



**India-Bhutan Local level bilateral meeting for cross-border
malaria elimination**

Meeting Report

8-9 December 2022

Hotel Gaurang Valley, Kokrajhar, Assam, India

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EXECUTIVE SUMMARY

India-Bhutan local level onsite bilateral meeting for cross-border malaria elimination was organised by South-East Regional Coordination Mechanism Forum (SRCMF) on 8-9 December 2022 in Hotel Gaurang Valley, Kokrajhar, Assam India. The meeting was Chaired by Dr L Somorendra Singh, CHS, Senior Regional Director, RoH&FW, Shillong & Guwahati and head of delegation of India and Co-chaired by Mr Rixin Jamtsho, Director, Department of Public Health, MoH and head of Bhutan delegation.

Dr L Somorendra Singh welcomed the delegates which was followed by address by Dr Krishna Kemprai, Joint Director of Health Services (Malaria) cum SPO, NCVBDC, Guwahati, Mr. Pankaj Chamuah, Assam Civil Services (ACS), Officer on Special Duty (OSD), NHM, Government of Assam, Mr Rixin Jamtsho, Director, DoPH, Thimphu, Bhutan, Dr Jigmi Singay, Executive Secretary Cum Coordinator, SRCMF and vote of thanks by Dr Umesh Phangso, Director of Health Services, Bodoland Territorial Council (BTC), Kokrajhar Assam

Presentation was made by SRCMF on outcome of the previous bilateral meeting. Following which brief presentations were made by both India and Bhutan country delegates on follow-up activities and presentation on Joint Strategy and operational Plan for harmonized implementation of activities on both sides of the international border. This was followed by presentation on M&E by Dr. Anju Viswan, consultant, WHO India Office. Dr Rishantha Premaratne, Regional Advisor, Malaria WHO SEARO briefed the participants on Malaria elimination and need for strengthening malaria surveillance. Dr Kamini Mendis and Dr Ferdinand Laihad, Resource Person's from SRCMF advised both sides to assess readiness and organise documentation required for WHO certification and encouraged countries to work towards subnational malaria elimination and set an example for others to follow.

Both sides expressed the need to strengthen the coordination and start implementation of agreed joint action points in the field level.

SRCMF agreed to organizing next bilateral meeting Phuntsholing, Bhutan tentatively on 2-3 March 2023.

1. INAUGURAL SESSION

The India-Bhutan onsite local level bilateral meeting for cross-border malaria elimination started with inaugural session, commencing with **welcome address by Dr Krishna Kemprai Joint Director of Health Services (Malaria) cum SPO, NCVBDC, Guwahati**. She welcomed delegates from Bhutan and India and all the participants to the meeting. She highlighted that malaria across international borders poses a major obstacle to achieving malaria elimination. She underlined the need to strengthen Indo-Bhutan cross-border collaboration to overcome challenges of the malaria elimination and wished the meeting all the success in its deliberations.

Address by Mr. Pankaj Chamuah, Assam Civil Services (ACS), Officer on Special Duty (OSD), NHM, Government of Assam- Mr Chamuah emphasized that this is an important and essential meeting for improving health of hard-to-reach populations in international cross-border areas and achieving malaria elimination goal. He added that in last decade state has seen significant reduction in malaria cases however malaria prevalence is often higher in border areas. This meeting is an opportunity to discussion and plan cross-border malaria surveillance, entomological surveys, joint M&E and information sharing. He further added that field visit organised in high endemic areas for the participants will immensely help in understanding the ground situation and practical implementation of the joint activities. He congratulated SRCMF for organisation of the meeting and bringing all the stakeholder together to work towards malaria elimination in cross-border areas.

Address by Mr Rixin Jamtsho Director, DoPH, Bhutan-on behalf of Ministry of Health, Royal Government of Bhutan Mr Jamtsho thanked SRCMF for organising this meeting. Starting 1960 Bhutan had lot of malaria cases and death however with support from India it is now reduced to single digit. Bhutan has since long enjoyed friendly relationship with India at National level however now with support of SRCMF Bhutan is now collaborating officially at ground/local level. He added that with such collaboration and interaction with India he was hopeful and confident that Bhutan will be able to achieve malaria elimination target even before 2025. He further added that with support from SRCMF and common undertaking, strategy and joint operation plan both the countries are now on right track to accelerate progress towards malaria elimination goal.

Address by Dr Jigmi Singay Executive Secretary Cum Coordinator, SRCMF -Dr. Jigmi Singay extended his warm welcome to the Chief Guest, Shri Anurag Goel, Principal Secretary, Bodoland Territorial Council (BTC), distinguished member delegates from Bhutan and India, Dr Rishintha Premaratne, Regional Adviser Malaria attending virtually, Dr Anju Viswan, consultant from WHO Country office in person and SRCMF Resource Persons attending virtually –Dr Kamini Mendis from Sri Lanka and Dr. Ferdinand Laihad from Indonesia and Dr S Mishra from India in person, and all the participants for honouring the meeting with their presence in spite of their busy schedule. He thanked both the countries for taking a lot of initiative in recent outbreak in Saralpara and responding in line with what was agreed during the recent outbreak. He reiterated that cross border malaria is a major impediment to achieving regional malaria elimination. No country can achieve this goal in isolation. He underlined that while the individual countries take lead, there has to be guidance on strategy and activities from Global to Regional to country backing and reinforcing each other to help achieve malaria elimination goals. He briefly apprised participants on SRCMF historical aspect, formation and its mandate to strengthening cross-border coordination in 3 diseases (Malaria, TB and HIV/AIDS) and to mobilise resources. Now that both sides have a joint operational plan SRCMF along with WHO and other agencies will facilitate taking forward. In conclusion he wished the meeting successful deliberation.

Vote of Thanks by Dr Umesh Phangso Director of Health Services BTC -Dr.Phangso briefed the participants on malaria in cross border areas and movement of migrants from country of origin to country of destination for either long or short termwith/without passing border checkpoints

He shared the following factors influencing cross-border malaria:

- a) Treatment Seeking Behavior: Counterfeit a substandard Anti-Malarial drugs or monotherapy increasing drugs Resistant.
- b) Epidemiological drivers of Malaria: Heavily forested, mountainous and inaccessible terrain.
- c) Forest and Deforestation.
- d) Socio-economic factors: Hard to reach population, focal areas; active or residual.

He proposed activities like collaboration in prevention and control measures, robust surveillance, prevention of importation and re-introduction of malaria, proper treatment and containment, data sharing framework (mobile tele-communication) with PPM (Private Public Mix).

He shared following challenges for Cross-Border Malaria:

1. huge number of people crossing the international boundaries to engage in a wide variety of activities.
2. Most crossing of international borders occurring informally through the porous borders.
3. Population residing in the border areas comprising ethnic minority groups with limited formal education and few financial resources.
4. Hard to reach population that are typically impoverished and mobileoften driven to remote areas by marginalization.
5. A paucity of information on cross border movement of people.
6. Inadequate Health Care system in many border areas.

Epidemiology of malaria in four districts of Assam:

District wise number of malaria positive cases (PV & PF) of BTR as on 05-12-2022				
District	Positive	PF	PV	No. of Death
Kokrajhar	79	30	49	-
Chirang	5	5	-	-
Baksa	7	1	6	-
Udalguri	15	10	5	-
Total	106	46	60	-

Health Institutions in Indo-Bhutan Border Areas:

Sl. No.	Name of District	Name of Block	No. of SC/HWC/SD
1	Kokrajhar	Balajan BPHC	1
2	Chirang	Sidli BPHC Balllanguri BPHC	5
3	Baksa / Tamulpur	Nizkaurbaha BPHC Tamulpur BPHC Mushalpur BPHC Jalah BPHC Golagaon BPHC	21
4	Udalguri	Khairabari BPHC Udalguri	11
Total			38

He praised Bhutan for making concerted effort to update its health care and delivery to all of its citizens and added that similar efforts should be made by Assam to address the needs of its community at border areas. He further added that Sri Lanka received WHO certification of malaria-free status in 2016 as a result of efforts that combined disease surveillance, vector control and treatment and that similar steps are needed to eliminate malaria. He urged all stakeholders to continue investment, effort and sustain political commitment to achieve malaria elimination goal. In conclusion he thanked SRCMF for organising and all the participants for attending this meeting.

2. BUSINESS SESSION

2.1 Appointment of Chair and Co-chair

The Session started with Executive Secretary Cum Coordinator, SRCMF Secretariat calling for nomination of Chair and Co-chair for the business session. Bhutan proposed and seconded Dr L Somorendra Singh, CHS, Senior Regional Director, RoH&FW, Shillong & Guwahati and head of delegation of India as Chair and India nominated and seconded Mr Rixin Jamtsho Offtg. Director, Department of Public Health, MoH and head of Bhutan delegation as Co-chair of the meeting. Following which Dr Jigmi Singay formally invited and handed over the Chairmanship to Dr L Somorendra Singh and requested him to conduct the bilateral meeting.

2.2 Adoption of agenda

As per the agenda the Chairperson started the business session by inviting comments on the draft agenda. In absence of any comments the draft agenda was adopted

2.3) Presentation on Outcome of the previous cross-border bilateral meetings

Chair invited Ms Natasha Dawa, Program Officer, SRCMF for her presentation.

Ms Dawa apprised the meeting on how India–Bhutan bilateral meetings progressed from National to State/district and now to Local level. She informed all that on 16 Feb 2022, SRCMF was introduced, as a partner of Malaria Program under NCVBDC, Govt of India for facilitating coordination with adjoining cross-border areas/districts counterparts of the neighboring countries along the international border with clearance to approach state level malaria officials for organisation of district /local level cross-border meetings and follow-up of the recommendations. She thanked NMEP's of both countries for showing interest, support and cooperation for strengthen the coordination & implement of action points at field level. Big progress was made in meeting in Gelephu, where both countries agreed on synchronized and harmonised joint activities for cross-border collaboration and in today's meeting both sides will be presenting a joint operational plan for joint action. She emphasized that states now need to participate in timely capacity strengthening for supportive supervision to districts in cross-border collaboration. Local level must continue to regularly meet for formal & informal interaction along international borders for joint review, planning and activity implementation. She applauded both the countries for interacting on WhatsApp, sharing real time malaria data and jointly tackling the current outbreak in Saralpara very promptly and effectively. She encouraged Local level on both sides to continue to discuss challenges, develop solutions and share lessons learned on cross-border issues and reaffirm commitment to achieve malaria elimination. She emphasized that National programs should build and strengthen capacity to take responsibility of supervisors and planners and ensure standardized operations in all districts for uniform implementation. She added that SRCMF will continue to support these meetings and make it effective and meaningful. In conclusion she shared the function of SRCMF which including facilitate coordination, resource mobilisation, partner & donor coordination at local level, help in building capacity for Coordination, M&E at ground level and for sustainability of program, district HSS and Community system strengthening.

Chair thanked Ms Dawa for her presentation and invited Assam for their presentation on follow-up activities

2.4) Follow up activity presentation by Assam

Assam shared following activities undertaken post Gelephu meeting:

District Kokrajhar

- a) Co-ordination meetings-4th Nov2022 AT Sarpang Hospital.
- b) Local level surveillance (House to House)
- c) IRS done locally
- d) LLIN distribution-1500 nos.
- e) IEC/BCC –Awareness meeting organized by NGO.
- f) Supervision and monitoring

District-Udalguri

- a) Co-ordination meetings-24th October2022 at SamdrupJonkhar, and 1stDecember2022 at Bhairabkunda.
- b) Surveillance-fever surveillance
- c) ITBN done locally
- d) IEC/BCC –Awareness meeting organized by NVBDCP, Udalguri.
- e) Supervision and monitoring

District-Chirang

- a) Co-ordination meetings-30thNovember2022 at Hatishar Sub Centre.
- b) Surveillance-mass fever surveillance
- c) IRS done locally
- d) IEC/BCC –Awareness meeting organized by NVBDCP, Chirang.
- e) Supervision and monitoring

District Baksa

- a) Co-ordination meetings-26thSeptember2022 at Darrangamela andJomotshonkha, Bhutan on 24th October 2022
- b) Entomological Surveillance done 26th -30th September 2022
- c) Surveillance-fever surveillance
- d) IEC/BCC –Awareness meeting organized by NVBDCP, Baksa.
- e) Supervision and monitoring

Chair thanked Assam for their presentation and invited Bhutan to present on follow-up activities

2.5) Follow-up activity presentation by Bhutan

Bhutan shared the situation of Malaria Cases across the Border in past 5 years:

Year	Total BTC	Total Positive	PF	PV	Mixed
2017	122	2	0	2	0
2018	182	6	2	4	0
2019	311	9	3	6	0
2020	15	1	0	1	0
2021	0	0	0	0	0
2022	14	5	0	5	0

Out of the 5 malaria positive cases reported in 2022 four were among students and 1 was in farmer.

Following activities were undertaken after cross border meeting in Gelephu:

- a) Shared information on malaria situation through WhatsApp
- b) Handed over the positive cases with anti-malarial drugs, Dots form and follow up forms
- c) On 4th November 2022 delegates from Kokorajar visited Bhutan hospital and shared information on current malaria situation in Saralpara and discussed plan for control and preventative strategies
- d) Jointly mass screening on both sides were discussed
- e) On 30th November 2022 Bhutan convened a local level cross border malaria elimination meeting between Chirang district of Assam and Sarpang district of Bhutan at Datgari sub-post and discussed on way forward activities to sustain zero malaria cases in the border area.

Chair thanked Bhutan for their presentation and invited both sides to present on follow-up activities

2.6) Joint Strategy and operational Plan presentation for harmonized implementation of activities on both sides of the international border

Bhutan and Assam together presented the joint strategy and operational plan for cross-border malaria elimination developed jointly by the two National Vector borne Disease Control Programs of Bhutan and India.

Objectives of the cross-border operational plan was to:

- a) Achieve malaria elimination in the international borders.
- b) Mitigate risk of importation of malaria cases into Bhutan from India and vice versa.
- c) Establish cross border malaria surveillance system to prevent, alert and rapidly respond to malaria outbreak/epidemic.
- d) Prevent re-establishment of malaria transmission in malaria-cleared foci along the borders.

Strategies that need to be harmonised for cross-border collaboration and implementation issues:

- a) The both countries have similar strategies but at different levels. Bhutan is implementing case-based surveillance, interventions and follow-up of the malaria cases as per WHO malaria elimination strategies. Assam follow the active & passive diagnosis and treatment of malaria cases.
- b) Bhutan focuses on universal coverage of LLIN every 3yrs and continued supplies for targeted population. In Assam, the LLIN distribution is based on API.
- c) In Bhutan focal IRS covers all bordering villages every six monthly, in Assam IRS criteria is based on API.

Support requested from SRCMF in the following activities:

- a) Six monthly monitoring at the field level
- b) Annual Cross-border Meeting.
- c) Standard development of reporting system.

Following cross-border joint activities were proposed:

- a) Immediate information sharing on malaria case and vector control activities
- b) Patient referral and case-based surveillance & interventions along the borders
- c) Joint Quarterly monitoring of the malaria cases and reporting to the SRCMF by the identified coordinator
- d) Joint cross-border activities report submission to respective Ministry and WHO
- e) Quarterly/biannual cross-border meeting
- f) Mapping of the high-risk areas and to target malaria elimination efforts.

M&E impact and performance indicators:

Impact Indicators:

- a) Zero Indigenous malaria along the border areas

Performance Indicators:

- a) % cross border malaria case notified within 24 hours to the counterpart across the border
- b) % of imported cases detected across the borders
- c) No of cross referral and follow done along the borders
- d) No. of joint monitoring conducted along the bordering villages

Chair thanked Bhutan and India for presentation on joint strategy and operational plan and invited Dr Anju Viswan, Consultant from WHO India country office for presentation on M&E

2.7) Monitoring and Evaluation

Dr. Anju Viswan, Consultant, WCO India highlighted the importance of M&E and collecting baseline data to compare performance from the beginning of a program. She added that different types of Indicators -qualitative, quantitative, process, outcome and impact should be collected while focusing on data being practical, independent, reliable, relevant, outcome oriented and linked to the strategic plan.

Monitoring of Cross Border Collaboration Activities:

Activities	Planned	Performed	Challenges tackled	Outcome
Indoor residual Spray (IRS)	Date	Date	During planning/ execution	Quality of spray
LLIN Mass distribution	Date, Quantity & Population targeted	Coverage %	Proper Use	User rate
Immediate sharing about positive case, cross referral, Follow-up & documentation	Nodal person Identified	Gap between examination & information sharing	Contact details Electronic conversation	Foci investigation & implementation of activities
Joint entomological surveillance	Area, Date & Parameters	Days spent	HR/ tool kits/ Interpretation of data	Parameters analyzed
Online Review Meeting at the local level	Frequency and Date	Done or not	Regularity and follow-up of action points	Recommendations

Indicators:

Indicator	Numerator	Denominator
% of malaria positive cases shared with cross-border counterparts (frequency?)	Number of confirmed imported cases shared	Total number of imported cases reported
% of cases shared that were followed up	Number of reports with follow-up by cross-border counterpart	Number of total reports received by cross-border counterpart

% of malaria positive cases shared with cross-border counter parts (frequency?)	Number of conformed imported cases shared	Total number of imported cases reported
% of cases shared that were followed up	Number of reports with follow-up by cross-border counterpart	Number of total reports received by cross-border counterpart
% of malaria positive cases shared with cross-border counter parts (frequency?)	Number of conformed imported cases shared	Total number of imported cases reported
% of cases shared that were followed up	Number of reports with follow-up by cross-border counterpart	Number of total reports received by cross-border counterpart

Parameters for Adult Mosquito Vectors:

Indicator	Out come	Explanation
Occurrence	Adult Female Vectors Present or Absent	Presence of <i>Anopheles</i> vectors. Requires correct identification of species
Density	Numbers of Adult Collected (PMHD)	Collection numbers by individual / all sampling Seasonality for changes in species abundance Vector composition is relative abundance
HBI	% of human blood fed vector	Number of female <i>Anopheles</i> vectors feeding human/ total vectors tested
Biting Time	Number of female vectors landing or biting in different hours	“human biting rate” for individual time slots Numbers compared by period for peak biting times
Resting Location (Indoor/Outdoor)	Proportion of female vector indoor vs outdoor	Simultaneous use of similar sampling method(s) indoors/outdoors Endophily index = number of <i>Anopheles</i> vectors collected resting indoors / [number resting indoors + number resting outdoors]

Parameters for Mosquito Larvae:

Indicator	Out come	Explanation
Habitat Availability	Number present by area and habitat type	Number of potential habitats for egg-laying and immature stages noticed
Habitat Occupancy	Larvae or Pupae present or absent by area and habitat type	Number of aquatic habitats with larvae or pupae / number of potential habitats area wise & habitat wise
Larval Density	Number of Immatures of vector species collected from individual habitat	Number of immatures collected per dip, per person per unit time. Usually recorded by stage (I–IV instars and pupae) and by habitat and reported by stage category (early instar, late instar, pupae) for an area

Parameters for InsecticideResistance:

Indicator	Out come	Explanation
Frequency	% of adult female alive after exposure	100% – (number of dead or incapacitated vectors / total number exposed to a discriminating concentration)
Status	Classification of vector population as resistant or possible resistant or susceptible	Classification based on proportion of mosquitoes dead or incapacitated after exposure whereby: <90% = confirmed resistance 90–97% = possible resistance ≥ 98% = susceptibility
Intensity	Classification of Resistance as High, Moderate or Low	Classification based on proportion of mosquitoes dead or incapacitated after exposure to 5 x and 10 x intensity concentrations whereby: < 98% after 10 x exposure = high ≥ 98% after 10 x exposure but < 98% after 5 x exposure = moderate ≥ 98% after 10 x and 5 x exposure but < 98% after 1 x exposure = low-intensity resistance
Mechanism	Mechanism detected / not	Based on detection of the mechanism by molecular or biochemical tests (by research lab)

Parameters for Impact Monitoring

Indicator	Out come	Explanation
Sporozoite Rate	Proportion of adult vectors with sporozoites	Number of female sporozoite positive / total number females tested Indicates proportion of infective vectors present
Entomological Inoculation Rate	Number of infectious bites by adult female vector per (unit Time) or per year	Calculated as: human biting rate x sporozoite rate from human landing catches or vector density x human biting rate x sporozoite rate Reported per year, season, month or night. Yearly EIR are best calculated by adding monthly EIRs Indicates intensity of malaria parasite transmission,
Receptivity Rate	Classification of Area according to transmission risk	Receptivity is a function of the presence of <ul style="list-style-type: none"> • competent vectors, • a suitable climate • susceptible human population,

Vector Control

Proportion of:

- a) Population at risk sleeping under LLIN or living in house sprayed by IRS in the previous 12 months
- b) Population at risk that slept under LLIN the previous night
- c) Population with access to LLIN in their household
- d) Households with at least one LLIN for every two people
- e) Households with at least one LLIN
- f) Available LLIN used the previous night

- g) Population at risk potentially covered by distributed LLIN Proportion of targeted risk group receiving LLIN
- h) Population at risk protected by IRS in the previous 12 months
- i) Targeted risk group receiving IRS

2.8 THE FOLLOWING AGREEMENTS HAVE BEEN REACHED AFTER THE DELIBERATIONS:

- a) Early warning mechanisms for epidemic preparedness and response to be strengthened particularly in border areas.
- b) Strengthen disease surveillance, integrated vector management, M&E and data-sharing on a sustained basis in border areas to ensuring coverage of key interventions based on sound epidemiological data.
- c) Ensure availability of LLINs and correct use for malaria prevention in the cross-border district.
- d) Identifying malaria vector breeding habitats, geographical distribution and time in which malaria transmission occurs for planning and implementing effective vector control strategies
- e) monitor susceptibility of malaria vectors to various insecticides as well as drug-resistant parasites in border areas
- f) engage and involve field workers and community leader for mass awareness generation among those directly affected by malaria in cross-border areas/districts.
- g) Strengthen entomological surveillance at cross-border areas for decision-making. It was recommended to establish collaboration with ICMR.
- h) Active case detection plays a major role in interrupting malaria transmission, program can consider mobilising external support for conducting ACD to detect imported malaria in high-risk populations in cross border areas.
- i) capacity building at district & sub district levels on malaria elimination related activities at subdistrict level is crucial and need to be prioritized.
- j) malaria-endemic districts in border areas to take measures to halt oral monotherapies and promote access to ACTs to avoid resistance
- k) joint periodic review and planning for interventions like LLIN distribution, IRS, case/focus investigation & response, diagnosis, treatment, fever screening, referral and follow up of treatment.
- l) DMO of four districts of Assam to send list of logistic requirements for implementation of joint strategic plan to Director Health Services BTC for consideration and approval by NHM
- m) Joint operational plan to be finalised after incorporating inputs and both countries to take responsibility for turning agreed joint plan into action.
- n) research capability of the countries should be strengthened, particularly in relation to operational research

2.9 RECOMMENDATIONS OF INDIA-BHUTAN BILATERAL ONSITE MEETING:

National Programs:

In line with the bilateral meeting agreement between National Malaria Elimination Programmes from India and Bhutan it is recommended to:

- a) Strengthened early warning mechanisms for epidemic preparedness and response
- b) Identify gaps in surveillance to address inadequacy and strengthen coverage of case base malaria surveillance and mapping of active transmission foci in border where applicable to rapidly detect, investigate and respond to malaria cases and foci and strengthen implementation of entomological surveillance in order to accelerate progress towards elimination in border area with support from National program and WHO SEARO.
- c) integrated vector management, M&E and data-sharing on a sustained basis to ensuring coverage of key interventions in border areas
- d) Ensure availability and correct use of LLINs for malaria prevention in the cross-border district.

- e) monitor susceptibility of malaria vectors to various insecticides as well as drug-resistant parasites in border areas
- f) engage and involve field workers, community leader and groups in IEC/BCC activities to create awareness and spread information regarding the availability, benefits and use of malaria prevention and treatment services in cross-border areas/districts.
- g) Explore establishment of collaboration with ICMR-National Institute of Malaria Research field station in Assam on capacity strengthening for surveillance and response
- h) external support for conducting Active Case Detection (ACD) can be considered to detect imported malaria in high-risk populations in cross border areas.
- i) capacity building for district & sub district levels malaria elimination through trainings on malaria elimination related activities at subdistrict level to be prioritized with support from National programs and WHO SEARO
- j) joint periodic review and planning for interventions like LLIN distribution, IRS, case/focus investigation & response, diagnosis, treatment, fever screening, referral and follow up of treatment.
- k) DMO of four districts of Assam to send list of logistic requirements for implementation of joint strategic plan to Director Health Services BTC for consideration and approval by NHM for cross-border malaria elimination.
- l) Joint operational plan to be finalised after incorporating inputs from delegates, experts and participants and both countries to take responsibility for turning agreed joint plan into action.
- m) research capability of the countries to be strengthened, particularly in relation to operational research to improve the outputs and outcomes of malaria elimination activities in cross-border areas/districts.
- n) Next bilateral meeting was proposed to be in Phuentsholing, Bhutan on 2-3 March 2023

SRCMF Secretariat:

1. coordination and collaboration for the National Malaria Elimination Programmes at local and district level.
2. Facilitate information and data sharing between two National Malaria Elimination Programmes on both side of the international border.
3. facilitate discussions on type of data for information sharing and harmonisation of efforts between the countries in joint national committees
4. Facilitate organisation of regular meetings between the two programmes at the local level for implementation of Joint operational plan at the local and district level.
5. Coordinate participation of technical agencies like WHO and other relevant agencies, partners and donors who are involved in acceleration of malaria elimination activities.
6. Mobilise external resources required for additional activities for acceleration of cross border area/district malaria elimination.
7. Put up a proposal for next bilateral meeting

3 CLOSING SESSION:

In the closing session the Executive Secretary thanked Chair and Co-Chair for conducting the meeting efficiently and bringing it to a successful conclusion. He thanked delegates from Bhutan and India, WHO, Resource Person and all the participants for active participation, valuable guidance and suggestions. Chair thanked the delegates for their active participation and very productive deliberations and SRCMF for organising this bilateral meeting.

The Chair formally closed the meeting at 3 pm IST

Field visit

DAY 2: Friday 9 December 2022

Field visit was organised on day 2 to Saralpara/Muray (malaria outbreak area) delegates visited Balajan Block PHC, Saralpara HWC and made visit to site where cases were diagnosed

Discussion on finding and recommendations:

- a) better understanding on the association of economic and environmental risk factors that influence the incidence of malaria among low-income and poverty-stricken migrant population in cross-border areas is required to design effective strategies for malaria elimination.
- b) The role of Accredited Social Health Activist (ASHA) in the health care delivery services at the periphery level being crucial for achieving elimination goals in cross-border areas therefore they need to receive regular training for various components of their duties on a periodic basis
- c) Problems identified by ASHAs like populations catered by them in far to reach forest areas and non-availability of vehicle/ambulance for transportation of patients for referral purposes should be considered by district administration so it doesn't affect their performance and enables them as a key resource for malaria elimination. Regional Director, RoH&FW, Dr Umesh Phangso, Director of Health Services BTC and administration gave assurance and promised to follow-up on the issues faced by ASHA.
- d) Information sharing, surveillance and reporting mechanism, joint activities should be strengthened so malaria transmission is reduced in border areas

Agenda

DAY 1: Thursday 8 December 2022

Time (IST)	Activities	Responsible person(s)
8:30-9:00	Registration	
	Inaugural Session	
9:00-9:05	Welcome Address by SPO, NCVBDC, Assam	Dr (Mrs) K Kemprai
9:05-9:10	Address by Assam Civil Services (ACS), Officer on Special Duty (OSD), NHM, Government of Assam	Mr. Pankaj Chamuah
9:10-9:15	Address by Director, DoPH, Bhutan	Mr RixinJamtsho
9:15-9:20	Address by Executive Secretary Cum Coordinator, SRCMF	Dr JigmiSingay
9:20-9:25	Address by Chief Guest, Principal Secretary, Bodoland Territorial Council (BTC)	Shri Anurag Goel, IAS
9:25-9:30	Vote of Thanks by Director of Health Services BTC	Dr Umesh Phangso
9:30-9:45	Tea Break	
	Business Session	
9:45-9:50	Nomination of Chair & Co-Chair	Dr JigmiSingay
9:50-9:55	Adoption of Agenda	Chair
9:55-10:05	1. Follow-up on recommendation of last cross-border bilateral meeting	SRCMF
10:05-10:35	2. Follow up activity presentation <ul style="list-style-type: none"> • Assam (Uldaguri/ Baksa/Chirang& Kokrajhar) -Discussions 	Assam
10:-35-11:05	3. Follow up activity presentation <ul style="list-style-type: none"> • Bhutan (S/jongkhar/Sarpang/Lhamoizingkha/Nganglam) -Discussions 	Bhutan
11:05-11:35	4. Joint Strategy and operational Plan presentation for harmonized implementation of activities on both sides of the international border -Discussions	Assam and Bhutan
11:35-11:45	5. Monitoring and Evaluation	Dr. Anju Viswan, Consultant, WCO India
11:45-12:15	6. Malaria Elimination by RA Malaria WHO SEARO & HQ	WHO SEARO & HQ
12:15-1:15	Lunch break	
1:15-1:20	AOB	
1:20-2:00	Closing	<ul style="list-style-type: none"> • Delegation Heads • Any other delegate • Dr JigmiSingay • Chair

DAY 2: Friday 9 December 2022

Field visit

Time (IST)	Session/ Topic	Speaker (s)
	Field visit to Saralpara/Muray (current malaria outbreak area). Will make visit to the cases that were diagnosed in Sarpang hospital to monitor the patient follow-up	
8:00	Start from hotel	
8:30	Balajan Block PHC	
9:45-10-45	Saralpara HWC	
10:45-11:15	Discussion on finding of the field visit	
11:15-11:30	Closing	
11:30-12:30	Lunch	
12:30	Leave for Hotel	

Annexures 2
List of Participants

SN	Name	Designation	Organization	Country	Email Address
Delegation from India					
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