

# STANDARD CONCEPT NOTE FOR MALARIA

## Investing for impact against HIV, tuberculosis or malaria

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

A concept note is divided into the following sections:

- Section 1:** A description of the country's epidemiological situation, including health systems and barriers to access, as well as the national response.
- Section 2:** Information on the national funding landscape and sustainability.
- Section 3:** A funding request to the Global Fund, including a programmatic gap analysis, rationale and description, and modular template.
- Section 4:** Implementation arrangements and risk assessment.

**IMPORTANT NOTE:** Applicants should refer to the Standard Concept Note Instructions to complete this template.

SUMMARY INFORMATION			
Applicant Information			
Country	India	Component	Malaria
Funding Request Start Date	2015 (1 <sup>st</sup> October)	Funding Request End Date	2017 (31 <sup>st</sup> December)
Principal Recipient(s)	<b>PR1: Department of the Economic Affairs, Ministry of Finance, Government of India (National Vector Borne Diseases Control Programme, MOH&amp;FW, GoI).</b>  <b>PR2: Caritas India.</b>		

### Funding Request Summary Table



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

## SECTION 1: COUNTRY CONTEXT

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

### 1.1 Country Disease, Health and Community Systems Context

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

- The current and evolving epidemiology of the disease(s) and any significant geographic variations in disease risk or prevalence.
- Key populations that may have disproportionately low access to prevention and treatment services (and for HIV and TB, the availability of care and support services), and the contributing factors to this inequality.
- Key human rights barriers and gender inequalities that may impede access to health services.
- The health systems and community systems context in the country, including any constraints.

Malaria remains one of the public health problems in India. Though approximately 82% of the country's population lives in malaria transmission risk areas, 80% of malaria occurs among 20% of the people classified as "high risk." These high risk populations are found in some 200 districts of Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, West Bengal and seven northeastern (NE) states.

The epidemiology of malaria in India is complex because of geographic and ecological diversity including forested and forest fringe areas, multi-ethnicity, socio-political challenges and wide distribution of nine anopheline mosquito vectors transmitting three plasmodial species: Plasmodium

Falciparum (Pf), *P. vivax*, and *P. malariae*. In recent years there has been an increase in malaria cases in urban areas too.<sup>1</sup>

Pre-independence estimates of malaria were about 75 million cases and 0.8 million deaths annually. During the country's eradication campaign in the late 1950s and early 1960s, malaria cases declined to 100,000 in 1964. However, malaria re-emerged as a major public health threat, with incidence reaching 6.4 million new cases in 1976. A continued rise in *P. falciparum* was witnessed, and its proportion has gradually risen to nearly 50% in recent years.

From the beginning of the 21<sup>st</sup> century, there is significant achievement in malaria control in India with a progressive decline in total cases and deaths noted during the period from 2005 to 2013. Overall, the malaria cases have consistently declined from 2.08 million in 2001 to 1.07 million in 2012. In 2013, further decline was noted to 0.88 million cases, although in 2014 (provisional), the cases showed an increase to 0.97 million due to focal outbreaks in northeastern region (especially Tripura<sup>2</sup>). Similarly *Pf* cases have declined from 1.04 million to 0.53 million cases during the same period. Whilst the *Pf* cases were 0.46 million in 2013, an increase to 0.63 million was noted in 2014. This indicates overall declining endemicity of malaria in the country till 2013, yet an increase in 2014 showed that malaria is characterized by local and focal occurrences and achievements in malaria mortality and morbidity are very fragile. In fact, epidemiological report upto the month of November 2013-2014 (as per data received from States/UTs till 25th December 2014) show percent increase over 2013 data for the period in most of the northeastern states (except Assam) and Odisha, Chhattisgarh and Jharkhand.

Annual Parasite Incidence rate has consistently come down from 2.12 per thousand in 2001 to 0.88 per thousand in 2012, but confirmed deaths due to malaria have been fluctuating during this period between 1707 and 949 up to 2010. Whilst in 2013, the API recorded a further decline to 0.69 per thousand population, in 2014, an increase to 0.80 per thousand was noted. In last two years there is significant decline in reported deaths due to malaria (519 in 2012 and 440 in 2013) [in 2014 (provisional), reported number of malaria deaths was 372, of which 66% was recorded in NE states (in 2013, the percent share of northeastern states was 50%)]. Slide Positivity Rate (SPR) and Slide falciparum Rate (SfR) have reduced over the years 2001-2012. However, in 2013, the indicators were more or less similar relative to 2012. It is also observed that Annual Blood Examination Rate (ABER) has remained within the range of 9.95% to 8.73% during the period 2001 to 2012 (national recommended target is 10%<sup>3</sup>). In 2013, the ABER was noted as 9.26%.

As per World Malaria Report 2012, (Global) India is on 18th position in the total reported malaria cases and on 21st position in reported malaria deaths. India is contributing 1.7 % to the total World Malaria cases, 4.6 % to total *Pv* cases, 1.1 % to total *Pf* cases and 0.3% to the total reported deaths due to malaria. However, the absolute numbers remain quite high.

The countrywide malaria situation from year 2000-2013 is given in Table 1 and Figure 1 below.

Table 1: Epidemiological Situation and Indicators for Malaria in India (2000-14\*)

Year	Population in thousand	Blood Smear Examined	Positive cases	Pf Cases	Pf %	ABER	API	SPR	SFR	Deaths
2000	970275	86,790,375	2,031,79	1,047,21	51.54	8.94	2.09	2.3	1.21	932
2001	984579	90,389,019	2,085,48	1,005,23	48.2	9.18	2.12	2.31	1.11	1005
2002	1013942	91,617,725	1,841,229	897,446	48.7	9.04	1.82	2.01	0.9	973
2003	1027157	99,136,143	1,869,40	857,101	45.8	9.65	1.82	1.89	0.8	1006
2004	1040939	97,111,526	1,915,363	890,152	46.4	9.33	1.84	1.97	0.9	949
2005	1082882	104,143,806	1,816,569	805,077	44.3	9.62	1.68	1.74	0.77	963
2006	1072713	106,725,851	1,785,129	840,360	47.0	9.95	1.66	1.67	0.79	1707
2007	1087582	94,928,090	1,508,927	741,076	49.11	8.73	1.39	1.59	0.7	1311

<sup>1</sup> This concept note is prioritized for malaria in rural areas. Urban malaria is being addressed through the National Urban Malaria Scheme (NUMS) of the National Vector Borne Diseases Control Programme (PR1-NVBDCP), Ministry of Health & Family Welfare, GoI, under the National Urban Health Mission (NUHM).

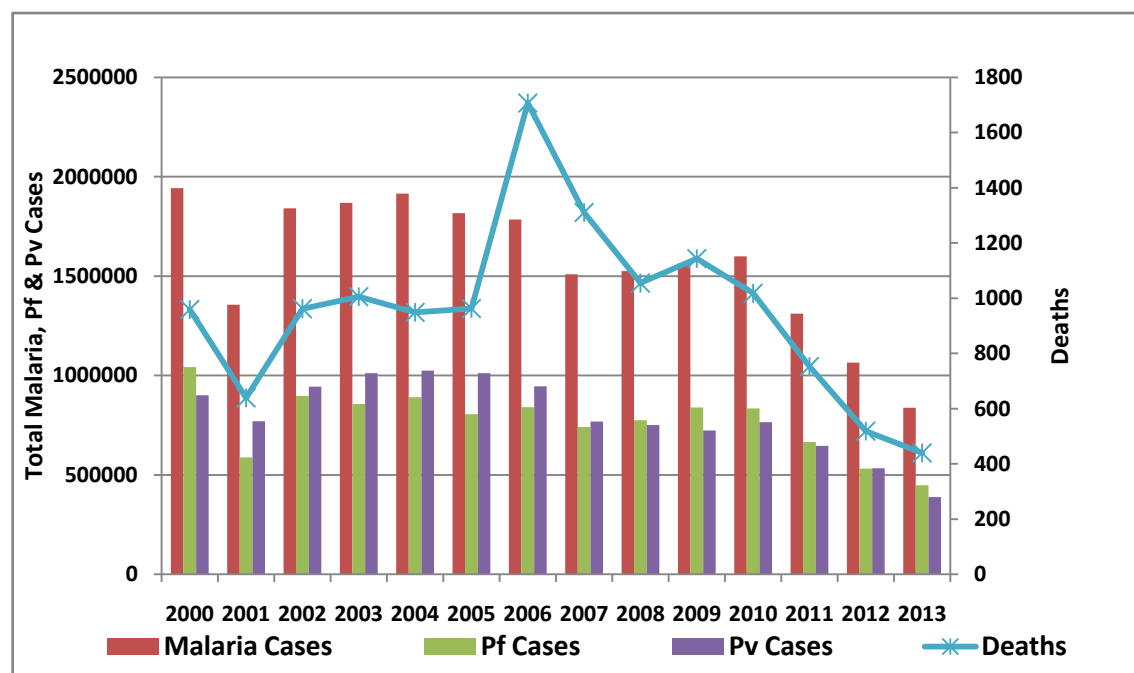
<sup>2</sup> An outbreak occurred in Tripura in June 2014. As compared to 2013, wherein 7,396 cases and 7 deaths were reported, in 2014, the number jumped to 45,885 cases and 69 deaths (till 30<sup>th</sup> Nov 2014). Increased number of malaria cases was reported in Dhalai, Gomati and other districts. Nearly 50% cases and deaths were from first one-Dhalai district. Immediately, meetings of concerned state/district officials were held and action plan was made for containing the situation that included but did not limit to, setting up of Control Room at State HQ, active case search, organization of health camps, referral of serious cases to district hospitals, BCC and community mobilization, involvement of CSOs, etc. The situation was brought under control within 04 months. Currently, regular supervision and monitoring is being done to prevent further outbreaks.

<sup>3</sup> On the assumption that all or most of the fever cases are examined for malaria and 10% of the population in a year have fever at one point of time, 10% ABER is considered to reflect the true picture of malaria. National Vector Borne Disease Control Program (NVBDCP), Government of India (GoI).

2008	1119624	97316158	1526210	775523	50.81	8.69	1.36	1.57	0.8	1055
2009	1150113	103396076	1563574	839877	53.72	8.99	1.36	1.51	0.81	1144
2010	1167360	108679429	1599968	834364	52.15	9.31	1.37	1.47	0.77	1018
2011	1194901	108969660	1310656	665004	50.7	9.12	1.10	1.20	0.61	753
2012	1211508	108989326	1067824	533695	49.9	9.00	0.88	0.9	0.4	519
2013	1221640	113109094	881730	462079	52.61	9.3	0.72	0.7	0.4	440

Note: Cases and deaths reflected here are largely the reported figures from public sector only. Estimated figures from various agencies portray higher number, yet concur regarding the declining trend.

**Figure 1: Malaria, Pf&Pv cases and Deaths due to Malaria (2000-2014\*)**

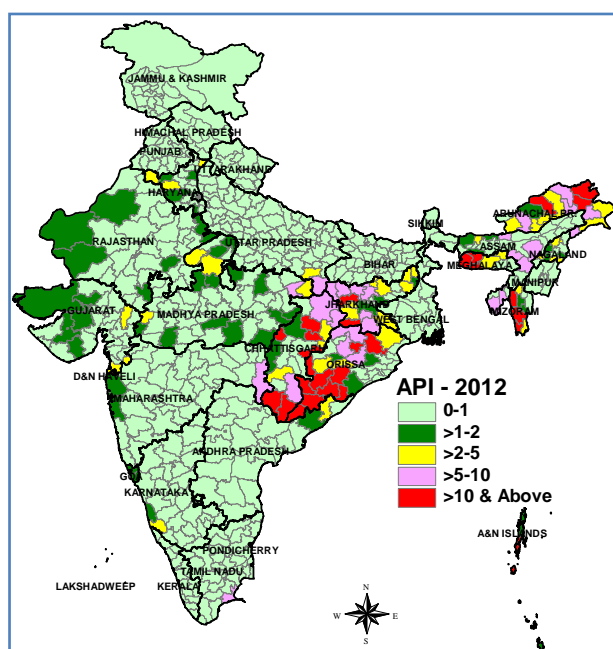
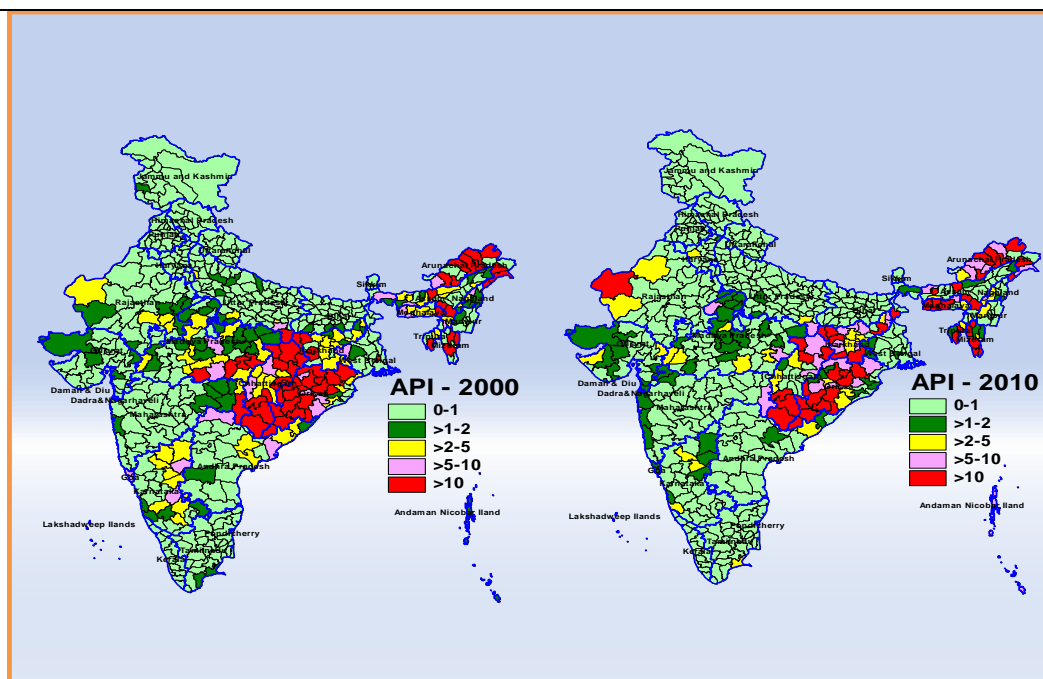


Further, as per the 2012 Annual Report of NVBDCP, GoI, 90% of malaria cases reported by 16 states namely Odisha, Jharkhand, Chhattisgarh, Maharashtra, Madhya Pradesh, Gujarat, West Bengal, Andhra Pradesh, and Karnataka and 7 NE states. 90% of Pf cases are reported by 8 states namely Odisha, Chhattisgarh, Jharkhand, Assam, Madhya Pradesh, Andhra Pradesh, Meghalaya, and Maharashtra. 90% of deaths are reported by 8 states: Odisha, Maharashtra, Madhya Pradesh, Meghalaya, Assam, Arunachal Pradesh, Chhattisgarh, and Mizoram. As per 2013, Annual Report of NVBDCP, GoI, too, more or less similar picture is noted. Malaria being a local and focal disease, state, district and sub district wise variations continue to be recorded with high endemic pockets in otherwise low endemic states/districts ([Annex](#)).

The API wise distribution of the states/union territories in year 2000 and 2012 reveals that the total number of States/UTs with API <1 has increased from 18 to 21 (Annex 1). In 2012, out of which, 06 states are having API <0.1, which has further increased to 07 in number in 2013. The API wise distribution of districts shows that the number of districts with API <1 has increased from 319 in 2000 to 447 in 2010 and further to 492 in 2012 and 516 in 2013. The number of districts with API >10 has decreased from 59 in 2000 to 54 in 2010 and further to 29 in 2012 to 25 in 2013 (Annex 2).

The map of India showing distribution of malaria endemic districts in states of India based on API in 2000, 2010 and 2012 is presented in Figure 2 below.

**Figure 2: Distribution of districts based on API in Year 2000, 2010 and 2012**



In view of sustaining the achievements and further shrinking the malaria map (to achieve  $API < 1$  in all the districts of the country per objective of 12<sup>th</sup> Five Year Plan), attempt is continuously being made to stratify areas for prioritizing and applying specific interventions. In 2013, out of 671 districts, 516 districts have already achieved  $API < 1$  (Table 2).

Table 2: API wise count of districts in the Country - 2013

States / UTs	API $\leq 1$	API 1 to 2	API 2 to 5	API 5 to 10	API $> 10$	Grand Total
Andhra Pradesh	21	2				23
Arunachal Pradesh		4	4	5	2	15
Assam	21	1	5			27
Bihar	38					38
Chattisgarh	9	2	5	4	7	27
Delhi	1					1
Goa	1	1				2
Gujarat	25	6	3			34
Haryana	18	3				21

Himachal Pradesh	10					10
Jammu & Kashmir	12					12
Jharkhand	6	5	8	3	2	24
Karnataka	31	2	1			34
Kerala	14					14
Madhya Pradesh	29	14	6	1		50
Maharashtra	34	1		1		36
Manipur	12					12
Meghalaya	1	1		3	2	7
Mizoram	2	2	1	1	3	9
Nagaland	7	2	3			12
Odisha	9	4	4	5	8	30
Punjab	22					22
Rajasthan	29	4				33
Sikkim	4					4
Tamil Nadu	42	1	1			44
Tripura	5		2	1		8
Uttar Pradesh	71	3		1		75
Uttarakhand	13					13
West Bengal	19	1	1			21
Andaman & Nicobar Islands	2				1	3
Chandigarh	1					1
Dadra & Nagar Haveli			1			1
Daman & Diu	2					2
Lakshadweep	1					1
Puducherry	4					4
Grand Total	516	59	45	25	25	670

The country has been showing progress in control of malaria in the past decade (although in 2014, a slight slow-down was noted due to focal outbreaks as mentioned above) and achieved the MDG 2015 goals and objectives before the set deadline of 2015 (as described below). For paving the way for pre elimination status of malaria in the country towards elimination; in the objective of the 12<sup>th</sup> Five Year Plan it is envisaged to achieve API<1 in all the districts of the country. In order to sustain the achievements and further shrinking the malaria map, further stratification of areas is being attempted so as to prioritizing strata specific interventions as well as monitoring. Accordingly, guidelines on micro-stratification is being finalized that would be disseminated for action in 2015 (**Annex**). Attempt would be made to list blocks/PHCs with number of Sub-Centres and their population per following strata: 1) API – 0; 2) API - 0.0 - 0.99 (including 0 API); 3) API - 1.0 -1.99; 4) API - 2.0 -4.99; 5) API - 5 & above. Format for furnishing details on stratification would be part of the document. The State/District would be required prepare the map as well.

Further, there is a variation in malaria cases across the sex and age groups. During the 2008-2012, males consistently had more positive diagnoses than females; adult age group [share of 15+ years age group in total cases was 66% followed by 5-15 years (26%) and 0-4 years age groups (9%)] suffered more than the other age groups but the incidence of cases in three age groups (0-4yr, 5-15yr and 15+ yrs) were almost same.

**The National Health Policy (NHP) (2002)** has set the goal of reduction in mortality on account of malaria by 50% by 2010 and efficient morbidity control. The achievement under XI Five Year Plan (2006-07 to 2011-12) period is as under:

Target	Achievement
ABER - over 10%	9.0%
API - 1.3 or less	API – 0.88

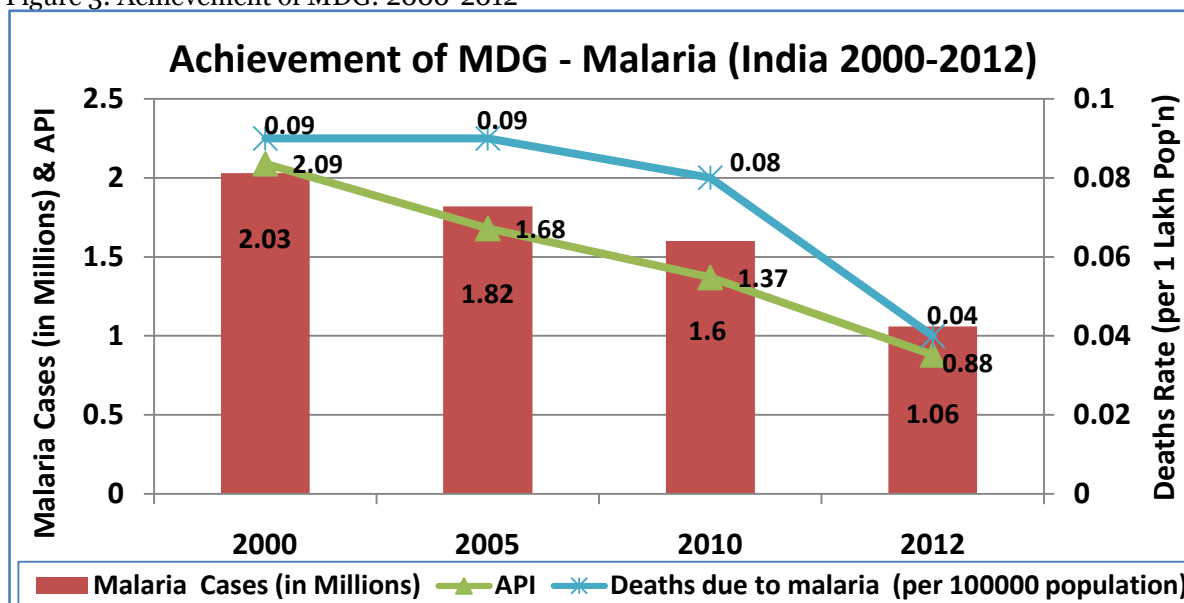


25% reduction in morbidity and mortality by 2010 and 50% by 2012 (baseline 2006)

Reduction in Morbidity by 40.0%  
Reduction in Mortality by 69.6 %

**Achievement of MDG with respect to malaria:** Reduction of malaria morbidity and mortality is also important to meet the overall objectives of reducing poverty by achieving the Millennium Development Goals and targets (Goal 6 and Target 8). India is also on track to achieving the malaria MDGs and targets. The incidence of malaria in India started halting and sustaining reversal of cases for last one decade. The malaria cases declined from 2,031,790 cases in 2000 to 1,816,569 in 2005 and further declined to 1,067,824 cases in 2012. The country has achieved 47.44% reduction in incidence of malaria cases against the baseline. The malaria death rate in the country was 0.09 deaths per lakh population in 2000, which has come down to 0.04 deaths per lakh population in 2012. The annual incidence has been constantly declining, which indicates that the malaria incidence has already been halted and is reversing at slower pace initially and at greater pace in last three years, as shown in the figure 3 below. It is important to note that out of this, there was 21.18 % reduction in 10 years (till 2010), and remaining 26.26% reduction has been achieved in next two years with change on policy, strategy and intensification of efforts together with inputs of RDT, ACT and LLINs in the high risk areas with GoI and external resources (under two projects supported by the GF and World Bank), indicating effectiveness and impact of combined inputs.

Figure 3: Achievement of MDG: 2000-2012



**Achievements of GFATM supported project with respect to malaria:** In the 07 NE states (namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura) as a whole, the malaria cases declined from 191,742 in 2008 (baseline for Round 9 IMCP-II) to 83,795 in 2012 and 72,215 in 2013 (Table 3, Figure 4). The API in 07 NE states as a whole has also declined from 4.39 per thousand population in 2008 to 1.80 and 1.53 per thousand population in 2012 and 2013, respectively. The API wise distribution of states in 2012 and 2013 is presented in Table 4 (API wise distribution of districts in NE states in 2013 is already presented in Table 2). The confirmed deaths due to malaria have also declined from 349 in 2008 to 119 in 2013. The SPR and SFR, have also reduced over the years during 2008-2013 (SPR—4.71 to 1.40 and SFR—3.28 to 1.23). The ABER has increased during this period from 9.32% in 2008 to more than 10% (11.29%) in 2012 although a marginal decline was noted in 2014 (10.97). However, improvement in surveillance is still needed since malaria endemicity in the NE states is high and therefore, an ABER of 15% is desirable to detect maximum number of cases.

Table 3: Year wise data for 07 NE states from 2002 to 2013

Year	Pop'n	BSE	Pv	Pf	Total Cases	PF%	API	ABER	SPR	SFR	AFI	Deaths
2002	39298000	3498313	90711	89630	180341	49.70	4.59	8.90	5.16	2.56	2.28	162
2003	39861000	3278560	73517	83288	156805	53.12	3.93	8.22	4.78	2.54	2.09	169
2004	40695000	2973986	54997	81571	136568	59.73	3.36	7.31	4.59	2.74	2.00	180
2005	41018000	3265068	60649	89074	149723	59.49	3.65	7.96	4.59	2.73	2.17	251
2006	41354000	4021388	86021	149376	235397	63.46	5.69	9.72	5.85	3.71	3.61	901
2007	42159000	3659092	67869	126118	193987	65.01	4.60	8.68	5.30	3.45	2.99	581
2008	43646000	4069062	58147	133595	191742	69.67	4.39	9.32	4.71	3.06	3.28	349

2009	44866000	4541852	52363	181262	233625	77.59	5.21	10.12	5.14	4.04	3.99	487
2010	45439000	5902906	41980	131398	173378	75.79	3.82	12.99	2.94	2.89	2.23	290
2011	45784000	5546599	26815	87030	113845	76.45	2.49	12.11	2.05	1.90	1.57	162
2012	46472000	5245432	19366	64429	83795	76.89	1.80	11.29	1.60	1.39	1.23	113
2013	47173000	5172740	14281	57934	72215	80.22	1.53	10.97	1.40	1.23	1.12	119

Note: Cases and deaths reflected here are largely the reported figures from public sector only.

**Figure 4: Malaria cases and deaths in 07 NE states from 2008-2013**

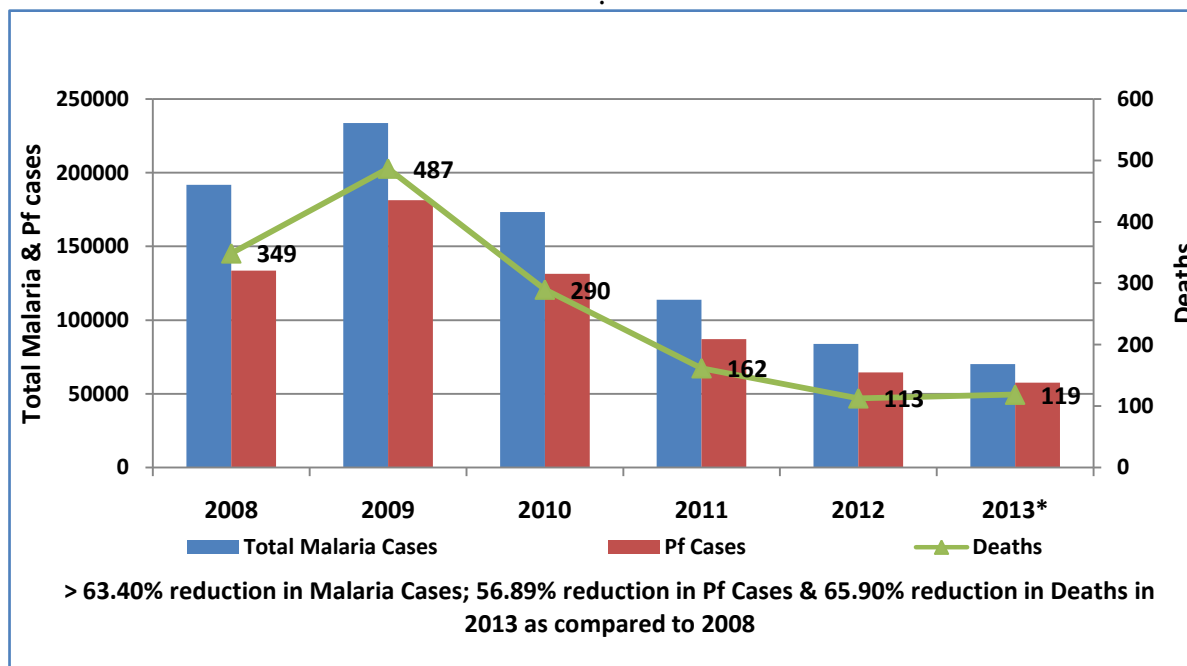


Table4: API wise distribution of the states in 2012

API	No. of States	Name of States /UTs
5-10	4	Arunachal Pradesh, Meghalaya & Mizoram (&Odisha)
2-5	2	Tripura (& Chhattisgarh, Jharkhand)
1-2	2	Nagaland
<1	1	Assam, Manipur

Table 5: API wise distribution of the states in 2013

API	No. of States	Name of States /UTs
> 10	1	Mizoram
5 to 10	2	Meghalaya &Odisha
2 to 5	3	Arunachal Pradesh, Chhattisgarh & Jharkhand
1 to 2	2	Nagaland & Tripura
<1	2	Assam, Manipur

The detailed state wise epidemiological data for the year 2012 and 2013 is presented in Table 6 and 7.

**Table 5: State wise malaria indicators in NE states, 2012**

State	Pop'n	BSE	Pf Cases	Total Cases	Pf%	API	ABE R	SPR	SFR	AFI	Deaths
Ar. Pradesh	1369	150707	2789	8368	33.33	6.11	11.01	5.55	1.85	2.04	15
Assam	32459	3973341	20579	29999	68.60	0.92	12.24	0.76	0.52	0.63	13
Manipur	2723	115257	83	255	32.55	0.09	4.23	0.22	0.07	0.03	0
Meghalaya	3067	354574	19805	20834	95.06	6.79	11.56	5.88	5.59	6.46	52
Mizoram	1179	168421	9437	9883	95.49	8.38	14.29	5.87	5.60	8.00	25
Nagaland	1981	214943	821	2891	28.40	1.46	10.85	1.35	0.38	0.41	1
Tripura	3694	268189	10915	11565	94.38	3.13	7.26	4.31	4.07	2.95	7



Total (A) NE States	46472	5245432	64429	83795	76.89	1.80	11.29	1.60	1.23	1.39	113
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*Note: Cases and deaths reflected here are largely the reported figures from public sector only.*

**Table 7: State wise malaria indicators in NE states, 2013**

State	Pop'n	BSE	Pf Cases	Total Cases	Pf%	API	ABE R	SPR	SFR	AFI	Deaths
Arunachal Pradesh	1,340	112,455	2,181	6,398	34.09	8.39	4.77	5.69	1.63	1.94	21
Assam	32,919	3,895,330	14,969	19,542	76.60	11.83	0.59	0.50	0.45	0.38	7
Manipur	2,855	92,762	42	120	35.00	3.25	0.04	0.13	0.01	0.05	-
Meghalaya	3,162	360,044	22,885	24,727	92.55	11.39	7.82	6.87	7.24	6.36	62
Mizoram	1,088	229,818	10,340	11,747	88.02	21.12	10.80	5.11	9.50	4.50	21
Nagaland	1,998	224,571	519	2,285	22.71	11.24	1.14	1.02	0.26	0.23	1
Tripura	3,811	257,760	6,998	7,396	94.62	6.76	1.94	2.87	1.84	2.71	7
NE States Total	47,173	5,172,740	57,934	72,215	80.22	10.97	1.53	1.40	1.23	1.12	119

*Note: Cases and deaths reflected here are largely the reported figures from public sector only.*

Amongst NE states, 14 districts in Arunachal Pradesh (15), 11 in Assam (27), 3 in Manipur (11), 7 in Meghalaya (7), 5 in Mizoram (9), 7 in Nagaland (11) and all 4 districts in Tripura are high endemic for Malaria. In all, 51 districts out of total of 86 are malaria endemic in the NE States.

The API wise distribution of districts in NE states during 2008 to 2012 shows that the number of districts with API>2 decreased (Table 8). It may also be noted that the number of districts with API<1 has increased from 28 in 2008 to 30 in 2012, indicating a progress towards shrinking the map of malaria in these states too. In NE states, the number of districts with API>10 have also decreased from 23 in 2008; to 9 in 2012 (Table 5). In 2013, the number of districts with API<1 has further increased to 48; whilst the number of districts with API>10 has further decreased to 7 (Table 2).

**Table 8: API wise Distribution of Districts in Year 2008, 2012**

Name of the State	2008					2012					
	Number of Districts with API					Number of Districts with API					
	>10	5 - 10	2- 5	1- 2	≤1	>10	5- 10	2- 5	1 -2	≤1	total
Arunachal Pradesh	11	0	3	1	0	3	5	5	2	0	15
Assam	3	4	2	5	13	0	3	1	3	20	27
Manipur	0	0	1	0	11	0	0	0	12	0	12
Meghalaya	3	2	1	0	1	3	0	2	0	2	7
Mizoram	4	1	1	2	1	3	0	2	2	2	9
Nagaland	0	1	5	4	2	0	0	4	4	4	12
Tripura	2	0	2	0	0	0	6	0	0	2	8
Total NE States	23	8	15	12	28	9	14	15	22	30	89
All India	53	27	58	72	430	32	29	48	58	492	659

The number of districts mentioned above has high API in the blocks. There are pockets in relatively lower API districts which have a higher incidence of malaria. In view of this, there is potential for upsurge in malaria cases in lower API blocks and districts. Therefore, sustained high surveillance for malaria is needed to control the disease and maintain the status in low endemic blocks/Districts as well. As mentioned above, guidelines on micro-stratification is being finalized and the exercise is expected to be commenced soon.

**The World Bank assisted National Vector Borne Disease Control Support Project (NVBDCSP)** for malaria control and Kala-azar (KA) elimination was implemented for a period of five years from 1<sup>st</sup> July 2008 and ended on 31<sup>st</sup> Dec. 2013. The project for malaria control was

implemented in 09 high malaria endemic states covering 124 districts of Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Jharkhand, Odisha Gujarat, Maharashtra, Karnataka and West Bengal. Subsequent to the closure of NVBDCSP in December 2013, many components including HR are now sustained with support from the GoI.

The achievements of the project are summarized in the tables 6 & 7 and the figure 5 below. The state wise epidemiological data for 2012 for 09 states are appended as Annex 3.

Table 6: Achievement of the objectives of the project

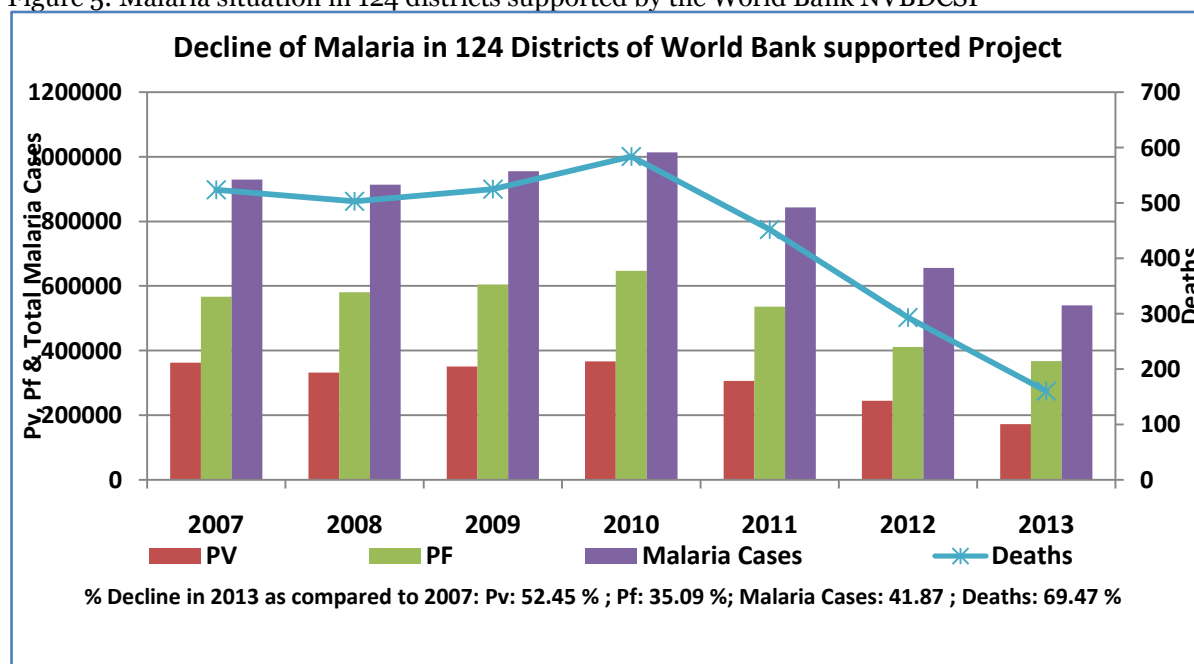
No.	Objective	Target by 2013	Base Year	Achievement in 2013*
1.	Reduce Malaria morbidity (Cases)	by 25%	2007	41.87%
2.	Reduce Malaria mortality (Deaths)	by 50%	2007	69.47%

\*Data of 2013 is provisional

Table 7: Achievements of Project Development Objectives Indicators (Ref. World Bank ICR, 2014)

Indicator 1: Percentage of fever cases in project districts receiving a malaria test result number later than the day after the first contact	77% of the target (70% against baseline 10-58%) was achieved in five phase one states. Baseline values are from population based household survey conducted by NIMR in 2009. End line estimate is a population weighted summary program monitoring data (LQAS) collected in 5 Phase 1 project states. 54.3% is a populated weighted average of point estimates from Andhra Pradesh 90.7%; Odisha 74.4%, Madhya Pradesh 54.8%, Chhattisgarh 38.4%; and Jharkhand 26.2%.
Indicator 2: Percentage of individuals in project areas belonging to eligible Long Lasting Insecticidal Net (LLIN) target population who slept under an LLIN during the previous night	57% (50% against baseline 10-0%) of target achieved. This is a population weighted summary estimate from program monitoring data (LQAS) collected in 5 Phase 1 project states (Andhra Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand and Odisha).

Figure 5: Malaria situation in 124 districts supported by the World Bank NVBDCSP



\*Data of 2013 is provisional.

The 7 NE states (excluding Sikkim) are covered by the Global fund supported Round 9 project (till Sep. 2015) whereas the centrally situated 9 high endemic states mentioned above were covered under the World Bank supported NVBDCSP (till Dec 2013). In both the projects, there were significant achievements made yet there is need to sustain the gains achieved, tackle the challenges and further reduce the malaria burden.

The 07 NE states, and Odisha, Chhattisgarh remain vulnerable mainly due to forestation, topography, climatic conditions, prevalence of highly efficient malaria vectors, insecticide resistance, pre-dominance of *Pf*, socio-political challenges, ethnic diversity and uneven health seeking behavior of many ethnic groups, irrational treatment by many private providers, shifting cultivation

agriculture, and long international border that is porous at many points witnessing population movements. Together, the 07 NE states and Odisha, Chhattisgarh have approx. 10% of country's population, contribute 76% of Pf cases, 44% of total cases and 54% of total deaths. These factors can exert a negative influence on the disease burden and has potential of turning low endemic areas into high risk areas. Besides, possible emergence of Artemisinin resistance continues to threaten recent gains made with the GoI and other investments (the Global Fund, others).

**Buoyed by the promise of declining trend of malaria in endemic districts and progressive resolution of procurement issues, the PR1-NVBDCP and PR2–Caritas India are confident on embarking upon the further intensifying control and progressively advancing towards the paradigm shift to further from control towards pre-elimination by 2017. Such ambitious vision would be made possible by the full commitment and a mission mode that entails concentrated and multi-pronged application of locale-specific interventions in the next few years for reducing number of cases and deaths. The endeavour would be initiated by interruption of local transmission of malaria in the low endemic states/districts of the country and progressively expanding to other districts by tackling existing and potential risk factors.**

**Key populations** are groups that face an increased burden and/or vulnerability due to a combination of biological, socioeconomic, and structural factors combined with lower access to services. Malaria affects all age groups and both males and females; however, adult males are commonly affected mainly due to occupations and behavior that put them at risk of being bitten by malaria vectors. Pregnant women and children <5 yrs. are biologically at higher risk and they tend to develop more severe malaria due to low level of immunity. Thus, in high transmission areas, these groups should be given priority for interventions. High risk populations (key population) includes:

- Settlers, Jhum cultivators and forest workers (600,000 approx.);
- migrant and mobile populations (especially in border areas);
- Young children, particularly under <5 yr children (including children living in residential schools – 200,000 approx.);
- Pregnant women;
- Armed Forces, paramilitary forces (especially those from non-endemic areas) [200,000 approx.].

In addition, travelers from non-endemic areas, people from endemic areas residing in non-endemic areas for a long time and returning home and people with HIV/AIDS also remain vulnerable groups.

Most malaria cases and deaths probably occur among these key populations, as malaria transmission is intense in areas inhabited/frequented by them. Hence, they remain central in the fight against malaria.

The indigenous population constitutes about 80% of the total population in northeastern states and Odisha, Chhattisgarh and other endemic states. The tribal hamlets are in clusters in the remote hills and foothills. Most of the houses are thatched built with indigenous material e.g. bamboo, wood etc. and these houses seldom have any protection against the vector mosquitoes. The aggregation of laborers for development work sometimes further aggravates the malaria situation in these areas. Settlers coming from the plain areas of the country in the hill district are non-immune and more prone to get malaria infection. Agriculturists, seasonal workers engaged in shifting cultivation, such as Jhum cultivators, forest workers, etc. are high risk group due to staying overnight in open spaces in the forest and hills. There are higher than average levels of malaria in border areas which may be due to migration to and from endemic areas of neighboring countries. Border areas remain particularly vulnerable especially in view of such scenario and possible emergence and spread of Artemisinin resistance that is already noted in parts of Myanmar.

In border areas, perennial transmission is a common phenomenon and transmission dynamics are generally similar (geo-physical and climatic conditions congenial for vector breeding and malaria transmission). Epidemic upsurge is not infrequent in the border areas (areas with high endemicity have high potential for spread across borders; whilst some low endemicity areas have potential for outbreaks). Many areas have difficult terrain due to hills and forests, and as such communication is often difficult. Hence, these areas have elevated risk of exposure to diseases in view of poor access to prevention, diagnosis, treatment, yet to be optimal health systems (government, private, community), infrastructure, and socio-demographic conditions (multiplicity of ethnic groups who are often migrant/mobile and poor, marginalized, illiterate and have variable living conditions, health seeking behavior). Legality aspects and conflict/restricted/special zones (illegal movement/activities, insurgency) add to the complexity. In view of such context and mobility, challenges regarding application of interventions, supply chain & as well as overall M&E (including follow up on treatment compliance/LLIN use) remain. Different national treatment regimens and

vector control practices on both sides apart from drug and insecticide resistance (possible emergence/already evident) also pose additional problems. In view of variable epidemiological, system related data as well as the need for analyzing the settings for designing commensurate context-specific interventions, a situation analysis and collation of health system related information in border areas of Bangladesh, Bhutan, India, Myanmar and Nepal is envisaged by the WHO in 2015 towards facilitating countries to share information and support establishing coordination for joint initiative for cross-border malaria control and elimination. A protocol is already being finalized in discussion with key stakeholders (including the India PRs).

Through the USAID Bureau for Asia and the Near East (ANE) and USAID/Nepal, a regional initiative of Bangladesh, Bhutan, India, and Nepal (BBIN) was developed in 2000 to implement cross-border activities for control of important infectious diseases, namely malaria, leishmaniasis, and Japanese encephalitis.<sup>4</sup> The goal was to support development of new interventions, expansion of proven interventions, and to improve surveillance programmes. A Plan of Action was formed. However, most planned activities were not implemented because of a lack of resources, follow up, and coordination support (a study was also conducted on cross border population movement in 2003 across Nepal and India for leishmaniasis and malaria treatment, capturing target population demographics, health care access, and health-seeking behavior and many respondents reported crossing the border to seek treatment at a nearby facility or to find free treatment). Major results of the network centered on information-sharing via a website and drafting of reports, etc. The network was eventually disbanded, although episodic activities were held to discuss cross-border situation and possible responses. Recently in 2012, after an inter-country consultation on networking for malaria control/elimination in SEA Region organized by the WHO, a network with an website has been revived as 'BBINMS' for information sharing, etc. by including additional neighbouring countries, Myanmar and Sri Lanka (in addition, epidemiology of malaria among migrant populations, ethnic communities and forest-related populations were also discussed, drawing from studies including those carried out research institutions like RMRC, NIMR). Platforms like SAARC, APLMA, BRICS, etc. are also being tapped for high level dialogue, agreements/MoUs, sharing of policy and guidelines, apart from programme levels dialogue under the stewardship of the WHO.

Women are at particular risk for malaria during pregnancy with an associated increased risk of death or adverse birth outcomes. Human rights and gender inequalities are being addressed well through moving towards universal coverage by health care services at all levels. Gender inequalities that sometimes hinder effective responses to malaria and health vulnerabilities for both women and men ('jhum' cultivators, forest workers) are addressed by the NVBDCP by strengthening/orienting the program implementation to ensure right to health of women and girls as well as men and boys. Women are able to utilize insecticide treated nets (ITNs), to receive antenatal care, or to take their malaria-stricken children to health services without relatively less inhibition. [As an example, a mention may be made about LLIN distribution to pregnant and under-5 children and hostel boarders of tribal schools complemented by intensive BCC/mobilization campaign in high burden areas (endemic blocks) in Odisha under 'Mo Masari', 'Nidhi Mousa to Masari Ne' and 'Nidhi Rath' programmes. [Outcome evaluation findings: 91% of pregnant women slept under LLIN last night; 88% of pregnant women slept under LLIN last night with their child under 2 years]. In addition, men who are at higher risk if they work in fields or forests or mining areas at peak biting times, are also having access to health care services and effective tools in many areas. The PR1-NVBDCP and PR2-Caritas India have integrated gender indicators and gender-responsive monitoring and evaluation into the strategies. An outcome indicator is 'Proportion of pregnant women who slept under an ITN the previous night'; in addition to collation of age- and sex-disaggregated routine data, amongst others.

**An overview of health and community systems context in India** is presented below.

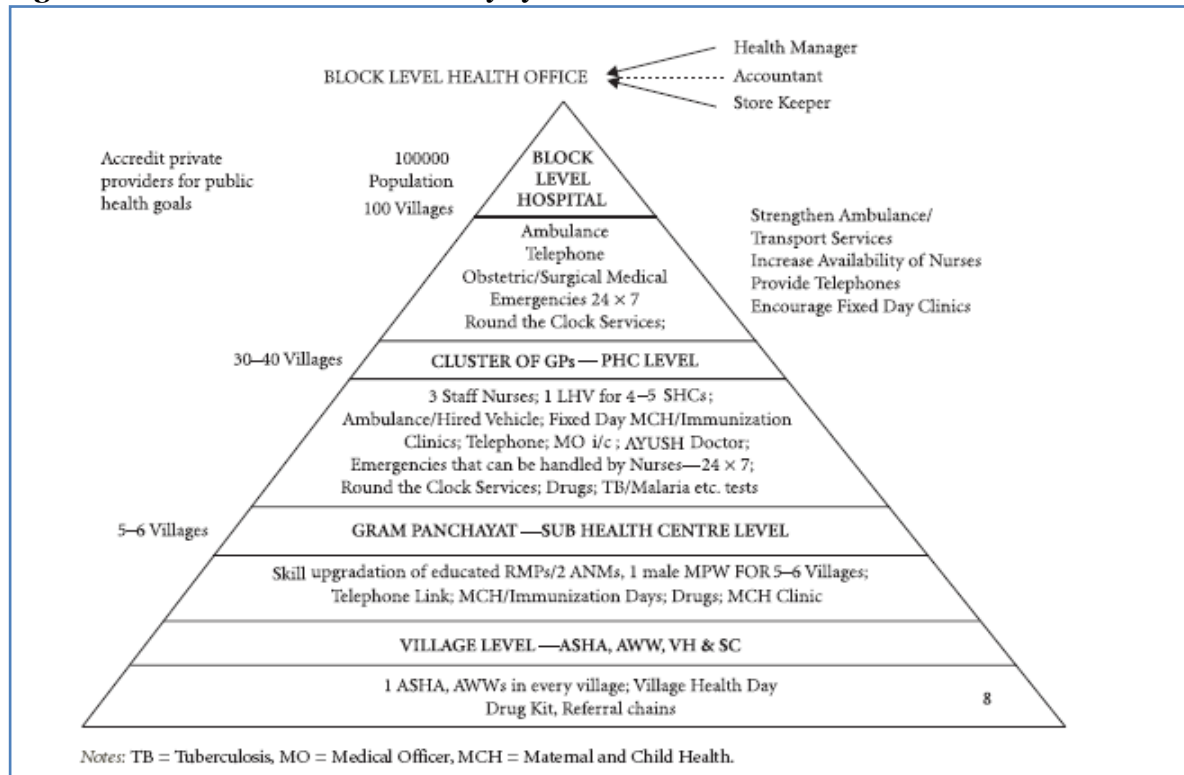
Since independence, India has built up a vast health infrastructure and health personnel at primary, secondary, and tertiary care levels in public, voluntary, and private sectors. The strengths of India's extensive health care system, as identified in an assessment done by the World Bank,<sup>5</sup> are a well-developed administrative system, good technical skills in multiple fields and an extensive network of public health institutions for research, training and diagnostics, which provides free health to people below the poverty line. However, several weaknesses in the system have also been highlighted. The 12<sup>th</sup> Five-Year Plan document has noted weaknesses in the public health care system, particularly in rural areas, in many states and regions, including the need for addressing inequalities and disparities both in terms of access to health care as well as health outcomes that places the burden on the poor, women, scheduled castes, and tribes.

<sup>4</sup> <http://apmen.org/storage/country-partner/APMEN%20XBorder%20Report%20May2011.pdf>

<sup>5</sup> Peters, David H., Abdo S. Yazbeck, Rashmi R. Sharma, G.N.V. Ramana, Lant H. Pritchett and Adam Wagstaff. 2002. *Better Health Systems for India's Poor: Findings, Analysis, and Options*. Washington, DC: The World Bank.

The National health Mission (NHM) (formerly National Rural Health Mission, or NRHM) under the aegis of the Ministry of Health & Family Welfare, GoI, is the program for improving primary health care to the bulk of the country's population including those for the national responses to the epidemics of AIDS, Tuberculosis and Malaria. A generic public health care delivery system in rural areas as envisioned under NHM from the village to block level is illustrated in the figure below.

**Figure 6: Public health care delivery system**



The health system challenges however, undermine the capacity of the public health authorities to optimally deliver healthcare services in many states. **The major health systems and community systems constraints include:**

a) Inadequate resources—human and financial: India's health system is welfare oriented and provides for a comprehensive package of basic health care services. But due to a rapidly growing population, and static levels of public health expenditure, the public health system is under a great stress to meet for the demands for health care per Indian Public Health Standard. Inadequate resources however, lead to lack of clientele satisfaction and many a times non-availability of essential medicines. Public health expenditures in India need to increase further in order to reduce the burden of out-of-pocket health expenditures (which often renders facility-based services inaccessible to the poorest; and even though drugs are free in the public system, the costs that people face to reach facilities are a barrier in themselves). In the malaria control domain, lack of service providers, especially health workers and laboratory technicians, compounded by shortage of Health assistant/supervisors (Male), malaria inspectors and assistant malaria officers affect surveillance and service delivery, particularly in remote areas. There are also inadequate Rapid Response Teams (RRTs) for epidemic/outbreak response in many districts. Though domestic resources for implementation of malaria control measures is allocated, there is still a large gap in allocation for scaling up specific interventions like provision of RDTs, ACT and LLINs, and for positioning health care delivery and management staff at district and state levels to achieve universal coverage and impact.

b) Inadequate public health infrastructure, including training facilities: Health infrastructure is inadequately developed and equipped to provide basic health care services. Likewise, trained manpower remains a challenge and there is substantial mismatch between system requirements and the availability of required skills and competencies. Shortages of health managers, epidemiologists, health economists, other specialists in various fields exist and where existing, their retention in the highly competitive market is challenging. Regular training, especially on newer tools and technologies as well as meaningful engagement of community is required. Also, most of the private sector care providers are yet to be oriented/trained by the program, although almost half of the fever cases are seeking care/treatment from them.

c) PSCM issues: Centralized supply and procurement system is severely challenged and drugs or

other needed supplies are often facing shortages due to procedural delays. Issues relating to sub national PSCM are also noted. This compromises the extent to which community level workers and first line health workers can actually provide services at the point of need and the sick getting the due services. Challenges for storage arrangements and handling new products with varying storage specifications; inadequacies in distribution system especially in remote, hard to reach areas; manual inventory management that is yet non-responsive to dynamic changes in requirements; absence of linkage of implementation guidelines, manuals and other documents; inadequate communication between PHCs, districts, states; inadequate tracking systems for PSCM.

d) Inadequate regulatory frameworks: Although the public health system functions within well-defined frameworks and clear external regulatory requirements, the ability of the system to regulate itself and ensure quality and efficiency is constrained by the lack of manpower, time and in some patients, poor supervisory practices. Appropriate public health laws are yet to be framed to regulate the private sector and optimally utilize their services (including qualified as well as the unqualified private health care service providers) for achieving public health goals.

e) Inadequate micro-planning, monitoring and evaluation especially at secondary, primary care levels: Strategic planning with clear objectives, targets, monitoring indicators, and their means of verification and required inputs to achieve the targets at the district and PHC levels is yet to be optimal. The capacity to analyze, interpret and use data for decision making too, is often inadequate or not attempted. Also, decisions about or delivery of health care are often 'top-down'.

f) Minimal collaboration between health programs and non-health programs/corporate sector: Most national response to malaria, etc. continues to remain within the NVBDCP purview making inter programmatic coordination for delivery of services difficult. This factor is important from the perspective of malaria program, as close collaborative approach with multi-sectoral agencies, non-health departments is extremely desirable to manage/prevent mosquitogenic conditions and transmission.

g) Intermittent involvement of and ownership by civil society and developing/strengthening community systems: Civil society organizations, local self-governments and communities currently are yet to be optimally involved in malaria control efforts and engagement with the health systems (excepting in case of illness), especially in planning, monitoring and advocacy, although the scenario is improving. In many areas, a provider-driven malaria program rather than a community-driven program is still evident. Further, in malaria control domain, key populations/community at large are often not much organized for consensus building, dialogue and advocacy at local and national levels aimed at holding to account responses to the disease, including health services, disease specific programs as well as broader issues such as discrimination, inequality and sustainable financing, and aiming at social transformation. Community systems strengthening - Community action, establishment of community organizations and creation of networking and effective linkages with other actors and broader movements such as human rights and women's movements relating to malaria control are as yet limited.

Under the NHM, several health & community system strengthening are envisaged and stand initiated. Some of the mitigating measures and overall achievements in brief, are given below:

Increasing public expenditure on health from 1.0 percent of the GDP in 2010 to 1.3 percent of the GDP in 2012: Currently, public resources for health are estimated to be only about 1.3 percent of GDP, which is due to the rapid expansion of the denominator. However, in absolute terms, there has been a substantial increase in budgetary outlays both at the central and state levels, which has succeeded in setting right several issues.

Flexible funding, community owned decentralized health delivery system to address inadequate human resources, and integration of different programs to ensure better coordination: Flexibility in utilization of funds by providing untied funds at every level for the health infrastructure, locale specific activities, etc. is an indicator of empowering people to participate. Substantial improvements in infrastructure and placement of human resources have been achieved, resulting in increased utilization by the poor. Further, in order to address the comprehensive need based health and medical care services to the people at facilities of their choice and having financial risk protection, the NHM emphasizes health service system (both public and private) acceptable, affordable and accountable to the poorest households. The thrust is to establish and sustain a fully functional, community owned decentralized health delivery system conforming to public health standards laid down for all health care facilities. All facilities are also being strengthened in accordance with public health standards laid down in terms of human resources, infrastructure facilities, funding, etc., for providing a package of services.

Increasing participation and the ownership by the community: Under NHM, all health facilities have



a board consisting of representatives from civil society, women groups, political leaders, etc. with powers to decide budget allocation and utilization. Further, it is the community selected health worker, ASHA, who provides the linkage between the community health needs and the health facility. This worker is selected by the community itself. For each service provided, she is paid by the program, for example, using RDT and preparing blood smear slide and providing correct and complete treatment for malaria would entitle her for a certain amount of performance incentives, etc. The formation of RogiKalyanSamiti, a body represented by the facility level management personnel, representatives of civil society and local panchayat unions and the utilizing public has led to the community ownership as well as participation in the governance structure.

Participation by the Civil society organizations (CSOs)/Private sector: Increasingly, the importance of involving civil society in malaria control is perceived to reach out with service delivery and community mobilization. In order to strengthen the national response to malaria (for example), the partnership with the civil society Principal Recipient of the GF grant, Caritas India consortium that has an extensive network at district sub district level complements the NVBDCP efforts in increasing the access and utilization of services. The CSOs facilitate utilization of curative and preventive services at community level by enhancing awareness, service demand and participation (which however, requires commensurate supplies). Networking with the representatives of self-help groups, village women's organizations, and tribal headmen, persons who have been affected and at risk of malaria, the shifting cultivators, migrants especially in mining areas, etc, and other key populations are also being attempted towards empowered participation and self-monitoring. Initiatives are also being taken to develop and strengthen the capacities and skills of the private health care service providers by mapping and training them and eventually ensuring rational treatment per national guidelines and involving them to report to the public health system through the professional bodies like IMA, IAP, civil society organizations.

Given this overall context, the NVBDCP in harmonization with the NHM (through integrated health systems at sub national level) is scaling up delivery of preventive and curative interventions.

The NVBDCP is jointly implemented by the central government and the States. The Directorate of NVBDCP, under the Directorate General of Health Services, MOHFW, Government of India, is the national level government unit dedicated to the program. As such, it is responsible for formulating policies and guidelines, monitoring, and carrying out evaluations. It is also responsible for administering GOI's financial assistance to the States in the context of the program, which is funded in equal shares by GOI and the states. The organizational staff structure is appended ([Annex](#)). The MOHFW's 17 Regional Offices for Health and Family Welfare, located in 17 States, also play a role in the NVBDCP. They conduct entomological studies in collaboration with the States, drug resistance studies, cross-checking of blood slides for quality control, capacity building at the state level, and monitoring and supervision.

Although health is a state subject as per the constitution of India, the central government contributes 50% of the expenditure of selected priority activities such as disease control. Furthermore, since December 1994, seven North Eastern states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura), which are particularly disadvantaged, have been brought under 100% central assistance for selected priority activities including control of vector borne diseases. The states are responsible for implementing the program's preventive and curative services, and monitoring in accordance with central guidelines. Every state has a Vector Borne Disease Control Unit under its Department of Health and Family Welfare. It is headed by the State Program Officer, who is responsible for day-to-day management. States are responsible for the procurement of certain insecticides for IRS, spray equipment and certain antimalarials, but central Government supplies DDT and larvicides. Each state has established a State Vector Borne Disease Control Society, which includes civil society and sometimes private sector representation. These are now merged with similar entities for other centrally sponsored schemes into a single state-level Health and Family Welfare Society. The main role of the Societies is to channel funds from GOI to the states and onwards to districts for financing of the programs. They also play a role in district planning and in monitoring of program activities within districts. [The states are also advised to procure logistics for a buffer stock of 25% of their total technical requirements so as to maintain un-interrupted supply at all levels of service delivery. Although this process has taken off, various constraints are being faced].

At the district level, district malaria offices have been established in most places headed by the District Malaria Program Officer. This is the key unit for the planning and monitoring of the program. In many districts, District Vector Borne Disease Control Societies as a subset of District Health Society under NRHM have been established to assist with the management of funds and with planning and monitoring of program activities. This is now being remedied by new recruitment, by assignment of staff from other disease control programs such as leprosy, where the burden is declining and by deployment of newly recruited consultants. Technical and other partner agencies like the WHO, NIMR, NIH&FW, others, etc., provide technical support for the areas related to M&E,

drug resistance monitoring; capacity building, cross border initiatives.
<p><b>1.2 National Disease Strategic Plans</b></p> <p>With clear references to the current <b>national disease strategic plan(s)</b> and supporting documentation (include the name of the document and specific page reference), briefly summarize:</p> <ol style="list-style-type: none"> <li>The key goals, objectives and priority program areas.</li> <li>Implementation to date, including the main outcomes and impact achieved.</li> <li>Limitations to implementation and any lessons learned that would inform future implementation. In particular, highlight how the inequalities and key constraints described in question 1.1 are being addressed.</li> <li>The main areas of linkage to the national health strategy, including how implementation of this strategy impacts relevant disease outcomes.</li> <li>For standard HIV or TB funding requests<sup>6</sup>, describe existing TB/HIV collaborative activities, including linkages between the respective national TB and HIV programs in areas such as: diagnostics, service delivery, information systems and monitoring and evaluation, capacity building, policy development and coordination processes.</li> <li>Country processes for reviewing and revising the national disease strategic plan(s) and results of these assessments. Explain the process and timeline for the development of a new plan (if current one is valid for 18 months or less from funding request start date), including how key populations would be meaningfully engaged.</li> </ol> <p>The Strategic Plan for Malaria Control in India 2012-2017: A 5-year Strategic Plan states the vision as 'Health for All' and the mission as 'to reduce the morbidity and mortality due to malaria, improving the quality of life—thereby contributing to health and alleviation of poverty in the country'.</p> <p>The goals and objectives are as under:</p> <ul style="list-style-type: none"> <li>To achieve by the end of 2017, ABER &gt; 10 % and API &lt; 1 per 1000 population.</li> <li>Screening all fever cases suspected for malaria (60% through quality microscopy and 40% by Rapid Diagnostic Test). [However, in view of introduction of bivalent RDT in 2013, the diagnosis through RDTs is increased to 50% of total population to be screened (fever cases) especially to reach out to far flung areas with limited access to microscopy].</li> <li>Treating all <i>P. falciparum</i> cases with full course of effective ACT and primaquine and all <i>P. vivax</i> cases with 3 days chloroquine and 14 days primaquine.</li> <li>Equipping all health Institutions (Up to PHC level) with microscopy facility and RDT for emergency use and injectable artemisinin derivatives especially in high-risk areas.</li> <li>Strengthening all District and Sub-District hospitals as per IPHS with facilities for management of severe malaria cases in malaria endemic areas.</li> </ul> <p>Impact Indicators</p> <ul style="list-style-type: none"> <li>To bring down annual incidence of malaria cases to less than 1 per 1000 population at national level by 2017.</li> <li>At least 50% reduction in mortality due to malaria by the year 2017.</li> </ul> <p>Outcome Indicators</p> <ul style="list-style-type: none"> <li>At least 80% of those suffering from malaria get correct and appropriate treatment within 24 hours of reporting to the health system, by the year 2017.</li> <li>At least 80% of those at high risk of malaria get protected by effective preventive measures such as ITNs/LLINs or IRS by 2017.</li> <li>At least 10% of the population in the high-risk area is surveyed under surveillance system annually (Annual Blood Examination Rate &gt;10%).</li> </ul> <p><b>Categorized strategic interventions for achieving pre-elimination status:</b></p> <p>The strategy adopted during XI FY Plan period was for malaria control. There are many states in the country which are having very low incidence of malaria. Considering the possibility of shrinking the map of malaria and the feasibility of malaria elimination defined as no indigenous transmission, it is</p>

<sup>6</sup>Countries with high co-infection rates of HIV and TB must submit a TB and HIV concept note. Countries with high burden of TB/HIV are considered to have a high estimated TB/HIV incidence (in numbers) as well as high HIV positivity rate among people infected with TB.

proposed to change the focus of strategies based on endemicity level under the XII FY Plan. This would facilitate in achieving long term goal of elimination. This necessitates the stratification of states based on incidence as to decide and execute area specific intervention. This would lead to reduction of incidence in high endemic areas and sustain reduction in low endemic areas which would pave the way to enter the country into “Pre-elimination stage”. To reach “Pre-elimination stage”, entire country would of course, require adequate inputs in terms of technical, logistic and financial support. Accordingly, the states have been stratified in three categories that is approved by the Technical Advisory Committee (TAC) for the programme and included in the NSP 2012-17. Following broad strategies for different categories as in the NSP 2012-17 are presented below:

Category	Strategies
<b>Category 1 :</b> States with API less than one, and all the districts in the state with API less than one	<ul style="list-style-type: none"> <li>• Case based Quality surveillance with focus on active, passive and sentinel surveillance</li> <li>• Integrated Vector Management (IVM) by involvement of Village Health and Sanitation Committees, other PRIs and MNREGA schemes</li> <li>• Supportive interventions including IEC and BCC activities</li> </ul>
<b>Category 2 :</b> States with API less than one and few districts reporting API more than one	<ul style="list-style-type: none"> <li>• Epidemiological Surveillance and Disease Management (3 Ts—Test, Treat and Track)</li> <li>• Screening of migrants in these areas</li> <li>• Integrated Vector Management (IVM) by source reduction through minor engineering, environmental management and focal spray</li> <li>• Supportive interventions including IEC and BCC activities with the involvement of private health care providers, community involvement and NGOs</li> </ul>
<b>Category 3 :</b> States with API more than 1	<ul style="list-style-type: none"> <li>• Epidemiological Surveillance and Disease Management: by EDCT</li> <li>• Management of severe malaria cases by strengthening of district and sub-district hospitals and quality referral services</li> <li>• Integrated Vector Management (IVM) by IRS and LLIN distribution so as to saturate the entire high risk population</li> <li>• Supportive interventions</li> </ul>

## The Core Interventions and Target Objectives

### Reducing Disease Burden and Mortality: Prevention (Insecticide Treated Mosquito Nets:

Objective: By March 2017, 80% of population in high-risk areas will sleep under an insecticide treated bed-net.

### Indoor Residual Spraying of Households

Objective: By March 2017, 85% of people living in households eligible for Indoor Residual Spraying will have their homes sprayed annually.

### Reducing Disease Burden and Mortality: Caring for the Sick (Accurate Diagnosis)

Objective: By March 2017, at least 80% of those suffering from malaria get correct, affordable and appropriate diagnosis within 24 hours of reporting to the health system.

### Prompt and Effective Treatment of Malaria

Objective: By March 2017, at least 80% of malaria patients in high-risk areas are receiving prompt and effective treatment according to the current drug policy within 24 hours of onset of symptoms.

### Effective Programme Management

NVBDCP will be strengthened as a technical support unit with prescribed responsibilities for overall coordination of the implementation of national malaria control efforts.

### Empowering Individuals and Communities

Achieving high coverage of effective interventions requires a well-functioning “close-to-client” health system that will ensure the delivery of high quality and technically sound services. In India, efforts at information dissemination and communication strategies for behavior change (BCC) show great promise. The Public Private Partnerships for involvement of the civil society in malaria control will be synergistically utilized.

### Commitment to Performance Monitoring and Impact Evaluation

Basic health information systems will be strengthened and new capacity will be developed for the collection, analysis, and timely dissemination of coverage and impact data, as well as developing new

knowledge through operations research.

The broad strategies are as under:

- **Epidemiological Surveillance and Disease Management:**
  - Early case detection by further strengthening the existing surveillance system and Involving private providers
  - Strengthening of referral services
  - Epidemic preparedness and rapid response
- **Integrated Vector Management**
  - Effective entomological surveillance
  - Source Reduction using minor engineering methods.
  - Biological control using larvivorous fish
  - Larvicides
  - Indoor Residual Spray in selected high risk areas
  - Insecticide Treated Nets(ITN)/ Long Lasting Insecticidal Nets (LLIN)
  - Implementation of legislative measures
- **Supportive Interventions:**
  - Behaviour Change Communication
  - Public Private Partnership(PPP) & Inter-sectoral convergence
  - Human Resource Development through capacity building
  - Operational research including studies on drug resistance and insecticide susceptibility
  - Logistic Management Information System (LMIS)
  - Monitoring and evaluation through periodic reviews/field visits and web based Management Information System

**The Strategic Plan for Malaria Control In India (2012-17) is appended as Annex.**

Going forward, the strategies would align with the post-MDG setting of the upcoming sustainable development goals that draw from the focus and efforts for the MDGs and that are being coined with an inclusive and transparent intergovernmental process with all stakeholders. The Outcome Document - Open Working Group on Sustainable Development Goals focuses to integrate economic, social and environmental aspects and recognize their inter-linkages in achieving sustainable development in all its dimensions. The Goal 3. Ensure healthy lives and promote well-being for all at all ages, envisages that, '3.3: By 2030 end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases'.

### **Implementation to date and lessons learned**

The achievements towards the goal of malaria control are presented in section 1.1.

**An overview of implementation to date for various program components is presented below.**

#### **Program component: Integrated Vector Management - LLINs, IRS, Larval control**

IVM is implemented involving:

- Scaling-up use of LLIN; treatment of community owned bed-nets;
- Entomological surveillance in sentinel and random sites at monthly intervals;
- Appropriate use of insecticides for supervised IRS with full support (including spray wages) from NVBDCP;
- Intensified anti-larval operations in urban and peri-urban areas within the states /districts;
- Scaling up use of larvivorous fish; and
- Promotion of source-reduction, minor engineering etc. by involvement of panchayati raj institutions at village level.

ITN/LLIN: LLINs have been introduced in the program for personal protection and to interrupt transmission. Significant scale up in LLIN coverage for population living in high risk areas has been achieved during 2010-2012. LLINs were distributed free of cost to all households @ 2 LLINs per household (with an average household size of 5 persons) in pre-identified villages with API>2 (as prioritized after micro-stratification). Further, for reaching the goal of Malaria pre-elimination by 2017 the country programme is changing the eligibility criteria for distribution of LLINs by changing it to areas having API>1 (with 1 LLIN per 1.8 persons).

The process of procurement of LLIN started in 2008 and the supply started in second half of year 2009. Till 2012, a total of 11.39 million LLINs (4.81 million from GFATM + 6.58 million from World

Bank) have been procured and distributed in the project districts. However, the procedural delays in procurement through GoI sources and prolonged discussions on procurement through GF's Pooled Procurement Mechanism or PPM, earlier known as Voluntary Pooled Procurement or VPP mechanism, led to commensurate delays affecting supply to the consignees and onwards to the peripheral level. This rendered moderate scale up in LLIN coverage and currently, the replacement nets are also due. In view of prolonged procedural delays and to cater to the need to scale up/replace LLINs with effective preventive tool, the process of procuring the LLINs through the Pooled Procurement Mechanism (erstwhile Voluntary Pooled Procurement-VPP) has recently progressed (registration process completed and funds have been earmarked). In addition, GoI mechanisms through CMSS/MSO would be considered too. The scaling up of LLINs is on priority and about 26 million LLINs are expected to be procured and distributed in next three years (upon progressive resolution of procurement bottleneck, and availability of funding). Post-distribution follow up at field level together with regular BCC activities are also being scaled up to ensure consistent and correct use of LLIN by the beneficiaries. The civil society supported by distributing LLINs mostly in relatively hard to reach areas and additional quantities would be distributed as and when LLINs are provided to them to date by State/District VBDCPs.

The NVBDCP is also promoting alternative and cost-effective vector control measures like Insecticide Treated Bed Nets (ITNs). Guidelines on use of bed nets have been developed and issued to States. 14.5 million community-owned bednets were treated in the community during the years 2005 to 2010. Schemes on bed net distribution and insecticide impregnation of community owned bed nets have been developed for involvement of NGOs / Faith Based Organizations /Community Based Organizations /Local Self-Governments.

Study on effectiveness of ITNs/LLINs is under way by NIMR and the results are expected in 2015.

IRS in selected high risk areas: Under integrated vector control initiative, IRS is implemented selectively only in high risk pockets as per sub-center wise micro plans. The Directorate issues technical Guidelines on IRS to the States. The unit for coverage of IRS in malaria is Sub-center and in Kala-azar is village. Over the years, there is a reduction in targeted population in view of paradigm shift to alternative vector control measures. The spray reports received from the states revealed that 85.54 million (68.31% of the targeted population) were covered with Indoor Residual Spray (IRS) during 2012. Spray coverage in 22 states was optimal as more than 70% of targeted population was covered by spray operation during 2012. Spray coverage of the population is being done by three insecticides: DDT, Malathion & Synthetic pyrethroid based on the susceptibility status. The entomological Zones continuously monitor the vector susceptibility. The Directorate of NVBDCP and States with the help of NIMR have carried out studies on vector susceptibility to insecticides in endemic states during the year 2009 to 2012. The prevalent vector species showed variable resistance to DDT and Malathion, while it was susceptible to Synthetic Pyrethroids in majority of cases.

Biological control using larvivorous fish: Biological larval control using larvivorous fish is feasible in certain ecotypes and settings and is propagated in these areas as supportive intervention to control the breeding. The source for supply of larvivorous fish, its applications and monitoring would be put in place.

Larvicides: The judicious use of currently used Temephos especially in urban areas. The use of chemical larvicide and bio-larvicides are monitored.

Source Reduction using minor engineering methods: Control of larval breeding is done to limit the transmission of the VBDs. Clearing the margins of water bodies, de-weeding to ensure proper water flow, and filling of small temporary water collections are done to limit the breeding with the active involvement of Village Health & Sanitation Committees. However, for large excavations and water bodies, technical guidance for prevention of mosquito breeding is provided to the agencies responsible for creating the mosquitogenic conditions.

Implementation of legislative measures: Civic by-laws exist for prevention and control of mosquitogenic conditions in a few states/ towns. State governments are encouraged to extend these by-laws to other towns/cities and implement them effectively.

#### **Program Component: Early diagnosis - (microscopy, RDTs)**

- Strengthening of active, passive and sentinel surveillance by providing additional Multi-purpose Workers (MPWs), Laboratory Technicians (LTs) and involving more village level volunteer – Accredited Social Health Activists (ASHAs,) General Practitioners, Private providers and medical practitioners of other health partners;
- Strengthening diagnosis by providing additional microscopes and scaling up use of RDTs (Bivalent RDT is introduced in the country from 2012). Diagnostic and treatment facilities are being strengthened by increasing the number of microscopy centers and capacity building of

technicians, scaling up use of RDTs and providing microscopes;

- Screening all fever cases suspected for malaria (60% through quality microscopy and 40% by RDT) [However, in view of introduction of bivalent RDT in 2013, the diagnosis through RDTs is increased to 50% of total population to be screened (fever cases) especially to reach out to far flung areas with limited access to microscopy];
- Equipping all health institutions (down to PHC level) with microscopy facility and RDT for emergency use, especially in high-risk areas

**Program Component: Prompt, complete and effective treatment – (non- severe and severe malaria)**

- Treating all confirmed *P. falciparum* cases with full course of effective ACT and primaquine and all confirmed *P. vivax* cases with 3 days chloroquine and 14 days primaquine;
- Currently SP-ACT (SulfadoxinePyremthamine+Artesunate) is used in the country. However, in NE states, where early indications for LTF have been noted, and ACT-AL (ArtemetherLumefantrine) has been introduced in 2014.<sup>7</sup> Four new ACTs have been registered in the country after local clinical trials to provide options for alternate drugs;
- Strengthening all district and sub-district hospitals as per IPHS with facilities for management of severe malaria cases in malaria endemic areas.

**Strengthening of referral services:**

- For rapid transportation of severe malaria cases to the nearest health facility, transport available under NHM is being used and if not available, programme supports transportation.
- Strengthening of referral centers by equipping them with requisite diagnostics and anti-malarials for management of severe malaria cases.
- Optimal utilization of life-saving support systems available under NHM.

The achievements against the targets for RDT use and ACT use were rather moderate for the NVBDCP and civil society PR too in view of procurement & supply chain constraints. With the receipt of ACT-AL from the WHO (emergency procurement in 2014); expected receipt of additional consignment from corporate sector (as part of corporate social responsibility) and progress in procurement process through GoI mechanisms like MSO/CMSS besides improving coordination between PRs, better achievement is expected.

It may be noted that RDT is used by trained peripheral health workers, ASHAs and CHVs in hard to reach areas where microscopy facility is not readily available and distribution of RDT is supply driven. However, diagnosis by microscopy at facilities is ongoing. As regards ACT, ACT-AL (four different age specific blisters), they have been introduced in 07 NE states, as mentioned above. Short shelf life of RDT and ACT (12-18 months) necessitates rational deployment at all distribution points. Although under the programme, involvement of ASHAs with provision of incentives for case detection and treatment was initiated in 2009, the roll out that involved identification of ASHAs and their capacity building was prolonged. With the introduction of revised performance incentives for ASHAs is a step towards their increasing participation.

The states are also advised to procure logistics for a buffer stock of 25% of their total technical requirements in year 1 of Phase 2 so as to maintain an un-interrupted supply at all levels of service delivery. However, in the northeastern region, all states could not procure the required stock of supplies due to various constraints.

The national programme has also progressed in the direction of procuring WHO pre-qualified products in the future in discussion with the WHO.<sup>8</sup> It is expected that through Phase 2, EDCT would be scaled up significantly together with strengthened logistics supply management, QA of RDT and microscopy, capacity building, BCC, regular supervision and monitoring in line with the current initiative of 'test, treat and track (T3)' being promulgated by the WHO. With this scenario, reaching out especially in areas with problems of accessibility would improve.

In addition, private sector is being trained on national guidelines towards ensuring rational treatment as well as piloting data reporting from the private clinics/sectors into the NVBDCP MIS.

<sup>7</sup>An outbreak occurred in Tripura in June 2014. As compared to 2013, wherein 7,396 cases and 7 deaths were reported, in 2014, the number jumped to 45,885 cases and 69 deaths (till 30<sup>th</sup> Nov 2014). Increased number of malaria cases was reported in Dhalai, Gomati and other districts. Nearly 50% cases and deaths were from first one-Dhalai district. Immediately, meetings of concerned state/district officials were held and action plan was made for containing the situation that included but did not limit to, setting up of Control Room at State HQ, active case search, organization of health camps, referral of serious cases to district hospitals, BCC and community mobilization, involvement of CSOs, etc. The situation was brought under control within 04 months. Currently, regular supervision and monitoring is being done to prevent further outbreaks.

<sup>8</sup> The WHO "emergency response to artemisinin resistance" (ERAR) describes a regional response to artemisinin resistance in the Greater Mekong Subregion... The containment of artemisinin resistance



**Program Component: Behaviour Change Communication**

- Establishing IEC/BCC Cell at Directorate of NVBDCP with a communication expert supported with media assistants;
- Development of strategy specific prototype materials and healthy public policy by hiring an agency;
- IEC/BCC activities through print and electronic media at national, state and regional level;
- Strengthening of IEC/BCC activities at grass-root level through inter-personal communication, folk media etc. for social mobilization towards acceptability of services provided under programme;
- Special campaigns during spray, distribution of LLINs and anti- malaria month; and
- Strengthening of service delivery through vulnerable community plan for marginalized sectors.

Overall, millions of people were reached through skits, drama, folk programmes, puppetry that disseminated messages on prevention, diagnosis and treatment, referral, etc. in local languages and dialects. In several hard to reach areas, community level meetings and people were consulted. This channel has been effective, along with miking, school activities.

**Program Component: Human Resource Development through capacity building**

- Providing additional HR like national, regional, state, zonal and district consultants, malaria technical supervisors at sub-district level, LTs and MPWs at PHC and sub-centre level respectively so that implementation of programme activities are carried out efficiently;
- Emphasizing that states create / fill up required positions at various levels;
- Continuation and revision of performance based incentives to the programme personnel and ASHAs /village level volunteers for higher motivation.
- Capacity building of trainers by involving medical colleges and apex institutions like NIH&FW for providing job-specific training to newly recruited personnel and reorientation of existing programme personnel.

**HR and technical and management assistance:** In order to sustain the progress made during the Phase1 and smooth scale up of interventions further, it is proposed to continue with the staffing pattern including the consultants at district level as well as further strengthen the work force by including experts from different fields. Although 258 Malaria Technical Supervisors (MTS) are in position(in NE states) to support all supervision and monitoring activities in the periphery, NVBDCP proposes to position 01 MTS per block in addition to other cadres like the Laboratory Technicians (LTs) (including those in Sentinel Sites). Project Management Units at Central, Regional & District levels of PR2 have been established and functioning including Field Supervisor (1 per 30-35 villages), yet insufficient in hard to reach areas.<sup>9</sup> The ASHAs are the important vehicle for implementation of national programmes at field level, complementing/supplementing MPWs with public sector in the field surveillance and EDCT. The ASHAs would continue to be given revised higher incentive for their performance. Although capacity building of ASHAs have been accelerated under Round 9 IMCP—II by both PR1 and PR2 with support from the State/District VBDCPs, others, the involvement of ASHAs is yet to be optimal. Re-trainings and further sensitization is needed to improve surveillance and EDCT. The PR2 has also recruited suitable staff (contractual) for their district, regional and central project management units. In addition, volunteers from local communities have been identified, capacitated and involved in surveillance, EDCT, scaling up preventive measures and more importantly, BCC and community mobilization.

**Trainings** are organized with in-built provision for knowledge and skills update in the light of technical advances and programme requirements. The trainings generally follow a cascading model with three main tiers: district level, where the emphasis is on specialist knowledge on malaria and its control; intermediate levels, where capacity for generic public health functions including planning, training, supervision and monitoring is required; and the service delivery level, where knowledge and skills for dealing with patients and managing small health care facilities are expected. For ASHAs, community health volunteers, MTSs, VBD consultants/project officers, etc. at district and sub district levels, who are new entrants, preference is given to their technical training related to respective job duties. Further, training of concerned personnel at State and national levels for efficient planning and management including supply chain management, as per new NVBDCP guidelines are conducted. Other ongoing training activities include: training course on NAMMIS for state and district level staff; training course on LQAS. The PR2 central, regional and district project management unit trainings have already concluded and project personnel and field supervisors were re-trained.

Capacity building of ASHAs/community health volunteers (CHVs) is a key activity of NVBDCP and PR2 since it remains extremely important that the service delivery by ASHA, CHVs (community workforce) in their own communities is optimized. The EDCT banks on these volunteers (community workforce) especially in hard to reach areas and to serve marginalized populations towards precluding suffering and severity as well as avert deaths and overcrowding of PHC/CHC. Their contribution also strengthens the pathway for overarching outcomes, e.g., maternal and child health, community organization and mobilization for ownership of health issues, etc. Subsequent to meetings/consultations with NVBDCP, State and District VBDCPs and within the consortium as well as conclusion of state-wise trainers' consultative meetings for planning, the trainings for ASHA/CHV were initiated and have been ongoing through Phase2.

Special focus is already given on improving capacity to analyze, interpret, and use data for decision making processes at all levels including the field. Apart from regular hands on orientation during supervision and monitoring visits, the review and planning meetings emphasizes on dedicated session on building capacity to analyze and interpret data for decision making process in the agenda.

As mentioned above, training of private health care service providers on national guidelines, formats has been initiated towards ensuring rational treatment as well as piloting data reporting from them onto the NVBDCP MIS.

### **Program Component: Monitoring and Evaluation**

- Periodic reviews/field visits and web based MIS with special emphasis on data quality through verification/validation;
  - The existing NAMMIS is being made fully functional by replacing all old computers and providing internet facility at district level;
  - Communication support is being provided i.e. computer/laptop and communication systems like data-card, internet, mobile, telephone etc. are provided to MIS staff as per their role;
  - Integration of reporting of core indicators with the NRHM –HMIS;
  - Establishing Sentinel Surveillance Sites (SSS) at districts and prominent hospitals to monitor the trends of disease morbidity and mortality;
  - Periodic review at all levels and programme evaluation at periodic intervals;
  - Positioning of consultants at national, state and district levels, VBD Technical supervisors at block level and data managers at district level;
  - Use of Lot Quality Assurance Sampling (LQAS) survey methodology at sub-district level for monitoring the implementation of programme and project activities; and
- Periodic population-based and facility-based surveys.

Logistic Management Information System (LMIS) is being improved too.

- Procurement division of NVBDCP is strengthened by recruiting a regular procurement specialist;
- Supply chain monitoring is done through a hired agency to ensure the availability of commodities up to PHC level.

Evidence-based research - Operational research including studies on drug resistance and insecticide susceptibility; other areas are being conducted and planned.

- Operational research studies are undertaken with the help of NIMR to monitor drug resistance, pharmacovigilance, quality assurance and insecticide resistance and effectiveness of LLINs, Practice and attitude of private practitioners (formal and informal);
  - Studies on vector bionomics and changes in their biting and resting behaviour; and
- Research would also be conducted for development of new tools and methods for vector control and other relevant issues.

An IMCP—II Project Steering Committee comprising both PRs, the SRs as members under the chairmanship of the Director, NVBDCP, has been constituted with specific Terms of Reference. The committee meets quarterly for review, oversight, guidance on IMCP—II implementation.

The QA for diagnosis (RDT and microscopy) has been established. An endeavour to establish a WHO recognized Laboratory for RDT QA at NIMR has already been initiated with support from the GF.

Both PRs follow one M&E system for technical (programmatic) reporting. The forms, other recording/reporting tools, supervisory checklists are integrated, standardized and/or a consensus has been reached between PRs regarding their use. These tools have also been translated (as required) and disseminated in their areas. The PR2 while sharing information on malaria cases/deaths, services coverage; example, LLIN distributed, RDT/ACT used, etc. in their catchment areas, with PHC/District/State and central levels, also generates relevant data related to PR2/SR performance indicators within the overall performance framework of the IMCP-II. Supervision and monitoring

are integral to M&E with focus on data verification/validation and building capacities of district/sub district personnel, volunteers. Further, with web and paper MIS, field level data flows for reporting, analysis and use for planning/decision making. Further strengthening of M&E systems is emphasized through Phase2 towards improved data quality and timeliness of data recording and reporting. Joint Regional Review Meetings (Quarterly) of both PRs, their SRs/SSRs, partner network are held apart from joint annual review and planning meetings. At state, district and sub district levels, monthly review and planning meetings are held to share progress, and discuss, resolve issues, bottlenecks.

As mentioned above, a major focus is on timely and quality data. Guidelines have been disseminated and periodic orientation/training is carried out. Due attention is given regarding:

- **Reliability:** Consistent data recording and reporting with standardized tools such as, forms, registers (emphasizing that data do not change according to who is recording/collecting and using them and when or how often they are used).
- **Accuracy:** Checks for accurate data that include but not limited to, ensuring that data reflect the reality (emphasizing on absence of data error at the time of recording/compilation/reporting at different levels).
- **Completeness:** Complete data collection in the reporting period/month from various reporting levels through review/analysis/checks, supervision and monitoring (emphasizing on inclusive, impartial recording/reporting at different levels).
- **Integrity:** Checks to exclude deliberate bias or manipulation in addition to maintenance of confidentiality according to national/international standards.
- **Precision:** Checks that data measure what is intended to be measured and have the necessary detail per instructions/guidelines (emphasizing on standardized forms and methods by trained personnel/volunteer).
- **Timeliness:** Regular review, supervision and monitoring emphasizes on timely data recording, reporting, compilation and analysis, feedback and use.

Data QA system underscores that data conform to the desired quality in terms of above-mentioned elements. Apart from data checking/cleaning during routine reporting (checking/correcting typos, digit/spelling errors, removing duplicates, incomplete, inconsistent and inaccurate data, etc.), data verification/validation (on sample basis) is an inherent component of supervision and monitoring by MTS, VBDC, DMOs, State/National levels, PR2 (monthly/quarterly). Any mistake/error in recording/reporting is looked into. Visiting a sample of beneficiaries/patients also form part of verification/validation of reports on services provided. Direct observation of data recording/reporting, including completion of MIS forms correctly/legibly, uploading on to the MIS (for PR2), etc. are done and being further improved. On the spot feedback is provided for mitigation. At regular intervals, on site data verification (OSDV) is carried out too by PRs to verify/validate the reported data from various reporting levels.

The NAMMIS+ that is being revamped would also have various in-built checks to guide the user if data entry errors are committed (the PR2 web based MIS already has such provision). This ensures that only valid entry is taken into consideration. Data entry made at a lower level (for example, district level) is verified at the higher level (for example, at state/central level) besides on site verification. Besides, such (external) reviewers as the LFA also verify the completeness and accuracy of the reported data from time to time.

The review and planning meetings are also used as platform to share data and discussing data quality issues for remedial actions.

#### **Program Component: Surveillance - Active, passive and sentinel surveillance**

- **Active surveillance:** in high risk areas through engaging all field level HWs under NHM.
- **Passive surveillance:** through health facilities and village level volunteers like ASHAs.
- **Sentinel surveillance:** Through one or two hospitals identified and made functional in high risk districts to monitor the trends of malaria morbidity and the mortality.

Malaria surveillance in India is currently based on slide and RDT results. Bi-valent RDTs have been introduced in Phase2 that would improve the situation. As per national programme guidelines, in the high endemic NE states, 15% of ABER (Annual Blood Examination Rate) is desirable, while in other areas, 10% ABER is to be maintained. Also, the reliance now is much more on passive case detection based on local services and community based structures.

Sentinel surveillance in order to capture trends on in-patient malaria cases, severe malaria, and malaria deaths is being strengthened. In each state, certain hospitals with in-patient facilities in public sector have already been identified for the purpose. With detection and reporting of cases, the transmission foci are expected to be identified for better targeting interventions. Fever alert

surveillance for malaria has already been integrated with the country's Integrated Disease Surveillance Program (IDSP). The alert communicated to medical officers at PHC level enables them to pay attention to weekly/monthly trends. To prevent or identify epidemics/outbreaks in their incipient stages and to prevent them from progressing into full-blown epidemics, local/field level capacity building is strengthened on early detection of signals including increase in fever rate and increase in severe malaria cases in the population (as identified and informed by health workers and community volunteers), increase in malaria incidence (as compared to the same month of previous year), increase in Total Positivity Rate, Pf%, proportion of gametocytes to other stages, increase in resistance, increase in malaria mortality.

**Program Component: Epidemic preparedness and rapid response - Outbreak/epidemic detection and response**

- Use of early warning system for detection of likely epidemic in coordination with IDSP.
- Strengthening of rapid response team in each district with financial support from NVBDCP.
- For tackling outbreaks, adequate stocks of antimalarials, diagnostics, insecticides etc. would be provided by earmarking 25 % buffer stock and 75% deployment reserve.

**Program Component: Public Private Partnership (PPP) and inter-sectoral convergence - Approaches to reach key populations and hard to reach areas**

- Improving outreach services through partnership with NGOs, FBOs, CBOs and local self-government (PRIs);
- Implementation of existing PPP Schemes of NVBDCP by earmarking separate budget;
- Advancing inter-sectoral convergence to involve various ministries like agriculture, urban development, education, information and broadcasting, tribal and social welfare, railways, surface transport, civil aviation, port health authorities and textiles etc. to ensure support and incorporation of health impact assessment component in the projects under respective ministries;
- Initiation of co-funding from the corporate sector.
- State level annual inter-sectoral meeting and district level quarterly meeting for sensitization.
- Vulnerable Community Plan being implemented in selected areas for reaching the population in remote, inaccessible, hilly, forest areas. This component includes community systems strengthening for ownership in the long-term.

**Coordination and partnership building:** Recognizing that the efforts of the public health authority cannot be strengthened without effective multi-sectoral collaboration, engagement with NGO/FBO/private health sector as well as with non-health ministries/departments is being expanded. Under the Round 9 grant through the association with PR2, the national programme is expanding partnerships with NGOs, FBOs, and self-help groups, church networks, etc. at central, state, local levels. Sustained advocacy is being emphasized towards creating an enabling environment for uptake/owning malaria control by the stakeholders, the community in their areas. Advocacy tools like reports describing project progress, success stories and best practices, etc. is prepared and disseminated. Preparation of newsletter on IMCP—II is in the process and is available in P8 of Phase1; and then would continue through Phase2, as per plan.

In 2007, Government of India (GoI) led the joint efforts to assess the impact of the programmes by key stakeholders through conduct of the first **Joint Monitoring Mission**(Annex5). Since 2007, prevention and control of vector borne diseases have not only observed updates and changes in the policies and strategies but also major changes in the overall health systems of India.

With the beginning of the Twelfth five-year plan (2012-2017) and nearing targets dates for elimination for some of the diseases, a review the progress of the NVBDCP for mid-term corrective measures conducted a **Joint Monitoring Mission** (in 2014) under the stewardship of the WHO. The objectives were to review the country's progress towards the malaria related MDGs, National Health Policy (2002), XI and XII FYP and NSP 2007-12 targets, technical policies in accordance with global policies and recommendations, impact of the NVBDCP strategies in terms of control, elimination and/or reduction in disease burden, and to advise the GoI and partners on the pathway towards achieving prevention and control of vector borne diseases integrated in the general health systems of the country. The recommendations have since been received and would be disseminated shortly and would be used for further consolidating the National Strategic Plan 2012-17 and its implementation. The JMM 2014 concurred with the overall malaria strategy noting that it is based on a correct combination of effective case management and anti-vector measures, differentiated and targeted according to the local epidemiological, entomological and operational situations. The JMM also noted that malaria surveillance, program logistics and communication are also essential elements of malaria control, which have been rightly emphasized (Annex6).

Salient recommendations were:

- In light of increasing Pf resistance to SP, replacing SP-ACT by an alternative quality assured ACT medicine in a phase manner. Attention has to be paid to the design of suitable packaging of co-formulated ACT blisters to respond to various end-users' profile.
- Malaria microscopy wherever available must be quality assured per WHO guidelines. All laboratory facilities must be properly equipped with trained staff for microscopy diagnosis. All district labs must be supported /supervised by a State level QA laboratory.
- Scaling up bivalent RDTs as the method of choice to diagnose malaria since they are reliable and easy to learn to use. This will require ambitious scaled-up, additional training and procedures to cross-check the quality of manufactured RDTs and while in the field in tropical conditions.
- PPP Guidelines exists but needs serious revision. Private providers might be engaged through training sessions and possibly provision of RDTs and ACTs including reporting.
- In rural areas, in general, either IRS or LLIN should be implemented with high coverage of interventions (>80%) in high risk areas (where API is >2). The choice depends mainly on operational factors, especially population acceptance. In very high burden areas (API>10) & special cases (epidemics), these two methods can be combined. In urban areas, anti-larval measures are generally main intervention. However, Inter-sectoral cooperation which is usually weak is rather essential.
- Strengthening of surveillance will improve program operations and impact.
- Feasibility of malaria elimination should be assessed in districts having API <1.
- Address HR challenges, each state has to finalize a human resource plan with clear TORs and managerial lines. Sustaining the workforce is essential.
- Ensure adequate and timely release of funds. Ensure capacity building in district and state for financial management.
- For the three key commodities – LLINs, drugs like ACT-AL and RDKs for each disease national level rate contracting with a number of suppliers with autonomy to states to either tender on their own, or use the national rate contracts, provided they keep to both timeliness and quality assurance parameters. In the event of challenges/delays in such rate contracting, may use GFATM (VPP) or UNICEF mechanisms as a transient procurement agency to keep the commodities in flow.
- Support and stewardship to ensure promotion of indigenous manufacture of quality goods both for public procurement and in private markets of LLINs, ACT-AL and bivalent RDKs.
- Advocacy and development of strategic advocacy materials for NVBDCP has to be integral part of NHM.
- Support operational research, and develop M&E to inform and direct IEC/BCC activities including piloting innovative approaches.
- Document achievements based on facts / best practices to inform / convince policy-makers/stakeholders.
- Ensure adequate mobility support for the program- including vehicles as appropriate- given the field and community intensive nature of monitoring that is required.
- Build data bases and capacity to analyse and use this information. Enhance use of LQAS for program management.
- Evaluate NAMMIS and make more functional and inter-operable IT systems, that is in tune with the institutional capacity at district and sub-district levels.
- Evaluation to be seen as part of operational research.

The above-mentioned aspects continue to be major challenges faced by the programme.

Timelines as being envisaged for phasing in salient JMM recommendations in the country including the 10 states are as under:

Action Points	Action Taken/to be taken
<b>Case Management, Laboratory Services, Drug Resistance and Policy</b>	
<ul style="list-style-type: none"> <li>• Considering the increasing risk of importation of artemisinin resistance from the Greater Mekong sub-region, it is time to initiate a policy decision to change to an alternative ACT, Dihydroartemisinin-piperaquine is a good candidate.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy decision to replace ACT-SP by ACT-AL has been taken. ACT-AL already introduced in 07 NE States. Further ACT change would be deliberated among group of technical experts.</li> </ul>
<ul style="list-style-type: none"> <li>• Scaling up bivalent RDTs as the method of choice to diagnose malaria since they are reliable and easy to learn to use. This will require ambitious scaled-up, additional training and procedures to cross-check the quality of manufactured RDTs and while in the field in tropical</li> </ul>	<ul style="list-style-type: none"> <li>• Already introduced.</li> <li>• Trainings being conducted for all levels and would conclude in 2015.</li> <li>• Procedures to cross-check the quality of manufactured RDTs being initiated.</li> </ul>

conditions.	
<ul style="list-style-type: none"> <li>Establishment of an adequate Quality Assurance system for malaria microscopy.</li> </ul>	<ul style="list-style-type: none"> <li>Laboratory network in the country with Apex, Regional &amp; State level referral labs being developed. In addition, involvement of IDSP/RNTCP laboratory network for QA of malaria microscopy being looked into.</li> <li>Establishment and maintenance of Slide Bank for training and reference for QA in process.</li> <li>Existing malaria microscopy QA guidelines/SOPs being revisited.</li> </ul>
<ul style="list-style-type: none"> <li>Biosafety guidelines be implemented as per SOPs.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of bio-safety guidelines as per SOPs is ensured.</li> </ul>
<b>Surveillance, Monitoring &amp; Evaluation</b>	
<ul style="list-style-type: none"> <li>Ensure full involvement of all health care providers (private, other sectors) in malaria risk areas in surveillance.</li> <li>Implementation needs to be well planned and phased and preceded by operational research on attitudes and interests of providers.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings being conducted with other central health sectors and state branches of professional bodies (IMA) to involve private sector. Capacity building of private health care service providers already initiated on national guidelines, formats towards ensuring rational treatment as well as piloting data reporting from them onto the NVBDCP MIS.</li> <li>Guidelines for diagnosis and case management provided to ensure adherence.</li> <li>Free diagnostics &amp; drugs may be provided after proper training/framing of guidelines. State shall provide reporting formats and ensure reporting.</li> </ul>
<ul style="list-style-type: none"> <li>An assessment of overall data management system (sources and consolidation of data) should be made to improve surveillance.</li> <li>States reporting an API of &lt;1 should consider declaring malaria a notifiable disease for case based surveillance.</li> <li>In an elimination context, strong surveillance according to WHO criteria is essential.</li> <li>One VBD Technical supervisor for each block; a revised curriculum should be developed.</li> </ul>	<ul style="list-style-type: none"> <li>Surveillance is being strengthened.</li> <li>The state have been categorized in 3 categories : <ul style="list-style-type: none"> <li>Cat.I: States with API&lt;1 in all districts</li> <li>Cat.II: States with API&lt;1 but few districts with API&gt;1.</li> <li>Cat.III: States with API&gt;1.</li> </ul> </li> <li>States having API&lt;1 shall start for case based surveillance.</li> <li>NFM concept note being submitted, proposing one VBDDT supervisor for each block. In 12th FYP also it is suggested, VBDDTS shall be gradually increased.</li> </ul>
<ul style="list-style-type: none"> <li>Mapping underserved areas with modern methods.</li> <li>Current forms and NAMMIS should be reviewed by the program in collaboration with information system experts. NAMMIS is now a relatively outdated and a platform closely integrated with the general HMIS promoted by NHM could correspond better to current demands.</li> </ul>	<ul style="list-style-type: none"> <li>MoHFW already considering tribal health as a special case; a committee has been formed and separate working groups identified for different diseases including malaria. A Tribal Malaria Action Plan is being prepared.</li> <li>NVBDCP is reviewing NAMMIS in collaboration with stakeholders to make NAMMIS plus with inclusion of all six VBDs with user friendly application. Trainings done in all 07 NE states for NAMMIS to ensure regular data entry. Integration with NHM is in process.</li> </ul>
<b>Operational Research</b>	
<p>Priority ORs:</p> <ul style="list-style-type: none"> <li>Practice and attitude of private practitioners (formal and informal)</li> <li>Development of cost-effective, replicable methodologies for inventorizing health service providers in a given area</li> </ul>	<ul style="list-style-type: none"> <li>NIMR undertaking OR regarding practice and attitude of private practitioners.</li> <li>Other ORs being looked into.</li> </ul>



<ul style="list-style-type: none"> <li>Economic evaluation of the interventions including case management by ASHAs</li> </ul>	
<b>Technical Assistance Needs</b>	
<ul style="list-style-type: none"> <li>International technical assistance is needed for microscopy QA and for guidelines for sub-national elimination.</li> <li>As for national professional officers, the priority would be a two person team to work on engagement of the private sector; one of these should be an expert in training and health education with experience in the involvement of private providers.</li> </ul>	<ul style="list-style-type: none"> <li>Already discussed with WHO.</li> </ul>
<b>Malaria Elimination - Strategy</b>	
<ul style="list-style-type: none"> <li>Feasibility analysis based on technical, operational and economic determinants to be done in 492 of 648 districts which have achieved API&lt;1.</li> <li>WHO's field manual and elimination surveillance guidelines should be adapted.</li> </ul>	<ul style="list-style-type: none"> <li>District level micro plan being prepared for elimination in identified districts having API&lt;1.</li> <li>Guidelines are prepared by NVBDCP in collaboration with the stakeholders including WHO and APMEN.</li> </ul>
<b>Human Resources</b>	
<ul style="list-style-type: none"> <li>In municipal corporations, there should be one entomologist for each zone.</li> <li>Clear career path for entomologists.</li> <li>Refresher training to LTs</li> </ul>	<ul style="list-style-type: none"> <li>Revival of entomologists is being done under the 12th FYP.</li> <li>Entomologists are appointed under the IDSP and Malaria projects and are part of the State RRT. Career path needs to be defined.</li> <li>Need based refresher trainings are organized by the state with the help of ROHFW.</li> </ul>
<b>Financing &amp; Finance Management</b>	
<ul style="list-style-type: none"> <li>Ensure adequate &amp; timely release of funds- preferably in a maximum of 2 instalments.</li> <li>Minimum no. of budget lines.</li> <li>Sub-budget lines are to be used only for justifying requirements and not for audit or expenditure statements as separate cost categories each of which needs to be adhered to.</li> <li>There should be flexibility within the envelope along with assurance of requisite outputs being ensured.</li> <li>Where fund flow is sub-optimal and utilization is affected, examine the causes and fix responsibility.</li> <li>Ensure capacity building in district and state for financial management.</li> </ul>	<ul style="list-style-type: none"> <li>Already existing at central level. From state to districts the funds are released as per the need of districts.</li> <li>Budget lines are as per NHM guidelines. However, the recommendation could be considered at the district level.</li> <li>All the concerned officials are given responsibility.</li> <li>Trainings are being conducted periodically. Already, training has been done in TALLY accounting software at State &amp; District Levels in NE states.</li> </ul>
<p><b>In addition, and importantly, a major gap is availability of resources commensurate with the requirements of the NSP 2012-17 for further intensifying control and realizing the vision of pre-elimination.</b></p> <p><b>National Health Strategy linkages:</b>  Malaria control is one of the priorities under NHM and has coordination and synergies in implementation with other programmes implemented through PHC approach. At the community level programme activities are delivered through multipurpose health workers and have shared values in related fields of training, job-orientations and responsibilities. The Ministry of Health &amp; Family Welfare's collaboration with other relevant ministries and organizations including NGOs and the private sector also subsumes efforts of prevention and control of VBDs. Internal coordination among programmes for mainstreaming gender, equity and value for the voices of the people living with diseases, is always emphasized. Wherever possible, other VBDs, HIV, TB programmes are considered for synergistic interventions along with malaria control interventions at various levels.</p>	

Priority health programmes and their interaction with malaria control (apart from the NHM umbrella) are:

- Integrated Disease Surveillance Program (IDSP) with weekly fever alerts is increasingly functional providing the earliest warning signal on malaria outbreaks.
- Tuberculosis and HIV/AIDS, by virtue of their priority and a common external funding source. Most of the malaria burden occurs in rural areas with little AIDS, but there is a geographical overlap in (a) certain major cities affected by urban malaria, e.g. Mumbai and Chennai, and (b) in the north-east among certain mobile populations.
- Dengue and malaria overlap in urban areas and in each of the cities so affected, chemical larval control is in fact applied with a dual purpose. More focally and to a lesser extent, there is overlap between malaria and kala-azar (e.g. in some districts in Jharkhand) and malaria and filariasis (some districts in Odisha). In these areas, malaria vector control contributes to reducing transmission of the other diseases.
- IMNCI is implemented in many rural areas; the malaria case management norms for some parts of the country have changed recently and these changes are being integrated with IMNCI.
- Malaria control guidelines are also implemented through ante-natal care services. Chemoprophylaxis with chloroquine has recently been withdrawn and ante-natal care services are involved in supply LLINs to pregnant women (which may no longer be needed, once the malaria control programme has achieved full coverage of eligible populations).

The paradigm shift due to epidemiological changes and the gradual shrinking of the malaria map in low transmission districts created the need for re-orientation of the malaria control programme towards pre-elimination of malaria in India. Hence, the **Malaria National Strategic Plan (2012-2017)** [Annex 4] has been formulated with the vision of pre-elimination. The existing Round 9 Phase 2 start date aligns with the NSP 2012-17 that remains relevant. However, with evolving epidemiology, certain addendum has been prepared. The addendum is also part of Annex 4.

**[This concept note remains aligned with the National Strategic Plan 2012-17 (Annex 4). The vision and mission, goals, objectives and strategies are cornerstones in preparation/prioritization of the details and modules].**

The **National Strategic Plan (2012–2017)** has been developed through a multi-stakeholder and multi-sector participatory approach and in line with recommendations from the Joint Monitoring Mission, programme evaluations. **The process included:** i) Desk reviews of documents, ii) multi-stakeholder consultation and internal meetings with experts, iii) SWOT analysis and gap analysis workshop, iv) Malaria Technical Advisory Committee meeting and v) inputs from expatriate and national experts. Finally, the Dte. GHS, GoI, has endorsed the malaria NSP 2012-2017.

## SECTION 2: FUNDING LANDSCAPE, ADDITIONALITY AND SUSTAINABILITY

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

### 2.1 Overall Funding Landscape for Upcoming Implementation Period

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

- a. The availability of funds for each program area and the source of such funding (government and/or donor). Highlight any program areas that are adequately resourced (and are therefore not included in the request to the Global Fund).
- b. How the proposed Global Fund investment has leveraged other donor resources.
- c. For program areas that have significant funding gaps, planned actions to address these gaps.

Currently, the funding landscape for malaria control in India include the following sources:

- GoI funding
- GFATM funding (current Phase 2 until September 2015)

In order to achieve the desired goals and objectives, financial commitment from the GoI has played and would play key role to ensure implementation of the NSP 2012-2017. The NVBDCP under the overall architecture of NHM is financed by domestic budget support (DBS) and external aided component (EAC). Under NHM, there has been an increase in financing on the disease control programmes from US\$ 135 million in 2007-08 to US\$ 181 million in 2009-10. The budget allocation for NVBDCP has also increased proportionally from US\$ 58.28 to US\$ 72.00 million during the same period.

The Global Fund funding to the country, have and would remain additional, yet critical for going forward and scaling up various interventions, including procurement of LLINs, pharmaceuticals and health products (PHPs) like RDTs, ACTs through the GoI's CMSS, MSO, or GF's PPM mechanism (earlier known as VPP mechanism). Co-funding opportunities from others would also be explored.

The requested funding (Allocation and Above) in the concept note as submitted by the India-CCM, would fit within the overall funding landscape, and it would be clearly highlighted how national government plans to commit increased resources to the national disease program and health sector each year.

As mentioned above, the Global Fund remains one of the key external resources. The systems and processes with the funding provision have been continually strengthened, and the scaling up for impact is being noted by the wider stakeholders as well as the GoI. Going forward, such outcomes are expected to be leveraged for mobilization of additional donor resources including foundations, corporate sector.

The effective interventions being applied currently with the GoI and especially the GF grant and achievement of desirable outcomes and impacts are also expected to be highlighted for requesting funding from the 'Above' piece too. The GF as well as other donors would thus, be provided an opportunity to partner in the journey for further intensifying control and ushering in the malaria pre-elimination in India.

Further, funding gap remains with respect to 'full expression of demand' (although the GoI funding is expected to be available for many interventions and contribute to counterpart financing apart from overall spending for infrastructure, health systems strengthening, etc.), i.e. such strategic interventions that would still require funding beyond the proposed concept note funding request (with funding under allocated/above categories) include: additional HR, procurement of insecticide for IRS, insecticide treatment of community owned bed nets, larvicides; further intensification of BCC and community outreach activities; additional capacity building, operational research and partnership building, etc.. These remain the unfunded quality demand, and for which additional donor investments would be required to further contribute to intensification of malaria control in the pathway to malaria pre-elimination to elimination. The GoI is taking initiative to mobilize resources from domestic as well as external sources (including the corporate sector/Foundations/others) leveraging the progress made towards impact. Corporate Social Responsibility (CSR) now (from fiscal 2014-15) mandates that corporates should spend 2 per cent of their profit on CSR in bringing out much greater inclusiveness with special focus on health promotion, skill development, water, sanitation, etc. in their local area of operations under the new Companies Act, 2013.

## 2.2 Counterpart Financing Requirements

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

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

Counterpart Financing Requirements	Compliant?	If not, provide a brief justification and planned actions
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i. Availability of reliable data to assess compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
ii. Minimum threshold government contribution to disease program (low income-5%, lower lower-middle income-20%, upper lower-middle income-40%, upper middle income-60%)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
iii. Increasing government contribution to disease program	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>b. Compared to previous years, what additional government investments are committed to the national programs in the next implementation period that counts towards accessing the willingness-to-pay allocation from the Global Fund. Clearly specify the interventions or activities that are expected to be financed by the additional government resources and indicate how realization of these commitments would be tracked and reported.</p> <p>c. Provide an assessment of the completeness and reliability of financial data reported, including any assumptions and caveats associated with the figures.</p>		
<p>Table1with financial gap analysis and counterpart financing providing details of the funding landscape for the malaria component is uploaded (a copy is available with the applicant).Past spending, as well as commitment under Twelfth FYP shows an overall increasing trend.</p> <p>India is in compliance with counterpart financing requirements of 20%. Reliable spending data is derived from the Budget Allocation Sheets of Dte. of NVBDCP that have specific line items, and captures government allocation to diseases. The country and NVBDCP has systems to track and routinely report spending by source of funding. In addition, the country has institutionalized systems including disease sub-accounts that support tracking of expenditure by source of funds and key services.The contribution of counterpart government resources to the national strategic plan as a share of total government and Global Fund financing (existing funding plus funding request within the country allocation) is 56%. The government share meets the minimum counterpartfinancing threshold of 20% for Lower-Lower Middle Income Countries.The contribution of counterpart government resources to the national strategic plan as a share of government and total Global Fund support requested is also 38% the government share meets the counterpart financing threshold of 20% for Lower-Lower Middle Income Countries).</p> <p>The interventions and activities by GoI would include: HR, procurement of pharmaceuticals and health products (RDTs, other laboratory supplies, LLINs), insecticides, capacity building and institutional strengthening, acquisition of assets, taxes and duties.In view of the counterpart financing share by the GoI and expected incremental budget for PR1-NVBDCP, the fulfillment of willingness to pay is met to access the full allocation (additional funding and existing funding). The financial data sources (as mentioned already) include, Budget Allocation Sheets of Dte. of NVBDCP (GoI) documents, WB sources.</p>		

### SECTION 3: FUNDING REQUEST TO THE GLOBAL FUND

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

### 3.1 Programmatic Gap Analysis

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

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

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

Key stakeholder discussions were held on prioritizing modules, interventions, activities, drawing from existing implementation experience and guidance by the GF, technical partners, etc.

The priority modules, 05 in number (per GF framework) in the concept note are as under:

- Case management
- Vector control
- Health Information System/M&E
- Health Workforce
- Programme Management

The programmatic gap table (Table 2) is uploaded (a copy is appended as **Annex**) with the concept note detailing the quantifiable program gap only for certain modules (viz. vector control: LLINs; case management: RDT, ACT). [Other interventions like microscopy, IRS that are supported through domestic resources are not included in the Programmatic table 2]. Overall, the coverage levels in Table 2 are consistent with the coverage levels shown in the modular template [Table 3 that is uploaded (a copy is appended as **Annex**)]. The programmatic gap analysis is focused on overall program coverage. The respective coverage indicators specified in Table 2 too are harmonized with those in Table 3-Modular Template (the modular template draws from budget for the period of October 2015 to December 2017, i.e. 27 months). It may be noted that in view of introduction of bivalent RDT in 2013, the diagnosis through RDTs is increased to 50% of total population to be screened (fever cases) especially to reach out to far flung areas with limited access to microscopy (although the NSP 2012-17 refers to 40% population to be screened by RDT).

For each priority module the following information is presented, the overall need, the proportion of need already being covered, and the proportion of the need that is proposed to be covered by Global Fund funds towards positioning all of the Global Fund financing (including existing funding, the allocated amount, and the request above the allocated amount) within the national coverage gaps identified. The details of the modules like Health & Community Workforce, programme management, HIS and M&E, are in the Table 3 only.

Overall, the program gaps have been estimated relating to the NSP 2012-17. Thereafter, the gaps have been disaggregated for: i) 07 NE states and Odisha (being proposed for funding under the 'Allocated' category and ii) 02 additional states, namely, Chhattisgarh and Jharkhand being proposed for funding under 'Above' or 'incentive' category (27 months). [It is proposed that the IMCP-II Phase 2 would continue for 07 NE states till September 2015 and funding commitment by the GF is expected to remain uninterrupted till the new phase is initiated]. In addition, funding would be provided through the GoI. Other sources (for specific interventions) would also be explored. However, funding gap remains (although GoI would continue to strive to meet the need) to meet the requirements of the NSP 2012-17. The GF may therefore, consider yet additional funding (beyond the Allocated and Above categories) in terms of the unfunded quality demand.

### 3.2 Applicant Funding Request

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

The funding request is sought towards fulfilling the desired vision and mission of malaria pre-elimination in India by 2017 as per NSP 2012-2017. The programmatic gaps, need to cover at risk and key populations with effective preventive and curative interventions in those areas of the country, where the intensity of transmission is the highest and the health care delivery system constraints are yet to be optimal; provided insights in developing this concept note and estimating the funding request for the next three years through 2017 towards further intensifying control and changing malaria landscape for pre-elimination. The implementation experience and challenges, bottlenecks, and the lessons learned; success stories, best practice models through IMCP-II, other projects/programmes, have been and would be a major cornerstone for way forward.

This concept note remains critical to meet the needs to ensure uninterrupted service delivery, to consolidate and sustain the gains & save lives, to address the risks and weaknesses, and to further strengthen/scale up the ongoing efforts with the GoI and GF investments towards universal coverage with effective interventions and advocacy, BCC, M&E, program management, etc. The Phase 2 would conclude in September 2015 [Phase 2 core elements being: Diagnosis, prompt, effective treatment; BCC: community outreach; HSS (Health Workforce/Service Delivery/Information systems-M&E); and Prevention: LLIN. Certain appropriate re-programming to assimilate the need based interventions have been/are being considered].

It is worth noting that the procedural delays in procurement and prolonged discussions on procurement of LLINs, WHO pre-qualified RDTs and ACT with Round 9 grant fund have been outstanding matter. This led to commensurate delays affecting supply to the consignees and onwards to the peripheral level. This rendered moderate scale up in early diagnosis and complete treatment as well as paucity of stock for service delivery. The objective of universal coverage by effective preventive tools (LLIN/ITN) was also not realized per set strategy and timelines (consequently affecting absorption of funds as procurement accounts for majority of the grant). [This is referred to in the TRP Overall Assessment of the Funding Request]. **However, following steps have since been taken and are planned by NVBDCP, GoI, for resolution of procurement of LLINs, WHO pre-qualified RDTs and ACT towards universal coverage and reaching out with uninterrupted service delivery.**

The states continue to be advised to procure logistics for a buffer stock of 25% of their total technical requirements so as to maintain un-interrupted supply at all levels of service delivery; although this process too has yet taken off only partially because of various constraints. In order to avert widespread stock out and uninterrupted service delivery, the NVBDCP procured bivalent RDTs and drugs (ACT-AL) through the WHO as 'emergency' procurement that stands supplied in 2014 for short-term. Supply of additional quantity of ACT-AL and Inj. Artesunate (for 6 months as the previous stock is expected to be over soon) by M/S Cipla Ltd. (same vendor through whom emergency procurement was done) is expected free of cost under Corporate Social Responsibility. In addition, further procurement of drugs and diagnostics through MSO is in process. Capacity assessment of MSO by GF's Local Fund Agent has concluded.

Recognizing the fact that resolution of PSM issue is extremely important, the GoI has progressed in considering the Global Fund's PPM mechanism (earlier known as VPP mechanism) for short-term, while the GoI's own mechanism of establishing a dedicated Department (Central Medical Supply Services-CMSS) for procurement and supply management under the aegis of MOH&FW is made functional from 2015 for the long-term. The CMSS would carry out centralized procurement for the entire Ministry towards uninterrupted supply of drugs, diagnostics and vector control tools at field level. Notably, procurement of 7.2 million LLINs through PPM (VPP) mechanism of GF at a total cost of USD 28.3 million has also been initiated (that would cover the entire requirement for NE states for 2015-17 as well as certain requirement for coverage of key populations). Other alternate mechanisms (multilateral/corporate channel mix, etc.) are also being explored. Going forward, PSM resolution would remain priority and CMSS/MSO channels besides others (as appropriate and agreeable by the GoI) are expected to be opted.

In addition to activating the most appropriate and fastest mechanism for procurement, the concept note factors upfront the immediate need for identifying and addressing supply chain related problems to ensure a robust SCM through commissioning of a suitable agency for the purpose,



relevant staff/TA and their trainings at various levels, tracking and supervisory mechanisms to revitalize a responsive system at sub-national levels especially focusing on district and sub district levels (capacitating those levels through 'bottom-up' approach for effective inventory management, distribution, LMIS, etc.). These interventions would also draw from the lessons learned and best practices. The support for accreditation of the NIMR as a WHO recognized lot testing facility for malaria diagnostic products and subsequent maintenance phase would also continue.

Further, it is well acknowledged that the efforts of the public health authority alone cannot be consolidated without effective multi-sectoral collaboration, engagement with civil society, the private sector (including the corporate sector), non-health ministry/department. Through the Round 9 grant, the association with PR2 in addition to the GoI's own health community workforce and others jointly facilitated expansion of partnerships with NGOs, FBOs, self-help groups, church networks, etc. in service delivery, community empowerment and ownership of malaria control as prime agenda especially to ensure adoption of right interventions at the right time. The focus is more concentrated in areas with problems of accessibility and other local socio-political constraints, leveraging the linkages within/across communities. Presently, advocacy efforts are ongoing for collaboration with the private sector/corporate sector (reports are appended as Annex 7 and 8) to achieve synergies on specific activities that would leverage the GoI and the GF investments as well as current and future CSR in health. Such efforts are expected to set a scene for harmonized contributions towards achievement of impact.

#### **Outline of rationale for funding request:**

- Overall, malaria situation in India (including the NE states and Odisha, Chhattisgarh, Jharkhand) for whom the funding is requested) is showing a progressive decline in total cases and deaths; yet achievements in malaria mortality and morbidity are very fragile (as noted in northeastern state of Tripura in 2014, where an outbreak occurred).<sup>10</sup> Reduction in malaria mortality and morbidity is achievable with regular interventions; yet, for pre-elimination and later elimination, sustained and more intensive efforts and resources are necessary; without which there is a possible risk of turning low endemic areas into high risk areas.
- Sustaining the gains made with GoI, GF and other donor investments and intensifying efforts towards pre-elimination status by 2017.
- Emergence of possible resistance to Artemisinin in view of the risk of possibility of importation of resistant parasite from neighbouring countries. The NE states share long international border with Myanmar, which experiences population movement. ACT resistance began to appear in western Cambodia and Myanmar in 2003-04. Notably, the first case of chloroquine resistance to *P. falciparum* in the country occurred in one of the NE states - Assam in 1973. Transmission of ACT-resistant malaria in the northeastern states and its eventual spread to other parts of the country pose a real threat. Inadequate quality assurance of pharmaceuticals and diagnostic products, relatively indiscriminate monotherapeutic use by private practitioners, etc. may also potentially contribute towards drug resistance and poor treatment outcomes. Tackling epidemiological challenges to delay/limit Artemisinin resistance remain priority (with commensurate strategies/actions per international frameworks, guidance<sup>11</sup>).
- Cross border cooperation remains minimal too and needs urgent attention.
- Insecticide resistance; etc. may influence the disease burden adversely, despite the best efforts.
- Need for ensuring rational treatment and reporting by private sector especially to preclude monotherapies and integrating the caseload being seen/managed by them.
- Surveillance data are largely from public sector. Hence, there is a need to collate & integrate data from different sectors. Data quality assurance and strengthened supervision & monitoring are required too.
- Hard-to-reach areas (forestation, geographic accessibility, climate) and high risk groups (example, tribal/ethnic groups, shifting (jhum) cultivators, migrant and mobile populations, etc. who are key populations) coupled with continuing socio-political challenges and diverse institutions, health seeking behaviour besides yet to be optimal health and community systems require urgent attention.

<sup>10</sup> An outbreak occurred in Tripura in June 2014. As compared to 2013, wherein 7,396 cases and 7 deaths were reported, in 2014, the number jumped to 45,885 cases and 69 deaths (till 30<sup>th</sup> Nov 2014). Increased number of malaria cases was reported in Dhalai, Gomati and other districts. Nearly 50% cases and deaths were from first one-Dhalai district. Immediately, meetings of concerned state/district officials were held and action plan was made for containing the situation that included but did not limit to, setting up of Control Room at State HQ, active case search, organization of health camps, referral of serious cases to district hospitals, BCC and community mobilization, involvement of CSOs, etc. The situation was brought under control within 04 months. Currently, regular supervision and monitoring is being done to prevent further outbreaks.

<sup>11</sup> The WHO "emergency response to artemisinin resistance" (ERAR) describes a regional response to artemisinin resistance in the Greater Mekong Subregion... The containment of artemisinin resistance will directly and strongly contribute to that endeavour by increasing awareness and political commitment, resulting in more funding from domestic and external sources, scaling-up of high-quality prevention and control activities that cover even difficult-to-reach populations, better collaboration between programmes and among sectors, better surveillance and tools and well coordinated cross-border activities for health and development more broadly. The approaches that are refined in current containment activities can then be used in elimination. WHO. 2013. Emergency response to artemisinin resistance in the Greater Mekong subregion: regional framework for action 2013-2015.

- Community-based service providers need to stay motivated for sustained quality service delivery as EDCT banks on them especially in hard to reach areas and to serve marginalized populations towards precluding suffering and severity as well as avert deaths and overcrowding of PHC/CHC. Their contribution also strengthens the pathway for overarching outcomes, e.g., maternal and child health, community organization and mobilization for ownership of health issues, etc. Community mobilization towards participation and ownership requires to be improved too. Involvement of CSOs needs to be expanded.
- Multi-sectoral (corporate, non-health sector, research/academia, etc.) collaboration needs to and would be strengthened including exploring co-funding opportunities (consultations stand already initiated and would be followed up).
- Resolution of the procurement and supply chain related issues; further strengthening of the health & community workforce, program management, supervision & monitoring, quality financial reporting and audit compliance, etc. remain priorities.

A concept note was submitted to the GF on 14<sup>th</sup> August 2014 together with other necessary documents. Comments from the GF's Technical Review Panel (TRP) were presented to the India-CCM in December 2014. Subsequently, it was decided that another iteration of concept note would be submitted in January 2015 after incorporating the TRP comments in discussion with the GF and relevant stakeholders.

**In this connection, it is worthwhile to mention the TRP Overall Assessment of the Funding Request (as submitted in August 2014) here.**

**“The TRP finds that the concept note justifies well the need for the allocated amount. Interventions proposed are aligned with the NSPMC 2012-2017 and on the whole are sound, feasible and would contribute to further decline of malaria in India within the time frame of the NSP. The technical expertise in the country for malaria control is high and the program has decades of experience. Insecticide and drug resistance monitoring are part of the program’s routine activities (although not specifically targeted to the states in this proposal). The program has massive capacity for routine malaria testing, especially using microscopy, although there has been a recent shift towards RDT. The concept note meets the focus of proposals requirement since it is targeted to states of highest risk, populations in poverty and underserved tribal groups. The activities build on previous efforts by the Global Fund and the World Bank.**

**The focus on seven northeastern states is justified due to their high burden but there are three central eastern states with even higher incidence. Therefore the addition of two of these states (Odisha and Chhattisgarh) originally covered by a World Bank credit is justified due to disease burden, problems of accessibility, ethnic diversity, and socio political challenges.**

**These areas comprise 10% of the country’s population but contribute 76% of *P. Falciparum* cases, 44% of total cases, and 54% of total deaths.**

**The TRP felt that there is a strong case for the central east state of Jharkhand to be included in addition to the seven northeastern states plus Odisha and Chhattisgarh (even though not budgeted for in this proposal) since Jharkhand has several high incidence districts and has similar needs to the other states included.**

**With the inclusion of 10 states plus potentially a few districts from other surrounding states, the concept note would fully describe the unmet quality demand. There is scope for further refinement of targeting to use high incidence districts within the selected states as the main unit of stratification.”**

**Whilst thanking the TRP for accepting justification for allocation funding request, this concept note has incorporated appropriate revisions relating to the TRP comments.**

Recognizing the limited allocation amount of USD 54.78 million of existing funding (from Phase 2 as of Jan. 1, 2014) an additional amount of USD 70 million has been allocated for malaria component by the India-CCM from the program split of the total additional funding allocated for the country (USD 465,415,759 under NFM for 2014-2016) because of the critical need for sustaining the gains in 07 NE states with the GoI & GF/other investments & further intensifying control in these states and in other high disease burden states as well as progressive resolution of procurement and supply chain impasse. With this, the applicant request has been disaggregated under ‘allocated’

(existing + additional allocation by India-CCM) [although that is still limited] and 'above' categories for 10 states in India. The expenditures since 1<sup>st</sup> January until 31<sup>st</sup> December 2014 as well as committed/expected expenditures until September 2015, i.e. in Phase2 (including USD 28.3 million for LLINs being procured through the GF's PPM) has been considered while preparing the funding request. While expecting that the GF would consider and approve the funding request, the budget may be required to be adjusted during grant negotiation in the event the committed/expected expenditures and/or savings (from Phase2) are on the higher or lower side.

Further, Although recommended by the TRP, strategy implementation per NSP 2012-17, would not be possible within the 'Allocation' for even 07 NE states as well as Odisha, Chhattisgarh, and Jharkhand, even if other remaining high disease burden states/districts are excluded (and in view of progressive resolution of procurement issues, etc.). Hence, the funding request in this concept note reflects interventions under both 'Allocation' as well as 'Above' categories.

As mentioned, this concept note proposes continuing the support in 07 northeastern states (as in the existing Phase2 grant) and 03 additional states, namely, Odisha, Chhattisgarh, and Jharkhand, in view of the disease burden, and problems of accessibility, ethnic diversity, and socio-political challenges. Together, the 07 NE states and Odisha and Chhattisgarh, Jharkhand have approx. 10% of country's population, yet contribute 76% of Pf cases, 44% of total cases and 54% of total deaths as described in Section 1. Detailed API wise analysis is also presented in section 1 and **Annex**.

The 'allocation' funding would be applied for prioritized and comprehensive intervention-mix in proposed 08 states (07 NE states and Odisha); and 'above' or incentive funding (if approved) in proposed 02 states (Chhattisgarh, Jharkhand) rather than through piecemeal approach (opting for only endemic districts) spread across states drawing from variable experiences of such implementation approach in erstwhile World Bank supported states/districts. It may be noted that malaria being a communicable disease, inclusion of only high endemic districts would not be feasible since those are in contiguity with low endemic districts. With relatively more attention on high endemic districts within a state, may result in flaring up of cases in low endemic areas as noted in WB supported project. Further, as the country is aiming at pre-elimination by 2017 towards elimination, selection of some districts and leaving others would not be considered as a right strategy as each case would need to be line listed together with application of appropriate interventions.

The interventions for existing Phase2 funded northeastern states and another state - Odisha are being proposed under the 'Allocated' category. The northeastern states would continue to be prioritized for interventions including various context-specific solutions, re-programming, etc. Funding request for Odisha (previously supported under the WB project till 2013), is requested too within 'Allocated' category since considerable impact could be realized in this state stemming from progressively improving ownership of malaria control at various levels of governance, health and community systems, M&E, coordination and partnership building across sectors, availing co-funding opportunities for piloting innovation, research, etc., which should continue to be sustained to stay on course towards greater achievements and presenting as a model to other states.

The interventions for the state of Chhattisgarh and Jharkhand, are proposed under 'Above' category in view of closure of World Bank support in 2013, whilst tremendous local constraints and modest & variable progress in malaria control domain and overall infrastructure setting remain immense challenges. The states contribute relatively high share of total cases and deaths to country burden (as compared other 06 states that have been receiving support under the WB project). With additional inputs, these states would be further encouraged towards realizing achievements as noted in Odisha.

Other endemic states/districts as mentioned in Section 1 and **Annex** as well as other overarching components as part of the 'full expression of demand' would remain 'quality demand' and would be covered under the DBS (in view of limited allocation amount); although additional HR, capacity building initiatives, M&E support as required for intensifying control efforts may remain as 'unmet quality demand' and negotiations/proposals may be submitted to the GF (and other possible donors).

**The GF is requested to positively consider the request for funding under the 'Allocated' as well as 'Above' category. Such consideration would present an opportunity to India to ensure application/scale up of required interventions to further intensify control and realize pre-elimination status as envisioned in the NSP 2012-2017 and to the GF (and other possible donors) to partner in the journey.**

This concept note reflects funding request for 27 months for the period 2015-2017 per various

stakeholder discussions.<sup>12</sup>

The total funding request under the allocated and above categories for 10 states (07 NE states and Odisha, Chhattisgarh and Jharkhand) is for the period of October 2015 to December 2017 for 27 months:

Funding request under 'Allocated' category: USD 90,372,099.  
[PR1-NVBDCP, GoI: USD 79,616,435 (88%) and PR2--Caritas India: USD 10,755,664 (12%)],

Funding request under 'Above' category: USD 93,438,483.  
[PR1-NVBDCP, GoI: USD 88,981,783 (95%) and PR2-Caritas India: USD 4,456,700 (5%)]

**Total funding request thus, works out to: USD 90,372,099 under 'Allocated' and USD 93,438,483 under 'Above' [a total of 168,598,218 for PR1-NVBDCP, GoI (92%) and 15,212,364 for PR2-Caritas India (8%)].**

It is expected that through 2017, EDCT would be scaled up significantly with strengthened procurement and supply chain management, QA of RDT and microscopy, intensifying capacity building, BCC, multi-sectoral and cross-border collaboration and targeted programming to reach key populations at risk; whilst overall health systems strengthening efforts continue. Micro-stratification would continue for strategic planning and ensuring equitable approach for effective malaria control. To support the quality of service delivery, higher levels of M&E support would be emphasized. The partnership between the PRs (GoI and PR2-Caritas India) have become stronger over Phase 2 and catalyzed complementary facet of government and non-government sector efforts by sharing responsibilities in prioritized areas. A major focus is/would be on re-emphasizing ownership of malaria control to sub national level entities, strengthening of community outreach programme to ensure participation of different stakeholders; and inter-sectoral coordination that is and would be major thrust area. The overall implementation is expected to progress well and gain momentum and such progress would further influence the trend of the disease and save lives; thereby maximizing impact and shaping tangible return on investments. Contrarily, without the interventions, negative influence on the disease burden may evolve having potential of turning low endemic areas into high endemic areas.

The 'Above' funding request would leverage the interventions to be applied/scaled up with allocated amount and domestic resources. If funding request under the 'Above' category remains unmet, then this 'unmet quality demand' would be funded through the GoI resources through strategic prioritization so as to preclude slowing down/limiting application of and scaling up interventions to further intensify control and putting the pathway to pre-elimination status at risk. Co-funding would also be explored from state governments as well as other donors, multi-lateral/bilateral/non-profit and corporate sector. Through the next few years, the GF too may consider provision of funding, if not available immediately at the initial stages of grant approval (in 2015-16).

In the event funding under 'Above' category is limited/staggered, in terms of prioritizing the interventions in the expanded geographical scope in Chhattisgarh and Jharkhand, LLIN procurement and distribution, scaling up RDTs, ACTs would be emphasized (for both PRs).

Further, funding for certain strategic interventions for the above-mentioned states, other endemic states as well as other overarching components, as mentioned previously, which remains unmet from the overall 'full expression of demand' as detailed in the NSP 2012-2017 and that would require funding beyond the above-mentioned funding request in this concept note (under allocated/above categories for 10 states) include: HR (except for contractual staff for NE states), infrastructure/equipment, procurement of insecticide for IRS in eligible areas for reducing local transmission; other vector control measures such as larviciding & environmental management/modifications; rejuvenating entomological teams for routine entomological monitoring/insecticide resistance monitoring, & related capacity building, insecticide treatment of community owned bed nets; further intensification of BCC and community outreach activities; advocacy and partnership building; additional capacity building; surveillance, M&E/MIS and operational research; quality assurance and quality control; pharmacovigilance; etc. These remain quality demand for these 10 states as well as other endemic areas, for which the GoI would utilize the domestic resources (as part of the counterpart financing apart from overall spending for infrastructure, health systems strengthening, etc.). Additional investments would be explored from external sources (including the GF) as well as corporate sector/Foundations as well, to leverage the

<sup>12</sup>In consultation with the GF as Phase 2 concludes in September 2015; may change during grant making process.

progress made (with GoI/GF investments) and supporting India in further intensifying control and moving forward to the pre-elimination status by 2017.<sup>13</sup>

**With this background, an overview of the funding request under 'Allocation' and 'Above' categories, in line with the Malaria NSP 2012-2017 is described below towards further intensifying control and aiming at pre-elimination.**

### **Goal**

To reduce malaria related morbidity and mortality by at least 50% in project areas (10 states) by 2017 as compared to 2012.

### **Objectives**

1. To achieve near universal coverage (80%) by 2017 by effective preventive intervention (LLIN) for population living in high risk project areas (API>1).
2. To achieve near universal coverage (80%) of fever cases by correct, affordable and appropriate parasitological diagnosis; and near universal coverage (80%) of malaria cases by prompt, effective treatment according to the national drug policy in project areas by 2017.
3. To achieve 100% coverage in project areas by 2017 by appropriate BCC activities to improve knowledge, awareness and responsive behaviour regarding effective preventive and curative malaria control interventions.
4. To strengthen surveillance and M&E, program planning and management, and coordination and partnership development to improve service delivery in project areas by 2017.
5. To strengthen health systems, community systems through capacity building (training) to improve service delivery in project areas by 2017.

**The priority modules, 05 in number** in this concept note (as mentioned below) are in line with the service delivery areas outlined in the NSP 2012-2017.

- Vector control
- Case management
- Health Information System/M&E
- Health and Community Workforce
- Programme Management

**Objective 1:** To achieve near universal coverage (80%) by 2017 by effective preventive intervention (LLIN) for population living in high risk project areas (API>1).

### **Module: Vector control**

#### **Interventions:**

- **Long-lasting insecticidal nets (LLIN) – Mass campaign**

LLINs would be distributed through mass campaign in endemic areas with API > 1 to reach 80% coverage by 2017 following the change in eligibility criteria of distribution of LLINs (per WHO guidelines) from household coverage to population coverage (@ 1.8 persons per LLIN). The campaign would prioritize protection of key populations/vulnerable sections, viz. jhum cultivators/seasonal/migrants<sup>14</sup>, etc., and pregnant women and children. The campaign and replacement would cover the entire targeted population with the involvement of ANM, AWW and other RCH and IMNCH field workers in addition to health system workers, non-government volunteers. If the coverage and utilization are proper, then LLINs provide excellent prevention from malaria along with other appropriate interventions. The entire requirement for 2015-17 for northeastern states (6,152,795) has been proposed to be procured through the GF's Pooled Procurement mechanism (PPM) [erstwhile known as VPP] [7,241,418 LLINs]. An additional 1.08 million LLINs would also be procured alongside and distributed to key populations viz. shifting cultivators; children from tribal/marginalized populations in residential schools; Armed and paramilitary posted in high endemic areas [pregnant women and children are inevitably covered during coverage of households]. LLIN procurement would be done by PR1-NVBDCP. The distribution would be done by PR1-NVBDCP (90% of total) and PR2-Caritas India led NGO consortium (10% of total that would be received at District level). Staggered supply to consignees may also be considered in view of the difficult terrain, variable storage facilities and other local

<sup>13</sup> Although any unusual epidemiological situation or any interruption in programme implementation due to unforeseen factors may possibly change the scenario.

<sup>14</sup> As already mentioned, the WHO is finalizing the 'Protocol for Situation Analysis of Health System focusing on Malaria Control and Elimination in Border Districts of Bangladesh, Bhutan, India, Myanmar and Nepal' that would attempt to define the key populations and appropriate strategy, including the mobile/migrant populations, especially in border areas.

constraints. Implementation approach includes enumeration of households/population, planning and coordination between PRs and SRs, SSRs, local stakeholders, arranging logistics, warehousing (for PR2, temporary storage per requirements only), distribution, communication, training, recording/reporting, supervision & monitoring, etc. The requirement for 80% coverage (1,164,043) of Odisha is proposed with **allocated** amount. Funding request under '**Above**' category is proposed for LLINs for Chhattisgarh and Jharkhand (21,217,206) [as allocated funding is limited]. The LLINs for replacement in all states, the procurement would be done by CMSS, MSO or even through GF's PPM/corporate sector (as appropriate and agreeable by GoI/GF/concerned partner).

[Overarching IEC/BCC activities that would ensure correct and regular use of LLINs by translating increased ownership to use to achieve universal coverage for personal protection and reducing risk of malaria transmission, etc., and operational researches related to this intervention are described under 'case management' and Health Information Systems and M&E modules].

### **Objective 2:**

To achieve near universal coverage (80%) of fever cases by correct, affordable and appropriate parasitological diagnosis; and near universal coverage (80%) of malaria cases by prompt, effective treatment according to the national drug policy in project areas by 2017.

### **Objective 3:**

To achieve 100% coverage in project areas by 2017 by appropriate BCC activities to improve knowledge, awareness and responsive behaviour regarding effective preventive and curative malaria control interventions.

## **Module: Case management**

### **Interventions:**

#### **• Facility (and Community) based Treatment**

In order to ensure access to early and complete treatment, this intervention is selected. Includes 100% case detection and confirmation by Rapid Diagnostic Tests (RDTs), complete treatment of cases with appropriate anti-malaria drugs per national guidelines (ACT-AL for Pf cases) as well as management of severe and complicated malaria cases with timely procurement of RDTs, ACTs and other antimalarials (including inj. Artesunate) through the MSO/CMSS/GFATM PPM mechanism/alternate mechanism. For RDTs, ACT-AL, 25% buffer has been included. In addition, additional quantities of ACT-AL, i.e. 75% of requirements are also included as deployment reserve for providing to key service delivery points in a staggered manner and per local need in hard to reach areas including border areas facing constraints relating to regular replenishment for uninterrupted services. It is expected that the buffer and deployment reserve would be used before expiry. Procurement/supply is proposed to be done in such a manner, so as to minimize the wastage of ACTs. Much of the replenishment stock would be kept at the district/state/block levels on the basis of total Pf cases expected to be treated in a year. However, the effective shelf life of ACT-AL is only 18 months, and hence, certain percentage of wastage of the anti-malarials may be unavoidable in spite of best procurement and supply chain management methods. Likewise, the reserve for Inj. Artesunate is requested as 50% of total to cater to emergencies.

These interventions for northeastern states and Odisha are requested with the **allocated** amount (RDTs with buffer – 16,735,207; ACTs with buffer and deployment reserve – 714,505; Inj. Artesunate with buffer and emergency reserve – 66,101). For Chhattisgarh and Jharkhand, the interventions (RDTs with buffer – 9,221,077; ACTs with buffer and deployment reserve – 333,823; Inj. Artesunate with buffer and emergency reserve – 29,210) are proposed under '**Above**' category (10% of the total RDT and ACT would be provided to PR2). Through 2017, RDT and ACT forecasting would be appropriately conducted based on service delivery point needs. Furthermore, strengthening of existing laboratory with equipment (microscope), maintenance, etc. is envisaged for northeastern states with '**Allocated**' amount (requirements for other states would be supported with domestic resources).

#### **• Therapeutic Efficacy Studies (TES)**

Monitoring of therapeutic efficacy of recommended antimalarials (AL) for treatment of Pf cases would continue (in line with GPARC guidelines). The TES would be conducted in selected sites following the WHO protocol and expected to generate data on efficacy of recommended ACT-AL, thus, ensuring evidence-based treatment and constant watch on Artemisinin resistance. The package would include trainings and information dissemination, etc. too and would be implemented through the National Institute of Malaria Research (NIMR), a premier institution of the Indian Council of Medical Research (ICMR), GoI. The funding is requested from the **allocated** amount.

- **IEC/BCC.**

The entire package (overarching for case management, vector control modules) would comprise development and dissemination of appropriate IEC/BCC, advocacy materials/kits aligned to local socio-cultural norms and practices of the target audience; sensitization and mobilization events targeting the policy and decision makers and key players for sustained commitment and ownership at various levels. Mid-media campaigns, especially through infotainment, public announcements, in addition to community consultations would continue and expanded to include wall paintings per local demand. The community consultations particularly would focus on orientation/sensitization of opinion leaders, Village Health, Nutrition and Sanitation Committee, tribal/village headman/woman, SHGs at village level as well as non-health sectors, local governments (Panchayat, tribal councils), etc. towards community level linkages, collaboration and coordination for EDCT, adoption of responsive behaviour regarding personal protection, environmental management.

In addition, school-based initiatives being critical in creating change agents in the short- to long term, various programmes would continue. Child-to-Child communication for dissemination of messages has proven impact in fostering knowledge and awareness and responsive behaviour. Further visibility of the programme and inter-sectoral advocacy through events like World Malaria Day, etc. would continue as major thrust areas.

Even though IEC/BCC must be intensified further and include other channels, the funding is requested under limited '**Allocated**' as well as '**Above**' categories.

While the **allocated** amount would be required to continue the current activities [infotainment, miking (public announcements), community consultations, school programmes, etc.] and additional local mid-media activities, viz. wall paintings, in northeastern states and Odisha; similar activities in Chhattisgarh and Jharkhand are proposed under '**Above**' category (although priority). The package of activities would be locale- and context-specific and emphasis would be on targeting key populations through appropriate channel-mix, as being done already by states and PR2.

Further, additional designing, translation and printing of materials (local- and context-specific) for all 10 states are also proposed under **above** category, in view of critical need for complementarity with various BCC activities and since funding is limited under 'Allocated' (similar activity is in the process in Phase2 and replenishment would be essential later). Under the WB supported project, IEC/BCC materials have been developed; which would be translated in various languages per need.

[Evidence generation regarding effectiveness of IEC/BCC methods as well as behaviour change is proposed under the HIS and M&E module].

[If the savings from Phase2 and/or the funding request are not as per the expectation, then IEC/BCC activities would remain as 'quality demand' and would be carried out upon exploring additional resources from the GoI, other sources including possible co-funding from the corporate sector, national/international Foundations, Bilateral/Multilateral or even from the Global Fund (from savings/any additional replenishment at their end)].

- **Other**

As mentioned already, it remains extremely important that the service delivery by ASHA, CHVs (community workforce) in their own communities is optimized. The EDCT banks on these volunteers (community workforce) especially in hard to reach areas and to serve marginalized populations towards precluding suffering and severity as well as avert deaths and overcrowding of PHC/CHC. Their contribution also strengthens the pathway for overarching outcomes, e.g., maternal and child health, community organization and mobilization for ownership of health issues, etc. Therefore, their time and dedication for service delivery must be duly recognized with performance incentives.

Yet another critical need is village level health camps by a team of doctor, paramedic, etc. targeting hard to reach areas, which are proposed to ensure EDCT during transmission season in coordination with District VBDCPs, PHC/CHC, etc.

These activities are proposed under '**Allocated**' category in northeastern states and Odisha; and under '**Above**' category in Chhattisgarh and Jharkhand. The important activity related to QA of RDTs (Annex9) would be carried out through NIMR and is being requested under '**Allocated**' category.



Furthermore, necessary accessories for supporting CHVs (bag, storage box for medicines as well as weighing machine, thermometer, etc.) in service delivery to fever cases and malaria positive cases as well as easy recognition/branding are being requested with the funding under '**Allocated**' category as well. This would also contribute to further motivation of CHVs and their retention (accessories for ASHAs are funded through NHM).

- **Private sector case management (other)**

It is well-recognized that large section of the population in endemic areas continues to access such care; therefore, to ensure rational treatment per nationally recommended treatment guidelines and eventual case reporting, mapping and training of private sector care providers would continue. Customization of training modules would be carried out drawing from existing guidelines. For mapping, micro level information on various private providers of curative care for malaria, including pharmacists and drug vendors would continue to be gathered. Separate trainings would be undertaken for qualified and non-qualified practitioners. These activities are proposed under '**Allocated**' category in northeastern states; and under '**Above**' category in Chhattisgarh and Jharkhand. Going forward, collation of case reporting through NVBDCP reporting tools/forms is envisaged.

**Objective 4:** To strengthen surveillance and M&E, program planning and management, and coordination and partnership development to improve service delivery in project areas by 2017.

**Objective 5:** To strengthen health systems, community systems through capacity building (training) to improve service delivery in project areas by 2017.

### **Module: Health Information Systems and M&E**

#### **Interventions:**

- **Routine reporting**

Both PR1 and PR2 would continue follow one M&E system for program data recording/reporting (data recording, collection, processing, analysis and transformation into strategic information for use). Maintenance/strengthening of MIS/LMIS (with standardized data collection and reporting tools) for routine data collection, recording and reporting are and would continue to be extremely important. Related web-based/electronic system to support data reporting from all levels; training; recording/reporting forms and tools; data quality assessment and validation including supervisory visit, periodic performance review at various levels, on site data verification, rapid services quality assessment, etc. would continue to further strengthen correct, complete & timely data reporting by implementing locally appropriate Internet and web-based/paper based systems, etc. and by using information for strategic planning/decision-making. LMIS would especially track LLIN, RDT and ACT through the districts and to the distribution points and ensure optimal utilization and uninterrupted service delivery. An agency with expertise in supply management would be commissioned (described under 'Program Management' module) to analyze such data and build capacities at all levels. In addition, sentinel surveillance (reporting on in-patient malaria cases, severe malaria, and malaria deaths) through health institutions with in-patient facilities in public sector at district level would continue and recognition of inputs by staff for the purpose would be ensured in addition to their training/re-training. As mentioned above, collation of case reporting in NVBDCP reporting tools/forms is also envisaged.

Supportive supervision and monitoring using standardized checklists would continue to carry out process evaluation; to assess, motivate and guide volunteers/personnel; to strengthen/sustain knowledge and skills; and to provide feedback in relation to quality delivery of services as well as financial and logistics matters. The visits include: direct observation method, desk review of records and registers, feedback received from various reporting levels, and patient/community/care provider interview, as appropriate (OSDV would continue as one of the key mechanisms). At regular intervals, few households are visited and/or community discussions are organized at village level. Previous supervision and monitoring reports are scanned for getting an overview of field level situation and gauging improvements, actions taken, etc. The bottlenecks and gaps observed during the visit are noted and solutions/feedback (as feasible) are provided on the spot or within an agreed time period. As mentioned in section 1.2, a major focus is on data quality as well as hands on orientation on analysis/interpretation of data.

It is well-recognized and often deliberated that routine reporting, supervisory visits, etc. remain severely constrained with regard to very limited mobility support. Provision of hiring of vehicles exists within Phase 2 budget. However, such provision remains quite insufficient. In many areas in northeastern states as well as Odisha & Chhattisgarh, available vehicles can only be hired at very high costs and because of limited number versus high demand, when needed, and often the visits are compelled to be scheduled/re-scheduled, which hampers ready support to

supervisees/feedback, etc. Each level, right from the district to state to central levels is critically in need of mobility support. Therefore, vehicles (and POL) drawing from the urgent felt-need are requested and the Global Fund is appealed to consider and weigh this request from the perspective of greater impact on investments. The scenario presented here is true for PR2 as well. Provision for necessary travel for PR2 for M&E, oversight, implementation, etc. is requested (vehicles are not proposed by PR2, although the need for bikes, POL, etc. at peripheral levels is critical). For the additional MTSSs, procurement & maintenance of bikes are proposed (as in Phase2).

The funding for these interventions for northeastern states and Odisha is proposed under **'Allocated'** amount; and the same ones for Chhattisgarh and Jharkhand is proposed under **'Above'** category.

[If the funding request is not as per the expectation, then mobility support, especially vehicles would remain as 'unfunded quality demand' and co-funding from the corporate sector, national/international Foundations, Bilateral/Multilateral would be explored or even from the Global Fund (from savings/any additional replenishment at their end at a later stage)].

As mentioned in section 1.2, routine reporting/supervision and monitoring would continue to focus on quality of data as an inherent component.

- **Analysis, review and transparency**

Analysis, interpretation and use of data and evidence generated through integrated program reviews, evaluation of the programme; development and dissemination of periodic reports; etc. would continue. All trainings/re-trainings would also continue to build capacities on data quality (correct, complete data) as well as analysis/interpretation, as necessary. Regional Review Meetings with participation by both PRs and their SRs, SSRs, other appropriate stakeholders, other periodic review meetings at state/district levels, would be carried out to assess the performance, deliberate on challenges and bottlenecks, needs. Whilst monthly review meeting with ASHAs and peripheral staff (Sub centre) would continue; quarterly review meeting at block/sector level by PR2 FS/DPMU is proposed for engaging with the CHVs periodically, which has been continually urged (especially to further strengthen data quality/responsive actions, PHPM, etc.). Such platforms would be used for additional orientation/sensitization of SRs, SSRs, ASHAs/FSs/CHVs. Innovation, best practices, success stories and lessons learned would also provide directions for course corrections, and arriving at a consensus regarding the most relevant and practicable solutions. Lot Quality Assurance Sampling (LQAS) would continue to be emphasized for decentralized measurement of outcomes (ITN/LLIN coverage and prompt diagnosis and effective treatment).

Identification of evolving research needs and generating evidence and database especially relating to Artemisinin resistance, effectiveness/efficiency of interventions, entomological monitoring, insecticide resistance monitoring, bio-efficacy of LLINs, malaria situation in migrant and mobile populations, treatment practices in private sector, BCC approaches as well as acceptability and effectiveness of vector control interventions (including net retention and use especially in ethnic groups/migrant & mobile populations), etc., are quite important. Analysis, interpretation and use of data and evidence generated through research, evaluation (including impact evaluation of civil society complementarity that remains imperative) for programmatic and policy decision, course correction, way forward, etc. would be emphasized. The funding for these interventions in northeastern states and Odisha; and research on selected important topics/issues, and evaluation that would cover all 10 states is proposed under **'Allocated'** amount; and the same ones for Chhattisgarh and Jharkhand (except research/evaluation) are proposed under **'Above'** category, although priority in view of limited funding under the former category.

- **Surveys**

Periodic program evaluation remains the foundation for guiding the programme policy, strategy and interventions. In addition, surveys/studies related to assessment of morbidity, mortality, service coverage and responsive behaviour, out-of-pocket expenditures, access barriers and specific needs, etc. in general population or key population would be conducted drawing from various survey designs (e.g. DHS, MICS and MIS). The funding for these interventions is proposed under **'Allocated'** amount although would cover all states per protocol and sampling requirement.

- **Other**

Ensuring data quality, timely data flow and feedback remain priority. In addition, documentation and dissemination of information products, viz. Annual Report, etc. are also required. Hence, TA (short-term) would be commissioned for the purpose. The funding is requested under **'Allocated'** category.

### **Module: Health and community workforce**

## **Interventions:**

- **Health and community workers capacity building**

Improving health workers' and community workers' knowledge and skills i.e. capacity in service delivery that includes pre- and in-service training with special emphasis on the intensifying control would be extremely important. All trainings/re-trainings follow a standardized curriculum that includes diagnosis & treatment, PHPM, recording/reporting, data analysis/interpretation and use, as appropriate for the respective levels. Updating and dissemination of training manuals would also be required. Funding for many trainings/re-trainings and related activities, viz., training of MTSs, LTs, MO of District Hospitals (Physicians, Paediatricians, Gynaecologists on severe malaria), and MO PHCs, ASHA/CHV, printing of manuals) is requested from the limited **allocated** amount for northeastern states and Odisha; while the same activities for Chhattisgarh and Jharkhand are proposed under '**Above**' category.

- **Scaling up health and community workers**

Expansion and scaling up skilled multi-disciplinary and competent workforce (MTSs, LTs) would continue to be priority and hence, funding for salary, etc. for northeastern states is requested from the **allocated** amount. The funding request is based on the current grant and the need for continuation especially to further strengthen/scale up the outreach programmes in the hard to reach areas. In other states, the same would be met by the GoI funding.

## **Module: Program management**

## **Interventions:**

- **Policy, planning, coordination and management**

As part of this intervention, multi-sectoral stakeholders consultation would discuss policy, strategies, implementation, program review and evidence, etc., for providing guidance on all aspects including going forward with further intensifying control towards pre-elimination agenda. Stakeholder consultations would be held especially involving the corporate sector, and other non-health sector, NGOs, Technical and Development (including the WHO and other multilateral and bilateral) agencies and research/academic institutions, and other agencies like Armed and paramilitary forces would aim at harmonized planning, budgeting/financing and programme implementation. This would serve as advocacy platforms towards building/strengthening partnerships to realize common goals, etc. Exchange of policy (including national drug policy, work place policy, etc.), guidelines, newsletters, etc. would be carried out. An Action Plan per common objectives would be prepared and followed up for co-funding/shared responsibilities. Meetings on deliberating strategies with core group involving experts, key players would also be emphasized. Malaria control in border and hard to reach areas would remain a priority agenda too.

In addition, training cum workshop in collaboration with professional bodies IMA & IAP towards building linkages with private practitioners is proposed. Already, the PR2 has initiated mapping and training of private healthcare service providers, which are reflected under the 'Case Management' module. Development of newsletters, other advocacy materials, etc. would be carried out for wider dissemination. The funding for these interventions for northeastern states and Odisha is proposed under '**Allocated**' amount; and the same ones for Chhattisgarh and Jharkhand is proposed under '**Above**' category.

- **Grant management**

Includes the Global Fund grant management related activities at PR/SR level, including but not limited to, development and submission of grant documents; development/strengthening of operational/action plans (OP)/budgets; Global Fund grant implementation and management; human resource for program, finance, procurement and administrative assistance, M&E assistance; etc. apart from office maintenance, and overheads. Lessons learned from the previous, ongoing program have reinforced that dedicated and capacitated HR must continue. Most of the HR would continue. Certain vital HR positions are requested too (some of these are being drawn from re-programming to strengthen the LSCM, financial management and MIS and overall project coordination and oversight). In addition, TA to NVBDCP would continue. Appropriate attention would also be on retention of skilled and well-performing professionals, in view of the highly competitive market and precluding any dissociation that would put the program continuity and more importantly the pre-elimination agenda at risk, although turnover remains a reality too.

All newly recruited and continuing consultants/staff (including Field Supervisors of PR2) would be trained/re-trained for further intensifying control towards pre-elimination would be emphasized. They would be equipped with necessary IT and office automation/storage support. Support for adequate work space at regional, state, district levels would be ensured for maximum motivation

and outputs.

Participation in International Seminar/Conference/Workshop would be central for cross-learning and coordination within/across national program, sub national authorities and with various other stakeholders in and outside the country. The funding for these interventions for northeastern states and Odisha is proposed under '**Allocated**' amount; and the same ones for Chhattisgarh and Jharkhand is proposed under '**Above**' category (except HR for PR1). The PR1 would provide funding for HR, institutional strengthening in all states through the domestic sources (which would also contribute to counterpart financing).

- **Supporting procurement and supply management**

Recognizing that the PSCM is the key element required to be further supported/augmented, a suitable agency with expertise would be commissioned by PR1-NVBDCP with '**Allocated**' funding. The ToRs would include, but not limited to, designing PSM plan, SOPs/guidelines, support tracking of commodities and judicious utilization, to ensure absence of stock out and uninterrupted service delivery even in the periphery, besides capacity building at central, state and district and sub district staff/volunteers.

**A summary of the funding request for the above-mentioned modules and interventions are presented in the beginning of this concept note.**

### 3.3 Modular Template

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

- Explain the rationale for the selection and prioritization of modules and interventions.
- Describe the expected impact and outcomes, referring to evidence of effectiveness of the interventions being proposed. Highlight the additional gain expected from the funding requested above the allocation amount.

The modular template (Table 3) is uploaded (also appended as **Annex**). The modular template includes budget for the period of October 2015 to December 2017, i.e. 27 months.

**Rationale:** The NSP 2012-2017, current and anticipated programmatic gaps and challenges, various program effectiveness and implementation experience (that contributed to achieving the desired outcomes and impacts), the JMM 2014, World Bank ICR 2014, etc., besides the current, allocated and expected resource envelope from the GoI and the GF sources, constituted the backdrop for selection and prioritization of 05 modules: viz. vector control, case management, health information system and M&E, health and community workforce, programme management as mentioned in section 3.2. The funding request for the selected modules and interventions is sought under both 'allocated' and the 'Above' categories, in view of limited allocated funding (as described in section 3.2). Many interventions would be supported by GoI and mobilizing additional resources through other possible funders would also be explored. Further, the GF may take note that the full expression of demand per NSP 2012-2017 requirements remain critical too for further intensifying control and moving forward to pre-elimination.

**An outline of prioritized modules and interventions with related performance indicators (output/coverage) under each objective are presented below:**

**Objective 1:** To achieve near universal coverage (80%) by 2017 by effective preventive intervention (LLIN) for population living in high risk project areas (API > 1).

#### **Module: Vector control**

**Interventions** (please refer to section 3.2 for rationale for selection and prioritization):

- Long-lasting insecticidal nets (LLIN) – Mass campaign (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)

Expected output/coverage:

- Number of long-lasting insecticidal nets distributed to at-risk populations through mass campaigns (for PR1 & PR2)

**Objective 2:** To achieve near universal coverage (80%) of fever cases by correct, affordable and appropriate parasitological diagnosis; and near universal coverage (80%) of malaria cases by prompt, effective treatment according to the national drug policy in project areas by 2017.

**Objective 3:** To achieve 100% coverage in project areas by 2017 by appropriate BCC activities to improve knowledge, awareness and responsive behaviour regarding effective preventive and curative malaria control interventions.

#### **Module: Case management**

**Interventions** (please refer to section 3.2 for rationale for selection and prioritization):

- Facility based Treatment (funding request under both 'Allocated' and 'Above' categories) (by PR1)
- TES (funding request under 'Allocated') (by PR1)
- IEC/BCC. (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)
- Other (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)

Expected output/coverage:

- Number of suspected malaria cases that receive a parasitological test-RDT (for PR1 & PR2)
- Number of confirmed malaria cases that received first-line antimalarial treatment according to national policy-ACT (for PR1 & PR2)
- Proportion of health facilities without stock-outs lasting >1 week of nationally recommended anti-malarial drugs at any time during the past three months (for PR1 & PR2)

- Number of infotainment activity conducted(for PR2)
- Number of miking activity conducted(for PR2)
- Number of people reached through community consultations(for PR2)
- Number of children reached through child-to-child communication in schools(for PR2)
- Number of health camps held(for PR2)
- Number of private health care service providers trained/re-trained on national malaria treatment guidelines (for PR2)

**Objective 4:** To strengthen surveillance and M&E, program planning and management, and coordination and partnership development to improve service delivery in project areas.

**Objective 5:** To strengthen health systems, community systems through capacity building (training) to improve service delivery in project areas.

### **Module: Health Information Systems and M&E**

**Interventions** (please refer to section 3.2 for rationale for selection and prioritization):

- Routine reporting (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)
- Analysis, review and transparency (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)
- Surveys (funding request under 'Allocated') (by PR1)
- Other (funding request under 'Allocated') (by PR2)

Expected output/coverage:

- Percentage of routine reporting units submitting timely reports according to national guidelines (for PR1 & PR2)
- Number of Regional Review Meeting held(for PR1)
- Number of PR1 State-District review meeting held (for PR1)
- Number of PR2 District review meeting held (for PR2)
- Number of PR2 sector meeting held (for PR2)
- Number of supervisory visit District VBDCP (malaria) Officers (programme/project) to periphery and report submitted to reporting authority (for PR1)
- Number of supervisory visits by District Project Officers/State Coordinators (PR2) to community level (village level) and report submitted to reporting authority (for PR2)

As mentioned in section 1.2 and 3.2, measuring data quality would continue be an inherent part of routine reporting, supervision and monitoring as well as review meetings. Hence, the indicators (o8 in number) as included under the module 'HIS and M&E', would report on quantity of units submitting reports, meetings, supervisory visits; yet data quality aspect would be inevitably dealt with. The indicator definitions, supervisory checklists by design have included and would include this component within a strengthened surveillance and M&E system. It may be noted that reports being submitted by various reporting levels are scrutinized and then accepted for estimating indicators and dissemination.

### **Module: Health and community workforce**

**Interventions**(please refer to section 3.2 for rationale for selection and prioritization):

- Health and community workers capacity building (funding request under both 'Allocated' and 'Above' categories) (by PR1 & PR2)
- Scaling up health and community workers (funding request under both 'Allocated' and 'Above' categories) (by PR1)

Expected output/coverage:

- Number of ASHAs/CHVs trained/re-trained (for PR1 & PR2)
- Number of laboratory technicians trained/re-trained (for PR1)
- Number of MTS trained/re-trained (for PR1)
- Number of MO trained/re-trained (for PR1)

All trainings/re-trainings follow a standardized curriculum that includes diagnosis & treatment, PHPM, recording/reporting, data analysis/interpretation and use, as appropriate for the respective levels.

### **Module: Program management**

**Interventions**(please refer to section 3.2 for rationale for selection and prioritization):

- Policy, planning, coordination and management (funding request under both ‘Allocated’ and ‘Above’ categories) (by PR1 & PR2)
- Grant management (funding request under both ‘Allocated’ and ‘Above’ categories) (by PR1 & PR2)
- Supporting procurement and supply management (funding request under ‘Allocated’) (by PR1)

Expected output/coverage:

- Number of DMOs, VBD consultants trained/re-trained (for PR1)
- Number of DPMUs (PR2)trained/re-trained (for PR2)

All trainings/re-trainingsfollow a standardized curriculum that includes diagnosis & treatment, PHPM, recording/reporting, data analysis/interpretation and use, as appropriate for the respective levels.

**Expected impact and outcome (relating to goals and objectives), are as under:**

**Expected impact:**

- Confirmed malaria cases (microscopy or RDT)per 1000 persons (API) per year (disaggregated by sex; age <5, 5+; species vivax, falciparum, others)declining by at least 50% [to 1.86 in 2017 from 4.05 in 2012 (baseline)] in 10 states.
- Number of confirmed malaria deaths declining by at least 50% [to 146in 2017 from 292 in 2012 (baseline)] in 10 states.

Impact indicator	2012	2015	2016	2017
Confirmed malaria cases per 1000 persons (API)	4.05	3.49	2.31	1.86
Number of confirmed malaria deaths	292	262	167	146

The above-mentioned impact in terms of confirmed malaria cases (microscopy or RDT) per 1000 persons per year and number of confirmed malaria deaths performance year have been estimated on the basis of the declining trend over past few years. The baseline & targets relate to 07 NE states and proposed 03 additional states, namely, Odisha, Chhattisgarh and Jharkhand.It is assumed that there would be decline of at least 50% by 2017 from baseline 2012 (drawn from previous trend and presented in Table 3: Modular Template that is uploaded in entirety) [2012 refers to initiation of NSP and XII FYP period; when goals, objectives, targets are worked out and against which achievements are seen].

It may be noted that the surveillance system for malaria in the country only captures the absolute number of deaths due to malaria (and not the overall number of death at facility level); therefore no percentage value is provided.

It is assumed that with intensifying efforts by PR1 and PR2 together with SRs, SSRs, and others for EDCT (introduction of adequate bi-valent RDTs for detection of both Pf and Pv cases and ACT-AL), distribution and adoption of LLINs/ITNs & other vector control methods, BCC, supervision & monitoring, trainings and continued motivation of ASHA/CHVs, and further strengthening of health & community systems, quality recording/reporting, and information use for strategic planning, etc. and especially with special emphasis on alleviation of procurement and supply management, etc. the targets would be achieved. The proposed interventions are also expected to result in less number of severe and complicated malaria cases and subsequent mortality. However, malaria being local and focal disease, wherein upsurges/outbreaks cannot be predicted and may change with any unusual epidemiological situation or any interruption in programme implementation due to unforeseen factors (as noted in Tripura in 2014).

**Expected outcome:**

- Proportion of population that slept under an insecticide-treated net the previous night (disaggregated by sex).
- Proportion of children under five years old who slept under an insecticide-treated net the previous night.
- Proportion of pregnant women who slept under an insecticide-treated net the previous night.
- Percentage of persons reporting fever within last two weeks, who have obtained a test result (RDT/microscopy) within 24 hours of reporting to health care system/provider.

Outcome Indicator	Baseline	2015	2016	2017
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1. Proportion of population that slept under an insecticide-treated net the previous night (disaggregated by sex)	75.5*	80	85	90
2. Proportion of children under five years old who slept under an insecticide-treated net the previous night	33.2*	50	75	90
3. Proportion of pregnant women who slept under an insecticide-treated net the previous night	29.8*	50	75	90
4. Percentage of persons reporting fever within last two weeks, who have obtained a test result (RDT/ microscopy) within 24 hours of reporting to health system/provider	14.5*	30	60	80

\* Provisional Figures (Final Report awaited)

*Baseline: Evaluation of Intensified Malaria Control Project-II. 2014. National Institute of Health and Family Welfare. MoHFW, GoI(Annex 10).*

The outcomes [targets for indicator ‘Proportion of population that slept under an insecticide-treated net the previous night (disaggregated by sex)’] are expected to be achieved with procurement & supply of LLINs (through PPM/GoI/alternate mechanisms), timely distribution and further inputs in health/community systems strengthening measures, IEC/BCC and community consultations to improve the knowledge and awareness about malaria, use of preventive measures. It is also assumed that further capacity building of health workforce/volunteers, acceleration of necessary supervision & monitoring/follow up would also contribute to achievement of the indicator.

The outcomes [targets for indicators ‘Proportion of children under five years old who slept under an insecticide-treated net the previous night’ and ‘Proportion of pregnant women who slept under an insecticide-treated net the previous night’] are expected to be achieved with procurement & supply of LLINs (through PPM/GoI/alternate mechanisms), a heightened focus on key populations and timely distribution of LLINs and further inputs in health/community systems strengthening measures, IEC/BCC and community consultations to improve the knowledge and awareness about malaria, use of preventive measures. It is also assumed that further capacity building health workforce/volunteers, acceleration of necessary supervision & monitoring/follow up would also contribute to achievement of the indicator.

The outcomes [targets for indicator ‘Percentage of persons reporting fever within last two weeks, who have obtained a test result (RDT/microscopy) within 24 hours of reporting to health care system/provider’] are expected to be achieved with reaching out with quality service delivery especially in hard to reach areas, procurement & supply of adequate RDTs, antimalarials, (through PPM/GoI/alternate mechanisms), a heightened focus on key populations and further inputs in health/community systems strengthening measures, IEC/BCC to improve the knowledge and awareness about malaria, appropriate health seeking behaviour, availability of services. It is also assumed that capacitated care providers (facilities/volunteers), further acceleration of necessary supervision & monitoring/follow up would also contribute to achievement of the indicator.

As already mentioned, commitment and commensurate intensification of control efforts and M&E, multi-sectoral partnerships yielded results so far, as demonstrated by existing impact/outcome indicators by overcoming challenges and more importantly envisioning the pre-elimination; although it may possibly change with any unusual epidemiological situation or any interruption in programme implementation due to unforeseen factors, for which preparedness would be emphasized.

The **impact** until 2013 (only 07 northeastern states) are presented below:

	Baseline (2010)	Achievement (Target)		
		2011	2012	2013
Confirmed malaria cases per 1000 persons (API)	3.82	2.49 (3.44)	1.80 (3.06)	1.53 (2.67)
Number of confirmed malaria deaths	290	162	113	119

*Note: Targets in ongoing Phase2 were set to decline by 30% from the baseline.*

Targets in ongoing Phase2 were set to decline by 30% from the baseline; whereas in this concept

note the target is set more ambitiously to decline by 50% from the baseline, although unusual epidemiological situation, etc. may influence the scenario. With judicious and scaling up intervention-mix, the goals as laid out in the concept note are expected to be achieved; although appropriate resources need to be pledged.

The **outcomes** (only 07 northeastern states) are being measured through the following indicators in Phase2.

- Percentage of households in high risk areas (API >2) with at least two LLINs
- Percentage of household residents who slept under LLIN the previous night
- Percentage of persons reporting fever within last two weeks, who have obtained a test result (RDT/ microscopy) within 24 hours following onset of fever
- Percentage of malaria (confirmed) hospital admissions among all hospital admissions in sentinel sites

Currently, survey is ongoing regarding the first three outcomes. The outcome for percentage of malaria (confirmed) hospital admissions among all hospital admissions in sentinel sites has been encouraging. In 2013, the result indicated 1.13% against the 2012 baseline recording 3%.

As mentioned, the funding under 'allocation' and 'above' (if granted) would be applied for comprehensive intervention-mix for proposed 10 states, rather than through piecemeal approach spread across states. Odisha has shown substantive progress over the last few years, which should be sustained to stay on course towards greater achievements & presenting as a model to other states like Chhattisgarh and Jharkhand.

The request for funding sought under the '**Above**' category is critical. It is appealed to the GF that the additional funding ('**Above**') would ensure application of and scaling up interventions in Chhattisgarh and Jharkhand, and impact by reducing the disease burden. Certain interventions for these 02 states and others as well as other overarching components that remain 'quality demand' would be funded through the GoI resources as well as possible co-funders. The GF may support too. This is to preclude the vision and mission of the NSP to be at risk of slow-down and provide opportunity to all for sustaining the gains with the investments and partnering in pre-elimination. The 'Above' request would leverage the interventions to be applied/scaled up with allocated amount and domestic resources.

The achievements of PR1 and PR2 in existing Phase2 (2012-14) against set targets are presented below against the proposed modules/interventions. The programme effectiveness has been modest on account of PSCM constraints as well as staggered inception phase for certain trainings, etc. Except those related to LLIN, RDT, ACT that remain affected by the delayed procurement scenario, other interventions/activities (IEC/BCC, trainings, M&E) have since been accelerated and improving scenario is noted. As mentioned above as well as in other sections, immediate solution to the procurement and supply challenges stand prioritized and GF's PPM or alternate GoI mechanism like MSO, CMSS (or even co-funding from others) are being pro-actively pursued. The achievements should be viewed in that context.

Indicator	Implementing entity	Target	Verified Result (2012-14)	Performance
<b>Module: Vector control Interventions:</b>				
• Long-lasting insecticidal nets (LLIN) – Mass campaign				
Number of LLINs distributed	PR1 & PR2	5,516,420	1,095,617	19.86
<b>Module: Case management</b>				
• Facility (and Community) based Treatment				
• IEC/BCC.				
• Other-CM				
Number of fever cases tested with RDT by ASHA, Public sector health facilities (Sub-centre, PHC, CHC, etc.) of PR1 and CHV, PHF of PR2	PR1 & PR2	6,015,505	2,086,991	34.69
Number of Pf cases treated with ACT at Public sector health facilities (Sub-centre, PHC, CHC, etc.) of PR1	PR1 & PR2	233,106	125,703	53.93
Number of infotainment activities conducted	PR2	12,737	10,804	84.82

Number of miking activity conducted in PR1 areas by PR1	PR1 & PR2	170,022	94,520	55.59
Number of people reached through community consultations (community message dissemination session)	PR2	254,740	243,308	95.51
<b>Module: Health and community workforce Interventions:</b>				
• Health and community workforce capacity building				
Number of ASHA/CHV trained on diagnosis and treatment	PR1 & PR2	29,661	58,772	198.15
Number of Malaria Technical Supervisor (MTS) trained/retrained by PR1	PR1	175	235	134.29
<b>Module: Health Information System and M&amp;E Interventions:</b>				
• Routine reporting				
No. of supervisory visit to district periphery in a quarter by district VBDCP (malaria) officers (programme/project) [PR1] and no. of supervisory visits made by DPO of PR2 and reports submitted	PR1 & PR2	5,160	13,310	257.95
<b>Module: Program management Interventions:</b>				
• Program management				
• Policy, planning, coordination, and management				
Number of DPMUs, FSs trained	PR2	223	220	98.65
Number of private health care service providers trained on national guidelines	PR2	9,250	3,175	34.32
[Certain additional interventions have been included in this concept note as well].				

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

**This question is not applicable for low-income countries.**

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

- a. If the applicant is a lower-middle-income country, describe how the funding request focuses at least 50 percent of the budget on underserved and key populations and/or highest-impact interventions.
- b. If the applicant is an upper-middle-income country, describe how the funding request focuses 100 percent of the budget on underserved and key populations and/or highest-impact interventions.

As per World Bank income category, India stands as 'lower' lower – middle income country ('Lower – LMI'). According to the guidelines of the Global Fund, at least 50 percent of the budget on underserved and key populations and/or highest-impact interventions.

The funding request meets the GF's eligibility and counterpart financing policy requirements for the Lower LMI country by ensuring the focus of more than 50 percent of the budget on underserved and key populations like rural, tribal population, women, children, as well as highest-impact interventions, 'vector control', 'case management', 'Health Information System and M&E' (...% of overall budget: ....% of 'Allocated' budget amount and ...% of the 'Above' budget amount). These interventions are expected to improve service delivery especially in hard to reach areas, amongst others in the path of pre-elimination and address the threat of possible emergence of Artemisinin resistance as well as other challenges.

## SECTION 4: IMPLEMENTATION ARRANGEMENTS AND RISK ASSESSMENT

### 4.1 Overview of Implementation Arrangements

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

- a. If applicable, the reason why the proposed implementation arrangement does not reflect a dual-track financing arrangement (i.e. both government and non-government sector Principal Recipient(s)).
- b. If more than one Principal Recipient is nominated, how coordination would occur between Principal Recipients.
- c. The type of sub-recipient management arrangements likely to be put into place and whether sub-recipients have been identified.
- d. How coordination would occur between each nominated Principal Recipient and its respective sub-recipients.
- e. How representatives of women's organizations, people living with the three diseases, and other key populations would actively participate in the implementation of this funding request.

As in the ongoing Phase2, the PR1 is the Economic Relations Division, Ministry of Finance, GoI that provides resource support to PR1-NVBDCP through MOHFW. The PR2 is Caritas India that leads a consortium of NGOs, FBOs, private sector. Under the NFM too, dual track financing would continue. The PR1 would be mainly responsible for policy & strategy, planning, procurement of health products/pharmaceuticals and supply to their SRs, SSRs and PR2, implementation, and M&E and review/oversight/evaluation of programme. The PR2 consortium would complement PR1 activities at community level in selected endemic districts (distribution of LLIN, diagnosis & treatment, BCC and community outreach, capacity building, supervision & monitoring).

The major modules/interventions would include: LLIN distribution; RDT/ACT use; BCC; training of health and community workers/volunteers and private sector care providers; M&E/MIS. Outline of PR1 and PR2 are presented below:

- Principal Recipient 1—PR1—NVBDCP: Policy & strategy, overall programme/grant management, oversight of and technical assistance to implementation of modules/interventions through SRs/SSRs/others, advocacy and coordination with stakeholders including non-health/private sector and research and academia, capacity building of personnel/consultants/ASHAs/others, oversight and M&E including national HMIS, surveys/evaluations, operational research, engagement with stakeholders, etc., reporting to GFATM/GoI, review and planning, etc. and additional resource mobilization. Procurement and supply of PHPs remain the responsibility of the PR1.  
Coverage: 170 districts in 10 states [07 NE states (89 districts) and Odisha (30 districts), Chhattisgarh (27 districts) and Jharkhand (24 districts)] covering 156.44 million population.
- Principal Recipient 2—PR2—Caritas India: In alignment with the PR1-NVBDCP, strategic planning, overall programme/grant management, oversight of implementation of modules/interventions through SRs/SSRs/others, advocacy and coordination, capacity building of personnel, M&E including reporting to GFATM, GoI/states, and joint review and planning, operational research, etc. and additional resource mobilization.  
Coverage: 12,000 villages in 51 districts in 10 states [07 NE states (6000 villages in 45 districts), Odisha (2000 villages in 2 districts), Chhattisgarh (2000 villages in 2 districts), and Jharkhand (2000 villages in 2 districts)] covering approx. 10% population.

In current Phase 2 implementation, PR1 has the state and district VBDCPs as SRs and SSRs. The PR2 has 10 SRs and 02 SSRs, who are partners in the journey, who have been and are being strengthened and capacitated over the years. Of these, 09 SRs and 02 SSRs are directly implementing the interventions at the grassroots. Under the NFM, the PRs would continue with the implementing SRs and SSRs drawing from the felt need, prioritization, available funding and efficiencies. The SRs/SSRs would be responsible for: implementation of modules/interventions (prevention, diagnosis and treatment), BCC, M&E/MIS, training, coordination, etc. In Odisha, Chhattisgarh, and Jharkhand, the PR2 proposes to select SRs from existing partner organizations in these states with community based presence and experience and already into implementation of development related interventions.

Ongoing coordination at all levels is the cornerstone of the GoI-NGO partnership as in Phase 2. Adequate planning and coordination mechanisms have been built into the project management structure, systems and processes for smooth functioning of inter dependent outputs/coverage and achievement of outcomes, impact. A well-defined and functional Project Steering Committee having members from the PRs under the chairmanship of Director NVBDCP, meets every quarter to discuss issues of coordination, bottlenecks in programme implementation activities and provide solutions. In addition, meetings at state/regional levels as well as district, PHC levels are also coordinated for addressing issues and arriving at locale- and context-specific- solutions to local implementation problems, recording and reporting, data quality, supply chain issues. Besides, the PRs regularly are in day-to-day communication, for seeking inputs and validating the policy guidance as well as discussing programmatic achievements, data integration, challenges and lessons learned.

Even the NSP 2012-2017 (and proposals/concept notes) have been prepared and currently being strengthened by the PRs together. The planning and would be carried out at the central level and each PR would disseminate the same plan to the regional, state and district and sub district levels for coordination at those levels.

At service delivery level, implementing health authorities at state, district and PHC level and SRs meet in meetings monthly/quarterly and review program performance and challenges for problem solving and develop action plan especially focusing on improving service delivery, procurement and supply management, supervision and monitoring, data quality and integration. Representatives from both PRs participate according to the need.

Between the SRs/SSRs of respective PRs too, coordination meetings are held on monthly/quarterly/annual basis per need, which is being further strengthened to evolve as a system.

The PR performance is also reviewed by the India-CCM. In addition, the PRs also interact with/consult the technical partners like the WHO.

All trainings are carried out under the overall guidance of the PR1-NVBDCP even those conducted by PR2. The training curriculum/materials is approved by NVBDCP. The resource persons are drawn from NVBDCP, State/District VBDCPs, CHCs/PHCs, NIH&FW, SIH&FW, NIMR, and relevant CSOs, etc.

Advocacy and BCC meetings with the people living in malaria endemic districts would continue. The community consultations conducted by the health workers mostly addresses the key population including women/girls and people affected with disease (who suffered and survived from malaria), agriculturists (including jhum cultivators)/forest workers, migrants, etc.

The CCM is well represented by women and key affected persons which ensures their participation in programme oversight. The entire PR1 and most of the PR2 community workforce is all-women workforce; who are placed locally from the endemic areas.

## 4.2 Ensuring Implementation Efficiencies

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

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

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

The funding request through this concept note is for 27-month period starting January 2015, whilst the ongoing Phase2 is concluding in September 2015. Over the implementation period, decline in malaria mortality and morbidity have been noted.

As done through the implementation of ongoing Phase2 (ending in September 2015), the PRs would continue to ensure implementation of interventions. M&E through have rationalized structures and systems. The program would emphasize on achieving optimal output utilizing the limited available resources and building human capacity at implementation level. The existing HR would be continuing under the NFM too (in addition, certain need-based HR is proposed). The staff is being optimally utilized and multi-task. The PRs would ensure absence of duplication of any HR, training, M&E, and other activities. The proposed funding request has been worked out together keeping such efficiencies in mind. The PR2 strives to ensure high returns for rationalized investments and maximizing community empowerment and linkages. The activities and human resources are defined specifically and separately for each PR and their activities do not have any duplication across PRs as well as across grants for AIDS, TB disease components. The grant funds are utilized specifically for the interventions proposed, that are not funded by the domestic resources or any other donors.

Community based BCC activities including IPC/mid-media activities and use of local radio would be emphasized more in terms of effective intervention instead of relying on heavily on mass media, which are mostly resource intensive towards enhancement of knowledge and awareness and behaviour change amongst targeted groups.

Further, analysis of results of previous grants and other sources of funding and need versus gap have been done by the PRs to ensure that the proposed activities would be aligned with realistic approaches, i.e. what works and is likely to succeed. Workshops, meetings and research, etc. are limited to the need. Existing and possible GoI and/or other donor funding has been factored while finalizing the funding request under the NFM.

## 4.3 Minimum Standards for Principal Recipients and Program Delivery

**Complete this table for each nominated Principal Recipient. For more information on minimum standards, please refer to the concept note instructions.**

PR1 Name	DEA (PR1-NVBDP, MOH&FW, GoI)	Sector	Government
Does this Principal Recipient currently manage a Global Fund grant(s) for this disease component or a cross-cutting health system strengthening grant(s)?		<input type="checkbox"/> Yes <input type="checkbox"/> No	

Minimum Standards	CCMassessment
1. The Principal Recipient demonstrates effective management structures and planning	<p>PR1, that is, NVBDCP is the nodal organization for policy making, planning, monitoring and supervision, implementation of programme activities through SRs and SSRs (States and Districts). There is a national programme management unit at HQ and state programme units at each project state consisting of State Programme officer and other officials, State Consultants and support staff. At the HQ, Director NVBDCP is the overall in charge of the functioning of the whole VBD control programme. Under him are various disease specific nodal officers and nodal officers for all the states and UTs. The CPMU actively coordinates with the SPMUs and Regional Review meetings are held at every quarter in different states under the project.</p> <p>Further at the district level, District VBD officers and staff along with VBD consultant is placed who look after the programme implementation activities, supervision and monitoring at the district level. Besides, at sub-district level, Block PHC MOs and MTs are posted to supervise activities at field level where ASHAs and other field workers are posted. There is a robust system of financial prudence with checks and balances at each level. Logistics and procurement are also managed by the Procurement section at the HQ, at states and district level. The organogram of PR1 is appended as <a href="#">Annex 11</a>.</p>
2. The Principal Recipient has the capacity and systems for effective management and oversight of sub-recipients (and relevant sub-sub-recipients)	Yes, the NVBDCP has a fully operational system for effective management and oversight of sub-recipients. It also has a sub recipient management plan which has been earlier shared with the GF. There is a well entrenched system for the management and oversight of SRs and SSRs. There is a system of monthly review/quarterly review of the management capacity of the SRs and SSRs. Any gaps, inefficiencies if found are rectified and relevant advise/actions are given/taken to them. Any variance in financial /programme implementation are asked for justification by the SRs and SSRs.
3. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	There is a system for separate book-keeping of GF accounts with double entry system. There is an independent audit every year of the GF funds besides audit by LFA. In addition to this, CAG audit is done for the whole NHM of which, NVBDCP is a part. Thus there is credible system in place to detect/ prevent any misuse of funds or fraud. This system of audit is done at each level. In addition the finance consultants at state and National level keep a vigil on the funds released and SOEs and UCs are submitted to the PR in time and completed.
4. The financial management system of the Principal Recipient is effective and accurate	PR1 follows the GoI system of financial management, which has checks and balances at each level. All releases are based on the judicious expenditure of the funds and proper maintenance of records of all expenditure. The SRs record their fund allocation and expenditure and keep the records for review by Finance officials of the govt and independent auditors. Tally is now used in the financial management at SR level and many of SSR level. Full implementation shall be done by this year end.
5. Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	Yes, the drugs and diagnostics are stored in the Govt Medical stores spread all over the country and in the District stores. Under NHM the warehousing at state and districts has been strengthened. The LLINs are stored in the proper warehouses at state and district level. Under NHM, good storage practices are applied and are being in use.
6. The distributionsystems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment/program disruptions	Yes, the distribution systems and transportation arrangements are efficient to ensure supply to end users. Provision has been made to ensure that there are no stock outs. Further to monitor supply chain management, an agency is proposed to be hired to monitor SCM and relocate the logistics whenever necessary. Monthly reporting of logistics is sent by states to HQ and monitored.
7. Data-collection capacity and tools are in place to monitor program performance	Yes, there is an established mechanism for data collection and NAMMIS is also functional in some states to ensure credible and timely data collection. The reporting formats have been revised and provided to each level of reporting namely M1, M2, M3, M4 and V1-V6. There is a separate I&E section in the HQ to collect and collate data for analysis and use. The data flows from BPHC



	to District, from district to state and from state to country HQ.
<b>8.</b> A functional routine reporting system with reasonable coverage is in place to report program performance timely and accurately	Yes, as detailed above, a functional routine reporting system is in place(MIS). Besides online system in the form of NAMMIS is also operational partially which is being pushed to cover the whole country.
<b>9.</b> Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain	Yes, the national programme oversees and supervises the quality requirements of pharmaceuticals and health products and monitors product quality throughout the supply chain, which includes QA (by NIMR and other agencies). These are done as per QA policy and SOPs under the programme.

PR2 Name	PR2-Caritas India	Sector	CS/PS
Does this Principal Recipient currently manage a Global Fund grant(s) for this disease component or a cross-cutting health system strengthening grant(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Minimum Standards	CCM assessment		
1. The Principal Recipient demonstrates effective management structures and planning	<p>Yes, Caritas India, the PR2 demonstrates effective management structures and planning. The PR2 is currently the nodal organization for planning, implementation, M&amp;E coordination with GFATM, NVBDCP, state/district VBDCP, besides engaging in advocacy and sharing information at the national and state levels under the ongoing IMCP-II. Project Management Units are constituted at the central, regional and district levels within the consortium with multi-disciplinary personnel having relevant expertise and experience on key modules including M&amp;E, PSM and finance. The project working committee (PWC) and M&amp;E Technical Working Group (TWG) constituted additionally provide guidance, oversight, coordination towards smooth and effective implementation of the project and advocacy and coordination with the stakeholders and risk identification and mitigation. Each structure and position has well defined roles and responsibilities and job description.</p> <p>The PR's CPMU comprises of Technical and Finance Section. Overall, a Project Director heads the sections. The PR CPMU is responsible for strategic planning, implementation oversight and M&amp;E and stakeholder coordination. Both sections work in close collaboration with each other as well with the SRs central offices for information sharing, guidance, coordination, review and follow-up on key management actions. The CPMU actively coordinates with the NVBDCP and other stakeholders. The PR2 provides technical guidance, as required under IMCP-II. The same would continue in the new funding model.</p> <p>The RPMU of PR2 and selected SRs has full-fledged teams, key personnel include Regional Project Manager, Finance and Accounts Officer, Logistics Supply Chain Management Officer/point person, BCC officer. The RPMU is responsible for ensuring and supporting the implementation of project activities as per work plan, budget and performance framework, M&amp;E/MIS coordination, overseeing and monitoring PHPM and supporting the CPMU in management and coordination with SRs/SSRs and State VBDCPs.</p> <p>The DPMU comprises of District Project officer (DPO) and Data Entry Operator (DEO) who oversees implementation in 2-3 districts. The key functions of the DPO include district level planning, implementation, M&amp;E, pharmaceutical and health products maintenance, LMIS and monitoring, coordination with district VBDCPs/CHCs/PHCs. The key functions of the DPO include providing support to M&amp;E/MIS activities particularly data entry, data check, report generation, supportive supervision and monitoring of sub-district level functionaries of the PR2 consortium-Field Supervisors, Cluster Coordinators and Community Health Volunteers.</p>		

	<p>In the 03 additional states viz. Odisha, Chhattisgarh, and Jharkhand, the structure would be aligned with this model. Necessary modification would be made where required.</p> <p>The management of Caritas India and Governing Board, Project Selection Committee headed by Chairman of Caritas India also oversee the IMCP-II implementation. These structures would continue to have oversight in the new funding model implementation. The organogram of PR2 is appended as <a href="#">Annex 12</a>.</p>
<p>2. The Principal Recipient has the capacity and systems for effective management and oversight of sub-recipients (and relevant sub-sub-recipients)</p>	<p>Yes, the PR2 has the capacity and system for effective management of SRs as demonstrated during the IMCP-II.</p> <p>Under IMCP-II, the PR2 provides management oversight, ongoing capacity assessment and enhancement and support to 10 SRs in the areas of both programme and finance and provides technical guidance. The PR2 together with the SRs complements the efforts of the NVBDCP, the PR1 for malaria control in 7 NE states as mentioned previously.</p> <p>As required by the GFATM, the PR2 conducted a systematic capacity assessment of the SRs prior to the signing of Grant Agreement with them. The report was shared with the GFATM. Capacity gaps and other requirements identified in the assessment were addressed by the SRs within timelines stipulated by the PR2, necessary support was provided to the SRs by the PR2 too in meeting the requisites.</p> <p>The PR2 developed an SR Management (SRM) Plan in Phase1, which was duly approved by the GFATM. The plan documents the systems and processes for implementation of IMCP--II by the PR2 through SRs. The document provides guidance to the PR2 and the SRs on effective and transparent grant capacity building, implementation, coordination, management and reporting towards optimal grant performance.</p> <p>The SRM plan describes the following aspects:</p> <ol style="list-style-type: none"> <li>1) SR selection/identification</li> <li>2) SR assessment</li> <li>3) SR appointment</li> <li>4) Grant signature with SRs</li> <li>5) Planning, coordination, communication and oversight</li> <li>6) Disbursement</li> <li>7) Monitoring and evaluation</li> <li>8) Reporting.</li> </ol> <p>In addition, the PR2 developed and disseminated Project Implementation Plan and Project Operational Guidelines, M&amp;E Plan, Finance Management Manual, etc. (would be revisited if funding is approved under NFM).</p> <p>For effective oversight, planning and coordination between PR and SRs, the PR2 established structures such as project working committee (PWC) and M&amp;E Technical Working Group (TWG) that meet quarterly. Such structures as the PWC with support from M&amp;E TWG, is responsible for programmatic and financial oversight of SRs as well as for project MIS, planning and review meeting and trainings. The Project Director, as chair oversees, monitors and ensures follow-up the SRs with support from relevant project consultant/personnel. This enables the PR2 to periodically conduct participatory review of programmatic and financial performance of the Grant along with the SRs and identify gaps, action points and decide a roadmap to ensure the project is implemented as per guidelines/policy in order to achieve the set goals and objectives.</p> <p>On site programmatic and financial review and monitoring visits of the SRs are planned and conducted by the PR2. Besides this, periodic onsite data verification (OSDVs) and Rapid services Quality Assessments (RSQA) of the SRs are conducted drawing from the exercise conducted by the GF. Major focus is on identification and resolution of bottlenecks and challenges.</p> <p>Review and planning meetings with SRs at the regional and sub-regional levels are held quarterly and biannually for programmatic and financial oversight and capacity enhancement of SRs. In addition, intensive review of programmatic and financial reports of SRs is done quarterly by the PR2 for ensuring correct, complete and reliable data is</p>

	<p>reported for sharing with the GFATM. The SRs are required to provide adequate justification for variances in programmatic and financial information relative to plan, if any.</p> <p>Trainings (induction and refresher) and orientation/re-orientation meetings are held for the SRs on quarterly/biannually/yearly basis to provide technical update, address capacity gaps, provide guidance and support on the implementation of project guidelines.</p> <p>The PR2 would revisit the existing SRs under the NFM and identify areas for efficiencies. Any modification made would be done in consultation with the NVBDCP and India-CCM. For the 03 additional states under the NFM, the PR2 would follow the same procedures and fulfill requirements as done priorly in Phase-1 and conclude decisions in discussion and consultation with the NVBDCP and India-CCM.</p> <p>The PR2 already has presence in the proposed 03 additional states &amp; under the NFM in terms of existing partner network, ongoing developmental projects (community health related in few areas), functional church health facilities established in peripheral areas having reasonable patient load, community based groups and volunteer base. Such existing resources would be leveraged upon and further capacitated for the implementation of malaria control in the respective states.</p>
3. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	<p>The PR2 has an established system of Internal Control within the organization to ensure compliance to policies, guidelines and procedures outlined in the GFATM grant agreement, project finance manual and overall organization policy and requirements. This is conducted by qualified auditors engaged by the organization as per set timeline and periodicity for all projects/programmes of Caritas India including IMCP-II. The Auditor provides opinion on the overall systems and procedures of the organization along with necessary management actions, specific mention of IMCP-II is also made.</p> <p>In addition, as a part of its internal control systems within IMCP-II itself, the PR2 conducts onsite visits of the SRs (program and expenditure review) to ensure adherence to relevant articles of standard terms and conditions of the Grant Agreement, project guidelines and other requirements of GFATM. These visits are conducted by the project personnel comprising of finance and programme team. Such is done to prevent and detect misuse of grant funds and to ensure accountability and value for money. The institutionalized internal control systems further endeavors to ensure programme activities are carried out and grant funds are spent in accordance with the approved work plan and budget as well as guidelines set by PR/GFATM; the documents for the programmatic and financial reports submitted by the SRs are sufficient and adequate and easily available for review/scrutiny; proper systems/processes are in place to capture and report the programmatic, financial data to be submitted to PR; and measures are taken for smooth implementation of IMCP—II.</p> <p>De-brief meetings are held with the SRs to discuss issues identified during the exercise conducted so that the SRs provide clarifications and justifications, if any. Thereafter reports for necessary management actions are issued by the PR2 to the SRs regarding gaps and issues identified so that they are addressed within given timeframe and essential systems and procedures are put in place to ensure avoidance of its repetition during the course of Grant implementation.</p> <p>Similar systems would continue under the NFM funding too.</p>
4. The financial management system of the Principal Recipient is effective and accurate	<p>The PR2's finance and accounts management section ensures effective and accurate grant funds management and oversight according to set guidelines &amp; grant agreement; project budget management and periodic financial reporting from the SRs. This established system manages efficient planning and forecasting, expenditure tracking and reviewing quarterly expenditure reports received from the SRs and most importantly ensures the execution of project audit for the PR2 and SRs. The Finance Management Manual of the project directs and guides the PR2 and SRs in ensuring uniformity and integrity in accounting and financial recording/reporting as well as sets proper standards of integrity, accountability, transparency, and stewardship for the use of grant funds in project implementation.</p> <p>The PR2 uses the accounting system-Tally which is synchronized with</p>

	<p>several SRs in different locations in the NE states. The PR2 plans to include all SRs in this fold. This accounting system enables the PR2 and SRs to correctly and promptly record all transactions and balances making clear reference to the budget and work plan of the grant agreement. The SRs record their respective transactions in this accounting system, which is monitored and reviewed by the PR2 at any point of time for timely detection of issues and appropriate intervention where required. PR2 manages all disbursements to SRs and transactions with service providers in a transparent manner to safeguard financial and physical assets.</p> <p>The SRs submits report on quarterly basis to the PR2 through Progress Update Disbursement Request Report with relevant annexure, which reports about project activities and expenditures incurred as per work plan and budget for said period. The PR2 monitors and reviews the actual expenditures against the approved budget and work plan and identifies variances. The SRs are required to provide adequate justification for variances in programmatic and financial report and prompt action is taken where necessary.</p> <p>Similar systems would continue under the NFM funding too.</p>
5. Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	<p>Under IMCP–II, procurement of pharmaceuticals and health products is undertaken by NVBDCP. The PR2 and its SRs however has specific supply management related responsibilities at district and sub-district levels. These activities include: receipt of LLIN from the District VBDCP as per plan and distribution at the village level; indenting &amp; receipt of RDT and ACT, etc. from the District VBDCP and thereafter its use by the CHVs at community level for testing and treating cases and reporting. Hence the PR2 follows the standard operating procedures as provided and guided by the NVBDCP, which includes good storage practices to ensure adequate condition, integrity and security of health products. Accordingly, all project personnel at the regional and sub-regional levels are trained and oriented on good storage practices during their induction/refresher trainings as well as on onsite supervision and recording/reporting.</p> <p>Before distribution at community level, LLINs are kept at identified premises of the PR2 consortium (church/peripheral health units/schools, etc.) for a minimal duration. These premises are secured, spacious and meet essential conditions so as to avoid any form of damage to the LLIN, such as proper ventilation, no seepage in the room, pukka floor, plastered walls, etc. For a targeted area (village), the required number of LLINs is distributed in one single exercise that includes recording in the designated reporting forms. This is strictly followed to avoid storage at community level and facilitate the delivery to the end beneficiaries at the soonest.</p> <p>LLINs received from district VBDCPs, are directly supervised and monitored by the consortium District Project Management Units, to ensure protection, safety and their quality until such time as they are transferred to the end beneficiary, according to the NVBDCP guidelines.</p> <p>Similarly, RDT/ACT, etc. received from district VBDCP, are protected to ensure safety and their quality until such time as they are used, according to the NVBDCP guidelines. Necessary storage conditions for RDT/ACT as stated on the label and as per NVBDCP guidelines in terms of temperature, humidity, and protection from light to maintain quality are followed throughout its shelf-life.</p> <p>The PR2 oversees good storage practices on the ground by noting it during supervisory and monitoring visits by way of physically checking on a sample and provides support regarding good practices and suggesting improvements and ensuring the same is met by the concerned entity.</p> <p>Similar systems would continue under the NFM funding too.</p>
6. The distributionsystems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment/program	<p>The PR2 has demonstrated efficient distribution systems and transportation arrangements for delivering health products. In consultation and with the support of the District VBDCPs, the DPMUs ensure that there are security measures for transportation and health supplies reached without damage at the village level.</p> <p>The DPMUs maintain stock register and there is a system of reporting logistics supply status to the RPMU on a monthly basis. This facilitates</p>

disruptions	<p>routine assessment of supply status, noting consumption, calculation of actual requirements and tracking of expiry for necessary intervention. The District VBDCP are informed and consulted regarding rational forecasting and timely indenting where stock-out is anticipated.</p> <p>Similar systems would continue under the NFM funding too.</p>
7. Data-collection capacity and tools are in place to monitor program performance	<p>The GFATM approved project M&amp;E plan of the PR2 provides guidance on the project M&amp;E and MIS as well as to foster and institutionalize capacity for robust M&amp;E within the PR2 and their SRs towards steering focus on the intended 'results'. The M&amp;E system of the PR2 clearly defines all output indicators for routine monitoring of activities/interventions that are aligned to the goals and objectives of the project. The indicators are devised as standardized measures of performance and results as per agreed Performance Framework. This enables the PR2 to verify whether activities are being/ have been implemented as planned within specific timelines; ensure transparency and accountability; detect any shortfall and/ or constraint; provide valid and timely feedback to the decision maker(s), key stakeholders for informed planning and strategizing, thereby improving effectiveness of malaria control service delivery. Checking of data quality is an inherent part in this process.</p> <p>The measurement of impacts/outcomes is the responsibility of the national programme—NVBDCP. The PR2 would be involved as when this is conducted by the NVBDCP.</p> <p>The project M&amp;E systems and process include MIS (both computerized and paper based), both for capturing programmatic and financial performance within the PR and their SRs at different levels starting from the village level to the central project managements units and for ultimately reporting to the GFATM.</p> <p>All project personnel/consultants at central, regional, district, sub-district and village level cadres are well trained, re-trained and continued to be capacitated on project M&amp;E; use of MIS tools/formats and data integration with the national programme HMIS. The project personnel with the PR2 consortium are assigned clear and specific M&amp;E/MIS roles and responsibilities in coordination with NVBDCP. The CHVs at the village levels are trained and provided regular handholding on the use of primary recording tools and data transmission requirements to the next reporting line. All levels are continuously capacitated on data quality aspect.</p> <p>The PR2's MIS system and tools (formats) draw from and is harmonized with the NVBDCP's defined systems, processes and forms related to case management and vector control. The PR2 uses the same formats use by the national programme i.e.</p> <p>a) For case detection and management:</p> <ul style="list-style-type: none"> <li>• M1: Report of Surveillance by CHV.</li> <li>• M2: Laboratory Request Form for Slide Examination</li> <li>• M4: (Provider wise)</li> </ul> <p>b) For vector control:</p> <ul style="list-style-type: none"> <li>• VC3: Primary record of bed-net/LLIN delivery</li> <li>• VC 4: Bed-net/LLIN delivery form</li> </ul> <p>BCC recording and reporting tools were prepared specifically for the project by the PR2 and duly endorsed by the NVBDCP. The BCC input forms generate record related to activities conducted as well as coverage in terms of population reached.</p> <p>These reports are monitored, aggregated and reviewed at the sub-district, district, regional and central levels. Data entry on web-based project MIS occurs at the District Project Management Units. The SR submits programmatic and financial report to the PR2 in a prescribed template every quarter.</p> <p>Similar systems/tools would continue under the NFM funding too.</p>
8. A functional routine reporting system with reasonable coverage is in place to report program performance timely and	<p>As mentioned, the project M&amp;E systems and process include MIS (both computerized and paper based), both for routine capturing of programmatic and financial performance within the PR2 and their SRs at different levels from the village (CHV) level monthly. Recording and reporting tools, timelines for submission reports and data flow are well defined for all existing cadres/structures within the PR consortium. At</p>

accurately	<p>the district level the reporting frequencies and timelines for routine activity reporting is synchronized with the monthly reporting requirements of the PHC/CHC and District VBDCP. Activities with regard to diagnosis &amp; treatment and BCC activities the village level by the CHVs are filled by them in the respective forms and submitted on a monthly basis to the PHC/CHC and DPMU as hardcopy. The data in turns flow to the next reporting unit i.e. the RPMU/CPMU of the SRs consolidates quarterly report for submission to the PR2. Checking of data quality is an inherent part in this process.</p> <p>The web based GFATM IMCP-II MIS application software is responsible for data entry, aggregation and analysis pertaining to the project in 7 North East States. The MIS is a web based system of data reporting from the field. Data gets generated in paper based format at the 5663 villages where the IMCP-II is being implemented by PR2. The DPMUs are also the data generating points for various inventory/logistics related forms. The web based data entry is done at 24 DPMUs across the 7 states in North East India. The data is fed onto the MIS at the DPMU level by the project data entry operators to upload monthly report. As soon as the data is fed into the web based MIS the dash board at Home page of the MIS gets updated.</p> <p>The routine reporting system/web based MIS is validated and verified on a periodic basis by the PR2 and information generated from it helps in decision making and taking of necessary action wherever required.</p> <p>Similar systems would continue under the NFM funding too.</p>
9. Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain	<p>The national programme oversees and supervises the quality requirements pharmaceuticals and health products and monitor product quality throughout the supply chain, which includes quality assurance and control activities. These are being done following guidelines/policy and Standard Operating Procedures (SOPs) of the national programme.</p> <p>Similar systems/tools would continue under the NFM funding too.</p>

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

- With reference to the portfolio analysis, describe any major risks in the country and implementation environment that might negatively affect the performance of the proposed interventions including external risks, Principal Recipient and key implementers' capacity, and past and current performance issues.
- Describe the proposed risk-mitigation measures(including technical assistance) included in the funding request.

The risk assessment for this concept note was performed drawing from the portfolio analysis and external and internal audit reports, OSDV findings, JMM and OIG reports. Most of the risks identified in those reports are met and the remaining would be mitigated as per recommendations. Over the years, the PRs have also gained adequate experience in implementing project grants.

However in this concept note, certain risks related to the efficient and effective implementation of the program and existing and proposed risk mitigation measures are outlined under following areas: programmatic and performance risks, financial and fiduciary risks, health product quality & service delivery risks and governance & oversight risks and external risks.

Drawing from the implementation experience of IMCP-II, various mitigation measures in terms of interventions/activities are proposed and embedded in the overall program design. Implementation arrangements have been and would be revisited and the concept note focuses on those aspects that would ensure that the program runs well, key populations have access to quality health services, and there are adequate programmatic oversight and fiduciary controls up to the community level; although certain external risks (conflict situation, natural calamities, macro-economic conditions) may continue to pose challenges.

Within the area of programmatic and performance risks, issues relating to procurement and supply of pharmaceuticals and health products that are imperative for uninterrupted diagnosis and treatment service delivery are recognized. As in the ongoing IMCP-II, the procurement and supply would be the responsibility of the PR1-NVBDCP. It is expected that supply-side constraints relating to PHP would alleviate henceforth and provision of RDTs, ACTs as well as LLINs would be met

through the CMSS/MSO and/or GFATM PPM or alternate mechanisms. This would alleviate the challenges at the grassroots regarding diminishing/limited/variable availability of supply of RDTs and antimalarials thereby improving the pace of implementation through demand- and supply-side harmonization. Database on PSCM would be tracked and strengthened.

Program implementation by SRs, SSRs: The remedial measures have been and would continue to be resolution through strengthened oversight, monitoring, capacity building as well as in extreme circumstances declaring certain expenditures as ineligible and holding the person/organization responsible.

Other aspects would include: SR Management guidelines for oversight and management; Grant conditions based on assessment and risk rating; Capacity building plan; revisiting ToR for HR; PSM Plan; M&E Plan; Training Plan; contract signing and period determined based on assessment. As in the ongoing grants, the SR disbursements would be based on performance and risk assessment. Other aspects would include: Guidelines for overall programme management and strengthening of internal controls; audit by external agency; etc.

Delay in GF disbursements and exchange rate fluctuation may impact cash flow. In addition, under-spending/overspending by SRs too are risks, which would be appropriately tackled. The GF support importantly facilitates and enables implementation of interventions to realize the goals and objectives of the NSP 2012-17, yet there is strong political commitment for the social sector, including health sector by the GoI. The NHM is a flagship programme of the GoI, wherein overall health system strengthening, community ownership and stakeholder participation are priorities.

The socio-political situation and eco-geographical constraints in the northeastern states as well as in Odisha, Chhattisgarh and Jharkhand may pose challenges in optimal program implementation. Although there could be few instances when service delivery may be temporarily erratic despite continuous health systems strengthening, community ownership of malaria control is being emphasized by way of positioning ASHAs/CHVs within the overall community systems strengthening portfolio, that involves VHSNC, local networks as well as opinion and religious leaders, especially in hard to reach areas. Active coordination with other community systems, networks as well as local self-governments, tribal council, churches, has been and would continue through the SRs/SSRs (State/District VBDCPs, Church/non-Church partners) who have local knowledge and experience, community based presence and are involved in community based programs, drawing from the learning to deal with such situation. For any delay/postponement of initiatives that may be at times necessary in view of the socio-political situation, efforts are being and would be made to resolve the problems locally through stakeholder discussions for mitigation.

The PRs have and continue to strengthen the PMUs at central (in New Delhi) and regional/state levels and even engages with the GFATM for need-based re-programming for the PMUs drawing from the lessons learned. Capacity building through trainings/re-trainings as well as on-job orientation/motivation remains key although staff turnover remains a challenge at times, especially in increasingly competitive environment. Strengthening of M&E, PHPM, management of HR and TA to NVBDCP, finance management including but not limited to external and internal audit, etc. are being continuously done in the existing areas of coverage. Towards strengthening oversight, both PRs are ensuring use of standardized accounting software. The PR2-Caritas India has also carried out financial software synchronization of the partner network SRs with the PR's central unit.

Within the area of governance, oversight and management risks, risks resulting from the interruption or termination of currently existing partnerships may also impact program. Strengthening of partnerships is being and would be encouraged.

Going forward, the PRs propose to further strengthen the risk identification, assessment and mitigation through the programme/grant management cycle in a much more structured manner drawing from the Global Fund risk management approach and framework. The PRs would constantly monitor and assess internal and external events for uncertainty of not achieving targets and negative outcomes and impacts. The PRs would strive to rate the risks in terms of severity, materiality of the adverse outcomes and fix timelines for mitigation using the GF and other tools/framework.

Pro-active actions (risk response) would be taken to mitigate any downside risks and provide for contingency measures depending on likelihood and severity of risks (risk rating) in terms of regularly monitoring risks and effectiveness of mitigation measures: by anticipating and thinking ahead, adjusting and improving along the way and part of day-to-day management. Then, take corrective actions in case risk materializes or deficiencies detected or weighing possible risk response options considering costs and benefits. If necessary, appropriate TA may also be



explored.

Overall, key elements of a comprehensive risk management approach to be taken up are as under:

- Organisational set-up: effective structure, competent staff in key positions, clear roles and responsibilities, holding personnel accountable.
- Governance structure, action from the top, ethics and values, etc.
- Effective internal control: policies, procedures, preventive controls (addressing risks identified) and independent monitoring, clear and transparent processes.
- Measure progress: regular reporting, and risk assessment and mitigation embedded within supervision and monitoring.
- Ensure effective communication and information (transparency).
- Create a risk-aware culture and open dialogue (PR, SRs, SSRs).

#### **CORE TABLES, CCM ELIGIBILITY AND ENDORSEMENT OF THE CONCEPT NOTE**

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

☒ Table 1: Financial Gap Analysis and Counterpart Financing Table

☒ Table 2: Programmatic Gap Table(s)

☒ Table 3: Modular Template

☒ Table 4: List of Abbreviations and Annexes

☒ CCM Eligibility Requirements

☒ CCM Endorsement of Concept Note

## List of Abbreviations

ABER	Annual Blood Examination Rate
ACSM	Advocacy, Communication and Social Mobilization
ACT	Artemisinin-based Combination Therapy
ACT-AL	Artemisinin-based Combination Therapy (Artemisinin+Lumefantrine)
AIDS	Acquired Immuno-Deficiency Syndrome
API	Annual Parasite Incidence
APLMA	Asia Pacific Leaders Malaria Alliance
ASHA	Accredited Social Health Activist
BBINMS	Bangladesh, Bhutan, India, Nepal, Myanmar, Sri Lanka
BCC	Behaviour Change Communication
BRICS	Brazil, Russia, India, China and South Africa
CBO	Community Based Organization
CCM	Country Coordinating Mechanism
CHV	Community Health Volunteer
CMSD	Central Medical Stores Depot
CMSS	Central Medical Supply Services
CQ	Chloroquine
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DDT	Di-chloro Di-phenyl Tetra chloro ethane
DMO	District Medical Officer
DPMU	District Project Management Unit
EAC	Externally Aided Component
EDCT	Early Diagnosis and Complete Treatment
EPW	Empowered Procurement Wing
FEFO	First Expiry First Out
FBO	Faith Based Organization
FBT	Facility Based Treatment
FS	Field Supervisor
FYP	Five Year Plan
G-6PD	Glucose-6-Phosphate Dehydrogenase Deficiency
GF	The Global Fund
GFATM	The Global Fund to fight AIDS, Tuberculosis and Malaria
GPARC	Global plan for artemisinin resistance containment
GoI	Government of India
HHs	Households
HIS	Health Information System
HIV	Human Immuno-deficiency Virus
HMIS	Health Management Information System
HR	Human Resource
HSS	Health Systems Strengthening
HW	Health Worker
IAP	Indian Association of Pediatricians
ICDS	Integrated Child Development Scheme
ICR	Implementation Completion Report
IEC	Information, Education and Communication
IDSP	Integrated Disease Surveillance Programme
IMA	Indian Medical Association
IMCP	Intensified Malaria Control Project

IMNCI	Integrated Maternal Neo-natal Child health Initiative
IPC	Inter Personal Communication
IPHS	Indian Public Health Standard
IRS	Indoor Residual Spraying
IT	Information Technology
ITN	Insecticide Treated (bed) Nets
IVM	Integrated Vector Management
JMM	Joint Monitoring Mission
LFA	Local Fund Agent
LLIN	Long Lasting Insecticidal Nets
LMIS	Logistics Management Information System
LQAS	Lot Quality Assurance Sampling
LSCM	Logistic Supply Chain Management
LT	Laboratory Technician
LTF	Late Treatment Failure
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MIS	Management Information System
MNCHI	Maternal, Newborn and Child Health Institute
MOF	Ministry of Finance
MOHFW	Ministry of Health and Family Welfare
MPW	Multi Purpose Worker
MSO	Medical Stores Organization
MTS	Malaria Technical Supervisor
NAMMIS	National Anti- Malaria Management Information System
NFM	New Funding Model
NGO	Non- Governmental Organization
NHM	National Health Mission
NIMR	National Institute of Malaria Research
NIHFW	National Institute of Health & Family Welfare
NRHM	National Rural Health Mission
NVBDCP	National Vector Borne Diseases Control Programme
NVBDCSP	National Vector Borne Disease Control Support Project
NSP	National Strategic Plan
OIG	Office of the Inspector General
OSDV	On site data verification
PCR	Polymerase Chain Reaction
Pf	<i>Plasmodium falciparum</i>
PHC	Primary Health Care
PPM	Pooled Procurement Mechanism
PPP	Public Private Partnership
PQ	Primaquine
PR	Principal Recipient
PSM	Procurement and Supply Management
PSCM	Procurement & Supply Chain Management
Pv	<i>Plasmodium vivax</i>
QA	Quality Assurance
QC	Quality Control
RDT	Rapid Diagnostic Test
RSQA	Rapid Service Quality Assessment
SAARC	
SDA	Service Delivery Areas

SOP	Standard Operating Procedures
SP	SulphadoxinePyramethamine
SR	Sub Recipient
SSR	Sub - Sub Recipient
SWOT	Strength, Weakness, Opportunity, Threat
TA	Technical Assistance
TAC	Technical Advisory Committee
TB	Tuberculosis
TES	Therapeutic Efficacy Surveillance
ToR	Terms of Reference
VBD	Vector Borne Disease
VBDGP	Vector Borne Disease Control Programme
VPP	Voluntary Pooled Procurement
WHO	World Health Organization