarding current knowledge, attitude and behavioral of the youth in schools in the country. This survey will also be used in at the end of the Program to do a comparative analysis of the intervention.

Implementing agencies:
The Ministry of education will be the key implementing agency. The national AIDS program and the School Health program from the Ministry of Health will attend the consultative meetings for designing the materials.

The survey questionnaire will be developed with the help of consultant who will be recruited by Ministry of Health, whose sole responsibility would be to assist the ministry of Health for enhancing the monitoring and evaluation system. The survey will be carried out in coordination with the school head teachers. Two data entry operators will be recruited to help in data compilation.

SDA 1.2: 1.2 Providing life-skills-based HIV/AIDS education to over 17,000 out-of school youth through non-formal education centres, vocational schools and through the youth unemployment counter at the Department of Employment

i. Reaching the out of school youth through Non formal Education system:

Of the three educational structures (General Education, Monastic Education, and Non- formal Education system), the Non-formal Education system is a good medium of reaching the youths out of school. After the establishment of the NFE in 1992, there has been a tremendous growth from 6 in 1992 to 669 in 2006. Non-formal education system caters to people who missed the opportunity of formal school education. In NFE centers they learn about basic literacy course followed by post literacy course. Learners attend 2-3 hours classes in the evening. Given the heavy farm work during the day in the rural areas, the classes are conducted at a later time. The curriculum is implemented for a period of three years. As of 2006, there are 18550 learners, out of which approximately 15000 are youths. The female learners outnumber the males. A NFE center has one instructor (tutor) who is a full time employee with the Ministry of Education.

In the first year, NFE teaching materials will be developed with the help of the local consultant and printed. Three day training of the instructors in 200 NFE centers will be conducted in the same year. Remaining 469 NFE instructors will be trained in the second year.

Educational materials on HIV/AIDS will be taught as a part of the NFE curriculum thereby increasing

access to right information safe sex and current issues related to HIV/AIDS. NFE learners will engage as" community advocates" in spreading awareness and understanding about HIV/AIDS. In addition to advocacy they will also form "peer net works" for information sharing, condom distribution in the rural communities. During the course of the NFE, instructors can help identify avenue for outreach programs and community activity. This intervention will help community adopt safe behavior practices that will also reduce social stigma and discrimination among community.

December 1 will be observed as the world AIDS day in the NFE centers along with the learners and the neighboring communities which will help to keep HIV/AIDS in the forefront.

Non-formal Education and Continuing Education Division (NFCED) under the Ministry of Education will be the key implementing agency. The National AIDS program and the school Health Program will provide technical assistance.

ii. Reaching the youths through vocational training centers:
Under the Ministry of Labour and Human Resource, there are seven vocational training institutes providing skills in the field of Driving, Carpentry, and Arts and Crafts. The total enrollment in these entire institutes is approximately 1000 youths. HIV/AIDS education will be included as the part of the curriculum in these institutes. During the first year, 20 teachers from these institutes will undergo five day training. Following this, two day training will be conducted in the respective institutes to the remaining instructors. Thereby making HIV education a part of routine activity.

A division responsibly for vocational training, within the Ministry of Labour and Human Resource will be the key implementating agent.

iii. HIV/AIDS education through Youth Employment Counter:

According to 2005 report published by the Bhutan Human Development Report (BHDR), age group of 15-19 years, i.e. the new entrants in the labour force (such as school leavers), have experienced the sharpest increase in unemployment – from 2.5 per cent in 1998 to 7.2 per cent in 2004.

The department of employment under the Ministry of Labour and Human Resource comes in contact with over 1000 youths every year, who come to register for job vacancies. An avenue will be created for these youths interacting with the Department where systematic HIV/AIDS information will be disseminated through the counter. All the 30 staffs in the department of employment will be trained for 2 days on HIV prevention and will help in organizing this activity at their work place.

Additional information materials will be developed for distribution to increase access to right information.

The Ministry of Labour and human Resource will implant the activity through the department of employment.

SDA 1.3: Reaching youth through the private sector in 8 towns via 200 hotels, night clubs and entertainment zones

Under this SDA, it is planned to reach the "hot spots" in the urban settings through the involvement of the proprietors and owners and instituting HIV/AIDS education at their work places. 200 popular spots of hotels, night clubs, bars and snooker rooms, etc, frequented by youths, customers, transport workers, mobile populations will be selected in 8 towns.

Training will be conducted for the identified proprietors and managers, in the first year. Training for the hotels will be completed in the first year. Each year a sensitization and review meetings are planned for the stakeholders. It is expected that condom distribution, HIV/AIDS education and communication through the work place dramas and skits, would be intensified.

The following are the main activities that will be covered under this SDA:

- One day orientation training for the BCCI(Bhutan Chamber of Commerce Industry) in the first year
- One day training and review for the 200 proprietors in eight towns during each year of the project.
- Printing of education package of the education materials in the first year.
- Two training of 1000 employees working in hotels, entertainment zones and the others in the first year.
- Quarterly exchange of experience among the stakeholders.

BCCI will facilitate the implementation in coordination with the Dzonkghag MSTFs . The National AIDS Program will also ensure technical support in carrying out the activity.

SDA 1.4: Establishing youth-friendly health services in 30 district level hospitals and a hotline in Thimphu

i. Youth friendly services in 30 district level hospitals.

Main objective of this SDA is to increase utilization of the services at the hospital by the youths. Many of the youth problems are presented in the hospital such as youth seeking STI treatment, adjustment problems, sexual and reproductive health problems, and other psychological problems. Therefore there is a greater need to train hospital staffs so they can better understand these issues facing the youth population. The skills imparted during the training will provide the necessary knowledge and skills in all twenty district hospitals in the country.

The training will be conducted on the existing WHO guideline, which will be adapted for Bhutan. A three day Masters training will be conducted for the District Health Officers in the first year. This will be followed by training of the entire hospital staffs for delivering youth friendly services in the hospitals. Since it is important to maintain the skills and improve the services, a refreshers training on the same subject will be conducted during the third year.

ii. Establishment of a hotline and two free standing VCTs

In order to increase access to information, a hot line will be established. Two fulltime hotline staffs with a background in youth related issues would be recruited to increase comfortableness during communication. Telephone charges and staff salary will be included in the program budget. These two staffs will be attached to the VCT center that will be in the position to provide help information and direct caller to respective resource program. Therefore the hot line will act as live information source thereby creating a linkages between the available resource and Help seekers.

Hot line will be established in Thimphu (capital town), and will be attached to the Health information and service Center (HISC). Establishment of two more free standing VCT (HISC) at Gelephu and Samdrup Jongkhar is also aimed at expanding youth friendly health services which will serve as one stop drop in center for them.

The National AIDS Program will be the key coordinator along with the district health sector for this SDA.

SDA 1.5: Intensifying HIV prevention among 25,000 uniformed personnel and their families:

Institutionalizing HIV/AIDS in the Armed Forces:

This SDA looks at instituting HIV /AIDS educational program in the institutes of the armed forces.

A separate HIV/AIDS curriculum will be developed with a core team of 10 individual, consisting of 7 military instructors, 2 public health officials and a1local consultant. The main objective of the core team will be to design curriculum after identify gaps and constrains. A three-day training of two batches of 50

instructors during the first and the second year will follow after the completion of the curriculum. Graduate of the training will be responsible for teaching HIV/AIDS classes in the institutes and various armed forces wings.

In order to maintain commitment towards HIV/AIDS, advocacy, meetings and awareness campaign will be conducted by the high-ranking officials, who have undergone some sort of HIV/AIDS program for the benefit of the military community.

Involvement of women:
The Police Women Volunteer Association has a good network addressing Health and Women issues in the police force. Although HIV/AIDS is already a part of their agenda, the current proposed program will further strengthened and intensify the role of these women within the military community. 50 Women volunteers in RBP will be trained on HIV/AIDS program. During the training session, they will identify and study mechanism for effective condom promotion and distribution among families. A review meeting will be conducted in the every year to monitor the program. Similar initiatives of women among RBA and RBG families will be supported from the World bank funding.

A total of 25, 000 people in the Armed forces including their families will be reached through this program, which will promote awareness, prevention and advocacy and increase safe sexual practices.

The fund will be disbursed to the three RBA and the RBP through the Ministry of Health. The focal persons for HIV/AIDS in the respective divisions already exist. The National AIDS program will coordinate closely with them.

Monitoring and evaluation:
A cross sectional study of KABP will be conducted in the first year, third year, and the fifth year by the research unit of the ministry of Health.

SDA 1.6: Increasing the participation in HIV prevention by 7,000 religious leaders and monks through Bhuddist institutions

The Monastic Education is one of the oldest forms of educational system. This age old tradition is still flourishing today. There are more than 35 major Buddhist institutions consisting of schools, colleges, monastic institutions, and retreat centers with total enrollment of 7000 monks. There exist an efficient network led by the Central Monastic Body and the Commission for the Monastic Body (Dratsang Lhengtshog) based in Thimphu responsible for the well being the monk body. To address the health issues in the monk community, Religion and Health Program was established in 1989, which is a bilateral arrangement with the Ministry of Health and the Monk body. The health related issues such as personal hygiene, sanitation, healthy habits and nutrition are some of the advocated subjects with in the program. Workshop and annual review meetings are conducted for the monk body with technical assistance from the Ministry of Health. Some of the recent initiatives were related to diseases afflicted due to sedentary life style such as hypertension and the diabetes.

A high level advocacy and sensitization will be conducted among the religious leaders in the first year. At the same time to increase access to information, and treatment services, it is necessary to add HIV/AIDS and STI topics to the health discussion in the religious institutions. During the first year, a 10-member core team along with the local consultant will develop teaching materials and the curriculum for the monks on Comprehensive Health subjects along with the HIV/AIDS and STI.

In the first two years, 50 lecturers will undergo three day training as master trainers on the subject. The trained lecturers will in turn train 20 districts monastic body at the districts headquarters. The district Health officer and the District Medical Officer will observe the training in their respective district and be

an addition facilitator on technical issues.

Also annual review meetings will be planned among the monasteries. A proposal also includes exchange visit for 5 monks each year to observe successful initiatives of faith-based organizations in nearby countries.

The fund will be disbursed to the Central Monastic body. The religion and Health program of the Ministry of Health and Central Monastic body will coordinate the implementation.

SDA 1.7: Providing a package of prevention services for sex workers, transport workers and substance users through the non-government sector

In order to enhance capacity and expand the prevention services in the communities most at risk, there is need to involve the potential NGOs and CBO's. It is expected that the People living with the HIV would also join the prevention efforts by availing sub-grants in undertaking the project. Besides, the communities at risk themselves would also be engaged and their capacities will be built to conduct the sustained prevention programs.

The peer education program for reaching the above groups will be implemented from the first year. A study for the transport workers is also planned to be outsourced to an external firm and the study will be conducted in the second year.

SDA 1.8: Expanding HIV testing and counseling services to 2 additional free standing VCT centers, 176 BHUs and 16 military health units

The national guidelines for HIV testing and counseling will be used to conduct three-day training for 2 staffs from each BHU. During the first year, 150 staffs from 75 BHUs will be trained, and training for 234 health workers from 16 army units and the remaining BHUs will be completed in the second year. Thereby, VCT services will be integrated into the normal health services at all levels. The existing core team of VCT trained Health professionals will be inducted as the trainers.

To strengthen the two regional hospitals located in Mongar and Gelephu, two Elisa equipments will be purchased in the second year. A purchase of a CD4 machine for Gelephu regional Hospital in the south in the second year anticipating more case detection whereby base line CD 4 and future monitoring are carried out. The current CD 4 located in Thimphu and Mongar are beyond one day drive and is practically unfeasible during the summer seasons where there are frequent landslides and road blocks.

During the first year, 2 lab technicians from the regional hospitals will undergo short term training of three months on quality assurances and increasing diagnostic capability for HIV and STI.

Two additional free standing VCT will be established in Gelephu and SamdrupJongkhar will involve rental costs and refurbishment of the centers and purchase of the furniture and laboratory equipments. The VCT will be operational from the first year onwards.

A 2 day training of the for 600 Village Health workers on HIV/AIDS advocacy is planned in the first year of the proposal, and the remaining 66 VHWs in the second year. A refreshers training for the 1200 VHWs are scheduled in 4th year of the project.

The program will be implemented by the district Health Sector and NAP.

OBJECTIVE 2: Increasing national capacity to plan, implement, coordinate, monitor and evaluate HIV/AIDS programmes

SDA 2.1 Strengthening STI/HIV/AIDS pre-service training and continuous education at the Royal

Institute of Health Sciences (RIHS)

The Royal Institute of Health Sciences in Thimphu is the single institute in the country offering diploma in the field of general nursing and midwife, paramedics such as health assistants, basic health workers, and laboratory technicians of different categories. In addition, the institute also conducts service training for the District Health officers, Assistant Clinical Officers, up gradation program for the health workers, conversion program for the Bachelor of Nursing in collaboration with the Latrobe University in Australia.

A two-week consultative meeting among the faculty members will be identified as the core team who along with a external consultant will review the curriculum. The curriculum will incorporate standard lesson sessions covering VCT, STI treatment, HIV/AIDS care and management in the health settings, and Community planning for HIV/AIDS/ STI advocacy. Design and printing of the revised materials will be completed in the first year and the appropriate faculty training will be conducted. The institute will require assistance in procurement of practicum laboratory equipment for the institute and a set of LCD and AV set. To build the human resource capacity, a short-term training of 2 staffs for three months duration with attachment on VCT and counseling division will be conducted.

The Royal Institute of Health Sciences will receive the fund and will be solely responsible for implementation of the activities.

SDA 2.2 Strengthening the national monitoring and evaluation plan and system for HIV/AIDS

The capacity for program monitoring and evaluation is key area where the support is proposed. Currently the National AIDS program consists of a small team, responsible for coordination, Monitoring and evaluation. Some of the current challenges faced by the team are inadequate human resource and capacity to evaluate the existing programs. In the absence of the strong Monitoring and Evaluation cell in the Ministry of Health, Public Health division faces a greater need for such system for understanding the outcome of programs that have been implemented in the past.

This SDA includes activities related to strengthening monitoring and evaluation through supervision and coordination of the program. It envisages a further strengthening of M and E systems.

Through out the phase of the support, an external consultant will be required to assist the National AIDS program to monitor and evaluate the surveys, and also help in designing appropriate survey tools. In addition, the consultant will be extremely helpful in oversight development of M and E Unit within the Ministry of Health there by strengthening the health system development. Two national staffs will be trained in data entry and monitoring and evaluation designs.

The district health officers are in charge of the Health Sector at the district level. Monthly report collected from the health facilities are compiled by the district health officers. They in turn generate quarterly reports of the district and are reported to the Health Management and Information System (HMIS) at the Ministry of Health. In order to enhance the utilization of the HIV /AIDS and STI, data management in the Health system, the HMIS unit at the Ministry will train, 20 district Health officers, in the first year and roll out the training for the all Hospital heads, along with all BHU heads in the second year.

Short-term assistance will be sought to conduct a three week training on basic epidemiology, operational research and monitoring for the 15 people involved in the Public Health programs in the first year enhancing capacities for operational research studies. The research unit along with the consultant will lead the implementation of the activity related to Monitoring and evaluation.

Long-term training would include sending a candidate for a master's program in epidemiology. The fund allocation would include stipend, tuition, and the travel charges for the candidate. This would ensure capacity building for the National AIDS Program on responding to the HIV epidemic in a strategic manner. Currently, there is no epidemiologist in the National AIDS program.

A provision of three people for international exchange program from second year to fifth year is envisioned, to provide opportunity for nationals to learn from other countries in the region.

SDA 2.3 Strengthening the management and technical capacity of the NACP

The activities to be funded under this SDA include the monthly salary for three people in the project management team consisting of one project officer, a finance accountant and a secretary. The team will assist the National AIDS control Program for the period of project.

A local team 10 people will be mobilized and trained on all areas of HIV/AIDS from the existing pool of resources and will be designated as a resource team. The team will receive training on the designed course for 2 weeks in the first year and one week refreshers training in the third year of the project. The team will act as central resource for any technical training for HIV/AIDS in the health sector and to other non health stakeholders as well.

A three week technical assistance will be required from an external consultant to design and conduct the training in coordination with the National AIDS Program in the first year and the for two weeks in the third year.

SDA 2.4 Building the capacity of the non-governmental sector as a partner in the national HIV/AIDS response

This SDA is focused on building the capacity of the CBO, NGO and the PLHA in developing their organizations in order to carry out HIV prevention services.

During the first year, training for 15 representatives from these stake holders on building the skills on proposal writing for the period of five days. This will be followed by five day training on the modules of the program management and supervision. In order to assist this activity, two external consultants will be recruited to develop the program and train the stakeholders.

To foster greater network of people living with HIV/AIDS, it is planned that 3 PLHA each year to be sent to neighboring countries to learn from the organizations of the positive people.

OBJECTIVE 3: Ensuring the continued supply of ARV and OI drugs for the treatment and care of PLHA

SDA 3.1 Sustaining the financing of the ARV and OI drugs through the Bhutan Health Trust Fund (BHTF)

It is estimated that by the end of five years there will be approximately over 400 hundred people detected with HIV in the country. It is expected that in the best case scenario, at least 50 PLHA will need the ARV drugs, and many more will require treatment for opportunistic infections. The current cost of ARV and OI per patient per annum is USD 1000. Since Bhutan Health Trust Fund is dedicated to sustaining drugs and vaccines for the country, it is proposed that a USD 40,000 a year over the life time of the project to be invested which will enable financial sustainability of the treatment program in the long run.

4 Component Section *HIV/AIDS*

4.6.4 Performance of and linkages to current Global Fund grant(s)

This section refers to any prior Global Fund grants for this disease component and requests information on performance to date and linkages to this application. For more information, please refer to the Guidelines for Proposals, section 4.6.4.

a) Provide an update of the current status of previous Global Fund grants for this disease component, in the table below.

Table 4.6.4. Current Global Fund grants

	Grant number	Grant amount*	Amount spent
GF Grant 1	Not applicable	Not applicable	Not applicable
GF Grant 2	Not applicable	Not applicable	Not applicable
GF Grant 3	Not applicable	Not applicable	Not applicable
GF Grant 4	Not applicable	Not applicable	Not applicable

* *For grants in Phase 1, this is the original two year grant amount. For grants that have been renewed into Phase 2, this is the total amount, inclusive of Phase 1 and Phase 2. For unsigned Round 5 grants this is the two year TRP approved maximum budget.*

b) Please identify for each current grant the key implementation challenges and how they have been resolved.

Not applicable

c) Are there any linkages between the current proposal and any existing Global Fund grants for the same component? (e.g. same activities, same targeted populations and/or the same geographical areas.)

☐ Yes
➔ *complete d)*

☒ No
➔ *go to 4.6.5.*

d) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided under current Global Fund grants.

4.6.5 Linkages to other donor funded programs

a) Are there any linkages between the current proposal and any other donor funded programs for the same disease

☒ Yes
➔ *complete b)*

☐ No
➔ *go to 4.6.6.*

b) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided by other donors, including in respect of health system strengthening activities.

The current proposal is linked to the exsiting World Bank supported project. This proposal is complementary to the support of the World Bank project. All the service deliverable areas of this proposal are either adding, expanding or complimenting the exsiting support of the World Bank. The institutionalization of the HIV/AIDS life skill based education in schools, monastic centers, vocational institutes, military training centers are not covered in the World bank Project. VCT services is an

expansion is targeting reach beyond the district level hospitals. Instituing youth friendly health services, building the capacity of the nongovernmental sectors, addressing M and E system will constantly need strrengthneing and capacity building. The human resource development is also an additional required for various skill building or professional enhancement. The objective 3 of the proposal of ensuring sustainability of ARV and OI drugs for the PLHA will add on to the existing servies of the treatment and care services in Bhutan.treatment and care interventions are adding to the exsiting support.There are no dublication

There is no dublication of the activities. This proposal therefore purely builds on the existing World Bank project.

4.6.6 Activities to strengthen health systems

Certain activities to strengthen health systems may be necessary in order for the proposal to be successful and to initiate additional HIV/AIDS, tuberculosis, and/or malaria interventions. Similarly, such activities may be necessary to achieve and sustain scale-up.

Applicants should apply for funding in respect of such activities by integrating these within the specific disease component(s). Applicants who have identified in section 4.4.4 health system constraints to achieving and sustaining scale-up of HIV/AIDS, tuberculosis and/or malaria interventions, but do not presently have adequate means to fully address these constraints, are encouraged to complete this section. For more information, please refer to the Guidelines for Proposals, section 4.6.6.

a) Describe which health systems strengthening activities are included in the proposal, and how they are linked to the disease component. *(In order to demonstrate this link, applicants should relate proposed health systems interventions to disease specific goals and their impact indicators. See the Multi-Agency M&E Toolkit.)*

The following health systems strengthening (HSS) activities are included in the proposal and they are directly tied to delivery of HIV prevention services as well as monitoring the epidemic.

- Pre-service training of Health Assistants (HA) and General Nurse Midwives (GNMs) in HIV/AIDS prevention (BCC, testing and counseling, STI and condoms), HIV/AIDS treatment, care & support, patient safety including blood safety, safe injections, waste management and other areas related to healthcare associated infections.
- Training of BHU staff in HIV testing and counseling, youth friendly health services, and data management
- Training of military health unit staff in HIV testing and counseling
- Short term overseas training of Royal Institute of Social Sciences (RIHS) faculty in advanced communication skills and counseling.
- Short term overseas training of regional laboratory technicians in performing ELISA and quality control
- Strengthening of the M&E capacity of the MoH: Long term overseas training of an epidemiologist within the NACP and the hiring of two data entry operators will lead to prompt data analysis and increased ability to undertake surveys and generate evidence base for HIV activities
- Developing a pool of human resources in the MoH who can be called upon for assistance in technical areas such as BCC, testing & counseling, STI diagnosis and treatment, ART and surveillance

b) Explain why the proposed health systems strengthening activities are necessary to improve coverage to reduce the impact and spread of the disease and sustain interventions. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.6.)*

Bhutan is situated in one of the world's most rugged and mountainous regions with scattered and remote settlements and many parts of the country being inaccessible. Most of the healthcare infrastructure development in Bhutan only took place as of the early 1980s. One of the major constraints it faces is a shortage in qualified human resources. Bhutan's Royal Institute of Health Sciences (RIHS) only has the capacity to train paramedical and allied health workers and technicians. All other professional staff

including medical doctors, nurses (beyond the most basic level), laboratory technologists and pharmacists, must be trained outside the country.

While the HIV epidemic in Bhutan is a low level epidemic it is widespread reaching 15 out of the 20 districts and a wide range of occupational groups from farmers to business men. In order to increase coverage of the rural populations with HIV/AIDS prevention services, it is essential to train the health staff in the extensive network of BHUs, supplemented by village health workers.

The capacity of the MoH in M & E is particularly weak. There is only one professionally trained epidemiologist in the entire country and no data entry operators. This capacity is essential in order to monitor and evaluate the national HIV/AIDS as well as the TB and Malaria programmes.

c) Describe how activities to strengthen health systems, integrated within this component, will have positive system-wide effects and how it is designed in compliance with the surrounding context and aligned with government policies.

These activities are in line with the MoH's policies and plans to:

- Develop human resources
- Strengthen regional reference laboratories
- Strengthen M&E and reporting within the context of the national HIMS
- Improve overall quality of health services
- Sustain the financing of essential medicines and vaccines
- Continue to increase coverage beyond 90% current coverage
- Continue to pursue a progressive policy of decentralization

d) Are there cross-cutting health systems strengthening activities integrated within this component that will benefit any other component included in this proposal?	☒ Yes ➔ *complete e) and f)* ☐ No ➔ *go to g)*

e) If you answered yes for d), describe these activities and the associated budgets and identify and explain how the other components will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*

Cross-cutting HSS activities integrated within the HIV/AIDS component include:

- Monitoring and evaluation: The M&E capacity of the MoH will be strengthened down to the BHU level through the HIV/AIDS component but will benefit all three programmes. Hiring of an in country HIV M&E consultant in the research unit of the MoH will provide cross-consultation to other programmes. Additional data entry operators will help in prompt data entry and analysis of HMIS data. Long term and short term capacity building of staff in epidemiology will benefit all programmes. In-country course in programme monitoring, basic research and epidemiology of district and national level health officers will lead to strengthening of overall skills in programme monitoring not only for HIV but also for other health programmes. .

- Strengthened reporting: Training of DHOs and health workers in data reporting will have cross-cutting benefits.

- Human resources development in the formal and informal school system: The faculty will learn student-centered, participatory and experiential techniques as they are trained in the life-skills approach to HIV/AIDS education.

- Human resources development at the Royal Institute of Health Sciences (RIHS): revision of curriculum for pre-service training will greatly improve the overall quality of health services. The faculty's capacity to develop curricula will be enhanced. In addition, the faculty of the RIHS will

receive advanced training in communication and counseling skills. These BCC skills are relevant to all three diseases.

- Laboratory capacity: Laboratory capacity will be strengthening both in terms of equipment (two ELISA readers and one CD4 counter) as well as in skills (laboratory technicians will be trained to use the ELISA readers as well as on quality assurance. Both equipment and skills are cross-cutting.

- Financing essential medicines and vaccines: All three programmes will contribute separately to the Bhutan Health Trust Fund which was established to ensure continued and timely supply of essential medicines and vaccines and minimize uncertainties in the financing of these crucial components. Contributions in the HIV/AIDS component will go toward the purchase of ARV and OI drugs.

f) If you answered yes for d), confirm that funding for these activities has not also been requested within the other component. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*

Funding for these activities has not also been requested within either the TB or Malaria components of this proposal.

g) Is this component reliant on any cross-cutting health systems strengthening activities that have been included within other components of this proposal?	☐ Yes ➔ *complete h)*
	☒ No ➔ *go to 4.6.7.*

h) If you answered yes for g), describe these activities and the associated budgets and identify and explain how this component will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*

Not applicable

4.6.7 Common funding mechanisms

This section seeks information on funding requested in this proposal that is intended to be contributed through a common funding mechanism (such as Sector-Wide Approaches (SWAp), or pooled funding (whether at a national, sub-national or sector level).

a) Is part or all of the funding requested for the disease component intended to be contributed through a common funding mechanism?	☐ Yes ➔ *answer questions below.*
	☒ No ➔ *go to 4.8*

b) Indicate in respect of each year for which funds are requested the amount to be funded through a common funding mechanism.

Not applicable

c) Describe the common funding mechanism, whether it is already operational and the way it functions. Identify development partners who are part of the common funding mechanism. Please also provide documents that describe the functioning of the mechanism as an annex. *(This may include: The agreement between contributing parties; joint Monitoring and Evaluation procedures, management details, joint review and accountability procedures, etc.)*

Not applicable

d) Describe the process of oversight for the common funding mechanism and how the CCM will participate in this process.

e) Provide an assessment of the incremental impact on projected targets as a consequence of the funds being requested for this component, which are to be contributed through the common funding mechanism.

f) Explain the process by which the applicant will ensure that funds requested in this application, that are contributed to a common finding mechanism, will be used specifically as proposed in this application.

4.6.8 Target groups

Provide a description of the target groups, and their inclusion during planning, implementation and evaluation of the proposal. Describe the impact that the program will have on these group(s).

Apart from addressing the needs of most-at-risk population (MSM, IDU and sex workers), this proposal targets vulnerable populations including youth, army personnel, religious bodies, and truck drivers.

Currently in Bhutan, the participation of PLHA and other target groups such as youth, army, IDUs, sex workers in prevention programmes is low. An important objective of this proposal will be to proactively engage the target groups not only in implementation but also in the planning and evaluation of the proposed HIV prevention activities.

Implementation

Young people - girls and boys, in and out of schools - will be encouraged to engage in local community responses. Through the NFEs, the out-of school youth will be provided the knowledge and the means to conduct youth-to-youth peer interventions in their blocks/villages. Local community organisations will be developed and assisted to build their capacity to lead local responses to the HIV epidemic. REWA, an NGO comprising of ex-IDUs will be an important agency for implementing peer-outreach programmes for the other IDUs. Similarly, sex workers and MSM will be involved in reaching out to their peers. Faith based organisations will be engaged to promote understanding and thus building their capacity both are educators and as end users of the information. The women volunteers in the RBP will be trained and involved in peer-education among the families of the police.

Planning and evaluation

Periodic review meetings will be held with the target groups to discuss issues and constraints related to proposal activities; based on the feedback, joint planning will be done for the future implementation of acitivies. The youth and other target groups will also be involved in the adaptation of the KAP surveys conducted at baseline, mid-project and at the end of the project.

Impact

The impact of involving the target groups will include: improved understanding and capacity about HIV and AIDS, improved self-esteem, and increased ability to adopt safe behaviors—all this is likely to lead to reduced HIV transmission in the target groups.

4.6.9 Social stratification

Provide estimates of how many of those expected to be reached are women, how many are youth, how many are living in rural areas and other relevant categories. The estimates must be based on a serious assessment of each objective.

Table 4.6.9 Social stratification

	Estimated number and percentage of people reached who are:			
	Women	Youth (<18)	Living in rural areas	Other*
Life-skill based HIV/AIDS education for in-school youths	45%	100%	70%	
Life-skill based HIV/AIDS education for out-of-school youths	70%	90%	70%	
Reaching Youth through the private sector via Night clubs and Entertainment zones	35%	30%	10%	
Youth friendly Health Services	60%	60%	40%	
Military personnel and families	40%	5%	50%	
Religious leaders and monks	0%	40%	70%	
Transport workers	0%	10%	20%	
IDUs	5%	40%	5%	
Sex workers	100%	30%	?	

* *"Other" to include target groups according to country setting, e.g. indigenous populations, ethnic groups, underprivileged regions, socio-economic status, etc. Targets should be defined according to country disease programs.*

4.6.10 Gender issues

Describe gender and other social inequities regarding program implementation and access to the services to be delivered and how this proposal will contribute to minimizing these gender inequities.

The proposal has taken into consideration the possible gender inequities where access to prevention services to women in particular is to be covered. The school drop out rates among the females is higher after the high school education. In the age group of young people from 15 – 24 years, in school both the sexes will be almost equally reached through the life skill based HIV/AIDS education. The youths out of school will also be reached without substantial disparity through the non-formal education centers where the majority of the learners are females. Almost equal proportion of girls and boy are enrolled in the vocation institutes. Even through the prevention program in military personnels it is designed to reach male troops and their female counterparts. Women association in the Royal Bhutan Police will carry out peer education programs among the women in families. It is also hoped that behavior change communication that are targeted to men population among the transport workers, IDU, and involvement of men audiences will make them more responsible and protect their female partners from HIV or STIs or other unwanted pregnancies.

The only services that are targeted primarily to men are in the faith based organization because of the nature of the institutions where only men are enrolled. However, the main role of the monks will be reaching out to general population with the messages and help strengthen care and support through mitigating stigma and discrimination.

4.6.11 Stigma and discrimination

Describe how this component will contribute to reducing stigma and discrimination against people living with HIV/AIDS, tuberculosis and/or malaria, as applicable, and other types of stigma and discrimination that facilitate the spread of these diseases.

Although the proposal has not spelt out reducing stigma and discrimination as the primary objective, yet it is an integral part of the each activity of the proposal. As stated in the epidemiology description afore mentioned section, there is high stigma and discrimination related to HIV in Bhutan.

The expansion of the VCT services will help clients understand the issue of HIV/AIDS better. After instituting two additional free standing VCT (HISC) a lot of vulnerable population groups will use the services for counseling and testing. The treatment services are freely available has already made a change in the perception of HIV not being a death sentence. The sustaining the treatment services are proposed in this proposal. The behavior change component among the population at risk will be also a key strategy for reducing stigma and discrimination. The greater involvement of people living with HIV/AIDS is expected to grow as the funding opportunities are available under the civil society and the NGO sector. Their participation will be given a greater priority over the inclusion of other groups. The institutionalizing of the life skill based HIV/AIDS education reaching the youths and out of school youths will have a great impact of generating understanding on HIV/AIDS and the youths who are powerful agents of change is expected to take up peer education programs. The involvement of monks will enhance normalizing HIV/AIDS and strengthening care and providing morale support for the infected and the affected families.

4.6.12 Equity

Describe how principles of equity will be ensured in the selection of patients to access services, particularly if the proposal includes services that will only reach a proportion of the population in need (e.g., some antiretroviral therapy programs).

In Bhutan health care services are offered free of cost to everyone. This proposal reiterates the guiding principle stated in the national strategic plan that HIV prevention, care, treatment and support services will be offered to all Bhutanese regardless of age, sex, or ethnicity or income status. Utmost priority and attention and resources will be given to initiatives which support vulnerable populations and people with

the greatest needs as a result of the impact of the epidemic. The Strategic Plan identifies vulnerable groups as including out-of-school children and young people, orphans and other vulnerable children, mobile populations and uniformed personnel, religious bodies and those living in remote areas, populations at highest risk people with multiple partners, clients of sex workers, and partners of people living with HIV. Injecting drug users, and sex workers are also emerging as important high risk groups in Bhutan and will be considered as priority groups.

All PLHA will be clinically monitored closely and all those requiring OIs or ARVs will be provided free drugs. By expanding VCT services upto the level of the BHUs, access to C&T will greatly increase even for those who live in remote rural areas.

4.6.13 Sustainability

Describe how the activities initiated and/or expanded by this proposal will be sustained at the end of the program term. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.13.)*

HIV/AIDS is a national public health priority and the Royal Government of Bhutan is highly committed to take the required actions to contain the epidemic. Consequently, the government will mobilize the required resources internally or externally to sustain the necessary interventions at the end of this proposal period.

The recurring costs proposed in this proposal are minimal. The costs to support salaries are minimal and could be borne by the government at the end of the project. To sustain free sustain supply of ARVs, OIs and the government has established the Bhutan Health Trust Fund. Thus, resources required to purchase drugs and test kits can be borne by the government in case support from other donors is not available.

Moreover, the proposal aims to mainstream (institutionalize) HIV into other sectors/agencies. For example, HIV training will be incorporated into the pre-service training curriculum of RIHS graduates, army personnel, religious bodies, secondary schools and nonformal education. This will greatly reduce the future costs of in-service training.

Finally, the activities proposed in the current proposal focus on capacity building of health systems and human resources both in the health and non-health sectors of the government and also in the non-governmental and private agencies. The capacity of the NAP will also be built by short-term and long term training of its staff—this is likely to reduce the dependency on external technical assistance after the end of the project period. One of the important objectives of this proposal is to build capacity of the NGOs and the private sector; it is expected that the NGOs and the private sectors will become important resources and partners to support the government in the future.

4.7 Principal Recipient information

In this section, applicants should describe their proposed implementation arrangements, including nominating Principal Recipient(s). See the Guidelines for Proposals, section 4.7, for more information. Where the applicant is a Regional Organization or a Non-CCM, the term 'Principal Recipient' should be read as implementing organization.

4.7.1 Principal Recipient information

Every component of your proposal can have one or several Principal Recipients. In table 4.7.1 below, you must nominate the Principal Recipient(s) proposed for this component.

Table 4.7.1: Nominated Principal Recipient(s

Indicate whether implementation will be managed through a single Principal Recipient or multiple Principal Recipients.	☒ Single
	☐ Multiple

4 Component Section *HIV/AIDS*

Responsibility for implementation			
Nominated Principal Recipient(s)	**Area of responsibility**	**Contact person**	**Address, telephone, fax numbers and e-mail address**
Department of Aid and Debt Management (DADM)	For all foreign and bilateral or multilateral agency contributions	Mr Sonam Wangchuk Director General	DADM, Ministry of Finance. Tel.+975-2-326775 swangchuk@mof.gov.bt

4.8 Program and financial management

4.8.1 Management approach

Describe the proposed approach of management with respect to planning, implementation and monitoring the program. Explain the rationale behind the proposed arrangements. *(Outline management arrangements, roles and responsibilities between partners, the nominated Principal Recipient(s) and the CCM. Maximum of half a page.)*

Currently, the National AIDS Programme is headed by a Programme Manager who, with the support of one Programme Officer, oversees all HIV control activities in the country. The NAP is currently assisted by a Project Management Team (PMT) to oversee planning, implementation and monitoring of the WB project activities.

For the management of GFATM Round 6 activities, staff will be added to the current PMT to serve as the Secretariat of the PCM and report to the Chairman of the PCM. The current World Bank project Coordinator will be upgraded to Chief Coordinator to manage and coordinate both the GFATM and the World Bank projects. A new Project Coordinator will be recruited to specifically coordinate and manage the three disease components of the GFATM project. Two additional staff, a Finance Officer and a Secretary will also be hired to support the GFATM Project Coordinator.

Each of the existing Managers of the HIV/AIDS, TB and Malaria programmes will be responsible for the management and monitoring of GFATM activities under their respective programmes. In addition, each manager will work with the GFATM project management team and the M&E team within the Research Unit to prepare quarterly indicator progress reports and with the GFATM finance officer to prepare quarterly financial reports. Programme and financial reports from the three diseases will be compiled and reviewed by the GFATM Coordinator and submitted to the PCM through the Chair. These report will also go to the Department of Aid and Debt, the PR of the GFATM grant. With technical oversight from NAP, the PMT will also be responsible for managing the NGO small grants programme as well as activities to be implemented by Ministry of education, Armed forces, religious bodies and other partners as planned in the HIV/AIDS component.

Programme Management Team for HIV/AIDS/TB/Malaria

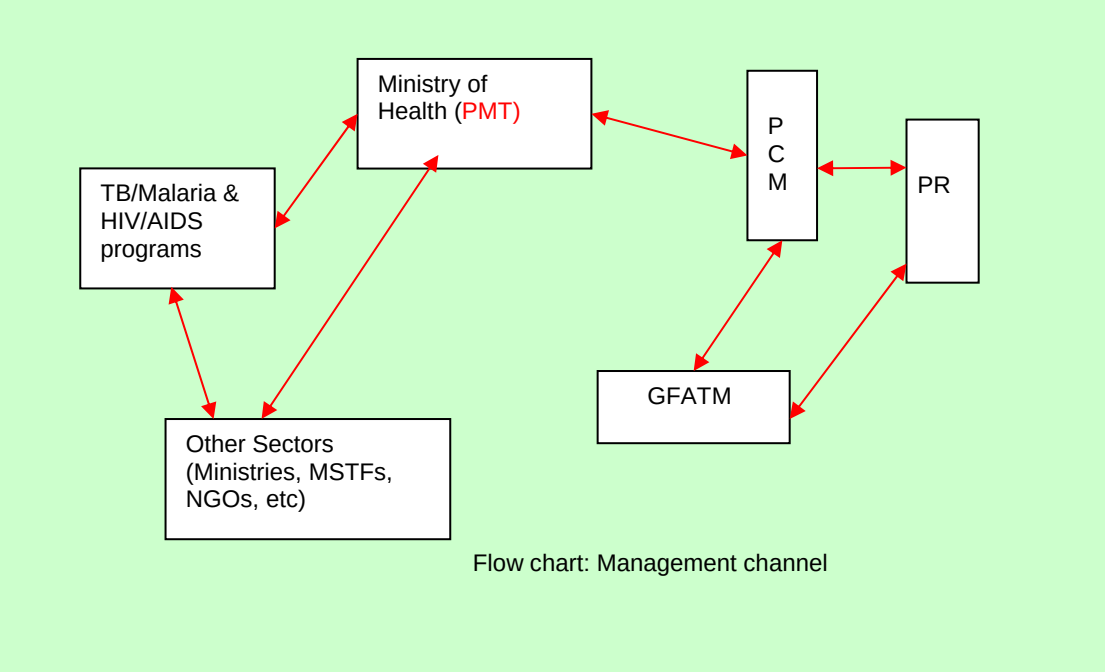
Within the PCM Secretariat):

- 1 Chief Programme Coordinator
- 1 GFATM Project Coordinator (salary in GFATM budget)
- 1 GFATM Finance Officer (salary in GFATM budget)
- 1 GFATM Secretary (salary in GFATM budget)

Within the 3 disease programmes:

- 3 Programme Managers/Technical Officers

4 Component Section *HIV/AIDS*



Flow chart: Management channel

Please note that if there are multiple Principal Recipients, section 4.8.2 below has to be repeated for each one.

4.8.2 Principal Recipient capacities

a) Describe the relevant technical, managerial and financial capacities for each nominated Principal Recipient. Please also discuss any anticipated shortcomings that these arrangements might have and how they will be addressed, please refer to any assessments of the PR(s) undertaken either for the Global Fund or other donors (e.g., capacity-building, staffing and training requirements, etc.).

The Department of Aid and Debt Management has already proven its experience in managing large amounts of external funds. It is ensuring smooth implementation of several types of programmes relevant to disease control, health and other sectors. The improving health-related indicators in the country show the positive impact of the successful utilization of funds allocated to this PR. However, given the need to ensure timely implementation and to meet the reporting requirements for smooth fund disbursements, additional administrative support is being requested for within the Ministry of Health.

b) Has the nominated Principal Recipient previously administered a Global Fund grant?	☒	Yes
	☐	No
c) Is the nominated PR currently implementing a large program funded by the Global Fund, or another donor?	☒	Yes
	☐	No

d) If you answered yes for b) or c), provide the total cost of the project and describe the performance of the nominated Principal Recipient in administering previous grants (Global Fund or other donor).

THE DADM is the principal recipient for the TB and Malaria program for the 4th Round GFATM. Not only does this PR implements for GFTAM but all the foreign, bilateral or multilateral agency contributions to the country is disbursed through the same PR. The managements are those that have been established between the Royal government of Bhutan and external donors for external assistance in the funding of Health services. They have been found to be satisfactory and constitute the only efficient way to release funds for health related activities throughout the country.

The PR has been very efficient in carrying out their responsibility as PR and the achievement in the year one of 4th round is about 80 %.

External resources comprise of 50% of the total government budget and DADM has the mandate to mobilize these resources. For e.g for the fiscal year 2004-2005 approximately USD 90 million excluding GFATM has been mobilized and successfully disbursed for different developmental activities.

Tentative 9th plan till 2008.External Resources (Updated 27.7.2005)

Sl.No.	Donor	9th plan Expected Commitment	Nu. In millions	% of Resource	Mobilized (Nu)	Balance (Nu)	Sectors	Remarks
1	Austria	ATS 150 m	450.00	1.29	380.70	69.30	Energy, Tourism, and Culture.	ATS 30 m per year excluding Basochhu. ATS 1=Nu. 3.
2	Denmark	DKK 318.75 m	1,848.75	5.29	2,852.09	- 1,003.34	Education, Urban, Health, Env. (Phasing out) and Good Governance & Media.	DKK 63.75 m per year. DKK 1= Nu. 5.8. Assuming a reduction of 15 % on the original projections of DKK 75 m due to recent Danish dev. Corp. policy changes.
3	India	Rs. 20,000 m	20,000.00	57.21	14,438.16	5,561.84	Programme Grant, Energy, Roads, Health, Education, HRD.	Requested Nu. 20,000 m (Rs. 10,000 m for projects and Rs. 10,000 m for programme grant).
4	Japan	USD 55 m	2,585.00	7.39	1,952.31	632.69	Bridges, Road Mechanization, Energy, KR II, BBS.	8th plan average.
5	The Netherlands	USD 15 m	705.00	2.02	1,048.69	- 343.69	Culture, RNR/ Biodiversity, Energy, Education and HRD.	USD 3 m per year.
6	Norway	USD 4 m	188.00	0.54	175.62	12.38	Energy, Environment.	Based on 8th plan projects.
7	Switzerland	SFr 40 m	1,000.00	2.86	1,130.61	- 130.61	RNR, Suspension Bridges, Education, Culture, HRD.	SFr 8 m per year. SFr 1=Nu. 25.
8	Canada				288.51	- 288.51	Education	
9	Australia				164.44	- 164.44	HRD, RNR	
	Total Bilateral		26,776.75	76.60	22,431.13	4,345.62		
1	EU	USD 8.38 m	393.86	1.13	984.25	- 590.39	Traditional Medicine & Livestock	USD 3.38 m for Medicinal Plant and approx. USD 5 m for Livestock & Pest Management projects.
2	UNDP	USD 8.5 m	399.50	1.14	377.99	21.51	Governance, Sustainable Livelihood and Envrionment.	9th Plan commitment
3	UNCDF	USD 2 m	94.00	0.27	45.50	48.50	Decentralization.	9th Plan commitment
4	UNICEF	USD 14 m	658.00	1.88	648.19	9.81	Health and Education.	Tentative 9th plan commitment.
5	UNFPA	USD 5 m	235.00	0.67	205.66	29.34		Tentative 9th plan commitment.
6	WFP	USD 22 m	1,034.00	2.96	938.85	95.15	Roads & Education.	Tentative 9th plan commitment.

7	WHO	USD 5.25 m	246.75	0.71	58.95	187.80	Health.	8th plan commitment
	Total Multilateral		3,061.11	8.76	3,259.40	- 198.29		
1	Asian Development Bank	USD 30 m	2,345.19	6.71	1,645.49	699.70	Urban Development, Rural Electrification, Transport Network.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
2	World Bank	USD 30 m	2,379.88	6.81	4,399.83	- 2,019.95	Education, Forestry, Roads, Financial Institutions and Private Sector Development.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
3	IFAD		291.94	0.84	279.53	12.41	RNR, Forestry.	Spillover provision.
4	Danida (Mixed Credit)				748.15	- 748.15		
	Total Financial Institutions		5,017.01	14.35	7,073.00	- 2,055.99		
	NGO & Others				1,118.03	- 1,118.03		
	Grand Total		34,854.87	99.71	33,881.56	973.31		

Note:

1 Minor/adhoc donors, NGO's not included as commitment not certain.

3 Exchange rate used USD 1=Nu. 45 for the planning purposes.

e) If you answered yes for b) or c), describe how the PR would be able to absorb the additional work and funds generated by this proposal.

The PR is a department in the ministry of finance dealing only with external AID from all sources. The PR has adequate technical, financial and managerial capabilities for absorbing this fund. The PR functions according to the rules and regulations laid down by the Royal Government of Bhutan. The responsibilities of the PR are as follows :

-External resource mobilization

-Negotiation of loans and grants with lenders and the development partners

-Recording receipt of all cash and kind assistance.

4.8.3 Sub-Recipient information

a) Are sub-recipients expected to play a role in the program?	☒ Yes ➔ *complete the rest of 4.8.3*
	☐ No ➔ *go to 4.9*
b) How many sub-recipients will or are expected to be involved in the implementation?	☒ 1 – 5
	☐ 6 – 20
	☐ 21 – 50
	☐ more then 50

c) Have the sub-recipients already been identified?	☒ Yes ➔ *complete 4.8.3. d) -e) and then go to 4.9* ☐ No ➔ *go to 4.8.3. f) – g)*

d) Describe the process by which sub-recipients were selected and the criteria that were applied in the selection process (e.g., open bid, restricted tender, etc.).

The Minstry of Health has been identified as the subrecipient during the 4th PCM. Following the decision to apply for the round six of the GFATM , an open invitation for call of interest and proposal development was floated in the print media(Bhutan Observer). Subsequent to this, the PCM organized a day long consultative meeting with the stakeholders represented from the Minsitries, Non Governemental organization sectors, Private sectors, Armed Forces, and representative of the Monastic body. The matter on subrecipent was discussed among the members. The meeting recommended to consider the Ministry of Health as subrecipient for propercoordination, implementation and good moniroting of the project. Following this, the 4th PCM meeting, endorsed the Ministry of Health as the subrecipient of the fund and that the rest of the stakeholders such as Minisrty of Education, Ministry of Labour and Employment, Armed Forces, etc , as the key implementing agencies. The subrecipent will facilitate the flow of fund to the agencies.

e) Where sub-recipients applied to the Coordinating Mechanism, but were not selected, provide the name and type of all organizations not selected, the proposed budget amount and reasons for non-selection in an annex to the proposal.

Not applicable

f) Describe why sub-recipients were not selected prior to submission of the proposal.

Not applicable

g) Describe the process that will be used to select sub-recipients if the proposal is approved, including the criteria that will be applied in the selection process.

Not applicable

4.9 Monitoring and evaluation

The Global Fund encourages the development of nationally owned monitoring and evaluation plans and monitoring and evaluation systems, and the use of these systems to report on grant program results. By completing the section below, applicants should clarify how and in what way monitoring the implementation of the grant relates to existing data-collection efforts.

4.9.1 Plans for monitoring and evaluation

Describe how the targets and activities indicated in the Targets and Indicator Table (attached as Attachment A to this proposal, see section 4.6) will be monitored and evaluated. Please identify any surveys to which this proposal is contributing.

Data will be collected from sources to generate the indicators listed in Attachment A.

1. Monthly HMIS form: The monthly HMIS form will be revised to include a list of HIV activities conducted in the jurisdiction of the health unit. These include awareness activities, VCT services and MSTF activities. Information collected from health facilities will be disaggregated by age (15-24 and above 25 years) and sex. The VCT data will be also be aggregated by group (STI patient, TB patients, IDU, sex workers) to assess HIV period prevalence over one year.

2. Baseline, post-intervention and end of the proposal KAP surveys will be conducted using a structured questionnaire to assess changes in knowledge, attitudes and practices of the in-school youth, out-of school youth, and uniformed personnel.
3. Bi-annual programme review meetings will be conducted and reports will be collected using structured formats from the private sector/CBOs.
4. Reports on in-school training of teachers and out-of-school (NFE) activities will be collected from the Ministry of education every quarter/six-monthly.
5. Standard data collection forms will be provided to all the NGOs and private sector organizations to report to the NAP. These agencies will be required to report on a quarterly basis.
6. The NAP and the HMIS and research unit in the MOH will be responsible for collating data from all agencies and preparing 6-monthly and annual activity reports.

In order to ensure timely collection, analysis and dissemination of information, the central unit of MOH is being proposed to be strengthened by hiring an M&E consultant as well as two data entry operators. In addition, a 3-week in-country training will be organised on programme monitoring, basic epidemiology and operational research.

4.9.2 Integration with national M&E Plan

Describe how performance measurement for this program is proposed to contribute to and/or strengthen the national Monitoring and Evaluation Plan for this component. If a national Monitoring and Evaluation strategy exists, please attach it as an annex to the proposal, and provide a summary of key linkages with the national Monitoring and Evaluation Plan and data collection methods.

The draft national strategic plan and M & E framework have been developed, and will be finalized by the end of the year, and accordingly a national M&E plan and document will be prepared. The indicators presented in this proposal are consistent with internationally recommended indicators for a low level epidemic. This proposal aims to strengthen the M&E capacity at the central level as well as capacity building of the Health Assistants and District Health Officers in data reporting and analysis. In addition, several baseline and post-intervention KAP surveys will be conducted in different target groups which will help in generating all the important behavioral indicators. Thus, this proposal will immensely contribute to the national M&E.

4.10 Procurement and supply management of health products

In this section, applicants should describe the management structure and systems currently in place for the procurement and supply management (PSM) of drugs and health products in the country. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.10.

4.10.1 Organizational structure for procurement and supply management

Briefly describe the organizational structure of the unit currently responsible for procurement and supply management of drugs and health products. Further indicate how it coordinates its activities with other entities such as National Drug Regulatory Authority (or quality assurance department), Ministry of Finance, Ministry of Health, distributors, etc.

The procurement of drugs and non-drugs supplies are based on the six Monthly Drug report and Annual Indent report submitted by the health centers. Based on the information from these reports quantification of the annual requirement is worked out for each and every medical supply for all the health centers. Based on the annual requirement budget requirement is prepared. After the annual budget is approved further quantification is done (increase/decrease the requirements) and the actual quantity for procurement is worked out. This is how the procurement plan for annual procurement of drugs and non-drugs supplies is developed.

Procurement systems

It is required that the open tender system is followed. But keeping in view that quality is the key to medical supplies and that it is very difficult to assess the quality and capacity of the supplier we have a system where we resort to tendering only with the registered suppliers. There are over 47 suppliers for drugs and about 30 suppliers for non-drug supplies who bid for the supplies annually. The list of suppliers is not fixed. As and when the new potential suppliers are identified, they are registered and are allowed to compete in the tendering process. The tenders are invited from the registered suppliers.
After the tenders are received, the Tender Evaluation Committee evaluates the tenders/ suppliers. Then the Tender selection Committee (Award Committee0 selects the suppliers/ supplies. Based on the decisions of the Tender Award Committee, the purchase orders are placed. As per the deadlines/ specifications/terms and conditions mentioned in the purchase order, the suppliers affect the delivery of the supplies.

Quality assurance and quality control

The quality checking for drugs is carried out in Bangkok with help of WHO laboratory. Since it is very expensive and that at times it is not possible to send all the drugs for testing, randomly sampled drugs are sent for testing. In case the drugs fail the quality test, that particular batch of drugs has to be either replaced or if the second lowest bidder is chosen. The cost difference is charged to the first bidder/defaulter.
For non-pharmaceuticals the physical quality checks are carried out by the users, Biomedical Engineering staff and the Medical Supplies Department (MSD) staff. The quality check is based on the samples specifications catalogues, past experiences, and so on. The quality-failed supplies are returned to the suppliers and replacement is sought if they are still within the deadline. If not, the order is cancelled and goes for the second lowest evaluated bid.

National laws

Apart from the National drug Policy, the 81st session of the National Assembly has passed the Medicines Act of the Kingdom of Bhutan last year. This is mainly to promote quality drugs in the country. In it there is a provision for formation of the National drug regulatory Authority, and setting up of drug testing laboratory in the country

Distribution and inventory management

Based on the quantification exercise, the distribution orders are prepared by the DVED. The distribution orders are then sent to Medical Supply Depot, Phuntsholing and from there the supplies are distributed to the health centers. Given the rugged terrain, and information technology is yet to develop, it is very difficult to monitor the inventory management. Nonetheless, frequent supervisory visits are made to health centers to ensure proper maintenance and use of medical supplies. A Medical Software Inventory Program is in the process of being developed and will be used in the coming fiscal year.

Appropriate use

Wastage of drugs is oriented to be seen as a criminal act. Therefore, all our users particularly Store in charges of health centers are frequently trained on rational use of drugs and good store management. The training on good store management is mainly imparted to improve inventory management in the health centers

4 Component Section *HIV/AIDS*

4.10.2 Procurement capacity

a) Will procurement and supply management of drugs and health products be carried out (or managed under a sub-contract) exclusively by the Principal Recipient or will sub-recipients also conduct procurement and supply management of these products?	☐ Principal Recipient only
	☒ Sub-recipients only
	☐ Both

b) For each organization involved in procurement, please provide the latest available annual data (in Euro/US$) of procurement of drugs and related medical supplies by that agency.

Drugs vaccines and Equipment Division of the Ministry of Health is the sole division responsible for the procurement drugs and medical supplies. The total budget for the years are as follows:

1. 2003-2004 was USD 166667 for the procurement of drugs and Medical supplies.
2. 2004-2005 was USD 1888889
3. 2005-2006 is USD 2144444

4.10.3 Coordination

a) For the organizations involved in section 4.10.2.b, indicate in percentage terms, relative to total value, the various sources of funding for procurement, such as national programs, multilateral and bilateral donors, etc

Royal Government of Bhutan= US $ 5233333 (82.3%), UNFPA = US $157,398(2.4%), UNICEF= US$ 10,000 (0.16%), GFATM=US$ 396001(0.62%).

b) Specify participation in any donation programs through which drugs or health products are currently being supplied (or have been applied for), including the Global Drug Facility for TB drugs and drug-donation programs of pharmaceutical companies, multilateral agencies and NGOs, relevant to this proposal.

None

4.10.4 Supply management (storage and distribution)

a) Has an organization already been nominated to provide the supply management function for this grant?	☒ Yes *➔ continue*
	☐ No *➔ go to 4.10.5*

b) Indicate, which types of organizations will be involved in the supply management of drugs and health products. If more than one of the boxes below is ticked, describe the relationships between these entities.	☒ National medical stores or equivalent
	☐ Sub-contracted national organization(s) *(specify which one(s))*
	☐ Sub-contracted international organization(s) *(specify which one(s))*

	☐ Other *(specify)*

c) Describe the organizations' current storage capacity for drugs and health products and indicate how the increased requirements will be managed.

The Drugs Vaccines and Equipment Division (DVED) under the Ministry of Health is solely responsible for the procurement of drugs and medical supplies for Bhutan. The procurement is done annually through the Global tendering system. All supplies are received by the Medical Supplies Depot, which is located in Phuntsholing.Also those supplies recived by flight cargo are stored in DVED store in Thimphu. At present the existing warehouse facilities are partially utilized and at least 2 to 3 times more supplies can be safely stored in the existing space in the main warehouse and a similar position is in the districts. No additional arrangements are required

d) Describe the organizations' current distribution capacity for drugs and health products and indicate how the increased coverage will be managed. In addition, provide an indicative estimate of the percentage of the country and/or population covered in this proposal.

Distribution and inventory management

Based on the quantification exercise, the distribution orders are prepared by the DVED. The distribution orders are then sent to Medical Supply Depot, Phuntsholing and from there the supplies are distributed to the health centers. Frequent supervisory visits are made to health centers to ensure proper maintenance and use of medical supplies. A Medical Software Inventory Program is in the process of being developed and will be used in the coming fiscal year. Hospitals and other health facilities are equipped with refrigerators to store items, which require cold storage. With the construction of the Regional Hospitals, the buffer storage facilities will be managed through the regional stores. At present three hospital are under construction which have storage facilities. Under the world Bank project for HIV/AIDS, the computerization of the inventory system and procurement system has been initiated and will be completed by the end of 2006.

[For tuberculosis and HIVAIDS components only:]

4.10.5 Multi-drug-resistant TB

Does the proposal request funding for the treatment of multi-drug-resistant TB?	☐ Yes
	☒ No

If yes, please note that all procurement of medicines to treat multi-drug-resistant tuberculosis financed by the Global Fund must be conducted through the Green Light Committee (GLC) of the Stop TB Partnership. Proposals must therefore indicate whether a successful application to the Committee has already been made or is in progress. For more information, please refer to the GLC website, at http://www.who.int/tb/dots/dotsplus/management/en/. Also see the Guidelines for Proposals, section 4.10.5.

4 Component Section *HIV/AIDS*

4.11 Technical and Management Assistance and Capacity-Building

Technical assistance and capacity-building can be requested for all stages of the program cycle, from the time of approval onwards, including in respect of , development of M&E or Procurement Plans, enhancing management or financial skills etc. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.11.

4.11.1 Capacity building

Describe capacity constraints that will be faced in implementing this proposal and the strategies that are planned to address these constraints. This description should outline the current gaps as well as the strategies that will be used to overcome these to further develop national capacity, capacity of principal recipients and sub-recipients, as well as any target group. Please ensure that these activities are included in the detailed budget.

HIV/AIDS implementation has a special challenge because of the broad based multisectoral approach with many stakeholders responsible for implementing major activities. However, where capacities are insufficient, special activities for capacity building have been included in this proposal. Therefore, execution of the activities will not be hindered. Some of the activities have been planned from the second and the third year so as not to exceed the managerial and coordinating capacity of the relevant levels.

Objective 2 of the proposal focuses on increasing the national capacity to plan, implement, coordinate, monitor and evaluate HIV/AIDS programmes. This includes strengthening the national monitoring and evaluation plan and system for HIV/AIDS and the management and technical capacity of the NAP. The latter includes

- Staffing up the Project Management Team which will serve as a Secretariat to the PCM as described in Section 4.8.1 (Management approach).
- Developing a technical pool of human resources in the country for key technical areas such as BCC, counselling and testing, STI, ART and surveillance
- Mobilizing financial resources to hire contractual staff
- Mobilizing short-term targeted technical assistance as needed

Objective 2 also includes building the capacity of civil the NGO sector as partners in the national HIV/AIDS response. This will be done through an innovative grants programme that includes a series of capacity building workshops that are described in Section 4.6.1 under SDA 2.4.

Arrangements between the PR, sub-PR and the other chief implementers are streamlined through the guidance of the Partnership Coordination Mechanism (PCM). Respective organizations will assign responsible units for coordination and implementation. Focal coordinators have been identified in the Ministry of Labour, Ministry of Education, Bhutan Chamber of Commerce and Industry (BCCI), and the Commission for the Central Monastic Body.

4.11.2 Technical and management assistance

Describe any needs for technical assistance, including assistance to enhance management capabilities. (*Please note that technical and management assistance should be quantified and reflected in the component budget section, section 5.6)*

Technical assistance: Due to limited human resource capacity at this stage, there is immense need for technical assistance for planning, implementing the HIV programme in general, and for this proposal in particular. The need for technical assistance will be more pronounced in the first two years of the proposal when the interventions are in the developmental stage. Once the interventions have been developed, and additional human resources are available through short term and long term capacity building programmes in the first two years, it is expected that most of the activities will be undertaken by staff in-country. In the

first two years, technical inputs and assistance proposed are :

- External technical assistance for curriculum development for schools, Institute of Health Sciences
- Local technical assistance for the curriculum and material development for non-formal education and vocational institutes, and for the monasteries.
- Adaptation of the guidelines for youth friendly health services
- Development of targeted interventions for the most at risk population
- Technical assistance for the NGO capacity building.
- Technical assistance for strengthening monitoring and evaluation of the program

Management assistance: For effective coordination and proper fund management, the Ministry of Health as the sub recipient shall establish a Project Management Team (PMT)for the GFATM project for all three programs. A project officer, a finance officer, and a secretary will be recruited to enhance the efficient management of the funds and facilitate implementation.

(PMT is described in 4.8.1)

5 Component Budget *HIV/AIDS*

PLEASE NOTE THAT THIS SECTION IS TO BE COMPLETED FOR EACH COMPONENT.

In this section, applicants will need to provide summary budget information for the proposed duration of the component. Applicants are also required to provide a more detailed budget as an annex to the proposal. For more information on budget requirements, please refer to the Guidelines for Proposals, section 5.

If part or all of the funding requested for this component is to be contributed through a common funding mechanism (consistent with section 4.6.7), **applicants should provide:**

- Compile the Budget information in sections 5.1 – 5.6 on the basis of the anticipated use, attribution or allocation of the requested funds within the common funding mechanism; and
- Provide, as an annex, the available annual operational plans/projections for the common funding mechanism and explain the link between that plan and this funding request.

5 Component Budget *HIV/AIDS*

5.1 Component budget summary

Insert budget information for this component broken down by year and budget category, in table 5.1 below.
(The "Total funds requested from the Global Fund" should be consistent with the amounts entered in table 1.2 relating to this component.)

The budget categories and allowable expenses within each category are defined in the Guidelines for Proposal, section 5.1. The total requested for each year, and for the program as a whole, must be consistent with the totals provided in sections 5.1.

Table 5.1 – Funds requested from the Global Fund

	Funds requested from the Global Fund (in Euro/US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Human resources	162,200	101,300	55,200	55,200	55,200	429100
Infrastructure and equipment	104,500	388,500	92,000	68,000	20,000	673000
Training	307,500	247,400	191,000	293,400	198,000	1237300
Commodities and products	15,000	30,000	37,500	37,500	45,000	165000
Drugs	40,000	40,000	40,000	40,000	40,000	200000
Planning and administration	238,425	138,000	177,750	155,500	182,250	891925
Total funds requested from Global Fund	**867,625**	**945,200**	**593,450**	**649,600**	**540,450**	**3,596,325**

5 Component Budget *HIV/AIDS*

5.2 Detailed Component Budget

The Component Budget Summary (section 5.1) must be accompanied by a more detailed budget covering the proposal period, attached as an annex to the proposal. The detailed budget should also be integrated with the Work Plan referred to in section 4.6.

The Detailed Component Budget *should meet the following criteria (Please refer to the Guidelines for Proposals, section 5.2):*

b) It should be ***structured along the same lines as the Component Strategy****—i.e., reflect the same goals, objectives, service delivery areas and activities.*

c) It should cover the term of the proposal period and should:
- *i) be* ***detailed for year 1 and year 2*** *of the proposal term, with information broken down by* ***quarters for the first year****;*
- *ii) provide summarized information and assumptions for the balance of the proposal period (****year 3 through to conclusion of proposal term****).*

d) It should state all key assumptions, including those relating to ***units and unit costs****, and should be consistent with the assumptions and explanations included in section 5.3.*

e) It should be integrated with the detailed ***Work Plan*** *for year 1 and indicative Work Plan for year 2 (please refer to section 4.6).*

f) It should be ***consistent*** *with other budget analyses provided elsewhere in the proposal, including those in this section 5.*

5.3 Key budget assumptions

Without limiting the information required under section 5.2, please indicate budget assumptions for year 1 and year 2 in relation to the following:

5.3.1 Drugs, commodities and products

Please use Attachment B (Preliminary Procurement List of Drugs and Health Products) in order to compile the budget request for years 1 and 2 in respect of drugs, commodities and health products. Please note that unit costs and volumes must be fully consistent with the information reflected in the detailed budget. If prices from sources other than those specified below are used, a rationale must be included.

a) Provide a list of anti-retroviral (ARVs), anti-tuberculosis and anti-malarial drugs to be used in the proposed program, together with average cost per person per year or average cost per treatment course. *(Please complete table B.1 in Attachment B to the Proposal Form.)*

b) Provide the total cost of drugs by therapeutic category for all other drugs to be used in the program. It is not necessary to itemize each product in the category. *(Please complete table B.2 in Attachment B to the Proposal Form.)*

c) Provide a list of commodities and products by main categories e.g., bed nets, condoms, diagnostics, hospital and medical supplies, medical equipment. Include total costs, where appropriate unit costs. *(Please complete table B.3 in Attachment B to the Proposal Form.)*

(For example: Sources and Prices of Selected Drugs and Diagnostics for People Living with HIV/AIDS. Copenhagen/Geneva, UNAIDS/UNICEF/WHO-HTP/MSF, June 2003, (http://www.who.int/medicines/organization/par/ipc/sources-prices.pdf); Market News Service, *Pharmaceutical Starting Materials and Essential Drugs*, WTO/UNCTAD/International Trade Centre and WHO (http://www.intracen.org/mns/pharma.html); *International Drug Price Indicator Guide on Finished Products of Essential Drugs,* Management Sciences for Health in Collaboration with WHO (published annually) (http://www.msh.org*); First-line tuberculosis drugs, formulations and prices currently supplied/to be supplied by Global Drug Facility (*http://www.stoptb.org/GDF/drugsupply/drugs.available.html*).)*

The antiretroviral drugs, OI drugs, vacutainers, needles, and rapid test kits are provided in Attachment B

5.3.2 Human resources costs

In cases where human resources represent an important share of the budget, explain how these amounts have been budgeted in respect of the first two years, to what extent human resources spending will strengthen health systems' capacity at the patient/target population level, and how these salaries will be sustained after the proposal period is over. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

Human resource constraint in Bhutan is a key challenge across the whole health system. A realistic plan for the human recourse has been designed aimed mainly at enhancing the implementation capacity of this proposal but at the same time with the view to building the long term capacity.

Financial allocation for human resource development in the proposal makes up about USD 429 100 (12%) of the budget over the five year period of the project. Out of these, USD 263500 will be used in the first two years of the Project. Money will be used for the following areas of the human recourse:

Salary for the staffs

- 2 counselors for hotline service,
- 2 data entry operators for the assisting the M and E section.
- One M and E consultant
- PMT team(Project officer, Finance accountant, Secretary):

Short term training:

- 2 laboratory technicians,
- 2 teaching faculties of the RIHS for three month training course

Long term training:

- One Master's training program in epidemiology in US for two years

The data entry operators will be recruited as a permanent employee of the Minsitry of Health at the end of the project. During the course of the project, a national counterpart will be identified with the M and E team, who will undergo on site training with the consultant. The PMT team will be integrated with the existing world bank project, and the current Project coordinaor for the world Bank project who is a full time employee of the Ministry of Health will take over the responsibilities.

Training will assit in the overall human capacity development including training of an epidemiologist who will be working for the National AIDS Program after the completion of the training.

5.3.3 Other key expenditure items

Explain how other expenditure categories (e.g., infrastructure, equipment), which form an important share of the budget, have been budgeted for the first two years. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

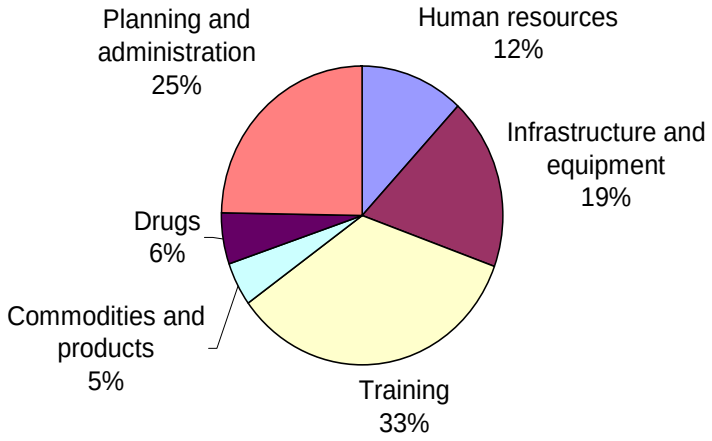
The other significant components of the budget include infrastructure, training and planning and administration"

- Infrastructure costs account for 19% of the total budget. This category includes the costs of 2 sets of Elisa readers with accessories and a CD4 counter for a total cost of USD$300,000 at two regional laboratories. These are needed for quality assurance to support scale-up counseling and testing services. This category also includes the costs of audio-visual teaching aids needed to conduct in-school life-skills-based education.
- Training costs account for 33% of the total budget. These costs combine training of health workers, teachers, religious bodies, army, police and NGOs and private sector staff. Training is

budgeted by the number of participants in the course and includes their per diems, travel and refreshments.

The planning and administration constitutes 25% of the total budget and includes the cost of M&E surveys, planning meetings, short term technical assistance and other administrative costs.

Budget by cost categories, Bhutan, GFATM R6



5 Component Budget *HIV/AIDS*

5.4 Breakdown by service delivery area

Please provide an approximate allocation of the annual budget for each service delivery area (SDA). The objectives and service delivery areas listed should resemble those in the Targets and Indicators Table (Attachment A to the Proposal Form). It is anticipated that this allocation of the budget across SDAs should be derived from the detailed component budget (see section 5.2).

Table 5.4: Estimated budget allocation by service delivery area and objective.

		Budget allocation per SDA (in Euro/US$)					
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Tot**
1.Scaling up Prevention services targeting vulnerable population sub-groups	**SDA 1.1: Providing life-skills-based HIV/AIDS education to over 90,000 youths in 140 schools(grade 7 and above)**	61,125	86,000	137,000	78,000	125,000	48
	SDA 1.2: Providing life-skills-based HIV/AIDS education to over 17,000 out-of school youth through Non-formal education centers, vocational schools and Youth employment counter at the Deparment of Employment.	121,500	139,400	133,000	135,000	88,000	61
	SDA 1.3: Reaching youth through the private sector in 8 towns via 200 hotels, night clubs and entertainment zones.	52,500	27,500	27,500	27,500	27,500	16
	SDA 1.4: Establishing youth-friendly health services in 30 district level hospitals and a hotline in Thimphu.	36,600	14,600	16,100	19,600	14,600	10
	SDA 1.5: Intensifying HIV prevention among 25,000 persons in the armed forces including their families.	84,500	37,500	52,000	40,000	55,000	26
	SDA 1.6: Increasing participation for HIV prevention by 7000 religious leaders and monks through Bhuddhist institutions.	30,500	13,500	26,000	11,000	11,000	9

5 Component Budget *HIV/AIDS*

		Budget allocation per SDA (in Euro/US$)					
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Tot**
	SDA 1.7: Providing a package of prevention services for sex workers, transport workers and substance users through non-government sector.	10,000	55,000	20,000	65,000	30,000	18
	SDA 1.8: Expanding testing and counselling services to 2 additional VCT centers, 176 BHUs and 16 army units.	150,000	415,100	57,500	155,900	65,000	84
2.Increasing the National capacity to plan, implement, coordinate, monitor and evaluate HIV/AIDS programs	**SDA 2.1: Strengthening STI/HIV/AIDS pre-service training and continuous education at the Royal Institute of Health Sciences.**	50,000	0	0	0	0	5
	SDA 2.2: Strengthening national M&E plan and system for HIV/AIDS	178,000	96,200	57,200	57,200	57,200	44
	SDA 2.3: Strengthening the management and technical capacity of the NACP	24,400	14,400	21,150	14,400	21,150	9
	SDA 2.4: Building the capacity of non-govermental sectors as partner in the national HIV/AIDS response	28,500	6,000	6,000	6,000	6,000	5
3. Ensure continued supply of ARV and OI drugs to sustain treatment and care of the PLHA.	**SDA 3.1:Sustaining the financing of ARVs and OI drugs through the Bhutan Health Trust fund**	40,000	40,000	40,000	40,000	40,000	20
Total:		**867,625**	**945,200**	**593,450**	**649,600**	**540,450**	**3,59**

5 Component Budget *HIV/AIDS*

5.5 Breakdown by implementing entities

Indicate in table 5.5 below how the resources requested in table 5.1 will, in percentage terms, be allocated among the following categories of implementing entities.

Table 5.5 – Allocations by implementing entities

	Fund allocation to implementing partners (in percentages)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Academic/educational sector	191,625	142,400	187,000	145,000	145,000	811,025
Government	563,000	679,800	265,950	374,100	259,950	2,142,800
Nongovernmental / community-based org./PLHA	30,000	82,000	87,000	92,000	97,000	388,000
Private sector	52,500	27,500	27,500	27,500	27,500	162,500
Religious/faith-based organizations	30,500	13,500	26,000	11,000	11,000	92,000
Total	**867,625**	**945,200**	**593,450**	**649,600**	**540,450**	**3,596,325**

5.6 Budgeted funding for specific functional areas

The Global Fund is interested in knowing the funding being requested for the following three important functional areas—monitoring and evaluation; procurement and supply management; and technical and management assistance. Applicants are required in this section to separately identify the costs relating to these functional areas. In each case, these costs should already be included in table 5.1. Therefore, the tables below should be subsets of the budget in table 5.1., rather than being additional to it. For example, the costs for monitoring and evaluation may be included within some of the line items in table 5.1 above (e.g., human resources, infrastructure and equipment, training, etc.).

Table 5.6 – Budgets for specific functional areas

	Funds requested from the Global Fund (in Euro/US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Monitoring and Evaluation	227,200	103,700	127,200	67,200	122,200	647,500
Procurement and Supply Management	0	0	0	0	0	0
Technical and Management Assistance	97,500	40,000	36,750	40,000	36,750	251,000

5 Component Budget *HIV/AIDS*

Monitoring and Evaluation: *This includes: data collection, analysis, travel, field supervision visits, systems and software, consultant and human resources costs and any other costs associated with monitoring and evaluation.*

Procurement and Supply Management: *This includes: consultant and human resources costs (including any technical assistance required for the development of the Procurement and Supply Management Plan), warehouse and office facilities, transportation and other logistics requirements, legal expertise, costs for quality assurance (including laboratory testing of samples), and any other costs associated with acquiring sufficient health products of assured quality, procured at the lowest price and in accordance with national laws and international agreements to the end user in a reliable and timely fashion. Do not include drug costs, as these costs should be included in section 5.3.1.*

Technical and Management Assistance: *This includes: costs of consultant and other human resources that provide technical and management assistance on any part of the proposal—from the development of initial plans, through the course of implementation. This should include technical assistance costs related to planning, technical aspects of implementation, management, monitoring and evaluation and procurement and supply management.*

The table below provides a list of the various annexes that should be attached to the proposal. Please complete this checklist to ensure that everything has been included. Please also indicate the applicable annex numbers on the right hand side of the table.

Section 4 (Component specific): Component Strategy		
4.4.1	Documentation relevant to the national disease program context, as indicated in section 4.4.1.	Annexure 1 Bhutan National HIV/AIDS Strategic and M&E plan(2006-2012)(Draft)
4.6	**A completed Targets and Indicators Table**	Attachment A to the Proposal Form
4.6	**A detailed component Work Plan** (quarterly information for the first year and indicative information for the second year).	Annexure 2
4.6.7 c) *(if common funding mechanism)*	Documentation describing the functioning of the common funding mechanism.	Not applicable
4.8.3 e) *(where SRs applied but were not selected)*	Name and type of all Sub-Recipients not selected, the proposed budget amount and the reasons for non-selection.	Not applicable
4.9.2	National Monitoring and Evaluation strategy (if exists)	Included in Annexure (1)
Section 5 (Component specific): Component Budget		
5.2	**Detailed component Budget**	Annexure 3 5.1 attached and detail budget with work plan(HIV/AIDS)
5.3.1	Preliminary Procurement List of Drugs and Health Products (tables B1 – B3)	Attachment B to the Proposal Form

5 Component Budget *HIV/AIDS*

5.3.2	Human resources costs (Summary table)	Annexure 4
5.3.3	Other key expenditure items.	Refer annexure 4
5.1 – 5.6 *(if common funding mechanism)*	Available annual operational plans/projections for the common funding mechanism, and an explanation of any link to the proposal.	Not applicable
Other documents relevant to sections 4-5 attached by applicant:		
1.	Operational Manual for World Bank Project	Annexure 5
2.	Survey Report of KABP on HIV/AIDS among University graduates of 2005	Annexure 6
3.	Study report on risk and vulnerability of Layap community	Annexure 7
4.	Study report on PLHA in Bhutan	Annexure 8
5.	Assessment of risk and vulnerability to STIs and HIV/AIDS in Bhutan	Annexure 9

4 Component Section Tuberculosis

PLEASE NOTE THAT THIS SECTION AND THE NEXT MUST BE COMPLETED FOR EACH COMPONENT. *Thus, for example, if the proposal targets three components, sections 4 and 5 must be completed three times.*

For more information on the requirements of this section, please refer to the Guidelines for Proposals, section 4.

4.1 Indicate the estimated start time and duration of the component

Please take note of the timing of proposal approval by the Board of the Global Fund (described on the cover page of the Proposal Form). The aim is to sign all grants and commence disbursement of funds within six months of Board approval. Approved proposals must be signed and have a start date within 12 months of Board approval.

Table 4.1.1 – Proposal start time and duration

	From (yyyy/mm)	**To** (yyyy/mm)
Month and year:	2007/07	2012/06

4.2 Contact persons for questions regarding this component

Please provide full contact details for two persons; this is necessary to ensure fast and responsive communication. These persons need to be readily accessible for technical or administrative clarification purposes, for a time period of approximately six months after the submission of the proposal.

Table 4.2 – Component contact persons

	Primary contact	**Secondary contact**
Name	Dr. Lungten Z. Wangchuk	Ms. Jambay zangmo
Title	NTCP Manager	Senior Program Officer
Organization	Department of Public Health, Ministry of Health	Department of Aid and Debt Management, Ministry of Finance
Mailing address	Ministry of Health, Thimphu, Bhutan	DADM, Ministry of Finance, Thimphu, Bhutan
Telephone	+975-2-321328 ext.326	+975-2-326779
Fax	+975-2-326038	+975-2326779
E-mail address	Drlun123@yahoo.com	jzangmo@mof.gov.bt

4.3 Component executive summary

4.3.1 Executive summary

Describe the overall strategy of the proposal component, by referring to the goals, objectives and main activities, including expected results and associated timeframes. Specify the beneficiaries and expected benefits (including target populations and their estimated number). *(Please include quantitative information where possible. Maximum of one page.)*

The Bhutan national tuberculosis control programme (NTCP) has made commendable progress since its inception. The DOTS strategy was adopted and implementation had reached a nationwide coverage in 1997. The latest external review of the programme took place from 20-31 May 2006. During this review, gaps were identified that need to be addressed in order to achieve the best programme results. Although

administrative coverage is complete, accessibility to DOTS services is not 100%. While the general population has a fair access to the services, certain subsections of the population have not. This proposal is targeting in addition to general population about 50% of women, 40 % youth under 18 years and more than 70% of people living in rural areas. Laboratory services are well decentralized but quality assurance is not routinely undertaken. Drug-resistant patients are treated with second-line drugs without proof of resistance. The registration system is entirely manual with staff spending lot of time for completing registers but with no analysis at the local level being undertaken. The overall programme was also found to lack coherence at overseeing programme implementation at various levels. The proposal seeks to address all those issues. Three major objectives have been formulated that will contribute to the programme's goal of reducing morbidity and mortality of TB and limit the emergence of drug resistance. The first goal is to further intensify case-detection. This will be achieved by expanding the services to reach also the people that currently have no or limited access to TB control services (the "vulnerable populations"). They include prisoners, monks and nuns, cross-border patients, migrant workers, floating and nomadic people. Specific interventions are targeting these special groups of populations. Together, they make up approximately 10% of the country's population. Those people often live also in the more remote parts of the country and may also be more at risk of developing TB due to the often-crowded conditions they are living in. In line with the new global strategy to detect and treat all patients, proper diagnosis and management of multi-drug-resistant tuberculosis (MDR-TB) is also part of this proposal. For this, the programme will submit a proposal to the Green Light Committee (GLC) and obtain technical assistance as well as procurement of second-line drugs through this committee. The country has about twenty-three suspected MDR-patients and it is expected that at least 10 MDR-TB patients will be detected and treated annually. Activities included largely focus on capacity building at different levels, designing proper referral mechanisms, upgrading in-patient facilities and providing incentives to increase adherence to treatment. Also, in order to sustain the achievements and to work towards MDG 2015 targets of halting and reversing incidence of TB. A third component is included on supporting the sustainable financing mechanism for drugs, which will be taken care of by the Bhutan Health Trust Fund. Investments in the funds are equally matched by the Government and will generate future funding, particularly for second-line TB drugs. The TB component of this proposal seeks funding to the amount of USD 1,779,135 over a period of five years. If this is realized the funding gap, based on the gap analysis undertaken should virtually have disappeared.

4.3.2 Synergies

If the proposal covers more than one component, describe any synergies expected from the combination of different components—for example, TB/HIV collaborative activities. *(By synergies, we mean the added value that the different components bring to each other, or how the combination of these components may have broader impact.)*

Bhutan proposal covers HIV/AIDS, Tuberculosis and Malaria. The country is divided into three regions i.e., Eastern Region, Western Region and Central Region. At the Regional level Medical Superintendent is head of the Regional Hospital. Regional Hospitals are referral hospitals for all diseases including HIV, TB and Malaria. This reduces cost to the establishment and patient care becomes more professional and sustainable. There are 20 districts in the country and each district has a District Medical Officer (DMO) in charge of the district hospital. District Hospital is common to HIV, TB and Malaria patients. In addition at the district level one District Health Officer (DHO) is responsible for all programmes related to public health. DHO is also in charge of all the Basic Health Units (BHUs). DHO is common to all the three diseases. Therefore he participates in the planning and implementation of the three programmes at the district level. This commonality provides tremendous scope of bringing awareness about the communicable diseases. The expertise in the designing and giving publicity to the IEC material is largely the same and the same techniques and platform is used in spreading the messages. This brings synergy, reduces cost, and enhances confidence in the community; as the communities receive repeated health messages from the health functionaries advising them scientific methods in the prevention, diagnosis and treatment etc. And all these services are free to all the citizens of Bhutan.

The department of Public Health under the Ministry of Health organizes "quarterly review meetings" of

HIV, TB and Malaria attended by health staff dealing with the three diseases. These review meetings brings coordination, enhances interaction and reduces areas of overlap. In addition referral and after care of patients with co-infection become easy.

The human resource and infrastructure development are being undertaken as part of strengthening TB control services such as quality assurance and supervisory mechanisms which will be beneficial for other disease control programmes as well.

The initiatives for addressing TB in subsections of the society (e.g. monks) or vulnerable groups (e.g. laborers, drivers, nomads) and the support to community involvement will contribute to overall health systems strengthening and better service delivery within those communities. This model can be availed by others programmes.

TB/HIV is a known lethal combination and majority of deaths in HIV cases are due to TB in Bhutan. While TB patients constitute one of the sentinel groups for HIV surveillance, routine HIV testing and counseling is not currently available to them. With the expansion of HIV testing and counseling service envisaged in the HIV/AIDS component, HIV counseling and testing will be offered to TB patients with right to opt out. With enhancing of Testing and counseling skills at the district level will help both the HIV and TB programmes.

All the programmes seek BHTF contribution towards sustainability of the respective programmes to meet the MDG 2015 targets to halt and reverse the incidence of TB and Malaria. This fund can contribute towards sustainability of essential drugs and vaccination in Bhutan.

4.4 National program context for this component

The information below helps reviewers understand the disease context, and which problems the proposal will address. Therefore, historical, current and projected data on the epidemiological situation, disease-control strategies and broader development frameworks need to be clearly documented. Please refer to the Guidelines for Proposals, section 4.4.

4.4.1 Indicate whether you have any of the following documents (tick appropriate box), and if so, please attach them as an annex to the Proposal Form:

- ☐ National Disease Specific Strategic Plan
- ☒ National Disease Specific Budget or Costing
- ☐ National Monitoring and Evaluation Plan (health sector, disease specific or other)
- ☐ Other document relevant to the national disease program context (e.g. the latest disease surveillance report)
  Please specify:

4.4.2 Epidemiological and disease-specific background

Describe, and provide the latest data on, the stage and type of epidemic and its dynamics (including breakdown by age, gender, population group and geographical location, wherever possible), the most affected population groups, and data on drug resistance, where relevant. With respect to malaria components, also include a map detailing the geographical distribution of the malaria problem and corresponding control measures already approved and in use. Information on drug resistance is of specific relevance if the proposal includes anti-malarial drugs or insecticides. In the case of TB components, indicate, in addition, the treatment regimes in use or to be used and the reasons for their use.

4.4.2 Epidemiological and disease-specific background

Describe, and provide the latest data on, the stage and type of epidemic and its dynamics (including breakdown by age, gender, population group and geographical location, wherever possible), the most affected population groups, and data on drug resistance, where relevant. With respect to malaria components, also include a map detailing the geographical distribution of the malaria problem and corresponding control measures already approved and in use. Information on drug resistance is of specific relevance if the proposal includes anti-malarial drugs or insecticides. In the case of TB components, indicate, in addition, the treatment regimes in use or to be used and the reasons for their use.

TB Infection

The only tuberculin survey in Bhutan was carried out nationwide in 1991. The annual rate of infection (ARI) was 1.5%. A repeat survey is planned in 2007-08, funded through Round 4 funds. In the absence of more recent infection estimates, the same figure of 1.5% is used by NTCP as basis for calculating the expected number of tuberculosis cases. It is estimated that around 40% of the adult and 27% of the general population is infected with *Mycobacterium tuberculosis*.

TB disease

Applying the Styblo rule, NTCP estimates the number of new smear-positive cases occurring in one year as 75 per 100,000 population or 504 cases and about 1000 new smear-negative and extra-pulmonary cases. The prevalence (all cases) is estimated to be about 2000. Rates of smear-positive disease are slightly higher in men than in women (1:0.8). This gender difference is less than in neighboring countries, where it has been investigated and proven to be attributable to a higher exposure to infection in men.

During the next five years, the number of new cases is expected to increase, as the population growth is higher than the estimated decrease in ARI. There will be

More than 7000 new cases of TB (all forms). About 2500 will be infectious (smear-positive) that will continue the chain of transmission. The majority of patients are in the economically active group of 16-44 years.

The extent of multi-drug-resistance is not known. Currently, suspected MDR-TB patients are treated with second-line drugs, most of them are failures of the re-treatment regimen or clinically suspected. One drug resistance survey is planned during the next five years.

TB mortality

The 2004 DOTS cohort reported 36 fatal pulmonary TB cases or less than 5%. The true number may be higher taking into consideration the number of patients not evaluated and patients not diagnosed or treated by NTCP. The NTCP estimates the mortality as 20 per 100,000 populations. Without treatment, an estimated 3000 patients are expected to die in the next five years. With the programme reaching a case-detection of 80% and a mortality rate of 5%, the number of deaths will be reduced to less than 900, a reduction of 70%.

Case notification

4 Component Section Tuberculosis

The overall case notification shows a downward trend. The notifications showed great variations in the 1980ies and 1990ies. Since the second half of the 1990ies, the TB notifications show a consistent trend, likely due to adherence to case definitions and the introduction of standard reporting under the DOTS strategy. The reduction in overall case notification observed during the last ten years is mainly attributable to a reduction in smear-negative cases, while the number of smear-positive cases has remained fairly stable at around 330 per year. This may reflect an improved quality of diagnosis with a higher focus on smear microscopy and a more careful consideration for smear-negative TB.

4.4.3 Disease-control initiatives and broader development frameworks

Proposals to the Global Fund should be developed based on a comprehensive review of disease-specific national strategies and plans, and broader development frameworks. This context should help determine how successful programs can be scaled up to achieve impact against the three diseases. Please refer to the Guidelines for Proposals, section 4.4.3.

a) Describe comprehensively the current disease-control strategies and programs aimed at the target disease, including all relevant goals and objectives with regard to addressing the disease. (Include all donor-financed programs currently implemented or planned by all stakeholders and existing and planned commitments to major international initiatives and partnerships.)

There is only one TB control programme funded by the Royal Government of Bhutan, GFATM and WHO. Funding from Danida is through budget support to RGoB and not identifiable by the TB programme.

Goal

The overall goal of NTCP are three-fold: (i) To reduce the TB morbidity and mortality; (ii) to reduce the transmission of TB infection until it is no longer a public health problem; and (iii) to prevent and contain the development of drug resistance.

Objectives

The NTCP objectives are in line with the World Health Assembly targets (2005) and the Stop TB Partnership targets linked to the Millennium Development Goals (2015).

They include:

* To detect at least 70% of the estimated new smear-positive cases;

* To cure at least 85% of the diagnosed new smear-positive cases;

* By 2015, to have halted and begun to reverse the TB incidence; and

* Between 1990 and 2015, to halve the prevalence and death rate of TB.

Strategies

The NTCP has adopted the DOTS strategy for implementation of the TB control services. The implementation of the DOTS strategy is ensured through the following mechanisms:

* Political commitment: mobilization of adequate domestic and donor funds, provision of staffing, provision of drugs and supplies, treatment free of charge for all patients, food during hospitalization.

* Quality-assured sputum smear-microscopy: Laboratory services are expanded with support from Round 4. Some form of quality assurance is available, but needs to be streamlined. Increasing accessibility to microscopy services through sputum collection at the BHU level is envisaged.

* Uninterrupted supply of drugs and logistics: centralized procurement of all drugs, equipment, laboratory consumables and stationeries with annual distribution and six-monthly reporting. Emergency supplies can be indented anytime. Second-line drugs will be obtained through GLC in future from the round 6 fund.

* DOT: hospitalization of all Category 1 and 2 cases during the intensive phase with plan to provide ambulatory treatment (trials supported by Round 4) and involvement of BHUs and community-based

village health workers.

* Standardized recording and reporting system: all TB patients are recorded in the TB register, which is kept at the *dzongkhag* level; the standard internationally-recommended reports are generated (currently manually) on a quarterly basis and submitted to the central TB unit. The TB programme will adapt the new guidelines for recording and reporting currently being developed by WHO and move to electronically registering of patients.

In addition to DOTS, the strategy includes management of MDR-TB, including building capacity for drug-susceptibility testing (DST) and HIV sentinel testing in all TB patients during three months per year. The strategy is being implemented through all healthcare providers in the country.

b) Describe the role of HIV/AIDS-, tuberculosis- and/or malaria-control efforts in broader developmental frameworks such as Poverty Reduction Strategies, the Highly-Indebted Poor Country (HIPC) Initiative, the Millennium Development Goals or Sector-Wide Approaches. Outline any links to international initiatives such as the WHO/UNAIDS 'Universal Access Initiative' or the Global Plan to Stop TB or the Roll Back Malaria Initiative.

The Bhutan has produced PRSP (poverty reduction strategy paper) in 2003, which includes communicable disease control as an important tool contributing to alleviation of poverty. Tuberculosis is considered as one of the important health problems in the country and strategies for controlling the disease are considered as being highly cost effective. Strengthening of the implementation of the programme and universal access for all TB patients should benefit those in need. As TB is a poverty-related disease, interventions for TB patients should benefit mostly the poorer people in the society. In addition, given that the disease affects adults in their most productive age groups, TB control will contribute to the other goals under MDGs that refer to alleviation of poverty and improving child and maternal health.

Fiscally the Royal Government of Bhutan is pursuing the policy of financing the recurrent expenditures from domestic resources and capital outlay through the external assistance in the form of grant financing. The NTCP reflects this with salaries, recurrent first-line drug and supply costs fully covered by the Government. The capital costs in our case are a combination of human capacity building and one of the purchases of equipments and technical inputs.

The Royal government of Bhutan is also committed to the MDGs.Target 8 under goal specifically states that, by 2015, the incidence of the priority communicable diseases (includes TB) should be halted and begun to reverse. MDG TB target indicators refer to prevalence and death rates associated with TB and detection and cure rate of the highest priority group of patients, i.e. new smear positive cases. The NTCP Bhutan has adopted the Stop TB partnership's targets as stated in the Global plan to stop TB 2006-2015 of halving TB prevalence and mortality by 2015.

4.4.4 National health system

a) Briefly describe the (national) health system, including both the public and private sectors, as relevant to reducing the impact and spread of the disease in question.

Bhutan began to introduce the modern health care services since 1961 when the embankment on planned socio-economic development process. Starting with hardly four hospitals at the start of the planned development, the health sector has come a long way in terms of expanding its coverage and improving the services to the people. With a very rudimentary health infrastructure at the beginning, today there are 29 hospitals, 176 Basic Health Units (BHUs) and 454 Out Reach Clinics (ORCs) across the country. Staffing these facilities, there are about 145 medical doctors, 463 health workers, 529 nurses, and 438 technicians. The coverage of health services is well over 90%, a remarkable achievement despite the difficult topography and a scattered population.

The health care is delivered in totally integrated system through four tiered organizational structure placed at the National Referral Hospitals, Regional Referral Hospitals, District hospitals and the Basic Health Units at the community levels. Further through a good network of health system, the people's access and utilization of preventive, promotive and basic curative services have greatly increased and is reflected in

terms of primary health coverage of more than 90%.

The Royal Government continues to pursue the Primary Health Care (PHC) as the primary approach to delivering the health services to reach the scattered population of the country with basic minimum health care package. The health care services is aimed at bringing about equitable and balanced approach to health care service that encompasses preventive, promotive, curative and rehabilitative services. The preventive and promotive services continue to be high on the priority of the RGoB.

In the current (ninth) five-year plan, a total outlay of US$ 145 million (10% of the total 9FYP budget) was allocated to health sector out of which an approximate amount of US$ 23 million was budgeted for purchase of essential drugs, vaccines and equipments. In 2005, the Government spent about US$ 1.8 million on the referral costs to treat about 500 patients abroad.

The private sector is negligible in Bhutan. There is only one private laboratory (in Phuentsholing), which is collaborating with the public hospital for referral of TB cases. Private pharmacy outlets are not selling anti-TB drugs in order to avoid non-quality tested drugs in the market.

Most public health services function under the Ministry of Health. The administration of the Ministry of Health is headed by the Secretary of Health. At *dzongkhag* (district) level, the District Health Officer and the district medical officers are the highest authority for health and reports to the *dzongkhag* Governor. Funding for TB control released from the central level is earmarked and is channeled through the *dzongkhag* administration. The District Health Supervisory Officer is in charge of community health including disease control and reports to the district health officer.

At sub-district level, the administrative unit is called *geog* or block. Each *geog* has about 2000-4000 people and is headed by an elected head man (*gup)*. There are 202 *geogs* organized in village or block councils, known as *Geog Yargary Tshokgung* or GYTs.

The public health system consists of four tiers: There is one tertiary national referral hospital in the capital, which serves also as the regional referral hospital for the Western region. There are two more regional referral hospitals (in Gelephu and Mongar). The regional referral hospitals offer specialist services. For TB control, it is proposed to develop culture facilities in those hospitals. The third level consists of the *dzongkhag* hospitals. They are the basic management unit for TB. They have a laboratory and X-ray facility, are linked to the district health office and serve as registration and reporting unit. There are 30 such TB registration units in the country. The lowest tier of formal health services consists of the basic health units, 166 in total. The BHUs are staffed by paramedical staff. Their role in TB control is limited to referring suspects and providing treatment. They conduct outreach clinics and link with the community.

Fully integrated with respect to TB control are the military and corporate health services, all in the public sector. Although these institutions have their own health services not resorting under the Ministry of Health, inclusion of their representatives in TB policy and strategy decision-making has facilitated their adherence to the NTCP guidelines.

b) Given the above analysis, explain whether the current health system will be able to achieve and sustain scale up of HIV/AIDS, tuberculosis and/or malaria interventions. What constraints exist?

The major strength of the national health system in Bhutan is the structure, main infrastructure and referral pathways. Accessibility to primary health care is commendable through the network of BHUs, supplemented by intermittent outreach clinics and village health workers. The accessibility to hospitals is fair. The staff strength at different levels is also fair. Staff are very much committed and dedicated to their duties. Through training and supervision, they show a very satisfactory level of competence. Efficient systems for channeling funds, procuring and distributing drugs, referring and back referring are in place.

The weaknesses include limited technical capacity of the programme not only in disease-specific issues, but also even more in crosscutting issues and overall planning or strategizing. Maintaining quality of services is another challenge, particularly for TB control or laboratory performance, as TB becomes a relatively rare disease at the district level with less scope for acquiring experience. There is currently no possibility to proof the diagnosis of MDR-TB. The expertise in managing MDR-TB is also very limited. Currently, treatment with second-line drugs is provided to suspect MDR-TB patients, but not always in the

most efficient way. Although physical accessibility to primary health services, access to secondary or tertiary healthcare services carries a substantial indirect cost. Particular segments of the population are in practice also less covered by regular services. These include nomadic and floating people (45000 people or 7%), monks and nuns (5%) and prisoners. Follow-up is also more difficult in long-distance drivers as well as in cross-border patients along the Indian border. The country is also moving gradually to make use of IT in order to streamline recording and reporting and to make this more efficient. The programme currently lacks the capacity to support introduction of IT, which is expected to refine and improve data analysis, feedback, programme planning and implementation.

The current system should generally be able to sustain and scale up on going and undertake proposed interventions. At the *dzongkhag* level, where actual implementation takes place, the additional workload is expected to be limited.

c) Please describe national health systems strengthening plans as they relate to these constraints. If this proposal includes a request for resources to help overcome these constraints, describe how the proposal will contribute to strengthening health systems.

The Royal Government continues to pursue the Primary Health Care (PHC) as the primary approach to delivering the health services to reach the scattered population of the country with basic minimum health care package. The health care services is aimed at bringing about equitable and balanced approach to health care service that encompasses preventive, promotive, curative and rehabilitative services. The preventive and promotive services continue to be high on the priority of the RGoB.

Some of the major constraints faced by the Health Sector include:

- Shortages of human resources
- Scattered population and rugged terrain
- Sustaining the free health care services

Bhutan doesn't have a medical college. All doctors are trained outside Bhutan, mainly in India. All paramedical staff and allied health workers are trained in the Royal Institute of Health Science (RIHS). The RIHS is also building capacity for conduction in-country operational research for various disease control programme. Since the health system is fully integrated in Bhutan, interventions planned or proposed by the various technical programmes aim at strengthening the overall health system.

The long-term overseas studies particularly in the field of epidemiology or public health contribute to obtaining a critical mass of people in the country who can be involved in policy making and strategic planning.

Introducing proven quality-assurance schemes for TB laboratory will have a wider impact as these also include general infection control measures as well as methodologies that can be adopted by other programmes. The newly proposed methods aim at obtaining a minimum standard of quality at various levels through the most economical means.

Although the introduction of TB culture and DST facilities are supporting only one disease control programme, the availability of such services at country level is considered as inherent part of the national health service. Sound management of MDR-TB with support from GLC will contribute to health systems strengthening particularly through increasing the efficiency of service delivery.

The health system is currently insufficiently addressing the health needs of the above-mentioned vulnerable population groups. Specific TB awareness, preventive and curative services are to be considered as an entry point to improve the accessibility to health services to these people.

The introduction of IT for the purpose of TB recording and reporting aims not only at addressing the needs for the central TB control unit but will also facilitate compiling, interpreting and working with data generated at the dzongkhag level. The IT infrastructure to be funded through this proposal will be available for other health programmes as well.

4 Component Section Tuberculosis

4.5 Financial and programmatic gap analysis

Interventions included in relation to this component should be identified through an analysis of the gaps in the financing and programmatic coverage of existing programs. Such an analysis should also recognize gaps in health systems, related to reducing the impact and spread of the disease. Global Fund financing must be additional to existing efforts, rather than replacing them and efforts to ensure this additionality should be described. For more information on this, see the Guidelines for Proposals, section 4.5.

Use table 4.5.1-3 to provide in summarized form all the figures used in sections 4.5.1 to 4.5.3.

4.5.1 Overall needs assessment

a) Based on an analysis of the national goals and careful analysis of disease surveillance data and target group population estimates for fighting the disease component, describe the overall **programmatic** needs in terms of people in need of these key services. Please indicate the quantitative needs for the 3-5 major services that are intended to be delivered (e.g. anti-retroviral drugs, insecticide-treated bed nets, Directly Observed Treatment Short-Course for TB treatment). Also specify how much of this need is currently covered in the full period of the proposal by domestic sources or other donors. *Please note that this gap analysis should guide the completion of the Targets and Indicators Table in section 4.6. When completing this section, please refer to the Guidelines for Proposals, section 4.5.1.*

1) Diagnostic services

Basic laboratory services are well decentralized. Further improvement of accessibility is realized through sputum collection and/or smearing at the BHU and even outreach clinic level. Basic microscopy services including regular training and retraining programmes, provision of microscopes and equipment for culture and DST facilities at the public health laboratory are with small gaps well covered from existing sources. The focus of the programme turns to the maintenance of TB laboratory expertise where major gaps are identified in streamlining quality assurance services, in line with the new international recommendations and infection control. The provision of technical assistance in support of quality-assured diagnostic services is only partially covered through existing funding commitments.

2) Treatment services

Diagnosis is made at the hospital level and it is a policy to admit all patients in need of Category 1 or 2 for at least the duration of the intensive phase. Hospitalization is considered as the principle mechanism to ensure DOT and an easy place to administer the streptomycin injections. However the review pointed out that this could be a reason for delayed case detection (operational research on this is currently under way). There is no medical indication for most patients to be admitted. The programme will switch to fully oral regimens, which can be administered on an ambulatory basis. The introduction of fully oral regimens, switch to fixed-dose combinations and abolishment of the Category 3 regimen – all recommended during the last NTP review – will require incorporation of this in the pre-service and in-service training programmes. General treatment services are well covered from existing resources, except for services in special populations.

3) Reaching out to all patients

The programme believes that there is a good accessibility to TB control services for the majority of the people. However, there are certain sections of the society with unknown or insufficient access to diagnosis and treatment. These include monks and nuns in remote monasteries (5% of the population), nomadic and floating people (8% of the population) and prisoners. The current services do also insufficiently cover cross-border patients. Activities to manage suspect multi-drug-resistant cases are being done, but in a rather unstructured way and leading to gross inefficiencies with potential detrimental effects in relation to provoking further drug resistance. The programme needs also technical assistance for proper diagnosis and management of resistant cases, including setting up or strengthening of culture and DST facilities. Some of this can be realized using Round 4 grant funds.

4) Drug and supplies

Funding for first-line drugs is provided from the Government sources. The Royal Government of Bhutan is much committed to continue this in the years ahead. Second-line drugs have been obtained on a case-by-case basis in an un-standardized way and unsustainable way and sometimes in insufficient quantities. All first-line and ancillary drugs as well as other consumables are provided by the Government through a well-functioning procurement and distribution system under the Drugs, Vaccines and Equipment Division of the Ministry of Health.

5) Surveillance, monitoring and evaluation

Programme data are currently compared to baselines, which carry major uncertainties and are no longer recommended to work with. There is a need to establish new baselines. The only ARTI survey in Bhutan was carried out in 1991. A repeat survey is planned in 2007 and funds for this have been identified under Round 4. There are no data available on drug-resistance patterns. A representative drug-resistance survey is also planned for. HIV in TB patients is assessed through annual sentinel surveys, conducted by the HIV programme. Data collection, compilation and management need also to be strengthened. The new international reporting requirements provide an opportunity to introduce a case-based electronic register. Locally conducted operational research is also conceived as important as it generates the evidence base for policy and strategy development. Regular supervision and periodic coordination meetings have proven to be crucial, but are insufficiently funded currently. International coordination including participation to international meetings is well covered by WHO.

6) Human resources

Staffing is generally adequate. All staffing costs (salaries and allowances) are covered from domestic sources. Vertical support to an otherwise fully integrated programme is available at central and regional level. Building fundamental capacity in the field of epidemiology is required. Increasing operational capacity is addressed through regular in-service training programmes, for which funding has been identified partially. A temporary (estimated four years) support for IT development is required to build the capacity for maximizing the benefits of electronic recording and reporting.

7) Advocacy

Awareness campaigns are considered part of the TB control programme at national, district and even community level. While the world TB day is the most important event, other activities take place during the rest of the year. Mass media (radio and increasingly television) are involved. These advocacy and communication activities are substantially covered from current sources (including Round 4).

b) Based on an analysis of the national goals and objectives for fighting the disease component, describe the overall **financial** needs. Such an analysis should recognize any required investment in health systems linked to the disease. Provide an estimate of the costs of meeting this overall need and include information about how this costing has been developed (e.g., costed national strategies, medium term expenditure framework). *(Actual targets for past years and planned and estimated costing for future years should be included in table 4.5.1-3 [line A].)*

The financial gaps linked to the major programmatic gaps currently identified as crucial include:

- Diagnostic services: This includes funds for institutionalizing the quality assurance programme, setting up additional facilities for culture and operational zing DST, as well as technical assistance.
- Treatment services: incorporating of the new treatment guidelines in the regular pre- and in-service training programmes, as well as setting up a mechanism for MDR-TB treatment, referral mechanisms and care services.
- To reach out to communities with least access will require additional funding. The cost per patient detected will unavoidably be much higher than patients covered through the regular health services, as these communities are more difficult to access. Advocacy, training, monitoring carries a relatively high cost.
- Drugs and supplies are generally well covered. However, major investments are needed in additional laboratory equipment for the regional referral hospitals to set up the culture facilities as well as provision of quality-assured second-line drugs. The current budget is on a case-by-case or

ad-hoc basis and cannot be sustained in the short-term. Involving GLC should ensure access to affordable drugs, while it provides an opportunity to work out a funding mechanism to continue beyond this proposal.

- Cost for surveillance, monitoring and evaluation include procurement of computers, training and technical assistance.
- The human resource budget is largely covering for a long-term scholarship to train an epidemiologist as well as one time-limited contract of four years of an IT person to guide the introduction of an electronic TB register. The need for it was determined based on experiences in India, Nepal and lessons learned from other countries.
- Advocacy includes budgets required for buying airing time on the national television and radio as well as for including appropriate articles or messages in all local newspapers.
- Transport of staff for any purpose is budgeted as per RGoB entitlements, i.e. Nu.9 per km irrespective of who provides transport. In practice most staff use their personal vehicle and claim mileage for reimbursement. Local per diem rates are also calculated based on RGoB rules, i.e. Nu. 500 per day. For international consultants, WHO rules have been applied for budget purpose.

The financial cost requested in this proposal covers funding for all identified gaps. The most crucial activities needed were listed and a budget for each of them was determined based on current practices, quoted or published prices and fees. A unit price was determined for each activity or group of activities and the number of units or frequency was carefully estimated. The budget breakdown in section 5 provides the castings per SDA, component, implementing agency and functional area. A detailed breakdown of the unit prices is provided in a separate annex (unit prices).

4.5.2 Current and planned sources of funding

a) Describe current and planned financial contributions, from all relevant domestic sources (including loans and debt relief) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line B].)*

The current sources of funding consist of regular budget contributions from RGoB and small amounts from WHO as well as Round 4 from GFATM. The RGoB covers mainly local salaries, main infrastructure (building and maintenance), first-line drugs and consumables, food for hospitalized patients, etc. The Government's own contribution will be increased based on experience in previous years and commitments. An increase for the tenth five year plan is about 20-25%, keeping pace with increasing salary cost of local staff. The funds provided by RGoB are however not adequate and not much flexible and should be used for the areas currently covered by RGoB.

b) Describe current and planned financial contributions, anticipated from all relevant external sources (including existing grants from the Global Fund and any other external donor funding) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line C]*.)

The fund from Round 4, phase I, GFATM is known. The phase II of this round has not yet been approved, but is assumed to be fully approved. The capital outlay through the external assistance in the form of grant financing which in our case are a combination of human capacity building and one of the purchases of equipments and technical inputs. The external funding support to the program is from the GFATM 4th Round of committed amount $ 560568 for the phase I and the WHO biennial budget (2006-07) totals US$ 14000. Funding for the next biennia (2008-09 and 2010-11) has not been approved neither planned but is assumed to be in the same order.

4.5.3 Financial gap calculation

Provide a calculation of the gap between the estimated overall need and current and planned available resources for this component in table 4.5.1-3 and provide any additional comments below.

The financial gap is calculated based on the overall needs analysis, including financial needs of the overall TB programme and the available, committed or planned programme budgets including Government, WHO and Round 4 of GFATM. The difference between the two is the financial gap currently existing or anticipated, on the condition that all assumptions become true and all commitments are met. The table below indicates the overall need, current and planned resources available and the funding gap that is required to meet the programmatic need.

4 Component Section *Tuberculosis*

Please summarize the information from 4.5.1, 4.5.2 and 4.5.3 in the table below.

Table 4.5.1-3 - Financial contributions to national response

	Financial gap analysis (*please specify currency:* Euro / US$)						
	Actual		Planned		Estimated		
	2004	2005	2006	2007	2008	2009	2010
Overall needs costing (A)	**111440**	**418230**	**342834**	**684333**	**514390**	**609283**	**467743**
Current and planned sources of funding:							
Domestic source: Loans and debt relief (*provide donor name*)	0	0	0	0	0	0	0
Domestic source: National funding resources	81440	87777	94719	102356	110698	127302	159128
Total domestic sources of funding(B)	**81440**	**87777**	**94719**	**102356**	**110698**	**127302**	**159128**
External source 1 Global Fund Grants	0	322453	238115	216037	93992	123701	0
External source 2 (*provide donor name*)	30000	8000	10000	4000	10000	4000	10000
External source 3 (*provide donor name*)	**30000**	**330453**	**248115**	**220037**	**103992**	**127701**	**10000**
Total external sources of funding (C)	**111440**	**418230**	**342834**	**322393**	**214690**	**255003**	**169128**
Total resources available (B+C)	0	0	0	361940	299700	354280	298615
Unmet need (A) - (B + C)							

4.5.4 Additionality

Confirm that Global Fund resources received will be additional to existing and planned resources, and will not substitute for such sources, and explain plans to ensure that this will continue to be true for the entire proposal period.

The proposed activities are mostly new activities or extend or scale up activities executed through Round 4 funding, either by topping up Round 4 funds (where this needs to be expanded) or continuing beyond the termination of Round 4 grant (for activities that are considered necessary to be expanded). The latter ones are in years 3-5 of the current proposal. The resources requested in this round are therefore additional to existing and planned resources and will not substitute for existing and planned resources. Activities targeting vulnerable groups (including MDR-TB) are new or follow a new previously not budgeted approach. The advocacy and communication activities will build on previous initiatives and support the link with the grassroots-level stakeholders. Mainstreaming of quality assurance as well as enhancing supervision and coordination will also expand best practices of on-going activities, while operational research will provide a local evidence base for targeted interventions. The capacity building exercises include continuation of on-going regular activities as well as interventions which will have a wider impact on strengthening the overall health system and that were previously not addressed. The systematic introduction of IT at the district level will provide a firm base for programme monitoring as well as provide a platform for flexible management of the programme. As such, it should be considered a complete new activity. The impact measurement activities included in this proposal are not funded through any other source. Technical assistance has also been included in the proposal where relevant. No other source of funding could be identified. The NTCP will ensure that the committed domestic and other available resources will be maximally used.

4.6 Component strategy

This section describes the strategic approach of this component of the proposal, and the activities that are intended in the course of the program. Section 4.6 contains important information on the goals, objectives, service delivery areas and activities, as well as the indicators that will be used to measure performance.

For more detailed information on the requirements of this section, see the Guidelines for Proposals section 4.6.

In support of this section, all applicants must submit:

- A **Targets and Indicators Table.** This is included as **Attachment A** to the Proposal Form. *(When setting targets in this table, please refer explicitly to the programmatic need and gap analysis in section 4.5.1 a. All targets should show clearly the current baseline. For definitions of the terms used in this table, see the M&E Toolkit provided by the Global Fund. Please also refer to the Guidelines for Proposals, section 4.6.*

And

- A component **Work Plan** covering the first two years of the proposal period. The Work Plan should also be integrated with the detailed budget referred to in section 5.2.

*The **Work Plan** should meet the following criteria (Please refer to the Guidelines for Proposals, section 4.6):*

e. It should be structured along the same lines as the Component Strategy - i.e. reflect the same goals, objectives, service delivery areas and activities.

f. It should cover the first two years of the proposal period and should:

i be detailed for year 1, with information broken down by quarters;

ii be indicative for year 2.

*g. It should be **consistent with the Targets and Indicators Table** (Attachment A to the Proposal Form) mentioned above.*

*h. It should be integrated with the first two years of the **detailed budget** (please refer to section 5.2).*

Please note that narrative information in this section 4.6 should refer to the Targets and Indicators Table (Attachment A to this Proposal Form), but should not consist merely of a description of the table.

4.6.1 Goals, objectives and service delivery areas

Provide a clear description of the program's goal(s), objectives and service delivery areas (provide quantitative information, where possible).

1) Goal

The overall medium-term goal for TB control is to reduce the morbidity and mortality of tuberculosis; to reduce the transmission of TB infection; and to prevent the emergence of further drug resistance. The targets set in the NTCP 5-year plan and as conceptualized by NTCP beyond the current 5-year plan are in line with the global targets linked to the Millennium Development Goals. They aim at halving the TB mortality and prevalence towards halting and reversing the incidence of TB by 2015. The following are the overall programme objectives towards reaching these targets: (a) To increase the case-detection rate to 80%; (b) to increase the treatment success rate to 85%; (c) to improve the quality of tuberculosis diagnosis in all cases; (d) to monitor and contain MDR-TB; and (e) to improve the monitoring and evaluation of the programme. These programme objectives imply addressing TB in vulnerable populations, building in of quality-assurance mechanisms, addressing human resource constraints and providing more direct measurements of currently-used estimates and baselines.

2) Objectives

Two objectives have been formulated under which activities have been grouped for which funding is sought through Round 6 and that will fill up currently identified gaps towards reaching the above-mentioned goals: (1) To intensify case detection, treatment and follow-up focusing on a special population and patient groups; (2) to strengthen programme quality and management and (3) To promote sustainable procurement of second line drugs and BCG vaccines. The second objective envisages strengthening the overall health system through using relevant TB programme components as entry points.

3) Service Delivery Areas

The service delivery area under objective 1 are: (1) Community TB care, particularly in addressing the needs of identified "vulnerable communities", i.e. population groups that are perceived to be insufficiently covered through the regular services. They include prisoners, monks and nuns, cross-border patients, long-distance truck drivers and nomadic people. (2) Diagnosis and management of MDR-TB, including capacity building and treatment delivery through a GLC-approved DOTS-Plus project. (3) Increasing awareness and enhancing the programme profile through advocacy and communication through mass media, including television, newspapers and local events. Activities under those service delivery areas will contribute in a further increase in case detection, particularly in segments of the population those are difficult to reach. It is anticipated that this will be in the order of 10% or more in some areas. They will also contribute in a further improvement of treatment results where an additional 5-10% are expected to be successfully treated among regular patients and 25% among MDR-TB cases. Between 10-15 MDR-TB patients are expected to be enrolled on an annual basis. These figures are mainly anticipated, as operational research should give a clearer picture of the current situation.

The service delivery areas under Objective 2 are: (4) Laboratory quality assurance and expanding culture facilities. Quality assurance will be built in as a routine laboratory support activity. The expansion of culture facilities to the referral hospitals will help in diagnosing MDR-TB patients (with DST performed at the Public Health Laboratory). It will also offer an additional diagnostic tool for smear-negative patients

with inconclusive X-rays. (5) Human resource development with special focus on short-, medium- and long-term programme needs and enhance capacity building at all levels; and (6) Progamme management and monitoring and evaluation systems. The service delivery areas under this objective are of a qualitative rather than a quantitative nature and cannot easily be translated into robust figures.

The service delivery areas under Objective 3 are (7.1) Sustainable procurement of second line drugs through Bhutan Health Trust Fund and (7.2) Sustainable procurement of BCG vaccine.

4.6.2 Link with overall national context

Describe how these goals and objectives are linked to the key problems and gaps arising from the description of the national context in section 4.4. Demonstrate clearly how the proposed goals fit within the overall (national) strategy and how the proposed objectives and service delivery areas relate to the goals and to each other.

Tuberculosis is a disease of public health importance in Bhutan. It is a major problem not only for patients but also for their families and for the society as a whole. TB control has been recognized as contributing to reducing poverty levels and supporting overall development of the country.

The main strategy to achieve this goal within the precinct of the Ministry of Health is to detect and treat successfully as many smear-positive patients as possible in order to reduce the transmission of TB infection and decrease the source of future disease. The majority of the people have good access to TB control services through the existing network of health services. This proposal therefore is targeting subsections of people who are currently perceived as inadequately covered. It also aims at reinforcing advocacy, communication and social mobilization activities in order to create greater awareness among all people including the so-called vulnerable populations.

Identifying smear-positive patients requires accessibility to quality-assured laboratory services. Quality assurance is considered as crucial in any programme within the Ministry of Health.

In line with the new global strategy, which aims at treating all TB patients, the further development of culture and DST facilities within the country will improve the diagnosis of bacteriologically confirmed TB cases as well as confirmation of MDR-TB patients. Drug resistance was identified as a growing concern. It should be addressed properly to safeguard future TB control efforts. Prevention of drug resistance is the most important element that is to be achieved through thorough implementation of strict DOTS policies and strategies and maintaining and further improving the current level of programme implementation. The proper identification and treatment of MDR-TB cases should lead to a decreased risk of spreading resistant tuberculosis enhance the programme's credibility and make current practices more efficient. Through a long-term partnership with a supranational reference laboratory and support from GLC, capacity will be built to make the country self-reliant for managing MDR-TB. A baseline drug-resistance survey is planned through Round 4; a repeat survey is not indicated within the life of this proposal.

As over 60% of the households possess a radio or television, mass media including radio, television and newspapers are used for various development purposes including health programmes. This encompasses on periodic basis usually linked to special events or major activities advertisements for health issues such as diarrhea, measles, smoking, and bird flu. Tuberculosis is also included in such series.

Introduction of IT is part of a long-term government strategy for increasing efficiency and efficacy of rendering health services throughout the country, including in remote areas. The provision of computers to all districts will give an impetus to this process, beneficial in the first place for TB control but also for other health programmes. This fits with the introduction of new global reporting requirements expected to coincide.

The proposed curriculum development and training at the Royal institute of health sciences is also a long-term government strategy. The introduction of the pre service curriculum will help towards sustaining TB education to the health workers. In the long run only a refresher course in service training will suffice. Operational research conducted through RIHS will augment the research capacity of the institute and will generate local evidence, which is most valuable for the programme. It will further increase the local

ownership of TB control activities

The proposal contains a number of activities linked to reinforce and systematize supervision, monitoring and evaluation. This links to the government's plan of ensuring delivery of quality health and other services. Introduction of checklists will standardize supervision. Periodic coordination meetings, integrated with other programmes at the most peripheral level and with designated TB focal points at regional and national level will strengthen programme management. The three-yearly external programme review will offer an opportunity for getting an unbiased opinion on implementation and guidance for future policy and strategy formulation.

4.6.3 Activities

Provide a clear and detailed description of the activities that will be implemented within each service delivery area for each objective. Please include all the activities proposed, how these will be implemented, and by whom. *(Where activities to strengthen health systems are planned, applicants are also required to provide additional information at section 4.6.6.)*

OBJECTIVE 1

SDA 1: Community TB care, particularly in addressing the needs of identified "vulnerable communities" (Supportive environment: Community TB Care)

This SDA targets segments of the population that are perceived to be insufficiently covered currently: prisoners, monks and nuns, cross-border patients, migrant workers, long-distance truck drivers, and floating people, most of them are nomadic.

Prisoners – It is generally assumed that health needs are taken care of by basic health unit located closest to the prison. However the programme has no idea if TB control is adequately addressed. The current aggregated district TB reports do not allow identifying TB in prisoners. Prisons are usually crowded settings with a higher likelihood of transmission. Moving prisoners outside of the prison, e.g. to a basic health unit, may also not be done except for emergencies. A number of activities to address this issue are therefore proposed. A one-week study visit will be undertaken to a neighboring country, which has established sound TB control services in prison settings. This could be done in Bangladesh (NGO-prison collaboration) or other country. It is expected that such a visit will identify the different steps that need to be undertaken for setting up such services. This will be followed by a situational assessment in each of the five Bhutanese prisons. Conducting this situational assessment will be contracted out to the Royal Institute of Health Sciences. Relevant staff from the prison as well as basic health unit or hospital with which they structurally collaborate will be trained in basic elements of TB control and referral/transfer mechanisms will be developed. This activity is expected to be completed in the first year. The permanent linking of prisons to the TB programme will be part of the regular activities of the designated basic health unit, in the same way as outreach clinics are served and should thus not involve additional cost. In this way this will be sustainable approach.

Monks and nuns – Monks and nuns including aspirant students constitute up to 5% of the country's population. They usually stay in monasteries often located in remote areas. They live in crowded conditions. Religious people are usually well acquainted with traditional medicine, which can play a supporting role in TB control. Reaching out to monks and nuns will have the following impact: earlier case-detection among religious people, integration of TB control activities in the health services provided at the monastery level and as monks and nuns are respected people in the community, increased awareness on TB in the communities they serve. During the first year, it is proposed that RIHS conduct operational research in a representative number of monasteries to assess the TB situation among monks and nuns and the knowledge on TB and TB control activities as well as their attitude towards the disease. During the second year, sensitization and awareness campaigns among monks and nuns will be undertaken by TB in-charges and basic health workers in all districts. Tailored pamphlets and brochures will be developed and printed. It is expected that visiting 60 monasteries will be the critical mass (on average three per reporting unit) to demonstrate an impact at country level. Each monastery will be asked to assign a focal point for

TB control. These selected monks will then be trained at regional level, thus three training sessions. Training of religious people is most efficient if they were conducted within the monastic communities, therefore it would not be cost-effective to do this at the district level. Limited refurbishment of health rooms within the monasteries in the form of provision of basic furniture will allow also providing DOT within the monastery by the designated focal point. An evaluation study focusing on knowledge, attitude and practices among monks and nuns and on awareness in the surrounding communities is planned in the third year, to be conducted by RIHS.

Cross-border patients – People living in border villages in India regularly seek health care services in Bhutan. If TB is diagnosed among them, they are treated in the Bhutan NTCP. However, the treatment results in these people are much worse than in Bhutanese citizens due to higher default rate. There are no proper referral mechanisms to health facilities in India. They also pose a risk for developing drug-resistant TB as the treatment regimens are also different in India and regimens may be altered during treatment once sputum positivity can no longer be confirmed. To address this issue, the following activities are proposed, all to be started in the second year as the programme does not have sufficient capacity to start it immediately: annual meetings between health officials from both sides in three major border towns (Phuentsueling, Gelephu and Samdrup Jonkhar). During the first two years these will be high-level meetings with senior staff from the Ministry participating while it expected that for the subsequent two years these meetings can be led by local health or dzongkhag authorities, including the India-Bhutan Friendship Association based in Phuentsholing. Indian counterparts will be invited at Bhutan's expense. The meetings are deemed necessary on an annual basis in order not to loose the momentum. The implementation of expected resolutions (including referral mechanisms and feed-back) is expected to be conducted at no substantial extra cost.

Migrant workers – Up to 35000 expatriate workers are employed in Bhutan. Most of them work in the construction and road building. They generally enter Bhutan overland. Screening for tuberculosis is a policy of Bhutan. The NTCP is responsible for the implementation of this policy. Workers that cannot provide a proof of recent TB screening are sent back, often at a heavy price for the worker involved. The provision of X-ray facilities at the three main entry points will allow screening at the border for those who do not have a proof of screening (estimated 10000 per year) and will facilitate a more worker-friendly entry into Bhutan, thereby increasing equity among them. If TB is diagnosed in migrant workers, they are treated by the NTCP. Ambulatory DOT will also be made available to them, which will be provided in their work camps.

Long-distance truck drivers – There are indications that TB is relatively more common in truck drivers. More importantly the management of TB in truck drivers is more difficult as they fail to report for drug collection particularly during the continuation phase. The prospect of compulsory hospital admission (current policy) and inherent loss of income during this period works as a disincentive for early diagnosis. Special activities are targeted to start only in the third year. By that time, there should be sufficient capacity to implement also this activity. The proposed activities include development of tailored brochure or fact sheet easily understandable by the target group and annual campaigns in collaboration with the Road Safety Transport Authority. Those campaigns will be conducted at the major junctions in the country under the guidance of the TB in-charges of the district.

Nomadic and floating people – The 2005 Population and Housing Census counted 37 443 floating people or 6% of the country's population, i.e. people with no fixed address. Most of them are nomadic people moving seasonally and living in tents. They are not easily accessible as they move through the sparsely populated remote mountain areas. The risk for contracting TB is quite high due to entire families living in single tents. Cooking is also done inside the tents, thereby exposing the people to excessive smoke, which is considered as a favoring factor for developing tuberculosis. As there is very little documentation on TB in these populations, it is proposed to conduct operational research to assess the TB burden in these people. It is anticipated that about 25 patients will be detected among them in addition to the occasional cases currently diagnosed among them. The NTCP also proposes to treat them with clan members as treatment partners, who will be oriented at the time of diagnosis. A similar approach is successfully followed by the leprosy programme where "accompanied MDT" is provided. Upon completion of successful treatment a useful gift (in kind) will be offered to the treatment partner as a reward for the services rendered. This initiative is scheduled to start in the third year of the proposal taking into

consideration the capacity in RIHS, which will be subcontracted to conduct the study.

SDA 2: Management of multidrug-resistant tuberculosis (MDR-TB)

The proposal seeks funding for the management of MDR-TB cases in line with the policy of providing treatment to all TB patients and to reduce MDR-TB transmission and deaths. The current number of patients treated with second-line drugs is around 15 per year. This is a relatively high number in view of the total number of TB cases notified. Most of them are failures of the Category 2 re-treatment regimen. Since those have received treatment fully under DOT, most of them are believed multi-drug-resistant. A study in Nepal showed that up to 80% of category failures are multi-drug resistant. A drug-resistance survey is planned through Round 4.

Technical assistance will be sought to assist the programme in setting up the DOTS-Plus project. A country-specific DOTS-Plus protocol will be designed with suitably adapted treatment definitions. The recording and reporting system will be adapted as part of the project. Procedures for the management of adverse drug reactions will be included. Senior-level staff will receive training abroad on planning and managing drug-resistant TB under programme conditions. A tailored DOTS-Plus chapter will be included in the various training modules.

Training specifically for the management of MDR-TB will be conducted for at least one medical officer from each hospital. Two workshops will be held in the first year of the proposal to train relevant staff based in regional and district hospitals. This will be repeated in the third year to include additional doctors to achieve a balanced capacity in the country.

Culture and DST facilities in the Public Health Laboratory are being developed with support from Round 4. Capacity for undertaking cultures will be developed in the two other regional referral hospitals (see SDA 4). View of the complicated nature of DST and the expected caseload, it is decided to keep this a central function only.

All MDR-TB patients are currently hospitalized in Gidakom hospital for the entire duration of the treatment. It is much desirable to increase the number of admission facilities for MDR-TB to include also the regional referral hospitals and to provide the continuation phase from the district hospitals and on ambulatory basis. For that reasons enablers are included in this proposal, which should motivate the patient to be regular until the end of treatment. The enablers include transportation reimbursement on a quarterly basis. The MDR-TB wards in Gidakom as well as the planned MDR-TB wards in Gelephu and Mongar will need to be upgraded and provided with commodities that will make the long-term hospitalization stay more attractive. This includes provision of television, games, etc. Provision of one ambulance for the transport of MDR-TB patients and other emergencies is also requested.

Funding is sought for the procurement of second-line drugs as the current ad-hoc procurements cannot be sustained and no Government budget lines can be identified. The price of second-line drugs provided by GLC is less expensive compared to other sources and drugs are of guaranteed quality. Ancillary drugs required for managing side effects or complications are also requested. Involvement of GLC will enhance adherence to internationally agreed guidelines based on best practices.

SDA 3: Advocacy, communication and social mobilization or ACSM (BCC – Mass Media)

The main objectives of the ACSM activities include creating awareness for TB in the community, increasing the knowledge base in the community on TB and its control aspects and stimulate peripheral health services and intermediate bodies (such as monk bodies or Road Safety Transport Authority) to more actively reach out to the community or sections of the community.

ACSM activities are being address with support from Round 4. Major events are being organized during the World TB Day in each district. The countrywide focus on TB on this day means a major boost for the programme and generates much momentum. For this a lump sum of 300 US$ per year for each reporting unit is earmarked in years 4-5 of the proposal, in continuation of Round 4. It is also proposed to continue the development of advocacy materials during the same period with support of the available in-house expertise, as is done in previous years.

The impact of mass media including television and national newspapers is difficult to measure. It is

however generally acknowledged that these media have a much wider impact than the people directly reached by them, as often "catalyzers" are well connected: school teachers, health staff, etc. are often the first people to be reached by mass media and are crucial in conveying a message to the community. It is therefore proposed not only to continue these campaigns but also further increase the frequency. Therefore an additional budget is sought during the first three years of Round 6 to complement Round 4 and full funding for the years 4-5. It is also anticipated that this high focus during several years enhances the knowledge in the community so that such intensive campaigns can be scaled down in later years.

OBJECTIVE 2

SDA 4: Laboratory quality assurance and expanding of culture services (Supportive environment: laboratory)

AFB microscopy forms the cornerstone of diagnosis in TB control. The level of decentralization in Bhutan results in big challenges for ensuring quality due to the relatively low exposure to positive smears in a single laboratory or by a single laboratory staff.

The following activities are envisaged: maintaining the updated quality-assurance mechanisms consisting of internal quality control, external quality assessment and quality improvement. The QA system will be further strengthened through capacity building and linking to a supranational reference laboratory. This will involve a visit to the supranational reference laboratory as well as periodic visits by the supranational reference laboratory to the Public Health Laboratory as well as other laboratories in the country. The quality of the Public Health Laboratory will be ensured through the supranational reference laboratory.

On-site evaluation is currently too infrequently conducted. The NTP review recommended increasing the laboratory supervisory activities in order to ensure quality. It is proposed to institutionalize the on-site evaluation as part of routine EQA activities, i.e. standardized it in terms of frequency as well as methodology. The first two years of the proposal are covered by Round 4. It is expected that additional funds are required for the last three years in addition to what is provided in Round 4 for the third year. The reason for the gradual scale up of institutionalizing quality assurance is that capacity needs to be built during the initial years of the proposal. Participation to international training programmes will contribute to building capacity in this field and is included in the first two years of the proposal. Supervision from the Public Health Laboratory to all laboratories in the country is envisaged only once a year. In realistic terms, this translates into approximately twelve trips of maximum one week each and covering 2-3 labs per visit. More frequent supervision from the regional referral hospital to the peripheral laboratories are envisaged three times a year, i.e. trips of maximum one week covering 2-3 laboratories in one trip. The regional laboratory in-charge will closely link with the designated regional TB focal point.

Regular in-service training of laboratory technicians is expected to continue after the termination of Round 4. This is necessary as there is some turnover of staff and because of the relatively limited exposure to AFB microscopy. One such training course will be organized centrally, lasting two weeks and targeting 15 laboratories. This will lead to full coverage every two years, which is considered the minimum in order to maintain quality.

A new Public Health Laboratory is under construction with support from the Government of India. It will also provide accommodation to set up all the facilities to fulfill the role of national TB reference laboratory after moving from its current location.

The planned culture facilities to be developed in the regional reference laboratories will not only facilitate MDR-TB diagnosis but also allow identifying bacteriologically positive cases among otherwise smear-negative patients and will thus make the diagnosis of smear-negative TB more reliable. Such capacity is in agreement with the role of referral hospital. Funding for necessary equipments for culture capacity development and training of relevant staff is included in this proposal.

SDA 5: Human resource development on short-, medium- and long-term programme needs and enhance capacity building at all levels (Human Resources)

Funding is sought for a two-year epidemiology course in the United States. Although more expensive than

similar courses available in other countries, it is considered that participation to the targeted course will best reflect the needs of the Bhutan TB control programme. Such a course will have a much wider impact as it builds capacity in long-term policy and strategy development, which will be of much benefit not only for the TB programme but also for other programmes. The expertise of the trainee will be available for different programmes under the Ministry of Health. In this way such fellowship contributes much to health sector development as well.

The Royal Institute of Health Sciences is currently teaching the DOTS principles as part of its pre-service training programmes by inviting programme staff to teach to the students. To make this more sustainable and to reduce the burden on the centrally based programme staff, it is proposed to incorporate the national TB guidelines in the pre-service training manuals. One workshop with NTCP and RIHS staff will be sufficient to identify the crucial elements that must be included and timelines that should be followed when fine-tuning the curriculum and designing the training modules. A local consultant will be hired to provide the educational know-how for finalizing the modules. This will be followed by formal training of the teaching faculty of RIHS to make them familiar with the new modules that they will then teach to students in future. The future teaching of students will not require additional funding as it will replace the current TB training package. Procurement of teaching aids (computer and multimedia projector) will facilitate the pre-service TB training within RIHS.

Only one additional staff will need to be recruited within the TB programme and this for a time limit of four years: a computer technician who can assist with troubleshooting that will happen when introducing the electronic register (see SDA 7). This staff will be recruited based on merits in computer knowledge available in the country. He will be trained in the specific TB programme requirements through technical assistance that will be sought for updating the registration system. This staff is expected to join in the second quarter of the first year of the proposal. He will be provided with a laptop. This person will also be expected to build the capacity of the permanent programme officer who is expected to continue independently the compilation of reports at the central level. A budget is also included for in-country travel of this person to the different reporting units based on 100 days per full calendar year.

The NTP review pointed out that due to the integrated nature of the service delivery, many staff involved in TB control is not properly trained. To sustain the necessary involvement of a critical mass of staff, particularly OPD staff, it is proposed to train at regional level three OPD staff from each hospital. To mitigate problems related to staff attrition or complacency, this training will be repeated in the third and fifth year. With the planned changed in treatment regimens and the provision of all-ambulatory treatment the role of OPD staff in treatment delivery will be much higher valued.

Regular training or retraining of TB in-charges and relevant staff in TB wards and basic health units are covered through Round 4.

SDA 6: Programme management and monitoring and evaluation

This SDA includes activities related to monitoring and evaluation, supervision and programme coordination. It envisages a further strengthening of these systems, making them more efficient and sustainable.

The World Health Organization is currently revising the standard DOTS reporting formats in order to allow capturing on routine basis additional information relevant to monitor the introduction of the new global strategy of which most elements are also adopted by the Bhutan NTCP. This revision of reporting system provides an opportunity for the programme to embark on introducing an electronic TB register in each reporting unit. Such a register with individual patient data entry will allow flexible adaptation and customization of data deemed necessary to report on or to further analyze. The programme therefore will provide a desktop computer to each reporting unit with printer and annual supply of ink cartridge. Initial technical assistance will be sought for customizing software packages to reflect the needs of the Bhutan NTCP. User-friendly software is expected to be made available with minimal data entry and maximum of useful analysis generated. Reports generated through such programmes at the district should guide the district health authorities in steering the local TB programme and increase the feel of ownership of TB control at the local level. Through technical assistance one extra staff (to be recruited, see SDA 5) will be trained.

A training of trainers will then be organized for central- and regional-level staff to make them familiar with the electronic TB register and its various types of analysis. This workshop will be conducted with the assistance of the same person who is customizing the software package. In the last quarter of the first year, three regional workshops (one in each region) will be organized to train all district data entry operators and statisticians. A pen drive will also be provided to each district as well as a laptop for the regional TB coordinators to allow smooth transfer of data on a quarterly basis.

In the third year the technical assistance will be hired again to update the software and to fine-tune the programme. Another training of trainers will be organized subsequently followed by three regional workshops to further implement the changes at the district level and to compensate for staff attrition.

Regular supervision at various levels is considered very important, particularly in integrated settings. Round 4 covers supervision quite well, hence funding is only sought to continue supervisory activities in the 4th and 5th year. Each region will be visited by the central level twice a year. Efforts will be done to this jointly with the supervision visit of the Public Health Laboratory. One supervisory visit will last one week and may cover the regional referral hospital and additional dzongkhag health facilities. The regional TB focal point will join this supervision visit. Supervision from the regional level to the district level will be done six times a year. A supervision visit will also last at least one week. Each hospital and some of the dependent basic health units will thus be visited at least twice a year by the regional supervisor.

The coordination meetings currently conducted at various levels are very important. They provide opportunities for problem solving, information exchange, teaching. They also increase the ownership of the programme by the staff who is actually implementing it. At district level, an integrated review meeting takes place twice a year involving hospital and basic health unit staff. At the regional level it is proposed to conduct coordination meetings involving the district TB in-charges. An annual national TB review meeting involving central- and regional-based staff as well as all TB in-charges and district medical officers is organized. Funding for these three levels of coordination meetings is available form Round 4, hence funding is sought for extension of these meeting in the last two years of this proposal.

An external programme review was conducted in May 2006. This was the first programme review in ten years and was considered as very important and useful. Through Round 4 another review is planned in 2009. Based on the expenditures of the 2006 review, the earmarked budget is not sufficient, hence a supplementary budget for the 2009 review and a budget for a full review in the first half of 2012 is included in this proposal, including the funding of international experts (three per review).

An evaluation study on the level of decentralization of TB services and the involvement of communities is planned to be conducted by RIHS in the last year of this review. The various operational research projects included in this proposal are considered priority knowledge gaps that should be answered. Through outsourcing operational research to RIHS with technical support from local expertise and WHO, the programme is also supporting capacity building for conducting of research of RIHS. The availability of locally documented evidence will increase the credibility of the programme and generate increased commitment in the longer term.

OBJECTIVE 3

SDA 7: Procurement of drugs and vaccines

Activities under this SDA include quantifying needs of second-line drugs as well as BCG vaccines. BCG vaccines are administered to all newborn babies. There are about 15000 children born per year in Bhutan. The current immunization coverage is 98%. Some children are immunized twice with BCG, especially when no scar is visible.

The Bhutan Health Trust Fund has proven to be a reliable and sustainable mechanism for reimbursement of health investments. The support to the fund will provide a base for sustained financial support in future. The main activity consists of providing funding for health interventions including TB drugs and vaccines.

4.6.4 Performance of and linkages to current Global Fund grant(s)

This section refers to any prior Global Fund grants for this disease component and requests information on performance to date and linkages to this application. For more information, please refer to the Guidelines for Proposals, section 4.6.4.

a) Provide an update of the current status of previous Global Fund grants for this disease component, in the table below.

Table 4.6.4. Current Global Fund grants

	Grant number	Grant amount*	Amount spent
GF Grant 1			
GF Grant 2			
GF Grant 3			
GF Grant 4	**BTN-404-G02-T**	**560568**	**233498 in the year I**

* *For grants in Phase 1, this is the original two-year grant amount. For grants that have been renewed into Phase 2, this is the total amount, inclusive of Phase 1 and Phase 2. For unsigned Round 5 grants this is the two-year TRP approved maximum budget.*

b) Please identify for each current grant the key implementation challenges and how they have been resolved.

Due to the difference in the financial year followed by the Royal Government of Bhutan (RGoB) and the calendar year followed by the GFATM, fund release was delayed by one quarter .The GFATM's first disbursement coincided with the last quarter of the RGoB where the capital releases as per RGoB rule was not allowed. The new financial year releases are delayed by about a month during which activities cannot be carried out. This led to clumping of many activities and major delay in carrying out activities in the early part of implementation. All short falls are attributable to this reason.

If the round six gets approved the releases could be made coinciding with the RGoB financial year (July to June) in order to avoid any delays in future implementation.

Another challenge we faced was reporting to the global fund since it is the first time implementation of Global fund in the country and no exposure was given for reporting formats and procedures. Also, the reporting forms frequently changes, which needs to be taught to the individuals responsible for reporting. The relevant individuals need updating on the reporting process of the GFATM to have timely and correct reporting in future.

c) Are there any linkages between the current proposal and any existing Global Fund grants for the same component? (E.g. same activities, same targeted populations and/or the same geographical areas.)

☒ Yes
➔ *complete d)*

☐ No
➔ *go to 4.6.5.*

d) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided under current Global Fund grants.

The activities in this proposal are either new or are scaling up best practices and continue activities executed through Round 4. Not all activities can be executed with current funding levels, due to insufficient planning of required resources. An increased budget is earmarked for advocacy campaigns, particularly the buying of airing time on television and radio is more expensive, but worth the investments as an increasingly larger number of people are reached through this prime medium. Activities related to

strengthening laboratory quality assurance are intended to widen the scope and institutionalize currently on-going activities. Supervisory activities are also being extended and expanded to allow proper supervision at all levels. External reviews of the programme are also included in Round 4. An additional review is planned only in the last year of this proposal.

All activities related to service delivery among vulnerable populations, DOTS-Plus, long-term human resource development, pre-service training, operational research and electronic reporting are new and not covered by Round 4. Some of these activities build on earlier efforts but do not duplicate them as they take place in different years and different contexts.

Technical assistance has also been included in this proposal where relevant and where funding is not available from other sources. The funding requested in this round is additional to existing and planned resources and will not substitute for existing and planned resources.

4.6.5 Linkages to other donor funded programs

a) Are there any linkages between the current proposal and any other donor funded programs for the same disease	☒ Yes ➔ *complete b)* ☐ No ➔ *go to 4.6.6.*

b) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided by other donors, including in respect of health system strengthening activities.

The only other external donor is WHO. The regular budget of WHO is very limited and covers attending international meetings aimed at coordinating TB control efforts at the supranational level. Other activities organized by WHO will be to attend (MDR-TB training) but the country needs to identify funds for its participation. Such activities are included in this proposal. Technical support provided through WHO will need to be funded with funds identified by the country and is therefore, where relevant, included in this proposal. The programme wishes to avail the services of GLC for setting up a DOTS-Plus project integrated in the routine TB control programme and has identified funds in this proposal to pay for these services. Funding support for second-line drugs, to be provided through GLC, is also included in this proposal.

4.6.6 Activities to strengthen health systems

Certain activities to strengthen health systems may be necessary in order for the proposal to be successful and to initiate additional HIV/AIDS, tuberculosis, and/or malaria interventions. Similarly, such activities may be necessary to achieve and sustain scale-up.

Applicants should apply for funding in respect of such activities by integrating these within the specific disease component(s). Applicants who have identified in section 4.4.4 health system constraints to achieving and sustaining scale-up of HIV/AIDS, tuberculosis and/or malaria interventions, but do not presently have adequate means to fully address these constraints, are encouraged to complete this section. For more information, please refer to the Guidelines for Proposals, section 4.6.6.

a) Describe which health systems strengthening activities are included in the proposal, and how they are linked to the disease component. *(In order to demonstrate this link, applicants should relate proposed health systems interventions to disease specific goals and their impact indicators. See the Multi-Agency M&E Toolkit.)*

There are no major health systems strengthening activities included as the basic required health systems are in place to allow carrying out the proposed activities. However, there are major benefits for the health system as a whole that result from the investments in TB control. Those benefits are elaborated under c).

b) Explain why the proposed health systems strengthening activities are necessary to improve coverage to reduce the impact and spread of the disease and sustain interventions. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.6.)*

Introduction of IT is part of a long-term government strategy for increasing efficiency and efficacy of rendering health services throughout the country, including in remote areas. The provision of computers to all districts will give an impetus to this process, beneficial in the first place for TB control but also for other health programmes as well. The introduction of culture facilities in the regional reference hospitals will allow these hospitals to better fulfill the requirements linked to a reference laboratory.

c) Describe how activities to strengthen health systems, integrated within this component, will have positive system-wide effects and how it is designed in compliance with the surrounding context and aligned with government policies.

OBJECTIVE 1

SDA 1: Community TB care, particularly in addressing the needs of identified "vulnerable communities" (Supportive environment: Community TB Care)

Identifying and addressing needs for TB control in prisons is contributing to health systems development as it supports rendering primary health care services to prisoners, which is particularly important for an infectious disease. Expanding TB control to include also monasteries will contribute to health improvement of a fairly large subsection of the population and will support linking allopathic with traditional medicine services well established throughout monasteries. The activities targeting cross-border patients aim at setting up a mechanism for referral of patients across an international border in a sustainable way.

SDA 2: Management of multi-drug-resistant tuberculosis (MDR-TB)

While good DOTS programmes will prevent the emergence of drug resistance, the programme needs to address MDR-TB to prevent the further transmission of this form of TB in the community in order to reach the goal of reducing the mortality, prevalence and incidence of TB and in line with the objective of treating all TB patients. Improving capacity for the management of MDR-TB requires substantial human resource development among various categories of staff. This will benefit general human resources development within the health system including laboratory services. The introduction of standardized practices for the use of second-line drugs and management of MDR-TB will also make a significant contribution to the adoption of standardized good clinical practices in line with national and international policies and guidelines.

OBJECTIVE 2

SDA 4: Laboratory quality assurance (Supportive environment: laboratory)

Smear-microscopy is the first-choice test for diagnosing pulmonary TB. Only a well-established network of reliable laboratories is able to detect the smear-positive (infectious) cases. The institutionalization of cost-effective quality assurance mechanisms is very important to create such network. Investigations for diagnosing other group of patients will only be required if the sputum test turns out to be negative (provided the test results is reliable). A quality-assured laboratory network will thus contribute to a rational use of more expensive investigations and a more rational use of antibiotics, as these won't be required for smear-positive patients. Proper identification of smear-positive patients allows also to monitor the most crucial group of patients in epidemic analyses. The introduction of culture facilities in the regional reference hospitals will allow these hospitals to better fulfill the requirements linked to a reference laboratory.

SDA 5: Human resource development on short-, medium- and long-term programme needs and enhance capacity building at all levels (Human Resources)

The masters training in epidemiology will provide a major contribution for strengthening health systems

particularly in the longer term. The incumbent will be an important resource for future policy and strategy development. Skills acquired during such trainings can potentially be applied to other programmes as well. The proper inclusion of clinical and public health aspects in the various training curricula of RIHS will provide a major boost to health systems strengthening as future fresh graduates will be equipped with the knowledge of sound TB control prior to joining the workforce. It will reduce the need for in-service trainings in the initial years after leaving the school. Regular staff training of various cadres of staff in TB control is contributing as the health services are designed to work with multipurpose health workers, particularly at the more peripheral levels. Training these people in TB control will increase their competence and enhance the credibility of the system in the community.

SDA 6: Programme management and Monitoring and Evaluation

Operational research for TB conducted in Bhutan contributes in two ways to health systems strengthening: it will build the capacity of the researchers and faculty of RIHS and it will generate evidence within the country which will serve as benchmarks for adjusting policies and strategies, rather than solely depending on experience from other countries. The introduction of IT will benefit multiple programmes as the hardware will be available for other programmes as well and the methodologies of recording, data collection and analysis can set examples for other programmes. It will provide opportunities of building capacities within districts to analyze and use their own data, upon which decisions relevant for the particular district can be made. The supervisory activities can provide opportunities upon which other programmes can be hooked.

OBJECTIVE 3

SDA 7: Procurement of drugs and vaccines

This SDA will largely contribute to the country-specific health trust fund, ensuring sustainable financing of key health interventions.

d) Are there cross-cutting health systems strengthening activities integrated within this component that will benefit any other component included in this proposal?	☐ Yes ➔ *complete e) and f)* ☒ No ➔ *go to g)*
e) If you answered yes for d), describe these activities and the associated budgets and identify and explain how the other components will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	
Not applicable	
f) If you answered yes for d), confirm that funding for these activities has not also been requested within the other component. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	
Not applicable	
g) Is this component reliant on any cross-cutting health systems strengthening activities that have been included within other components of this proposal?	☐ Yes ➔ *complete h)* ☒ No ➔ *go to 4.6.7.*
h) If you answered yes for g), describe these activities and the associated budgets and identify and explain how this component will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	
Not applicable	

4.6.7 Common funding mechanisms

This section seeks information on funding requested in this proposal that is intended to be contributed through a common funding mechanism (such as Sector-Wide Approaches (SWAp), or pooled funding (whether at a national, sub-national or sector level).

a) Is part or all of the funding requested for the disease component intended to be contributed through a common funding mechanism?	☐ Yes ➔ *answer questions below.* ☒ No ➔ *go to 4.8*

b) Indicate in respect of each year for which funds are requested the amount to be funded through a common funding mechanism.

Not applicable

c) Describe the common funding mechanism, whether it is already operational and the way it functions. Identify development partners who are part of the common funding mechanism. Please also provide documents that describe the functioning of the mechanism as an annex. *(This may include: The agreement between contributing parties; joint Monitoring and Evaluation procedures, management details, joint review and accountability procedures, etc.)*

Not applicable

d) Describe the process of oversight for the common funding mechanism and how the CCM will participate in this process.

Not applicable

e) Provide an assessment of the incremental impact on projected targets as a consequence of the funds being requested for this component, which are to be contributed through the common funding mechanism.

Not applicable

f) Explain the process by which the applicant will ensure that funds requested in this application, that are contributed to a common finding mechanism, will be used specifically as proposed in this application.

Not applicable

4.6.8 Target groups

Provide a description of the target groups, and their inclusion during planning, implementation and evaluation of the proposal. Describe the impact that the program will have on these group(s).

The programme targets all TB suspects and patients. However some interventions are particularly targeted at the more vulnerable populations including prisoners, monks and nuns, cross-border patients, truck drivers, nomadic and floating people.

Prior to this proposal development a consultative discussion was organized with participation from a wide range of stakeholders including representatives from the national women association, monk body, police, formal and non-formal education sector, people's representative, former patients, business sector and representatives from bilateral and multilateral agencies. During this consultation all concerns from the various stakeholders were formulated and inputs were given as to what to include in this proposal. The

specific groups were defined during this consultation.

During implementation the involvement of other ministries such as Defense, Justice, Religious Affairs, etc. will be ensured to establish and synergize the TB control efforts.

Another target group includes the undergraduate students at RIHS. By including the new TB strategy as part of the training curriculum, future generations of paramedical staff and allied health workers will have the necessary skills in TB control. All relevant current health workers will be targeted for tailored in-service training activities. This should result in a competent workforce able to deliver the required TB services.

Communities and families to which TB patients belong will benefit from these interventions. Increased awareness and better management of TB should result in reduced diagnostic delays and better treatment results, leading to reduced transmission of disease. The society will also benefit as the majority of the TB patients are found in the economically active age group. Hence TB control contributes to a healthy workforce, which will benefit patients, families and the society.

4.6.9 Social stratification

Provide estimates of how many of those expected to be reached are women, how many are youth, how many are living in rural areas and other relevant categories. The estimates must be based on a serious assessment of each objective.

Table 4.6.9 Social stratification

	Estimated number and percentage of people reached who are:			
	Women	Youth (<18)	Living in rural areas	Other*
SDA 1	25000 (20%)	20000 (40%)	40000 (90%)	
SDA 2**	30 (50%)	<5	50 (70%)	
SDA 3	250000 (50%)	200000 (40%)	300000 (60%)	
SDA 4	300000 (50%)	282000 (40%)	470000 (70%)	
SDA 5	300 (50%)	30 (5%)	450 (75%)	
SDA 6	500 (50%)	0	750 (75%)	

* *"Other" to include target groups according to country setting, e.g. indigenous populations, ethnic groups, underprivileged regions, socio-economic status, etc. Targets should be defined according to country disease programs.*

** *This refers to patients. Patients can be enrolled from all over the country. As such 100% of the country's population will be reached.*

4.6.10 Gender issues

Describe gender and other social inequities regarding program implementation and access to the services to be delivered and how this proposal will contribute to minimizing these gender inequities.

More male than female patients are notified. In 2005, there were 100 male TB patients for 80 female. This difference is less pronounced than neighboring countries. There is no reason to believe that there is an under detection of female patients. From limited studies abroad and surveys carried out in neighboring countries, it is well documented that TB and in particular smear-positive TB, is a predominantly male disease, except in settings with a high HIV prevalence.

On the provider side, there is a fair balance between men and women at all levels. Most of the village health volunteers are women. There is no taboo attached to female patients being treated by a male health worker or vice-versa.

4.6.11 Stigma and discrimination

Describe how this component will contribute to reducing stigma and discrimination against people living with HIV/AIDS, tuberculosis and/or malaria, as applicable and other types of stigma and discrimination that facilitate the spread of these diseases.

The stigma against TB in Bhutan is fairly small or almost inexistent. Patients are well taken care of by their families and are not ostracized. The health personnel show an attitude of caring for a patient, not a disease.

The activities mentioned in this proposal aim at strengthening TB control in general which implies promoting services, which are non-discriminatory and not stigmatizing. The involvement of religious people and expanding awareness campaigns will further contribute to general acceptance of TB as a "normal" treatable and curable disease.

4.6.12 Equity

Describe how principles of equity will be ensured in the selection of patients to access services, particularly if the proposal includes services that will only reach a proportion of the population in need (e.g., some antiretroviral therapy programs).

All services are provided free of charge in line with national policy. The programme aims at detecting and treating all TB patients in the country, irrespective of sex, age, ethnicity, nationality or religion. While the coverage of DOTS services has been 100%, the real accessibility is much less. However the less accessibility generally is across the population. Some subsections of the population have been identified where the programme thinks access to TB control services is sub optimal and these so-called vulnerable populations are particularly addressed in this proposal.

The improvements in sampling for culture and DST should allow a better identification of MDR-TB patients. The introduction of DOTS-Plus to treat MDR-TB patients.

Health services provided by the military or corporate companies are already integrated in the TB control programme and do not require additional support on top of what is already provided now.

4.6.13 Sustainability

Describe how the activities initiated and/or expanded by this proposal will be sustained at the end of the program term. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.13.)*

Activities proposed during the period of the proposal will provide a major boost to the programme but need not be extended beyond the life of the proposal. The several rounds of intensive training of staff at all levels will need to continue but to a lesser extent and frequency. Similarly, the external technical assistance included will have contributed substantially to building in-country capacity and will not need to be continued at this level. A strong, decentralized programme, with involvement of various stakeholders will contribute to a more visible, high quality programme which is more likely to attract funding from the Government and support from the community. Some activities are intended to create a mechanism, which will be able to function without extra budgetary support. This applies to TB control in prisons, involvement of monk bodies, cross-border referral systems or institutionalization of quality assurance schemes. Several proposed interventions allow also for other programmes to be hooked on so that the envisaged activities can be continued in future on a cost-sharing basis with other programmes.

BCG vaccination coverage in Bhutan is 98%. The TB control strategies as of now focuses on case

detection and management. The primary prevention of severe forms of TB in children is an important area, which needs to be sustained. This fund from the round six could contribute towards sustaining the BCG vaccination program and MDR-Drugs, which would significantly contribute towards TB control program in Bhutan in the long run.

4.7 Principal Recipient information

In this section, applicants should describe their proposed implementation arrangements, including nominating Principal Recipient(s). See the Guidelines for Proposals, section 4.7, for more information. Where the applicant is a Regional Organization or a Non-CCM, the term 'Principal Recipient' should be read as implementing organization.

4.7.1 Principal Recipient information

Every component of your proposal can have one or several Principal Recipients. In table 4.7.1 below, you must nominate the Principal Recipient(s) proposed for this component.

Table 4.7.1: Nominated Principal Recipient(s

Indicate whether implementation will be managed through a single Principal Recipient or multiple Principal Recipients.	☒ Single
	☐ Multiple

Responsibility for implementation			
Nominated Principal Recipient(s)	**Area of responsibility**	**Contact person**	**Address, telephone, fax numbers and e-mail address**
Department of Aid and Debt Management (DADM)	For all foreign and bilateral or multilateral agency contributions	Mr. Sonam Wangchuk Director General	DADM, Ministry of Finance. Tel.+975-2-326775 swangchuk@mof.gov.bt

4.8 Program and financial management

4.8.1 Management approach

Describe the proposed approach of management with respect to planning, implementation and monitoring the program. Explain the rationale behind the proposed arrangements. *(Outline management arrangements, roles and responsibilities between partners, the nominated Principal Recipient(s) and the CCM. Maximum of half a page.)*

When the external funding has been approved, the selected Principal Recipient (Department of Aid and Debt Management of the Ministry of Finance) will be responsible for the receiving, disbursing and monitoring of the funds to the sub-recipients. The responsibility of the sub recipient in this case, the ministry of Health to request funding of the activities through proposals to the PR. The PR's responsibility to request the agreed upon installment from the donor. On receipt of the fund from the donor the PR disperses the fund quarterly based on the request, annual work plans and the quarterly progress reports.

There are two types of fund releases, one to the central program to the ministry of health to be handled by administration and finance division and other release to the respective districts where funding will be

disbursed to the health and other sub recipients. Planned activities in the districts with the donor funds require sub recipients to send their costed work plans to the ministry of health (sub-recipient) which will finalize and approve prior to submitting them to the PR for fund disbursement to the district administration. Accountability for the fund utilization by the district id directly to the PR. Quarterly progress reports of the activities are sent with the budget utilization report t the PR (DADM) with copy to the ministry of health to facilitate further disbursement of funds. The ministry of Health has a monitoring function for the district funds.

The fund directly requested and released to the Accounts and Finance Division (AFD) of ministry of health on quarterly basis in accordance with the annual work plan are utilized by the TB program manager who is accountable to the AFD, Ministry of health who in turn are accountable to the PR.

All accounts are subject to annual external account auditing from the Royal Audit authority, an autonomous body reporting to the cabinet. In addition all the ministries have an internal audit unit who provide continual check and balance. The Local Fund Agent (LFA) will monitor project implementation by the PR. The accounting to donors for funds released is managed by the PR as per memorandum of understanding between the donor and Royal Government of Bhutan.

The management arrangements are those that have been established between the Royal Government of Bhutan and the external donor assistance in funding of the Health services. They have been found to be satisfactory and constitute the only efficient way to release for health related activities through out the country.

The PCM is the main custodian of the fund and the principal recipient reports to the PCM on fund disbursement from the GFATM, Fund release to the Sub-recipients, implementation status and audited report.

Please note that if there are multiple Principal Recipients, section 4.8.2 below has to be repeated for each one.

4.8.2 Principal Recipient capacities

a) Describe the relevant technical, managerial and financial capacities for each nominated Principal Recipient. Please also discuss any anticipated shortcomings that these arrangements might have and how they will be addressed, please refer to any assessments of the PR(s) undertaken either for the Global Fund or other donors (e.g., capacity-building, staffing and training requirements, etc.).

The Department of Aid and Debt Management has already proven its experience in managing large amounts of external funds. It is ensuring smooth implementation of several types of programmes relevant to disease control, health and other sectors. The improving health-related indicators in the country show the positive impact of the successful utilization of funds allocated to this PR. However, given the need to ensure timely implementation and to meet the reporting requirements for smooth fund disbursements, additional administrative support is being requested for.

b) Has the nominated Principal Recipient previously administered a Global Fund grant?	☒	Yes
	☐	No
c) Is the nominated PR currently implementing a large program funded by the Global Fund, or another donor?	☒	Yes
	☐	No

d) If you answered yes for b) or c), provide the total cost of the project and describe the performance of the nominated Principal Recipient in administering previous grants (Global Fund or other donor).

In total the cost of the project was $ 560568 for the phase I and $ 433730 for the phase II of the 4th Round GFATM. Not only does this PR implements for GFTAM but all the foreign, bilateral or multilateral agency contributions to the country is disbursed through the same PR. The managements are those that have been established between the Royal government of Bhutan and external donors for external assistance in the funding of Health services. They have been found to be satisfactory and constitute the only efficient way to release funds for health related activities throughout the country.

Although there has been lot of problem due to delay in first disbursement of the GFATM 4th Round, the PR has been very efficient in carrying out their responsibility as PR and the achievement in the year one of 4th round is about 80 %.

External resources comprise of 50% of the total government budget and DADM has the mandate to mobilize these resources. For e.g for the fiscal year 2004-2005 approximately USD 90 million excluding GFATM has been mobilized and successfully disbursed for different developmental activities.

Tentative 9th plan till 2008.External Resources (Updated 27.7.2005)

Sl.No.	Donor	9th plan Expected Commitment	Nu. In millions	% of Resource	Mobilized (Nu)	Balance (Nu)	Sectors	Remarks
1	Austria	ATS 150 m	450.00	1.29	380.70	69.30	Energy, Tourism, and Culture.	ATS 30 m per year excluding Basochhu. ATS 1=Nu. 3.
2	Denmark	18.75 m	1,848.75	5.29	2,852.09	- 1,003.34	Education, Urban, Health, Env. (Phasing out) and Good Governance & Media.	DKK 63.75 m per year. DKK 1= Nu. 5.8. Assuming a reduction of 15 % on the original projections of DKK 75 m due to recent Danish dev. Corp. policy changes.
3	India	Rs. 20,000 m	20,000.00	57.21	14,438.16	5,561.84	Programme Grant, Energy, Roads, Health, Education, HRD.	Requested Nu. 20,000 m (Rs. 10,000 m for projects and Rs. 10,000 m for programme grant).
4	Japan	USD 55 m	2,585.00	7.39	1,952.31	632.69	Bridges, Road Mechanization, Energy, KR II, BBS.	8th plan average.
5	The Netherlands	USD 15 m	705.00	2.02	1,048.69	- 343.69	Culture, RNR/ Biodiversity, Energy, Education and HRD.	USD 3 m per year.
6	Norway	USD 4 m	188.00	0.54	175.62	12.38	Energy, Environment.	Based on 8th plan projects.
7	Switzerland	SFr 40 m	1,000.00	2.86	1,130.61	- 130.61	RNR, Suspension Bridges, Education, Culture, HRD.	SFr 8 m per year. SFr 1=Nu. 25.
8	Canada				288.51	- 288.51	Education	
9	Australia				164.44	- 164.44	HRD, RNR	
	Total Bilateral		26,776.75	76.60	22,431.13	4,345.62		
1	EU	USD 8.38 m	393.86	1.13	984.25	- 590.39	Traditional Medicine & Livestock	USD 3.38 m for Medicinal Plant and approx. USD 5 m for Livestock & Pest Management projects.
2	UNDP	USD 8.5 m	399.50	1.14	377.99	21.51	Governance, Sustainable Livelihood and Envrionment.	9th Plan commitment
3	UNCDF	USD 2 m	94.00	0.27	45.50	48.50	Decentralization.	9th Plan commitment
4	UNICEF	USD 14 m	658.00	1.88	648.19	9.81	Health and Education.	Tentative 9th plan commitment.
5	UNFPA	USD 5 m	235.00	0.67	205.66	29.34		Tentative 9th plan commitment.
6	WFP	USD 22 m	1,034.00	2.96		95.15	Roads & Education.	Tentative 9th plan commitment.

					938.85			
7	WHO	USD 5.25 m	246.75	0.71	58.95	187.80	Health.	8th plan commitment
	Total Multilateral		3,061.11	8.76	3,259.40	- 198.29		
1	Asian Development Bank	USD 30 m	2,345.19	6.71	1,645.49	699.70	Urban Development, Rural Electrification, Transport Network.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
2	World Bank	USD 30 m	2,379.88	6.81	4,399.83	- 2,019.95	Education, Forestry, Roads, Financial Institutions and Private Sector Development.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
3	IFAD		291.94	0.84	279.53	12.41	RNR, Forestry.	Spillover provision.
4	Danida (Mixed Credit)				748.15	- 748.15		
	Total Financial Institutions		5,017.01	14.35	7,073.00	- 2,055.99		
	NGO & Others				1,118.03	- 1,118.03		
	Grand Total		34,854.87	99.71	33,881.56	973.31		

Note:

1 Minor/adhoc donors, NGO's not included as commitment not certain.

3 Exchange rate used USD 1=Nu. 45 for the planning purposes.

e) If you answered yes for b) or c), describe how the PR would be able to absorb the additional work and funds generated by this proposal.

The PR is the department I the ministry of finance dealing only with external AID from all sources. Its technical, financial and managerial capabilities are under the control and according to the rules and regulations of the Royal Government of Bhutan. The responsibilities are laid down in the Royal Government of Bhutan (RGoB) MoF rules an d regulations (20001) and included among others:

-External resource mobilization

-Negotiation of loans and grants with lenders and the development partners

-Recording receipt of all cash and kind assistance.

Also being a department with full capable staff under a Director General as the head of this department, there is no question of not able to absorb any amount of additional fund.

4.8.3 Sub-Recipient information

a) Are sub-recipients expected to play a role in the program?	☒ Yes *➔ complete the rest of 4.8.3*
	☐ No *➔ go to 4.9*
b) How many sub-recipients will or are expected to be involved in the implementation?	☒ 1 – 5
	☐ 6 – 20
	☐ 21 – 50
	☐ More then 50

c) Have the sub-recipients already been identified?	☒ Yes ➔ *complete 4.8.3. d) -e) and then go to 4.9*
	☐ No ➔ *go to 4.8.3. f) – g)*

d) Describe the process by which sub-recipients were selected and the criteria that were applied in the selection process (e.g., open bid, restricted tender, etc.).
Following the decision to apply for the round six by the CCM-Bhutan, all the relevant stakeholders are called for a meeting to put forward their views and apply for the grant (call for the intrest to apply for was done through the official media-attached with proposal for referral). The sub-recipients are the only actors in the health and at the grassroots community activities nationwide. They are chosen to facilitate the program activities throughout the country.
e) Where sub-recipients applied to the Coordinating Mechanism, but were not selected, provide the name and type of all organizations not selected, the proposed budget amount and reasons for non-selection in an annex to the proposal.
Not applicable
f) Describe why sub-recipients were not selected prior to submission of the proposal.
Not applicable
g) Describe the process that will be used to select sub-recipients if the proposal is approved, including the criteria that will be applied in the selection process.
Not applicable

4.9 Monitoring and evaluation

The Global Fund encourages the development of nationally owned monitoring and evaluation plans and monitoring and evaluation systems, and the use of these systems to report on grant program results. By completing the section below, applicants should clarify how and in what way monitoring the implementation of the grant relates to existing data-collection efforts.

4.9.1 Plans for monitoring and evaluation Describe how the targets and activities indicated in the Targets and Indicator Table (attached as Attachment A to this proposal, see section 4.6) will be monitored and evaluated. Please identify any surveys to which this proposal is contributing.
Indicators have been selected to measure the R6-supported interventions. When selecting indicators, the following criteria were taken into consideration: - Providing a good mix of level 1, level 2 and level 3 indicators. This does not mean that all three levels of indicators are included for each SDA. Not all levels of indicators are relevant to measure the progress with achieving the SDA. - Feasibility of measuring the indicators in terms of additional work or additional cost involved. Where possible, existing indicators are used, i.e. available from reports that need to be submitted with certain activities, annual reports, simple questionnaires that can be sent to all hospitals, direct outcome

measurement (e.g. collecting newspaper ads), etc.

No direct measurement exercises of impact indicators are included at the end of the proposal period, as it is not indicated to undertake or repeat disease prevalence, incidence or mortality surveys. The impact indicators will be indirectly measured, through mathematical modeling, or will be dependent on the annual disease burden profile published by WHO. When publication this profile, WHO follows a scientific approach to come up with best estimates of prevalence, incidence, mortality, HIV co-infection, etc.

The list of indicators is mentioned in Attachment A.

4.9.2 Integration with national M&E Plan

Describe how performance measurement for this program is proposed to contribute to and/or strengthen the national Monitoring and Evaluation Plan for this component. If a national Monitoring and Evaluation strategy exists, please attach it as an annex to the proposal, and provide a summary of key linkages with the national Monitoring and Evaluation Plan and data collection methods.

The M&E plan will be based on (1) data available from routine reporting system from districts (2) Assessing microscopy quality at national and district through quality assurance programs (3) Reviewing the findings and recommendation proposed through recording and reporting on review meetings conducted at district and regional level, and (4) The periodic international review of the national TB programme to review programme status and advice further improvement.
The overall of M&E framework follows the guideline of "Monitoring and Evaluation Toolkit, HIV/AIDS, Tuberculosis and malaria" by WHO and others and GFATM M&E template: coverage-impact indicator framework.

Coverage indicators: measure the changes in key variables that demonstrate that larger numbers of individuals in the defined target groups are being reached by and benefit from services or interventions; e.g. awareness about the TB disease through mass media, number of IEC material produced and distributed, increase number of individuals seeking medical care due to TB signs and symptoms.

Impact indicators: measure the changes in sickness and death due to tuberculosis, or TB burden over a longer period, in the target population that indicate that the fundamental objectives of the interventions have been achieved, e.g. detection of case increased in the community, cure rate increased through improved quality of diagnosis and treatment and reduced in tuberculosis mortality and morbidity.

Monitoring will be a continuous process while evaluation will be conducted periodically. The M&E schedule of GFATM on tuberculosis, the indicators, data sources, periodicity, and responsible are showed in M&E template.

The existing monitoring and evaluation mechanism of the Tuberculosis Program revolves around the quarterly reports from the districts with new cases; smear conversion cases and outcome cohort analysis. The tuberculosis register kept at all the districts is the key source for these reports. However diagnosis and treatment of one patient involves three parties: the district hospital health workers, the laboratory staff and the BHU staff who monitor the continuation phase of the anti TB treatment. This proposal builds on the quarterly reports by bringing together the key players to finalize and cross check the data that they each hold on the patients with in the districts. The biannual regional review meeting allows further crosschecking of the patients transferred between the districts. This complements and builds on the current M & E system. In addition the QA system calls for onsite supervision and quarterly blinded rechecking of all positives and 10 % negative slides to be introduced. This builds on the quarterly panel testing which is currently being followed. The training of the central cadre of laboratory staff and all the laboratory technicians will build on the current system of TB microscopy monitoring.

4 Component Section *Tuberculosis*

4.10 Procurement and supply management of health products

In this section, applicants should describe the management structure and systems currently in place for the procurement and supply management (PSM) of drugs and health products in the country. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.10.

4.10.1 Organizational structure for procurement and supply management

Briefly describe the organizational structure of the unit currently responsible for procurement and supply management of drugs and health products. Further indicate how it coordinates its activities with other entities such as National Drug Regulatory Authority (or quality assurance department), Ministry of Finance, Ministry of Health, distributors, etc.

The procurement of drugs and non-drugs supplies is based on the six Monthly Drug report and Annual Indent report submitted by the health centers. Based on the information from these reports quantification of the annual requirement is worked out for each and every medical supply for all the health centers. Based on the annual requirement budget requirement is prepared. After the annual budget is approved further quantification is done (increase/decrease the requirements) and the actual quantity for procurement is worked out. This is how the procurement plan for annual procurement of drugs and non-drugs supplies is developed.

Procurement systems

It is required that the open tender system is followed. But keeping in view that quality is the key to medical supplies and that it is very difficult to assess the quality and capacity of the supplier we have a system where we resort to tendering only with the registered suppliers. There are over 47 suppliers for drugs and about 30 suppliers for non-drug supplies who bid for the supplies annually. The list of suppliers is not fixed. As and when the new potential suppliers are identified, they are registered and are allowed to compete in the tendering process. The tenders are invited from the registered suppliers.
After the tenders are received, the Tender Evaluation Committee evaluates the tenders/ suppliers. Then the Tender selection Committee (Award Committee0 selects the suppliers/ supplies. Based on the decisions of the Tender Award Committee, the purchase orders are placed. As per the deadlines/ specifications/terms and conditions mentioned in the purchase order, the suppliers affect the delivery of the supplies.

Quality assurance and quality control

The quality checking for drugs is carried out in Bangkok with help of WHO laboratory. Since it is very expensive and that at times it is not possible to send all the drugs for testing, randomly sampled drugs are sent for testing. In case the drugs fail the quality test, that particular batch of drugs has to be either replaced or if the second lowest bidder is chosen. The cost difference is charged to the first bidder/defaulter.
For non-pharmaceuticals the physical quality checks are carried out by the users, Biomedical Engineering staff and the Medical Supplies Department (MSD) staff. The quality check is based on the samples specifications catalogues, past experiences, and so on. The quality-failed supplies are returned to the suppliers and replacement is sought if they are still within the deadline. If not, the order is cancelled and goes for the second lowest evaluated bid.

National laws

Apart from the National drug Policy, the 81st session of the National Assembly has passed the Medicines Act of the Kingdom of Bhutan last year. This is mainly to promote quality drugs in the country. In it there is a provision for formation of the National drug regulatory Authority, and setting up of drug testing laboratory in the country

Distribution and inventory management

Based on the quantification exercise, the distribution orders are prepared by the DVED. The distribution orders are then sent to Medical Supply Depot, Phuntsholing and from there the supplies are distributed to the health centers. Given the rugged terrain, and information technology is yet to develop, it is very difficult to monitor the inventory management. Nonetheless, frequent supervisory visits are made to health centers to ensure proper maintenance and use of medical supplies. A Medical Software Inventory Program is in the process of being developed and will be used in the coming fiscal year.

Appropriate use

Wastage of drugs is oriented to be seen as a criminal act. Therefore, all our users particularly Store in charges of health centers are frequently trained on rational use of drugs and good store management. The training on good store management is mainly imparted to improve inventory management in the health centers

4.10.2 Procurement capacity

a) Will procurement and supply management of drugs and health products be carried out (or managed under a sub-contract) exclusively by the Principal Recipient or will sub-recipients also conduct procurement and supply management of these products?	☒ Sub-recipients only

b) For each organization involved in procurement, please provide the latest available annual data (USD) of procurement of drugs and related medical supplies by that agency.

Drugs vaccines and Equipment Division of the Ministry of Health is the sole division responsible for the procurement drugs and medical supplies. The total budget for the years are as follows:

1. 2003-2004 was USD 166667 for the procurement of drugs and Medical supplies.
2. 2004-2005 was USD 1888889
3. 2005-2006 is USD 2144444

4.10.3 Coordination

a) For the organizations involved in section 4.10.2.b, indicate in percentage terms, relative to total value, the various sources of funding for procurement, such as national programs, multilateral and bilateral donors, etc

Royal Government of Bhutan= US $ 5233333 (82.3%), UNFPA = US $157,398(2.4%), UNICEF= US$ 10,000 (0.16%), GFATM=US$ 396001(0.62%).

b) Specify participation in any donation programs through which drugs or health products are currently being supplied (or have been applied for), including the Global Drug Facility for TB drugs and drug-donation programs of pharmaceutical companies, multilateral agencies and NGOs, relevant to this proposal.

None

4.10.4 Supply management (storage and distribution)

a) Has an organization already been nominated to provide the supply management function for this grant?	☒ Yes ➔ *continue*
	☐ No ➔ *go to 4.10.5*

b) Indicate, which types of organizations will be involved in the supply management of drugs and health products. If more than one of the boxes below is ticked, describe the relationships between these entities.	☒ National medical stores or equivalent
	☐ Sub-contracted national organization(s) *(specify which one(s))*
	☐ Sub-contracted international organization(s) *(specify which one(s))*
	☐ Other *(specify)*

c) Describe the organizations' current storage capacity for drugs and health products and indicate how the increased requirements will be managed.

The Drugs Vaccines and Equipment Division (DVED) under the Ministry of Health is solely responsible for the procurement of drugs and medical supplies for Bhutan. The procurement is done annually through the Global tendering system. All supplies are received by the Medical Supplies Depot, which is located in Phuntsholing. At present the existing warehouse facilities are partially utilized and at least 2 to 3 times more supplies can be safely stored in the existing space in the main warehouse and a similar position is in the districts. No additional arrangements are required.

d) Describe the organizations' current distribution capacity for drugs and health products and indicate how the increased coverage will be managed. In addition, provide an indicative estimate of the percentage of the country and/or population covered in this proposal.

Distribution and inventory management

Based on the quantification exercise, the distribution orders are prepared by the DVED. The distribution orders are then sent to Medical Supply Depot, Phuntsholing and from there the supplies are distributed to the health centers. Frequent supervisory visits are made to health centers to ensure proper maintenance and use of medical supplies. A Medical Software Inventory Program is in the process of being developed and will be used in the coming fiscal year. Hospitals and other health facilities are equipped with refrigerators to store items, which require cold storage. With the construction of the Regional Hospitals, the buffer storage facilities will be managed through the regional stores. At present three hospital are under construction which have storage facilities. Under the world Bank project for HIV/AIDS, the computerization of the inventory system and procurement system has been initiated and will be completed by the end of 2006.

[For tuberculosis and HIVAIDS components only:]

4.10.5 Multi-drug-resistant TB	
Does the proposal request funding for the treatment of multi-drug-resistant TB?	☒ Yes
	☐ No
If yes, please note that all procurement of medicines to treat multi-drug-resistant tuberculosis financed by the Global Fund must be conducted through the Green Light Committee (GLC) of the Stop TB Partnership. Proposals must therefore indicate whether a successful application to the Committee has already been made or is in progress. For more information, please refer to the GLC website, at http://www.who.int/tb/dots/dotsplus/management/en/. Also see the Guidelines for Proposals, section 4.10.5.	

4.11 Technical and Management Assistance and Capacity-Building

Technical assistance and capacity-building can be requested for all stages of the program cycle, from the time of approval onwards, including in respect of , development of M&E or Procurement Plans, enhancing management or financial skills etc. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.11.

4.11.1 Capacity building

Describe capacity constraints that will be faced in implementing this proposal and the strategies that are planned to address these constraints. This description should outline the current gaps as well as the strategies that will be used to overcome these to further develop national capacity, capacity of principal recipients and sub-recipients, as well as any target group. Please ensure that these activities are included in the detailed budget.

Where capacity is insufficient, special activities for building capacity are included in the proposal. The execution of the activities therefore should not pose problems. Some activities are planned to take place from the second or third year onwards so as not to exceed the managerial and coordinating capacity of the relevant levels.

One additional staff is proposed to be recruited for a period of four years. This person will ensure that sustainable capacity is build for the recording system.

Relevant staff shall be sent abroad for specific trainings in epidemiology, advanced laboratory functions or MDR-TB management. Regular in-service training will continue with support from Round 4, supplemented by training of additional OPD staff from hospitals through Round 6. Relevant staff at various levels will be trained in various sub-disciplines of the TB programme through national, regional or district workshops.

Specific capacity building is designed towards reaching monks and nuns or prison staff. The faculty of RIHS will also be involved in teaching new curricula that will address clinical and public health aspects of TB control in line with the new strategy. Undergraduate students from the RIHS will benefit from the new modules during their pre-service training.

4.11.2 Technical and management assistance

Describe any needs for technical assistance, including assistance to enhance management capabilities. *(Please note that technical and management assistance should be quantified and reflected in the component budget section, section 5.6)*

Where relevant, technical assistance is included in this proposal. In-country technical assistance is available for writing the technical contents of the pre-service training modules in appropriate education-

ready materials.

International technical assistance is requested in the following fields: development of policy guidelines and capacity building for the introduction of DOTS-Plus through GLC. Another field where TA is requested is through linking with a supranational reference laboratory. This supranational reference laboratory will provide TA on a regular basis in order to make the country self-reliant for the routine implementation of culture and DST services, as well as for implementing scientifically valid and cost-effective laboratory quality assurance schemes. The introduction of an electronic TB register will be successful provided that the necessary international TA can be availed. This TA will build the capacity of a locally recruited computer resource person, design user-friendly software for incorporating new reporting requirements on a routine basis and train designated national and regional TB focal points. International experts will also be invited to take part in external programme review, scheduled to take place in 2009 and 2012.

The intensive technical assistance during the proposal period should mean a major boost for the strengthening of the programme and need not be extended with the same intensity beyond this proposal.

For the management of GFATM Round 6 activities, staff will be added to the current PMT to serve as the Secretariat of the PCM and report to the Chairman of the PCM. The current World Bank project Coordinator will be upgraded to Chief Coordinator to manage and coordinate both the GFATM and the World Bank projects. A new Project Coordinator will be recruited to specifically coordinate and manage the three disease components of the GFATM project. Two additional staff, a Finance Officer and a Secretary will also be hired to support the GFATM Project Coordinator.

Each of the existing Managers of the HIV/AIDS, TB and Malaria programmes will be responsible for the management and monitoring of GFATM activities under their respective programmes. In addition, each manager will work with the GFATM project management team and the M&E team within the Research Unit to prepare quarterly indicator progress reports and with the GFATM finance officer to prepare quarterly financial reports. Programme and financial reports from the three diseases will be compiled and reviewed by the GFATM Coordinator and submitted to the PCM through the Chair. These report will also go to the Department of Aid and Debt, the PR of the GFATM grant. With technical oversight from NAP, the PMT will also be responsible for managing the NGO small grants programme as well as activities to be implemented by Ministry of education, Armed forces, religious bodies and other partners as planned in the HIV/AIDS component.

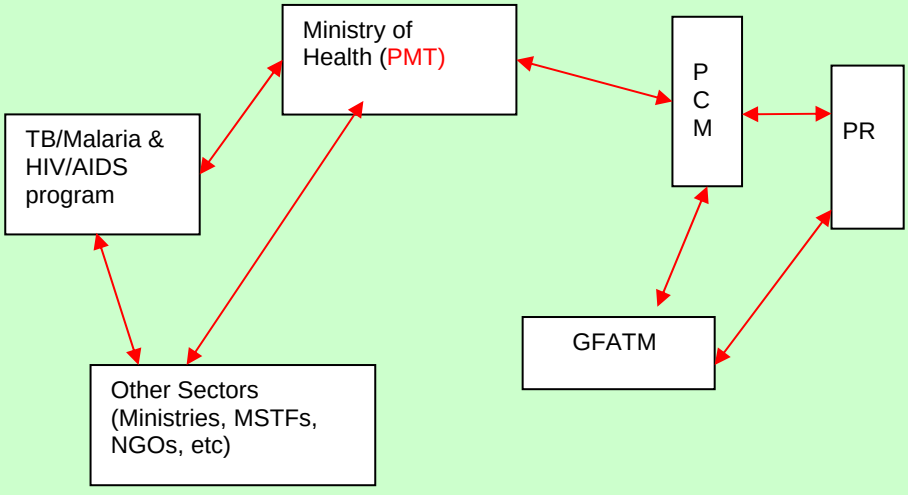
Programme Management Team for HIV/AIDS/TB/Malaria

Within the PCM Secretariat):

- 1 Chief Programme Coordinator
- 1 GFATM Project Coordinator (salary in GFATM budget)
- 1 GFATM Finance Officer (salary in GFATM budget)
- 1 GFATM Secretary (salary in GFATM budget)

Within the 3 disease programmes:

- 3 Programme Managers/Technical Officers



Flow chart: Management channel

5 Component Budget *Tuberculosis*

PLEASE NOTE THAT THIS SECTION IS TO BE COMPLETED FOR EACH COMPONENT.

In this section, applicants will need to provide summary budget information for the proposed duration of the component. Applicants are also required to provide a more detailed budget as an annex to the proposal. For more information on budget requirements, please refer to the Guidelines for Proposals, section 5.

If part or all of the funding requested for this component is to be contributed through a common funding mechanism (consistent with section 4.6.7), **applicants should provide:**

- Compile the Budget information in sections 5.1 – 5.6 on the basis of the anticipated use, attribution or allocation of the requested funds within the common funding mechanism; and
- Provide, as an annex, the available annual operational plans/projections for the common funding mechanism and explain the link between that plan and this funding request.

5 Component Budget *Tuberculosis*

5.1 Component budget summary

Insert budget information for this component broken down by year and budget category, in table 5.1 below.
(The "Total funds requested from the Global Fund" should be consistent with the amounts entered in table 1.2 relating to this component.)

The budget categories and allowable expenses within each category are defined in the Guidelines for Proposal, section 5.1. The total requested for each year, and for the program as a whole, must be consistent with the totals provided in sections 5.1.

Table 5.1 – Funds requested from the Global Fund

	Funds requested from the Global Fund (in US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	***Total***
Human resources	**62,640**	**44,000**	**4,000**	**6,500**	**1,945**	***119,085***
Infrastructure and equipment	**103,600**	**196,000**	**0**	**49,500**	**0**	***349,100***
Training	**46,200**	**27,300**	**13,700**	**15,200**	**13,700**	***139,300***
Commodities and products	**20,600**	**28,100**	**30,600**	**30,600**	**30,600**	***140,500***
Drugs	**99,000**	**66,000**	**66,000**	**66,000**	**66,000**	***363,000***
Planning and administration (This is inclusive of GLC component, TA and M&E)	**106,550**	**124,960**	**124,960**	**184,970**	**184,970**	***668,150***
Total funds requested from the Global Fund	**438,590**	**446,100**	**262,460**	**297,125**	**297,215**	***1,779,135***

5 Component Budget *Tuberculosis*

5.2 Detailed Component Budget

The Component Budget Summary (section 5.1) must be accompanied by a more detailed budget covering the proposal period, attached as an annex to the proposal. The detailed budget should also be integrated with the Work Plan referred to in section 4.6.

The Detailed Component Budget *should meet the following criteria (Please refer to the Guidelines for Proposals, section 5.2):*

*g) It should be **structured along the same lines as the Component Strategy**—i.e., reflect the same goals, objectives, service delivery areas and activities.*

h) It should cover the term of the proposal period and should:
- *i) be **detailed for year 1 and year 2** of the proposal term, with information broken down by **quarters for the first year**;*
- *ii) provide summarized information and assumptions for the balance of the proposal period (**year 3 through to conclusion of proposal term**).*

*i) It should state all key assumptions, including those relating to **units and unit costs**, and should be consistent with the assumptions and explanations included in section 5.3.*

*j) It should be integrated with the detailed **Work Plan** for year 1 and indicative Work Plan for year 2 (please refer to section 4.6).*

*k) It should be **consistent** with other budget analyses provided elsewhere in the proposal, including those in this section 5.*

5 Component Budget *Tuberculosis*

5.3 Key budget assumptions

Without limiting the information required under section 5.2, please indicate budget assumptions for year 1 and year 2 in relation to the following:

5.3.1 Drugs, commodities and products

Please use Attachment B (Preliminary Procurement List of Drugs and Health Products) in order to compile the budget request for years 1 and 2 in respect of drugs, commodities and health products. Please note that unit costs and volumes must be fully consistent with the information reflected in the detailed budget. If prices from sources other than those specified below are used, a rationale must be included.

a) Provide a list of anti-retroviral (ARVs), anti-tuberculosis and anti-malarial drugs to be used in the proposed program, together with average cost per person per year or average cost per treatment course. *(Please complete table B.1 in Attachment B to the Proposal Form.)*

b) Provide the total cost of drugs by therapeutic category for all other drugs to be used in the program. It is not necessary to itemize each product in the category. *(Please complete table B.2 in Attachment B to the Proposal Form.)*

c) Provide a list of commodities and products by main categories e.g., bed nets, condoms, diagnostics, hospital and medical supplies, medical equipment. Include total costs, where appropriate unit costs. *(Please complete table B.3 in Attachment B to the Proposal Form.)*

(For example: *Sources and Prices of Selected Drugs and Diagnostics for People Living with HIV/AIDS.* Copenhagen/Geneva, UNAIDS/UNICEF/WHO-HTP/MSF, June 2003, (http://www.who.int/medicines/organization/par/ipc/sources-prices.pdf); Market News Service, *Pharmaceutical Starting Materials and Essential Drugs*, WTO/UNCTAD/International Trade Centre and WHO (http://www.intracen.org/mns/pharma.html); *International Drug Price Indicator Guide on Finished Products of Essential Drugs,* Management Sciences for Health in Collaboration with WHO (published annually) (http://www.msh.org*); First-line tuberculosis drugs, formulations and prices currently supplied/to be supplied by Global Drug Facility (*http://www.stoptb.org/GDF/drugsupply/drugs.available.html*).)*

The only drugs proposed to be procured through the GLC form the round Six is the Anti-MDR-TB drugs together with the auxiliary drugs to treat the side effects. The lump sum cost of full treatment of a MDR-TB patient is $3000 and $ 300 per patient for the auxiliary drugs to treat side effects of the MDR drugs. In total it casts $3300 per patient for full course treatment. TB component proposed full course treatment for twenty MDR-TB patients in the year I to clear back logs and subsequently full course treatment for expected ten cases per year as mentioned in table B.1, Attachment B.

All the list of commodities and their costs are mentioned specifically in table B.3. Attachment B.

5.3.2 Human resources costs

In cases where human resources represent an important share of the budget, explain how these amounts have been budgeted in respect of the first two years, to what extent human resources spending will strengthen health systems' capacity at the patient/target population level, and how these salaries will be sustained after the proposal period is over. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

Only one additional staff is included under human resources for a time-limited period of four years. The annual cost for salary and statutory allowances amounts to 4000 $.

The HR cost is earmarked for two-year training in epidemiology. The course fee amounts to 42000 $, living expenses 25000 $ per year and airfare 4000 $ per year. This course is assumed to take place in the first two years of the proposals.

Funding for technical assistance includes also salary, fees or other allowances for short-term consultants. This technical assistance is in the first place intended to help in building capacity at the country level. The intensive technical assistance during the proposal period should mean a major boost for the programme and likely need not be extended with the same intensity after termination of the proposal.

5.3.3 Other key expenditure items

Explain how other expenditure categories (e.g., infrastructure, equipment), which form an important share of the budget, have been budgeted for the first two years. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

A budget of US$ 50000 per year is included as a lump sum for acquiring technical support from GLC.

5 Component Budget *Tuberculosis*

5.4 Breakdown by service delivery area

Please provide an approximate allocation of the annual budget for each service delivery area (SDA). The objectives and service delivery areas listed should resemble those in the Targets and Indicators Table (Attachment A to the Proposal Form). It is anticipated that this allocation of the budget across SDAs should be derived from the detailed component budget (see section 5.2).

Table 5.4: Estimated budget allocation by service delivery area and objective.

		Budget allocation per SDA (in Euro/US$)				
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1.To increase case detection and provide treatment services among special population and patient groups	*Community care with special focus for vulnerable populations*	**15,700**	**68,200**	**29,700**	**26,400**	**17,700**
	Management of MDR patients	**191,400**	**97,800**	**101,000**	**90,200**	**90,200**
	Advocacy, communication and social mobilization	**1000**	**1000**	**15,000**	**22,000**	**22,000**
2.To strengthen programme quality and management	*Laboratory quality assurance and expanding of culture services*	**12,000**	**172,00**	**15,000**	**22,000**	**22,000**
	Human resources and capacity building	**87,990**	**46,500**	**13,700**	**6,500**	**9,145**
	To implement reliable surveillance, monitoring and evaluation	**77,500**	**7,600**	**28,000**	**105,850**	**74,350**
3.To promote sustainable procurement of 2nd line drugs and BCG vaccines	*Annual contribution to BHTF for procurement of 2nd line and ancillary drugs*	**33,000**	**33,000**	**33,000**	**33,000**	**33,000**
	Annual contribution to BHTF for procurement of BCG vaccines	**20,000**	**20,000**	**20,000**	**20,000**	**20,000**
TOTAL		**438,590**	**446,100**	**262,460**	**334,770**	**297,215**

5.5 Breakdown by implementing entities

Indicate in table 5.5 below how the resources requested in table 5.1 will, in percentage terms, be allocated among the following categories of implementing entities.

Table 5.5 – Allocations by implementing entities

	Fund allocation to implementing partners (in percentages)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Academic/educational sector	22,600	0	9000	0	0
Government	252,990	301,100	120,460	201,770	164,215
Religious/faith based organization	0	12,000	0	0	0
GLC	110,000	80,000	80,000	80,000	80,000
BHTF	53,000	53,000	53000	53000	5300
TOTAL	438,590	446,100	262,460	334,770	297,215
%	24.651%	25.075%	14.752%	18.816%	16.706%

5.6 Budgeted funding for specific functional areas

The Global Fund is interested in knowing the funding being requested for the following three important functional areas—monitoring and evaluation; procurement and supply management; and technical and management assistance. Applicants are required in this section to separately identify the costs relating to these functional areas. In each case, these costs should already be included in table 5.1. Therefore, the tables below should be subsets of the budget in table 5.1., rather than being additional to it. For example, the costs for monitoring and evaluation may be included within some of the line items in table 5.1 above (e.g., human resources, infrastructure and equipment, training, etc.).

Table 5.6 – Budgets for specific functional areas

	Funds requested from the Global Fund (US$)					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Monitoring and Evaluation	19,090	13,500	32,260	75,600	93,215	233,665
Procurement and Supply Management (GLC)	50,000	50,000	50,000	50,000	50,000	250,000
Technical and Management Assistance	65,500	53,000	73,500	58,500	67,500	318,000

LIST OF ANNEXES TO BE ATTACHED TO PROPOSAL *Tuberculosis*

Monitoring and Evaluation: *This includes: data collection, analysis, travel, field supervision visits, systems and software, consultant and human resources costs and any other costs associated with monitoring and evaluation.*

Procurement and Supply Management: *This includes: consultant and human resources costs (including any technical assistance required for the development of the Procurement and Supply Management Plan), warehouse and office facilities, transportation and other logistics requirements, legal expertise, costs for quality assurance (including laboratory testing of samples), and any other costs associated with acquiring sufficient health products of assured quality, procured at the lowest price and in accordance with national laws and international agreements to the end user in a reliable and timely fashion. Do not include drug costs, as these costs should be included in section 5.3.1.*

Technical and Management Assistance: *This includes: costs of consultant and other human resources that provide technical and management assistance on any part of the proposal—from the development of initial plans, through the course of implementation. This should include technical assistance costs related to planning, technical aspects of implementation, management, monitoring and evaluation and procurement and supply management.*

The table below provides a list of the various annexes that should be attached to the proposal. Please complete this checklist to ensure that everything has been included. Please also indicate the applicable annex numbers on the right hand side of the table.

Section 4 (Component specific): Component Strategy		
4.4.1	Documentation relevant to the national disease program context, as indicated in section 4.4.1.	Annexure (1) 9th five year plan document
4.6	**A completed Targets and Indicators Table**	Annexure (2) Attachment A to the Proposal Form (TB)
4.6	**A detailed component Work Plan** (quarterly information for the first year and indicative information for the second year).	Annexure (3) Budget analysis template with work plan (TB)
4.6.7 c) *(if common funding mechanism)*	Documentation describing the functioning of the common funding mechanism.	Not applicable
4.8.3 e) *(where SRs applied but were not selected)*	Name and type of all Sub-Recipients not selected the proposed budget amount and the reasons for non-selection.	Not applicable
4.9.2	National Monitoring and Evaluation strategy (if exists)	Annexure (4) M&E plan for GFATM R, 4. for TB control programme (TB)
Section 5 (Component specific): Component Budget		
5.2	**Detailed component Budget**	Annexure (5) 5.1 attached and detail budget with work plan (TB)

5.3.1	Preliminary Procurement List of Drugs and Health Products (tables B1 – B3)	Annexure (6) Attachment B to the Proposal Form
5.3.2	Human resources costs.	Annexure (7) Attached as summary table (TB)
5.3.3	Other key expenditure items.	Annexure (7) Attached as summary table (TB)
5.1 - 5.6 *(if common funding mechanism)*	Available annual operational plans/projections for the common funding mechanism, and an explanation of any link to the proposal.	Not applicable
Other documents relevant to sections 4-5 attached by applicant:		
1.	Unit prices brekdowm per SDA	Annexure (8) Attachment Unit prices (TB)
2.	Bhutan Health trust fund charter	Annexure (9) Charter booklet enclosed
3.	Annual Health Bulletin	Annexure (10)
4.	Partnership for health	Annexure (11)
5.	Population and census fact sheet	Annexure (12)

4 Component Section *Malaria*

PLEASE NOTE THAT THIS SECTION AND THE NEXT MUST BE COMPLETED FOR EACH COMPONENT. *Thus, for example, if the proposal targets three components, sections 4 and 5 must be completed three times.*

For more information on the requirements of this section, please refer to the Guidelines for Proposals, section 4.

4.1 Indicate the estimated start time and duration of the component

Please take note of the timing of proposal approval by the Board of the Global Fund (described on the cover page of the Proposal Form). The aim is to sign all grants and commence disbursement of funds within six months of Board approval. Approved proposals must be signed and have a start date within 12 months of Board approval.

Table 4.1.1 – Proposal start time and duration

	From (yyyy/mm)	**To** (yyyy/mm)
Month and year:	2007/07	2012/06

4.2 Contact persons for questions regarding this component

Please provide full contact details for two persons; this is necessary to ensure fast and responsive communication. These persons need to be readily accessible for technical or administrative clarification purposes, for a time period of approximately six months after the submission of the proposal.

Table 4.2 – Component contact persons

	Primary contact	**Secondary contact**
Name	Mr. Tashi Tobgay	Ms. Jambay Zangmo
Title	Programme Manager	Senior Programme Officer
Organization	Vector-borne Disease Control Programme	Department of Aid and Debt Management, Ministry of Finance
Mailing address	P.O Box Number, 191. VDCP, Gelephu.	DADM, Ministry of finance
Telephone	+975-6-251115	+975-2-326779
Fax	+975-6-251173	+975-2-326779
E-mail address	vdcp@health.gov.bt	jzangmo@mof.gov.bt

4.3 Component executive summary

4.3.1 Executive summary

Describe the overall strategy of the proposal component, by referring to the goals, objectives and main activities, including expected results and associated timeframes. Specify the beneficiaries and expected benefits (including target populations and their estimated number). *(Please include quantitative information where possible. Maximum of one page.)*

Bhutan, land locked between China and India in the eastern Himalayan region has one of the toughest terrains in the World. Bhutan has 20 districts (2005 census population 634,982), 10 districts have seasonal transmission (population 234,630) and malaria outbreaks are an annual feature causing high morbidity and mortality in the affected population. Five districts are endemic districts (population 234,633) adjoining the international borders

with the state of West Bengal and Assam on the Indian side. Both Indian states have persistent malaria transmission. Further, these endemic districts have conducive metrological conditions which favor malaria breeding. Vector-borne Disease Control Programme (VDCP) has been spraying the endemic districts and in epidemic control but malaria returns annually causing deep concern to the people of Bhutan. Distribution of long lasting insecticide treated mosquito nets (LLINs) in the 5 border districts, and drugs particularly Coartem@for Pf cases with GFATM R4 support has significantly further contributed to the declining trend of malaria. In 2005, total cases were 1,825 (52% Pf) with 5 deaths. The areas of deep concern to the programme are: (a) hard to reach areas (population 76,744; of this 50% lives in malaria receptive areas i.e. 36,000 population). This hard to reach population is 12.6% of the country's population living in receptive areas. So far control measures are of little access to this population, (b) focal outbreaks of malaria in 10 districts of seasonal transmission and unless these outbreaks are immediately brought under control they have the tendency to spread and engulf wide areas. Therefore VDCP's goal is "50% reduction in malaria morbidity and mortality by 2012 compared to the 2005 baseline" cannot be achieved if appropriate measures are not taken. This goal is in line with goals of WHO, SEARO, Scale up strategies, the Millennium Development Goals and the national 5 year plan goals. GFATM R6 proposal tital **"Scaling up Malaria Control in Bhutan through Sustainable Strategies"** is additional to the already funded GFATM 4th round phase I (US$ 1,000,975M for 2 yrs). This goal would be met by three objectives viz., **(1)Scale up malaria prevention, (2) Strengthening Early diagnosis and treatment (EDPT) in "hard to reach" areas (3) Sustaining health system for malaria control.** The objective one covers scale up malaria prevention through Long Lasting Insecticide treated nets, search of indigenous larvivorous fishes to control local vectors, and environmental modifications to drain streams and breeding sites to eliminate vector breeding. The second objective to deliver EDPT to malaria prone households located more than 1hr walking distance from the road point. Reaching this population is the key element of this objective. This would be done by strengthening outreach malaria clinics and community health workers. Sustainable malaria control in Bhutan requires staff training in entomology, epidemiology, clinical work, sociology, and field research so that they can plan and implement the programmes without any external assistance. Training component is therefore an integral part of the two objectives with appropriate equipment to make them functional. The third objective is a requested for sustaining malaria control and treatment through Bhutan health Trust Fund. The total budget for the R6 GFATM is US $ 3,776,275 spread over five years and US$ 1,831,125 for the first two years. At the end of the GFATM R6, VDCP would have malaria control access to all the citizens of Bhutan, malaria epidemics would be averted in time, and carrier population would not become source of transmission due to effective vector control. Direct beneficiaries of this programme would be 36,000 hard to reach population; 234,633 population at risk in 5 districts; and 234,630 in 10 districts. Total beneficiary population of Bhutan would be 469,263 i.e. 74% of Bhutan's population. Bulk of the population would be benefited within 2 years but reaching the un-reached population for EDPT may take 4 to 5 years. At the end of GFATM support malaria in Bhutan would have been decimated leaving only imported cases and focal outbreaks. Bhutan Health Trust Fund would provide support for the residual malaria for lasting sustainable interventions and elimination of malaria.

4.3.2 Synergies

If the proposal covers more than one component, describe any synergies expected from the combination of different components—for example, TB/HIV collaborative activities. *(By synergies, we mean the added value that the different components bring to each other, or how the combination of these components may have broader impact.)*

Bhutan proposal covers HIV/AIDS, Tuberculosis and Malaria. The country is divided into three regions i.e.Eastern Region, Western Region and Central Region. At the Regional level Medical Superintendent is head of the Regional Hospital. Regional Hospitals are referral hospitals for all diseases including HIV, TB and Malaria. This reduces cost to the establishment and patient care becomes more professional and sustainable. There are 20 districts in the country and each district has a District Medical Officer (DMO) in-charge of the district hospital. District Hospital is common to HIV, TB and Malaria patients. In addition at the district level one District Health Officer (DHO) is responsible for all programmes related to public health. DHO represents the ministry of health in the district and responsible for carrying out and managing all health related issues in the districts. DHO is common to all the three

diseases. Therefore he participates in the planning and implementation of the three programmes at the district level. This commonality provides tremendous scope of bringing awareness about the communicable diseases. The expertise in the designing and giving publicity to the IEC material is largely the same and the same techniques and platform is used in spreading the messages. This brings synergy, reduces cost, and enhances confidence in the community; as the communities receive repeated health messages from the health functionaries advising them scientific methods in the prevention, diagnosis and treatment etc. And all these services are free to all the citizens of Bhutan.

Training facilities/institutions for human resource development are common thus avoiding duplication, and field experience is shared in training of staff.

The Ministry of Health organizes "quarterly review meetings" and annual review meetings for all diseases and programmes. These review meetings brings coordination, enhances interaction and reduces areas of overlap. In addition referral and after care of patients with co-infection become easy. The overall planning and monitoring system instituted by the planning commission is common to all.

The decrease in the HIV infection can have indirect reduction in chances of getting malaria due to immune modulation.

The human resource development in Malaria can have impact and such expertise could be utilized by other components as well.

The Bhutan Health Trust Fund with an objective to ensure continued and timely supply of drugs and vaccines are common to all the programmes. In totality the achievement of the MDG targets by the three major diseases will have an overall impact in achieving the ***Gross National Happiness*** (GNH) which is the developmental philosophy for Bhutan.

4.4 National program context for this component

The information below helps reviewers understand the disease context, and which problems the proposal will address. Therefore, historical, current and projected data on the epidemiological situation, disease-control strategies and broader development frameworks need to be clearly documented. Please refer to the Guidelines for Proposals, section 4.4.

4.4.1 Indicate whether you have any of the following documents (tick appropriate box), and if so, please attach them as an annex to the Proposal Form:

- ☐ National Disease Specific Strategic Plan
- ☒ National Disease Specific Budget or Costing
- ☒ National Monitoring and Evaluation Plan (disease specific)
- ☐ Other document relevant to the national disease program context (e.g. the latest disease surveillance report)
  Please specify:

4.4.2 Epidemiological and disease-specific background

Describe, and provide the latest data on, the stage and type of epidemic and its dynamics (including breakdown by age, gender, population group and geographical location, wherever possible), the most affected population groups, and data on drug resistance, where relevant. With respect to malaria components, also include a map detailing the geographical distribution of the malaria problem and corresponding control measures already approved and in use. Information on drug resistance is of specific relevance if the proposal includes anti-malarial drugs or insecticides. In the case of TB components, indicate, in addition, the treatment regimes in use or to be used and the reasons for their use.

Malaria Epidemics/Outbreaks:

There are malaria outbreaks each year and the frequency varies from 5 to 8 in different areas of the 15 districts. Increased caseloads were reported from Sibsoo hospital (increasing trend from February onwards and peak in April and in August)and Ghumauney BHU (2 peaks once in May and in September) and Chengmari BHU cases increasing from March to July and peak in April) in Samtse districts in 2004.These outbreaks were quickly identified and rapid response teams mobilized to effectively control transmission, treated all cases of fever and those with signs of severe malaria admitted to the nearest hospital.

Table 1. Provides details of malaria epidemic reported and controlled in 2004.

Table 1: showing the districts and villages that reported malaria outbreaks in 2004.

Sl No	Dzongkhag	Village	Popⁿ.	Date of indigenous case detection	Total Cases	Pf	Pv	Vectors Prevalence	Climate and general topography
1	Trashigang	Radhi Rangjung/ Buna/Pam	1185	May 2004	79	6	73	*An. minimus & An. fluviatilis*	Hot and wet summer, plain with paddy cultivation
2.	Zhemgang	Berti village	131	April 2004	10	9	1	Not known	Hot and wet summer, plain, forested, riverine with paddy cultivation.
3	Tsirang	Patali-tar village	362	August 2004	5	1	0	*An. minimus & An. fluviatilis*	Hot, plain, paddy cultivation and riverine area.
4	Trongsa	Lengthen Inducholing/ Phayam	2477	June 2004	8	1	7	Not known	Hot summer with paddy cultivation.

4 Component Section *Malaria*

Focal malaria outbreaks in 2006 (till June)

Dzongkhag	Place	Total household	Total population	Total BSE	Total Pf	Total PV	Total +ve.	Vector prevalence
S/jongkhar	Nanglam	594	2991	252	8	15	23	Not available
-do-	Dechhiling	568	2088	265	11	9	20	-do-
Tsirang	Patala tar	260	1352	47	9	8	17	-do-

	2000			2001			2002			2003			2004			2005		
Year	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
<1	41	32	73	19	24	43	17	16	33	15	10	25	12	0	12	5	2	7
4-Jan	273	213	486	214	146	360	227	239	466	120	94	214	85	6	91	55	55	110
14-May	860	648	1508	874	692	1566	1060	715	1775	580	367	947	357	292	649	197	177	374
15-49	2121	1205	3326	2136	1266	3402	2255	1379	3634	1315	949	2264	1000	552	1552	743	371	1114
>50	367	175	542	411	200	611	395	208	603	280	76	356	192	114	306	136	84	220
Sub Total	3662	2273	5935	3654	2328	5982	3954	2557	6511	2310	1496	3806	1646	1024	2670	1136	689	1825

Table 2: Age and sex wise distribution of malaria cases

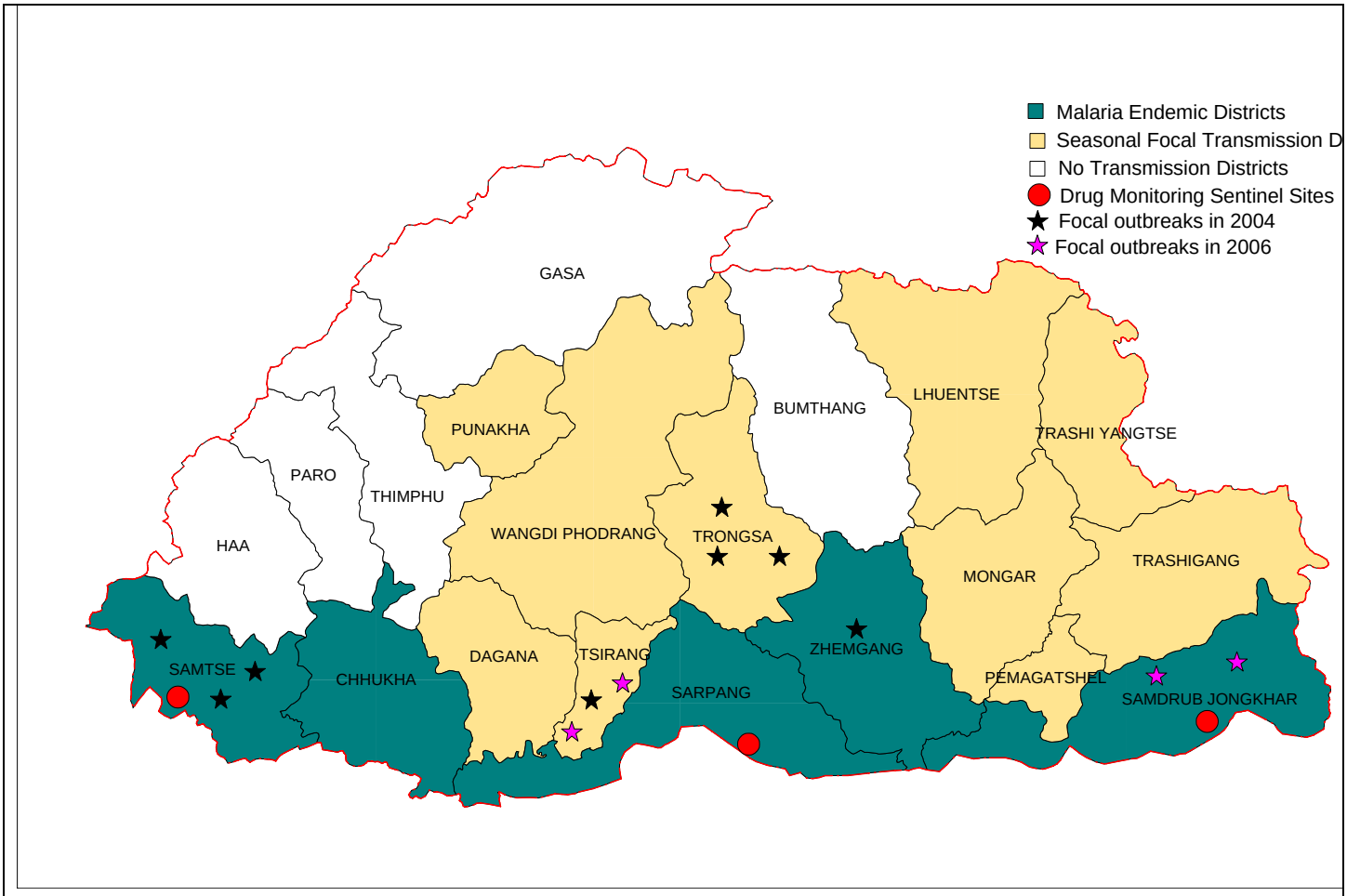
Information on the distribution of malaria cases in different age groups and sexes is not available from the malaria outbreak populations, but the same is available from malaria cases from 2002-2005. This information on age and sex groups contracting malaria infection is given in Table 2. In 2006, as highlighted in the above table, there were few focal out breaks even in 2006.

Note: Over the last five years it has been seen that most affected group is> 15 to 49 age group (ranging 56-60%), then the next group affected is the 5 to 14 age group that contributes about 24-27% of cases then above 50 years age group contributes 9-12% and about 6% contributed by the 1 to 5 age group and only about 1% is contributed by under 1 year age. In all age group the proportion on cases is higher in the males than in females.

Brief Malaria Epidemiology and the Problem of Drug Resistance:

The 5 southern districts shares porous boarder with Indian states of Assam and West Bengal. Bulk of malaria problem is in these 5 districts due to population movement spreading malaria in these districts. The problem of drug resistance is also predominantly confined to these districts. Additionally 10 districts are endemic with occasional malaria outbreaks. Map 1 gives the geographic location of the 5 border malaria districts and 10 districts with potential of malaria outbreaks. No request has been made for drugs and insecticides in this proposal. Insecticides are contributed by the Government of India and drugs were included in GFATM round 4 which will be sustained through Royal Government of Bhutan.

4 Component Section *Malaria*



Map 1: Showing the location of 5 border districts and 10 seasonal malaria transmission districts and drug resistance monitoring sentinel sites. Areas in green were under 1 rounds deltamethrin IRS, but now under LLINs. Districts in yellow require IRS to control malaria outbreak. Black stars show the focal outbreak villages in 2004. No outbreaks in 2005. Pink stars show outbreaks in 2006.

As a result of systematic programmatic interventions malaria cases and deaths have declined consistently since 1999. Table 3 gives the epidemiological indices of malaria in Bhutan. Cases in 2005 were 1825 of which 52% were *P. falciparum*. It may be noted that these cases are parasitologically confirmed cases. A large number of cases go unreported from hard to reach areas.

Table 3: Epidemiological indices to show the declining trend of malaria in Bhutan

YEAR	BSC	T.+VE	T.PF	ABER	API	SPR	Pf%	Malaria deaths
1999	**79589**	**12591**	**6380**	**22.7**	**35.9**	**15.8**	**51.0**	**22**
2000	76445	5935	2507	21.8	16.9	8	46	15
2001	56974	5982	3177	18	17	9	53	14
2002	74696	6511	3496	20	18	9	54	11
2003	61246	3806	1518	17	7.2	6	44	15
2004	54892	2670	1094	7	4	5	41	5
2005	60152	1825	954	14	4	3	52	5

BSC=Blood slide Collection, T+VE= Total Positive for Malaria, TPf= Total Positive for Plasmodium falciparum; ABER= Annual Blood Examination Rate, API= Annual Parasite Incidence, SPR= Slide Positivity Rate, Pf=Plasmodium falciparum

This under-reporting may also be true for the malaria deaths. Fig 2 gives the declining trend of deaths due to malaria. There are no reliable estimates but a 10-fold increase in the number of cases may be more realistic. This special situation is due to rugged and difficult terrain and inward cross-border migration from Assam. In this region population settlements in forests have perennial transmission with highly efficient vectors (e.g. *An. dirus*) lacking any kind of malaria control interventions. The problem of accessibility is being addressed under the 9th plan (kindly see poverty reduction activities (section 4.3.3.b).

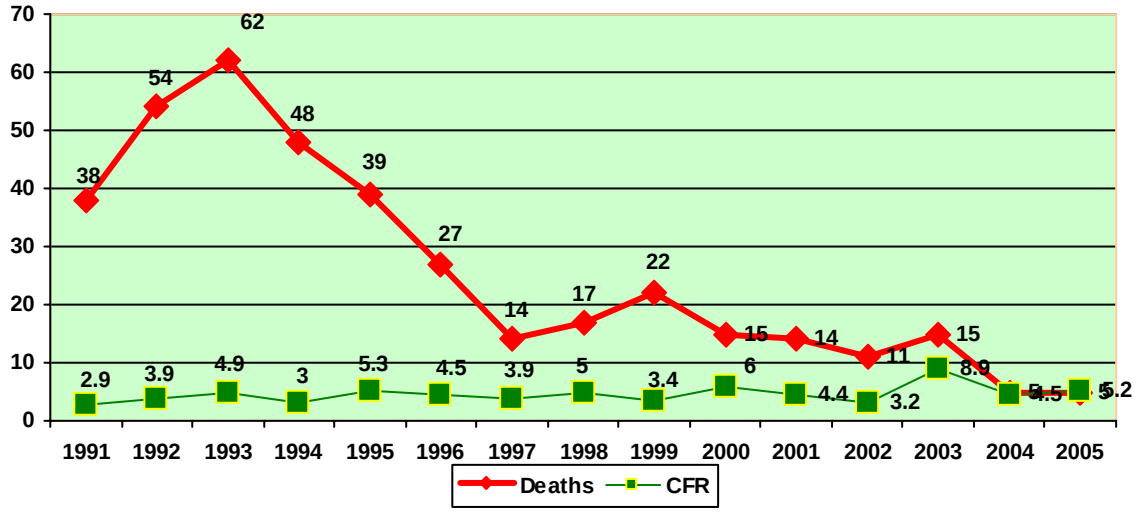


Fig. 2: Showing the declining trend in deaths due malaria and case fatality rate in Bhutan

Monitoring of drug resistance from time to time has shown that there is a focus of drug resistance in *P. vivax* and *P. falciparum*. Table 4 gives the detail monitoring results of failure of chloroquine in treating *P. vivax* and to artesunate alone or in combination with doxycycline. The programme has therefore switched over to Coartem@ therapy to treat all *Pf* cases.

Table 4: Therapeutic Efficacy study with Artemisinin combination Therapy (3 Artesunate and 7 Doxycycline) for P.falciparum and Chloroquine for P.vivax malaria conducted from the year 2000 – 2005

Yr.	DRUGS	T C	ETF Day 0-3	Total ETF	%	LTF on day 7-Apr	14-Aug	15-21	22-28	Total LTF	%	ACR	%	SC	%	Total drop out	%
2000	Art only	37	1	1	3	1	4	12	-	17	59	11	38	29	78	8	22
	ACT	42	-	-	0	-	2	1	1	4	11	34	89	38	90	4	10
2001	ACT	261	-	-	0	-	1	2	6	9	5	191	95	200	77	61	23
2002	ACT	136	-	-	0	1	-	3	4	8	6	116	94	124	91	12	9
	CQ	116	-	-	0	-	2	3	-	5	5	100	95	105	91	11	9
2003	ACT	117	-	-	0	-	-	-	2	2	2	106	98	108	92	9	8
	CQ	65	-	-	0	1	-	1	1	3	5	59	95	62	95	3	5
2004	ACT	122	-	-	0	2	-	4	-	6	5	107	95	113	93	9	7
	CQ	115	-	-	0	-	-	2	-	2	2	103	98	105	91	10	9
2005	ACT	92	6	6	7	-	2	1	4	7	8	76	85	89	97	3	3
	CQ	38	2	2	5	-	-	1	-	1	3	34	92	37	97	1	3

Note:

- **TC** - Total cases, **ETF** - Early Treatment failure**, LTF** - Late Treatment failure, **ACR** - Adequate Clinical Response**, SC** - Success Case.
- 37 cases were treated only by artesunate 200mg x 3 days for therapeutic efficacy studies up to days 28 from three health centers under Sarpang Dzongkhag.

4 Component Section *Malaria*

The problem of drug resistance in Bhutan should be seen in the background of high malaria receptive terrain and constant inflow of migrants from across the borders. These are serious danger signals for rapid deterioration of malaria situation, if constant pressure is not maintained. Any relaxed view on malaria control, even though cases may be few, may result in rebound of malaria with vengeance. The return of malaria may be predominantly that of drug resistant strains due to residual foci of drug resistant malaria. Such a situation can be disastrous and create panic. This must be avoided at all cost. It is therefore absolutely essential to keep malaria transmission at the lowest ebb and reduce the possibility of drug resistant malaria outbreaks. Malaria control proposal therefore includes vector control interventions by ITN/LLINs (4th Round which will be over by 2009). Due to high malaria receptivity in the seasonal transmission districts and inward movement of carrier population from Assam, a sustained malaria control efforts is absolutely essential, and therefore Bhutan Malaria Control Programme needs strong GFATM support to keep malaria at bay.

4.4.3 Disease-control initiatives and broader development frameworks

Proposals to the Global Fund should be developed based on a comprehensive review of disease-specific national strategies and plans, and broader development frameworks. This context should help determine how successful programs can be scaled up to achieve impact against the three diseases. Please refer to the Guidelines for Proposals, section 4.4.3.

a) Describe comprehensively the current disease-control strategies and programs aimed at the target disease, including all relevant goals and objectives with regard to addressing the disease. (Include all donor-financed programs currently implemented or planned by all stakeholders and existing and planned commitments to major international initiatives and partnerships.)

National Malaria Control Strategy of Bhutan

The present malaria control strategy is developed with an overall goal to achieve the MDG "***to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases***".

Program Goal

Reduce malaria morbidity and mortality by 50% by 2012 compared to 2005 as baseline.

Malaria Control Strategy

Malaria control is based on the three-pronged strategy focusing on (a) Reducing mosquito breeding sites by bio-enviromental measures (b) Reducing transmission by Indoor residual spray and use of long lasting Insecticide treated bed nets and (c) providing early diagnosis and treatment. With these strategies, we hope to reduce malaria morbidity and mortality to a level where it is no more a public health problem.

(a) Reducing mosquito breeding sites by bio-enviromental measures

Reducing the breeding sites will definitely decrease the mosquito abundacy and therefore will have an impact on the morbidity. Due to the terrain, especially in summer during monsoon season, there are artificial ponds created in the malarious areas both in the villages and towns. These sites remain problem every year during the malaria transmission season. In Bhutan, even in the towns so called urban, does not have good drainage system creating water ponds which are found to be good breeding ground. These problems can be addressed by bio-enviromental measures. However this could not be initiated due to programmatic and financial deficit. Given the financial support, Bhutan will take this as a pilot project considering great care as to not disturb the tranquil environment of the country.

(b) Reducing transmission using Long Lasting Insecticide Nets and Indoor Residual Spray as the main armamentarium.

- Before any activity like ITBN or IRS activity it will be made mandatory to first clear up the bushes within 50 feet of the dwellings and make the environment clean in order to reduce mosquito resting place. The Dzongkhag Health authorities will inform the public a month ahead of the IRS/ITBN program and first get the environment cleaned. Thus the communities can participate in malaria control.

- The Pf predominant areas will be mapped Health facility wise. Delineating the foci would help focus malaria in specific areas to reduce transmission and prevent the spread of drug resistance. IRS will be conducted selectively in Pf predominant areas, in forest and forest fringe areas at the beginning of the peak malaria

transmission period. This will continue till the time that ITN/LLINs program becomes effective to be sustained on its own and ITN/LLIN coverage reach the target of above 90%. Areas were Pf is not dominant will be covered with ITN/LLINs and the Program. In the areas covered with IRS, bed net use will be promoted through accelerated IEC.

- Insecticide-treated mosquito nets (ITN) have shown proven effectiveness, well-accepted and practical in several countries. Bhutan has initiated the supply of Long Lasting Insecticide Bet Nets. GFATM R4 has funded for over 100,000 LLINs. These nets have been procured and distributed to the rural population. The efficacy of LLIN in real time situation is being monitored.

- Malaria is not just a public health problem but a disease related to development, social, ecological and environmental changes. Revamping of the malaria control programme with emphasis on partnership and multi-sectoral collaboration with non-health sector is required so as to be more responsive to the challenges posed by changing ecology and environment

- Mapping of all potential mosquito breeding sites and appropriate action supported by inter-sector collaboration/ community participation.

- Weekly larviciding with Temephos in the urban and semi-urban areas targeted at *a minimus and An. fluviatalis.*

- Insecticide susceptibility tests to monitor the susceptibility of vectors/ suspected vectors in the endemic Dzongkhags at least once a year and extend to other areas.

- Regular monitoring of interventions. Monthly entomological data collection at accessible selected sites according to the epidemiological situation, and collect Anopheline fauna and study vector bionomics of potential shall be done.

(c)EDPT

- To improve the early diagnosis, village health workers and communities will be involved to motivate the public and all fever cases are directly send for blood smear testing and providing treatment within an hour after arrival to the health facility.

- All health facilities are equipped with microscopic facilities and wherever microscopic diagnosis is not feasible, rapid diagnostic kits are supplied

- To improve the quality of diagnosis, the health workers are trained on malaria microscopy and RDT and slides cross-checked randomly.

- The microscopic quality assurance will be established which will frequently monitor the quality of diagnosis.

Disease management: ***National treatment policy*** is required so that quality diagnosis of malaria (through microscopy and Rapid Diagnostic Test), effective treatment with drugs based on evidence relating to drug resistance pattern. The Anti-malaria drug selection to be included in the essential drug list is based on the ***efficacy, safety, suitability and cost effectiveness***. All therapeutic efficacy studies for anti-malaria drugs shall be done regularly. The treatment Guidelines for malaria management is the standard guideline utilized by health workers of all levels. Treatment is provided only to confirmed cases of malaria either by Microscopic or by RDT. Any presumptive treatment is guided by appropriate fever chart which will be phased out and replaced by radical treatment with blood confirmed cases which will be scaled up. In 2006, the treatment regimen for uncomplicated P.falciparum was changed to Co-artem[@]. To safe guard the ACT, Artemisinin monotherapy is not recommended. To ensure the quality and to reducing any counterfeit drugs, the drug registration system is strengthened and the drugs are procured only from firms which are approved by WHO.

For Prompt Treatment

- All malaria cases (Pf and Pv) diagnosed will be treated immediately after the confirmation by blood microscopy or RDT. It will be mandatory to admit all Pf cases for at least first 3 days to increase compliance to

the present drug regimen. Admitting the patients for 3 days would also ensure timely referrals incase of any complications during the course of the treatment.

- All malaria deaths will be thoroughly investigated and reported so that problem areas can be identified and corrected.

(d) BCC Activities.

- Understanding the importance of involving the community in prevention, control and treatment of malaria, the IEC components shall be strengthened with a focus on behavioural change impact.

- Awareness creation about primary prevention and control of malaria will be intensified. IEC activities will be focused on changing patients' behavior in order that the patients seek early treatment for fever and malaria at treatment facilities and thus facilitate early diagnosis and prompt treatment. IEC on bed net usage for personnel protection will be promoted so that the ITBN program is sustained.

- Market analysis shall be performed before the development of the strategies and the strategies adopted will be piloted, so that it is conducive for the local clients.

(e) Research and Development: Understanding Vector behaviour and susceptibility

- To test the effectiveness of LLINs, insecticide susceptibility test against vectors/ suspected vectors would be conducted every year in the endemic Dzongkhags.

- Vector behavioural studies will be conducted in order to understand the vector so that dynamic prevention activities according to vector behaviour can be instituted.

- Potential vectors shall be closely monitored

- The assessment of the efficacy of the control activities will be made utilizing the available manpower at the Health facilities to assist the entomology team. Monthly entomological observations at easily accessible few sites selected according to the epidemiological situation will be carried out with the aim to indicate the Anopheline fauna in the area and to study the bionomics of the potential vectors.

b) Describe the role of HIV/AIDS-, tuberculosis- and/or malaria-control efforts in broader developmental frameworks such as Poverty Reduction Strategies, the Highly-Indebted Poor Country (HIPC) Initiative, the Millennium Development Goals or Sector-Wide Approaches. Outline any links to international initiatives such as the WHO/UNAIDS 'Universal Access Initiative' or the Global Plan to Stop TB or the Roll Back Malaria Initiative.

Poverty Reduction Strategies

HIV/AIDS, Tuberculosis and Malaria are diseases of the poverty and these problems become severe and spread in inaccessible areas. Bhutan is a small land locked country by eastern Himalayas, and by India in the south and China in the north. It has one of the most formidable mountainous terrains in the world, ranging from 100 meters to 7,500 meters in height. In Bhutan poverty reduction and enhanced access to un-reached population would boost the delivery of health services and dramatically improve HIV/AIDS, TB and Malaria situation. Additionally poverty reduction would supplement the efforts of enhancing sustainability of the intervention programmes. The results of the National Health Survey conducted in 2000 show that substantial progress has been made since 1994. About 78.2 percent of Bhutanese villages have access to health facilities within 2 hours walking distance, and about 89 percent have such services within 3 hours walking distance. The "Poverty Reduction Strategy Paper" of the 9th Plan period (July 2002 to June 2007) mentions 4 key strategies for poverty reduction. These Key Strategies would impact poverty reduction and enhance outreach of health services in Bhutan.

Strategy I: Infrastructure Expansion: Strategy I: The plan accords high priority to infrastructure expansion such as expansion of road network particularly feeder roads to improve rural access, provision of electricity to at least 15,000 rural households, provision of rural telecommunications and urban infrastructure.

Strategy II: Sound Macro-economic Policy: Appropriate macro-economic and fiscal policies will be formulated to ensure stable economic growth of 7-9 percent and private sector participation. Continued efforts will be made to increase domestic resources through improved tax administration and the introduction of new taxes to broaden the revenue base.

Strategy III: Ensuring good governance: Efforts to strengthen good governance would continue through administrative and political reforms and creation of new structures and processes. Most significant would be the adoption of a written national constitution.

Strategy IV: Improving access and enhanced Social Services: It is observed that communities that are closure to roads are better off in terms of economic and social well being than those further away. Therefore, improving access through infrastructure expansion is a key strategy for poverty reduction, enhancing the quality of social services and increasing economic opportunities.

Roll Back Malaria:

RGoB revised the national malaria control strategy based on the RBM components. Salient features of the revised programme are given below.

1. Provision of diagnostic and treatment facilities as close to the communities as possible for facilitating Early Diagnosis and Prompt Treatment (EDPT),

2. Acceleration of the program's decentralization process in order to complete the integration of the program activities into general health services,

3. Substitution of Indoor Residual Spray (IRS) by LLIN program in compliance to Global Roll Back Malaria (RBM) strategy,

4. Selective and comprehensive use of insecticides for control of adult and larval vectors as determined by the endemicity and intensity of transmission areas,

5. Awareness creation about primary prevention and control of malaria in the communities through enhanced IEC advocacy programs, and solicit community participation in the control program with primary focus to make LLINs program self-sustainable

6. Initiation of inter-sector collaborative efforts in the malaria control program through introduction of mosquito-proof engineering designs, and environmental management, especially the sectors involved in major construction projects,

7. Capacity development by strengthening the existing human resource to continue routine program activities including operational researches as and when required for making program decisions, and planning additional manpower requirements for taking research operations to a new height.

Millennium Development Goals

Bhutan has produced its Millennium Development Goals progress report 2002. Malaria features under target 8 : Have halted by 2015 and begun to reverse the incidence of TB, Malaria and other major diseases. To meet these targets, revised national strategies have been formulated as mentioned above under the RBM. WHO initiated Global Malaria Programme in 2006. Accordingly WHO SEA regional office has developed "The Revised Malaria Control Strategy for South East Asia Region 2006-2010". In line with revised malaria control strategy of the WHO SEA region, RGoB has already revised the malaria control Strategies with an overall developmental Goal of reducing Poverty and promote quality of life and to achieve the developmental philosophy of Gross National Happiness. The 10th Five Year Plan will start from year 2008 with an specific objective to:

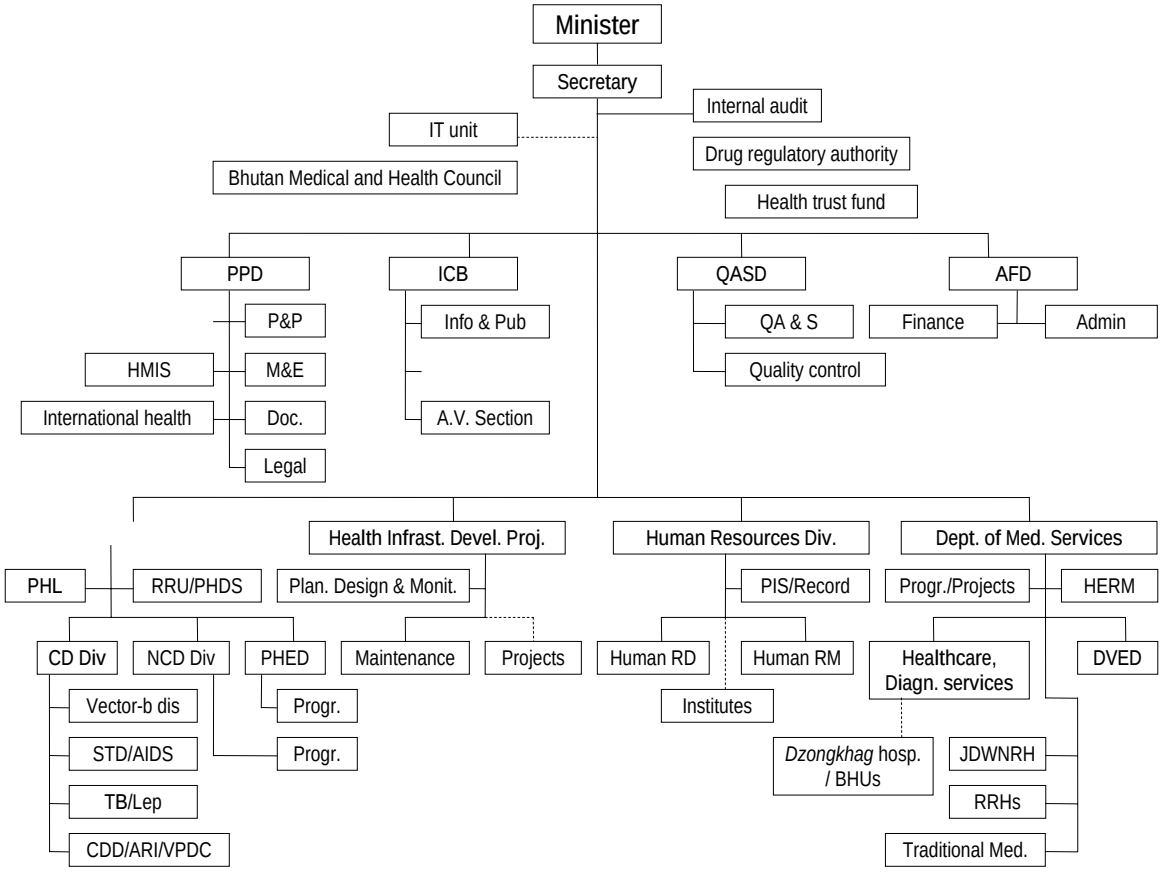
- To work towards achieving the MDG
- To improve the quality and accessibility of services
- To strengthen the curative and diagnostic capacity for timely treatment
- To strengthen traditional medicine system
- To enhance self reliance and sustainability of health services.

4.4.4 National health system

a) Briefly describe the (national) health system, including both the public and private sectors, as relevant to reducing the impact and spread of the disease in question.

Fig below gives the organogram of the Ministry of Health, Royal Government of Bhutan. Bhutan began to introduce the modern health care services since 1961 when the embarkment on planned socio-economic development process. Starting with hardly four hospitals at the start of the planned development, the health sector has come a long way in terms of expanding its coverage and improving the services to the people. With a very rudimentary health infrastructure at the beginning, today there are 29 hospitals, 176 Basic Health Units(BHUs) and 454 Out Reach Clinics (ORCs) across the country. Staffing these facilities, there are about 145 medical doctors, 463 health workers, 529 nurses , 438 technicians. The coverage of health services is well over 90% , a remarkable achievement despite the difficult topography and a scattered population.

Organogram of health ministry



The health care is delivered in totally integrated system through four tiered organizational structure placed at the National Referral Hospitals, Regional Referral Hospitals , District hospitals and the Basic Health Units at the community levels. Further through a good network of health system, the people's access and utilization of preventive, promotive and basic curative services have greatly increased and is reflected in terms of primary health coverage of more than 90%.

The Royal Government continues to pursue the Primary Health Care(PHC) as the primary approach to delivering the health services to reach the scattered population of the country with basic minimum health care package. The health care services is aimed at a bringing about equitable and balanced approach to health care service that encompasses

preventive, promotive, curative and rehabilitative services. The preventive and promotive services continue to be high on the priority of the RGoB. Health services including the diagnostic and curative services are provided free of charge to all citizens of Bhutan. Government bears 100% of the health care cost. There are few private clinics that cater to pharmaceutical needs of the people.

Active malaria control in Bhutan started in 1965 with the establishment of the malaria programme. Over the years the programme developed in a strategic manner and fulfilled the wish of the people in reducing the morbidity and mortality by malaria. As mentioned in the earlier section, malaria is endemic in the southern part of Bhutan which has porus boarder with India. The Vector-borne Disease Control Programme which is involved in malaria control under the Department of the Public health functions in an Integrated manner, for sustainability and quality use of available human resources.

b) Given the above analysis, explain whether the current health system will be able to achieve and sustain scale up of HIV/AIDS, tuberculosis and/or malaria interventions. What constraints exist?

VDCP would be able to implement and sustain the malaria control interventions despite of the constraints, as a result of strengthening and programme planning to enhance access to hard to reach populations. A brief description is given below.

1. Training of staff in various areas would strengthen and help in the application of IRS and scaling up EDPT. The staff would also strengthen M & E and provide other required inputs. Training would remove a major constraint currently being faced by the VDCP.

2. Training of medical doctors in the management of severe malaria and upgrading treatment facilities would be a sustainable activity. Hospital infrastructure is being expanded in the country to accommodate the trained doctors.

3. Computerization (includes installation of computers and training of staff on handling computers) would speed up data entry and retrieval. This is a major constraint in data management and reliable data analysis would help early evidence based decision making.

4. Basic Health Units and field workers already exist and training and provision of diagnosis and drugs will extend this facilities to the un-reached population settled in difficult terrain. This is feasible given the required training and supplies.

c) Please describe national health systems strengthening plans as they relate to these constraints. If this proposal includes a request for resources to help overcome these constraints, describe how the proposal will contribute to strengthening health systems.

Main constraints and how these are being addressed in strengthening health system in Bhutan:

1. In Bhutan >50% population live in high risk area of malaria, of which 50% live in hard to reach areas. An estimated 50% of the hard to reach population lives in malarious terrain and the remaining areas are free of malaria transmission. Therefore Ministry of Health gives highest priority to the control of Vector-borne Disease Control Programme, specifically malaria. The proposal seeks to enhance access to this population and provide them diagnostic and treatment facilities, to meet the national and Millennium Development Goals.

2. Five southern districts of Bhutan have porous borders with India (state of Assam and west Bengal). Labor movement into Bhutan through the porous border bring carrier population and spread infection in Bhutan. This problem is also being addressed by WHO SEARO Inter-country Border Control of Communicable Diseases.

3. Shortage of human resource at all levels: Although the health services are being strengthened gradually but still a wide gap exists in the needs of malaria control. This deficiency is adversely affecting programme performance. In sustainable malaria control this weaknesses includes the areas in: entomology, drug research, clinical management of cases, epidemiology, socio-economic inputs, shortage of hospitals and trained medical doctors in hard to reach areas, maintaining the quality of services in diagnosis, treatment and programme management.

4. Shortage of equipment: The shortage of human resources and equipment is linked. The major equipment would be procured when trained persons are in place. However some essential equipment like the spray equipment, essential

equipment for managing severe and complicated cases of malaria, testing susceptibility of vectors and parasite, drug assurance quality testing, computers. These are being procured gradually through grants from various agencies including from within the sanctioned budget of malaria control.

5. Some activities fall in other sectors but profoundly affect health delivery are: accessibility due to poor or no roads, road blocks, flooding especially during the peak malaria season. These problems are being addressed by specialized agencies.

6. Developments in various sectors of economy are very rapid but there is no provision of health impact assessment of these developments. In many situations malaria may increase disproportionately. Institution of remedial measures after the degradation of environment is expensive and in many situations difficult, if not impossible. Therefore environmental impact of developments should be harmonized to avoid any future problems. At present malaria control department provides the necessary information required to prevent mosquitogenic conditions but there is no expert available for undertaking this specialized work. This is an area of gap that will be filled up in subsequent years.

National health systems strengthening plans also include the following.

1.Bhutan does not have a medical college. All doctors are trained outside Bhutan, mainly in India. All paramedical staff and allied health workers are trained in the Royal Institute of Health Science (RIHS). The RIHS is also building capacity for conduction in-country operational research for various disease control programme.

2. Poverty alleviation strategies of the 9th plan will help increase access to the neglected and marginalized populations.

3.Expansion of information technology (IT) will help in reporting and analyzing data management system.

4. Overall planning for the health ministry including human resources management. This will continue through the 10th plan with emphasis on re-vitalization in line with Global Malaria Programme.

5. Improving quality-assurance of all health products and delivery systems.

6. Increased community involvement in all health programmes.

7. Harmonization of policies involving various sectors, cross boarder issues and sustainable health impact of interventions.

4.5 Financial and programmatic gap analysis

Interventions included in relation to this component should be identified through an analysis of the gaps in the financing and programmatic coverage of existing programs. Such an analysis should also recognize gaps in health systems, related to reducing the impact and spread of the disease. Global Fund financing must be additional to existing efforts, rather than replacing them, and efforts to ensure this additionality should be described. For more information on this, see the Guidelines for Proposals, section 4.5.

Use table 4.5.1-3 to provide in summarized form all the figures used in sections 4.5.1 to 4.5.3.

4.5.1 Overall needs assessment

a) Based on an analysis of the national goals and careful analysis of disease surveillance data and target group population estimates for fighting the disease component, describe the overall **programmatic** needs in terms of people in need of these key services. Please indicate the quantitative needs for the 3-5 major services that are intended to be delivered (e.g. anti-retroviral drugs, insecticide-treated bed nets, Directly Observed Treatment Short-Course for TB treatment). Also specify how much of this need is currently covered in the full period of the proposal by domestic sources or other donors. *Please note that this gap analysis should guide the completion of the Targets and Indicators Table in section 4.6. When completing this section, please refer to the Guidelines for Proposals, section 4.5.1.*

In the present proposal “scaling up Malaria Control in Bhutan through sustainable Strategies” there are mainly three strategic elements identified to fill in the gaps(from the existing proposal in R4 combined with other collaborations).

1. Scale up malaria prevention
2. Strengthening EDPT in ‘hard to reach” areas
3. Sustaining health system for Malaria control

4 Component Section *Malaria*

Scale up malaria prevention

This objective will benefit the population living in the malarious areas is 238,686 (137,555 in endemic and 101131 in the seasonal) through following major strategies(a) search of indigenous larvivorous fishes of value in the control of malaria vectors of Bhutan, and their exploitation to control vector breeding on sustained basis; and (b) environmental modification of the streams to drain water through an organized drainage system to eliminate vector breeding habitats (c) through sustained anti-malaria treatment and supply of LLIN. From the Global fund round 4, about 100,000 LLINs awere procured to distributed to the rural population. However, the expected life of the net, considering the Bhutanese living conditions in the rural areas could be only 3 years although company claims for 5 years. Therefore, it is essential to redistribute the LLIN during the phase II of the R6 to sustain the control measures.

Behavior change for communication (BCC): In the past, to increase the awareness the conventional method such as leaflet, announcement on television and radio. This may not have been sufficient to alter the behaviour of the patients, hence, the BCC component in this proposal will target all population at risk of malaria with an objective to change the behaviour. This population includes 234,633 in endemic areas and 234,360 in 10 seasonal transmission districts with a total population of 468,993.

Strengthening EDPT in 'hard to reach" areas

Households that are located at >1hr walking distance from the road head are considered hard to reach locations. For purposes of EDPT this population in the 15 districts is estimated as 46,000 (this figure does not include hard to reach villages that are located at high altitudes lacking any evidence of malaria transmission). The population figures have been calculated on the basis of 50% hard to reach population living in endemic areas of 5 districts (total population of 5 districts 234,633, hard to reach 76,744 population and 50% of hard to reach comes to 36,000). The population in 10 districts in seasonal transmission 234,360; and hard to reach population is 99,664. An estimated 10% of this population i.e.. 10,000 requires EDPT. The total population requiring EDPT comes to 46,000. Population density in these areas is on average 16 persons per sq km but it varies from 1 to 54 persons per sq km. Therefore access is difficult and required special efforts in the delivery of EDPT. This population is 12.6% of the total population of Bhutan (Ref. National Population and Housing census 2005, population of Bhutan 634,982). For increasing access to the hard to reach populations the services of the peripheral staff such as the out reach clinics (ORCs) Voluntary Village Health Workers (VHWs) and community leaders would be mobilized. ORCs will be trained in EDPT and given drugs for treatment of diagnosed malaria cases as per the drug schedule. Health service delivery in Bhutan is through four tier system delivered through 29 hospitals and 176 BHUs, the National referral hospital in the National level , the Regional hospitals in the Central and Eastern regional hospitals in the two regions, district hospitals in each 20 districts and the Basic Health Units that are nearest to the communities. There are 485 Out Reach Clinics(ORC) to provide services to populations in far flung and hard to reach areas. The nearest BHU provides once a month Out Reach Services that constitutes EPI, MCH and Family Planning activities, health education and some curative services. In the five malaria endemic districts there are about 11 hospitals, 55 BHUs and 133 ORC. There are about 50 to 60 VHWs in the malaria districts. The distance to ORC from the nearest health center varies from 1 to 2 day walking distance. The BHU staff consist of Health Assistant, Basic Health Worker and the Auxillary Nurse Midwife. Each BHU caters to about 1,500-5,000 population. There are 1,200 Voluntary Village Health Workers (VHWs) in Bhutan. They are selected by the villages to co-ordinate health activities in the village. They receive training initially on all the common health topics in the community. These VHWs are the link between health services and community.

Sustaining health system for Malaria control

The GFATM-R6 proposal if granted terminates by year 2012. By then, malaria cases would have been controlled and would have been halted in line with the MDG. Bhutan has unstable malaria epidemics and if the control activities are not sustained there is every opportunity that rebound effect would occur with vengeance. To sustain control measures beyond GFATM and beyond MDG, Bhutan Health Trust Fund would play a crucial part in financing the control activities.

At present the Vector control programme has three major collaborators namely government of India, Royal government of Bhutan, WHO and GFATM R4. The budget contribution from each donor and domestic source is mentioned in table 4.5.1-3- Finanacial contributions to national response. The total contribution from nationa(US$ 702,000) and donor agencies (US$ 695,911) including R4 GFATM was US $ 1,397,911 in year 2006.

4 Component Section *Malaria*

Based on an analysis of the national goals and objectives for fighting the disease component, describe the overall **financial** needs. Such an analysis should recognize any required investment in health systems linked to the disease. Provide an estimate of the costs of meeting this overall need and include information about how this costing has been developed (e.g., costed national strategies, medium term expenditure framework). *(Actual targets for past years and planned and estimated costing for future years should be included in table 4.5.1-3 [line A].)*

The financial need was calculated based on the availability of present fund and need as per the programmatic need assessment considering the population in need of the crucial services.

In the prevention component, the IRS component is supported by the R4 and sustained through GOI budget, the LLIN was supported by the R4. Therefore, the major gap identified in this proposal is the bioenvironmental measures. In the similar line, although major population was covered for the EDPT in the R4, yet there is a dare need for EDPT in the hard to reach population which is often neglected. The primary communication to create awareness is carried out in the R4 of the GFATM support, but in line with the international mandates, merely creating awareness is not sufficient to change behaviour. Therefore, this proposal seeks to communication with an objective to change behavioural change impact. The programme needs to be sustained to prevent upsurge and rebound effect through basic preventive and control measures which are in line with the international standards since we don't see malaria eradication for years ahead due to population influx and cross boarder activities. This gap shall be fulfilled through the Bhutan Health trust funs.

The cost assumptions was based on the present RGOB rules and WHO costing for the consultants. Based on the available data analysis, the following financial needs with an estimate of cost and source have been arrived at:

Human Resource development: The existing health infrastructure of the Ministry of Health and the staff provided by the 4th round of GFATM is not enough to carry out activities mentioned to meet the 2 objectives in this proposal. A minimum requirement of staff for short term and long term training has been identified. The Long term training component has been included in this proposal since it is building of the human resources. Funds requested in the GFATM round 6 for human resources are, First year $ 196,000; second year $161,000; third year $61,000, fourth round $111,000 and $111,000 in the 5th year. The costing assumptions is bases on existing RGOB rules.

Infrastructure and Equipment: Request has been made for computers (for disease surveillance and data management), Laptop and LCD (for training), microscopes (pre-service training at RIHS), ELISA (vector incrimination), GPHF Minilab$^{@}$ test kit equipment (drug quality testing), PCR machine (for testing therapeutic efficacy studies), ambulance (for patient referral), truck for transporting supplies). For details kindly see 4.6.3 activities. Cost to be met from the GFATM 6th round . First year $152,600; third year $3600; fourth year $43,600 and fifth year $43,600. Costing is based on: RGoB procurement current rates for most equipment; entomological equipment based on Bio Quip catalogue 1997; GPHF Minilab$^{@}$ cost based on German Pharma Health Fund E.V.

Consultants: Short term consultants are required to provide technical assistance till we have the local expertise in several technical areas. Consultants will be recruited through assistance of SEARO, WHO. Cost based on standard WHO procedures. First $ 82,000; second year $8,000, third year $10,000, fourth year $12,000, fifth year $38,000.

4.5.2 Current and planned sources of funding

a) Describe current and planned financial contributions, from all relevant domestic sources (including loans and debt relief) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line B].)*

9th Plan committed 2005 $698,000; 2006 $702,000 and 2007 $740,000

10th Plan 25% more compared to 9th plan.

b) Describe current and planned financial contributions, anticipated from all relevant external sources (including existing grants from the Global Fund and any other external donor funding) relating to this component. *(Summarize such financial amounts for past and future years in table 4.5.1-3 [line C].)*

1. Government of India Rs 8 million/year for insecticides and miscellaneous activities of malaria control in Bhutan.

2. WHO for technical assistance. $51,500 during this biennium (2004 and 2005); $39,000 (2006 and 2007). Subsequent funding is not known and planned by WHO

3. GFATM 4th round ($1,000,975 million for Phase I) =1,737,190.

4.5.3 Financial gap calculation

Provide a calculation of the gap between the estimated overall need and current and planned available resources for this component in table 4.5.1-3 and provide any additional comments below.

From 10th Five Year Plan onwards (2008) domestic source has been calculated with 5 % increase since there is 25% increase for 10th FYP. WHO and GOI contributions has been based on the assumptions that contribution will be same as before and all other factors does not change drastically.

4 Component Section *Malaria*

Please summarize the information from 4.5.1, 4.5.2 and 4.5.3 in the table below.

Table 4.5.1-3 - Financial contributions to national response

	Financial gap analysis (*please specify currency:* US$)						
	Actual		Planned		Estimated		
	2004	2005	2006	2007	2008	2009	2010
Overall needs costing (A)				2,353,113	1,836,190	2,073,653	1,636,028
Current and planned sources of funding:							
Domestic source: Loans and debt relief (*provide donor name*)							
Domestic source: National funding resources	542000	698,000	702,000	740,000	780,000	819,000	859,950
Total domestic sources of funding(B)	542,000	698,000	702,000	740,000	780,000	819,000	859,950
External source 1 Global Fund Grants		516,008	490,833	233,010	210,612	293,025	0
External source 2 (*Government of India*)	177,778	177,778	17,778	177,778	177,778	177,778	177,778
External source 3 (*WHO*)	36,050	15,450	27,300	11,700	27300	11700	27300
Total external sources of funding (C)	123828	709236	695911	422488	415690	482503	205078
Total resources available (B+C)	665,828	1,407,236	1,397,911	1,162,488	1,195,690	1301,503	1065,028
Unmet need (A) - (B + C)	0	0	0	1,190,625	640,500	772,150	571,000

4.5.4 Additionality

Confirm that Global Fund resources received will be additional to existing and planned resources, and will not substitute for such sources, and explain plans to ensure that this will continue to be true for the entire proposal period.

In line with the ministerial policy, all recurrent cost such as salaries, normal travel budget, basic office set up cost such as furniture, are all met from the domestic budget. The procurement of insecticide and some vectors control measures especially in relation dengue are supported from the Government of India sources. In round four, GFATM supported the procurement of LLIN, spray equipment and short term trainings/ capacity building. LLIN supplied from the GFATM in year 1 &2 are required to be replaced and therefore, we have proposed for further procurement in phase II of R6. Therefore, it is an addition to the previous proposal and not a substitute. WHO provided the technical assistance related to the programme.

The Global Funds resources would be additional to the existing and planned resources. At no time GFATM funds will substitute national or other resources received from India or WHO.

4.6 Component strategy

This section describes the strategic approach of this component of the proposal, and the activities that are intended in the course of the program. Section 4.6 contains important information on the goals, objectives, service delivery areas and activities, as well as the indicators that will be used to measure performance.

For more detailed information on the requirements of this section, see the Guidelines for Proposals section 4.6.

In support of this section, all applicants must submit:

- A **Targets and Indicators Table.** This is included as **Attachment A** to the Proposal Form. *(When setting targets in this table, please refer explicitly to the programmatic need and gap analysis in section 4.5.1 a. All targets should show clearly the current baseline. For definitions of the terms used in this table, see the M&E Toolkit provided by the Global Fund. Please also refer to the Guidelines for Proposals, section 4.6.*

and

- A component **Work Plan** covering the first two years of the proposal period. The Work Plan should also be integrated with the detailed budget referred to in section 5.2.

*The **Work Plan** should meet the following criteria (Please refer to the Guidelines for Proposals, section 4.6):*

i. It should be structured along the same lines as the Component Strategy - i.e. reflect the same goals, objectives, service delivery areas and activities.

j. It should cover the first two years of the proposal period and should:
- ***i be detailed for year 1, with information broken down by quarters;***
- ***ii be indicative for year 2.***

*k. It should be **consistent with the Targets and Indicators Table** (Attachment A to the Proposal Form) mentioned above.*

*l. It should be integrated with the first two years of the **detailed budget** (please refer to section 5.2).*

Please note that narrative information in this section 4.6 should refer to the Targets and Indicators Table (Attachment A to this Proposal Form), but should not consist merely of a description of the table.

4 Component Section *Malaria*

4.6.1 Goals, objectives and service delivery areas

Provide a clear description of the program's goal(s), objectives and service delivery areas (provide quantitative information, where possible).

Goal: To reduce malaria morbidity and mortality by 50% by 2012 as compared to 2005 baseline.

Objective 1: Scaling up malaria prevention

Objective 2: Strengthening EDPT in "Hard to Reach" areas

Objective 3: Sustaining Health System

Objective 1: Scaling-up malaria prevention.: The standard methods of preventive malaria control in Bhutan are: (i) indoor residual spraying with insecticides, and (ii) insecticide treated mosquito nets (including LLINs). The ongoing field operations have produced notable impact on malaria transmission. It may be noted during the 8th plan Government of India provided Rs 4 million/per year for malaria control. This grant in aid was enhanced to Rs 8 million/per year during the 9th plan (2002-2008). The impact of enhanced funding was visible in the improvement of malaria situation. As discussed above in the malaria situation analysis, there is a declining trend of malaria in Bhutan i.e., from 6511 cases in 2002 , 3806 cases in 2003, 2670 cases in 2004 and 1825 cases (5 deaths) in 2005. *P. falciparum* constitutes about 52% (2005 954 Pf cases). The situation in regard to malaria deaths has shown improvement. However, there has been some population groups that are outreach of the programme and disease burden among these groups are not known. Focal out break is a common phenomenon in unstable malaria situation. Sustainability of the control activities is another issue that has not been addressed in previous proposal. Therefore, it is imperative and important to upscale malaria control interventions of proven efficacy to areas that are still outside the reach of the health services including the GFATM 4th Round support. It may be noted that ending second year of the 4th round over 90% of the population would be covered by the LLIN but however, it needs replenish by year 2009. Even at the end of 5-year GFATM 4th round support, a sizeable population living in the "hard to reach" areas would not be accessed. This is due to the weak health infrastructure, which is under strengthening and gradually opening access to remote and inaccessible areas. Further, LLIN supplied in year 2005-06 would be weathered and insecticide rendered ineffective by year 2009, therefore, it is very important to replenish LLIN to sustain the effect.

The 6th round seeks funding to provide preventive vector control coverage to the above population so that at the end of the GFATM support Bhutan government would have provided complete protection and curative services to all Bhutanese nationals. This would also meet the Millennium Development Goals. The following Service Delivery Areas (SDA) have been identified to fulfill the objective of preventive vector control, keeping in mind sustainability of malaria control interventions.

SDA 1: Prevention : Vector Control.

SDA 2: Supportive Environment: Monitoring insecticide resistance

SDA 3: Prevention: BCC community outreach

SDA 4: Community System Strengthening

Objective 2: Strengthening EDPT in "Hard to Reach" areas

In the fourth Round, the procurement of ACT (Coartem) has made great improvement in the management of Malaria. The prescribers are trained for short courses on the management of malaria in Bangkok. However there remains a substantial population who are hard to reach due to inaccessibility to the health facility. This needs to be addressed to achieve the MDG by 2015. Further, the availability of contrafiet drugs especially the Artemisinin groups are well documented in other countries. At present there are no testing facilities to prevent and halt such criminal acts. Therefore, it is imperative that quality of drugs issued to patients are effective and of standard quality. In addition, the quality assurance in the diagnosis

by establishing standards needs to be instituted so that correct diagnosis is provided. The SDAs included in here are:

1. Treatment: Prompt, effective anti-malaria
2. Supportive environment : laboratory
3. Supportive environment: Monitoring drug resistance

Objective 3: Sustaining Health System

The GFATM-R6 proposal if granted terminates by year 2012. By then, malaria cases would have been controlled and would have been halted in line with the MDG. Bhutan has unstable malaria epidemics and if the control activities are not sustained there is every opportunity, that rebound effect would occur. To sustain control measures beyond GFATM and beyond MDG, Bhutan Health Trust Fund would play a crucial part in financing the control activities. Hence, it is essential that Health Trust fund is supported, so that it becomes operational in supporting the programme activities.

The SDA included in this Objective:

1. Sustaining Malaria Programme.

A brief description of the activities planned in the above service delivery areas follows in section 4.6.3. and quantified according in later sections.

4.6.2 Link with overall national context

Describe how these goals and objectives are linked to the key problems and gaps arising from the description of the national context in section 4.4. Demonstrate clearly how the proposed goals fit within the overall (national) strategy and how the proposed objectives and service delivery areas relate to the goals and to each other.

The goal of the GFATM proposal is to reduce malaria morbidity and mortality by 50% by 2012 as compared to 2005. This goal is supported by three objectives, namely (i) **malaria prevention**: In additional to provision of epidemic control by spraying deltamethrin and also regular supply of LLIN supported by R4 GFATM, two new areas would be explored i.e. the possibility of indigenous fishes in the control of vector breeding and environmental modification by organizing drainage in the streams which are the main source of the vector breeding. Successful outcome of the exploratory work in these two areas would provide highly cost effective and lasting solution to the control of mosquito breeding which is in harmony with the culture, religion and the environment. These methods are also environmental friendly; (ii) **strengthening EDPT** in hard to reach areas estimated to 12.4% of the country's population. This population living more than 1 hour walking distance from the road point. The present proposal seeks to provide EDPT to the entire hard to reach population through a well structured health system. This would remove a major focus of malaria and help the marginalized population. Various activities undertaken under the EDPT have been designed to bring awareness in the community and train the staff in doing a professional job of bringing awareness and delivering of the EDPT; and (iii) **Sustaining Health system**: It is proposed to create a health fund for enhancing sustainability of interventions. Interest money out of this health fund will go in the purchase of drugs, LLINs and other programme needs in the control of malaria. GFATM round 4 support of free distribution of LLINs and provision of drugs has already made a difference. Further additionality of Preventive vector control and EDPT would strengthen overall interventions would diminish malaria control. And after the GFATM term, trust money would be useful in the treatment and protection from malaria of the residual cases of malaria in Bhutan. Therefore the three objectives supported by various activities strongly indicate that GFATM support will successfully achieve the overall goals of the National Malaria Control, Roll Back Malaria and the Millennium Development Goal.

4.6.3 Activities

Provide a clear and detailed description of the activities that will be implemented within each service delivery area for each objective. Please include all the activities proposed, how these will be implemented, and by whom. *(Where activities to strengthen health systems are planned, applicants are also required to provide additional information at section 4.6.6.)*

Objective 1: Malaria prevention.

SDA 1.1: Prevention : Vector Control..

Activities: Exploratory work on the search of a new indigenous biological control agent (fish);Operational research for malaria vector control by environmental management; Procurement of vector survey equipment; Hiring of vehicles for supervision; Epidemiology (M.Sc.) training; Training of malaria health workers on programme management; Consultant for development of epidemiology/outbreak prediction system; Procurement of computer for health centre; Training on basic computer skills; Consultant for in-depth epidemiological study of malaria in Bhutan; Procurement of ELISA machine for vector incrimination studies; Insectory; Training of Entomologist and replenish the supply of LLIN in phase 2.

*SDA 1.2: Supportive Environment: Monitoring insecticide resistance:***Activities:**Testing vector susceptibility to insecticides; Training of malaria technicians and research assistants

SDA 1.3: Prevention: BCC community outreach: **Activities:** Consultant for COMBI;Implementation of COMBI;"Malaria Day" outreach activities for awareness;" Malaria Day" community based consultative discussion for awareness; Malaria advocacy at national district and Geog levels; Malaria media campaigns; M.Sc. in Sociology (Tropical Diseases).

*SDA1.4: Community System Strengthening:***Activities:**Development of manual for community "workshop on empowering community for malaria control" with an objective to empower community on malaria prevention and referral to expedite EDPT; and Conducting malaria review meetings at the regional levels to improve co-ordination and mitigating problems.

Objective 2: Strengthening EDPT in "Hard to Reach" areas:

SDA 2.1: Prompt, effective anti-malaria treatment: **Activities:** Identify hard to reach areas requiring EDPT; Providing communication facilities for EDPT;. Malaria control activities in school based programmes; Procurement of ambulance and essential delivery trucks for supplies, epidemic management; M.Sc. (Tropical Disease) for medical doctor; Training in Management of Severe malaria (1 week) ; Development of curriculum for pre-service training; Printing of curriculum;9. Procurement of teaching aids((Laptop and LCD etc.)

SDA 2.2.: Supportive environment: Laboratory :**Activities:** Training laboratory technicians on quality assessment (microscopes and RDTs); implementation of microscopy and RDT quality control(cross checking and supervision) ; Minilab® test kits for drug quality testing; Training on drug quality testing and implementation of quality drug monitoring (with drug testing and regulatory back-up);Procurement of multi-head microscope with CCTV and digital cameras for microscopy training.

*SDA 2.3: Supportive environment: Monitoring drug resistance:***Activities:**Training on drug efficacy studies; Training on drug resistance methodology; implementation of drug efficacy study and workshops on drug policy, Procurement of PCR for drug resistance studies; Training on PCR machine and establishment of PCR machine.

Objective 3: Sustaining Health System for Malaria control:

SDA 3.1: Procurement and supply management; **Activity:** Sustaining malaria programme through support of Health Trust Fund for sustaining drugs procurement and LLINs.

Brief description of the activities:

1. Exploratory work on the search of a new indigenous biological control agent (fish) to control vector breeding.

At present, Bhutan has adopted the use of selective IRS and supply of ITNs as the main preventive measures. The over reliance to the chemicals may not be sustained due to development of resistance, ecologically unfriendly nature, public acceptance rate may be reduced. Therefore, it is imperative to find an alternative method which is

suitable for Bhutan with little ecological hazard. Such contol would reduce the the dependency to the chemical method. The biological control would be more acceptable to the community since it is considered a righteous act to release the fish in the natural habitat.

There are two malaria vectors in Bhutan i.e., *Anopheles minimus* and *An. fluviatilis*. Both these vectors breed in slow flowing streams and therefore not amenable to very effective control by the known fishes. No work has been done in Bhutan to look for the potential biological control agents. This is an exploratory research for a suitable fish that can meet the requirement of a biological control agent. If such a fish is found, it would require further work on the breeding, survival in various types of water bodies, techniques of packaging distribution and maintenance. Since this is a skilled job with experience in fishes, it is proposed to collaborate this assignment with the fisheries department of the government of Bhutan. Successful discovery of fish suitable for the control of mosquitoes that breed in stream would be applicable to the entire Himalayan belt and help in the control of stable malaria in India, Bangladesh, Bhutan and Thailand.

A consultant will be recruited for one month to assist the programme with the exploratory study in year 1. In year 2 interventions will be initiated based on the result of the study in year 1. Year 3 to 5 will be expansion phase for biological control.

2. Operational research for malaria vector control by environmental management

The role of environmental management is often considered expensive and is overshadowed by other measures such as use of IRS and ITNs which are cheaper and easier to use. However, the use of chemicals as a means for vector control has its own disadvantages such as development of resistance, need for continual assessment, and environmental pollution. Hence it becomes imperative to seek alternative measures which is conducive to the local environment such as environmental management as a means to control mosquitoes. If the role of environmental management methods can be expanded in malaria control it would control the breeding sites and can be utilized as a sustainable intervention. *An. minimus* and *An. fluviatilis* vector control by organizing drainage work in Assam is a classical example of maintaining malaria free areas for the troops fighting second world war. In Bhutan organized drainage work has reduced vector breeding and transmission of malaria, but this work was done on a very limited scale. We need to organize drainage in one district with the help of civil engineers and experts in the environmental management. Depending on the outcome of this work further expansion of drainage as a method of vector control would be taken up during the second phase of the 6^{th} round.

3. Procurement of vector survey equipment.

Entomological survey work requires specialized equipment for mosquito sampling, study of immature, rearing , holding adults in temperature and humidity control conditions, various types of cages, animals for feeding the mosquitoes, animal feed, trained technicians for maintaining laboratory, field survey equipment, etc. Entomological work also requires information on environmental determinants and for this metrological equipment is required for recording humidity, temperature, rainfall.

4.Hiring of vehicles for supervision.

In line with the Government's policy of reducing cost for procurement of vehicle to reduce government expenditure we propose to keep budget provision to hire the transport as per the needs of the field work at the government approved rates. The government permits purchase of ambulances for facilitating patient referrals and heavy vehicle to facilitate transportation of medicines and medical commodities. In the GFATM proposal no request has been made for vehicles instead provision has been made for hiring the vehicles. Vehicle will be hired for all the five years.

5. Epidemiology (M.Sc.) training .

There is no epidemiologist in the country and so far what ever information has been elicited was through the consultancy services provided by the WHO. Since the programme is expanding to cover the entire country with

various interventions a lot of interesting and relevant information would be generated. Planning, data analysis and its application in the field for cost effective interventions and increasing sustainability required one epidemiologist. Graduates willing to take up two year M.Sc in epidemiology are available, and it would help the programme on long term basis to train the epidemiologist. It is therefore recommended to depute one Bhutanese national for M.Sc. in epidemiology to a recognized university. Before the candidate is sent for the course, he/she needs to sign a bond so that after completion of the studies, the candidate will work for the government of Bhutan for a duration double the course. This condition applies to all candidates who are going for studies. This has impact on long term sustainability of human resources.

6. Training of malaria health workers on programme management

Malaria health workers need training in malariology. It is proposed to depute 2 malaria health workers each year to take training course on Management of Malaria field operations (MMFO) offered by the Asian Collaborative Training Network for malaria(ACT malaria) in Thailand. Training is essential for the routine and GFATM work. This training will enable them to manage malaria control project and further their basic knowledge on analyzing the malaria situation. This training will be carried out for all endemic districts.

7.Consultant for development of epidemiology/outbreak prediction system

Bhutan is facing 7-10 focal epidemics every year in the seasonal transmission areas. So far these epidemics were successfully controlled by mobilizing the epidemic control staff but it may be difficult to control a widespread epidemic which may surface to increase of the non-immune population. Therefore the programme needs the services of a consultant with specialization in epidemics and their containment in time. A provision of 3-month consultancy services has been made to fill this gap. They will impart hands on training to staff in-charge of epidemic control.

8. Procurement of computer for health centre including software.

To improve surveillance each health center will be provided with computers so that they can enter daily/ weekly data and detect out breaks. 20 such health centers will be supported with computers so that they have capacity to detect out breaks in time. It is proposed to procure 20 computers in the first year to be placed in the basic health units which are prone to frequent out breaks. Computers would be required for data entry, storage, retrieval and transmittal. Essential software, printers and computer accessories will also be procured. Internet facilities, IT network wherever feasible will be established for improving information sharing and for reporting of outbreaks in particular.

9. Training on basic computer skills

We need 20 computers to be placed one each in the basic health unit. This is the smallest health facility located at the periphery. Computerization is essential for maintaining data base for various reports and situational analysis. Computerization would also help in the monitoring and evaluation of the programme. It may be noted that HIV and Tuberculosis are not providing this facility at the basic health unit. At present basic health worker is not trained **in handing** computers and therefore for making this facility functional training of basic health worker in computer skills required in their work is absolutely essential

10. Consultant for in-depth epidemiological study of malaria in Bhutan.

The services of an expert in malaria to provide an authentic account of the malaria epidemiology in Bhutan, particularly with reference to the following paradoxes. (a) the two known vectors of malaria in Bhutan are the *An. minimus* and *An. fluviatilis.* Adult collection for extended periods have failed to collect any specimens except some rare collection of larvae from the field, (b) malaria cases are regularly reported from urban areas, but there is no urban malaria vector in Bhutan, and (c) the impact of to and fro population migration on the international borders. It is proposed to assign this investigation to an experience malariologist to give authentic account of the paradoxes and make recommendations to understand the epidemiology of malaria in these paradigms for instituting remedial measures. The consultant will provide a complete account of the epidemiology of malaria in Bhutan with

observations on the above unexplained situations.

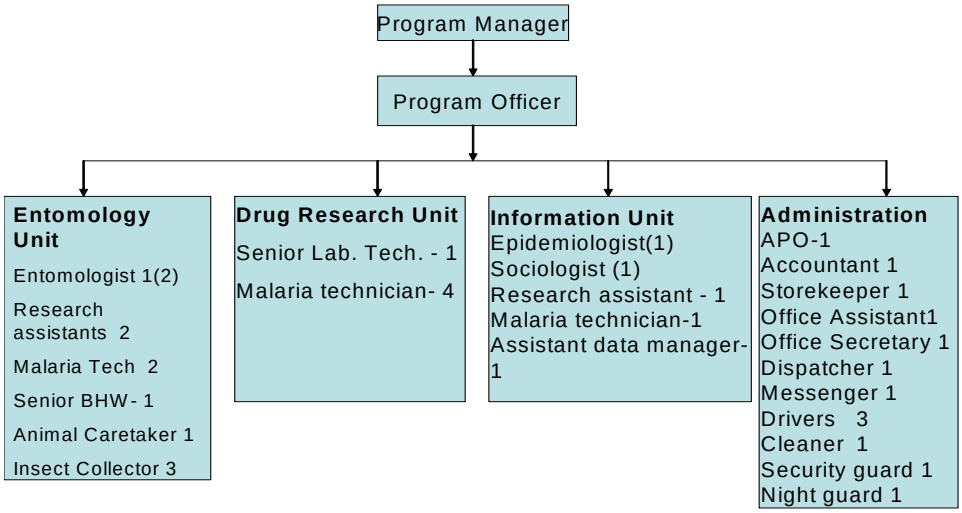
11. Procurement of ELISA: Procurement of ELISA machine is required for vector incrimination studies to study sporozoite rate by dissecting the salivary gland by ELISA test. This will be needed in year 1. The supplying company shouls also provide hands on training for the ELISA.

12. Insectory : In the 9th five year Plan the Malaria programme had proposed to develop infrastructure for preservation of the medically important insects of Bhutan (I*nsect museum)* for use for training of health workers. But this activity could not be carried out due to funding gap . Therefore, the proposal has been kept in this project to convert one room into insectorium . Since the place is very hot and humid it will be made suitable for preserving specimens by providing the necessary equipments like Air conditioning, etc. this will be carried in the 4th quarter of year 1.

13. Training of Entomologist (for programme HQs)

Malaria Control Programme is one of the oldest Public Health programmes of Bhutan. Since the early 1990s malaria control activities have been fully integrated into the general health delivery system. From the 9th Five year Plan onwards the malaria control activities like all developmental activities and decision making has been decentralized from district to geog (Block level). In spite of all these positive changes and in spite of having been accorded highest priority since its inception in 1964 the program has not made much progress . There has been limited capacity at the programme level leading to dependency for technical supports. A lot of expenditure has been incurred in consultancies and it is very difficult at times to get consultants when there is requirement. Not undermining the great deeds done by the consultants, it is high time for Bhutan to have her nationals in specialized field. Other vector borne diseases are integrated under Malaria Programme that now functions as the Vector Borne Disease Control Programme. The responsibility has increased but capacity remains unchanged for many years. There are about 9 malaria technicians' persons in malaria programme and about 42 malaria workers posted in the health centers in the country to provide malaria diagnostic services. But they implement all malaria control activities in the health centers from planning of control activities to control measures (IRS, ITBN, Larviciding, vector surveillance activities, recording and preparing malaria reports). The country still faces shortages of malaria field workers and with attrition there is going to be major gap if more persons are not trained in time. Since we have manpower in the grass root level though not adequate now focus on training higher level staff for programme and district level. They will be able to train the junior level workers as and when needed. At present the base is broad but rather weak. We need to have a broad base that is skillful as well.

Existing Organogram of VDCP



*Note :Program Manager (M. Sc/ MBBS background)
Entomologist (PG Diploma in Entomology)
Assistant program Officer (B. Sc graduate)

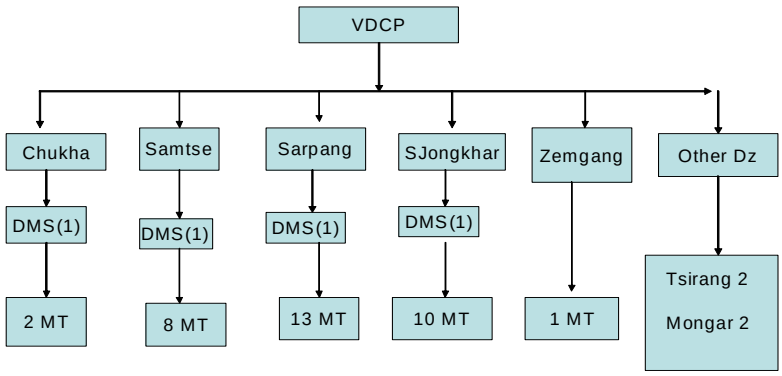
Rest of the staff (education level Class IV - X)

( ) indicate requirement

14. Training of Assistant Entomologists (for district level programme)

The malaria control activities like all health care programme in Bhutan is integrated into the general health care services and so decentralized to the districts. The 5 endemic districts have one District Malaria Supervisor(DMS) each . They are the over all managers at the district level for malaria activities co-ordination, planning, supervision and implementation but at present they lack capacity as managers as they have been trained as malaria workers and have low education back ground. With the position classification system of the government these category of persons cannot function in the capacity of managers because of their qualification so unless we have qualified persons to take up this post this posts will remain vacant. At present all the malaria technicians are below Secondary school level. In year 2 to year 5 we will need to develop at least 1 assistant entomologist in each of the endemic district. 4 assistant entomologists (at least Diploma) and one entomologist(M.Sc.) will be required for the endemic districts.

Decentralized vector Control activities



Total 42 malaria workers in the field

* Note : All are Malaria Technicians with education level class IV- X
Propose to place Assistant Entomologist (Diploma in Entomology) as District Malaria Supervisor(DMS).
The field level technicians will be strengthened through special trainings in the region.
(1) indicated requirement of assistant entomologist

SDA 2: Supportive Environment: Monitoring insecticide resistance

Activities:

Testing vector susceptibility to insecticides

Training of malaria technicians and research assistants

Brief description of activities:

1. Testing vector susceptibility to insecticides

Malaria has been effectively controlled by spraying Deltamethrin in the past in Bhutan. Vector resistance to various insecticides are documented in several countries, especially India that shares border with Bhutan. Therefore it is proposed to test the susceptibility of *An. minimus* and *An. fluviatilis* against Deltamethrin insecticide before undertaking spray programme. It may be noted that searches made by the consultants have not produced adult vector specimens. Monitoring of adult populations should be done during the transmission season in the unsprayed areas. Unfortunately lack of trained staff resulted in undertaking this work. This gap should be filled up by organizing training of health staff.

2. Training of malaria technicians and research assistants

As of now only fragmentary information is available on malaria vectors in Bhutan. Consultants have carried out spot checks and reported the fauna. Furthermore local staff has had not training in the identification and methods of collection of malaria vectors. While it is understandable that vectors would be difficult to find in sprayed areas but it is possible to find reasonable densities of vectors in the districts where spraying has been done selectively and particularly during the transmission season. This work should preferably be done by the local staff. Therefore technicians and research assistants should be trained in a dedicated training programme dealing with the study of bionomics and control of *An. minimus* and *An. fluviatilis*. It is recommended to get this training organized by the India's National Institute of Malaria Research (NIMR) through field stations in malaria endemic areas in Assam and West Bengal. Informal consultations with NIMR were established and they have agreed to consider the request favorably

This is a short course of 3-months duration. This training is felt necessary to develop skills of the field level malaria technicians on doing vector surveillance activities. They have been given basic pre-service in country training and have received refresher training in the country but they have no further exposure to other malaria work and need updating. They will be motivated and learn the various methods of field studies and this will improve transmission of malaria in the community . Unless our field workers are skilled and motivated malaria work will never be successful. There are about 58 malaria workers in the country . Every year at least 15 technicians will be sent to NIMR . By year 5 all of the existing staff will under go this training. Only such activities will strengthen the grass root level workers.

SDA 3: Prevention: BCC community outreach

Activities

1. Consultant for Communication for behavioural Change Impact (COMBI)
2. COMBI market analysis
3. Capacity building of health staff on COMBI
4. Development of COMBI strategies
5. Development of Localised COMBI strategies
6. Malaria Advocacy at national, district and gewog level
7. Malaria media campaign
8. "Malaria Day " consultative discussion
9. "Malaria Day" observation
10. M.Sc. in Sociology (Tropical Diseases).

Brief description of activities:

Background

In Bhutan, interventions proven effective globally have been implemented along with integrated vector management. The first line drug for PF malaria was changed from time to time, as guided by the therapeutic efficacy studies report. However malaria morbidity and case fatality rate has not reduced significantly.

ITNs were introduced in 1998, and LLINs in 2006. These have been distributed free of change to the at-risk populations since 1998 and the coverage has increased significantly to more than 80% of the population. However the malaria prevalence remains unchanged.

COMBI plans need to be developed with specific behavioural objectives to increase the usage and maintenance of ITNs/ITNs. With awareness regarding the cause of malaria and the need for prevention among those living in the endemic areas is high as per the KAP survey in 2000, COMBI also need to maintain this high level of awareness and address any misconceptions.

Behavioural Assessment

An assessment will be made of those living in endemic areas to gauge the current attitudes and beliefs regarding malaria and also the current behaviour regarding bed net use. This will inform the basis of the COMBI strategy.

Consultant for COMBI

A consultant will be needed in the initial stages of the project to create the COMBI strategy for the project. The COMBI marketing analysis will be done through consultative meetings or workshop with relevant stakeholders. Approximately thirty people will be consulted which will be facilitated by the consultant and the program area.

The consultant would then develop the national COMBI strategy for malaria. Once the strategy has been approved, the consultant will then hold COMBI train-the-trainer workshops with relevant national and local officers to promote the COMBI strategy, and assist with the development of localised workplans.

The consultant will also be required to work with the Ministry of Health to develop national education, information and communications campaign materials for national use.

High level support

High level support will be sought from across government to assist with advocacy of the campaign. Support of the Multi-sectorial taskforce in the endemic areas will assist with advocacy within the communities as well as implementation of COMBI.

Further investigations regarding advocacy involvement of the Royal Family will also be sought.

Development of COMBI Malaria awareness and education resource kit

A resource kit will be developed for use by all relevant staff involved with COMBI activities. This will provide IEC materials as well as outline suggested activities that could be implemented in regional areas.

BCC capacity building and planning of COMBI activity

To ensure effective implementation of COMBI, Ministry of Health staff will need to be trained on behaviour change communications and how to implement in endemic areas. The consultant should also be available to assist with the development of localised BCC work plans to ensure that the kit is used effectively.

Implementation of national and localised COMBI activity

The mass media will be used to support any localized BCC activity. A planned mass media campaign with relevant messages to promote behaviour change will be executed from the second year until the completion of the campaign. With the COMBI strategy completed, and the workforce ready for implementation, localised activity can occur to mobilize communities and promote behaviour change.

In addition to ongoing localized COMBI activity, a national Malaria Awareness Day will be promoted to have additional advocacy and focus COMBI activity in localized areas.

Monitoring and Evaluation

To ensure effective impact of behaviour change activity, monitoring of activities will occur at a local level to measure the effectiveness of the activities and to ensure recommendations can shared for other BCC implementers.

Consultant for COMBI to perform market analysis and strategy development

In Bhutan, interventions proven effective globally have been implemented along with integrated vector management. Although, Bhutan has adopted the strategies as per the prescribed international guidelines, the malaria morbidity and case fatality rates are above the permissible range. This paradox requires a through assessment of the existing BCC component. Therefore the COMBI for Bhutan will be developed with an objective of:

- Increase public awareness of the severity of malaria through interpersonal, mid-level, and mass media behaviour change communications campaigns.
- Strengthen the district capacity of key personnel in the community to implement malaria prevention and to promote behavioural change.
- Stimulate mechanisms and harness resources at the community level for malaria prevention.
- Develop a resource package for malaria behaviour change interventions and to advocate the use of LLINs/ITNs.

A consultant will be needed in the first year for duration of 2 months to do the assessment and responsible to carry out following activities:

COMBI marketing analysis will be done through a 1 week consultative meeting with relevant stake holders. About 30 people will be present in the meeting.

- Will develop national COMBI strategy for malaria and materials for IEC.
- Will develop localized COMBI strategy and materials.
- Conduct week training for trainers on COMBI, these trainers will conduct further training for other health workers in the country.

1. In year 2 implementation of COMBI in the five districts based on the COMBI strategy and marketing analysis. In year 4 , a consultant will be required to come and monitor the implementation is going on as planned.

In Year 5 the same consultant is requested to come and assess the impact of COMBI on behavioural change on morbidity and mortality due to malaria.

3. “Malaria Day” community based consultative discussion for awareness

In line with GMP, 25th April will be declared as malaria “Malaria day”. On this day special programme related to awareness about malaria and its control, how to protect from malaria and simple methods of the control of mosquito breeding are given publicity throughout the country. Malaria day will be observed in the three regional offices of Bhutan, in all malaria endemic districts and all the BHUs. Special meetings re organized inviting communities for information dissemination and answer the queries of the people. Radio, TV and other media re pressed into service. Special effort is made to reach high risk population e.g. pregnant women and children below 5 years or new entrants to the endemic area as they stand at high risk of contracting fatal disease. A report of the activities is prepared for action as may be considered important. Further, on Malaria Day a special effort would be made under the GFATM to reach “hard to reach” villages. Organize awareness campaign, distribute simple literature on malaria and what the people can do to protect themselves from malaria, and organize group meetings to disseminate simple information and answer the queries of the communities.

5. Malaria advocacy at national district and Geog levels.

COMBI advocacy tools, guidelines and manuals would be used in bringing about behavioral change in the communities. For this advocacy workshops will be organized at the centre, 3 regional offices and at the district headquarters. In these workshops COMBI skills will be used

6. Malaria media campaigns.

A resource kit will be developed for use by all relevant staff involved with COMBI activities. This will provide IEC materials as well as outline suggested activities that could be implemented in regional areas. Media will be involved throughout in spreading messages throughout the country. RGoB IEC Bureau will be responsible for detail

planning and implementation of the programme. A resource kit will be developed for use by all relevant staff involved with COMBI activities. This will provide IEC materials as well as outline suggested activities that could be implemented in regional areas.

7. M.Sc. in Sociology (Tropical Diseases)

One scientist would be trained in sociology (M.Sc. Course) to be assigned malaria work on his/her return. This part of the long term training component of this proposal. A social scientist is important to increase acceptability of various interventions and provide feed back to the control department on amendments in their approach to delivery of health services.

SDA 4: Community System Strengthening
Activities

1. Development of training manual for community for malaria prevention and referral to expedite EDPT.
2. Printing of manuals
3. Training of community as per the manual (manual will include what is a community, how will they be involved in EDPT, and the supervisory tier of District Health Officer)
4. Conducting malaria review meetings

Description of activities:

1. Development of training manual for community for malaria prevention and referral to expedite EDPT:A national team of about 10 members will be formed consisting of the VDCP, School Health programme , Village Volunteer Health Workers programme , ICB , Non Formal Education teachers, etc to work on development of the manual. The manual will be developed and finalized in about 10 days. The manual will focus on the prevention of malaria and health seeking behaviour.
2. Printing of manuals; About 500 manuals will be printed at the rate of US$ 25 each in the first year.
3. Training of community as per the manual : every year about 100 persons will be trained for about 5 days. This type of training will be conducted every year for five years and by end of 5 years 500 people will have received the training. The participants will be VHWs, NFE teachers, representatives of Armed Forces and Police Forces. Every year, about 10% of the cases are contributed by the uniformed persons.
4. Conducting malaria review meetings in the three regions in Bhutan (Central, Western and Eastern Regions of Bhutan.

In round 4 of GFATM national level malaria meetings were conducted and it was recommended by the participants that it would be much better to conduct regional meetings where each region could discuss in detail regarding the malaria activities for the year. It will be a one day meeting and the objective of the meeting will be to discuss issues, develop strategies in relation to strengthening services for malaria control. There are 176 BHUs and 26 hospitals in the country. So there will be one representative from each health center in the country to participate in the meeting. This will improve co-ordination , planning and implementation in each region. This meeting will be conducted annually in each region for the five years.

Objective 2: Strengthening EDPT in "Hard to Reach" areas

SDA 1: Prompt, effective anti-malaria treatment

Activities:

1. Identify hard to reach areas requiring EDPT
2. Providing communication facilities for EDPT
3. Malaria control activities in school based programmes.
4. Procurement of ambulance and essential supplies(including truck) for epidemic management

5. M.Sc. (Tropical Disease) for medical doctor
6. Training in Management of Severe malaria (1 week)
7. Development of curriculum for pre-service training
8. Printing of curriculum
9. Procurement of teaching aids((Laptop and LCD etc.)

SDA 2: Supportive environment: Laboratory

Activities:

1. Training laboratory technicians on quality assessment (microscopes and RDTs).
2. Minilab test kits for drug quality testing
3. Training on drug quality testing
4. Procurement of multi-head microscope with CCTV and digital cameras

SDA 3: Supportive environment: Monitoring drug resistance

Activities:

1. Training on drug efficacy studies
2. Training on drug resistance methodology
3. Procurement of PCR for drug resistance studies.
4. Training on PCR machine.

Objective 2 Strengthen EDPT in "hard to reach " areas.

SDA1: Prompt effective Anti malaria treatment .

SDA 1 : Activity 1: Identify hard to reach areas (defined as more than 1hours walk from road point and areas that are cut off and difficult to reach due to swollen rivers , land slides during rainy season) . Hard to reach areas will be identified during a 3 day consultative meeting with district authorities and health authorities in the endemic areas. About 50 participants (3-5 participants per district) consisting of district health and District authorities will identify and discuss about hard to reach areas in each district. In Bhutan the terrain is rugged with mountains and rivers criss crossing through. The population is variable from place to place and scattered . Some of the villages are more than 1 hours walk from the road point and some of the populations cannot access health facilities early due to other factors like road blocks, floods and slides that completely cut them off during the rainy season. These hard to reach areas have to be supported to strengthen EDPT. This meeting will be conducted region wise.

SDA 1 : Activity 2: Providing communication facilities (mobile/VHF phones) to enhance referral of patients to the nearest BHU. The communities in need shall be mapped out and about 10 villages will be provided with one mobile (if mobile connection is already there) or VHF phone (if no facilities for mobile phone connection) or any other communication facilities which is cost effective after consultation with Bhutan Telecom, so that they can contact the nearest health center for ambulance for malaria patient referrals so that EDPT is enhanced. This activity is very important because when malaria deaths had been investigated more than 80 % of the deaths occurred in those who availed services late mostly due to the above mentioned factors. There is need to identify these areas and provide basic facilities to improve early referral of the patients. Otherwise the only way of communication is by messengers who have to walk long distances to reach health centers to request for ambulance and much time is lost before appropriate treatment can be initiated. The proportion of Pf malaria has been between 40-60 % in the last few years. Pf malaria patient can die of complications if treatment is delayed. Therefore the need to enhance referral services. The phone set will be kept with the village head man who will be contacted by the community whenever they have patients with clinical malaria symptoms. The community leader or village health worker will inform the nearest BHU to send the ambulance to take the patient to hospital. The recurrent cost such calling bills

shall be borne by the community.

SDA1 : Activity 3: Procurement of 2 ambulances for the health facilities near the hard to reach areas and a truck for transportation of supplies (regular supplies and during out breaks and epidemic controls). In Bhutan hospitals and BHU1 are provided with ambulances to facilitate patient referral to higher referral centers but some of the remote health centers have no ambulance so the health center has to be provided with ambulance to expedite referrals. Time is lost contacting the hospitals and BHU I for ambulance and leads to delay in referrals and therefore deaths. If the health centers nearest the hard to reach areas that do not have ambulance be provide with ambulances treatment delays will be reduced and malaria mortality reduction can be achieved. In this plan at least 2 such BHUs will receive ambulances with the aim mainly for malaria death reduction by expediting EDPT.

Activity 4: Procurement of truck is to facilitate Medical Supply Depot(MSD).

All the procurement of commodities and drugs is done centrally by Drug Vaccine and Equipment Division (DVED) of MoH. The supplies are received at the MSD and from there distributed annually to the health centers. The truck will be used to facilitate distribution of supplies (bed nets, drugs , reagents and others from MSD to the district/ health centers. However malaria commodities like Rapid Diagnostic Tests (RDTs), Insecticides, equipments like microscopes and spray pumps are received by malaria programme store and distribution is done by Malaria programme to the health centers. Supplies like insecticides have to be quantified and distribution is just before the spray operations that is done twice a year at six months interval. RDTs have to be maintained at temperature below 30 degrees Celsius so they are distributed as and when the request is made by health centers. For out break control with vehicle mounted fogging machine also a truck is required as the fogging machine is too big or heavy to be loaded in a small vehicle. Due to insufficient vehicles, the distributions are delayed. Hence this activity will assist in quick delivery and mobilization of medical supplies for the programme.

SDA 1 : Activity 5: Malaria activities in school based programmes/and Monasteries. School health programme and Health and Religion are programmes under MoH involved in various health activities for the school and in monasteries. Each school has a school health co-coordinator who deals with all the health programmes in school including health education . School children and monks are a vehicle of change in the community and can influence their family members and the community. The school teachers and monastery teachers will be given about 5 days training on prevention of malaria and recognition of symptoms of malaria so that they can also contribute to EDPT by educating the children in prevention of malaria and educating them on the importance of the symptoms and thus improve health seeking behaviour in the community. This is directly contributed to prevention of malaria transmission and malaria mortality reduction. About 100 candidates will attend the training every year for the 5 years.

SDA 1 : Activity 6 :Out country training in management of severe malaria for physicians for one week in Bangkok School of Tropical Medicine, Mahidol University. Each year 2 doctors will be sent for the next five years. Total 10 will be trained in five years. This training is necessary as every year new doctors join the Ministry of Health and get posted to health facilities in the south. The doctors who are posted in the bordering areas have to be trained on management of severe malaria.

SDA 1 : Activity 6: M. Sc in Tropical Medicine in year 1. The malaria programme will be strengthened in the next five years in terms of capacity. One person will be identified to go for M. Sc in Tropical Medicine. Vector At present there is only one medical doctor with tropical disease background. In the next few years one more could be developed to support the expansion of the units within the Vector Borne Disease control Programme. This would facilitate the proper management of the disease and the trained personnel can be used as the resource person for the programme. Further, with the government's transfer policy there is need to keep the doctors abreast with the management of severe malaria. In line with the government policy to establish sustainable national institute, these trained doctors can be used as a faculty members.

SDA 1 : Activity 7: Development of curriculum for pre-service training.
Royal Institute of Health Sciences (RIHS) is a training institute of all categories of health workers(Health Assistants, General Nurse midwifery, Technicians) in Bhutan. There is need to review the existing curriculum on malaria and also developing one with all the recent updates on the prevention and control of malaria. This activity will ensure that all health workers that pass out from RIHS have basic knowledge of malaria and are familiar with

first line treatment schedules for malaria. A meeting for 2 weeks will be conducted and the malaria curriculum finalized to be incorporated in the RIHS curriculum. About 10 participants consisting of RIHS lectures, VDCP and Physicians will decide the curriculum.
SDA 1 : Activity 8: Printing of curriculum
A separate manual will not be made but fund will be released to RIHS . RIHS will conduct this activity. About 1500 manuals will be printed and distributed to the RIHS students.

SDA 1: Activity 9: Procurement of teaching aids (Laptop and LCD etc) . A set of LCD and Laptop will be procured for use during training in year 1.

Activity 10: Procurement of 5 microscopes for RIHS to use for pre-service training of the technicians in year 1.

Activity 11: Procurement of Multi-head microscope with CCTV and digital camera . 2 sets will be procured. One for RIHS for the pre-service trainings and one for malaria programme for facilitating the refresher in country trainings for health workers.

SDA 2: Supportive Environment: laboratory.

Activity 1 :Training of lab technician outside the country on Quality Assurance for Laboratory (RDT & Microscopy). It will be a short course of about 1 week.

Activity 2: Develop SOPs for RDT and Microscopy. The above trained person on QA will come and develop SOPs for RDT and microscopy .

Activity 3: Printing of SOPs for use by technicians. 1000 copies of guidelines will be printed.

Activity 4: QA monitoring and supervision will be done every year .

Activity 5: Procurement of manilab equipment and the kits in year 1.

Activity 6: training on drug quality testing . One person will undergo 1 week training in the region in the 1st year on drug quality testing using manilab. The mina kits will be procured every year of the 5 year project period.

SDA3 : Supportive environment : Monitoring Drug Resistance

Activity 1: Drug therapeutic efficacy studies.

The drug therapeutic efficacy study will be conducted every as per the WHO protocol. The budget estimate is for the field trips during the study. The data will be collected from the sentinel site and patients will be followed as per prescribed guideline.

Activity 2: Drug therapeutic efficacy study

Drug monitoring sentinel sites have been set up in 5 places , one each in the endemic district in the round 4 of GFATM. In order to conduct the studies as per the international standards, the staff needs to be trained. At least 2 malaria technicians will be trained each year outside the country on conducting therapeutic efficacy studies. They will be sent for training within region for a period of 1 month training in drug research activities. This will ensure that they conduct studies in the sentinel sites more competently. After one year a consultant from the institute will be hired for 2 weeks to come for site visit and evaluate their activities and help us strengthen the sentinel sites further. Therapeutic efficacy study will be conducted in Bhutan on routinely an every year for Pf malaria with Artemether- Lumefantrine and for P vivax malaria with Chloroquine at least once in two years.

Activity 3: in year 2 the collaborating institute will be requested to send a consultant to come for 2 weeks to monitor and evaluate the drug studies being conducted and also visit the sentinel sites so that the training institute has first hand experience and understand the situation and advise on further development of the infrastructure and facilities of sentinel sites for drug monitoring. This will ensure that the studies are conducted with technical competency as per the protocol and the results produced will be more reliable.

Activity 4: Training Workshop for 1 week on research proposal development in relation to malaria, in the country. 15 persons will be trained. This is very important because this will facilitate and enable local professionals to

implement in operational researches. The selected research proposal developed will be applied for funding to the TDR.

Activity 5: Procurement of PCR machine. One PCR machine will be needed to differentiate between the recrudescence or reinfection rates. This has never been studied before and the information would be very useful. This will be done in the first year.

Activity 6: Training on use of PCR machines. The sentinel site workers will be trained on use of the PCR machines.

Objective 3: Sustaining Health System for Malaria control

SDA 1: Procurement and supply management

Activity: Sustaining Malaria control through support of Bhutan Health Trust Fund for procurement of drugs and LLINs

Bhutan Health Trust Fund (BHTF): RGoB has set up a trust fund out of grant in aid being received from various sources. This trust has been set up with the provision of sharing equal amount of money out of domestic sources. So far the BHTF has a total of $19 million dollars with a gap of about 5 million. Interest out of this fund is used in the procurement of essential drugs and vaccines for free distribution. In the GFATM 6TH round proposal a provision of $1 million spread over 5 years, is being made to strengthen BHTF so that VDCP would adequate funds out of the interest money to buy essential drugs and LLNs, particularly after the GFATM term. This will enhance post term malaria control sustainability, as projected in the proposal document. BHTF shall be an important resource in times of emergency caused by sudden rise of malaria cases or natural disasters. Urgent need is felt to procure life saving drugs, vaccines ad mobilize the health services. Outbreak of *P. falciparum* drug resistant malaria may require expensive drugs and treatment facilities to reduce deaths due to malaria. Attached the BHTF charter for details. For more information, please log on to www.bhtf.gov.bt.

4.6.4 Performance of and linkages to current Global Fund grant(s)

This section refers to any prior Global Fund grants for this disease component and requests information on performance to date and linkages to this application. For more information, please refer to the Guidelines for Proposals, section 4.6.4.

a) Provide an update of the current status of previous Global Fund grants for this disease component, in the table below.

Table 4.6.4. Current Global Fund grants

	Grant number	Grant amount*	Amount spent
GF Grant 1			
GF Grant 2			
GF Grant 3			
GF Grant 4	BTN-405-GO1-M	US $1,000,975	For year 1:US $422971(84% of the year 1 budget)

* *For grants in Phase 1, this is the original two year grant amount. For grants that have been renewed into Phase 2, this is the total amount, inclusive of Phase 1 and Phase 2. For unsigned Round 5 grants this is the two year TRP approved maximum budget.*

b) Please identify for each current grant the key implementation challenges and how they have been resolved.

In the Round 4, a total USD 1,000,975 was approved in Phase I at present we have completed one year of the implementation Phase. In year one, the total grant release was USD 503,587 the fund utilization rate 84%. The major challenges in the utilization of the 4th Round GFATM were the following.
1. Shortage of trained human resources has been the continual especially in the technical fields continues to be a

major problem in the implementation of the GFATM. As an interim measure, the programme is highly dependent on the short term consultants who will guide and assist in the programme implementation and strategy development.

2. The different financial year between GFATM and RGOB has impeded the active implementation of the activities especially during peak malaria season. Therefore, this R6 fund is requested in July so that it corresponds to the RGOB financial year.

c) Are there any linkages between the current proposal and any existing Global Fund grants for the same component? (e.g. same activities, same targeted populations and/or the same geographical areas.)	☒ Yes ➔ *complete d)* ☐ No ➔ *go to 4.6.5.*

d) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided under current Global Fund grants.

The programmatic and financial gaps while developing this proposal considered the availability of the existing funds, the termination of funds and future commitments. The R4 GFATM support for malaria terminates in 2009. However, there are some essential activities such as supply of LLIN to the community which needs to be sustained. Therefore, this activity is reflected in the phase II of the R6, during which the LLIN supplied would require replacement. There are no activities which is duplication in this proposal. All the activities are not reflected in any other activities.

4.6.5 Linkages to other donor funded programs

a) Are there any linkages between the current proposal and any other donor funded programs for the same disease	☒ Yes ➔ *complete b)* ☐ No ➔ *go to 4.6.6.*

b) If yes, clearly list such linkages and describe how this proposal builds on, but is not duplicative of the funding provided by other donors, including in respect of health system strengthening activities.

Currently malaria control in Bhutan is supported by two foreign aided grants. These are the following:

Government of India provides Rs 8 million each year for the procurement of insecticide. This grant is utilized for the procurement of insecticide and to carry out other activities required for other vector borne diseaseas. The WHO assistance has been mainly in the field of technical assistance.

4.6.6 Activities to strengthen health systems

Certain activities to strengthen health systems may be necessary in order for the proposal to be successful and to initiate additional HIV/AIDS, tuberculosis, and/or malaria interventions. Similarly, such activities may be necessary to achieve and sustain scale-up.

Applicants should apply for funding in respect of such activities by integrating these within the specific disease component(s). Applicants who have identified in section 4.4.4 health system constraints to achieving and sustaining scale-up of HIV/AIDS, tuberculosis and/or malaria interventions, but do not presently have adequate means to fully address these constraints, are encouraged to complete this section. For more information, please refer to the Guidelines for Proposals, section 4.6.6.

a) Describe which health systems strengthening activities are included in the proposal, and how they are linked to the disease component. *(In order to demonstrate this link, applicants should relate proposed health systems interventions to disease specific goals and their impact indicators. See the Multi-Agency M&E Toolkit.)*

There is no major health system activities. However, there are major benefits for the health system overall

benefit as a whole that result from the investments in Malaria which are elaborated under section c. The human resource development can be utilized by other disease component and the ministry overall when ever there is need for their expertise. The supply of computers to the hard to reach areas can improve the monitoring and evaluation system for not only malaria but also for the health system in total.

b) Explain why the proposed health systems strengthening activities are necessary to improve coverage to reduce the impact and spread of the disease and sustain interventions. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.6.)*

Objective 1: Scale-up Malaria prevention

At present only one round IRS is being done to cover the high risk population and for epidemic control. Effective and sustainable malaria control requires 2 rounds of IRS. Therefore scaling up means another round of IRS. This activity requires procurement of vector survey equipment, insectory, ELISA for vector incrimination, testing vector resistance, short and long term training. In addition work on biological control and environmental management as exploratory research to supplement spraying wherever and whenever found cost effective, sustainable and feasible to integrate with IRS. This is a comprehensive approach and in absence of support structure the interventions would lack scientific approach to IRS and integrated control.

Objective 2: Strengthening EDPT in "Hard to Reach" areas

EDPT is an important component of malaria control since the adoption of the Global Malaria Control Strategy in 1992 in Amsterdam. Scaling up EDPT to cover the population at risk of malaria in hard to reach households is essential to improve the malaria situation and meet the national and Millennium Development Goals. This activity would be supported by monitoring drug resistance, quality assurance of drugs, training and BCC.

Strengthening under GFATM would improve supervision, monitoring and evaluation, more reliable data collection and analysis and data retrieval and provide timely information for decision making.

Objective 3: Sustaining Health System for Malaria Control

SDA 1: Procurement and Supply management

Activity: Sustaining malaria control through support of Bhutan Health Trust Fund for procurement of drugs and LLINs

Bhutan Health Trust Fund (BHTF): RGoB has set up a trust fund out of grant in aid being received from various sources. This trust has been set up with the provision of sharing equal amount of money out of domestic sources. So far the BHTF has a total of $19 million dollars with a gap of about 5 million. Interest out of this fund is used in the procurement of essential drugs and vaccines for free distribution. In the GFATM 6TH round proposal a provision of $1 million spread over 5 years, is being made to strengthen BHTF so that VDCP would adequate funds out of the interest money to buy essential drugs and LLNs, particularly after the GFATM term.

c) Describe how activities to strengthen health systems, integrated within this component, will have positive system-wide effects and how it is designed in compliance with the surrounding context and aligned with government policies.

In 6th GFATM strengthening health systems would benefit the entire health system and this effort is fully aligned with the government policies.

1. Equipment: District and BHU level health facilities service their areas of jurisdiction for integrated disease control including epidemic control. Computers and meteorological equipment would be used by the other disease control programmes. Specialized entomological and epidemiological would have limited applicability in other diseases except in the Dengue control.

2. Training of staff at various levels would strengthen the service delivery area for all diseases including their mobilization in epidemic control. The training of epidemiologist and social science and tropical medicine is a need for all sectors.

3.The community system strengthening and school based awareness can be utilized by all the disease component

and can boost the referral system and prevention of many diseases and in emergencies.

4. The epidemic preparedness and monitoring system can be modeled to other epidemic diseases as well.

5.Improving the quality of drugs, improving drug registration system, training procurement people, will have common benefit for all diseases.

6.The laboratory strengthening by setting up microscopic quality assurance and providing teaching microscopes can be utilized by all other disease components that avail such facilities.

7. Health trust fund is a common fund pool where all programmes especially Malaria, TB and HIV/AIDS and other diseases.

d) Are there cross-cutting health systems strengthening activities integrated within this component that will benefit any other component included in this proposal?	☐ Yes ➔ *complete e) and f)* ☒ No ➔ *go to g)*
e) If you answered yes for d), describe these activities and the associated budgets and identify and explain how the other components will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	
f) If you answered yes for d), confirm that funding for these activities has not also been requested within the other component. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	
g) Is this component reliant on any cross-cutting health systems strengthening activities that have been included within other components of this proposal?	☐ Yes ➔ *complete h)* ☒ No ➔ *go to 4.6.7.*
h) If you answered yes for g), describe these activities and the associated budgets and identify and explain how this component will benefit. *Please refer to the Round 6 HSS Information Sheet on http://www.theglobalfund.org/en/apply/call6/documents/ before completing this section.*	

4.6.7 Common funding mechanisms

This section seeks information on funding requested in this proposal that is intended to be contributed through a common funding mechanism (such as Sector-Wide Approaches (SWAp), or pooled funding (whether at a national, sub-national or sector level).

a) Is part or all of the funding requested for the disease component intended to be contributed through a common funding mechanism?	☐ Yes ➔ *answer questions below.* ☒ No ➔ *go to 4.8*
b) Indicate in respect of each year for which funds are requested the amount to be funded through a common funding mechanism.	

c) Describe the common funding mechanism, whether it is already operational and the way it functions. Identify development partners who are part of the common funding mechanism. Please also provide documents that describe the functioning of the mechanism as an annex. *(This may include: The agreement between contributing parties; joint Monitoring and Evaluation procedures, management details, joint review and accountability procedures, etc.)*

d) Describe the process of oversight for the common funding mechanism and how the CCM will participate in this process.

e) Provide an assessment of the incremental impact on projected targets as a consequence of the funds being requested for this component, which are to be contributed through the common funding mechanism.

f) Explain the process by which the applicant will ensure that funds requested in this application, that are contributed to a common finding mechanism, will be used specifically as proposed in this application.

4.6.8 Target groups

Provide a description of the target groups, and their inclusion during planning, implementation and evaluation of the proposal. Describe the impact that the program will have on these group(s).

EDPT

Target group: hard to reach areas

Impact: Reduction in malaria related morbidity and mortality in population groups that were marginalized due to geographic location and poor communication.

Population coverage: 18,400 population in the first 2 years

BCC

Target group: BCC to cover the entire population in malarious areas.

Impact: Enhanced awareness about malaria

Population coverage: 4 districts in the first 2 years.

Community system strengthening:

Target Group: The rural community of the malarious areas

Impact: reduction of cases and early referral of the suspected cases to reduce complications and mortality.

4.6.9 Social stratification

Provide estimates of how many of those expected to be reached are women, how many are youth, how many are living in rural areas and other relevant categories. The estimates must be based on a serious assessment of each objective.

Table 4.6.9 Social stratification

	Estimated number and percentage of people reached who are:			
	Women	Youth (<18)	Living in rural areas	Other*
SDA 1 (for objective 1 and 2 together)	Population 225,116 (48%)	167,899 (35.8)	361,124 (77%)	Source: national population and housing census, 2005.
SDA 2				
SDA 3				
SDA 4				

* *"Other" to include target groups according to country setting, e.g. indigenous populations, ethnic groups, underprivileged regions, socio-economic status, etc. Targets should be defined according to country disease programs.*

4.6.10 Gender issues

Describe gender and other social inequities regarding program implementation and access to the services to be delivered and how this proposal will contribute to minimizing these gender inequities.

There are more male patients than female patients as indicated in table 2 under section4.4.2. This is merely due to more out door activities of the male and does not indicate any gender inequality. The preventive and care is equally imparted to all.

There are no gender issues involved in malaria control in Bhutan

4.6.11 Stigma and discrimination

Describe how this component will contribute to reducing stigma and discrimination against people living with HIV/AIDS, tuberculosis and/or malaria, as applicable, and other types of stigma and discrimination that facilitate the spread of these diseases.

There is no stigma or discrimination attached to malaria in Bhutan. Malaria is a preventable and curable disease and most people living in endemic districts may have suffered once in their life time due to its abundancy in the past. Hence there is no stigma or discrimination attached to malaria.

4 Component Section *Malaria*

4.6.12 Equity

Describe how principles of equity will be ensured in the selection of patients to access services, particularly if the proposal includes services that will only reach a proportion of the population in need (e.g., some antiretroviral therapy programs).

All malaria patients are treated equal, and given appropriate treatment

4.6.13 Sustainability

Describe how the activities initiated and/or expanded by this proposal will be sustained at the end of the program term. *(When completing this section, applicants should refer to the Guidelines for Proposals, section 4.6.13.)*

Activities proposed during the period of the proposal will provide a major boost to the programme but need not be extended beyond the life of the proposal. The several rounds of intensive training of staff at all levels will need to continue but to a lesser extent and frequency. Similarly, the external technical assistance included will have contributed substantially to building in-country capacity and will not need to be continued at this level. A strong, decentralized programme, with involvement of various stakeholders will contribute to a more visible, high quality programme which is more likely to attract funding from the Government and support from the community.

The proposal has a high sustainability after the termination of the GFATM as illustrated by the following examples.

Management of financial systems: RGoB provides high priority to malaria control, and therefore adequate funding from the national sources would be available to carry forward the interventions beyond GFATM term. It may however be noted that we do not envisage any serious malaria problems after 2012 as the country would head toward malaria elimination and the residual problem would be handled by the existing health system.

Human resource capacity: Trained man power under the GFATM would be in place to carry forward the interventions beyond the GFATM term. In addition basic equipment is in place with functional laboratories to carry forward the activities of malaria control without any problems.

Technical competence: In addition to the enhanced technical competence in malaria and its control, supportive structures are developing with fast pace to help deliver malaria control to the remotest part of the country. Mention may be made of information technology, advanced training in statistics, meteorology, and partnership with sister institutions (e.g. agriculture, fisheries, forestry, engineering department et al.) and the country will have the capacity to draw expertise from these specialized agencies for specific needs.

Other Foundations: Community based activities would remain a major strength of the VDCP. As for example communities living in malaria endemic areas including the hard to reach areas would be empowered and demand malaria control as their right; awareness in the community would help the fever patients to report to the nearest health facility for seeking malaria diagnosis and treatment; EDPT will re-enforce peoples faith in modern methods of diagnosis and treatment and this will bring health seeking behavioral change. People will distance themselves with the quacks, faith healers and other unscientific systems of therapy; awareness will help the communities to participate in vector control i.e., the use of repellents, reduce vector breeding sites, use LLINs, and take special care of the high risk group populations.

Health Trust Fund:

In order to carry the programme to the termination of the GFATM R6 project and beyond, the health trust fund is strengthened. This would support the basic programme needs for procurement of drugs, LLINs and other major prevention activities.

4 Component Section *Malaria*

4.7 Principal Recipient information

In this section, applicants should describe their proposed implementation arrangements, including nominating Principal Recipient(s). See the Guidelines for Proposals, section 4.7, for more information. Where the applicant is a Regional Organization or a Non-CCM, the term 'Principal Recipient' should be read as implementing organization.

4.7.1 Principal Recipient information

Every component of your proposal can have one or several Principal Recipients. In table 4.7.1 below, you must nominate the Principal Recipient(s) proposed for this component.

Table 4.7.1: Nominated Principal Recipient(s

Indicate whether implementation will be managed through a single Principal Recipient or multiple Principal Recipients.	☒Single
	☐ Multiple

Responsibility for implementation			
Nominated Principal Recipient(s)	**Area of responsibility**	**Contact person**	**Address, telephone, fax numbers and e-mail address**

4.8 Program and financial management

4.8.1 Management approach

Describe the proposed approach of management with respect to planning, implementation and monitoring the program. Explain the rationale behind the proposed arrangements. *(Outline management arrangements, roles and responsibilities between partners, the nominated Principal Recipient(s) and the CCM. Maximum of half a page.)*

When the external funding has been approved, the selected Principal Recipient (Department of Aid and Debt Management of the Ministry of Finance) will be responsible for the receiving, disbursing and monitoring of the funds to the sub-recipients. The responsibility of the sub recipient in this case, the ministry of Health to request funding of the activities through proposals to the PR. The PR's responsibility to request the agreed upon installment from the donor. On receipt of the fund from the donor the PR disperses the fund quarterly based on the request, annual work plans and the quarterly progress reports.

There are two types of fund releases, one to the central program to the ministry of health to be handled by administration and finance division and other release to the respective districts where funding will be disbursed to the health and other sub recipients. Planned activities in the districts with the donor funds require sub recipients to send their costed work plans to the ministry of health (sub-recipient) which will finalize and approve prior to submitting them to the PR for fund disbursement to the district administration. Accountability for the fund utilization by the district id directly to the PR. Quarterly progress reports of the activities are sent with the budget utilization report t the PR (DADM) with copy to the ministry of health to facilitate further disbursement of funds. The ministry of Health has a monitoring function for the district funds.

The fund directly requested and released to the Accounts and Finance Division (AFD) of ministry of health on quarterly basis in accordance with the annual work plan are utilized by the TB program manager who is

accountable to the AFD, Ministry of health who in turn are accountable to the PR.

All accounts are subject to annual external account auditing from the Royal Audit authority, an autonomous body reporting to the cabinet. In addition all the ministries have an internal audit unit who provide continual check and balance. The Local Fund Agent (LFA) will monitor project implementation by the PR. The accounting to donors for funds released is managed by the PR as per memorandum of understanding between the donor and Royal Government of Bhutan.

The management arrangements are those that have been established between the Royal Government of Bhutan and the external donor assistance in funding of the Health services. They have been found to be satisfactory and constitute the only efficient way to release for health related activities through out the country. The PCM in Bhutan is the main custodian of the fund. Therefore, PR reports to the PCM on fund disbursement from the global fund, fund releases to the sub-recipient, implementation status and Audit reports and any other activities as desired by the PCM

Please note that if there are multiple Principal Recipients, section 4.8.2 below has to be repeated for each one.

4.8.2 Principal Recipient capacities

a) Describe the relevant technical, managerial and financial capacities for each nominated Principal Recipient. Please also discuss any anticipated shortcomings that these arrangements might have and how they will be addressed, please refer to any assessments of the PR(s) undertaken either for the Global Fund or other donors (e.g., capacity-building, staffing and training requirements, etc.).

The Department of Aid and Debt Management has already proven its experience in managing large amounts of external funds. It is ensuring smooth implementation of several types of programmes relevant to disease control, health and other sectors. The improving health-related indicators in the country show the positive impact of the successful utilization of funds allocated to this PR. However, given the need to ensure timely implementation and to meet the reporting requirements for smooth fund disbursements, additional administrative support is being requested for.

b) Has the nominated Principal Recipient previously administered a Global Fund grant?	☒	Yes
	☐	No
c) Is the nominated PR currently implementing a large program funded by the Global Fund, or another donor?	☒	Yes
	☐	No

d) If you answered yes for b) or c), provide the total cost of the project and describe the performance of the nominated Principal Recipient in administering previous grants (Global Fund or other donor).

In total the cost of the project was $ 1,000975 for the phase I of the 4th Round GFATM. Not only does this PR implements for GFTAM but all the foreign, bilateral or multilateral agency contributions to the country is disbursed through the same PR. The managements are those that have been established between the Royal government of Bhutan and external donors for external assistance in the funding of Health services. They have been found to be satisfactory and constitute the only efficient way to release funds for health related activities throughout the country.

Although there has been lot of problem due to delay in first disbursement of the GFATM 4th Round, the PR has been very efficient in carrying out their responsibility as PR and the achievement in the year one of 4th round is about 84 %.

External resources comprise of 50% of the total government budget and DADM has the mandate to mobilize these resources. For e.g. for the fiscal year 2004-2005 approximately USD 90 million excluding

Tentative 9th plan till 2008.External Resources (Updated 27.7.2005)

Sl.No.	Donor	9th plan Expected Commitment	Nu. In millions	% of Resource	Mobilized (Nu)	Balance (Nu)	Sectors	Remarks
1	Austria	ATS 150 m	450.00	1.29	380.70	69.30	Energy, Tourism, and Culture.	ATS 30 m per year excluding Basochhu. ATS 1=Nu. 3.
2	Denmark	DKK 318.75 m	1,848.75	5.29	2,852.09	- 1,003.34	Education, Urban, Health, Env. (Phasing out) and Good Governance & Media.	DKK 63.75 m per year. DKK 1= Nu. 5.8. Assuming a reduction of 15 % on the original projections of DKK 75 m due to recent Danish dev. Corp. policy changes.
3	India	Rs. 20,000 m	20,000.00	57.21	14,438.16	5,561.84	Programme Grant, Energy, Roads, Health, Education, HRD.	Requested Nu. 20,000 m (Rs. 10,000 m for projects and Rs. 10,000 m for programme grant).
4	Japan	USD 55 m	2,585.00	7.39	1,952.31	632.69	Bridges, Road Mechanization, Energy, KR II, BBS.	8th plan average.
5	The Netherlands	USD 15 m	705.00	2.02	1,048.69	- 343.69	Culture, RNR/ Biodiversity, Energy, Education and HRD.	USD 3 m per year.
6	Norway	USD 4 m	188.00	0.54	175.62	12.38	Energy, Environment.	Based on 8th plan projects.
7	Switzerland	SFr 40 m	1,000.00	2.86	1,130.61	- 130.61	RNR, Suspension Bridges, Education, Culture, HRD.	SFr 8 m per year. SFr 1=Nu. 25.
8	Canada				288.51	- 288.51	Education	
9	Australia				164.44	- 164.44	HRD, RNR	
	Total Bilateral		26,776.75	76.60	22,431.13	4,345.62		
1	EU	USD 8.38 m	393.86	1.13	984.25	- 590.39	Traditional Medicine & Livestock	USD 3.38 m for Medicinal Plant and approx. USD 5 m for Livestock & Pest Management projects.
2	UNDP	USD 8.5 m	399.50	1.14	377.99	21.51	Governance, Sustainable Livelihood and Envrionment.	9th Plan commitment
3	UNCDF	USD 2 m	94.00	0.27	45.50	48.50	Decentralization.	9th Plan commitment
4	UNICEF	USD 14 m	658.00	1.88	648.19	9.81	Health and Education.	Tentative 9th plan commitment.
5	UNFPA	USD 5 m	235.00	0.67	205.66	29.34		Tentative 9th plan commitment.
6	WFP	USD 22 m	1,034.00	2.96	938.85	95.15	Roads & Education.	Tentative 9th plan commitment.
7	WHO	USD 5.25 m	246.75	0.71	58.95	187.80	Health.	8th plan commitment
	Total Multilateral		3,061.11	8.76	3,259.40	- 198.29		
1	Asian Development Bank	USD 30 m	2,345.19	6.71	1,645.49	699.70	Urban Development, Rural Electrification, Transport Network.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
2	World Bank	USD 30 m	2,379.88	6.81	4,399.83	- 2,019.95	Education, Forestry, Roads, Financial Institutions and Private Sector Development.	USD 10 m per year available. Provision for about 3 new projects kept for 9th plan and spillover.
3	IFAD		291.94	0.84	279.53	12.41	RNR, Forestry.	Spillover provision.
4	Danida (Mixed Credit)				748.15	- 748.15		
	Total Financial Institutions		5,017.01	14.35	7,073.00	- 2,055.99		
	NGO & Others				1,118.03	- 1,118.03		

Grand Total	34,854.87	99.71	33,881.56	973.31

Note:

1 Minor/adhoc donors, NGO's not included as commitment not certain.

3 Exchange rate used USD 1=Nu. 45 for the planning purposes.

e) If you answered yes for b) or c), describe how the PR would be able to absorb the additional work and funds generated by this proposal.

The PR is the department I the ministry of finance dealing only with external AID from all sources. Its technical, financial and managerial capabilities are under the control and according to the rules and regulations of the Royal Government of Bhutan. The responsibilities are laid down in the Royal Government of Bhutan (RGoB) MoF rules an d regulations (20001) and included among others:

-External resource mobilization

-Negotiation of loans and grants with lenders and the development partners

-Recording receipt of all cash and kind assistance.

Also being a department with full capable staff under a Director General as the head of this department, there is no question of not able to absorb any amount of additional fund.

4.8.3 Sub-Recipient information

a) Are sub-recipients expected to play a role in the program?	☒ Yes ➔ *complete the rest of 4.8.3*
	☐ No ➔ *go to 4.9*
b) How many sub-recipients will or are expected to be involved in the implementation?	☒ 1 – 5
	☐ 6 – 20
	☐ 21 – 50
	☐ more then 50
c) Have the sub-recipients already been identified?	☒ Yes ➔ *complete 4.8.3. d) -e) and then go to 4.9*
	☐ No ➔ *go to 4.8.3. f) – g)*

d) Describe the process by which sub-recipients were selected and the criteria that were applied in the selection process (e.g., open bid, restricted tender, etc.).

Following the decision to apply for the round six by the CCM-Bhutan, all the relevant stakeholders are called for a meeting to put forward their views and apply for the grant (call for the interest to apply for was done through the official media-attached with proposal for referral). The sub-recipients are the only actors in the health and at the grassroot community activities nationwide. They are chosen to facilitate the program activities throughout the

country.
e) Where sub-recipients applied to the Coordinating Mechanism, but were not selected, provide the name and type of all organizations not selected, the proposed budget amount and reasons for non-selection in an annex to the proposal.
Only MoH applied which was accepted
f) Describe why sub-recipients were not selected prior to submission of the proposal.
n/a
g) Describe the process that will be used to select sub-recipients if the proposal is approved, including the criteria that will be applied in the selection process.
n/a

4.9 Monitoring and evaluation

The Global Fund encourages the development of nationally owned monitoring and evaluation plans and monitoring and evaluation systems, and the use of these systems to report on grant program results. By completing the section below, applicants should clarify how and in what way monitoring the implementation of the grant relates to existing data-collection efforts.

4.9.1 Plans for monitoring and evaluation Describe how the targets and activities indicated in the Targets and Indicator Table (attached as Attachment A to this proposal, see section 4.6) will be monitored and evaluated. Please identify any surveys to which this proposal is contributing.
1. Supportive environment: Monitoring insecticide resistance: Target-yearly monitoring of vector(s) resistance. M & E: Number of test conducted against deltamethrin. The monitoring resistance would be carried out each year by the entomological section of the VDCP. 2. Prevention: BCC community outreach: Target-one endemic district every six months M & E: People reached by BCC community outreach activities (number and %): Sampling of people or groups who know the cause and symptoms and preventive measures used in malaria control. This activity would be carried out by the VDCP in collaboration with the HMIS unit and research and epidemiological section of the Ministry of Health. Sampling surveys would be done in year 2 and year 5. 3.Communty system strengthening: Target: Procurement of equipment, preparation of training manual, training of trainers; manual in 6 months, 100 trained in year 1; 100 participants trained every year subsequently. M & E: People trained on malaria prevention and EDPT (Number and %). Training will be conducted by the district health supervisory officer according to the guidelines. Development of manual in year 1. The report will be submitted to the VDCP.

4.Prompt effective anti-malaria treatment: Target-only for hard to reach population: Target set are 10% population in first 6 months, 15% another 6 months (first year 25%) with coverage of above 90% at the end of the GFATM.

M & E: Patients receiving ant malaria drugs in hard to reach areas as per national anti malaria drug policy. Activated surveillance through IEC encouraging people to take anti malaria diagnosis and treatment.

The data would be collected by a health facility survey in year 2 and year 5 in collaboration with the community survey for indicator 3.

5.Supportive environment, laboratory: Target-Quality assurance test on receipt of the consignment.

M & E: Standard sampling procedure to be followed by the drug control regulatory authority

Two samples would be sent to the drug analyst for quality analysis every year.

6. Supportive Environment: Monitoring Drug resistance: Target-Drug efficacy test on yearly basis at the sentinel sites (standard WHO procedure to be followed),

This would be done by the drug research section of the vector borne disease control programme. The data will be collect from the sentinel site by the research assistant of the research unit.

4.9.2 Integration with national M&E Plan

Describe how performance measurement for this program is proposed to contribute to and/or strengthen the national Monitoring and Evaluation Plan for this component. If a national Monitoring and Evaluation strategy exists, please attach it as an annex to the proposal, and provide a summary of key linkages with the national Monitoring and Evaluation Plan and data collection methods.

M & E proposed in the 6th round would help strengthen M & E of the IRS, EDPT in hard to reach areas and related components as described in detail in the M & E. These indicators will become the national indicators for future wok in malaria control. Bhutan: Monitoring and evaluation plan for malaria GFATM project which was developed for R4 is Annexed

4 Component Section *Malaria*

4.10 Procurement and supply management of health products

In this section, applicants should describe the management structure and systems currently in place for the procurement and supply management (PSM) of drugs and health products in the country. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.10.

4.10.1 Organizational structure for procurement and supply management

Briefly describe the organizational structure of the unit currently responsible for procurement and supply management of drugs and health products. Further indicate how it coordinates its activities with other entities such as National Drug Regulatory Authority (or quality assurance department), Ministry of Finance, Ministry of Health, distributors, etc.

The procurement of drugs and supplies are based on six monthly drug report, compiled annually and annual requirement calculated. The open tender system is followed among the registered suppliers. Tender Evaluation Committee evaluates the tenders/ suppliers and the Tender Selection Committee (Award Committee) selects the suppliers/ supplies. The quality of drugs is checked in Bangkok at the WHO laboratory. In case the drugs fail in quality test, that particular batch of drugs is either replaced or the second lowest bidder is chosen. For non pharmaceuticals the physical quality checks are carried out by the users, biomedical engineering staff and the medical supplies department. The quality check is based on the samples specifications catalogues, past experiences, etc.

National laws

Apart from the National drug Policy, the 81st session of the National Assembly has passed the Medicines Act of the Kingdom of Bhutan in 2005. This is mainly to promote quality drugs in the country. There is a provision for formation of the National Drug Regulatory Authority, and setting up of drug testing laboratory in the country. Drug registration has started in year 2005.

Appropriate use

Wastage of drugs is oriented to be seen as a criminal act. Therefore, all our users, particularly Store in charges of health centers are frequently trained on rational use of drugs and good store management. The training on good store management is mainly imparted to improve inventory management in the health center

4.10.2 Procurement capacity

a) Will procurement and supply management of drugs and health products be carried out (or managed under a sub-contract) exclusively by the Principal Recipient or will sub-recipients also conduct procurement and supply management of these products?	☐ Principal Recipient only
	☒ Sub-recipients only
	☐ Both

b) For each organization involved in procurement, please provide the latest available annual data (in Euro/US$) of procurement of drugs and related medical supplies by that agency.

Drugs vaccines and Equipment Division of the Ministry of Health is the sole division responsible for the procurement drugs and medical supplies. The total budget for the year 2005-2006 was UDS 6,354,282 for the procurement of drugs and Medical supplies.

4.10.3 Coordination

a) For the organizations involved in section 4.10.2.b, indicate in percentage terms, relative to total value, the various sources of funding for procurement, such as national programs, multilateral and bilateral donors, etc

Royal Government of Bhutan= US $ 5233333 (82.3%), UNFPA = US $157,398(2.4%), UNICEF= US$ 10,000 (0.16%), GFATM=US$ 396001(0.62%).GOI=US$ 135555(.02%)

b) Specify participation in any donation programs through which drugs or health products are currently being supplied (or have been applied for), including the Global Drug Facility for TB drugs and drug-donation programs of pharmaceutical companies, multilateral agencies and NGOs, relevant to this proposal.

No donations programmes

4.10.4 Supply management (storage and distribution)

a) Has an organization already been nominated to provide the supply management function for this grant?	☒ Yes ➔ *continue*
	☐ No ➔ *go to 4.10.5*

b) Indicate, which types of organizations will be involved in the supply management of drugs and health products. If more than one of the boxes below is ticked, describe the relationships between these entities.	☒ **National medical stores or equivalent**
	☐ Sub-contracted national organization(s) *(specify which one(s))*
	☐ Sub-contracted international organization(s) *(specify which one(s))*
	☐ Other *(specify)*

c) Describe the organizations' current storage capacity for drugs and health products and indicate how the increased requirements will be managed.

The Drugs Vaccines and Equipment Division(DVED) under the Ministry of Health is solely responsible for the procurement of drugs and medical supplies for Bhutan. The procurement is done annually through the Global tendering system. All supplies are received by the Medical Supplies Depot which is located in Phuntsholing. At present the existing ware house facilities are partially utilized and at least 2 to 3 times more supplies can be safely stored in the existing space in the main ware house and a similar position is in the districts. No additional arrangements are required.

d) Describe the organizations' current distribution capacity for drugs and health products and indicate how the increased coverage will be managed. In addition, provide an indicative estimate of the percentage of the country and/or population covered in this proposal.

Distribution and inventory management

Based on the quantification exercise, the distribution orders are prepared by the DVED. The distribution orders are then sent to Medical Supply Depot, Phuntsholing and from there the supplies are distributed to the health centers. Frequent supervisory visits are made to health centers to ensure proper maintenance and use of medical supplies. A Medical Software Inventory Program is in the process of being developed and will be used in the coming fiscal year. Hospitals and other health facilities are equipped with refrigerators to store items which require cold storage. With the construction of the Regional Hospitals, the buffer storage facilities will be managed through the regional stores. At present three hospital are under construction which have storage facilities. Under the world Bank project for HIV/AIDS, the computerization of the inventory system and procurement system has been initiated and will be completed by the end of 2006.

[For tuberculosis and HIVAIDS components only:]

4.10.5 Multi-drug-resistant TB

Does the proposal request funding for the treatment of multi-drug-resistant TB?	☐ Yes
	☐ No

If yes, please note that all procurement of medicines to treat multi-drug-resistant tuberculosis financed by the Global Fund must be conducted through the Green Light Committee (GLC) of the Stop TB Partnership. Proposals must therefore indicate whether a successful application to the Committee has already been made or is in progress. For more information, please refer to the GLC website, at http://www.who.int/tb/dots/dotsplus/management/en/. Also see the Guidelines for Proposals, section 4.10.5.

4.11 Technical and Management Assistance and Capacity-Building

Technical assistance and capacity-building can be requested for all stages of the program cycle, from the time of approval onwards, including in respect of , development of M&E or Procurement Plans, enhancing management or financial skills etc. When completing this section, applicants should refer to the Guidelines for Proposals, section 4.11.

4.11.1 Capacity building

Describe capacity constraints that will be faced in implementing this proposal and the strategies that are planned to address these constraints. This description should outline the current gaps as well as the strategies that will be used to overcome these to further develop national capacity, capacity of principal recipients and sub-recipients, as well as any target group. Please ensure that these activities are included in the detailed budget.

Although Malaria control programme is one of the oldest programme in Ministry of Health, it lacks technical capacity especially at the specialist level. For example, the entomological section, there is no entomologist although entomology is the back bone of vector control programme. In the same line, the technical capacity is far from enough in all other sections such as drug research, sociology, treatment component and epidemiological section.

Therefore, for the long term sustainability of the programme, we have proposed a number of long term course such as entomologist, epidemiologist, social science and tropical medicine which are essential for any vector control programme to be sustainable and successful.

As an interim measure, we will be depending on consultants mainly through WHO, who provides most technical support for majority of activities which needs specialist support.

For the target group, the sustaining of vector control and malaria prevention would be mainly through community involvement. The community will be motivated and trained through BCC and trainings.

4.11.2 Technical and management assistance

Describe any needs for technical assistance, including assistance to enhance management capabilities. *(Please note that technical and management assistance should be quantified and reflected in the component budget section, section 5.6)*

The shortage human resource in the specialized field is the main constrains for the programme. Therefore, we have included consultants both local and external where ever required. The consultants were recruited for the proposal development. During the implementation phase, technical assistance are required in following areas:

To conduct explorative works for the environmental management, for the BCC component, in drug research, and for impact analysis. These is explained in-depth in section 4.6.3 under description of each activities.

For the management of GFATM Round 6 activities, staff will be added to the current PMT to serve as the Secretariat of the PCM and report to the Chairman of the PCM. The current World Bank project Coordinator will be upgraded to Chief Coordinator to manage and coordinate both the GFATM and the World Bank projects. A new Project Coordinator will be recruited to specifically coordinate and manage the three disease components of the GFATM project. Two additional staff, a Finance Officer and a Secretary will also be hired to support the GFATM Project Coordinator.

Each of the existing Managers of the HIV/AIDS, TB and Malaria programmes will be responsible for the management and monitoring of GFATM activities under their respective programmes. In addition, each manager will work with the GFATM project management team and the M&E team within the Research Unit to prepare quarterly indicator progress reports and with the GFATM finance officer to prepare quarterly financial reports. Programme and financial reports from the three diseases will be compiled and reviewed by the GFATM Coordinator and submitted to the PCM through the Chair. These report will also go to the Department of Aid and Debt, the PR of the GFATM grant. With technical oversight from NAP, the PMT will also be responsible for managing the NGO small grants programme as well as activities to be implemented by Ministry of education, Armed forces, religious bodies and other partners as planned in the HIV/AIDS component.

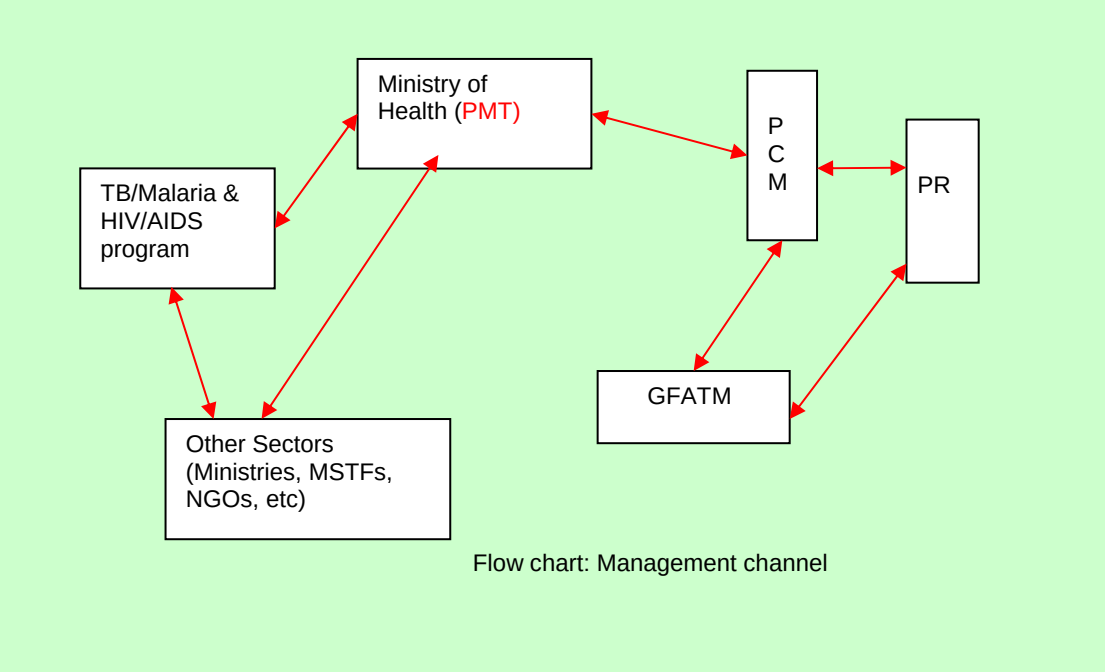
Programme Management Team for HIV/AIDS/TB/Malaria

Within the PCM Secretariat):

- 1 Chief Programme Coordinator
- 1 GFATM Project Coordinator (salary in GFATM budget)
- 1 GFATM Finance Officer (salary in GFATM budget)
- 1 GFATM Secretary (salary in GFATM budget)

Within the 3 disease programmes:

- 3 Programme Managers/Technical Officers



Flow chart: Management channel

5 Component Budget *Malaria*

PLEASE NOTE THAT THIS SECTION IS TO BE COMPLETED FOR EACH COMPONENT.

In this section, applicants will need to provide summary budget information for the proposed duration of the component. Applicants are also required to provide a more detailed budget as an annex to the proposal. For more information on budget requirements, please refer to the Guidelines for Proposals, section 5.

If part or all of the funding requested for this component is to be contributed through a common funding mechanism (consistent with section 4.6.7), **applicants should provide:**

- Compile the Budget information in sections 5.1 – 5.6 on the basis of the anticipated use, attribution or allocation of the requested funds within the common funding mechanism; and
- Provide, as an annex, the available annual operational plans/projections for the common funding mechanism and explain the link between that plan and this funding request.

5 Component Budget *Malaria*

5.1 Component budget summary

Insert budget information for this component broken down by year and budget category, in table 5.1 below.
(The "Total funds requested from the Global Fund" should be consistent with the amounts entered in table 1.2 relating to this component.)

The budget categories and allowable expenses within each category are defined in the Guidelines for Proposal, section 5.1. The total requested for each year, and for the program as a whole, must be consistent with the totals provided in sections 5.1.

Table 5.1 – Funds requested from the Global Fund

	Funds requested from the Global Fund (in Euro/US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Human resources	196,000	161,000	61,000	111,000	111,000	640,000
Infrastructure and equipment	152,600	0	3600	43,600	43,600	243,400
Training	223,525	119,650	96,150	96,150	101,150	636,625
Commodities and products	67,500	0	250,000	0	0	
Drugs	0	0	0	0	0	0
Planning and administration	306,000	114,850	113,250	115,250	141,250	790,600
Other (operational researches)	45,000	45,000	48,150	5,000	5000	148,150
Other (Sustaining Health System by contributing to Health trust fund)	200,000	200,000	200,000	200,000	200,000	1,000,000
Other (*please specify*)						0
Total funds requested from the Global Fund	1,190,625	640,500	772,150	571,000	602,000	3,776,275

5 Component Budget *Malaria*

5.2 Detailed Component Budget

The Component Budget Summary (section 5.1) must be accompanied by a more detailed budget covering the proposal period, attached as an annex to the proposal. The detailed budget should also be integrated with the Work Plan referred to in section 4.6.

The Detailed Component Budget *should meet the following criteria (Please refer to the Guidelines for Proposals, section 5.2):*

l) *It should be* ***structured along the same lines as the Component Strategy****—i.e., reflect the same goals, objectives, service delivery areas and activities.*

m) *It should cover the term of the proposal period and should:*
   i) *be* ***detailed for year 1 and year 2*** *of the proposal term, with information broken down by* ***quarters for the first year****;*
   ii) *provide summarized information and assumptions for the balance of the proposal period (****year 3 through to conclusion of proposal term****).*

n) *It should state all key assumptions, including those relating to* ***units and unit costs****, and should be consistent with the assumptions and explanations included in section 5.3.*

o) *It should be integrated with the detailed* ***Work Plan*** *for year 1 and indicative Work Plan for year 2 (please refer to section 4.6).*

p) *It should be* ***consistent*** *with other budget analyses provided elsewhere in the proposal, including those in this section 5.*

5 Component Budget *Malaria*

5.3 Key budget assumptions

Without limiting the information required under section 5.2, please indicate budget assumptions for year 1 and year 2 in relation to the following:

5.3.1 Drugs, commodities and products

Please use Attachment B (Preliminary Procurement List of Drugs and Health Products) in order to compile the budget request for years 1 and 2 in respect of drugs, commodities and health products. Please note that unit costs and volumes must be fully consistent with the information reflected in the detailed budget. If prices from sources other than those specified below are used, a rationale must be included.

a) Provide a list of anti-retroviral (ARVs), anti-tuberculosis and anti-malarial drugs to be used in the proposed program, together with average cost per person per year or average cost per treatment course. *(Please complete table B.1 in Attachment B to the Proposal Form.)*

b) Provide the total cost of drugs by therapeutic category for all other drugs to be used in the program. It is not necessary to itemize each product in the category. *(Please complete table B.2 in Attachment B to the Proposal Form.)*

c) Provide a list of commodities and products by main categories e.g., bed nets, condoms, diagnostics, hospital and medical supplies, medical equipment. Include total costs, where appropriate unit costs. *(Please complete table B.3 in Attachment B to the Proposal Form.)*

(For example: *Sources and Prices of Selected Drugs and Diagnostics for People Living with HIV/AIDS.* Copenhagen/Geneva, UNAIDS/UNICEF/WHO-HTP/MSF, June 2003, (http://www.who.int/medicines/organization/par/ipc/sources-prices.pdf); Market News Service, *Pharmaceutical Starting Materials and Essential Drugs*, WTO/UNCTAD/International Trade Centre and WHO (http://www.intracen.org/mns/pharma.html); *International Drug Price Indicator Guide on Finished Products of Essential Drugs,* Management Sciences for Health in Collaboration with WHO (published annually) (http://www.msh.org)*; First-line tuberculosis drugs, formulations and prices currently supplied/to be supplied by Global Drug Facility (*http://www.stoptb.org/GDF/drugsupply/drugs.available.html*).)*

5.3.2 Human resources costs

In cases where human resources represent an important share of the budget, explain how these amounts have been budgeted in respect of the first two years, to what extent human resources spending will strengthen health systems' capacity at the patient/target population level, and how these salaries will be sustained after the proposal period is over. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

Although, we do not have any recruitment for this proposal, we have budgeted all the long term training under this heading since they are part of the Human resources development. This comes to a total of 640,000 over the period of five years. This human resources are crucial in the carrying out the activities and sustaining the programme for long years to come.

The unit budget is calculated based on the existing Royal Government of Bhutan rules for providing stipend. The detailed human resource is mention in the activities. Once this human resources are trained, their input will have great benefit for developing strategies, implementing activities, for providing evidence based decisions which would not only benefit the target population mentioned in this proposal but have an wider impact to the country.

5 Component Budget *Malaria*

Other key expenditure items

Explain how other expenditure categories (e.g., infrastructure, equipment), which form an important share of the budget, have been budgeted for the first two years. *(Maximum of half a page. Please attach an annex and indicate the appropriate annex number.)*

Majority of equipment is procured in year 1 with an total amount worth US$ 152,600, so that this equipments are fully utilized in carrying out the activities. The costing is based on the available catalogues and the experience. Most of the medical equipments will be procured through the Drugs, vaccines and equipment division who is the central body for the procurement for the Ministry. The procurement rules are as per the government of Bhutan Procurement rules and Bhutan financial manual.

5 Component Budget *Malaria*

5.4 Breakdown by service delivery area

Please provide an approximate allocation of the annual budget for each service delivery area (SDA). The objectives and service delivery areas listed should resemble those in the Targets and Indicators Table (Attachment A to the Proposal Form). It is anticipated that this allocation of the budget across SDAs should be derived from the detailed component budget (see section 5.2).

Table 5.4: Estimated budget allocation by service delivery area and objective.

		Budget allocation per SDA (in Euro/US$)				
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Objective 1: To scale up Malaria Prevention	SDA 1.1: Prevention: Vector control	234,800	180,600	361,750	158,600	188,600
	SDA 1.2: Supportive environment: Monitoring and insecticide resistance	41000	41000	41000	41000	41000
	SDA 1.3: Prevention: BCC community out reach	312,150	97,700	97,700	109,700	110,700
	SDA 1.4: Community system strength	26,650	21,150	21,150	21,150	21,150
	TOTAL	**614,600**	**340,450**	**521,600**	**330,450**	**361,450**
Objective 2: Strengthing EDPT: In Hard to Reach areas	SDA 2.1: Prompt and effective treatment	200,700	59,500	25000	25000	25000
	SDA 2.2: Supportive environment: Monitoring Drug resistance	144,700	25,550	550	550	550
	SDA 3: Supportive environment :	30625	15000	25000	15000	15000

5 Component Budget *Malaria*

		Budget allocation per SDA (in Euro/US$)				
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
	Monitoring Drug Resistance					
	Sub-Total	**376,025**	**100,050**	**50550**	**40550**	**40550**
Objective 3: Sustaining malaria treatment and control	SDA 1: Sustaining Malaria	200,000	200,000	200,000	200,000	200,000
	Sub-Total	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**
	Grand Total	**1,190,625**	**640,500**	**772,150**	**571,000**	**602,000**

5 Component Budget *Malaria*

		Budget allocation per SDA (in Euro/US$)				
Objectives	**Service delivery area**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Total:		0	0	0	0	0

5 Component Budget *Malaria*

5.5 Breakdown by implementing entities

Indicate in table 5.5 below how the resources requested in table 5.1 will, in percentage terms, be allocated among the following categories of implementing entities.

Table 5.5 – Allocations by implementing entities

	Fund allocation to implementing partners (in percentages)				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Academic/educational sector	83,200	0	0	0	0
Government	907,425	440,500	572,150	371,000	402,000
Nongovernmental / community-based org.					
Organizations representing people living with HIV/AIDS, tuberculosis and/or malaria					
Private sector					
Religious/faith-based organizations					
Multi-/bilateral development partners					
Others *Please specify:* (Bhutan Health Trust Fund)	200,000	200,000	200,000	200,000	200,000
Total	**1,190,625**	**640,500**	**772,150**	**571,000**	**3,776,275**

5.6 Budgeted funding for specific functional areas

The Global Fund is interested in knowing the funding being requested for the following three important functional areas—monitoring and evaluation; procurement and supply management; and technical and management assistance. Applicants are required in this section to separately identify the costs relating to these functional areas. In each case, these costs should already be included in table 5.1. Therefore, the tables below should be subsets of the budget in table 5.1., rather than being additional to it. For example, the costs for monitoring and evaluation may be included within some of the line items in table 5.1 above (e.g., human resources, infrastructure and equipment, training, etc.).

Table 5.6 – Budgets for specific functional areas

	Funds requested from the Global Fund (in Euro/US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Monitoring and Evaluation	136,250	20,250	20,250	32,250	68,250	277,250

5 Component Budget *Malaria*

	Funds requested from the Global Fund (in Euro/US$)					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Procurement and Supply Management	0	0	0	0	0	0
Technical and Management Assistance	82,000	8000	10,000	12,000	38,000	150,000

Monitoring and Evaluation: *This includes: data collection, analysis, travel, field supervision visits, systems and software, consultant and human resources costs and any other costs associated with monitoring and evaluation.*

Procurement and Supply Management: *This includes: consultant and human resources costs (including any technical assistance required for the development of the Procurement and Supply Management Plan), warehouse and office facilities, transportation and other logistics requirements, legal expertise, costs for quality assurance (including laboratory testing of samples), and any other costs associated with acquiring sufficient health products of assured quality, procured at the lowest price and in accordance with national laws and international agreements to the end user in a reliable and timely fashion. Do not include drug costs, as these costs should be included in section 5.3.1.*

Technical and Management Assistance: *This includes: costs of consultant and other human resources that provide technical and management assistance on any part of the proposal—from the development of initial plans, through the course of implementation. This should include technical assistance costs related to planning, technical aspects of implementation, management, monitoring and evaluation and procurement and supply management.*

LIST OF ANNEXES TO BE ATTACHED TO PROPOSAL *Malaria*

The table below provides a list of the various annexes that should be attached to the proposal. Please complete this checklist to ensure that everything has been included. Please also indicate the applicable annex numbers on the right hand side of the table.

Section 4 (Component specific): Component Strategy		
4.4.1	Documentation relevant to the national disease program context, as indicated in section 4.4.1.	Annexure : 9th Five Year Plan
4.6	**A completed Targets and Indicators Table**	Attachment A to the Proposal Form
4.6	**A detailed component Work Plan** (quarterly information for the first year and indicative information for the second year).	Annexure II: Year 1 & 2 work-plan
4.6.7 c) *(if common funding mechanism)*	Documentation describing the functioning of the common funding mechanism.	n.a
4.8.3 e) *(where SRs applied but were not selected)*	Name and type of all Sub-Recipients not selected, the proposed budget amount and the reasons for non-selection.	n.a
4.9.2	National Monitoring and Evaluation strategy (if exists)	Annexure III: Malaria M&E malaria
Section 5 (Component specific): Component Budget		
5.2	**Detailed component Budget**	Annexure IV:
5.3.1	Preliminary Procurement List of Drugs and Health Products (tables B1 – B3)	Attachment B to the Proposal Form
5.3.2	Human resources costs.	Annexure V:
5.3.3	Other key expenditure items.	
5.1 - 5.6 *(if common funding mechanism)*	Available annual operational plans/projections for the common funding mechanism, and an explanation of any link to the proposal.	
Other documents relevant to sections 4-5 attached by applicant:		
	Partnership for Health	
	Annual Health Bulletin	
	Royal Charter for BHTF	
	Fact sheet: Population and Housing Census of Bhutan	
	List of abbreviations	Annexure VI
	Unit price assumptions	Annexure VII

LIST OF ANNEXES TO BE ATTACHED TO PROPOSAL *Malaria*