



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

Meeting Report

6-7 April 2023

Hotel Lotus Villa, Phuntsholing, Bhutan

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EXECUTIVE SUMMARY

India-Bhutan local level bilateral meeting for cross-border malaria elimination was organised by SEA Regional Coordination Mechanism Forum (SRCMF) on 6-7 April '23 in Hotel Lotus Villa, Phuntsholing, Bhutan. The meeting was Chaired by Mr. Karma Jamtsho, Director, Dept. Of Public Health (DoPH) MoH, Royal Govt. of Bhutan and head of Bhutan delegation and Co-chaired by Dr Tanu Jian, Director NCVBDC, MoHFW, Govt. of India and head of India delegation. Welcome Address was delivered by Director, DoPH MoH, Royal Govt. of Bhutan which was followed by address by Dr Roop Kumari, NPO, Malaria & VBD, WHO India Country Office, Dr Jigmi Singay Executive Secretary Cum Coordinator, SRCMF Secretariat, Dr. Tanu Jain Director NCVBDC, MoHFW, Govt of India, Chief Guest Dasho Karma Jurmi, Dasho Dungpa, Phuntsholing Dungkhag Administration, Bhutan and Vote of thanks by Mr. Tobgyel, Program Analyst, VDCP, Bhutan.

The objectives and expected outcomes of the meeting were as follows:

Objectives:

1. To appraise the meeting on the follow up of the recommendations of the last bilateral meeting.
2. To present the achievement of the cross-border district Malaria Elimination in 2022.
3. To present the challenges and good practices to accelerate Malaria Elimination in the cross-border districts

Expected Outcomes:

1. To know the status of the previous meeting's recommendations.
2. To know the 2022 annual achievement of Malaria Elimination particularly in connection with E-2025 target (Bhutan).
3. To understand the Challenges faced and good practices to be promoted to accelerate Malaria Elimination in the cross-border districts

Presentation was made by Bhutan (Sarpang distt) and Assam (Chirang, Kokrajhar, Baksa and Udalguri districts) on ongoing cross-border collaboration, follow-up on recommendations of last bilateral meeting in Kokrajhar, Assam, achievements, challenges and good practices to be promoted to accelerate malaria elimination in the cross-border districts. This was followed by group work and presentation by delegates from India (districts of West Bengal, Arunachal and Sikkim of India) and Bhutan (adjoining districts) on names of corresponding cross-border districts on both sides of border and Joint planning and implementation of activities at local level.

Presentation was also made by Bhutan on screening at Entry & Exit points, case referral and private sector involvement for diagnosis of malaria followed by presentation on study on population movement & migration and treatment and patient referrals by Dr Kinley Wangdi, NHMRC Emerging Leadership Fellow, Department of Global Health, Australian National University.

Field visit was organised on 2nd day to observe functioning of Phuntsholing hospital, private clinic and understand the cross-border Pasakha industrial settlement along the borders to observe and understand the cross-border settlement along the borders and observe and learn the functioning of the hospital and private clinics

It was proposed to have next bilateral meeting in Calcutta or Jalpaiguri, West Bengal tentatively in end June or first week of July'23.

1. INAUGURAL SESSION

The Inaugural session of the 4th India-Bhutan local level bilateral meeting for cross-border malaria elimination started with **welcome address by Mr. Karma Jamtsho**, Director, Dept. Of Public Health (DoPH) MoH, Royal Govt. of Bhutan. On behalf of royal Govt of Bhutan and MoH he extended warm welcome to delegates from India, Bhutan and all the participants to the meeting. He welcomed and thanked the chief guest Dasho Karma Jurmi, Dasho Dungpa, Phuntsholing Dungkhag Administration for gracing the inaugural session with his kind presence in spite of his very busy schedule. He underlined that malaria across international borders poses a major obstacle to achieving malaria elimination and highlighted that such meeting at local level has been beneficial to strengthen Indo-Bhutan cross-border collaboration and overcome challenges of the malaria elimination. Bhutan aims to achieve malaria elimination target by 2025 and this meeting is going to be important. He apprised the meeting that Bhutan will graduate from band of LDC status by end 2023.

As Bhutan is undergoing major transition and facing difficult financial challenges NMEP need to reflect and be innovative and efficient while being committed to achieving the elimination targets. He added that this meeting not only allows both sides to discuss issues but also gives an opportunity to know each other, build comradery ship, mutual trust and support. He pointed out that results and impact of Indo-Bhutan cross-border collaboration are seen on the ground and advised both sides to continue to work together to find common solutions to overcome challenges that remain. Also, he added that emphasis should also be placed on Lessons learnt from successful malaria elimination programmes of Maldives and Sri Lanka to devise tailor-made strategies to attain malaria-free status.

He apprised the meeting that Bhutan has achieved zero indigenous cases in 2022 and pointed out the challenge to sustain it for 3 years highlights the critical importance of further strengthening of cross-border collaboration, robust surveillance and M&E. Lastly, he wished the meeting all the success in its deliberations.

Dr Roop Kumari, National Professional Officer (NPO) Malaria &VBD, WHO India Country Office thanked SRCMF for organising this important meeting. She stated that in 2017 Health ministers, representatives of 11 Member States and development partners from across the WHO SEA Region in a high-level meeting reaffirm political commitment to end malaria in the Region latest by 2030. Following which WHO SEARO developed an Operational Framework on Cross-Border Collaboration in 2018. WHO SERAO organized a meeting on cross-border collaboration on malaria elimination along the India- Bhutan border was in Guwahati, Assam in 2019 as a step forward to translate various recommendations from previous meetings and to operationalize the 2017 ministerial declaration.

She reiterated the importance of universal access to quality health services to all those at risk and effective district to district collaboration along the international borders to achieve malaria elimination. Though many districts along international border are low endemic with API less than 1 we still have to track, test and treat each and every case on both sides of international border. Where ever indigenous cases are reported it needs to be communicated to district counterpart on other side of the international border for appropriate investigation and response. She added that it was heartening to see how WhatsApp group being used for district-to-district collaboration, sharing information and response planning. However, she proposed development of a platform for data exchange in consultation and collaboration with external affairs ministry. She underlined the need for development of annual action plan for implementation of joint activities with surveillance, M&E, Treatment and vector control by identified nodal persons at National, State and district.

Dr Jigmi Singay, Executive Secretary Cum Coordinator, SRCMF Secretariat welcomed and thanked Honourable Chief Guest, Dasho Karma Jurmi Dasho Dungpa, Phuntsholing Dungkhag Administration, Bhutan for gracing the Inaugural session with his kind presence. He welcomed Dr Tanu Jain Director NCVBDC and her delegation- Regional Directors, SPOs, DMOs for taking trouble

to travel all the way to reach Phuntsholing. In equal measure he welcomed Dasho Karma Jamtsho Director DoPH and his delegation- Mr Tobgay and his team, District Medical officers, hospital Superintendents, MO and Health officers to the meeting. He welcomed Dr Roop Kumari, NPO Malaria, WHO India Office and looked forward to WHO support and guidance to countries at local level in meeting the WHO criteria for official recognition of malaria-free status by WHO. He also welcomed Consulate General of India Mr Prashant Kumar Das and thanked him for his support and participation in cross-border programme. He welcomed Dr Chan Executive Vice President, Strategy APLMA from Singapore and Dr Ferdinand Lahad Resource Person from Indonesia and Dr Kinley Wangi, Consultant from Australia for attending the meeting virtually

He was very happy to state that despite serious impact of COVID-19 on malaria program, malaria cases and deaths are now revisiting to pre-pandemic stable and showing improvement. Impressive downward trend is seen in malaria cases and mortality in cross-border areas/districts. However, as a region we are yet to reach to a comfortable level in terms of achieving the malaria elimination targets. This meeting will look at ways to accelerate and intensify malaria elimination in cross-border areas/districts. He highlighted the need for member countries to allocate adequate funding in national budget for enhancing of annual budget in a phased manner right from the time of project implementation so that sustenance budget is already incorporated. He also underlines that appropriate allocation and sustenance of Human Resources are critical for achieving malaria elimination target. He shared that SRCMF is mobilising additional resources/fund from World Bank and ADB for disease elimination in cross-border areas/districts. In conclusion he reiterated that both countries have to work jointly to strengthening district health system and accelerate and sustain malaria elimination.

Dr. Tanu Jain, Director NCVBDC, MoHFW, Govt of India thanked SRCMF for its efforts in coordinating malaria elimination in cross-border areas/districts very effectively between two countries. She congratulated Bhutan for achieving zero indigenous malaria cases. She highlighted that coordinated advocacy at the highest level is an essential component of the success of malaria elimination programmes. She urged state officers to leverage with other diseases which pose a threat to health in cross border areas to build a sustainable structure so that tackling malaria in border areas can be translated into tackling and eliminating other communicable diseases too. She added that One Health is a collaborative, multi-sectoral, trans-disciplinary approach for achieving optimal health outcomes is a can be used to improve the malaria elimination programme. She pointed out malaria being a notifiable disease it is easier to screen patients with fever for malaria. She advised both sides to be stringent with WHO validation documentation for preparation for malaria elimination certification and assess their readiness for elimination. Lastly, she apprised the meeting on PM Narendra Modi's Jan Bhagidari and Jan Andolan (people's participation and mass movement)" to break the chain of transmission which can be a campaign also for community mobilisation to tackle cross-border issues.

Dasho Karma Jurmi, Dasho Dungpa, Phuntsholing Dungkha Administration, Bhutan Chief Guest of the Inaugural session thanked MoH for organising this very importance meeting which will benefit both countries in tackling malaria transmission and achieve malaria elimination goals. He was optimistic that such collaborations among bordering districts between the two countries will go a long way in not only addressing cross-border malaria transmission but also addressing other issues of concern like emerging and re-emerging diseases, natural disasters and calamities. He was appreciative of SRCMF initiative for bringing two countries together to addressing cross-border issues. He highlighted that Phuntsholing remains vulnerable to future disease pandemics by virtue of its ecological and geographic setting. He apprised the meeting that out of 4 blocks under his jurisdiction Chhukha Dzongkhag district has already declared malaria free in 2019. However close and porous border between two countries pose risk of transmission and reintroduction of malaria. He was hopeful that Indo-Bhutan cross-border collaboration will help reduce such risk and help early detection and timely response in case of re-emergence.

Mr. Tobgyel Program Analyst, VDCP, Bhutan thanked honourable chief Guest Mr Karma Jurmi, Dasho Dungpa Phuntsholing Dungkha Administration for gracing the inaugural session of this

meeting and looked forward to his continued support. He thanked Dr Tanu Jain, Director NCVBDC, Govt. India for taking out time for attending this important meeting at local level and support for Indo-Bhutan cross-border collaboration at local level. Bhutan and India have been working closely and sharing information for immediate response. He thanked SRCMF for making the cross-border collaboration between the two countries possible at local level. He thanked Consulate General of India thanks for attending the cross-border malaria meeting and looked forward to his support. He congratulated the Samtse district of Bhutan adjoining west Bengal for being the first district to achieve malaria elimination. He thanked the Regional Directors from Assam and WB for their kind presence, guidance and support in cross-border collaboration. He thanked Dr Roop Kumari from WHO India country office for actively participating in cross-border malaria elimination meetings coordinated by SRCMF. He also thanked Mr Karma Jamtsho, Director DoPH Bhutan for taking out time from his busy schedule to attend this meeting. He especially thanked Mr. Rixin Jamtsho Chief program officer Communicable Disease Division, DoPH, previously officiating Director DoPH for his continuous guidance and support in cross-border collaboration. Lastly, he thanked all the delegates from India for attending the meeting.

BUSINESS SESSION

2.1 Appointment of Chair, Co-Chair and Rapporteur

The Session started with Executive Secretary Cum Coordinator, SRCMF Secretariat calling for nomination of Chair and Co-chair for the business session. India proposed and seconded Mr. Karma Jamtsho, Director, Dept. Of Public Health (DoPH) MoH, Royal Govt. of Bhutan and head of Bhutan delegation as Chair and Bhutan nominated and seconded Dr Tanu Jain, Director NCVBDC and head of India delegation as Co-Chair of the meeting. Dr Dorji Tshering, Medical Superintendent, Phuntsholing Hospital, Bhutan, Mr Baharul Islam, District VBD Consultant, Kokrajhar, Assam India and Ms Natasha Dawa, Program Officer SRCMF were elected as Rapporteurs of the meeting. Following which Dr Jigmi Singay formally invited and handed over the Chairmanship to Mr. Karma Jamtsho 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 ONGOING CROSS-BORDER COLLABORATION BETWEEN SARPANG DIST. (BHUTAN) AND ASSAM (INDIA)

Mr Tobgay highlighted importance of cross border collaboration:

- a. 95% of Bhutan's malaria cases are confined to border areas
- b. Porous land border, large population movement across border (joint villages & towns)
- c. No-functional cross border collaboration at the ground level
- d. No proper information sharing platform to response

The current Foci by districts from year 2014 - 2022:

- a. Active foci in Sarpang in 2021, in 2022 this has changed to Residual Non-active like S/Jongkhar which need to be sustained for another two years to turn to cleared-up foci.
- b. Rest of the districts are all cleared foci or have no malaria risk status.

He apprised the meeting on recommendations (relevant to cross-border) of Technical Advisory Group for Malaria Elimination (TAGME) 2022:

- a) Out of 11 cases in 2022, 5 were Indian patients across the border and the remaining are Bhutanese residing near international border. TAGME recommended establishing cross-border surveillance as follows:

- Random testing of day workers at point of entry in identified high risk areas
 - Joint testing of fever cases in identified high risk border location
 - Sharing of the case information (number & location) along the border areas.
- b) Cases who came just to seek diagnosis & treatment in Bhutan not to be considered for classification as imported cases. However, the case records to be maintained in the national data base.

He shared the health facilities mapped along villages of Bhutan and India border and update on progress in cross border Collaboration with Assam:

- a) Cross border visits and familiarization visit initiated in all adjoining cross-border areas/districts
- Local level meeting held between Lhamozingkha Hospital and Indian counterpart on 03.03.2023
 - A collaboration meeting between Samdrupjongkhar district and Udalguri district was conducted on 11.03.2023
 - Officials from Bhutan's national VDCP and CRRH took part in the awareness meeting on VBDC organized by the district malaria office, Chirang on 20.03.2023
 - Local level collaboration meeting with the malaria officials from Baksa, was held at Nganglam Hospital on 22.03.2023 along with Panbang Malaria staff.
- b) Information sharing of the core control measures (LLIN distribution & IRS) and timing
- c) Immediate Information sharing of malaria and initiate case finding simultaneously in both areas
- d) Malaria Case treatment, referral and follow up
- e) Joint coordination of IEC and BCC at the border level

He highlighted benefits from cross border collaboration

- a. Malaria case referral and follow up established.
- b. Immediate case notification and joint coordination on surveillance has identified outbreak and contained it
- c. Core interventions, LLIN mass distribution and focal IRS information shared
- d. Step up IRS in all malaria case areas and not based on API
- e. Health officials' rapport improved along the border areas

Way forward

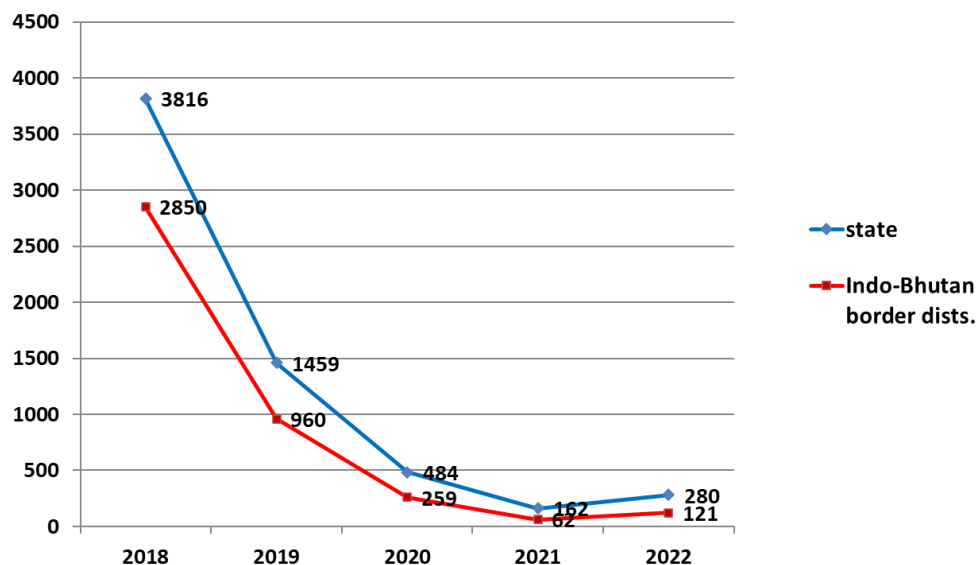
- a. Continue sharing the information and case finding along the border
- b. Working together with Private partners
- c. Study on population movement and malaria Parasites with focus in finding Asymptomatic carrier

India

Dr Keshab Barman shared that district – Baksa, Chirang, Kokrajhar & Udalguri of Assam that share border with Bhutan are mostly consist of deep forest & forest fringe area.

He shared that Assam & Indo-Bhutan districts displayed a reducing trend in malaria cases from 2018-2022

Figure 1: Trend malaria cases from 2018-2022



Source: M4 Report

She shared the following progress in cross border Collaboration with Bhutan in the area of surveillance vector control and coordination & awareness meeting:

Surveillance:

District	MBER (December 2021, Jan-Feb 2022)	MBER (December 2022, Jan-Feb '23)	Positive case (2023)	Pf (2023)
Kokrajhar	1.83	1.91	0	0
Chirang	2.71	2.77	0	0
Baksa	1.36	1.94	0	0
Udalguri	2.40	1.47	0	0

Source: M4 Report

Vector Control:

District	LLIN	ITBN	Focal Spray	Entomological surveillance
Kokrajhar	1500	320	Yes	Yes
Chirang	1500	0	Yes	0
Baksa	0	14303	0	Yes
Udalguri	0	468	0	Yes

Coordination & Awareness meetings:

District	Venue	Participation from Bhutan	Participation from Assam	Major discussion points
Kokrajhar	Jomduar Raimana forest guest house on 03/03/23	Mr. K. B. Gurung, DMS, Dagana Dist & his team (6 numbers of Health officials)	Mr. J. Gam, DMO, Mr. B. Islam, DVBDC along with 4 numbers of Health officials.	<ol style="list-style-type: none"> 1. Movement registers to be maintain by SSB Camp of Raimana on Indian side. 2. No settlement in Indian side but due to presence of Iron ore mine in Bhutan side, some people enter from Indian side. 3. Approx 500 family in Bhutan side & One Pv case (Forest malaria) was detected before Covid pandemic 4. 3 Pv case was detected and all were imported in 2021(in Raimana SSB camp on Indian side
Baksa	Darrangamela	3	9	Awareness, Sharing of data, Vector control strategies. Local level collaboration
	Tamulpur	2	37	Training programme for HW
Sandrup Jongkhar	Jomotshonkha	6	5	Awareness, sharing of data, vector control strategies. Local level collaboration
Nanglam	Nanglam Town	4	4	do
Chirang	Shantipur	DMS of Sarpang district, Entomologist Deputy Superintendent of Gelephu	60	<ol style="list-style-type: none"> 1. Identification of breeding source 2. LLIN distribution 3. More IEC/BCC 4. More surveillance as transmission season is approaching
Udalguri	Segunbari (Near Samrang Gate on 10/03/2023)	04 Participants from Bhutan DMS, DHO of S.Jonkhar	65	Sharing of Information regarding surveillance, vector control measures in both countries. Activities done: <ol style="list-style-type: none"> 1. Fever survey 2. Awareness meeting 3. ITBN
	Angrajuli Village on 14/03/2023)	05 Participants from Bhutan	55	Sharing of Information regarding surveillance, vector control measures in both the countries. Activities done: <ol style="list-style-type: none"> 1. Fever survey 2. Awareness meeting 3. ITBN

Achievements of cross border district malaria elimination:

- a. Regular bilateral meeting at the focal points have helped improved surveillance and monitoring activities.
- b. Sharing information by concern officers/workers helped avert the malaria outbreak example Saralpara outbreak.
- c. Generated awareness among the communities.
- d. Helped accelerate malaria elimination in the border areas/districts

Challenges faced in cross-border coordination:

- a. borders are high malaria endemic having mobile & tribal population
- b. Inaccessible forest fringe areas
- c. Poor health infrastructure
- d. Illiteracy, poverty leads to,
- e. Large numbers of malaria cases and deaths in the community.

Conclusion

- a. number of malaria cases have decreased or remain same
- b. There was no major outbreak like in the past
- c. effective in preventing /averting outbreak in Saralpara in Kokrajhar, Assam
- d. Cross-border coordination need to be continued and has to be on regular basis

Chair thanked for his presentation and invited Assam for their presentation on follow-up activities

2.4) BRIEF PRESENTATION OF GROUP WORK BY BHUTAN & INDIA (WEST BENGAL, ARUNACHAL PRADESH AND SIKKIM)

Following agreement have been reached after the deliberations:

Group 1: West Bengal (Alipurduar & Kalimpong), Sikkim (East Sikkim), Samtse, Lhamoizhingka and Phuntsholing

- a. Sharing of information by both sides on case detection and referral and vector control activities.
- b. Strengthening collaboration between health officials in Phuntsholing, Samtse, Lhamoizhingka, West Bengal, and Sikkim.
- c. Seeing the success of using WhatsApp platform as a common communication channel in Assam-Bhutan border, the team also committed to adopt similar practice with immediate effect.
- d. The team committed to learn from measures adopted by the Assam-Bhutan region, and replicate them including joint IRS, IEC, vector surveillance, village wise mapping of health facilities and case notification and referral.

Group 2: Assam, Arunachal Pradesh (West kameng &Tawang), Samdrupjongkhar

- a. Improve case information sharing through WhatsApp group on cases detected and case referral.
- b. Hold coordinated joint vector control activities
- c. Hold regular meetings (monthly) with district counterparts for joint planning

- d. transmission in hard-to-reach populations, across inter-state and international border and forest malaria remains an important challenge and need to be addressed

2.5) PRESENTATION ON SCREENING AT ENTRY &EXIT POINTS AND CASE REFERRALS:

Mr Tobgyel shared the following monthly malaria test performed by Private Diagnostic Center (2019-2023)

Figure2: Monthly malaria test performed by Private Diagnostic Center (2019-2023)

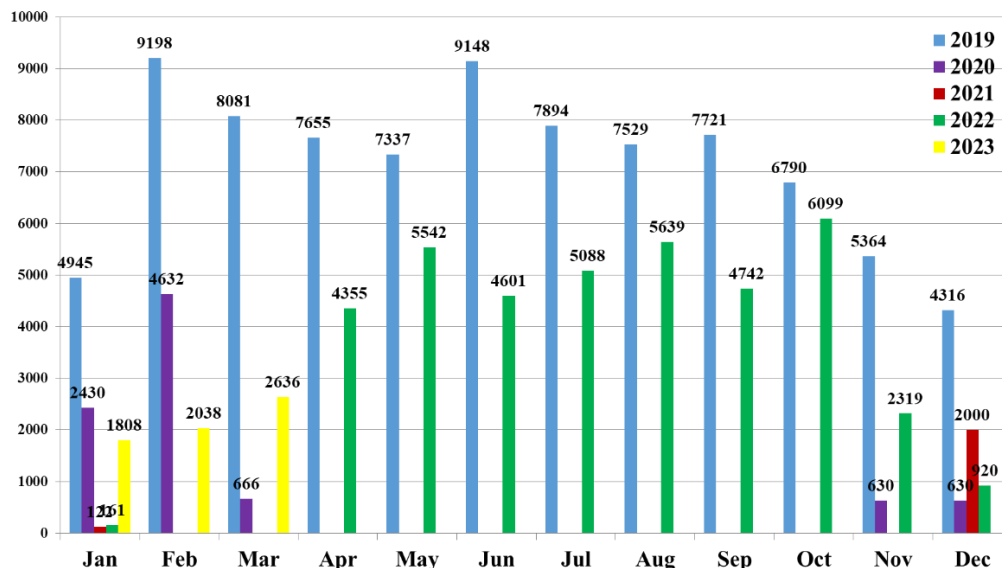
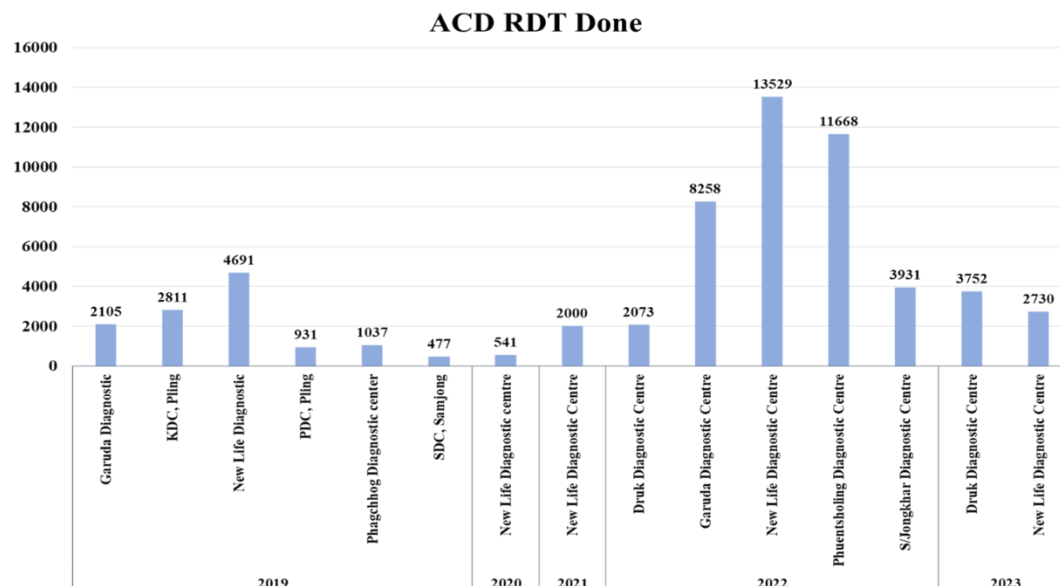


Figure 3: ACD (Active case detection) RDT (Rapid Diagnostic Tests) done by diagnostic centre from 2019-2023



Dr Kinley Wangdi shared the cross-border malaria epidemiology:

- a. Imported malaria poses significant challenges to malaria elimination efforts globally
- b. It is a complex and multi-faceted issue, driven by population movement:
 - For better economic, work, and social opportunities
 - Political unrest and conflict, and climate change

He shared case studies in relation to population movement and cross-border malaria in Brazil and Venezuela

- a. Data on malaria surveillance cases from Roraima, Brazil and Bolivar, Venezuela from 2016 to 2018 were obtained from national surveillance systems
- b. Identify the risk factors for imported malaria and
- c. Imported malaria hotspots

Findings:

- a. Imported malaria cases in Roraima, Brazil- 11,270 (24.3%)
- b. Bolivar, Venezuela- 4,072 (0.7%)

Imported malaria in Northern Sumatera, Indonesia

- a. Indonesian Ministry of Health provided malaria data of North Sumatera for 2019-2020

Gaps and recommendations

- a. Limited collaboration between the two provinces
- b. Lack of prospective studies to understand cross-border malaria

Lastly, he shared summary of different interventions/approaches to address cross-border malaria:

- a. Joint collaborations
- b. Administration of antimalarial drugs with the use of protective measures for migrants
- c. Surveillance systems
- d. Spatial decision supportive systems

2.6 DATE AND VENUE OF THE NEXT MEETING

It was proposed to have next bilateral meeting in Calcutta or Jalpaiguri, West Bengal tentatively in end June or first week of July'23.

2.7 THE FOLLOWING AGREEMENTS HAVE BEEN REACHED AFTER THE DELIBERATIONS:

- a. Both countries to keep up the momentum of cross-border collaboration to reach malaria elimination target
- b. Both NMEPs need to allocate adequate funding in National budget for enhancing of annual budget in phased manner for cross-border activities
- c. SRCMF to mobilised additional resources/funds and coordinate with donors for prioritised areas identified by both countries for cross-order collaboration
- d. Malaria is not just a public health issue but also social, economic and political challenge that requires the whole of society approach and intersectoral collaboration and collective action.

- e. screening for malaria in migrants arriving from high endemic areas/districts should be considered at official border crossing to test, treat, refer and information sharing and reporting between countries.
- f. Countries to conduct thorough case investigation of imported cases and share information with district counterparts in adjoining international border to build awareness and enable immediate action through formal mechanism.
- g. Both sides to consider documentation of joint cross-border activities and formalise case information sharing mechanism by email followed by WhatsApp when authentication of information is required.
- h. All activities identified to be in line with WHO recommendations and meet the WHO criteria for malaria elimination certification.
- i. data may be shared through identified focal points including details of line listing of cases reflecting complete history.
- j. Identify key & vulnerable populations and develop action plan for cross-border collaboration to appropriately responding to burden of malaria cases
- k. Though Pf is the major cause of malaria in Assam a significant number of cases of Pv are reported therefore understanding relapse pattern and transmission dynamics of Pv is important for effective control and elimination.
- l. Multi-disease integrated approach like integration of malaria, NTD, one health and other programs such as HIV, TB prevention and treatment programs can be considered for better return on investment
- m. five km buffer criteria for intervention should be reviewed and increased with time, and not kept as a stationary criterion.
- n. For coordinated implementation including vector surveillance, strengthening local information sharing, RSSH (Resilient and Sustainable Systems for Health) for ending public health threats and producing better health outcomes for all and delivering health services in a sustainable, equitable and effective way.

2.8 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) Both countries to keep up the momentum of cross-border collaboration to reach malaria elimination target
- b) Both NMEPs countries to allocate adequate funding in National budget for enhancing of annual budget in a phased manner for cross-border activities
- c) Engage other sectors and health programmes to develop and implement innovative and sustainable delivery of health services and accelerate achievement of malaria elimination.
- d) review the progress made so far and plan course correction as required and develop action plan for cross-border collaboration to appropriately responding to burden of malaria cases among Identified key & vulnerable populations including migrant population.
- e) conduct thorough case investigation of imported cases and share information with district counterparts in adjoining international border through nodal officers to build awareness and enable immediate action through formal mechanism.
- f) Conduct screening for malaria in migrants arriving from high endemic areas/districts at official border crossing to test, treat, refer, information sharing and reporting between countries.
- g) identify gaps in capacities at local levels and develop and implement action plan to address those gaps
- h) documentation joint cross-border activities and case information sharing mechanism through WhatsApp to be followed by e-mail by nodal officer when authentication of information is required.
- i) five km buffer criteria to be reviewed and increased with time for intervention and not kept as a stationary criterion in cross-border areas

- j)** strengthen understanding of relapse pattern and transmission dynamics of Pv for effective control and elimination.
- k)** considered screening of both symptomatic and asymptomatic malaria in the community in endemic areas for successful transmission interruption.
- l)** strengthen the formal and community health systems and responses that make up resilient and sustainable systems for health (RSSH).
- m)** Next bilateral meeting was proposed to be in Calcutta or Jalpaiguri, West Bengal tentatively in end June or 1st week of July'23.

SRCMF Secretariat:

- a) coordination and collaboration for the National Malaria Elimination Programmes at local and district level.
- b) Facilitate information and data sharing between two National Malaria Elimination Programmes on both side of the international border.
- c) facilitate discussions on type of data for information sharing and harmonisation of efforts between the countries in joint national committees
- d) 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.
- e) Coordinate participation of technical agencies like WHO and other relevant agencies, partners and donors who are involved in acceleration of malaria elimination activities.
- f) SRCMF to mobilised additional resources and coordinate with donors for prioritised areas identified by both countries for resource mobilisation for cross-order collaboration
- g) 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 4 pm

Field visit
DAY 2: Friday 9 December 2022

Field visit was organised on day 2 to Phuntsholing Hospital, Garuda Diagnostic Centre/ Private clinic for foreign workers screening and Pasakha industrial areas

Discussion on finding and recommendations:

- a. India to consider adoption of screening of malaria, HIV, HCV, Syphilis and substance abuse etc and digital record keeping and reporting of migrant /foreign workers
- b. strengthen maintaining of filled Malaria case investigation records/ register/ DHIS dashboard
- c. Initiate screening of the truckers (high-risk group) in Pasakha industrial areas especially during transmission season where construction and commercial activities are ongoing as there is increased movement of goods-carrying trucks into the country which were found to transport the vectors
- d. both sides to follow IHR 2005 guideline while enforcing any cross-border disease control activities
- e. Both sides to share information regarding suspected or confirmed case of any disease of public health concern to ensure proper case handover.
- f. Both countries to strengthen joint vector control and IEC activities
- g. Information sharing, surveillance and reporting mechanism, joint activities should be strengthened so malaria transmission is reduced in border areas
- h. Need to pay close attention to cargo which is known to transport mosquito vector and increase risk of malaria transmission. Screening at all entry points (Sea, land, and Air) must be considered while moving towards elimination target.
- i. A digitized and people friendly interventions/system should be adopted at all entry points to prevent transmission of malaria across borders
- j. Effectively targeting populations at high which include the migrants and inhabitants of border areas where the health service is the weakest is necessary to achieve the elimination goal
- k. Practice of insecticide spraying in tea gardens should be acknowledged and recognized as a cross-sectoral effort with collateral benefit

Annexure 1

Agenda

Time(BTT)	Day 1: Thursday 6 th April '23	Responsible person(s)
8:00-8:30	Registration	SRCMF Secretariat
	Inaugural Session	
8:30-9:00	Marchang Ceremony	
9:00-9:05	Welcome Address by Director, Dept. Of Public Health (DoPH) MoH, Royal Govt. of Bhutan	Mr. Karma Jamtsho
9:05-9:10	Address by National Professional Officer (NPO) Malaria & VBD, WHO India Country Office	Dr Roop Kumari
9:10-9:15	Address by Executive Secretary Cum Coordinator, SRCMF Secretariat	Dr Jigmi Singay
9:15-9:20	Address by Director NCVBDC, MoHFW, Govt of India	Dr. Tanu Jain
9:20-9:25	Address by Chief Guest, Dasho Dungpa, Phuntsholing Dungkhag Administration, Bhutan	Dasho Karma Jurmi
9:25-9:30	Vote of Thanks by Program Analyst, VDCP, Bhutan	Mr. Tobgay
9:30-10:00	Tea Break	
	Business Session	
10:00-10:05	Nomination of Chair, Co-chair and Rapporteur	Executive Secretary SRCMF
10:05-10:10	Adoption of Agenda	Chair
10:10-10:45	1. Presentation on ongoing cross-border collaboration between Sarpang Dist. (Bhutan) and Assam (India): a) Follow up of the recommendations of the last bilateral meeting held in Kokrajhar, Assam, 8-9 Dec 2022 b) Achievement of the cross-border district Malaria Elimination in 2022 c) Challenges faced and good practices to be promoted to accelerate Malaria Elimination in the cross-border districts -Discussions	-Mr. Tobgay -Dr. Keshab Barman/ Dr L Somorendra Singh
10:45-12:00	2. Group work on: a) Challenges faced and good practices to be promoted to accelerate Malaria Elimination in the cross-border districts b) Names of corresponding cross-border districts on both sides of border c) Joint planning and implementation of cross-border activities at local level along international border at the same time. d) Sharing names of the focal/contact point at local, district and state level	Bhutan & India (West Bengal, Arunachal Pradesh and Sikkim)
12:00- 1:00	3. Brief presentation on: a) Challenges faced and good practices to be promoted to accelerate Malaria Elimination in the cross-border districts b) Names of corresponding cross-border districts on both sides of border c) Joint planning and implementation of cross-border activities at local level along international border at the same time. d) Names of the focal/contact point at local, district and state level - Discussion	Bhutan & India (West Bengal, Arunachal Pradesh and Sikkim)
1:00-2:00	Lunch break	
2:00-2:30	4. Presentation on screening at Entry & Exit points and case referral: a) Study on population movement & migration b) Private sector involvement for diagnosis, treatment and patient referrals -Discussions	-Mr. Tobgay -Dr Kinley Wangdi -Bhutan -India
2:30-2:35	5. Date and venue of next meeting	Bhutan & India
2:35-2:40	AOB	Dr. Jigmi Singay
2:40- 3:00	Closing	Chair:

		-Delegation Heads -Any other delegates -Dr. Jigmi Singay -Chair
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Annexure 2

Field Visit Program-Day 2: Friday 7th April '23

Objectives of the Field visit:

- To observe and understand the cross-border settlement along the borders
- To observe and learn the functioning of the hospital and private clinics

Group 1

Time (BTT)	Day 2: Friday 7th April '23	Responsible person(s)
9:00 am	Start from Hotel Lotus Villa	
9:10-10:10	Phuntsholing Hospital	
10:25-10:55	Private clinics	
11:20-11:50	Pasakha industrial areas	
11:50	Leave for Hotel Lotus Villa	
12:20-1:20	Lunch	
1:45-2:15	Discussion of finding of the field visit (Group 1&2)	India & Bhutan
2:15-2:30	Closing	Mr. Karma Jamtsho

Group 2

Time (BTT)	Day 2: Friday 7th April '23	Responsible person(s)
9:00 am	Start from Hotel Lotus Villa	
9:30-10:00	Pasakha industrial areas	
10:30-11:30	Phuntsholing Hospital	
11:45-12:15	Private clinic	
12:15	Leave for Hotel Lotus Villa	
12:30-1:30	Lunch	
1:45-2:15	Discussion of finding of the field visit (Group 1&2)	India & Bhutan
2:15-2:30	Closing	Mr Karma Jamtsho

Annexure 3

List of Participants

SN	Name	Designation	Organization	Country	Email Address
Delegation from India					
1	Dr. Tanu Jain	Director	NCVBDC, MoHFW	India	dir.ncvbdc@gmail.com
2	Dr Vinod P. Choudhary	Medical Officer (CHS)	NCVBDC	India	drvinodnvnbdcp@gmail.com
3	Dr. Keshab Barman	Sr. M&E Consultant, TCIF	Assam	India	keshab51barman@gmail.com
4	Dr. Leishanagthem Somorendra Singh	Sr. Regional Director	ROH&FW Assam, Arunachal Pradesh	India	rd.gwh-mohfw@gov.in, rd.rohnfw@gmail.com
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9	Dr. Tapas Kumar Bhattacharyya	Regional Director	ROH&FW West Bengal, Sikkim	India	rohfw.kolkata@gmail.com
10	Dr Manabendra Ghosh	Deputy Director of Health Services (DDHS) and State Nodal Officer Malaria	West Bengal	India	epid.ibd.wb@gmail.com , nvnbdcp.wb@gmail.com
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13	Dr. Kaden Zangmu Bhutia	Joint Director cum APO	NCVBDC Sikkim	India	kadenzangmu@yahoo.in
14	Shri Sudarshan Chhetri	State Entomologist	NCVBDC Sikkim	India	entomologist007@gmail.com
15	Dr. Tumge Loyi	Public Health Specialist	NCVBDC Arunachal Pradesh	India	arp.cons.ph@gmail.com tumgeloyi@gmail.com
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Delegation from Bhutan					
1	Mr Karma Jurmi,	Dasho Dungpa	Phuntsholing Dungkha Administration	Bhutan	
2	Mr Karma Jamtsho	Director	Department of Public Health (DoPH) MoH, Kawangjangsa, Thimphu.	Bhutan	karmajamtsho@health.gov.bt
3	Mr. Rixin Jamtsho	Chief Programme Officer	Communicable Disease Division, DoPH	Bhutan	rjamtsho@health.gov.bt
4	Mr. Choney Dorji	ADHO	S/Jongkhar Dzongkhag	Bhutan	cdorji@samdrupjongkhar.gov.bt

SRCMF Secretariat

5	Dr. Kesang Wangdi	Chief Medical Officer	S/Jongkhar Hospital	Bhutan	wangdikezang88@gmail.com
6	Mr. Tobgay	Program Analyst, DoPh	VDCP, Gelephu	Bhutan	tobgye@health.gov.bt
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8	Mr. Sonam Tenzin	Malaria Technician	Nganglam Hospital, P/gatshel	Bhutan	sonam.tenzin48@yahoo.com
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15	Dr. Sonam Tobgay	Offtg. Chief Medical Officer	Samtse Hospital	Bhutan	Tobgyesonam77@gmail.com
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17	Mr. Galley	Malaria Technician	Samtse Hospital	Bhutan	gallaydukpa@gmail.com
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19	Mr Prashant Kumar Das	Consulate General of India	Phuntsholing Bhutan	Bhutan	
Partners-WHO & APALMA					
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Resource Persons					
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Consultant					
1	Dr Kinley Wangdi (V)	NHMRC Emerging Leadership Fellow	Department of Global Health, National Centre for Epidemiology and Population Health ANU College of Health and Medicine The Australian National University	Bhutan	Kinley.Wangdi@anu.edu.au, dockinley@gmail.com
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