

SURAKSHA

SWAVALAMBAN

EKATA



জীমান্ত'২৫

SEEMANTA'25



A Souvenir Published on the ocassion of
ASSAM STATE CONVENTION, 2025
SEEMANTA CHETANA MANCHA PURVOTTAR
Assam Pradesh

"The Border of the country is like Mother's attire, its protection is the primary duty of every child" Pitamah Bhishma



মবল মহিলা মবল মমাজ



■ উদ্যমিতাৰ দিশত আগুৱাই যাবলৈ আত্মসহায়ক গোটৰ
প্ৰতিগৰাকী অৰ্হতাসম্পন্ন মহিলালৈ
প্ৰত্যেক লাভালাভ হস্তান্তৰ প্ৰক্ৰিয়াৰ যোগেদি

₹ ১০,০০০ টকাৰ
উদ্যমিতা পুঁজি



ড° হিমন্ত বিশ্ব শৰ্মা
মুখ্যমন্ত্ৰী, অসম



সামৰি লোকা
মুঠ মহিলা উদ্যমী

প্ৰায় ৩০ লাখ



কৃষি



পশু পালন

উদ্যমিতাৰ সম্ভাৱ্য ক্ষেত্ৰসমূহ



বয়নশিল্প



হস্তশিল্প ইত্যাদি



অসমৰ মুখ্যমন্ত্ৰীয়ে চলিত বৰ্ষৰ ১ এপ্ৰিল তাৰিখে বিহালী সমষ্টিত আনুষ্ঠানিকভাবে এই অভিযানৰ শুভাৰম্ভণি কৰে

সমষ্টি অনুসৰি মুখ্যমন্ত্ৰী মহিলা উদ্যমিতা অভিযানৰ পুঁজি বিতৰণ সূচী

ক্রমিক নং	বিধান সভা সমষ্টিৰ নং আৰু নাম	মাহ	৪২	১০৪ নং দেৰগাঁও	৮৪	৪৫ নং জেৰগাঁও
১	৩৩ নং নলবাৰী	আগষ্ট ২০২৪	৪৩	১০৫ নং বোকাখাত	৮৫	৪৬ নং মাজবাট
২	৫২ নং জালীঘোৰ		৪৪	১০৭ নং সৰুপুৰ	৮৬	৪৮ নং টলো
৩	১২৫ নং পাখাবৰুনি		৪৫	১০৩ নং গোলাঘাট	৮৭	৪৭ নং তেজপুৰ
৪	৮৩ নং মাৰ্বেটি		৪৬	১০৮ নং বোকাডাল	৮৮	৭৩ নং বিহপুৰীয়া
৫	৮ নং গুৰুী		৪৭	১০৩ নং হাওৰাঘাট	৮৯	৭৬ নং লখিমপুৰ
৬	১১৮ নং শিলচৰ	ছেপ্টেম্বৰ ২০২৪	৪৮	১১৫ নং হাফলং	৯০	১১ নং চিংখাং
৭	১১৪ নং লখীপুৰ		৪৯	১১৫ নং উখালবৰ	৯১	১৮ নং মাজুলী
৮	৩৭ নং জালুকবাৰী		৫০	১২০ নং ধলাই	৯২	১০০ নং যোৰহাট
৯	৩৫ নং হোকাই		৫১	২৬ নং বজালী	৯৩	১০১ নং মৰিয়নি
১০	৩৫ নং চেকিয়াজুলি		৫২	৪০ নং টিহ	৯৪	১২৪ নং লক্ষিণ কৰিমগঞ্জ
১১	৭০ নং বিশ্বনাথ	অক্টোবৰ ২০২৪	৫৩	৪২ নং হিপাৰাৰ	৯৫	২৩ নং চোঙা
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১৫	৫৩ নং লাহৰিঘাট		৫৭	৭২ নং গাহপুৰ	৯৯	১১ নং টাটকা
১৬	৭ নং গৌৰীপুৰ	নৱেম্বৰ ২০২৪	৫৮	৩৬ নং চুৱাহাটী (কেপ্তা)	১০০	২৩ নং সোণাই
১৭	১১ নং মানকাচাৰ		৫৯	৬ নং গোলকপুৰ	১০১	২৪ নং মাহমুদা
১৮	৩৪ নং ডিমৰীয়া		৬০	৭৭ নং চকুৰাখা	১০২	২৫ নং ডিমৌ
১৯	৩৫ নং নিউ গুৱাহাটী		৬১	৭৮ নং যোমাজি	১০৩	২৬ নং শিকশালৰ
২০	১২১ নং হাৰিলাকাৰ্দি		৬২	৭৯ নং ডিঙিবৰগাঁও	১০৪	২৭ নং নাজিৰা
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২৪	৩২ নং কমলপুৰ		৬৬	১৭ নং সুজনাগাম	১০৮	৭৪ নং ৰঙানদী
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২৬	৪৪ নং মৰিগাঁও	জানুৱাৰী ২০২৫	৬৮	৬২ নং বিছাকাপি	১১০	৪২ নং বাজা
২৭	৫৭ নং কলিয়াবৰ		৬৯	৫৮ নং চামুড়ি	১১১	৪৬ নং ওসালতুৰি
২৮	৫৯ নং বটপুৰ		৭০	১০৩ নং খুমটাই	১১২	১৮ নং দিল্লী চিৰাং
২৯	৬০ নং নগাঁও-বটপুৰ		৭১	১১৬ নং কাটিগড়া	১১৩	৪ নং ৰাধাপুৰী
৩০	৬১ নং ৰঙা		৭২	১১৭ নং বৰখালা	১১৪	২ নং দত্তমা
৩১	৬৪ নং জামতিং	ফেব্ৰুৱাৰী ২০২৫	৭৩	১০ নং শশিম সোৱালখাৰা	১১৫	১০০ নং ডিগু
৩২	৬৬ নং নুৱাৰ		৭৪	১৫ নং দুখৈ	১১৬	১১২ নং খাৰী
৩৩	৬৮ নং ৰঙিয়া		৭৫	১৬ নং ক্ষত্ৰাপুৰী	১১৭	৩০ নং হাজো-তখালতুৰি
৩৪	৮২ নং ভূমতুৰা		৭৬	২০ নং বিজলী	১১৮	২২৩ নং উত্তৰ কৰিমগঞ্জ
৩৫	৮৭ নং চাখুৰা-নাহোবালা		৭৭	২১ নং জগদীপুৰ-পৰাচোণ	১১৯	৩৩ নং পলাশবাৰী
৩৬	৮৮ নং ডিব্ৰুগড়	মাৰ্চ ২০২৫	৭৮	২৪ নং বৰপেটা	১২০	১০ নং বিলাসীখাৰা
৩৭	১২ নং জলেশ্বৰ		৭৯	৩৩ নং মিহপুৰ	১২১	৩ নং কোকাখাৰ
৩৮	২৪ নং পাকোটেবাৰী		৮০	৩৪ নং বৰফেটী	১২২	৪ নং পৰতৰা
৩৯	১৭ নং অমৰীয়া		৮১	৪১ নং আমসা	১২৩	১৪ নং পুৰ গোৱালপাৰা
৪০	৫৫ নং মিহ		৮২	৪৩ নং তালপুৰ	১২৪	১২২ নং আলখপুৰ-কাটিলিচোৰা
৪১	৯ নং কীৰতিং জাংকৰা		৮৩	৪৪ নং গোবৰ্ষা	১২৫	৫১ নং কৰণীল

ਸੀਮਾਂਤ' ੨੫ SEEMANTA' 25



Assam State Convention, 2025 Seemanta Chetana Mancha Purvottar

Date : 26 & 27 July, 2025

Venue : SIPRD Campus, Kahikuchi, Guwahati, Assam

Editor
Debojit Mazumder

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Guwahati-781008, Assam

Seemanta' 25 : A collection of articles on Effective border management published by "Seemanta Chetana Mancha, Purvottar, Assam State committee, Guwahati-781008, Assam, on the occasion of Assam State Convention, 2025 held on 26th & 27th July, 2025 at SIPRD, kahikuchi, Guwahati, Assam.

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Shri Lakshman Prasad Acharya

**RAJ BHAVAN
GUWAHATI**



MESSAGE

With profound happiness, I extend my heartfelt appreciation to Seemanta Chetana Mancha Purvottar for its role in strengthening border management and fostering a spirit of national unity. It is because of its steadfast involvement in creating social harmony, people along the border areas are feeling united and safe.

Moreover, at a time when our government is paying utmost importance to inclusive development, Seemanta Chetana Mancha Purvottar stands as a shining example of how grassroots initiatives can contribute positively to safeguarding our frontiers. The dedicated works of Seemanta Chetana Manch in raising awareness, mingling continuously with border communities and promoting patriotic values among the people living along the borders are truly praiseworthy. Moreover, by building a bridge of trust and confidence between residents living in the fringe areas and national institutions, Seemanta Chetana Mancha Purvottar is playing an exemplary role in enhancing both vigilance and social cohesion in sensitive areas.

I hope the Annual Conference being held on 26th and 27th July, 2025, and the deliberations thus held, empower Seemanta Chetana Mancha Purvottar to scale newer heights in addressing the needs of inclusive development. I moreover, hope that the souvenir, 'Effective Border Management', being published on the occasion becomes trailblazer and inspires the readers to feel stronger, safer and more united.

May your noble mission continue to inspire and empower all.

Dated: July 21, 2025


(Lakshman Prasad Acharya)

पबित्र मार्घेरिता
Pabitra Margherita



विदेश एवं वस्त्र राज्य मंत्री
भारत सरकार
Minister of State for
External Affairs and Textiles
Government of India

MESSAGE

It gives me immense pleasure to extend my warm greetings to **Seemanta Chetana Mancha Purvottar** on the publication of the **Seemanta'25** souvenir during the Assam State Annual Conference. This souvenir is an insightful document that explores the opportunities and challenges in border areas, while offering valuable ideas to guide the way forward.

The theme, “**Effective Border Management**” highlights the vital importance of securing our frontiers while ensuring holistic development of border communities. Strengthening border management not only enhances national security but also builds resilience, fosters a spirit of solidarity, and empowers people living in these strategically significant areas. I commend the commitment of the organizers and volunteers who continue to work selflessly at the grassroots to realize this vision.

I am confident that the publication of *Seemanta'25* will inspire future generations and contribute meaningfully to the overall progress of the region, in alignment with the vision of *Viksit Bharat*. May this initiative further deepen the spirit of unity and dedication among all those working towards a secure and prosperous future for our nation.

(PABITRA MARGHERITA)

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ড° হিমন্ত বিশ্ব শৰ্মা
Dr. Himanta Biswa Sarma



মুখ্যমন্ত্রী, অসম
Chief Minister, Assam



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Dispur
2 Shaon, 1432 Bhaskarabda
19 July, 2025

MESSAGE

I am pleased to extend my warm greetings to Seemanta Chetana Mancha Purvottar on the occasion of its Assam State Annual Conference and the publication of the souvenir, Seemanta '25.

As Assam's international borders continue to serve as gateways for trade, culture, and connectivity, the importance of effective border management becomes increasingly evident. A comprehensive approach—encompassing enhanced surveillance, coordinated civil-security mechanisms, and active community participation—is essential to ensure safety, stability, and development in these sensitive regions.

The theme “Effective Border Management” is both timely and relevant, particularly for Assam and the Northeast. Strong and secure borders form the bedrock of national progress. While the Government remains committed to strengthening border infrastructure and cooperation, the role of civil society and local communities remains indispensable in safeguarding our frontiers.

I am confident that the discussions at this conference and the publication of Seemanta '25 will offer insightful perspectives on building secure, inclusive, and people-centric border policies.

As we work towards the vision of Ek Bharat, Shreshtha Bharat, I convey my best wishes for the success of Seemanta '25 and for the continued prosperity of Assam and the nation.

(Dr. Himanta Biswa Sarma)

Sri Pramod Boro
Chief Executive Member
BODOLAND TERRITORIAL COUNCIL
Kokrajhar



Bodoland Territorial Council,
Bodofa Nwgr, Kokrajhar
Phone No.: 03661-286800

No. BTC/CEMO/Messages-1/2024/175

Kokrajhar
17th July, 2025



MESSAGE

I extend my heartfelt greetings and best wishes to Seemanta Chetana Mancha Purvottar on the occasion of your Assam State Annual Conference, to be held on July 26th and 27th, 2025.

Your organization's unwavering dedication since 2008 towards the safety, security, and development of the international border areas of Northeast Bharat is truly commendable. The theme for this year's souvenir—*Seemanta '25* being "*Effective Border Management*," is particularly pertinent and reflects the critical importance of this subject in our contemporary landscape.

I am confident that it will serve as an invaluable resource, focusing on crucial aspects of border management and inspiring all your karyakartas who work tirelessly at the grassroots level. May this publication further strengthen your resolve and efforts in safeguarding our borders and promoting holistic development in these vital regions.

My best wishes for a successful conference and a well-received publication.


(Pramod Boro)

सर्बानंद सोणोवाल
SARBANANDA SONOWAL



पत्तन, पोत परिवहन और जलमार्ग मंत्री
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Government of India

শুভেচ্ছাবাণী

ভাৰতৰ উত্তৰ-পূৰ্বাঞ্চলৰ আন্তঃৰাষ্ট্ৰীয় সীমান্তৱৰ্তী অঞ্চলসমূহৰ সুৰক্ষা আৰু উন্নয়নৰ মহৎ উদ্দেশ্য আগত ৰাখি একতা আৰু ৰাষ্ট্ৰভক্তিৰ আধাৰত নিষ্ঠাৰে কাম কৰি অহা সংস্থাসমূহৰ ভিতৰত সীমান্ত চেতনা মঞ্চ পূৰ্বোত্তৰৰ ভূমিকা উল্লেখযোগ্য। সীমান্তত বসবাস কৰা জনসাধাৰণক সজাগ আৰু সচেতন কৰাৰ লগতে সীমান্তৰ উন্নয়নমূলক কাৰ্যসূচীসমূহত তেওঁলোকক প্ৰত্যক্ষভাৱে জড়িত কৰি দেশাত্মবোধৰ ভাৱনা জাগ্ৰত কৰাৰ ক্ষেত্ৰত সীমান্ত চেতনা মঞ্চ পূৰ্বোত্তৰে অবিৰত কাৰ্যসূচী গ্ৰহণ কৰি আহিছে। তেওঁলোকৰ নিৰৱচ্ছিন্ন সমাজসেৱাই সীমান্তৱৰ্তী অঞ্চলসমূহৰ জনগণক যথেষ্ট উপকৃত কৰিছে আৰু শান্তি-সম্প্ৰীতিৰ পথ শক্তিশালী কৰি আহিছে। মই জানিবলৈ পাই সুখী হৈছো যে সীমান্ত চেতনা মঞ্চ পূৰ্বোত্তৰ, অসম ৰাজ্যিক সমিতিয়ে অহা ২৬ আৰু ২৭ জুলাই, ২০২৫ তাৰিখে অনুষ্ঠিত হ'বলগা ইয়াৰ ৰাজ্যিক সন্মিলনৰ লগত সংগতি ৰাখি "কাৰ্য্যক্ষম সীমান্ত ব্যৱস্থাপনা" শীৰ্ষক বিষয়বস্তুক কেন্দ্ৰ কৰি "সীমান্ত ২৫" নামৰ এখনি স্মৃতিগ্ৰন্থ প্ৰকাশ কৰিবলৈ যো-জা কৰিছে। পূৰ্বৰ ধাৰাবাহিকতা অটুট ৰাখি এইবাৰো স্মৃতিগ্ৰন্থখনিয়ে গুৰুত্বপূৰ্ণ তথ্য-বিষয়বস্তু সম্বলিত লেখা প্ৰকাশ কৰি পঢ়ুৱৈ সমাজৰ সমাদৰ বুটলিবলৈ সক্ষম হ'ব বুলি আশা ৰাখিছোঁ। সদৌশেষত সীমান্ত চেতনা মঞ্চ পূৰ্বোত্তৰৰ জয়যাত্ৰা মই আন্তৰিকতাৰে কামনা কৰাৰ উপৰি স্মৃতিগ্ৰন্থখনিৰ সফলতা কামনা কৰিছোঁ।

নতুন দিল্লী
১৮ জুলাই, ২০২৫


(সৰ্বানন্দ সোণোৱাল)



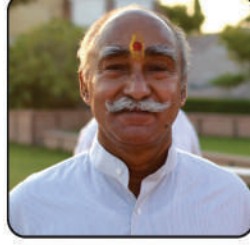
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एक कदम स्वच्छता की ओर

सीमा जागरण मंच

माधवनिवास, पेरण्डुर रोड, एलमक्करा, कोच्चि - 682 026



MESSAGE

Namaste,

Along with other organisations engaged in inculcating love of nation and need of cohesiveness in the society through out our country, Seemanta Chethana Manch Purvottar is doing a commendable job in the north eastern area of our nation. This annual meeting that reviews the performance of the organisation and releases a souvenir on the occasion will definitely be an encouraging step in its march forward. The eternal vigilance advocated by Seemanta Chethana Manch Purvottar to those living along the border is more relevant now than at any other time.

Pahalgam terror attack exposes the truth that antinationals survive on our bread and butter and associate themselves with our enemies. This dangerous situation is equally important at our north eastern border with Bangladesh and Myanmar also. The many programmes initiated by Seemanta Chethana Manch Purvottar Assam State during previous years like Seemanta Kreedha Mahotsav, medical camps, birth anniversary festivals of national heroes , programmes connected with ecological conservation etc has definitely enthused a new vigour in the border villages. Antinationals can never come across the border if a society awake with love for the nation is there. It is a welcome relief that the open antinational movements of yesteryears at the north eastern states have comedown considerably due to your tireless efforts.

A government determined to guard the borders of our nation is there to support our efforts. At this juncture we shall rededicate ourselves and pledge in this meeting to rebuild our society in the future aswell. Let the Seemanta Chethana Manch Purvottar workers derive the motivation to fulfill the same.

Hope this souvenir will be a model for workers along other border states also. Wishing you all the very best once again

Best Regards,

A. Gopalakrishnan
Akhil Bharatiya Samrakshak
Seema Jagaran Manch
Kochi, Kerala

Editorial Board - Seemanta'25



From Left to Right Dr. Rajiv Nayan, Dr. Panchanan Barman & Dr. Uddipta Nayan Medhi

Annual Convention' 25 Reception Committee



এতিয়া সম্পূৰ্ণ নতুন ৰূপত
আপোনাৰ আপোন চেনেল



আপোচবিহীন অসমকণ্ঠ

REMADE
REVISED
MARKED
TRANSFORMATION

1983
TATA PLAY

644
The Airtel logo consists of a red stylized 'a' shape above the word "airtel" in a lowercase, sans-serif font.

1527
The Dish TV logo features the word "dishtv" in a lowercase, sans-serif font, with a red checkmark-like symbol integrated into the 'v'.

1983
The JioTV logo shows a red play button icon inside a white circle, followed by the text "JioTV" in a sans-serif font.

09
The GCCI logo features the letters "GCCI" in a bold, sans-serif font, with a yellow and blue graphic element to the right.

281
GTPL

330
The NXT Digital logo includes the word "NXT" in a bold, sans-serif font, followed by "DIGITAL" in a smaller, sans-serif font, with a red and blue graphic element.

379
The JCC logo features a stylized red and blue 'J' shape above the letters "JCC" in a bold, sans-serif font.

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From the Editorial Desk...



On this cardinal & holistic occasion of the Assam State Annual Convention 2025, I extend my heartfelt greetings to all our Karyakartas, well-wishers, desh-bhakt, dignitaries, and supporters of *Seemanta Chetana Mancha Purvottar*. It is with great pride and a deep sense of responsibility that we bring to you this year's souvenir, *Seemanta '25*, focused on a critical theme - **“Effective Border Management.”**

Since our inception on the auspicious day of **Ram Navami, April 13, 2008**, our journey has been one of commitment, compassion, and unshakeable devotion to the cause of our international border regions in the Northeastern part of Bharat. Our platform, deeply inspired by the ideology of **Seema Jagran Manch**, formed in 1985, has been consistently working to ensure that the people living along these sensitive regions are not forgotten, but instead brought to the center of our national consciousness.

This year's theme, *“Effective Border Management”*, resonates deeply with the challenges and aspirations of our time. With changing geopolitical dynamics, technological advances, and ever-evolving threats, the security and development of our borders demand more than conventional responses. Border management today is not just about fencing or patrolling—it is about **inclusive development, social integration, awareness-building, and a strong cultural and emotional connect with the nation**. It is about ensuring that the first citizen of our land, the villager living at the edge of Bharat feels secure, heard, and empowered. We, at Seemanta Chetana Mancha Purvottar, believe that **“Vyakti Nirman leads to Rashtra Nirman.”** It is not enough to erect physical barriers if the psychological and emotional bond with the nation is weak. Our focus has always been on people-centric approaches to border management. **Empowerment, awareness, education, economic development, and cultural unity** are the foundations upon which lasting security can be built.

In this year's souvenir, *Seemanta '25*, we are privileged to feature contributions from **eminent scholars, senior administrators, policy experts, and thinkers** who have delved into various dimensions of border management, from security strategies and policy reforms to sociocultural integration and development economics. Their insights enrich this publication with depth and direction. These articles do not merely diagnose the problems but offer pragmatic solutions rooted in ground realities.

We are equally honoured to have received **goodwill messages** from distinguished dignitaries, whose words of encouragement act as a source of strength for all our karyakartas. Their blessings reaffirm our faith in our mission and energize our efforts to keep marching forward. We also express our deepest gratitude to **institutions**,

business houses, donors, and advertisers, whose unwavering support has enabled us to bring out this publication. Their contribution reflects a collective consciousness and corporate responsibility towards nation-building.

The issue of border management is also deeply intertwined with **cultural and civilizational unity**. In regions like the Northeast, where diverse tribes and communities coexist, nurturing a sense of oneness and shared heritage is essential. Our programs have consistently celebrated the **local languages, customs, festivals, and histories**, while connecting them with the larger fabric of Indian civilization. This cultural synergy strengthens bonds and counters divisive narratives, thereby promoting peace and harmony.

As we look to the future, our vision is crystal clear. We seek to build a Bharat where **every border villager is a proud stakeholder in the National journey**. Effective border management is not just the responsibility of the security forces, it is also the duty of every citizen. Whether in policy-making, education, media, or civil society everyone has a role to play in preserving the unity, security, and dignity of our great Motherland. Let us stand together hand in hand, heart to heart as **wakeful sentinels** of our civilization.

At the end, I bow in gratitude to every karyakarta, volunteer, donor, contributor, and well-wisher who has been a part of this journey. May *Seemanta* '25 serve not just as a record of our work but as a **call to action**, a source of knowledge, and a reminder that **National service begins at the borders**.

Let us keep alive the flame of deshbhakti. Let us nurture the roots of unity. Let us continue our march from **Seema to Samriddhi** and from **Vyakti Nirman to Rashtra Nirman**.

Jai Seemanta! Jai Bharat Mata!

– Debojit Mazumder
Editor
Seemanta'25

**“THE BORDER OF THE COUNTRY IS LIKE
MOTHER'S ATTIRE, ITS PROTECTION IS THE
PRIMARY DUTY OF EVERY CHILD”
.....PITAMAH BHISHMA**

SECURE BORDER MANAGEMENT : A MANDATORY REQUIREMENT



– Lt. Gen. Vinod G. Khandare
(Retd.)

‘The worst enemy is the enemy within. Arrows may not kill a soldier but skillful intrigue can kill even those in the womb.’

Kautilya in Arthashastra

Bharat has many national security challenges and fault lines inherited from the past, some initiated in the present with a devious plan for continuation in the future by neighbourhood enemies, beyond border enemies also by a great number of internal enemies. Border management is a serious issue inadequately addressed by political leaders, diplomats and administrative officials for multiple reasons over the last seven decades. A few notable reasons can be highlighted as unsettled borders, poor understanding of border manning, vagaries of weather, challenging terrain, corruption in border management, fraudulent identity documents ecosystem, complicity of the State governance mechanism including the Police, provincial and national anti national politics which encourages infiltration of foreigners related to demographic engineering to increase vote bank in sensitive constituencies, deficiency of technology incorporation and overall lack of nationalism.

Bharat is a civilisational society. There are rich lessons from history with great personalities possessing and progressing strategic vision, shapers of economic power, creators of a robust security architecture, formulators of plans for growth and

security, initiators of policies and specified processes which finally led to time bound execution of plans, and ensured secure borders and internal cohesion in different eras.

The current day leadership and governance mechanism at various levels need to understand the glaring weaknesses on our frontiers and in the hinterland which have been inadequately addressed for over the last seven decades. Secure frontiers must be visualised for both; kinetic and non kinetic domains for today and tomorrow.

The pragmatic understanding of borders must encompass integrated domains of Land, Sea, Air and further, must include new domains of modern warfare which classically have no borders but we still need to manage the limits and limitations of Cyberspace, Outer and Inner Space, Informationspace, Bio and Chemical vulnerabilities etc.

Ancient Wisdom

Kautilya, Prithviraj Chauhan, Maharana Pratap, Chatrapati Shivaji and Maharaj Ranjit Singh, Subhash Chandra Bose some of the greatest personalities of Indian history though separated in timelines by centuries, had the same focus and commitment to create a great empire for Bharatiyas. These sons of Bharat internalised the prominence of external and internal security and enunciated vision, policies and preparations which have been emulated by the current regime too in Bharat. Hon’ble PM

Narendra Modi has focused the attention of the citizens, political leaders, bureaucracy, law enforcement agencies, media, judiciary and Armed Forces to have a great vision of VIKSIT BHARAT 2047 and have an inclusive approach. The view is that the frontier village should be the 'First Village' of India. Earlier the remote villages were neglected and treated as the 'Last Villages'.

Kautilya, in his 'Arthashastra', emphasized a multi-faceted approach including secure janpada i.e. borders and citizens, leadership, advisers, governance mechanism, statecraft, economic robustness, infrastructure-creation-growth and management, identification of adversaries and creating their counter, agile diplomacy, alliances, a strong military, a vigilant-agile internal security system and a well-developed intelligence network. Overall, the security and administrative gaps along the Indian borders which cannot curb illegal migration, human and cattle trafficking, drug and arms trade and movement of terrorist groups require an urgent and integrated look followed by result oriented action in a sustained manner. The false notion of increased tourism being a confirmation of peace returning would result in Pahalgam type of monstrous attacks. This is unacceptable. The casual attitude of law enforcement agencies at State level related to reducing presence of Rashtriya Rifles and / or Assam Rifles from the affected areas speaks of amateur and immature attitude and incorrect assessments.

Emperor Chandragupta mentored by Kautilya with the capital in Magadha, marched on to the distant North West frontiers and defeated the Greek Macedonian General Seleucus Nikator, who had founded the eponymous Seleucid Empire. Initially a secondary player in the power struggles following Alexander's death, Seleucus rose to become the ruler of Asia Minor, Syria, Mesopotamia, and the Iranian plateau, assuming the title of *King*. The Seleucid Empire, post the decline of Alexander, was one of the major powers of the Hellenistic world. Emperor Chandragupta Maurya brought Seleucus to his knees

who sought peace with Emperor Chandragupta Maurya by offering his daughter in matrimonial alliance. Additionally, Seleucus handed over the vast expanse of Gandhara territory which is the present day West Pakistan and Afghanistan straddling the Hindukush Mountains. The Mauryan Empire was vast, encompassing nearly all of present-day India, excluding parts of Kalinga and the far South, and extending from the Hindu Kush mountains in the North West to Bengal in the East. In the North, it stretched from the Himalayas and in the South, it reached the Narmada River. During his lifetime, the Mauryan Empire had secure borders which displayed the wisdom of our forefathers.

Chatrapati Shivaji, visualised liberating his people from the clutches of foreign rulers of different origins and creating a self governed 'Hindavi Swaraj' for the ultimate good of the citizens. He strategically focused on construction and / or renovation of forts along the frontiers of his kingdom and in the hinterland along the roads achieving external and internal security. He created a customised strong navy and put into action an effective and efficient coastal security to revive finance generative maritime trade for the State treasury. He also created a well-trained peasant cum soldier citizen army. All these elements protected his kingdom and progressed the vision of a great 'Hindavi Swaraj' which finally happened with the degeneration of the Mughal Empire and the military successes of the great Maratha Warriors led by the Peshwas, Scindias, Holkars, Gaekwads, Bhonsles and many more brave Marathas who spread their influence and authority from Attock in the West to Cuttack in the East and from Delhi in the North to Jinji in the South and to the seas and the oceans. All great leaders understand that secure borders are essential for prosperity, security and stability. There are many ways to achieve secure borders. Around the same time a similar peoples Army existed and excelled for 400 years in the Ahom Kingdom in India's North Eastern Region. Nations, civilisations and kingdoms which synergise militaries, law enforcement agencies,

citizens, administration ecosystem and diplomacy are destined to achieve conflict avoidance propelling assured all round growth.

Few good practices from the immediate and extended neighbourhood need to be understood and suitably incorporated in our border management system.

Border Management Models:

Prominent Nations

How do nations manage their borders?

Managing borders, both land and maritime, is a complex task involving multiple layers of security, diplomatic considerations, legal frameworks, and the use of technology. Every country tailors its approach based on its geopolitical situation, the type of borders it shares (land, maritime, or both), the security challenges it faces (e.g., migration, trafficking, terrorism, smuggling), and its available resources. Here's a global overview of how different nations manage their land and maritime borders, leveraging technology, resources, and international cooperation.

United States

Land Borders.

❑ **Border Security Forces:** The U.S. Border Patrol (USBP), part of the Customs and Border Protection (CBP), is responsible for securing the land borders with Canada and Mexico. They work alongside other agencies like the Federal Bureau of Investigation (FBI), U.S. Army, and National Guard in areas with specific threats.

❑ **Technology and Infrastructure:**

♦ **Border Fencing:** The U.S. has constructed extensive fencing along the Mexico border (primarily in high-traffic regions), with some parts equipped with smart fences (sensor-based) to detect motion and intrusion. It faces well organised mafia which creates tunnels and ingenious methods of crossing the fence.

♦ **Surveillance and Drones:** The CBP deploys helicopters, Unmanned Aerial Vehicles (UAVs) and

satellite imagery for surveillance, capturing real-time data and monitoring large swathes of the border that are difficult to patrol on the ground. They also use motion sensors, night-vision cameras, and thermal imaging to detect illegal crossings.

♦ **Integrated Border Management System:** A high-tech surveillance network integrates radar systems, CCTV, infrared sensors and human resources for round-the-clock monitoring of the U.S.-Mexico border.

Maritime Borders

U.S. Coast Guard (USCG): The Coast Guard monitors U.S. maritime borders (Atlantic, Pacific, Gulf of Mexico, and Caribbean) for illegal activities such as drug trafficking, illegal immigration, terrorism, and piracy. The USCG has aircraft, drones, and satellite technology for real-time monitoring.

♦ **Technology:** The Coast Guard uses Automatic Identification Systems (AIS), which are shipborne tracking systems that provide real-time data on vessel positions, ensuring that illegal or unregistered vessels are tracked.

♦ **International Collaboration:** The U.S. collaborates with other countries like Mexico and Canada for joint maritime patrols, information sharing, and efforts to combat drug smuggling and human trafficking- these two being the biggest threats.

Canada

Land Borders

♦ **Canada Border Services Agency (CBSA):** The CBSA is responsible for securing Canada's land borders with the United States, the world's longest undefended border. Canada employs a combination of border control agents, customs officers, and military to secure its borders.

♦ **Technology:** CBSA uses biometric systems, facial and gait recognition, automated systems and smart big data analyses for detection and deterrence of illegal border crossings. In remote areas, motion sensors, thermal cameras, and UAVs are used to detect illegal crossings.

Maritime Borders

Canadian Coast Guard (CCG): The CCG monitors Canada's extensive maritime borders through patrol vessels, drones, helicopters, and satellite systems. The Coast Guard also works closely with the Royal Canadian Navy to protect Arctic waters and secure shipping lanes.

❑ **Technology:** The CCG utilizes Advanced Vessel Tracking Systems (AVTS), satellite-based surveillance, and radar systems along with data and AI to monitor Arctic passages and commercial shipping lanes.

European Union (EU) – Schengen Area

Land Borders

❑ **Schengen Area:** Countries within the Schengen Area (e.g. Germany, France, Italy and many others) have abolished internal borders but maintain robust controls on external borders to regulate movement from non-Schengen countries. Frontex, the European Border and Coast Guard Agency, coordinates border security and facilitates cooperation between member states.

❑ **Surveillance and Technology:** The EU uses biometric passports, Automated Border Control (ABC) gates, and facial recognition technology at major airports and land borders to monitor travelers and prevent illegal immigration and terrorism.

❑ **Integrated Border Management (IBM):** Through EUROSUR (European Border Surveillance System), the EU uses satellite imagery, drones, and automated systems to monitor its external borders, sharing information across Schengen States.

Maritime Borders

❑ **Frontex Operations:** Frontex also plays a major role in maritime border security, coordinating sea patrols in the Mediterranean and other waters to prevent illegal migration and human trafficking. The EU uses drones, aerial surveillance, and satellite data to track vessels and boats in the Mediterranean.

❑ **Operation Triton:** An example is Operation Triton, which is a joint EU naval operation to prevent illegal crossings from North Africa to Southern Europe. This operation deploys border patrol ships, helicopters, and drones to monitor the sea.

❑ **Intelligence Cooperation.** There is deep and sustained intelligence cooperation between Intelligence agencies of African and European nations to thwart trafficking and cross border crime.

Australia

Land Borders

❑ **Border Protection Command (BPC):** Australia's Department of Home Affairs coordinates border protection activities. Australia's land borders are generally well-controlled, but it focuses heavily on managing immigration and preventing illegal entry from neighboring countries like Papua New Guinea and Indonesia. There are illegal entrants from distant lands like Myanmar, Bangladesh, Latin America etc.

❑ **Technology:** Australia uses biometric verification, facial recognition and fingerprint scanning, especially at airports and seaports. There is also an increased use of surveillance drones and thermal cameras to monitor remote areas.

Maritime Borders

❑ **Australian Border Force (ABF):** The ABF operates in close collaboration with the Royal Australian Navy (RAN) and Coastwatch to monitor and patrol Australia's vast maritime borders.

❑ **Offshore Deterrence:** Australia is known for its offshore detention policy, intercepting illegal boats attempting to enter Australian waters and returning them to their country of origin. This is good practice.

❑ **Technology:** Australia utilizes satellite surveillance, UAVs, and sea patrol vessels equipped with radar systems to detect unauthorized vessels trying to breach the country's maritime borders.

❑ **Operation Sovereign Borders:** This is a comprehensive border security operation focusing on

preventing illegal immigration and smuggling in Australia's maritime domain. The operation involves Navy patrols, air surveillance, satellite surveillance and joint patrols with regional partners like Indonesia.

China

Land Borders

❑ **Border Control Forces:** China maintains tight control over its borders with India, Pakistan, Russia, Nepal, and other countries through a combination of military and paramilitary forces such as the Border Defence Corps (BDC), People's Armed Police (PAP), and the People's Liberation Army (PLA). In addition, by law every citizen of China is bound by law to act like eyes and ears for national security.

❑ **Technology:** China has incorporated AI, facial recognition, radars, helicopters, drones and satellites for surveillance along its border with India and Myanmar. There are reports of smart border fences using sensors and radar in places like Xinjiang and Tibet Autonomous Region to detect infiltrations and illegal migration and nefarious movement.

❑ **Infrastructure:** The construction of infrastructure like railways, roads, airports, heliports and border villages along the Sino-India border is a part of an ongoing effort to legally solidify territorial claims and maintain control over remote areas.

Maritime Borders

❑ **China Coast Guard:** The China Coast Guard (CCG), along with the PLA Navy and Maritime Militia patrols China's vast maritime borders, where territorial disputes exist with countries like Vietnam, Philippines, Indonesia and Malaysia.

❑ **Technology:** China utilizes satellite surveillance, radar systems, and AI algorithms for maritime monitoring. The maritime surveillance systems are also integrated with real-time and legacy multi domain data to track ships entering contested waters.

❑ **Artificial Islands:** China has constructed artificial islands in the South China Sea with advanced radar, communications equipment, and runways to enforce maritime claims, monitor shipping lanes, and project military power.

ASEAN

(Association of Southeast Asian Nations)

The member countries of ASEAN manage their borders through a combination of bilateral agreements, regional cooperation frameworks, national border management agencies, and multilateral dialogues. Border management is complex in the region due to diverse geography, historical disputes, differing governance capacities, and varying levels of infrastructure development. Here's an overview of how ASEAN nations collaboratively manage their borders:

1. Bilateral Agreements and Treaties

Many border issues are handled bilaterally, especially land demarcations:

❑ Thailand–Cambodia, Indonesia –Malaysia, Thailand–Myanmar, and others have long-standing border discussions and treaties.

❑ Some boundaries, especially maritime ones (e.g. in the South China Sea), remain disputed, prompting ongoing negotiations.

❑ Countries establish Joint Border Committees to manage boundary demarcation and enforcement.

2. National Border Management Agencies Each ASEAN country has its own agencies or security forces responsible for border control:

❑ **Indonesia** – National Border Management Agency (BNPP)

❑ **Thailand** – Border Patrol Police Bureau and Ministry of Interior

❑ **Malaysia** – Immigration Department, Royal Malaysian Police, and Malaysian Maritime Enforcement Agency

❑ **Vietnam** – Border Guard Command under the Ministry of National Defense

❑ **Philippines** – Bureau of Immigration and Coast Guard

These agencies deal with immigration, customs, smuggling, human trafficking, and border surveillance.

3. ASEAN Regional Cooperation

While border management is primarily national, ASEAN has initiated several regional frameworks to promote cooperation:

a. ASEAN Political-Security Community (APSC). It encourages peaceful resolution of disputes and respect for national sovereignty. It also supports joint patrols, intelligence-sharing, and confidence-building measures.

b. ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre). While not a border agency, it facilitates coordination during border crises like refugee movements or natural disasters.

c. ASEAN Convention Against Trafficking in Persons (ACTIP). It addresses cross-border human trafficking and encourages coordination among law enforcement agencies.

d. ASEAN Single Window (ASW). It aims to streamline cross-border trade by connecting customs systems of ASEAN nations.

4. Joint Border Patrols and Intelligence Sharing. Some ASEAN members conduct joint patrols, especially in maritime areas:

❑ Indonesia, Malaysia, and the Philippines conduct trilateral maritime patrols in the Sulu-Sulawesi Seas to combat piracy and terrorism.

❑ Thailand, Laos, Cambodia, and Vietnam participate in joint border patrols to monitor illicit activities.

5. Use of Technology. There is an increasing use of surveillance drones, biometric systems, and electronic

customs systems for monitoring. Some land borders have fencing or surveillance infrastructure, especially in drug-trafficking hotspots.

6. Dispute Resolution Mechanisms. ASEAN promotes dialogue and diplomacy for resolving disputes but lacks a binding dispute resolution mechanism. The International Court of Justice (ICJ) has ruled on some ASEAN border cases (e.g., Preah Vihear Temple between Thailand and Cambodia).

Myanmar

Myanmar's neighbors include India, China, Bangladesh, Laos, and Thailand. Border management between Myanmar and these countries is a complex issue. Propensity of drug smuggling, arms - human trafficking and cross border terrorist movement is a realistic threat assessment. Multiple Options are exercised, with bilateral and regional considerations. India, in particular, has been focusing on enhanced border security measures, including creation and manning of a fencing with Joint or Integrated Checkposts due to concerns about illegal migration, drug trafficking, and cross border terrorism. Intelligence sharing. Free cross border movement of civilians for local trade and people to people connect for a belt of specified number of kilometers depth is operative.

Myanmar's Neighbors:

❑ **India** shares a 1,643 km border with four northeastern Indian states: Arunachal Pradesh, Nagaland, Manipur, and Mizoram.

❑ **China:** Myanmar shares a 2,129 km (1,323 mile) long international border in the North with China. There is a heavy economic investment, people to people connect and resource extraction by China in Myanmar. Ruili, the China-Myanmar bordertown is at a safe distance from India and is the hub of China's anti India espionage and sabotage activities masterminded by China's intelligence agencies using Paresch Barua, the absconding ULFA terrorist.

❑ **Bangladesh:** A 271 kilometer (168 mile) long

international border separates Bangladesh and Myanmar. The border stretches from the trijunction with India in the North to the Bay of Bengal in the South. The Naf River forms part of the border, particularly in the southern section. Terrorist and infiltration threat to India is prominent from Bangladesh. Free movement of terrorists, Rohingyas and traffickers between Myanmar and Bangladesh remains largely unchecked. The results to check these movements are sub optimal and a cause of concern for India.

❑ **Thailand.** Myanmar shares a 2,416 km long land border with Thailand in the Southeast. It stretches from the trijunction with Laos in the North to the Andaman Sea in the South. Myanmar and Thailand share a 142 nautical mile maritime border. The land border is established, while the maritime boundary is partially delimited.

❑ **Laos:** It shares a border with Myanmar in the East. The Laos–Myanmar international border of 238 km (148 mi) length runs entirely along the Mekong river from the trijunction with China in the north to the trijunction with Thailand in the South.

Myanmar's border defense strategy

It is complex and involves a multi-pronged approach encompassing military deployments, infrastructure development, and cooperation with its neighbors, although internal instability and changing dynamics in border regions pose significant challenges.

-In Myanmar, border management is primarily handled by a combination of military and law enforcement agencies, given the country's unique political and security environment. There are several key players involved in overseeing and managing Myanmar's borders:

1. Myanmar Border Guard Force (BGF)

❑ **Role:** The BGF is primarily responsible for securing Myanmar's land borders. It was created by the Myanmar military (Tatmadaw) to handle border

security in regions that are often affected by ethnic insurgency, drug trafficking, and cross-border crime.

❑ **Responsibilities:** They conduct border patrols, prevent illegal immigration, combat smuggling, and monitor cross-border insurgent activities. They also play a role in maintaining law and order along the borders with countries like China, Thailand, India, and Bangladesh.

2. Myanmar Police Force (MPF)

❑ **Role:** The MPF is responsible for general law enforcement duties including border security and internal security. They work alongside other security forces in regions with more urbanized or less volatile borders.

❑ **Responsibilities:** Along with national police responsibilities, the MPF manages immigration control, customs enforcement and general border security enforcement at official entry points like border gates and checkpoints.

3. Myanmar Customs Department (MCD)

❑ **Role:** MCD handles customs inspections and law enforcement at entry points of land, sea, and air borders. Their responsibility is to ensure the legal flow of goods and people.

❑ **Responsibilities:** Customs officers monitor imports and exports, prevent smuggling and ensure proper collection of tariffs.

4. Myanmar Armed Forces (Tatmadaw)

❑ **Role:** The Tatmadaw has a significant presence in border areas, particularly in regions affected by insurgencies and ethnic conflicts (e.g., the Kachin, Shan, and Rakhine States). The military plays a direct role in border management in these more volatile regions, either independently or in cooperation with other agencies.

❑ **Responsibilities:** The military monitors border skirmishes involving ethnic armed groups, conducts joint operations with other agencies and provides security against armed insurgents crossing

into Myanmar from neighboring countries.

5. **Myanmar Immigration Department (MID)**

❑ **Role:** MID is the primary agency responsible for border entry control including the management of visa issuance, refugee and asylum seekers and regulating foreign nationals entering Myanmar.

❑ **Responsibilities:** The military oversees immigration checkpoints, visa-on-arrival facilities and border passes for people living along border regions.

6. **Ministry of Border Affairs (MOBA)**

❑ **Role:** MOBA was established specifically to focus on border affairs, particularly in relation to Myanmar's ethnic minorities and insurgent groups in border areas.

❑ **Responsibilities:** MOBA aims to strengthen border development, resolve issues related to ethnic minorities, and foster cross-border cooperation. They also play a role in humanitarian work and managing borderland resettlement programs.

7. **Border Liaison Offices (BLOs)**

❑ **Role:** Myanmar maintains BLOs at some key border points. These offices act as cooperation mechanisms between Myanmar and its neighbors particularly for security and trade regulation purposes.

❑ **Responsibilities:** BLOs are used for managing cross-border trade, communications and for addressing border incidents between Myanmar and countries like China, India, Thailand, and Bangladesh.

Border Cooperation with Neighbors

❑ Myanmar has established cooperative border management mechanisms with neighboring countries, such as:

❑ **China:** Myanmar and China cooperate on controlling illegal trade and insurgents along their shared border.

❑ **Thailand:** Myanmar and Thailand work together on cross-border security, drug trafficking, and illegal migration, especially in areas like Karen State and Shan State.

❑ **Bangladesh:** The border with Bangladesh, particularly in Rakhine State, is sensitive due to issues related to the Rohingya crisis, migration, and refugee flow.

❑ **India:** The border cooperation between India and Myanmar is crucial due to their shared 1,643-kilometer-long border, which is both strategically significant and sometimes challenging due to the presence of cross-border insurgent groups and illegal trade. Both countries have worked on strengthening their relationship and improving border security, trade, and diplomatic relations over the years. India-Myanmar border cooperation is multifaceted and involves a combination of security collaboration, trade facilitation, regional connectivity, and diplomatic efforts. Both countries recognize the importance of a stable and secure border to promote prosperity, but challenges like insurgent activities, political instability, and smuggling remain significant hurdles. Nevertheless, both nations continue to work together through a series of agreements and initiatives aimed at improving relations and enhancing cooperation in various sectors.

❑ Here are some of the key aspects of India-Myanmar border cooperation:

1. Border Security and Management: Both India and Myanmar face challenges in controlling cross-border insurgent activities, smuggling, and illegal immigration. Some ethnic insurgent groups in Myanmar, such as the United Wa State Army (UWSA) and Kachin Independence Army (KIA), have had links to insurgent groups in India's Northeast region, notably in Nagaland, Manipur, and Assam.

❑ **Security Forces Cooperation:** India and Myanmar have an agreement for cooperation in counter-insurgency operations and information sharing, particularly to tackle insurgents operating along the border. The India-Myanmar Border Liaison Office (BLO) system was set up to facilitate communication and coordination between border security forces.

❑ **Strengthening Border Fencing:** India has undertaken efforts to strengthen the fencing along its border with Myanmar, especially in areas with high insurgent activity. Myanmar has also cooperated in securing its side of the border to prevent insurgents from crossing over.

2. Economic and Trade Cooperation: The border also serves as a crucial route for trade between the two countries, especially for India's Northeastern states, which are geographically more connected to Myanmar than the rest of India. Key initiatives in this regard include:

❑ **Kaladan Multi-Modal Transit Transport Project (KMTT):** This ambitious project aims to connect India's Sittwe Port in Myanmar with Zokhawthar in Mizoram (India) via sea and land transport, boosting trade and regional connectivity. This project is seen as a way to bypass the traditional longer route through mainland India and strengthen economic ties.

❑ **Border Trade:** Both India and Myanmar encourage trade across the border at designated trade posts such as Moreh-Tamu (in Manipur) and Rihkhawdar-Zowkhawthar (in Mizoram). India exports goods like cement, textiles, chemicals, and agricultural products, while Myanmar exports items like wood, beans, and pulses. Both sides aim to expand this trade under the framework of the

2. Challenges and Issues: Despite the cooperation, some challenges persist:

❑ **Insurgency and Cross-border Smuggling:** The porous nature of the border and the presence of insurgent groups that operate on both sides complicate security efforts. Myanmar has struggled with its internal conflicts, and insurgents often use the border to escape or launch attacks, making the task of border control difficult.

❑ **Myanmar's Political Situation:** Since the military coup in 2021, Myanmar's political instability has led to shifts in how both countries engage. India has maintained that it will support Myanmar's

democratic process but has also been cautious in dealing with the military junta, given Myanmar's history of fluctuating internal politics.

❑ **Ethnic Conflicts & Borders :** The border regions are ethnically diverse, and the challenges related to cross-border movements of ethnic groups, particularly the Chins and Kachins, who live on both sides of the border, can sometimes lead to tensions. Influx of refugees and illegal immigrants of whom many indulged in drug trafficking from Myanmar into Indian border states have created major turbulence in the Indian border state of Manipur.

Here's a breakdown of the key elements:

1. Military presence and border patrols

❑ Myanmar's military, the Tatmadaw, along with specialized Border Guard Forces (BGF), are responsible for securing the country's borders.

❑ The BGFs are sub-divisions of the Tatmadaw and consist of former insurgent groups brought under the military's control, aiming to end hostilities and integrate these groups into the national defense structure.

❑ Border Guard Police (BGP) plays a key role in border control, counterinsurgency and law enforcement in border areas, including gathering intelligence and manning checkpoints.

2. Infrastructure development

❑ **Fencing:** Myanmar has undertaken efforts to construct fencing along its borders, particularly with Bangladesh and India, to control illegal activities like migration, smuggling, and insurgency.

❑ Along the Myanmar-Bangladesh border, about 210 km (130 miles) of the 271 km border are already fenced and Myanmar announced plans to fence the rest in 2017.

❑ India has also initiated a massive fencing drive along its border with Myanmar to address similar security concerns.

❑ **Border Checkpoints:** Efforts have been made

to establish and upgrade border checkpoints, particularly along the borders with Thailand and Laos, to facilitate controlled movement of goods and people. Thailand and Myanmar have three permanent checkpoints along their border.

❑ Laos and Myanmar have been reviewing and constructing border markers and have agreed to facilitate border crossings and transportation on the Mekong River.

3. Bilateral cooperation

❑ Myanmar engages in bilateral dialogues with its neighbors, including India, to address border security issues and cooperate on matters like counter-insurgency operations and intelligence sharing.

❑ India has provided support for the development of infrastructure and capabilities of the Myanmar Army to help manage the border regions effectively.

❑ India and Myanmar have conducted joint operations to destroy insurgent camps located across the border.

❑ Myanmar and its neighbors, particularly Bangladesh, have signed agreements focused on addressing cross-border issues like opium trafficking. However, on ground these Agreements currently seem to be weak esp after the current turbulence in both the nations.

Challenges

❑ The mountainous and densely forested border regions make surveillance and control difficult.

❑ Shared ethnic communities along the border can complicate border management as loyalties may transcend national boundaries, creating difficulties for border authorities.

❑ Ongoing conflicts between the Myanmar military and ethnic armed groups have destabilized border regions and created security challenges for neighboring countries, leading to refugee influxes and increased border security measures by neighbors like India.

❑ The growing influence of groups like the Arakan Army (AA) along the Bangladesh and Indian borders, controlling significant territories and disrupting border security and trade, presents a major challenge.

In conclusion, Myanmar's efforts to defend its borders involve a combination of military deployment, infrastructure development, and bilateral cooperation with neighboring countries. However, the country faces significant obstacles due to its complex topography, strong cross-border ethnic ties, and ongoing internal conflicts that have destabilized the border regions and empowered non-state actors. These challenges necessitate a multifaceted and adaptive approach to border management and regional cooperation.

Indonesia

❑ Badan National Pengelola Perbatasan (BNPP) oversees border planning and coordination across land and maritime borders, coordinating 18-20 ministries. The operational enforcement remains with Indonesian Navy, police and immigration

- Growth of Special Border Economic Zones (SBEZs) aim to boost development while reducing trafficking and security threats.

Malaysia

❑ Immigration Department, Royal Malaysian Police, and Malaysian Maritime Enforcement Agency are jointly responsible for the border management.

- A unified Border Control and Protection Agency (established Dec 2024) manages all land, air and sea entry points.

- The responsibilities include curbing illegal migration, smuggling and human trafficking.

Singapore

In Singapore border management is a shared responsibility between several government agencies, with each playing a distinct role in ensuring the security, safety and efficiency of both land and maritime borders.

- The responsibility is focused primarily on port and airport security with advanced technology, zero-trust cyber defenses and a strong intelligence-led model.
- Border integrity is largely resting on seamless digital screening systems.

Thailand

- The responsibility of border management lies with the Border Patrol Police Bureau and Ministry of Interior.
- The Border Patrol Police and specialized units tackle terrorism, trafficking, and illicit cross-border trade.
- They deploy One Stop Border Post (OSBPs) and SBEZs, especially along Thai – Myanmar – Cambodia – Laos frontiers.

Philippines

□ In the Philippines, border management is handled by several agencies, each with specific responsibilities depending on the type of border (land, sea, or air) and the nature of the issue (e.g., immigration, customs, security, etc.). Here's a breakdown of the key agencies responsible for border management in the Philippines:

1. Philippine Coast Guard (PCG)

□ **Role:** The Philippine Coast Guard is one of the most important agencies in managing the Philippines' maritime borders, which are extensive due to its archipelagic nature.

Responsibilities:

- ♦ The PCG patrols the country's coastal waters and exclusive economic zone (EEZ) to prevent illegal activities such as smuggling, illegal fishing, and piracy.
- ♦ It enforces maritime law and ensures the safety of maritime traffic.
- ♦ They conduct search and rescue operations and disaster response operations in the event of maritime emergencies.

- ♦ They are responsible for protection of maritime boundaries: The PCG has been particularly involved in addressing issues in the South China Sea and protecting the Philippine territorial waters.

2. Bureau of Customs (BOC)

□ **Role:** The Bureau of Customs is responsible for managing the flow of goods across the Philippines' land, air, and sea borders.

Responsibilities:

- ♦ It enforces customs laws, prevents smuggling of illegal goods and contraband. It manages the clearance of imported and exported goods and ensures compliance with tariffs and regulations.
- ♦ It establishes and operates Customs border checkpoints at airports and seaports to monitor and inspect goods entering or leaving the country. It works with other agencies to prevent the illegal entry of drugs, weapons, and other contraband.

3. Bureau of Immigration (BI)

□ **Role:** The Bureau of Immigration is the government agency primarily responsible for controlling the entry, stay, and exit of foreign nationals in the Philippines.

Responsibilities:

- ♦ It handles border security and control at immigration checkpoints, particularly at airports, seaports, and land border crossings.
- ♦ It checks visas, monitors illegal immigration, and ensures deportation of foreign nationals who violate Philippine immigration laws.
- ♦ It manages refugee and asylum claims, especially for individuals fleeing conflict or persecution.

4. Armed Forces of the Philippines (AFP)

□ **Role:** The AFP (Army, Navy, Air Force) play a critical role in securing the Philippines' borders, particularly in areas with significant security challenges, such as areas in Mindanao and the Sulu Archipelago.

❑ **Responsibilities:**

- ♦ The Philippine Navy plays a direct role in protecting maritime borders, conducting patrols and surveillance in disputed waters such as the South China Sea.
- ♦ The Philippine Army is responsible for securing land borders, particularly in areas affected by insurgency or terrorist activity in the Bangsamoro Autonomous Region (BARMM), as well as along the disputed Philippines–Malaysia border.
- ♦ The Philippine Air Force helps with surveillance of border areas, including aerial monitoring and reconnaissance.

5. National Intelligence Coordinating Agency (NICA)

❑ **Role:** The NICA is responsible for gathering intelligence on border security threats, including terrorism, drug trafficking, and cross-border insurgency.

❑ **Responsibilities:**

- ♦ NICA provides intelligence on potential security threats at the borders, including monitoring the activities of terrorist groups (e.g., Abu Sayyaf) and separatist groups in Southern Philippines.
- ♦ NICA coordinates intelligence sharing among other government agencies responsible for border security.

6. Department of National Defense (DND)

❑ **Role:** The Department of National Defense oversees the security and defense aspects of the country's borders, including military operations related to border defense.

❑ **Responsibilities:**

- ♦ DND coordinates the efforts of the Armed Forces in protecting both land and maritime borders.
- ♦ DND develops policies related to border defense and security, particularly in the context of regional tensions (e.g., disputes in the South China Sea).

7. National Commission on Indigenous Peoples (NCIP)

❑ **Role:** While the NCIP is not directly responsible for traditional border management, it deals with issues related to indigenous land that often intersects with national borders.

❑ **Responsibilities:**

- ♦ NCIP protects the rights of indigenous peoples in border areas, ensuring that their ancestral lands are not compromised due to border disputes or development activities.
- ♦ NCIP works with local communities near borders to resolve conflicts and ensure the protection of indigenous territories.

8. Local Government Units (LGUs)

❑ **Role:** In some cases, local government units (LGUs) have a role in border management, particularly along land borders with Malaysia (in the Southern Philippines).

❑ **Responsibilities:**

- ♦ LGUs manage local immigration issues, such as permit issuance and border crossing in certain regions, especially in the case of residents living along borders.
- ♦ LGUs coordinate with national agencies on border-related issues, particularly security, customs, and immigration concerns.

Border Issues & Security Concerns

The Philippines faces a number of challenges when it comes to border management, including:

❑ **South China Sea Disputes:** The Philippines has territorial claims over parts of the South China Sea, and the issue of Chinese maritime activities continues to be a major concern.

❑ **Terrorism & Insurgency:** The Southern Philippines, particularly Mindanao and Sulu, has experienced long-standing insurgencies and terrorism, with groups like Abu Sayyaf and the Bangsamoro

seeking autonomy or independence. These groups often operate along the borders, particularly near Malaysia.

❑ **Illegal Migration & Human Trafficking:**

The Philippines is both a source and transit country for illegal migration and human trafficking, especially along its maritime borders with Malaysia, Indonesia, and beyond.

❑ **Drug Trafficking:** As part of Southeast Asia's Golden Triangle, the Philippines is affected by the drug trade, which often crosses its borders with Malaysia and Indonesia.

Cambodia

-In Cambodia, border management is primarily the responsibility of several key government agencies, which work together to ensure the country's borders are secure, regulated, and well-managed. The main authorities involved include:

1. **Ministry of Interior (MOI):** The MOI plays a significant role in managing the overall security and law enforcement at Cambodia's borders. Within MOI, the General Department of Immigration is particularly important, as it oversees immigration control, the issuance of visas, and monitoring the movement of people across the borders.

2. **Cambodian Border Police (CBP):** Under the MOI, the CBP are directly responsible for patrolling and securing the land, air, and maritime borders. They manage border crossings, prevent illegal immigration, and work with other security forces to protect the country's borders.

3. **Ministry of Defense:** The Royal Cambodian Armed Forces (RCAF), specifically the Cambodian Army, play a role in securing the country's borders, particularly in areas with potential security threats or territorial disputes. They work alongside border police to maintain territorial integrity.

4. **Customs & Excise Dept:** This agency handles the regulation of goods crossing the borders, including customs inspections and enforcement of

trade regulations. They also prevent smuggling and manage the flow of legitimate goods.

5. **Ministry of Foreign Affairs and International Cooperation (MFAIC):**

The MFAIC is involved in diplomatic aspects of border management, such as negotiating agreements with neighboring countries on border security, trade, and cooperation.

6. **Other Local Agencies:** In certain cases, provincial and local authorities may also have roles in managing borders, particularly where cross-border communities are concerned.

Additionally, Cambodia has worked with its neighboring countries, such as Thailand, Vietnam, and Laos, to ensure border stability, resolve disputes, and facilitate regional cooperation on security and trade.

♦ Cambodia works jointly on border patrol with Laos, Thailand, and Vietnam under bilateral/trilateral agreements [CVL (Cambodia, Vietnam and Laos) Development Triangle].

♦ Occasional tensions with Thailand flare up – example May 28, 2025, clash leading to border restrictions.

Laos

- In Laos, border management is overseen by a combination of government agencies, with the main responsibility falling to a few key institutions that deal with security, immigration, customs, and law enforcement. Given Laos' geographical location, landlocked between China, Vietnam, Thailand, Cambodia, and Myanmar, border management is crucial for controlling the movement of goods, people, and security threats. Here are the main agencies responsible for border management in Laos:

1. **Lao Border Police (LBP)**

❑ **Role:** The LBP is the primary agency responsible for securing land borders. They are tasked with maintaining order, preventing illegal activities such as smuggling, drug trafficking, and illegal migration.

❑ **Responsibilities:**

- ◆ Border patrols and border checkpoints to control the flow of people and goods entering or leaving the country.
- ◆ Working alongside other law enforcement agencies to combat cross-border crime, including human trafficking and illegal logging.
- ◆ Ensuring that border disputes are managed and that borders remain secure, especially along sensitive areas like Laos' border with Myanmar and Vietnam.

2. **Ministry of Public Security (MPS)**

❑ **Role:** The MPS is responsible for internal security and law enforcement across Laos, including in border areas.

❑ **Responsibilities:**

- ◆ The Lao Police within the Ministry work in coordination with the Border Police to maintain border security and enforce immigration laws.
- ◆ The MPS also oversees the Lao Immigration Police, which is responsible for controlling the entry and exit of foreigners, and for managing the country's visa system.

❑ **Immigration control:** This includes border posts at major crossings and managing refugees and asylum seekers.

❑ **Intelligence:** The MPS also handles intelligence gathering related to border security, including tracking organized crime and insurgency movements.

3. **Lao Customs Department (LCD)**

❑ **Role:** The LCD plays a key role in managing the economic side of border control, ensuring the legal flow of trade and preventing the smuggling of goods, particularly narcotics and weapons.

❑ **Responsibilities:**

❑ **Import and export regulation:** Customs

officers manage the flow of goods across Laos' borders, ensuring that tariffs are collected and that goods comply with national laws.

❑ **Anti-smuggling efforts:** Customs officers work closely with other law enforcement agencies to prevent illegal goods, especially drugs (Laos is a key part of the Golden Triangle, a major opium-producing region), from crossing borders.

❑ **Customs checkpoints:** These are situated at key land entry points and along river borders, especially near Vietnam, Thailand, and China.

4. **Ministry of Foreign Affairs (MFA)**

❑ **Role:** While not directly responsible for day-to-day border enforcement, the MFA plays a key role in handling diplomatic relations related to border issues, including international agreements on border management.

❑ **Responsibilities:**

- ◆ Managing border agreements with neighboring countries, including demarcation and dispute resolution, as well as any cooperative frameworks for cross-border security.
- ◆ Engaging in bilateral talks with countries like Vietnam, Thailand, China, and Myanmar regarding border security, trade facilitation, and migration policies.

5. **Lao People's Army (LPA)**

❑ **Role:** The LPA is tasked with national defense and securing Laos' borders, particularly in regions that may be prone to insurgency or cross-border conflict.

❑ **Responsibilities:**

- ◆ The army is deployed to protect the land borders, especially in the more remote or conflict-prone areas like those bordering Myanmar and Thailand.
- ◆ The LPA conducts military patrols and works with other agencies to address border skirmishes, insurgent groups, and terrorist threats.

- ◆ In sensitive border areas, the army may assist in border surveillance, including cooperation with China and Vietnam in defensive operations.

6. Ministry of Industry and Commerce

❑ **Role:** This ministry plays a less direct role in physical border enforcement but is responsible for economic regulations related to trade and cross-border commerce.

❑ Responsibilities:

❑ **Trade regulation:** Ensuring that the import/export of goods aligns with Laos' trade policies and international agreements.

❑ **Cross-border trade agreements:** Working with neighboring countries to facilitate legal trade while controlling illegal smuggling.

7. Local Govts & Provincial Authorities

❑ **Role:** Local government units and provincial authorities have important roles in managing border control at regional levels, particularly for community-based security measures.

❑ Responsibilities:

- ◆ Managing border communities, especially in remote and ethnically diverse areas, and coordinating with national agencies on security patrols.

- ◆ Coordinating with neighboring regions on cross-border cooperation, especially in remote border regions where communication with national authorities may be limited.

- ◆ Provincial authorities sometimes work with neighboring countries to help manage refugees or migrants crossing borders.

8. Border Liaison Committees (BLC)

❑ **Role:** Laos has established BLC in certain regions where cooperation with neighboring countries is essential.

❑ Responsibilities:

- ◆ These committees are set up to facilitate

coordination between Laos and neighboring countries on border security issues.

- ◆ They work on border trade issues, customs enforcement, and resolving border disputes.

- ◆ Committees have been especially important in ensuring the smooth implementation of regional agreements like the ASEAN Free Trade Area (AFTA) and ASEAN-China border cooperation.

Challenges in Border Management

❑ **Smuggling and Drug Trafficking:** Laos is part of the Golden Triangle, where the production of illegal narcotics (particularly opium and methamphetamines) is a significant challenge. Managing the flow of drugs across borders, especially with Thailand and Myanmar, is a major task for the Lao authorities.

❑ **Insurgency and Ethnic Conflict:** Some regions along the borders with Myanmar and Vietnam are prone to ethnic insurgencies and armed conflict, requiring the attention of the Lao People's Army and border security forces.

❑ **Illegal Migration:** The porous borders with neighboring countries, particularly Vietnam and Thailand, sometimes lead to challenges with illegal immigration and human trafficking.

❑ **Border Disputes:** There are occasional border disputes with Thailand and Vietnam, which may require diplomatic negotiation or military intervention to resolve.

Cooperation with Neighboring Countries

❑ **Thailand:** Laos cooperates with Thailand in the Mekong River region to combat illegal trade, human trafficking, and drug smuggling. Joint patrols are common along the Mekong, which forms much of the border.

❑ **Vietnam:** The border with Vietnam is heavily patrolled by both Laos and Vietnam's border forces, and both countries have worked together on issues like illegal trade and cross-border crime.

❑ **Myanmar:** Laos and Myanmar share a border in the Shan State region, an area known for ethnic conflict and insurgency, which requires constant border management attention from both governments.

❑ **China:** With its border to the north, Laos has economic and security cooperation with China, particularly on border trade and surveillance.

- ♦ Lao Border Guard Force and Immigration Police under the Ministry of Public Security manage checkpoints, patrols and anti-smuggling.

- ♦ Engages in joint patrols with Vietnam (2,500 + in recent years) and trilateral cooperation in the CLV triangle.

Vietnam

- ♦ Vietnam shares borders with China, Laos, and Cambodia. Managing these borders requires a multi-faceted approach involving several government agencies, security forces, and a mix of domestic and international cooperation. The key objectives of border management in Vietnam are to ensure territorial integrity, security, and the smooth flow of trade and people, while maintaining regional relations.

Here's an overview of how border management is carried out in Vietnam:

1. Key Agencies Involved in Border Management:

Several Vietnamese authorities and agencies play significant roles in border management. These agencies coordinate efforts across security, immigration, trade, and diplomatic fronts.

a. Ministry of Public Security (MPS):

- ♦ The Vietnam Border Guard Force (BGF) is a critical agency under the Ministry of Public Security. It is tasked with ensuring the security and sovereignty of Vietnam's borders, as well as preventing illegal activities such as smuggling, human trafficking, and illegal immigration.

- ♦ The BGF also manages cross-border patrols and border posts at the designated crossing points,

ensuring that all border activities follow national laws and international agreements.

b. Ministry of Defense:

- ♦ The Vietnam People's Army (VPA), including the Vietnam BDF, is tasked with defending the country's borders from external threats and ensuring territorial sovereignty. The army works alongside the BGF in sensitive border areas, particularly in the case of territorial disputes or military threats.

- ♦ In some border regions, the military works on maintaining infrastructure that supports border control, such as road networks, surveillance posts, and watch towers.

c. Customs & Immigration Authorities

- ♦ Vietnam Customs plays an important role in managing the flow of goods across the border, preventing smuggling and enforcing trade regulations. They also inspect goods entering Vietnam from neighboring countries and ensure that customs duties are paid.

- ♦ The Vietnam Immigration Department under the Ministry of Public Security controls the entry and exit of people, issuing visas, conducting border checks, and ensuring that illegal immigration is minimized.

d. Local Governments and Provincial Authorities

- ♦ Local authorities in provinces that share borders (e.g., Lao Cai, Quang Ninh, An Giang) are heavily involved in day-to-day border management. They cooperate with national agencies and local law enforcement to address issues like cross-border trade, migration, and public safety.

2. Border Security and Surveillance

Maintaining border security involves several layers of protection, with both physical infrastructure and advanced technologies:

a. Border Fencing & Infrastructure

- ♦ While not as extensive as some other

countries, Vietnam has been working to improve its border fencing in sensitive areas, especially where smuggling, illegal immigration, or cross-border criminal activity is prevalent.

- ◆ In remote areas, especially along the mountainous and riverine borders with Laos and China, security forces rely more on patrols and local knowledge rather than extensive infrastructure.

b. Surveillance Technology

- ◆ In addition to physical patrolling, Vietnam has started to use surveillance technologies like drones, CCTV, and satellite monitoring to monitor border areas, especially in more remote or disputed regions.
- ◆ The VBG also uses modern equipment for tracking and preventing illegal border crossings and smuggling activities, particularly in areas where it may not be possible to physically monitor everything.

c. Patrols & Cooperation

- ◆ The VBG conducts joint patrols with neighboring countries, especially on issues like counter-terrorism, counter-narcotics, and human trafficking. These operations are crucial in regions where criminal activities often span across borders.
- ◆ Vietnam has also established Border Liaison Offices (BLOs) with neighboring countries to improve communication and coordination between security forces. These are designed to share intelligence, track criminal networks, and reduce border-based criminal activities.

3. Trade and Economic Cooperation at Borders

Vietnam's economic strategy often involves promoting cross-border trade, especially with China, Laos, and Cambodia. However, this trade must be managed carefully to ensure that it does not undermine national security or result in illegal activities like smuggling.

a. Trade Regulations

- ◆ Vietnam has designated border trade zones (especially with China and Laos) where goods can

legally cross, and customs duties are paid. These zones help regulate cross-border trade and encourage economic cooperation while preventing the illegal movement of goods.

- ◆ Customs officials work with businesses and local authorities to make sure that products are legally traded and comply with Vietnamese trade regulations.

b. Control of Cross-Border Goods

- ◆ For border security and economic reasons, Vietnam controls agricultural products, livestock, and natural resources that cross from neighboring countries. This helps maintain both public safety and environmental protection.
- ◆ At the same time, Vietnam supports the development of legal trade routes with neighboring countries through agreements like the Greater Mekong Subregion (GMS) Economic Cooperation Program and ASEAN frameworks.

4. Immigration Control

With the flow of both tourists and migrant workers crossing into Vietnam, managing immigration is an important part of border management:

a. Entry and Exit Control

- ◆ Border checkpoints are closely monitored to prevent illegal immigration. Vietnam issues visas and conducts thorough checks at land, sea, and air border crossings to verify the nationality, purpose of visit, and background of travelers.
- ◆ Vietnamese citizens crossing the border into neighboring countries are also required to meet certain travel requirements, particularly if they are traveling for work or permanent relocation.

b. Handling Refugees and Migrants

- ◆ Vietnam works in cooperation with the United Nations High Commissioner for Refugees (UNHCR) and other humanitarian organizations to handle refugees and displaced persons, especially in areas along the borders with Cambodia and Laos. For instance, Cambodian refugees and ethnic minorities

who may cross into Vietnam are often provided with temporary shelters and assistance.

5. Diplomatic and Regional Cooperation

Vietnam's border management strategy also includes strong diplomatic efforts to ensure good relations with neighboring countries and prevent territorial disputes from escalating:

a. Bilateral Agreements

- ♦ Vietnam has a series of bilateral agreements with its neighbors, especially China, Laos, and Cambodia, to settle boundary disputes, regulate border crossings, and cooperate in counter-terrorism, drug control, and environmental protection.
- ♦ The Vietnam-China border, for example, has a series of agreements to manage cross-border issues, especially related to trade, tourism, and military presence.

b. Regional Security Frameworks

- ♦ Vietnam is an active participant in regional security frameworks such as the ASEAN Regional Forum (ARF) and ASEAN Defence Ministers' Meeting (ADMM), where border security and counter-terrorism cooperation are regularly discussed.

6. Challenges in Border Management

- ♦ Smuggling and Drug Trafficking: There are ongoing challenges in controlling illegal trade, especially with China, Laos, and Cambodia, involving narcotics, wildlife trafficking, and precious wood.
- ♦ Ethnic and Refugee Issues: Vietnam shares borders with ethnic groups that live across both sides of the border (e.g., Montagnard tribes). Their movement and sometimes asylum-seeking behavior can complicate border management efforts.

Conclusion

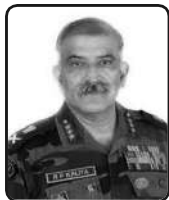
Border management is a comprehensive system involving a combination of security forces, customs agencies, local governments, and regional cooperation. Each country uses a blend of traditional patrols and modern surveillance technology to manage the borders efficiently. However, challenges remain, particularly around illegal cross-border trade, ethnic groups, and managing relations with neighboring countries. Nations coordinate border control via treaties with neighbours (e.g. accounting for illegal entries, joint patrols). Nations promote economic cooperation at crossings and development zones alongside security monitoring. □

You can change friends, not neighbours!

Atal Bihari Vajpayee

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SMART BORDER MANAGEMENT FOR ENHANCED NATIONAL SECURITY



– Lt Gen Rana Pratap Kalita (Retd)

India occupies a strategically important location in Asian Continent with a dominating position on Indian ocean through which approximately 80% of global maritime trade by volume and about 40% of global oil trade pass. India shares land border of 15106.7 Km with seven countries; Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh, and Myanmar, and has a large coastline of about 7516.6 Km. Prolonged colonial rule has left behind numerous legacy issues for India; one of the most important being unresolved borders with majority of the neighbours. Prolonged Insurgency in the Northeast, Proxy War aided and abated by Pakistan in the West, lack of socio-economic development due to poor connectivity, difficult mountainous terrain with thick jungles as well as extreme high-altitude areas and challenging weather conditions, cross border smuggling and trafficking have made border management extremely challenging. Surveillance gaps along the coastline and resultant smuggling, piracy, illegal fishing, and infiltration also need to be addressed. Faced with numerous challenges, effective Border Management aims at securing the country's borders against all forms of threats and putting in place systems that facilitate legal activities including trade and commerce across the border. Changing nature of threats and technological innovations demand a review of the approach to border management. Smart management of borders is vital to the national security,

and it needs review of strategy and structures, technology infusion, capacity building and collaborative efforts by all stakeholders

The Borders and Challenges

India shares land borders with seven countries, each with different set of challenges owing to peculiar characteristics of the region. Effective management of the borders affects India's national security, economic growth, foreign policy, and regional stability. The land and riverine border with Bangladesh of 4,096 km is beset with the problems of illegal migration, cattle smuggling, unauthorized border trade, spillover effect of increased radicalization, and shelter being provided to Indian Insurgent Groups in Bangladesh. The mountainous and challenging 3488 Km border with China, known as Line of Actual Control (LAC) has seen conflicts including one full-fledged war in 1962. Border dispute, competing claim of territories and geopolitical competition drive the border complexities between the two Asian Powers. India shares border of 3323 Km with Pakistan with major dispute over status of Jammu and Kashmir. The border is further subdivided into three segments: 2308 Km long Radcliffe line from Gujrat to part of Jammu and Kashmir, 776 Km long Line of Control (LoC) in contested Jammu and Kashmir, and 110 Km long Actual Ground Position Line (AGPL) in Siachen

Glacier. Proxy war by Pakistan with cross border infiltration of terrorists, status of Pak Occupied Kashmir, Sir Creek dispute over border alignment in the estuary, water dispute are challenges in management of the volatile Indo-Pak border. The border with Nepal of 1751 Km is open with freedom of cross border movement and is generally settled except for dispute over a small piece of land in Kalapani in Uttarakhand state. There are however reports of use of this border for cross border movement of terrorists and other illegal activities. Indo-Bhutan border of 699 Km is again settled and open with cross border movement except for Trijunction with China, which is disputed and has seen standoff between Indian and Chinese forces. The Indo-Myanmar of 1,643 km over rugged mountainous and forested areas is porous with provision of cross border movement to the tribes inhabiting along the border in accordance with Free Movement Regime (FMR). The rugged terrain and lack of any physical barrier along the border, cross border movement by the Insurgents from their camps in Myanmar, Illegal migration, Drug trafficking and smuggling, are the challenges along this strategically important border. With Afghanistan India shares a border of 106 km (in J&K, PoK) through the Wakhan Corridor and is not directly controlled.

India's vast coastline of 7516.6 Km and the island territories present a different set of challenges, being located near one of the busiest sea lanes of communication. The maritime border is being revised to 11098.81 Km owing to use of new Terms of References for computing India's maritime parameter established by National Maritime Security Coordinator for measuring coastline. Unsettled maritime boundaries and diverse topography of the coastline and the islands pose major challenge in securing the maritime borders. Infiltration by sea as seen during the Mumbai attack on 13 July 2011, Piracy, Smuggling and trafficking, straying of fishermen beyond maritime boundary are the major challenges for securing the maritime borders.

Border Management

The Department of Border Management in the Ministry of Home Affairs handles the management of the international land and coastal borders, including strengthening of border policing and guarding, creation of infrastructure and implementation of the Border Area Development Programme (BADP). As part of one border one border guarding force policy, Border Guarding Forces have been specified for each border: Border Security Force (BSF) for Bangladesh and Pakistan borders, Indo-Tibetan Border Police (ITBP) for China border, Sashastra Seema Bal (SSB) for Nepal and Bhutan borders and Assam Rifles for Myanmar border. Indian Navy with Coast Guard are responsible for coastal security and Indian Army is responsible for active deployment in sensitive areas like LoC and LAC. Border infrastructure development and use of technology has been the areas of focus for effective border management. The traditional challenges to border management are as under:

I. Unsettled border and lack of proper demarcation of both land and maritime borders have been the major challenge to border management and has led to major conflicts as well as numerous skirmishes.

II. Porous borders over rugged terrain and the demography along the borders facilitate cross border movement of undesirable elements aiming to destabilise the country and illegal migration which has been the cause for social stress and demographic changes.

III. Rampant smuggling and illegal trade including arms and drug trafficking makes the border management extremely challenging. Counterfeit currency have also found their way across the border.

IV. Involvement of numerous stakeholders for managing different aspects of the border

management leads to lack of unity of efforts, problems of coordination, command and control.

V. Lack of connectivity in the border areas as well as lack of adequate infrastructure for the Border Guarding Forces compound the problems in border management.

VI. Lack of local support in some of the insurgency affected areas either due to fear of insurgents or due to ideological alignment causes problem for the BGF in executing their tasks.

VII. There has been enhanced instances of maritime terrorism, smuggling, piracy, breach of coastal security, which pose immense challenge to the forces. Straying of fishermen into the territorial waters of neighbouring countries has also created bilateral issues.

The government has initiated numerous measures to mitigate these challenges. Development of the border areas with focus on infrastructure through convergence of Government programmes with Border Area Development Programme (BADP) has improved connectivity and facilitated easier move of personnel and goods to the remote border areas. Improved coordination with neighbouring countries has led to conduct of joint patrolling, border personnel meeting to resolve disputes and confidence building measures. Creation of physical barriers by constructing border fencing and floodlighting, coupled with use of technology such as drones, thermal imaging, night visions, satellite surveillance etc. have improved surveillance of the border.

The concept of Smart Border Management seeks to integrate technology, infrastructure and coordinated policy for effective border management. As part of this process, two pilot projects of Comprehensive Integrated Border Management system (CIBMS) have been implemented in stretches of 5 km in Jammu along the Indo-Pak Border and one project in 61 km at Dhubri, Assam, along the Indo-

Bangladesh Border. It is a five-layer security system with the objective of implementing the D4R2 (deter, detect, discriminate, delay, response, recover) principle on the border. The CIBMS uses low-light CCTV cameras, thermal imaging, night-vision devices (NVDs), surveillance radars, laser beams and underground monitoring sensors to detect infiltration via land, underwater, air and tunnels. It includes the integration of manpower, sensors, networks, intelligence and command & control solutions to improve situational awareness at different levels of the hierarchy in the border guarding forces to facilitate prompt and informed decision making and quick response to emerging situations.

A smart fencing project known as Border Electronically Dominated QRT Interception Technique (BOLD-QIT) has been implemented partially on the Indo-Bangladesh Border. It incorporates fibre optics sensors, microwave communication, Infrared and Laser devices. It reduces manual patrolling and enhances border surveillance accuracy. Perimeter Intrusion Detection System (PIDS) comprising multiple types of sensors and/or Long- Range Reconnaissance and Observation Systems (LORROSs) have been installed or are in the process of deployment in strategically crucial regions. These have proven to be effective in the detection, identification, classification and recognition of intruders or other threats. Integrated Check Posts (ICP) have been located at major border crossings with custom and immigration facilities, where biometric systems are being used for entry/exit regulation. Coastal Security Scheme (CSS) in phases are being implemented with the objective of strengthening the infrastructure and capabilities of Coastal Police for patrol and surveillance of coastal areas, particularly shallow areas close to the coast.

Implementation of smart border management is faced with challenges like difficult terrain and weather conditions, lack of connectivity, high costs

of procurement, installation and maintenance of the systems, training needs of the BGF personnel and ensuring cyber security of the smart components. However, there are several benefits of smart border management as well. These include enhanced security with gap free surveillance and faster detection of illegal crossings, reduced human fatigue, increased efficiency and long term cost effectiveness.

Recommendations

While resolution of border and water disputes, and economic integration of the neighbourhood are desirable for lasting peace and development in the region, effective border management is of strategic importance for ensuring national security. It is also needed to safeguard economic interests, to maintain geopolitical stability in the region and for internal stability. While India has initiated changes in the approach to border management, there is a growing need for integrated, intelligent, and adaptive border systems to meet the challenges on ground. An analysis of the existing border models of US-Mexico, Israel-Gaza/West Bank and European Union external borders leads to several key takeaways for India: use of autonomous surveillance towers like US uses in Arizona in flat terrains along Indo-Pak border, Adoption of AI integrated camera networks like Israel for high threat zones like Jammu and Kashmir, introduction of biometric border entry and exit similar to the European Union model, Use of regional cooperation forums like SAARC and BIMSTEC for cross border management and data sharing.

The Strategic Objectives of Smart Border Management should be to enhance real-time surveillance and rapid threat response, minimize human error and fatigue through automation, ensure secure but facilitative borders for trade and legitimate people movement, strengthen inter-agency coordination and data sharing, and foster regional cooperation. Key Recommendations towards achieving these objectives are as under:

I. Use of New Generation Technology by Expanding CIBMS Nationwide with due prioritization for high-threat sectors of J&K, Punjab and Northeast. The technology evolving around the world must be integrated with the concept of smart border management. Use of CCTV and thermal cameras, and Drones and UAVs for enhanced surveillance, Motion sensors and laser walls for facilitating movement detection, Satellite imaging for tracking terrain changes and constructions, GIS mapping for planning patrols and resource allocation, AI and big data analytics for threat prediction etc. will surely achieve the objectives of smart border management.

II. Border area development programme should achieve convergence with other development projects to ensure focused Infrastructure Development. Aim should be to create all-weather roads, bridges, tunnels, helipads in remote high-altitude areas, Solar-powered communication hubs in non-electrified border posts. Implementation of Centrally Sponsored Scheme of Vibrant Villages Programme will ensure comprehensive development of selected border villages leading to reverse outmigration.

III. Training of human resources and capacity building in handling the new generation weapons and equipment including the automation achieved in various processes is a must focus area. Specialized technical training should be carried out periodically for BGF in AI, drone ops, and cyber defense. Psychological orientation and preparation to work in high-stress zones must also be carried out.

IV. Existing regional forums like SAARC/ BIMSTEC/BBIN must be energized to achieve cross-border cooperation. Bilateral Joint Border Management Programmes including joint patrolling, hotline protocols, flag meetings, and intelligence exchanges with neighboring nations can be implemented for enhanced cooperation.

V. As the border management processes become smarter there is a need to integrate the data and intelligence put out by the automated processes for making informed decisions based on cogent intelligence picture. It is recommended to establish a Border Intelligence Grid (BIGRID) like NATGRID to integrate Drone feeds, Biometric data, Satellite inputs and Human intelligence (HUMINT).

VI. As brought out earlier, the challenges faced in borders shared with each of the seven countries are different and hence it is recommended to institute border specific strategies. For the LoC/IB in Indo-Pak border focus should be on smart fencing with enhanced AI based surveillance and anti-tunnel radar. The border with China (LAC) would need satellite surveillance with early warning mechanism and all-weather posts for housing troops. The Bangladesh border can be managed by expanding BOLD-QIT, strengthening local policing and ensuring biometric checkpoints. For Nepal and Bhutan open borders Biometric entry/exit and integrated customs management would meet the desired objectives. The Myanmar border needs creation of border fence with adequate border infrastructure and surveillance mechanism.

VII. For enhancing coastal security, the Coast Guard and Coastal Policing need to be strengthened. Training and capacity building of Coastal Police is important to make them effective and to supplement the resources of Coast Guard. There is a need to bolster the Regional Security Frameworks like Indian Ocean Rim Association (IORA) and Indian Ocean Naval Symposium (IONS) by increased collaboration with

the Indian Ocean Region (IOR) countries on important issues like piracy, smuggling, illegal migration, and intelligence sharing.

VIII. Implementation of the above recommendations would necessitate a Funding & Implementation Roadmap, which can be done in phases. The phasing can be as per threat-based prioritization of various sectors. It is also recommended to put in place a monitoring and evaluation mechanism to ensure timely implementation and transparency in execution.

Conclusion.

National security has often faced severe challenges due to insecure borders. The perpetrators of heinous acts like Pahalgam massacre in April 2025, Mumbai attack in July 2011, Parliament attack of 2001 have all exploited the loopholes in border management to enter India illegally. India has also faced numerous other challenges in border management like the Doklam and Galwan standoff along the LAC with China, cross border raids by Insurgent groups in Northeast, Piracy and smuggling including drug trafficking etc. Traditional border management which is manpower-heavy and reactive in nature must give way to a technology based, intelligent, and resilient model. A denovo approach, combining global best practices with Indian ground realities, and judicious use of technology will ensure both national security and cross-border stability in the Amrit Kaal whence India strives to transform into Vikshit Bharat by 2047.

Reference: Ministry of Home Affairs Annual Report 2023-24. □

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LOOKING AFRESH AT INDIA'S EASTERN BORDERS



– Sri Somesh Goyal, IPS (Retd.)

India shares land borders with seven countries: Pakistan, Bangladesh, China, Myanmar, Nepal, Bhutan, and Afghanistan. Together, these span 15,106.7 km, complemented by a coastline of 7,516.6 km and maritime borders with seven nations: Bangladesh, Myanmar, Pakistan, Thailand, Sri Lanka, and the Maldives.

Of the land borders, the 4,096.7 km shared with Bangladesh is the longest, followed by China (3,488 km), Pakistan (3,323 km), Nepal (1,751 km), Myanmar (1,643 km), Bhutan (699 km), and Afghanistan (106 km). Unfortunately, Pakistan is illegally occupying the area abutting Afghanistan.

The porous and complex eastern border, particularly with Bangladesh and Myanmar, presents significant challenges to India's security. These include cross-border terrorism, illegal trade in drugs and arms, counterfeit currency, human trafficking, smuggling, and radicalisation.

Internal security issues, insurgencies in the north-eastern states, training camps along and across international borders, ethnic fault lines, and law-and-order situations have also added to the complexities of border management in these areas.

While border guarding practices have evolved over the decades, recent developments in the region necessitate reassessing the existing strategies.

Evolution of Border Guarding Mechanisms

India's border management infrastructure was primarily shaped by wars in the 1960s. The Indo-

Tibetan Border Police (ITBP) was formed in 1962 in response to Chinese aggression, while the Border Security Force (BSF) emerged after the 1965 India-Pakistan War. The Special Service Bureau (SSB) was initially conceived to engage with border communities for security preparedness but later evolved into a border guarding force, now known as Sashastra Seema Bal (SSB).

The Assam Rifles, India's oldest paramilitary force, has a dual mandate: guarding the India-Myanmar border and conducting counterinsurgency operations. It is also ridden with dual control exercised by the Ministries of Home for administration and defence for operations.

Post-Kargil War, the principle of "one border, one force" was adopted, assigning specific forces to distinct borders: the BSF guarding Pakistan and Bangladesh, the ITBP securing the border with China, the SSB entrusted with the responsibility of guarding Nepal and Bhutan, and the Assam Rifles guarding the Myanmar border.

The principle, however, has not been implemented in true letter and spirit. India shares land borders with seven countries, but only four border guarding forces exist.

There is a lop-sidedness in the creation of border guarding forces. For nearly half of the land border along Pakistan and Bangladesh, there is only one BGF, i.e., BSF, whereas three different border guarding forces perform the task for the remaining half.

For decades, Indian strategists have overly

focused on our hostile Western neighbour, perhaps at the cost of the other borders. We can no longer assess the eastern border's requirements through the western frontier's prism.

India has provided essential infrastructure at the borders. The fence along the Pakistan and Bangladesh borders is nearly complete except in riverine and unstable patches. These borders are the most extended flood-lit borders in the world.

A Comprehensive Integrated Border Management System involving the India-Pakistan and India-Bangladesh borders, integrating human resources, technology, sensors, networks, intelligence, and command and control principles, has enhanced quicker decision-making and response to emerging situations.

The BSF has resolutely guarded these borders, curbing cross-border smuggling, trafficking, infiltration, drone intrusions, etc. Despite their accomplishments, recent geopolitical changes demand an urgent review of these arrangements, especially concerning the India-Bangladesh and India-Myanmar borders.

Security Concerns on the India-Bangladesh Border

The recent fall of Sheikh Hasina's government in Bangladesh, the rise of radical Islamist groups, and escalating violence against minorities and their businesses have significantly altered the security landscape.

The porous 4,096.7 km border with Bangladesh has enabled the infiltration of fundamentalist elements, the establishment of sleeper cells, and smuggling networks. Recent arrests of eight jihadi terrorists owing allegiance to a global terror group Ansaarul Bangla Team (ABT), affiliated with the Jamaat -ul Mujahideen, a proscribed terror organisation in India, Bangladesh, the UK and the USA, have confirmed the worst fears of the use of Bangladeshi soil by the radical Islamists to harm Indian interests.

The documents, pen drives, and other incriminating material recovered from their

possession suggest that they were targeting the 'chicken's neck' or the narrow Siliguri corridor that connects West Bengal with the north-eastern states.

The security dynamics along this border differ markedly from those along the Pakistan border. Bangladesh's infiltration has traditionally been seen as economic, but the current environment signals a deeper, more sinister threat.

The BSF, tasked with guarding Pakistan and Bangladesh borders, is overstretched, managing over 7,400 km of diverse and unconnected frontiers. This dual responsibility, along with an Anti-Infiltration role in the Kashmir Valley, Counter Insurgency in North East region, Anti Naxal Operations in Odisha and Chhattisgarh states, security of Integrated Check Posts along Pakistan and Bangladesh International Border, frequent deployment on internal security and law & order duties have diluted its effectiveness.

Its reserve battalions are constantly on the move, denying its troops any rest and recuperation. BSF's one claim to fame is that it is the largest border-guarding force in the world. But its downside is summed up by a former Secretary of Internal Security and DG BSF, who claims that the Force has grown so unwieldy that its head does not know where its tail is.

The India-Bangladesh border is the fifth largest land border in the world. A dedicated India-Bangladesh Border Guard could address the unique challenges posed by this border. A lean, specialised force would enable focused threat assessment, localised operational strategies, and efficient resource deployment. It would align with the stated policy of "one border, one force".

India-Myanmar Border: A Special Case

The India-Myanmar border spans 1,643 km and runs through four states: Arunachal Pradesh, Nagaland, Manipur, and Mizoram. This frontier is marked by free movement up to 16 km on either side, facilitating cultural and economic ties between border communities. However, this also makes it vulnerable to narcotics trafficking, arms smuggling, demographic distortions, and cross-border militancy.

The ongoing ethnic violence in Manipur,

coupled with Myanmar's political instability, exacerbates security challenges. The drug cartels have shifted to Myanmar, exploiting its instability to manufacture and traffic synthetic drugs in India through this porous border.

The Assam Rifles, which are dually controlled by the Ministry of Home Affairs (MHA) and the Ministry of Defence, must adapt to become a dedicated border guarding force as fencing along the border progresses.

Pilot fencing projects have begun, with plans for 160 km more. Simultaneously, constructing border outposts, fencing, and control gates for legitimate cross-border movement could help sift out illegal activities while preserving community ties.

The Way Forward

The evolving security scenario on India's eastern borders, particularly with Bangladesh and Myanmar, necessitates the following measures:

1. **Creation of a Dedicated Border Guard:** Establish a specialised force for the India-Bangladesh border to address its distinct challenges and reduce the burden on the BSF.

2. **Enhanced Infrastructure and Surveillance:** Accelerate fencing, deploy advanced surveillance systems, and integrate border management technologies.

3. **Localised Strategies:** Tailor border

management practices to address region-specific threats, ensuring the involvement of local communities. Border guarding is not about putting boots on the ground. It involves developing intelligence to curb crimes, smuggling, trafficking, anti-national activities, militancy, etc. It also consists of winning the hearts and minds of the border population and works as a force multiplier in daily functioning. The one-size-fits-all approach does not work in border guarding. What is good on one border may not be applicable on another border. The size, structure, arms, and equipment may vary across borders.

4. **Reforms in Assam Rifles:** Transition the Assam Rifles into a regular border guarding force under complete control of the MHA to ensure uniform standards and accountability. Alternatively, Assam Rifles could be drafted in the internal security duties relieving the BSF of these duties to create a new border guarding outfit for the Myanmar border.

5. **Proactive Diplomacy:** Engage with neighbouring countries to address cross-border issues collaboratively while safeguarding India's interests.

India's eastern border is at a critical juncture, with political turmoil in Bangladesh and Myanmar heightening security risks. A robust, nuanced approach to border management is essential to secure the region and uphold national sovereignty. □

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ROLE OF CYBER SECURITY IN EFFECTIVE BORDER MANAGEMENT



– Dr. Rajiv Nayan

Cyber threats, the invisible and borderless phenomena, have emerged as a notable security issue for border management, which is increasingly turning digital. The network of data, on the one hand, eases business and travel. On the other hand, it increases the vulnerability as people's profiles, including biometrics and the country's sensitive electronic data, may fall into the wrong hands. Both adversarial states and non-state actors carry out hacking.

The Nature of Threat

Famous writers Ping Chen, Christophe Huygens, and Lieven Desmet discuss long-unidentified Advanced Persistent Threats that primarily target high-value information and are generally funded by adversarial governments, posing a significant challenge to border management. In some cases, it has been found, as indicated earlier, that the modern-day increasing use of wired and wireless networks, such as drones, remote cameras, and radio communication devices, dramatically enhances the vulnerability of the border infrastructure and the control system.

Malicious actors posing as cybersecurity threats to border management primarily use the same tools employed in cyberattacks for other purposes. They use malware or infected software, such as ransomware, Trojan horses, viruses, and spyware, to steal data and even disrupt the digital systems installed for smooth border management. Such actors perform Denial of Service attacks to obstruct access from

legitimate users and provide access to travel authorisation systems by hostile forces.

Similarly, penetration attacks not only disrupt the functioning of the travel authorisation system but also facilitate the entry of unauthorised users who may wreak havoc for the border management. Both hardware and software assets are compromised in such an attack. 'Phishing' - the idea of obtaining personal information, along with blockchain, a decentralised and unchangeable digital record or ledger that allows transactions to be documented and assets to be monitored across a network, facial recognition technology, and others, have emerged as tools and vulnerable points in digital border management. Moreover, in many cases, third-party technology service providers to the airport and port management are also considered a weak link.

Major ports, transport vehicles, including aircraft, and their management stations are subject to cyberattacks. Some countries discovered that their coast guard patrolling vehicles had been hacked, enabling adversarial forces to manipulate the coastal boundaries of the affected countries. In one incident, China gained access to the travel records of millions of airline passengers. Chinese companies manufacture the Taiwanese e-gates at some airports, and a newspaper report highlighted the establishment of a 'backdoor' information centre by the Chinese government because of this kind of digital border management.

The US is a leading surveillance drone supplier throughout the world. The MQ-9 Reaper drone used by the US and many other countries of the world for procuring surveillance data had its system compromised in the US itself. Sensitive files were accessed by an unknown adversary, which essentially obtained this data by exploiting router vulnerabilities. The files/data accessed through hacking were sold to some interested parties.

Connectivity and globalisation are putting additional pressure on infrastructure because the actors and parties with stakes in both phenomena value speed. As a result, digitalisation, on which agencies are overwhelmingly relying for better management and speedy clearance, leaves vulnerable points. Interestingly, reports have emerged about the disruption of the International Maritime Organisation's network and websites.

However, it does not mean that these tools should be abandoned; instead, they should be embedded with improved safety mechanisms. The security community worldwide complains that, despite acknowledging the fact that border infrastructure has become risky, its treatment as critical infrastructure is not realised in almost all nations worldwide. The breach of data may compromise the verification process of an entity, posing a threat to the country's internal security. A sound risk management system that assesses threats, vulnerabilities, likelihoods, and impacts is needed for cybersecurity related to border management.

The Indian Scenario

As for India, in 2015, one of its defence ministers, Manohar Parrikar, stated, "Cyber attack or cyber terrorism poses a threat to border security. Now this border is not imaginary, you do not know where it starts from. But it can, if it gets converted into warfare...." Significantly, one of the former heads of the Defence Research & Development Organisation recognised and listed some of the cyber threats. Some of the prominent threats he mentioned include malware, viruses, hacktivism, social engineering, spear phishing, router security related to Border Gateway Protocol hijacking, and Denial of Service

(DoS) attacks, among others. These threats appear familiar to what the world is facing. Although these are general cyber threats, protection against all of them is relevant for securing the border, relying on the network, and digital systems.

India undertakes technological modernisation through drones and other surveillance systems along vulnerable borders. It strengthens coastal security with digitised mapping. It also uses databases on illicit traffickers, such as criminals and drug peddlers. The Border Surveillance System (BOSS), developed by Bharat Electronics Limited, utilises multiple components to facilitate communication between the observation post and the command and control post. There are examples, the most significant of which is the cyber-attack by Hamas on the Israeli post on October 7, 2023, to facilitate the general invasion of its forces inside Israel. These components may become vulnerable if proper safety and security mechanisms are not adopted.

The Indian government has adopted a multi-pronged strategy and policy to enhance digital border management and safety mechanisms, aiming to reduce and eliminate cyber vulnerabilities. India has begun using drones along its Western border for border management, but it has an ambitious plan to deploy drones on a massive scale for border management. Several drone units may come up for border management.

The Indian Prime Minister, Narendra Modi, envisions an integrated approach to border management, incorporating the "One Border, One Force" policy, and digital management is a key component of this approach. A release of the Home Ministry of the Government of India informs: "In January 2018, Information and Technology Wing of BSF undertook the project BOLD-QIT (Border Electronically Dominated QRT Interception Technique) and completed it in record time with the technical support of various manufacturers and suppliers. BOLD-QIT is the project to install technical systems under the Comprehensive Integrated Border Management System (CIBMS), which enables BSF to equip Indo-Bangla borders with different kind of

sensors in unfenced riverine area of Brahmaputra and its tributaries."

The same release further notes: "Now, the entire span of River Brahmaputra has been covered with data network generated by Microwave communication, OFC Cables, DMR Communication, day and night surveillance Cameras and intrusion detection system. These modern gadgets provide feeds to BSF Control Rooms on the Border and enable BSF Quick Reaction Teams to thwart any possibility of Illegal Cross Border Crossing/ Crimes."

India also recognises the importance of establishing institutional and regulatory frameworks to manage cybersecurity for assets deployed for this purpose. NITI Aayog's security division collaborates with the Ministries of Defence and Home Affairs on border management. The Indian Computer Emergency Response Team (CERT-In), under the Ministry of Electronics and Information Technology, is a crucial initiative designed to protect the entire country against cyberattacks. Indian Cyber Crime Coordination Centre (I4C), cyber fraud mitigation centres, Suspect Registry, Cyber-Commando wing and a National Cyber Threat Intelligence system are also activated to counter digital threats directly.

The Ministry of Home Affairs has the Indian Cybercrime Coordination Centre (I4C) Scheme. This includes the National Cybercrime Threat Analytics Unit, the National Cybercrime Reporting Portal, the National Cybercrime Forensic Laboratory, the National Cybercrime Training Centre, the Cybercrime Ecosystem Management Unit, and the National Cybercrime Research and Innovation Centre. The home ministry, which is primarily responsible for border management, may impart further knowledge or provide an ecosystem for its security agencies to manage the border effectively.

Network security, malware protection, monitoring, incident management, user education and awareness, secure configuration, removable media controls, managing user privileges, information risk management, and similar measures are essential steps for providing cybersecurity to manage the border. The forces managing the border receive cybersecurity training from various specialised agencies and ministries. Needless to say, the cyber threat management regime must evolve to keep up with the changing threat landscape or perception. Artificial Intelligence is often promoted as a solution to potential gaps in network security or cybersecurity. This field itself is constantly evolving, making application implementation a challenging task.

The correlation between drug use and cybercrimes has been observed in many countries. Protecting the younger generation from hacking activities requires constant vigilance. Drug traffickers, along with other illicit network actors, may be targeted for a long-term strategy. However, as discussed, being a moving target will always be challenging, mainly when the entire effort depends on skilled human resources, which the world as a whole is struggling to find.

Thus, we find that, like other parts of the world, India is also managing its borders with modern, sophisticated tools and technologies. Some of these technologies are vulnerable to cyberattacks, as seen in some leading and developed countries. The government of India seems to be aware of this challenge and has been developing policies and plans, along with establishing new institutions, to address the evolving issue. India should continue its technological modernization plan without losing sight of the vulnerable points that cyber threats might pose. □

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BORDER MANAGEMENT : CHALLENGES AND STRATEGIES



– Sri M.S. Subramanian

1. Introduction

India's border management represents one of the most complex security challenges in contemporary international relations. With a total international border length of approximately 15,106 kilometers comprising both land and maritime frontiers, India shares borders with seven countries: Pakistan (3,323 km), China (3,488 km), Nepal (1,751 km), Bhutan (699 km), Bangladesh (4,096 km), Myanmar (1,643 km) and Afghanistan (106 km). Additionally, India maintains a vast coastline of 7,516 kilometers, further complicating border security dynamics.

2. Importance of Effective Border Management

National Security: Prevents infiltration by hostile elements, terrorists and insurgents.

Sovereignty: Safeguards territorial integrity and asserts state presence in remote regions.

Economic Stability: Regulates trade and movement, preventing illegal economic activities.

Social Cohesion: Protects border communities and integrates them with the national mainstream.

3. Geopolitical Overview of India's Borders

India's borders traverse diverse terrains-deserts, mountains, forests, riverine belts and dense jungles- each presenting unique management challenges.

The western frontier with Pakistan remains one of the most militarized borders globally, characterized by on- going tensions, cross-border terrorism and the complex issue of Kashmir. The situation is further

complicated by difficult terrain including deserts in Rajasthan, plains in Punjab and mountainous regions in Jammu and Kashmir. Western Frontier is managed by BSF and Army .

The northern border with China, stretching across the Line of Actual Control (LAC), patrolled by ITBP and Army, presents distinct challenges. The recent 2024 India-China Border Patrol Agreement restored patrolling rights in Dopsang Plains and Demchok region, with the deal ensuring each side follows the agreement for resuming patrolling operations in the Ladakh region. This development represents a significant step toward managing one of the world's most sensitive border disputes.

The eastern borders with Bangladesh , Myanmar , Nepal and Bhutan pose different challenges, primarily related to illegal immigration, human trafficking and insurgency. The terrain varies from riverine deltas in the Sundarbans to hilly regions in the northeast, each requiring specialized management approaches. These are managed by DEV agencies like SSB.

India's extensive coastline managed by integrated coastal surveillances like ICSS and IMAC, adds another layer of complexity to border management. The maritime borders require monitoring of both state and non-state actors, including pirates, smugglers and potential terrorist infiltrators. The 2008 Mumbai attacks highlighted the vulnerability of coastal borders and the need for integrated coastal security measures.

4. Existing Methods and Frameworks

4.1 Institutional Architecture

India's border management operates through a multi-tiered institutional framework involving several key agencies:

Border Security Force (BSF): The primary force responsible for guarding India's borders with Pakistan and Bangladesh, the BSF operates with advanced surveillance technology, smart fencing and floodlights to maintain security along these sensitive frontiers.

Indo-Tibetan Border Police (ITBP): Specialized in high-altitude warfare and mountain operations, the ITBP guards the entire 3,488-kilometer India-China border. Their expertise in extreme weather conditions and difficult terrain makes them uniquely suited for this challenging assignment.

Sashastra Seema Bal (SSB) : Responsible for borders with Nepal and Bhutan, the SSB focuses on maintaining friendly relations while preventing illegal activities and ensuring border security.

Assam Rifles: Often called the "Sentinels of the Northeast," they guard the India-Myanmar border while also conducting counter-insurgency operations in the region.

Indian Coast Guard: Manages maritime security along India's vast coastline, coordinating with the Navy and other agencies to prevent illegal infiltration and smuggling.

Indian Army: Defends the Line of Control (LoC) and Line of Actual Control (LAC).

Indian Navy & Coast Guard: Secure coastal borders.

Land Ports Authority of India (LPAI): Develops & manages Integrated Check Posts (ICPs) to streamline legal cross-border flows .

Comprehensive Integrated Border Management System (CIBMS): A multi-layered, tech-driven model aimed at deterring, detecting, discriminating, delaying, responding and recovering (D4R2). Merges manpower, sensors, command systems and intelligence .

Local Administration & Civil Engagement: District polices, civil bodies and community policing

practices play a key role in intelligence & vigilance, especially alongside formal RHQ conclaves .

4.2 Technological and Physical Infrastructure

Modern border management increasingly relies on sophisticated technology. Current initiatives utilize technology like LIDAR, Laser Fencing, flood lightings [Constructed along sensitive stretches to prevent illegal crossings.] , Border Out Posts (BOPs) and Company Operating Bases (COBs) [Serve as operational hubs for border forces], Integrated Check Posts (ICPs) [facilitate regulated movement of people and goods, housing customs, immigration and support services], Surveillance Systems [Include CCTV cameras, sensors, radar and night vision equipment] and drone surveillance to create a Border Protection Grid in every border state. This technological integration represents a shift from traditional patrolling methods to intelligence-driven, technology-enabled border security.

Smart Fencing: Incorporates fiber-optic cables, thermal cameras, night vision, acoustic sensors, radar and underground detection-first piloted at Indo-Pak and Indo-Bangladesh borders-with coverage expanding .

CIBMS Rollout: Initially deployed in Jammu (since 2017-18), latest installations across the International Border (IB) include unified control rooms and real-time surveillance .

Drones & UAVs: Used for border patrolling, intelligent gathering and communication in unconnected zones-e.g., IIT-BHU's LoRa-based mesh drone network .

Satellite Imagery & GIS: Deployed across LAC segments to enhance situational awareness .

Surveillance Radars: DRDO and BEL's BFSR-SR units (1,400+ deployed) provide short-range perimeter detection .

Coastal & Maritime Network: ICSS and IMAC integrate radars, AIS, EO sensors and fusion centers for domain monitoring .

Communications & Network Expansion: 4G tower deployments in border villages and Vibrant Village Programme enhance connectivity and engagement .

Land Border Infrastructure: Border roads, BoPs, bridges, helipads, ICPs and land port developments through BRO, NHAI, LPAI and BADP .

The Border Infrastructure and Management (BIM) Scheme with an approved cost of Rs. 13,020 crore during 2021-22 to 2025-26 aims to enhance security along borders through projects for Border Fence, Border Roads, Border Floodlights and Border Out Posts (BOPs).

4.3 International Cooperation

Bilateral and multilateral mechanisms for information sharing, joint patrolling and dispute resolution are in place with neighboring countries.

5. Vulnerabilities & major Strategic Challenges

5.1. Security Threats and Infiltration

The primary challenge facing India's border management is the persistent threat of infiltration and terrorism. Cross-border terrorism, particularly along the Pakistan border, remains a significant concern. Frequent infiltration by terrorists, cross-border shelling and use of tunnels for smuggling pose persistent threats. The proximity to the Golden Crescent exacerbates drug trafficking.

The porous nature of many border areas, combined with difficult terrain, creates opportunities for infiltrators to exploit vulnerabilities in security arrangements.

India-China Border: Unresolved boundary disputes, frequent face-offs and aggressive posturing by Chinese forces, especially in Eastern Ladakh and Arunachal Pradesh, create security dilemmas.

Recent developments highlight the ongoing evolution of these threats. The March 2025 terror attack near Kathua underscored the need for advanced, technology-driven border security measures, leading to initiatives focused on anti-drone systems, tunnel detection systems and High-Mast Lighting and Watchtowers.

5.2 Smuggling and Illegal Trade

Transnational criminal organizations exploit

border vulnerabilities for smuggling operations involving drugs, weapons, counterfeit currency and contraband goods. The India-Pakistan border, in particular, has seen sophisticated smuggling networks using tunnels, drones and other innovative methods to evade detection.

Bangladesh Border: High porosity leads to rampant smuggling of cattle, arms, drugs and human trafficking.

Myanmar and Nepal Borders: Open or poorly regulated stretches facilitate drug trafficking, arms smuggling and movement of insurgents.

5.3 Human Trafficking and Migration Issues

Illegal immigration, particularly from Bangladesh and Myanmar, poses significant challenges. The complex web of economic migration, refugee movements and human trafficking requires nuanced approaches that balance humanitarian concerns with security imperatives. The situation is further complicated by the presence of ethnic communities with cross-border kinship ties.

5.4 Geographic and Environmental Challenges

India's borders traverse some of the world's most challenging terrain, including:

- High-altitude regions with extreme weather conditions
- Dense forests and jungle areas
- River systems with changing courses
- Desert regions with shifting sand dunes
- Coastal areas with complex tidal patterns

These geographical challenges require specialized equipment, training and operational strategies tailored to specific environmental conditions.

5.5 Political Sensitivities and Diplomatic Considerations

Border management must navigate complex political sensitivities, particularly with neighbouring countries. Activities along borders can quickly escalate into diplomatic incidents, requiring careful coordination between security agencies and diplomatic channels.

Border Communities: Feelings of neglect, lack of development and ethnic ties across borders can fuel unrest and criminal activities.

Disputed Areas: Sir Creek, Siachen and Arunachal Pradesh remain flashpoints for diplomatic and military tensions.

5.6 Infrastructure and Manpower Shortages

Inadequate Roads and Communication: Hinder rapid troop movement and logistics, especially along the China border.

Vacant Posts: Shortage of personnel in Central Armed Police Forces (CAPFs) and delays in project implementation.

6. Strategic and Policy Initiatives

6.1 Comprehensive Integrated Border Management System (CIBMS)

India has developed the Comprehensive Integrated Border Management System (CIBMS) as a holistic approach to border security. This system integrates various technological solutions, intelligence gathering and operational responses to create a seamless border management framework. This integrates manpower, sensors, networks, intelligence and command control solutions. It enables real-time situational awareness and rapid response to threats.

This system is deployed along sensitive stretches of India-Pakistan and India-Bangladesh borders

6.2 Border Area Development Programme (BADP)

The Border Area Development Programme addresses the developmental aspects of border management by focusing on infrastructure development, economic opportunities and social welfare in border areas. This approach recognizes that effective border management requires not just security measures but also economic development and community engagement. It focuses on infrastructure, health, education, agriculture and skill development in border villages. It aims to reduce isolation, improve

livelihoods and foster national integration

6.3 Vibrant Villages Programme (VVP)

This targets comprehensive development of select villages along the northern border (Arunachal Pradesh, Himachal Pradesh, Sikkim, Uttarakhand, Ladakh) and also seeks to curb migration and strengthen national presence in remote areas.

6.4 Border Infrastructure and Management (BIM) Scheme

This scheme accelerates construction of roads, bridges and communication networks in border areas. Strategic road projects in Arunachal Pradesh (Trans-Arunachal Highway, East-West Corridor) enhance troop mobility.

6.5 Smart Fencing and Technology Integration

Modern border management increasingly relies on smart fencing technologies [eg. BOLD-QIT] that incorporate sensors, cameras and automated alert systems. These systems can detect breaches, monitor movement patterns and provide real-time intelligence to security forces. Anti-drone and tunnel detection systems are deployed in vulnerable sectors.

6.6 Integrated Check Posts (ICPs)

These posts streamline cross-border movement and trade. They house regulatory agencies, scanning devices and support infrastructure for secure, efficient transit.

6.7 International Collaboration:

Bilateral mechanisms on trade, transit and security (e.g., BBIN, SAARC-level dialogues, policing pacts).

7. Role of Technology and Innovation

7.1 Advanced Surveillance Systems

Contemporary border management leverages cutting-edge surveillance technologies including:

Drone & UAV Technology: Unmanned aerial vehicles provide continuous surveillance capabilities, especially in difficult terrain where human patrolling is challenging.

Satellite Imagery: High-resolution satellite imagery enables comprehensive border monitoring and change detection. ISRO's RISAT and Cartosat satellites provide high-resolution, night vision and topographical mapping for border monitoring.

Night Vision Equipment: Advanced night vision systems extend operational capabilities during low-light conditions.

Artificial Intelligence: AI-powered systems analyze surveillance data to identify potential threats and unusual patterns.

CIBMS: Integrates radars, thermal imagers, motion sensors and laser fencing.

7.2 Geographic Information Systems (GIS)

Smart border management refers to using information and communication technologies that enable automation and minimize human intervention needed for border management, including the use of biometrics, databases and information-sharing systems. GIS technology plays a crucial role in mapping border areas, tracking movements and planning security operations.

7.3 Data Integration and Real-Time Monitoring

Modern border management systems integrate data from multiple sources to create comprehensive situational awareness. Real-time monitoring capabilities enable rapid response to emerging threats and better coordination between different security agencies.

7.4 Biometric Systems

Advanced biometric identification systems help in tracking individuals crossing borders, maintaining databases of known threats and preventing identity fraud. These systems are particularly important at official border crossings and checkpoints.

7.5 Artificial Intelligence and Data Analytics

AI-powered facial recognition, biometric verification and movement pattern analysis enhance security screening.

Predictive analytics optimize patrol routes and resource allocation.

7.6 Indigenous Innovation and Public-Private Partnerships

Start-ups under iDEX (Innovations for Defence Excellence) develop cost-effective surveillance systems. Example: Mumbai-based drone manufacturer ideaForge supplies drones to the Army and BSF.

7.7 Unified Command and Coordination

Institutionalizing integrated command structures (similar to the US CBP model) for synergy among BSF, Army, CRPF and intelligence agencies is under consideration.

7.8 Capacity Building:

Training CAPF units on UAV ops, AI systems, cyber-ops and maintenance of smart infrastructure

8. Recommendations and Future Strategies

8.1 Strengthening Inter-Agency Coordination

Effective border management requires seamless coordination between various security agencies, intelligence organizations of Centre and States and civilian authorities. Regular joint exercises, shared communication systems and standardized operating procedures can enhance coordination effectiveness.

8.2 Enhancing Infrastructure Development

Continued investment in border infrastructure is essential for effective management. This includes:

- Improved road networks for rapid deployment of security forces
- Enhanced communication systems for better coordination
- Upgraded accommodation and logistics facilities for border personnel
- Modern border posts with advanced equipment and technology
- Deploy all-weather surveillance and monitoring systems in remote and high-altitude regions

8.3 Community Participation and Development

Engaging local communities through Village

Defence Committees (VDCs) in border areas is crucial for effective management. Communities can serve as early warning systems and provide valuable intelligence about suspicious activities. Development programs that improve living conditions and economic opportunities in border areas can create stakeholder buy-in for security initiatives.

8.4 Diplomatic Cross-Border Engagement and Bilateral Mechanisms

Strengthening diplomatic engagement with neighbouring countries is essential for addressing border management challenges. Regular bilateral meetings, joint border management committees and confidence-building measures can help prevent escalation of border incidents.

8.5 Technology Adoption , Integration and Innovation

Continued investment in research and development of border management technologies is necessary to stay ahead of evolving threats. This includes:

- Development of indigenous technologies suited to Indian conditions
- Integration of emerging technologies like quantum sensing and advanced AI
- Cyber-security measures to protect border management systems
- Training programs to ensure effective utilization of new technologies
- Deploy AI, drones and satellite surveillance across all vulnerable sectors.
- Invest in indigenous R&D for cost-effective, terrain-specific solutions..

8.6 Capacity Building and Training

Regular training programs for border security personnel should focus on:

- New technologies and their operational use
- Cultural sensitivity and community engagement
- International best practices in border management

- Specialized skills for different terrain and threat types

8.7 Policy and Legal Reforms

Update legal frameworks to address emerging threats like cyber infiltration, drone incursions and hybrid warfare.

Streamline recruitment, training and deployment of border forces to address manpower shortages.

8.8 Upgraded Analytics Platforms:

Develop integrated data hubs leveraging AI for predictive intelligence and pattern detection.

8.9 Interagency SOP Enforcement:

Mandate joint training cycles for CAPFs, military, civil, maritime and local bodies.

8.10 Embed Human Rights:

Ensure surveillance complies with privacy, humanitarian guidelines and is reviewed regularly.

9. Conclusion

Border management in Bharat is a dynamic and multifaceted endeavour, requiring a blend of robust infrastructure, technological innovation, inter-agency cooperation and community engagement. India's intricate borders demand a nuanced, multi-dimensional strategy-balancing robust security, sovereignty protection, legitimate economic exchange and human dignity. The transformation from traditional physical boundaries to a digitally integrated, technology-enabled framework marks a significant development. Critical next steps include institutional consolidation, accelerating smart infrastructure, leveraging AI and drone-based technologies and fostering civilian engagement-all built on a foundation of regional cooperation and protective diplomacy.

In essence, India's path forward in border management is one of integration, innovation, inclusivity and informed statecraft-securing its borders while. □

POLICIES FOR EFFECTIVE BORDER MANAGEMENT BY CENTRAL AND STATE GOVERNMENTS: PROGRESS AND PROSPECTS IN ARUNACHAL PRADESH



– Dr. Sarvsureshth Dhammi

Introduction

The international boundaries of India, especially those of the north-eastern region, pose special security and administrative and developmental problems. One of them is Arunachal Pradesh, which is a critical geopolitical location. It is a buffer region for India's national security as it shares borders with China, Myanmar, and Bhutan. Nevertheless, the area still faces a history of neglect, developmental imbalances, and security weaknesses because of the rugged nature of the terrain, poor infrastructure, and porous borders.

To this effect, the Government of India, in conjunction with the Government of Arunachal Pradesh, has implemented several progressive policies over the past years. Most importantly, the introduction of the Vibrant Villages Programme (VVP) and the symbolic identification of Kibithoo village as the First Village of India indicate a transformation from reactive to proactive governance, to assimilate the border people into the national mainstream (Ministry of External Affairs December 2015). This paper critically examines the developments, difficulties and prospects of such border management policies in Arunachal Pradesh.

Strategic Value of Arunachal Pradesh

The state of Arunachal Pradesh, with an area

of more than 83,743 sq. km, has an international boundary of 1,680 km with China (1,080 km), Myanmar (440 km) and Bhutan (160 km). The state was historically known as the North-East Frontier Agency (NEFA) and became a full state in 1987. It is not merely the gateway of India to Southeast Asia per the Act East Policy, but also a very serious frontier on the back of Chinese territorial claims and infrastructural developments along the Line of Actual Control (LAC).

Nevertheless, in contrast to India's western borders, Arunachal's borders are not fenced, the population is insufficient, and it is easy to infiltrate them, smuggle, and impose foreign encroachments. The Chinese incursions, Myanmar arms trafficking and the migration of people across borders are some of the examples which showcase the necessity of integrated and people-centred border management.

New Policies and State Programs

1. A Turning Point- Vibrant Villages Programme (VVP)

The Vibrant Villages Programme is a paradigm shift in the border development policy in India and was launched in 2023. The VVP is looking at 2,967 villages in 46 blocks of 19 border districts, including Arunachal Pradesh and is expected to change the migration pattern out of the border districts by enhancing infrastructure, livelihoods,

communication, healthcare and tourism potential.

In Arunachal, the VVP focuses on villages along the Chinese border, and many of them were on the point of being abandoned. It seeks to turn these settlements into self-sustaining centres that will serve as the natural custodians of the border. The Kibithoo, the First Village of India, is a symbolic and strategic development that strengthens territorial integrity, enhances national feeling, and draws resources and attention towards the area.

2. First Village of India Approach

New Delhi is changing the discourse in the country by formally accepting that villages such as Kibithoo, Kaho, and Dong are the first villages of India and not the last. Such villages are being empowered with road connectivity, 4G internet, solar electricity, skill centres, homestay tourism projects and health infrastructure and a new model of rural resilience and national pride is being created. It is not just an effective response to Chinese model villages along LAC, but also a source of inspiration to those of the kind on the other side of the Himalayas.

Infrastructure and Security Posture Advancement

1. Connectivity and Communication

Road connectivity has significantly improved through the Border Roads Organisation (BRO) and the Special Accelerated Road Development Programme in North East (SARDP-NE). The most strategic roads, including the Tawang-Bumla axis, Vijaynagar road and strategic bridges along the Lohit and Siang have either been upgraded or are under construction.

Also, most of the border villages have been equipped with 4G mobile towers as part of the Universal Service Obligation Fund (USOF) schemes. There are plans to implement high-capacity satellite and microwave communication that will boost the command and control of the security forces.

2. Surveillance and Defence Infrastructure

The government has put money into Advanced

Landing Grounds (ALGs) at Pasighat, Ziro, Mechuka, Tuting and Walong to promote quick troop mobilisation. The use of Long-Range Reconnaissance and Observation Systems (LORROS), thermal imaging and UAVs (drones) has now made it possible to have constant surveillance over sensitive areas.

There is already some integration of Comprehensive Integrated Border Management Systems (CIBMS) on the D4R2 framework (Deter, Detect, Discriminate, Delay, Respond, Recover), although at a gradual pace.

The Current Problems in Border Management

Nevertheless, after the significant improvement, there are some critical issues:

1. Forsaking of Border Villages

Because of the poor livelihood opportunities and insufficient state facilities, many villages along the border are either already depopulated or are in danger of being so. This is especially risky because China keeps building infrastructure on its side of LAC, including villages. Unless there are continued incentives and locally based initiatives, India will lose the battle in the race for presence.

2. Inter-Ministerial/Administrative Lapses in Coordination

There is usually a coordination issue between multiple agencies, such as the Ministry of Home Affairs, the Ministry of Defence, BRO, Army, ITBP and state administration in terms of planning and execution. Fragmentation of policy and duplication of work impede the maximum use of resources.

3. Continued Underdevelopment

A report by NITI Aayog in 2015 stated that among 21 Gram Panchayats in border districts of Arunachal, six had all-weather roads, five had tap water, and none had fixed-line telephones. Most of them did not have schools, PDS shops, or health centres with regular staff. Although VVP has already started to take corrective actions, the magnitude of

neglect needs a decade-long focused intervention (NITI Aayog report 2015, pp.43).

Arunachal Pradesh has received the highest amount of funding (518 crore) in the Border Area Development Programme (BADP) between 2015-16 and 2019-20 compared to other Northeast states. Of this, 254 crore (49%), 136 crore (26%) and 117 crore (23%) respectively were spent on the Indo-China border, Indo-Myanmar border and the Indo-Bhutan border respectively as a reflection of strategic priority. The schemes that were put in place in these sectors were 4375, of which the Indo-China border received the most significant share. Such investments notwithstanding, a field survey of 340 respondents indicated mixed results, with 62 per cent of the locals giving the performance of the BADP the ratings of good, 17 per cent were neutral, 15 per cent gave it a poor rating, and only 2 per cent viewed it as very good. The fieldwork revealed that even though a larger part of the assets had been built according to the official guidelines, a significant number of them are not used or even underused by the local residents, and a few schemes were reported to have been implemented without following program norms, which cast doubt on the future effect and community involvement (Dept. of Finance-Planning & Investment report 2020-2021).

4. Insurgency and Chinese Security Threats

The Indian border with Myanmar is also not secure because of the Free Movement Regime (FMR) and the existence of armed groups of insurgents. Also, China has provided local forces with low-quality weapons and used ethnic connections to cause unrest. There are also no available NRC or good demographic records in Arunachal, making identifying infiltrators and reinforcing border identity even more challenging.

Suggestions and the Way Forward

To develop a sustainable and secure border management ecosystem in Arunachal Pradesh, it is important to have a multi-tiered approach:

1. Enforcement of VVP

For the enforcement of VVP there is need to concentrate on infrastructure and livelihood creation (e.g. agro-processing, handicrafts, ecotourism), promote community involvement by having village-level development councils and interconnect VVP with Digital India, Start-Up India and PM Gati Shakti initiatives.

2. Scale up the First Village Model

It is very important to scale up the First Village Model in other areas of the state, choose more symbolic villages along the border belt, give them model village status with tourism, media and government attention and establish a cultural exchange centre to enhance indigenous heritage and identity, which will improve moral and national cohesion.

3. Create Research Centres, Academic and Strategic

Existing academic institutions are overburden due to the increase of population and young generation in the state. Many have seen going to different cities in India for good and quality education. There is need to take more initiatives to open regional centres of leading institutions of India in Arunachal Pradesh to provide better research and academic facilities in the state. Establishing border management, remote sensing and transboundary management departments in Arunachal universities and think tanks can help to upgrade the existing Academic and strategic infrastructure. One of the recent good initiatives taking by central government in this area can be seen as opening of regional centre of Rastriya Raksha University in Pasighat, Arunachal Pradesh. It will help to engage local youth in research, surveillance support and community intelligence.

4. Better Inter-Agency Coordination

Better inter-agency coordination monthly meetings through Unified Border Management Task Force within the PMO or National Security Council of Arunachal Pradesh will help to ensure better

coordination between armed forces, paramilitary, BRO, and state officials.

5. Review the Free Movement Regime (FMR)

There is need to adjust the FMR on the most sensitive places by biometric screening, joint border surveillance, and phased fencing. It will Enhance border posts through built-in check posts and electronic monitoring systems. New Delhi and Arunachal Pradesh Government need timely investment in border fencing along India-Myanmar border.

6. Increase the Scale of Budgetary Allocation and Supervision

If we luck at the funding for BADP, it comes in consolidated budgeting for all the Indian state sharing borders with other countries. There is need of dedicated funding for each and every state depending on there geographical and strategical challenges. Shifting to an output-based funding method under

BADP and VVP will help in this area. In addition, present village-level dashboards to monitor real-time development indicators and service delivery will help for better border management.

Conclusion

Arunachal Pradesh's development and security are no longer only a regional priority but a national strategic priority. Vibrant Villages Programme and the story of the First Village can re-conceptualise border management by humanising the frontier, empowering the local community, and promoting visible governance.

Nevertheless, there is a lot to be done. The gains will be short-lived unless these policies are maintained through political will, administrative efficiency, financial commitment and participation at the grassroots level. The future of Arunachal Pradesh is in integrated development through smart security, where each village becomes a custodian of the nation as well as a lighthouse of its development.

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HUMAN TRAFFICKING AND ILLEGAL IMMIGRATION



– Sri Rattan Chandra Sharma

Introduction

Republican Senator John Kennedy views on the problem of illegal immigration is true in the Indian context, considering our political system of ‘please all annoy none, sidestepping national security concerns. He says, “Part of the problem is that there are people in our country in positions of power to whom border is a nuisance, and I think some of them believe that illegal immigration is a moral good. It is not. It undermines legal immigration.” Human trafficking, human smuggling, and illegal immigration are closely interlinked. Human trafficking is forcefully coercing people through fraud, exploiting them to reap material and financial benefits as part of organized crime syndicates. It involves the recruitment, transportation, harbour, and transfer of human beings in the interlinked chain. This may involve forced labour, child labour, commercial sexual exploitation, and child sex abuse. Human trafficking is a serious violation of human rights and is forced slavery. Contrary to human trafficking, which involves obtaining voluntary consent for movement under duress or fraud, human smuggling involves deceptive consent, as it involves services in the form of prepared documents to facilitate the transportation of an individual or group that voluntarily seeks to gain illegal entry into a foreign country. Thus, trafficking is exploitation-based, smuggling is exportation, and importation is transportation-based. Illegal immigration, in simple terms, is the migration or

illegal entry of people into a country in total disregard for and violation of a country’s immigration laws. India is struggling with the scourge of heavy illegal immigration, wherein illegal immigrants from Bangladesh and Myanmar have flooded many regions, especially the northeast, disturbing the demographic profile and leading to security concerns.

Human trafficking & Illegal immigration-Indian perspective

One need appreciate that human trafficking and illegal immigration are need-based and poverty-driven illegal exercises. Organized crime and illegal immigration syndicates, based on the country of exportation and importation, execute these. These syndicates work in close coordination to hoodwink border guards and law enforcement agencies. How do they work? From an Indian perspective in human trafficking, the focus is on the trafficking of women for the purpose of sexual exploitation, where girls are trafficked under the garb of promise of a job forced to submit through physical and mental violence. As far as illegal immigration syndicates are concerned, in India and Bangladesh, they are well-oiled and well-coordinated organizational cells, which work with total dedication and efficiency until the migrants reach the targeted destination, which may be Delhi, Mumbai, or any other part of the country. The exportation chain begins in any region of Bangladesh. The group of immigrants is brought close to the border

with tout/guide already in touch with a tout or agent on the Indian side of the border. At opportune time, migrants are pushed into India by breaching the fence, under bridges, or through hume pipes, by deceiving border guards. The Indian tout takes them to a pre-decided safe house. From there, are taken to the nearest railway station and are received by agents at designated bus stops with railway tickets and made to board the destination train or bus, as the case may be. It may happen that these illegal immigrants are saddled with drugs or counterfeit currency and are met at the destination by local handlers who distribute them as per their profile. Thus, a fail-safe chain between importation and exportation exists.

The government accepts that illegal immigration from Bangladesh is problematic. On July 14, 2004, then Minister of State for Home Affairs in the UPA government told Rajya Sabha that there was more than one crore twenty-lakh illegal Bangladeshi migrants spread over 17 states and union territories. However, he later withdrew the statement. In November 2016, in written reply, then Minister of State for Home Affairs Sh Kiren Rijiju informed Rajya Sabha that, “As per available inputs, there are 20 million illegal Bangladeshi migrants staying in India.” He further stated that there are reports of Bangladeshi nationals having entered the country without travel documents since the entry is clandestine and surreptitious; it is not possible to have data on Bangladeshi nationals living in various parts of the country.

In response to question no. 553 on illegal immigration from India to the USA, Sh Kumar Ketkar answered on 07 Dec 2023, whether it is fact that 97000 Indians were held while crossing illegally into the USA, and whether the government has tried to find out the reasons and steps to bring back these Indians. Minister of State of the Ministry of External Affairs, Sh V. Muraleedharan replied, “There have been reports about Indian nationals trying to enter the US illegally. However, the number quoted has neither been authenticated nor officially communicated by

US authorities. According to data published by US customs and border protection on their websites, the number of illegal Indian immigrants encountered by US authorities in 2023 is 96,917.

Concerning illegal migration from India to foreign countries, Rajya Sabha unstarred question number 2787 of Dr. V Sivadasan answered on December 19, 2024, concerning the number of Indian citizens arrested or detained for illegal migration to foreign countries. The Ministry of External Affairs replied that it did not have specific data on the number of Indian nationals arrested or detained in foreign countries for illegal migration.

Cursory analysis and need for structured response

An analysis of the data presented in parliament revealed that the problem of illegal immigration into and from India is of colossal magnitude. An in-depth analysis of causes is needed for framing a structured response mechanism. On 07 December 2023, the government accepted that US customs and border protection website mentions encountering 96,917 illegal Indians into the USA, a clear indicator of numbers, whereas on December 19, 2024, government reply is ambivalent despite data available with government and in the public domain. The problem of illegal immigration from Bangladesh is well known. In 2004, the government came out with a figure of 12 million Bangladeshis, only to retract later. In 2016, the figure reached 20 million, an increase of 08 million in about 11 years, an increase of seven lakhs plus Bangladeshi migrants per year. How the figures arrived and the methodology adopted to arrive at these figures is not known. The push back mechanism need to be strengthened to rid the country of illegal immigrants from Bangladesh in the interest of national security, societal harmony, peace, and development.

Pattern of illegal immigration into country from Bangladesh

Illegal immigration from East Bengal or East Pakistan is riddled with the historical baggage of

partition on religious grounds. Partition did not stop illegal migration from East Pakistan in Bangladesh. The trend and pattern of illegal immigration continued with dual purposes, first to escape religious persecution, and second, for better economic opportunities to get rid of extreme poverty. The continued unabated migration from East Bengal/East Pakistan and later Bangladesh into West Bengal, Assam, and Tripura has totally changed the demographic profile of these states is clearly brought out in the census data of population growth of these bordering states.

As per the census, in West Bengal, between 1951 and 1961, approximately 4.5 lakh migrants from East Pakistan, mostly Hindus, entered the state, resulting in a marginal increase in the Hindu population from 78.45 percent in 1951 to 78.80 percent in 1961. Since the 1960s, the population of Hindus in the state has steadily declined.¹ On the other hand, the Muslim population registered an increase of 0.46 percent in 1971, which grew to 5 percent in 2001. Between 1991 and 2001, North 24 Pargana, Murshidabad, and Malda bordering Bangladesh saw population rise of 22.64, 23.70%, and 24.77%, respectively, a growth rate much higher than the average population growth of 17.84 percent. The significant growth in the Muslim population is attributable to illegal migration from Bangladesh.² As far as Tripura is concerned, for the first decade after independence, the state population increased from 6.39 lakhs to 11.42 lakh an increase of 78.71 percent. In the subsequent three decades, the population growth rate continued to hover at around 30-35 percent.³

States of West Bengal, Assam and Tripura received bulk of illegal immigrants from East Pakistan/Bangladesh in the initial decades. However, in later years, other states also saw an increase in population. Nagaland experienced a population growth of 56.08 percent in 1981-91 to 64.41 percent in 1991-2001.⁴ This can be attributed to the influx of Bangladeshis. If an increase in the Muslim population is taken as a barometer of illegal immigration, almost

all NE states except for Manipur have seen an increase in the Muslim population. Thus, the problem of illegal immigration from Bangladesh is complex.

Dimensions of human trafficking

Human trafficking requires in-depth analysis considering its multifarious facets to understand the compelling social and economic inequalities, which supposedly lead to exploitation and vulnerability to the vicious cycle of human trafficking. The main reasons for trafficking are extreme poverty; deprivation; destitution; non-availability of economic opportunities, severe gender discrimination; socioeconomic discrimination, and unemployment of victims, parents, or spouses, which push the vulnerable into trafficking. The unavailability of or inequitable accessibility of social security measures, especially to marginalized sections, especially women and children, is one of the factors that influence the menace of human trafficking. Lack of stringent legislation or poor execution of legislation failing to protect victim rights also exacerbates human trafficking.

Another important dimension is the demand and supply of trafficking victims, which may be of different types and commercial in nature, such as cheap bonded labour, prostitution, sex slavery, marriage, or early marriage due to poor female sex ratio. Thus, victims are transported from one country to another or from one region to another within a country. In the overall context, human trafficking is one of the most heinous acts of deprivation of an individual's human rights, constituting self-respect, dignity, and right to life.

Factors responsible for illegal migration

Several factors are responsible for illegal immigration. These are the economic, social, political, and environmental factors. Economic and financial factors play a major role in triggering migration. People move in search of job opportunities for higher wages and better standard of living. All illegal immigration from Bangladesh falls under this category. All those illegally migrating from Bangladesh find an enabling

environment inside India that helps them strengthen their tentacles. It is very easy to prepare fake Aadhaar, PAN, and voter ID to amalgamate with the local population. Those entering solemnize marriages with Indian citizens upon entry to facilitate their permanent stay. The easy availability of a strong network of touts and agents to facilitate movement and settlement is also a luring factor. Enabling administrative system that ignores illegal migration under political duress is also a factor in illegal immigration.

Political instability leading to persecution and discrimination based on religion, and a lack of basic human rights forces people to migrate. Individuals try to move to regions and countries that they perceive as safer and have a stable political climate. Refugees and asylum seekers fall under this category. Since India is not a signatory to the UNHCR Convention on Refugees, all entering the country fall under the category of illegal immigrants.

Environmental factors such as frequent floods and droughts triggered by climate change leading to environmental and ecological degradation also drive people into illegal immigration, since environmental factors create economic distress, and populations seem to migrate to countries that are environmentally better stabilized. What is a better place than India for an already distressed population from Bangladesh or Myanmar?

Effects of illegal migration

Illegal migration affects all facets of a nation's life. The negative consequences could be a change in the demographic profile, wherein immigrants, slowly occupy the local space, outnumber indigenous people. This disturbs societal harmony, as illegal migrants put undue strain on local resources eat into the local job market, creating unemployment leading to law and order problems, and has serious security implications. Many illegal immigrants may be involved in fomenting insurgency and terrorism. Effects can be chronicled as under:-

- **Demographic upheaval**– Unchecked illegal immigration may create demographic upheaval leading to security and societal issues affecting peace and development. For example, a clear surge in the Muslim population was visible in the 2011 census of the bordering areas of West Bengal and Assam.⁵ This leads to unemployment, a forcible occupation of government land, impacts socio-economic and socio-political stability. It increases the probability of human trafficking, especially for women and children.

- **Societal Upheaval**-Illegal migrants, in addition to occupying local space are strain on resources affecting indigenous people. This leads to cultural tensions and economic inequalities within destination regions, and creates distress among local population, leading to tension between locals and migrants, thus leading to law and order problems that disturb peace and development.

- **Security upheaval**- Illegal immigration is challenge to the sanctity of borders, sovereignty, and territorial integrity. Majority illegal crossings are through land borders. Migrants also have radicalized individuals affiliated with terrorist or insurgent groups, affecting internal and external security. Large-scale migration leads to societal tensions that turn into security concerns in the short and long run. Thus, illegal immigration is a major security concern for external and internal security.

How to tame Illegal Immigration

In the Indian context, illegal immigration and human smuggling are major concerns that affect nations' security and standing as emerging regional powers in the Global South. In the Indian context, illegal immigration is from contiguous neighbours into India, and human smuggling from India to the western world needs scrutiny. Following measures are suggested to tame illegal immigration and human smuggling:-

Strengthen Border guarding along Indo-Bangladesh and Indo-Myanmar border:-In order to effectively check illegal immigration from Bangladesh, there is need to plug the gaps, shift

population residing ahead of fence and fence all feasible gaps and strict vigil along riverine borders. All those caught infiltrating illegally need to be pushed back immediately after documentation formalities, instead of indulging in the long legal procedure of police and courts. Similarly, there is an urgent need to strengthen border guarding along the Indo-Myanmar border, which is open with easy cross-border accessibility. Unless the Assam Rifles stages forward and border fenced, illegal immigration from Myanmar may continue. **Do not resort to arrest, resort to pushback.**

Strengthen the Immigration Mechanism:- All states and the Union government need to carry out an assessment of states from where illegal human smuggling is taking place to Western countries, including the USA. Based on this study, stricter immigration controls are needed at airports to identify

fake and suspicious documents and detain such persons at the port of embarkation instead of allowing them to fall into the dark net of the dunkee route. States must adopt strict norms to regulate the grant of licences to travel agents. Unless proactive steps are taken, the nation may not be able to control human smuggling.

Human trafficking and illegal immigration are part of an interconnected web that requires joint effort to curb at the state and union levels involving border guarding forces, immigration authorities, state police, and the Ministry of External Affairs. Unless all stakeholders come under one umbrella and work in close coordination with each other, the scourge of illegal immigration may continue, thus causing chinks in external and internal security and affecting India's global standing. □

¹ Pushpita Das, *Illegal Migration From Bangladesh Deportation, Border Fences and Work Permits* 22 (2016).

² Id.

³ Das, *supra* note 1, at 21.

⁴ Das, *supra* note 1, at 22.

⁵ Das, *supra* note 1, at 21.

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ROLE OF BORDER AREA TOURISM IN EFFECTIVE BORDER MANAGEMENT IN INDIA



– Dr. Chandan Panda

Border space undergirds security, connectivity and nationalism. Security ensures protection from infiltration or any act of violation from the hostile neighbour. Connectivity refers to infrastructural development to underline the ease of communication and accessibility. The conceptions of nationalism emanate from the physical configurations or territorial imaginations of the nation. The national imagination requires a demarcation for a popular conception of nation and nationhood, geographically conceptualised and culturally embedded. Therefore, security, connectivity and nationalism constitute conventionally the critical core of border space conceptions. Given these conventional construals of border space, tourism has been emerging as an effective instrument in the border space policy formulations to transform the territorial margins into the pivot of activity. The last-village-conceptions of border space metamorphose into the first village. This alteration in perception makes the border space more tangible and dynamic. Tourism brings people to the border space to visualise the frontier and make it the most happening place. This transforms the perception of border space as normal, habitable and busy. It decreases territorial isolationism through a steady demographic presence. Border villages become more robust and eventful. Therefore, border space management becomes more effective and continuous, less laboured and insular.

This shift in consciousness does not reduce the

critical strategic importance of the border space. It does not minimise the degree of alertness and the gravity of security attention it requires. The strategic concerns of the border space remain unaffected by the rise of tourism. Strategically, border space is pivotal for security reasons. It is a space of tension because it carves a boundary between two countries. If they are cooperative, for instance Bhutan, the conflict minimises. It becomes a space of cooperation and dialogue. Border as a dialogic space reduces the scope of conflict and ensures a deeper cultural and economic cooperation. It becomes dialectical if the neighbouring nation prefers confrontation to cooperation. China exemplifies it. It exercises border ambiguity to undergird its territorial expansionism. Nepal's shift to a communist polity has deteriorated its traditional rapprochement with India and has provocatively outlined border issues to harvest political dividends. The politicisation of the border space has seemingly become a go-to domain for Nepal's current political dispensation to bury the challenging domestic issues and conceal the ruling elites' political incompetence in providing a secure and durable government. Pakistan is incurable. Nothing can cure its congenital and compulsive hatred of India. Theology determines its statecraft. Therefore, it is difficult to alter the theologically-entrenched antagonism against India. Bangladesh toes today Pakistan's line. Religious bigotry overtakes rational determinism to conduct safe and dialogical statecraft.

Therefore, the geopolitics of border space in South Asia is largely tense and complex. Except Bhutan and Nepal, the cases of China, Pakistan and Bangladesh are not encouraging enough to carve a path of progress along with India's neighbourhood. The tension that swirls around the border space along the Tibetan Autonomous Region (TAR) under China, Bangladesh and Pakistan demands robust security and surveillance. Against this background, tourism may find bottlenecks. However, tourism and territorial protection must coexist to make the border space more interactive and economically intensive.

Border area tourism refers to visiting the international border areas to experience the incredible blend of culture, cuisines, nature and history. The border communities along India's north and the northeast embody a diverse cultural tapestry, making them most attractive to tourists. The mighty and awe-inspiring Himalayas in the North and the Northeast are a compelling attraction for tourists to visit. The deserts along the Western borders carry their distinct flavour and visual relish to encourage tourism. The history along the western borders, especially during Partition, is deeply woven in the Indian collective memory, which makes the border space charged with emotion, fury and nostalgia. Historical narratives and sites also develop a compelling causality for intensive tourism. Cultural heritage and traditions of the border communities are quite different and exciting to attract tourism. Mountains, landscapes, incredible geography, natural beauty and other geographical features constitute impressive areas for a visit. Economically, border tourism is an important initiative to engage the fragile border communities in resource-generating activities. It develops the scope for different areas of engagement and activities. The hospitality sector, especially, finds significant encouragement. It strengthens the local economy. In the absence of industry-led economic activity, tourism can be a model of growth, engagement and activity. It will boost local entrepreneurship. Job opportunities and scope for business will emerge significantly. People will not shift from the isolated border areas to the urban space. Tourism will make growth more distributive, not

concentric to the urban spaces. Internal migration will be largely controlled.

Swadesh Darshan, Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD), Dekho Apna Desh, etc., are some of the most effective initiatives for Tourism across India and especially in the border regions. Project Shaurya Gatha covers India's glorious military heritage and its difficult history. Bharat Rann Bhoomi Darshan or the Vibrant Village programme is curated for developing border villages and disclosing the restricted areas for tourism and unfolding India's border history. The Border Tourism Web Page is designed to give updates and information regarding safety guidelines and features of area-specific importance. These projects, along with other initiatives, have been working seamlessly to enhance the scope of border tourism. The dividends are seen on the ground and are likely to be discerned more effectively in future.

Connectivity enhancement coincides with tourism promotion. The UDAN scheme works in this direction to enhance air connectivity. India-Myanmar-Thailand Trilateral Highway and the Kaladan Multi-Modal Transit Transport Project are the connectivity frameworks to promote economic and tourist interests and regional integration. Act East Policy (AEP) has been conceptualised to accentuate regional connectivity for blending culture, economy and tourism together. The Ministry of Tourism works determinedly to deliver the objectives of tourism. The International Tourism Mart (ITM) in the North Eastern Region (NER) is designed to demonstrate the tourism potential to both domestic and international audiences. Media campaign under Incredible India initiatives aims at advertising India's vast tourist potential. Hospitality sector and homestay model are encouraged among the local communities through micro-credit under Startup India and MUDRA loans. It contributes to strengthening the local economy, ensuring its expansion. The Border Area Development Programme (BADP) focuses on infrastructure, socio-economic growth and security matters. Organic industries, sustainable hospitality industry, and plastic-

free tourism are promoted to address the issues of ecological fragility and sensitivity of the border regions, especially the Himalayan biodiversity and eco-sensitivity. Cultural preservation, environmental protection, sustainable infrastructure, eco-friendly transport, etc., have been outlined as the imperatives of sustainable tourism.

The notable tourist destinations include Nadabet Indo-Pak Border (Gujarat), Wagah Border (Punjab), Nathula Pass (Sikkim), Tawang Monastery (Arunachal Pradesh), Rann of Kutch (Gujarat), Longewala (Rajasthan), Moreh (Manipur), Pangong Lake (Ladakh) Dawki (Meghalaya), etc. The tourist sites are many and are difficult to compress into the space of an article. The focus areas in this regard have been to develop cultural interaction, heritage knowledge, historical consciousness, national unity, patriotism, knowledge of border realities, responsible tourism with definitive attention on ecological sensitivity. More importantly, connecting to local communities constitutes the core of this exercise. Their narratives, cultures, languages, heritage and oral history will receive required attention through border tourism. The border speaks through them and through their stories.

Border space tourism encourages the civil-military Interface. It develops an interactive environment which serves security concerns. It enhances local awareness concerning national security and develops a robust security ecosystem through layered surveillance. Suspicious activities will be reported by the locals to intensify action against any objectionable ventures and misadventures. The civil-

military distance will be reduced. It will augment national integration. It will effectively address the cross-border threats. Increasing human activity will suspend isolationism from border space. It will act as a deterrent to infiltration, smuggling, and other illegal activities. This collaboration will amplify border security.

In the NER, regional integration through culture, connectivity, diplomacy, and tourism can position India at a crucial node where it can foster the values of cooperation, consolidation and shared growth. This integration can pave the way for reviving India's traditional trade and cultural engagement with Southeast Asia. The antiquity will provide the impetus to realign in a more structured way. This realignment or restructuring can develop a soft power ability to establish an enduring cooperation, safeguarding mutual interests. In this direction, border tourism will secure salience. People-to-people contact will facilitate lasting interdependence. The Chinese brinkmanship and hegemonic proclivities in the region may impede this integrationist approach. However, works in this direction through border tourism, cultural exchanges, connectivity and diplomacy must continue to enhance India's soft power strength. This will decelerate Chinese monopoly in the region. Therefore, border tourism is crucial from integrationist perspectives and from the perspective of border management. It can metamorphose the border space from isolationism to human activity. It will significantly alter the perception of the border as a closed space, tensed territory, margins of inactivity, conflict zone and restrictive area. □

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RECENT IMPROVEMENTS AND GAPS IN BORDER MANAGEMENT: REFORMS, MODERNIZATION, AND THE ROAD AHEAD



– Dr. Uddipta Nayan Medhi

ABSTRACT

Border management is vital for protecting a nation's territorial integrity and maintaining internal security. In India, significant reforms have been introduced in recent years—particularly under the Modi government—to modernize and secure the country's vast and sensitive borders. These reforms include the development of physical infrastructure like roads and border outposts, the adoption of advanced technologies such as drones and smart fencing, and various policy-level changes aimed at improving efficiency and responsiveness. However, despite these advancements, challenges remain—especially in areas like personnel training, cyber security, and coordination between multiple security agencies. This paper explores both the progress made and the gaps that persist, ultimately recommending a holistic approach that integrates modern technology, skilled human resources, and effective governance to build a more robust and future-ready border management system.

1. INTRODUCTION

India shares its international borders with seven countries, stretching across 15,106 kilometers of land and 7,516 kilometers of coastline. Managing this vast boundary is both a security and logistical challenge. Threats range from terrorism and insurgency to illegal trade, drug trafficking, and cyber sabotage. The Government of India has recognized the strategic importance of strengthening its borders

through a comprehensive blend of technological, policy, and infrastructural reforms. This paper explores the recent advancements in border management, particularly under the PM Modi-led administration, and also highlights the areas requiring urgent attention.

2. OBJECTIVES OF THE STUDY:

- **To analyze recent reforms and modernization initiatives** in border management undertaken by national agencies, including policy, infrastructure, and technological advancements.
- **To identify and evaluate existing gaps and challenges** in the current border management framework—spanning operational, administrative, technological, and human resource dimensions.
- **To assess the impact of reforms** on national security, cross-border trade, migration control, and local communities living in border areas.
- **To examine best practices and comparative models** from other countries or regions to draw insights for more effective border governance.
- **To recommend a strategic roadmap** for integrated, technology-driven, and people-sensitive border management in the future.

2. RECENT IMPROVEMENTS IN BORDER MANAGEMENT

2.1 Technological Advancements

The deployment of Unmanned Aerial Vehicles (UAVs), thermal imaging, motion sensors, and satellite surveillance is transforming traditional patrolling methods. The launch of the Comprehensive Integrated Border Management System (CIBMS) was a milestone project designed to ensure real-time, technology-enabled border monitoring (Ministry of Home Affairs [MHA], 2023).

2.2 Infrastructure Development

Under the Bharatmala and BADP initiatives, road and fencing infrastructure near the Line of Actual Control (LAC) and international borders have been prioritized. Over 4,096 km of fencing along the India-Bangladesh border and strategic road projects in Arunachal Pradesh and Ladakh have been fast-tracked to improve troop mobility and surveillance (Press Information Bureau [PIB], 2023).

2.3 Policy Reforms and Coordination

Border guarding forces such as BSF, ITBP, SSB, and Assam Rifles have received clearer operational mandates and are now linked via real-time communication platforms for joint operations. Standard Operating Procedures (SOPs) for managing infiltration, drone sightings, and cross-border firings have been revised post-2019.

2.4 Data and Analytics Integration

Real-time data analysis through AI-powered control rooms is being piloted in Punjab and Jammu. These help in pattern recognition of smuggling routes and early detection of suspicious movement using machine learning algorithms (Reddy, 2022).

3. ROLE OF THE MODI GOVERNMENT

Since assuming office in 2014, the Modi government has made national security and border development a core priority. Several flagship reforms were introduced under its leadership, such as-

3.1 India-Bangladesh Border Fencing:

Completion of the Smart Fence project (CIBMS Phase-I) covering key infiltration-prone areas in Assam and West Bengal. This project was personally reviewed by Home Minister Amit Shah and fast-tracked post-2019.

3.2 India-China Infrastructure Race: In response to the 2020 Galwan Valley clash, India accelerated the Border Roads Organisation (BRO)'s construction of roads, bridges, and airstrips along the LAC. The Atal Tunnel, completed in record time, now enables year-round connectivity to Ladakh (BRO, 2022).

3.3 Political Focus and Budget Allocation:

Budget allocations for border infrastructure have increased consistently. From ¹ 9,435 crores in 2014–15, the allocation increased to ¹ 13,700 crores in 2023–24 (Union Budget, 2023). The Modi government also emphasized local recruitment and development in border villages to act as “eyes and ears” of the forces.

These reforms reflect the government's focus on self-reliance (Atmanirbhar Bharat), emphasizing indigenous technology and strategic preparedness.

4. PERSISTENT GAPS AND CHALLENGES

4.1 Inadequate Training and Capacity Building

Although India has made significant investments in advanced surveillance technologies—such as drones, AI-based analytics, and digital fencing—many personnel on the ground lack the technical training needed to operate and maintain these systems effectively. For example, deploying drone surveillance is not effective if operators aren't trained in remote piloting or interpreting drone feeds. Similarly, without knowledge of cybersecurity protocols, personnel cannot safeguard sensitive systems from cyber threats. Capacity-building initiatives (such as workshops, certifications, and simulations) have not kept pace

with the rapid deployment of high-tech hardware, leading to underutilization of equipment and reduced operational efficiency.

4.2 Delayed Implementation in Tough Terrain

In high-altitude and difficult terrains—like Arunachal Pradesh, Sikkim, and parts of Ladakh—border infrastructure projects often suffer from long delays. Key reasons include:

- Harsh weather and unstable terrain, which hinder road and fence construction.
- Resistance from local communities concerned about displacement or ecological damage.
- Stringent environmental clearance procedures required in eco-sensitive zones.

As noted by IDSA (2023), this slows down the deployment of vital infrastructure such as border outposts, roads, and communication towers, thereby leaving critical areas vulnerable to infiltration and surveillance gaps.

4.3 Cyber security Risks

The increasing digitization of border control—using smart sensors, networked cameras and drones—has made the system more vulnerable to cyber attacks. Threats such as hacking, GPS spoofing, and data breaches could disrupt surveillance operations or leak sensitive information to hostile actors. Despite these risks, India does not yet have a dedicated cyber security unit within its border forces (like BSF or ITBP), which leaves a critical gap in preparedness. These threats are particularly concerning given the interest of adversaries in compromising surveillance infrastructure for strategic and subversive objectives.

4.4 Funding Imbalance

Although government spending on border security has increased in recent years, the allocation remains uneven:

- Land borders, especially those with Pakistan and China, receive the lion’s share of funding.
- Coastal borders and remote tribal belts (e.g.,

parts of Odisha, Andaman & Nicobar Islands) often suffer from inadequate funds, limiting their ability to deploy modern infrastructure and equipment.

This imbalance neglects the growing threat of maritime terrorism, human trafficking, and illegal trade via sea routes, despite their proven strategic vulnerabilities (e.g., the 2008 Mumbai attacks).

4.5 Lack of Unified Command

Multiple agencies—BSF, ITBP, Assam Rifles, Indian Navy, Coast Guard, State Police, and Intelligence services—operate in border areas, often under different ministries with overlapping responsibilities. This leads to:

- Confusion in jurisdiction,
- Duplication of efforts,
- Slower decision-making during crises.

Without a unified command structure or national coordination agency, intelligence sharing, rapid response, and resource optimization are often hindered. A centralized command could help streamline operations, reduce turf conflicts, and ensure coordinated action during emergencies

5. ASSESSING THE IMPACT OF BORDER MANAGEMENT REFORMS ON NATIONAL SECURITY, CROSS-BORDER TRADE, MIGRATION CONTROL, AND BORDER COMMUNITIES IN INDIA:

Border management reforms in India have significantly evolved over the past decade, focusing on enhancing national security, boosting legitimate trade, managing migration, and improving the lives of people in border regions. The impact of these reforms can be observed across multiple dimensions.

- **National Security:** Reforms such as the Comprehensive Integrated Border Management System (CIBMS) and the use of smart surveillance technologies (drones, sensors, CCTV, and thermal imagers) along the India-Pakistan and India-Bangladesh

borders have enhanced real-time monitoring and reduced infiltration. For instance, in 2023, the BSF reported a substantial drop in cross-border smuggling activities in Punjab and Jammu sectors following the deployment of AI-enabled surveillance towers and anti-drone systems. These tech-driven interventions have strengthened India's capability to detect and prevent terrorism, arms trafficking, and drug smuggling.

- **Cross-Border Trade:** Infrastructure development under the Bharatmala Pariyojana and initiatives like the Integrated Check Posts (ICPs) have streamlined legal trade across borders. The Petrapole ICP on the India-Bangladesh border, for example, has significantly reduced cargo clearance time, promoting trade efficiency. In 2022–23, bilateral trade with Bangladesh reached over \$18 billion, a portion of which is attributed to smoother logistics and improved border infrastructure. Digitization of customs processes and better road and rail connectivity have also made cross-border trade more secure and efficient.
- **Migration Control:** Reforms have led to improved mechanisms to manage illegal migration and human trafficking. The fencing and surveillance on the India-Bangladesh border have helped control undocumented migration. The National Register of Citizens (NRC) exercise in Assam, though controversial, was aimed at identifying illegal migrants. While its socio-political implications remain debated, it reflects the state's intent to systematize migration control.
- **Border Area Communities:** The Government of India has launched the Border Area Development Programme (BADP), which focuses on improving infrastructure, connectivity, and livelihood opportunities in remote border villages. In Arunachal Pradesh, the Vibrant Villages Programme launched in

2023 aims to populate and develop strategically located hamlets near the LAC with China. This not only boosts local economies but also serves a strategic purpose by maintaining a human presence in sensitive areas.

6. RECOMMENDATIONS:

6.1 Set up dedicated border force academies with simulation-based training:

Effective border management requires specialized skills beyond conventional military training. Establishing dedicated training academies for border forces such as BSF, ITBP, and SSB can help personnel learn how to operate in diverse terrains, handle high-tech surveillance equipment, and respond to hybrid threats like cyber intrusions or drone attacks. Simulation-based training will allow them to rehearse real-life scenarios, such as cross-border incursions, smuggling operations, and mass migration events, in a controlled environment. Cyber labs will ensure forces are trained to detect and respond to threats against digital infrastructure, which is increasingly being targeted by hostile actors.

6.2 Establish an Cyber Defense Command t to protect surveillance infrastructure.

With the increasing deployment of digital technologies (e.g., sensors, CCTVs, drones) along India's borders, these systems are vulnerable to hacking, jamming, or sabotage by foreign adversaries or organized crime groups. A dedicated Cyber Defense Command comprising personnel from BSF, DRDO, NTRO, and CERT-In can act as a centralized unit to secure all digital and communication systems used in border surveillance. This unit can also monitor dark web activities related to arms, drugs, and human trafficking that affect border regions.

6.3 Policy Rationalization which create a unified command structure to minimize inter-force conflict and duplication.

Currently, different agencies (BSF, ITBP, Assam Rifles, Indian Navy, Coast Guard, Customs) operate

under various ministries with overlapping mandates, which can lead to confusion, delays, and operational inefficiencies. A unified command structure under a single coordinating body or ministry would help ensure smoother coordination, faster decision-making, and clear accountability. Joint command centers at strategic points can facilitate real-time coordination and intelligence sharing among all forces operating on the ground.

6.4 Funding Equity that Ensure balanced resource allocation between land and maritime borders.

Historically, India's land borders have received more attention and funding than its coastal and maritime borders, even though the latter are equally vulnerable (e.g., 2008 Mumbai attacks). This imbalance leaves gaps in coastal security infrastructure, training, and surveillance. Equitable funding will allow maritime forces like the Indian Coast Guard and coastal police to modernize their assets, improve radar and satellite tracking, and strengthen port and island security.

6.5 Leverage Public-Private Partnerships (PPP) where private sector expertise in drone tech, AI surveillance, and cyber security.

India's fast-growing tech industry offers advanced solutions in AI, drone surveillance, geospatial mapping, and cybersecurity. Collaborating with private firms through PPP models can speed up the deployment of modern tools and reduce costs. For example, private drone companies can supply customized UAVs for terrain-specific patrols, while AI firms can develop software to analyze surveillance footage and flag suspicious activities automatically. Private sector involvement also brings innovation and rapid upgrades, which are often hard to achieve within traditional government procurement systems.

7. CONCLUSION

India's border management strategy has evolved significantly in the last decade. The Modi government's emphasis on strategic infrastructure, indigenous technology, and digital monitoring has propelled much-needed reforms. Yet, operational challenges and human resource deficiencies continue to undermine overall effectiveness. A resilient border management framework must integrate modern technology with skilled human capital, coordinated governance, and long-term investment to truly secure the nation's frontiers.

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COASTAL LINE MANAGEMENT FOR EFFECTIVE BORDER MANAGEMENT



– Sri. A. K. Subramanian

Citizen of any Country is bound to protect it even with his life. That is why we Indians call it “Bharat Mata”; and it is our duty to protect our Nation at any cost.

As a Nation, Bharat is facing problems from neighbouring countries and surrounding Nations.

Bharat is also facing the anger of powerful Nations. When a Nation builds up its strength by being able to meet its requirements; by increasing the value of its Gross Domestic Product, as our Country has done; those countries that have been enjoying being in the top ten GDP positions feel threatened. These countries under whose economic control we were, now see that we are bettering ourselves and break the barrier to sit as equal with them. They cannot digest that India has fully grown in spirit and value and is independent.

Countries like the Union of Soviet Socialist Republic have disintegrated to Russia and many other Nations. In the name of democracy, religion and worst of all monetary strength; nations from Europe conquered, ruled and looted us of trillions of dollars by taking away our wealth. They also killed our skills and kept us uneducated and impoverished. Even today some of the African Nations are colonies of European countries.

War is an excuse. But then it is on our doorsteps. The neighbour who was a brother before,

has traded his goodwill for arms and ammunition to attack us and grab our land.

As I have been sailing for four decades, I have first-hand experience of being attacked by pirate ships; seen oil pollution by ships that collide or capsize or due to negligence. There have been times I have heard that mercenaries are used by countries that do not want to “redden their hands with blood”; but gain materially by destabilizing the area and make a conflict. This is what The United States of America did in Korea, Vietnam and tried in the 1971 war in support of Pakistan by bringing in their seventh fleet USS Enterprise. They tried to enter the Bay of Bengal, to reach East Pakistan. It is the fore-thinking and planning by our armed forces that made full use of our second line of defence i.e. the merchant naval ships, to ensure that the Andaman/Nicobar channel is closed and the Bay of Bengal is under Indian Naval control.

Securing our Border also means securing our coastal areas. The International Maritime zone - 12 nautical miles from Indian coast and Exclusive Economic Zone (EEZ) is 200 nautical miles. There are hundreds of ships using the lane beyond 12 nautical miles from shore and sail from west to east of India and vice versa.

There are also fishing vessels that are entering our EEZ. Some of these vessels are fishing factories - having all sorts of machineries; that are used from

the time they catch the fish and bottle or can the product for sale once they reach their Country's shore.

We are a country becoming more and more dependent on importing and exporting cargoes from all over the world. The products that we export or import, are also containing dangerous goods which might be in the form of raw chemicals, finished products like plastics or batteries etc. There are millions of metric tonnes of materials movement from many ports. We are also building new ports, dredging our coastal waters to make deep draught ships to enter our ports.

We are also a country which tries to make as many tonnes of oil on our own and thus we have built Bombay High, where we extract oils and gases for our consumption and for exports too.

Accidents of vessels can be an act of God, but we cannot rule out the sabotage and devious minds of Nations or neighbours who want our country to remain below poverty line and move around with a begging bowl.

Neighbouring Country Pakistan is now existing after breaking itself from our land.; It is being controlled by the doctrine of Islam which calls our culture as haram and that we are Kafirs and need to be destroyed. This country has already succeeded in making the hardcore jihadists, trained to die by specially targeting planned areas of maximum impact, by killing as many as possible; and then escape or die. They have also sent by boat, assassins who, on 26/11, killed innocent civilians, both Indian Nationals and foreigners. Thus, attack from sea cannot be ruled out.

Since the GDP of Pakistan is sliding down, the costs of buying needy goods have increased in Pakistan. Hence, we cannot rule out the nation to start piracy.

China is another country which has already established control over a port in Sri Lanka. China is the avaricious country which has many

fishing trawlers. Their attacks are planned for years, and are systematic. Their cancerous way of attacking or taking control of the nation is well known. Their way of lending monetary help is at an exorbitant rate of interest and that too with a clause that stipulates conditions which enable them to control the land and its surrounding economic zone.

Bangladesh is another volatile country with coastal ports which are close to our important ports in Bay of Bengal. Since the removal of Sheikh Hasina from power, the Country has seen unrest and chaos. If that country starts using their small ferries and boats to start human trafficking; send drugs etc., we will face problems on these fronts too.

We have now shown how capable we are to attack Pakistan without aircrafts, using our Brahmos etc. We have handled the Pahalgam attack by Pakistan; with precision and planning; which target to hit etc. This will not be forgotten by Pakistan.

With the IMF and other countries lending them aid; Pakistan will have sufficient funds to arm themselves. PNS Ghazi; the submarine that was sunk in Visakhapatnam port is not forgotten too by them. Thus 1, an attack by sea is a sure possibility from Pakistan end.

There are two ships that are sunk near Mangalore Port and one near Cochin. This brings us to wonder, what if these were a sabotage. As such, every ship is run by crude oil and a sinking ship definitely contaminated nearby ports with oil pollution. Again, if the ship has containers carrying dangerous goods, especially those for nuclear plants, the contamination will be disastrous and catastrophic.

In conclusion, we should alert our Ports and docks; also inform our Merchant marine vessels to be cautious and report any untoward happenings.

Our Indian Navy are already on alert and will fulfil their duties to ensure our coastal border is secure.

1. We have to ensure that there is no tunnel built

from seaside to any “bunker” station by those working against our country.

2. Our Naval vessels as well as our Merchant Naval vessels have a thorough knowledge of the acts against our National security; and as a line of defence, their duties and actions to deter them.
3. Vessels of International registry that enter our waters and Ports and pass through our EEZ, should be alerted of our patrolling; and our expectations that they will abide by our rules and regulations.
4. Fishing vessels to have communication system that they know how to use. They should be trained to contact our local coast guard stations or a code should be made available to them by which our merchant vessels and port authorities are alerted.
5. Fishing vessels and merchant vessels of Indian Origin, should report if there are fishing trawlers in our economic zone; thus depriving our fishermen of their daily catch.
6. The echo sounder of each vessel of Indian Origin should be kept on in Indian coastal

waters, and if they find any underwater activities, they will report the same to coastal authorities and in turn to Indian Naval Command.

7. Any suspicious activity in beaches; along the coast; digging deep into the shoreline; should be reported by those who spot the same. Citizen are to be made aware of the same.
8. Unplanned rounds of coastal areas by local authorities and those living in the area: reporting any person or persons roaming the area or found acting strange: or carrying item that do look suspicious and not fitting the person carrying it; must be reported; questioned.
9. Random and periodic search of areas of importance: like lighthouse, rescue stations, fire stations, police stations of any activity will keep us safe.
10. “Nation First” should be instilled in all citizen. □

Jai Bharat

Vande Mataram

Sri. A. K. Subramanian, Merchant Marine Radio Officer (Retd) 1 “18 Years in Shopping Corporation of India “25 Years with Wallenius Wilhelmsen Shipping, Norway” “Took part in 1971 War that made Bangladesh as a Nation. On board ship that brought 12200 Pakistan Prisoners of War from Chittagong to BujBuj” “Radio Officer on board m.t. Jawaharlal Nehru establishing Bombay High Communication system and helping ONGC to establish oil platforms etc. “2013-14 On board M.V. TAIKO which was the ship that helped in loading and help in destroying chemical weapons from Syria under UN Peace Keeping Force. “Received Gallantry Award from both India and Norway

INTEGRATION OF SMALL DRONES FOR EFFECTIVE BORDER MANAGEMENT BY INDIA



– Group Captain Rajiv Narang

Drones or Unmanned Aerial Vehicles (UAVs) are unmanned aircraft that are flown by the remote pilot through a control system or in an autonomous mode. They provide new capabilities in civil-military applications as well as pose security challenges. The drones due to their small size, ability to be launched from small spaces, ease of operations, ability to undertake surveillance of large territory and strike missions can significantly enhance the effectiveness of the border management.

India has two hostile and unpredictable neighbours with Pakistan to its west and China to its north. The recent development in Bangladesh added new challenges. Indian border guarding forces have to protect coastal areas to the south, deserts of the west, jungles in the East and high Himalayas in the North. Indian border is guarded by Indian Army and two Central Armed Police Forces (CAPF) namely Border Security Force (BSF) and Indo Tibetan Border Police (ITBP)¹. Their deployment is decided based on the type of border, threats, challenges and type of border guarding force.

Indian Army has wide variety of drones comprising Heron Medium Altitude Long Endurance (HALE), Searcher Tactical drones, and a number of small drones for surveillance, armed strike and logistics supply roles. However, it predominantly employed small drones for the management of the border. The BSF and ITBP too employ small drones for border management. The drones are currently

being deployed for surveillance of the borders to detect illegal infiltration by terrorists, illegal migrants, smuggling of drugs, weapons, counterfeit currency, cattle, etc. across the borders. However, there are nuances and challenges associated with the employment of drones for border management. The article examines three critical challenges associated with the employment of drones for border management, i.e. Real Time Tracking, Unmanned Traffic Management (UTM) system and lack of integration of small drones in the Air Defence Networks.

Real Time Tracking Challenge

The first challenges pertains to lack of real time tracking system on civil drones as well as on drones employed for border management. The drones employed for surveillance and other border management duties could face identification and air space integration challenges in the absence of real time tracking system. The real time tracking of drones can be undertaken by installing mobile sims on drones and using cellular networks or obtaining feed from Ground Control System (GCS), Global Positioning System (GPS), Satellite Communication System, etc. These systems need to be tested, validated and approved by Director General of Civil Aviation (DGCA), which is awaited. In the absence of real time tracking system, the border guarding forces could find their drone operating along with the rogue and civil drones and it could become difficult for air defence

operators to differentiate among them in real time. The lack of onboard systems for differentiation may create ambiguities and make it difficult for the air defence operators to neutralise hostiles drones especially while operating on or close to the border.

Lack of UTM

The second challenge for smooth operation of drones for border management is lack of Unmanned Traffic Management (UTM) System. The management of manned aircraft operation is done by air traffic system (ATS). However, drones operate at low level and the current ATS is not suitable for managing operation of drones. The operation of drones at low level in large numbers necessitate that drone traffic needs to be managed with a UTM system that has a high level of automation and such systems have been adopted by many countries. The DGCA has promulgated the policy on UTM but it is yet to operationalise it. The availability of UTM and installation of real time tracking system on own drones will ensure that all the complaint drones can be tracked in real time. The development and operationalisation of UTM would make it easier for the Air Defence Operators to segregate rogue or hostile drones and take measures to neutralise them, if required.

Drone Integration with AD Network

The third challenge pertains to lack of integration of small drones in the air defence networks of India. Bharat Electronics Limited has developed air defence network for the Indian Army that it has named as Akashteer. The Integrated Air Command and Control System (IACCS) of the Indian Air Force (IAF) acts as its AD system. Bharat Electronics Limited has developed air defence network for the Indian Army that it has named as Akashteer. The Integrated Air Command and Control System (IACCS) of the Indian Air Force (IAF) acts as its AD system.

The real time position of own small drones needs to be transmitted to AD network for integration. Also, integration would have enabled differentiation

of own drones from rogue or hostile drones, and prevent fratricide. However, these drones are not integrated with the air defence networks due to lack of policy and real time tracking system on drones, non availability of UTM and non-provision of real time operating position of own drones to AD systems. The lack of common standards for acquisition of drones by IA and its CAPF counterparts, i.e. BSF & ITBP add to integration challenges. The integration of drones in AD networks is essential for enhancing the effectiveness of employment of drones for border management.

Upgradation of CUAS Systems and Networks

The fourth challenge in employment of drones in border management is limitation of existing Counter Unmanned Aerial System (CUAS) systems and scope for improvement. The CUAS, also know as counter drone system or anti-drone systems have been developed to counter the threat posed by small drones that the existing Air Defence (AD) networks were not able to neutralise. The existing AD systems are unable to neutralise small drones because their detection systems, i.e. radars, etc were designed to pick up fast, large manned fighter aircraft that flew relatively at higher height and are launched from far off enemy bases. The drones being small, having low speed and ability to be launched from small and restricted spaces, and ease of operations necessitated development of CUAS. The radars, command and control and neutralisation systems of current CUAS have limitations in terms of detection ranges, ability to identify, track and neutralise rogue drones. Also, they can not differentiate between own drones or drones launched by the adversary. Therefore, CUAS systems need to be improved to enhance the level of assurance of detection and neutralisation of the threat posed by rogue or hostile drones.

Way Forward

The employment of drones for border management has significantly enhanced surveillance capabilities along the challenging hilly, desert, forest

and plain terrains of India. IA, BSF and ITBP have benefitted from unique capabilities of drones; however, there are certain technology and capability gaps due to lack of development and adoption of enabling technologies and integration of drones in the Indian airspace. The Ministry of Civil Aviation (MoCA) needs to take technology development and validation initiatives to develop and operationalise enabling technologies like remote tracking and civil UTM. The BSF, ITBP and other CAPFs would need to create their own drones and counter drone networks and integrate those networks with the CUAS and Akashteer air defence networks of the Indian Army and IACCS of the IAF. Also, the current CUAS networks need to be upgraded by developing better radars, jammers and neutralisation systems to detect and neutralise rogue drones that are often seen operating clandestinely across the border by India's adversaries.

The border management is transitioning from managing the land border threats to managing the combined threats from the land and air due to

increasing employment of drones by India's adversaries in clandestine manner for smuggling and anti-India activities. India's technology development initiatives like Innovation for Defence Excellence (iDEX) of the Department of Defence Production (DDP) of the Ministry of Defence, Mehar Baba Swarm Competition of the Indian Air Force (IAF) and creation of Indigenously Designed Developed and Manufactured (IDDM) provision in the Defence Acquisition Procedures (DAP), have played significant role in indigenous development of variety of drone and CUAS technologies and these initiatives need to be further leveraged and adopted by CAPFs for developing and upgrading enabling technologies as well as integrating drones in Indian airspace and air defence networks. The MoCA, BSF, ITBP and other CAPFs need to launch technology development and validation initiatives to fill drone, counter drone and drone networks technology gaps and integrate own drones with AD networks of IA and IAF to prepare India for emerging challenges.

*Group Captain Rajiv Narang, Central Armed Police Forces (CAPF),
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INFRASTRUCTURE DEVELOPMENT FOR EFFECTIVE BORDER MANAGEMENT IN INDIA



– Mrs. Mallika Gangakhedkar

The famous Indian Epic ‘Mahabharatha’ quotes **“One of the prime duties of a good and effective leader is to guard the borders of the country. When borders are safe, the nation is safe”**. Hence, it can be inferred that even during the ancient times, safekeeping of borders of a nation was treated as paramount. In that era, border management was primarily about securing territorial integrity, controlling trade, and sometimes facilitating cultural exchange, though the concept of fixed borders as we know them today, was not always prevalent. Borders were often marked by natural features like rivers and mountains, or by man-made structures like walls and fortifications. Empires expanded and contracted, leading to changes in border definitions, and the role of borders evolved over time with the development of civilizations. Purposes of Border Management were for Défense and Security and for protection against invasions, raids and other forms of aggressions. Borders facilitated and regulated trade routes, allowing for the exchange of goods and ideas. Borders were also points of cultural exchange, where ideas, technologies and customs were shared. Besides, Borders were often used to control and collect taxes from merchants and travellers.

The ‘Arthashastra’ (a treatise on statecraft) mentions the use of passes to enter and exit the country, suggesting a form of border control.

Today, Border management is a multifaceted term that includes the regulation of legal and illegal immigration, ensuring secured cross-border trade and prevention of cross-border crimes such as smuggling, human trafficking, and infiltration. India’s borders face many security challenges due to unsettled borders, expansionist policies of neighbours, difficult terrain, harsh weather, and lack of infrastructural development.

India has a huge 15,106.7 kms of land border and a coastline of 7,516.6 kms including island territories. India shares land borders with Pakistan, China, Afghanistan, Nepal, Bhutan, Bangladesh and Myanmar; whereas, it shares maritime borders with Pakistan, Maldives, Sri Lanka, Bangladesh, Myanmar, Thailand and Indonesia. Poor border management inevitably leads to a volatile internal security situation. Insurgency, Cross-border terrorism and Economic Terrorism become the order of the day.

India’s border management strategy has four main elements which are border guarding, border regulation, development of border areas, and bilateral institutional mechanisms. India implements these strategies through Border Area Development Programmes (BADP) with six thematic areas- Basic infrastructure, Health infrastructure, Education, Agriculture & Water Resources, Financial Inclusion

and Skill Development. The Border Infrastructure and Management (BIM) Scheme is aimed at infrastructure development and technological solutions at India's international borders. The scheme involves Border Fences, Border Roads, Border Floodlights, Border Out Posts (BOPs), Helipads and foot-tracks along the international borders of the country. 'Bharatmala Pariyojana' is another strategy where the focus is on the construction of border roads along international boundaries.

For effective Maritime Border Management, The Indian Coast Guard is responsible for overall coordination between the state and the central agencies. Coastal Security Scheme (CSS) is aimed to strengthen the security infrastructure and capabilities of the police of coastal states. For instance, the National Automatic Identification System, Biometric ID cards for coastal fishermen, Vessel tracking management systems, etc. are part of CSS. 'Sagarmala' Pariyojana is a Scheme where more than 400 projects have been identified for port modernisation and new port development, port connectivity enhancement, port-linked industrialisation and coastal community development.

While the above are generic schemes of the Indian Government, let us delve deeper into the needs for better Border Infrastructure and the detailed steps initiated so far.

Need for Improvement in Border Infrastructure –



1. One of the most important needs is development of legal and amicable trade relations with neighbouring countries.
2. Proper border road infra can reduce trafficking and smuggling, which is currently a big issue of concern for India.
3. Another major need is the economic benefits for inclusive growth and development. Border road infrastructure, especially in harsh terrains such as the Northeast states and Jammu & Kashmir provides avenue for self-employment and can boost small scale Industries in those areas.
4. Furthermore, tourism in the Himalayas can be given a big boost for availing the full potential which has not been possible due to improper road infrastructure.
5. Border road infra can help in maintaining peace and stability by controlling the security concerns related to inter-region and intra-region issues.
6. Connectivity and inclusivity are important tools for national integration of far-flung areas such as Northeastern states and Ladakh, etc.
7. Another important need for border roads is to address proper and swift disaster management. Difficult and harsh terrains render it difficult for India to handle quickly any kind of natural and man-made disasters.

While no one can deny the above needs for better border infrastructure, there are several issues and challenges involved, as can be seen below -

Issue/ Concerns/ Challenges in creating border infrastructure -

1. **Challenging Geographical Terrain:** India's international border spans across various terrains such as mountainous paths, marshy

lands, salt pans, deserts, valleys, rivers, and forests.

2. **Political instability:** Political instability in neighbouring countries like Pakistan, Bangla Desh and Myanmar often lead to border-related issues, causing mass migrations and other potential issues.
3. **Radicalization:** Economic under development in border areas often leads to the lack of essential infrastructure, making them potential hotspots for radicalization. For example, the northeastern states are grappling with ethnic conflicts and regional separatist forces, which pose significant challenges.
4. **Porous borders:** They facilitate criminal activities such as smuggling, human trafficking, drug and weapon trafficking, and infiltration in border regions.
5. **Environmental concerns:** Large infrastructure projects in ecologically sensitive areas may cause biodiversity damage. (However, highway projects within 100 km of India's "Line of Control" are exempt from environmental clearances).

Despite the above challenges, India is marching ahead with several Border Infrastructure programs. Quite a few achievements have been made possible due to technological advances and also due to the changed priorities of the Indian government with additional funds allocation for border protection. The main goal is to prevent or reduce illegal encroachments.

Initiatives taken by the government to Strengthen Border infrastructure -

1. **Border Area Development Programme (BADP):** BADP, initiated during the Seventh Five Year Plan (1985-90), aimed to balance development in western border areas by promoting infrastructure and security for remote, inaccessible populations.

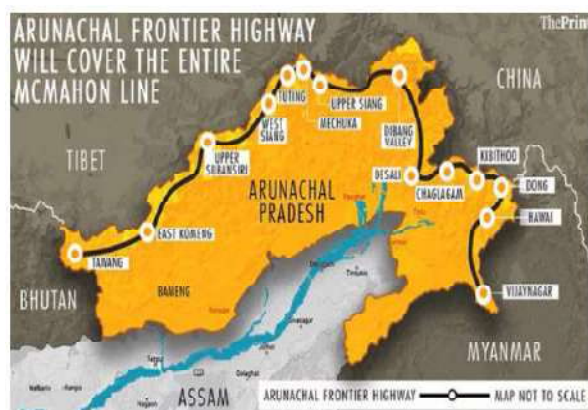
2. **Comprehensive Integrated Border Management System (CIBMS):** Advanced surveillance technologies like thermal imagers, infra-red alarms, aerostats, ground sensors, radars, sonar systems, fibre-optic sensors, and a real-time command-and-control system are deployed to secure borders. BOLD-QIT, a Border Electronically Dominated QRT Interception Technique, is utilized under CIBMS on the Indo-Bangladesh border in Dhubri district of Assam.
3. **Vibrant Villages Programme:** The Vibrant Villages Programme, announced in the 2022-23 Budget, aims to address border villages with limited connectivity and infrastructure, so as to create awareness among the communities. This is done by speeding up construction of required infrastructure, housing projects, promoting tourist centres, and livelihood support.
4. **Border Infrastructure and Management (BIM):** It is a Central Sector Umbrella Scheme which aims to provide better roads, electricity, and communication infrastructure along the border areas.
5. **Shekatkar Committee's recommendations:** The Committee's recommendations on border infrastructure, including outsourcing road construction work, introducing modern construction plants, land acquisition, increasing the defence budget and obtaining statutory clearances, are being implemented.

Border Infrastructure – Other Steps taken so far –

1. **Devak Bridge:** The 422.9 meter long bridge in Jammu, located near the Indo-Pak international border, is situated on the Bishnah-Kaulpur-Phulpur Road. This was

inaugurated by our Raksha Mantri Shri Rajnath Singh on Sept. 12, 2023, along with 90 other infrastructure projects of BRO. The Devak Bridge is a Class 70 RCC bridge which helps to enhance the operational preparedness of the Armed Forces and also to boost socio economic development of the region.

2. **Nechiphu Tunnel:** The Nechiphu Tunnel, located on Balipara-Chariduar-Tawang Road in Arunachal Pradesh, offers all-weather connectivity to the strategic Tawang Region, alongside the ongoing Sela Tunnel. It is a 500-metre tunnel which is beneficial to the armed forces as well as to the tourists. The tunnel work began in October, 2020 and it got completed in September, 2023. It has helped to shorten the travel time by 20 minutes and reduce the distance of 6 kilometres in inclement weather. The tunnel is at a height of 5,700 feet and is fitted with contemporary lighting systems and many safety features. Earlier, the region's thick fog interfered with military and civilian movements. These difficulties are now done away with.
3. The Nechiphu tunnel is one of the **90 projects** taken up by Border Road Organisation along the Line of Actual Control (LAC) with China. Works amounting to almost Rs.3000 crores, have been completed in respect of 22 roads, 63 bridges, the Nechiphu tunnel, two airfields and two helipads. Of the total 90 projects, 36 are in Arunachal Pradesh, 26 in Ladakh, 11 in Jammu & Kashmir and 5 in Mizoram. A few projects are also underway in Himachal Pradesh, Sikkim, Uttarakhand etc., emphasizing the need for development of these border states. Modern electromechanical systems and firefighting equipment are installed to meet any emergency needs. These, and other All-weather communication systems, have helped to thwart any Chinese threats.



4. **Sela Tunnel** – This is a road tunnel at 3000 metres length and ensures all-weather connectivity between Guwahati in Assam and Tawang in Arunachal Pradesh. This is the longest bi-lane tunnel in the world at 13,000 feet. It is situated 400 metres below the **Sela Pass**. This actually consists of two tunnels, the first being a single-tube tunnel of 1003 metres and the second one, a bi-lane tunnel of 1595 metres. The second tunnel is a twin-tube one, with one bi-lane for traffic and the other for moving troops, equipment, weapons and machinery quickly along the Sino-India border. It was executed by the Border Road Organisation (BRO) and was inaugurated by our Prime Minister on 9th March, 2024.



5. **Bagdogra and Barrackpore Airfields:** The redeveloped airfields in West Bengal, costing over Rs 500 crores, have helped to enhance the Indian Air Force's readiness and facilitate commercial flight operations in the region.
6. **Nyoma Airfield:** The airfield in Eastern Ladakh, estimated to cost around Rs 200 crore, will enhance the air infrastructure in Ladakh and enhance IAF's Northern border capability. This airfield, which will be one of the world's highest at 13,700 feet, will be a game-changer for the Indian Armed Forces.
7. **Shinku-La Tunnel:** This is an upcoming motorable tunnel under 16,580ft high Shinku-la pass between Himachal's Lahaul valley and Ladakh's Zaskar valley in Northern India. The project was cleared in February, 2023. Digging of the tunnel started in July 2024. Ministry of Defence through Border Roads Organisation (BRO) is building Darcha-Shinkula-Padum-Nimu as an alternative road to connect Ladakh with Himachal Pradesh. The Manali-Padum-Nimu Road or Darcha-Padum-Nimu Road will become an all-weather Road after the completion of the Shinku-la tunnel. This will be the safest and shortest road to reach Leh. It will reduce the Manali-Kargil distance by 522 kms. It is expected to be completed by 2028. It would be the world's highest motorable road, tunnel and fighter aircraft base. It would ensure year-round accessibility of the Manali-Leh route.

The above are some of the physical infrastructure developments that have been initiated by our country for the nation's Border Management in land-locked areas. A recent visit to Arunachal Pradesh by a friend of mine, stated he was amazed by the infrastructure development that has taken place in the area. In his own words he mentioned as under –

“Last year during our visit to Arunachal Pradesh we firsthand witnessed the progress. Locals, as well as the Army and paramilitary personnel appreciated the improvement in connectivity. One of the senior JCO of Army related his experience of inaccessibility to certain posts along the Line of Actual Control due to poor infra and how they employed Mules to ferry the load including arms and ammunition to such posts. Now, with improved infra, the vehicles easily ply between all the posts even during inclement weather in winters when it snows heavily.”

As far as **coastal security** is concerned, the Indian Coast Guard has taken the following initiatives to strengthen the coastal security.,

1. ICG deploys 18-20 ships, 30-35 crafts and 10-12 aircraft for surveillance on a daily basis.
2. ICG assets ensure maritime law enforcement to strengthen coastal security and maintain rule-based order at sea.
3. Surveillance efforts also focus on Offshore Development Area (ODA) and seas adjoining Island groups (Andaman & Nicobar and Lakshadweep).
4. Surveillance of coastal areas through Coastal Surveillance Network (CSN) and investigation by Remote Operating Station (ROS) and Remote Operating Centres (ROCs) are undertaken. Fund utilised for CSN (Pan India) is Rs 1,583.8 crore.
5. New ships and aircraft have been acquired by ICG towards coastal security (Pan India) to the tune of Rs 12,201 crore.



6. ICG interactions are focused on maritime safety and security. ICG conducts regular Community Interaction Programmes involving fisher folks. During the interactions, various maritime safety and security aspects are deliberated. Further, fishermen watch groups have been created by States for reporting of any suspicious activities along the coast.

7. A toll free number 1554 has also been promulgated for reporting of any eventuality at sea.

8. Training is imparted to ICG personnel and Marine Police personnel towards effective Coastal Security and performing their laid down roles and functions.

9. A total number of 179 boats have been seized and 1,683 personnel arrested over the last 10 years for illegally entering Indian waters. These boats were engaged in various illegal activities like poaching, narcotics smuggling, illegal immigration etc.

(**Reference:** Raksha Rajya Mantri Shri Sanjay Seth's written reply to Shri Krishna Prasad Tenneti in the Lok Sabha on 4th April, 2025).

Apart from the above, India has also taken the help of modern technology to further strengthen its borders.

Smart technology with highly sensitive surveillance systems have been adopted near the borders to detect illegal passage of goods and humans. Following are some of the features of the new-age infrastructure devices set up along the borders –

Smart Fencing System - An SFS is an advanced border security infrastructure designed to enhance surveillance and control along sensitive border areas. It typically includes a combination of physical barriers, sensors, cameras, and communication systems. The term “smart” refers to the system’s ability to use technology for monitoring and responding to border threats effectively. The smart fencing system can deter unauthorized entry and infiltration by insurgents and illegal immigrants. This system is equipped with advanced surveillance

technologies to monitor and respond to border breaches in real time. The Northeastern region faces a fragile security situation due to factors such as terrain, socio-economic development, tribal rivalries, and migration. The smart fencing system is a proactive measure to mitigate these threats and maintain peace and stability in the region.

Vibration sensors, also known as accelerometers or seismometers, are integrated into a smart fence system. They are typically installed along the length of the fence at regular intervals. They can detect vibrations caused by someone climbing or cutting the fence, digging underneath it, or attempting to break through it using force.

Smart Poles: A smart pole is a modern infrastructure element that combines various technologies to provide services such as lighting, communication, environmental monitoring, and security. Equipped with sensors, cameras, communication equipment (such as Wi-Fi or 5G), and other devices, smart poles collect data and offer services to the surrounding area.

Smart poles can enhance surveillance and monitoring capabilities by detecting unauthorized border crossings, monitoring environmental conditions, and providing real-time data to security forces. Additionally, smart poles can serve as communication hubs, enabling connectivity for other devices in the area. They are equipped with LED lights that provide efficient and effective illumination to improve visibility and safety. Inbuilt **Motion sensors** also detect movement, further enhancing the functionality of these smart poles.

360 Cameras: 360 cameras offer a comprehensive view of the surrounding area, eliminating blind spots and providing thorough monitoring capabilities. They can capture high-resolution video footage and are utilized alongside other sensors to enhance situational awareness.

Thermal Cameras: Thermal cameras are able to detect heat signatures, allowing them to identify people or vehicles in low-light or adverse weather conditions. This makes them especially valuable for night-time surveillance, as they can spot potential threats that might go unnoticed by standard cameras.

Drones & Aerial Surveillance: Drones are a valuable tool for aerial surveillance along the border, offering real-time video footage and imagery. With the ability to cover large areas quickly, drones can be equipped with a variety of sensors such as cameras and thermal imaging to enhance surveillance capabilities. Post ‘Operation Sindoor’ of May, 2025, Tamil Nadu has emerged as a key contributor in manufacturing drones and drone components for the armed forces, and for building broader electronic defence systems, including UAV jammers and sophisticated payload delivery systems. Coastal monitoring and surveillance are being carried out on a real-time basis by Indian Coast Guard around India’s coastline through a Chain of Static Sensors (CSS) consisting of 46 radar stations for improved coastal security.

(http://timesofindia.indiatimes.com/articleshow/122009497.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst) & <https://www.financialexpress.com/business/defence-india-to-expand-radar-stations-for-the-coastal-security-3013398/>



India’s Coastal radar

IDEX Scheme - Innovations for Defence Excellence provides financial support to nearly 300 Startups/MSMEs/individual innovators through Defence Innovation Organisation (DIO). The iDEX Defence India Startup Challenge (DISC) is a major platform initiated to develop Make in India technologies for upgrading defence infrastructure.

Smart Bunkers: In response to the new evolving warfare threats and growing use of advanced munitions, researchers at IIT Bombay have developed high-performance modular bunkers which can protect soldiers and their assets in a better way. These Bunkers use prefabricated UHPC (ultra-high-performance-concrete) blocks for quick, tool-free assembly. Each block weighs under 20 kg and locks together like LEGO bricks. The bunkers can be erected rapidly even in remote or high-risk zones. These modular bunkers are aimed at offering stronger protection to our soldiers and are critical defence infrastructure. Their curved roof panels offer improved protection against aerial attacks. Unlike flat slabs, these curved panels can deflect incoming projectiles and withstand greater impact. (**Reference:** India Today Education Desk, New Delhi, June 23, 2025)



MODULAR BUNKERS WITHSTAND REAL COMBAT CONDITIONS

Way Forward: Despite the various measures undertaken by our country for better Border

Management through better Border Infrastructure, a lot more needs to be done for the safety of our Armed Forces and for prevention of illegal immigrants. Some of the suggestions are -

- Deploying **more** mobile surveillance towers, cameras, and sensors in remote areas and coastal areas for real-time monitoring and early detection of suspicious activities.
- **Integrating** drones and other unmanned aerial vehicles to provide a cost-effective way to monitor large areas and gather intelligence.
- **Invest** in advanced sensors with Integrated Surveillance Systems: Deploying radar, thermal imaging, and motion detection systems to improve the ability to detect and track potential threats.
- **Strengthen cybersecurity**: Protecting border control systems from cyberattacks is critical, including implementing strong encryption, access control, and monitoring mechanisms.
- **Enhance lighting systems**: Adequate lighting can improve visibility and deter illegal crossings at night.
- **Employing technologies** like explosive vapor detectors, full-body scanners, and advanced imaging systems to detect concealed weapons, drugs, and other contraband without invasive procedures.
- **Radio Frequency Surveillance**: Utilizing RF sensors to detect and locate unauthorized radio transmissions, enabling the identification of

potential illegal activities and the source of signals.

- **Fiber Optic Communication Security**: Implementing fibre optic technology for secure communication and intrusion detection, enhancing border patrol capabilities. (Fibre optics are useful even in under water communications).
- **Education requires fillip**. People living in border areas need to be made aware of their responsibilities, at least up to Taluka places.
- We need to **harness the sporting prowess** of the youngsters. Scholarships may be provided for defence related education and sports adventures in hilly areas.
- **Health services** in border areas need to be improved.
- **Improvement in Power and Electrical infra** is a big challenge due to the terrain and weather induced disruptions. Concrete steps need to be taken to improve the same.

India has, no doubt, executed several infrastructure developments in sensitive border areas. This signals its total commitment to safeguarding its territorial integrity. With the same fervour and impetus in the coming years, India can rise to new heights of glory in effective Border Management. □

कठिन परिश्रम करते हैं सीमा पर सभी जवान।
माँ भारती के सपूत पर हिंद को हैं अभिमान।
सीमा दल के कर्मियों का हम करें निज दिन वन्दन।
इन्हीं से महकती है भारत की धरती, बनकर चन्दन।

Mrs. Mallika Gangakhedkar, Retired as Chief Manager from Bank of India. Post Retirement - Teaching as Visiting Faculty in different Management Institutions for MBA students and Working Professionals on Banking and Finance. Also, Teaching Soft Skills in different Organizations including Banks and Insurance companies. Suo moto taken up the study of India's Cultural Heritage and Management Concepts from our Epics. Delivered lectures on the same in different platforms.

BEYOND BARBED WIRES: EFFECTIVE BORDER MANAGEMENT THROUGH PROPER CODIFICATION OF BORDER LAWS



– Dr. Kangkana Goswami Bharadwaz

A ‘Pulwama’, ‘Uri’, or a ‘Pahalgam’—names that no longer just signify geographic locations, but have come to embody the painful realities of cross-border infiltration and the devastating consequences of overlooked frontier area fragilities. From the chilling blast in Manipur’s Churachandpur to the festering unrest in India’s Northeast, each act of violence by infiltrators and illegal trespassers from across borders, be it Pakistan, Myanmar, or Bangladesh, serves as a stark reminder that border security is no more just peripheral concern but a central pillar of national sovereignty. These tragedies not only inflict irreparable loss but expose deep vulnerabilities in India’s border governance, demanding more than just defensive posturing along the fences.

The Ministry of External Affairs’ alert issued in Tripura on July 29, 2024, highlighting the critical scale and intensity of cross-border infiltration, garnered further heightened political traction when the Prime Minister, during a political address in Jharkhand in October 2024, reiterated that infiltration in border areas has assumed an alarming proportion occupying land, forest and water and demographic spaces of indigenous citizenry across states. While the issue of illegal migration has perennially remained a pivotal issue in electoral discourses shaping political narratives and influencing voter sentiments for decades, unchecked, unabated and rampant unauthorised migration from neighbouring countries

has resulted in exponential population explosion in various borders as well as littoral states of India resulting in tussle over resources, cultural existence, economic sustenance and political representation.

This is where the need for an integrated border management fulcrum gains significance as defence of a nation does not begin and end at the border line. It extends deep into the hinterlands that lie adjacent to it. Merely securing the physical boundary is not sufficient; the internal border areas which are home to vulnerable communities, critical infrastructure, and cultural identities must also be fortified, governed, and integrated. It is this holistic understanding of territorial integrity that underpins India’s evolving approach to border security. The sacrifice of 20 brave Indian soldiers in Galwan in 2020 stands as a powerful reminder that even in the most desolate and inhospitable corners of our land, where not a blade of grass grows, every inch is worth defending. Their valour speaks not only of the sanctity of the Line of Actual Control, but also to the urgent need for comprehensive development, surveillance, and civilian empowerment across all frontier regions as a truly secure border is one that is supported by secure, vibrant, and resilient communities behind it. Just as one cannot dismiss the pain of a toe or a finger as inconsequential because each is part of the same body; no region, however remote or desolate, can be seen in isolation. This same principle was reflected in 2014 when Prime Minister Modi, while hosting Chinese

President Xi Jinping in Ahmedabad, responded firmly to reports of incursions in Southern Ladakh. When President Xi attempted to downplay the issue as minor and resolvable, Prime Minister Modi firmly countered, saying, “No, Mr. President, this is not a small issue, when a tooth aches, the entire body suffers.” Such gestures reveal the deeper actuality that border security, while essential, is insufficient on its own. What the nation urgently needs is a comprehensive and integrated model of border area management, one that combines governance, development, and seamless civil-military coordination. Border has to be viewed with the perspective that it is not just a line on the map. It is not something which is specific to a particular state where the border belongs. It is a part of parcel of our organic whole, Bharat!

India’s geographical expanse and the complexity of its international borders spanning over 15,000 kilometres, shared with seven countries make border security a formidable challenge. From high-altitude terrains in the north to riverine and forested borders in the east and west, India’s frontier zones are highly vulnerable to infiltration, smuggling, demographic shifts, and territorial encroachments. Repeated incidents, ranging from serious security threats to minor intrusions that slip through undetected, reveal deep-rooted irregularities within the existing border security architecture. To cite an example, the Border Security Force (BSF), despite being the frontline agency for guarding India’s borders, operates under significant legal and operational limitations that hinder its effectiveness. While the BSF is empowered to apprehend individuals involved in illegal border crossings, smuggling, or other trans-border crimes, it lacks the authority to investigate or prosecute such offenses independently. After making arrests or seizures, the BSF must hand over the accused and evidence to the local police or civil authorities, leading to delays, procedural lapses, and often, dilution of cases. This dependency on external enforcement agencies creates critical gaps in real-time action, accountability, and

deterrence, thereby undermining the purpose of proactive border vigilance. In high-risk zones where swift action is essential, such structural constraints effectively paralyze the BSF’s operational autonomy and reduce its role to a reactive force, rather than a decisive actor in national security. The multiplicity of intimidations, ranging from border area nuisance to transborder mischief thus necessitates a robust and streamlined approach to border management.

Current laws governing India’s border security are dispersed across various statutes such as the Foreigners Act, the Passport Act, the Customs Act, and various provisions under the Indian the ‘Bharatiya Nyay Sanhita’. These laws, while individually significant, operate in its own specificities and often overlap or leave critical gaps in enforcement. There exists no comprehensive or codified legal framework specifically tailored to address the multifaceted challenges of border management. Institutional arrangements suffer from similar fragmentation with more than a handful of ministries and numerous paramilitary forces operating with overlapping jurisdictions and unclear lines of accountability. The Border Security Force (BSF), Indo-Tibetan Border Police (ITBP), Sashastra Seema Bal (SSB), Assam Rifles, and the Indian Army, among others, are assigned different segments and mandates without a unified command structure. This lack of codified control mechanisms undermines surveillance, delays response times, and contributes to operational inefficiencies. Moreover, issues such as illegal immigration, smuggling, land encroachment, and arms trafficking often fall into legal grey zones, where jurisdictional confusion hampers swift adjudication. The absence of clear accountability and adjudicative authority dilutes the deterrent effect of law enforcement and poses a direct threat to internal security. Compounding the issue is an entrenched culture of institutional limitations and reservations marked by secrecy, inter-ministerial rivalry, and reluctance to share intelligence.

From a border management standpoint, these challenges therefore emphasize the need for

comprehensive reform, the core objectives of which should focus on enhancing inter-agency coordination, aligning divergent institutional perspectives, addressing procedural shortcomings and implementing a unified and integrated approach to border security as well as border area management. The growing frequency of border intrusions, the demographic displacement of indigenous populations, and the politicization of border issues equally demand urgent institutional restructuring. In this context, the formation of a centralized 'Border Guarding Forces (BGF)' as the apex nodal administrative agency in border areas emerges as a vital step toward ensuring territorial sovereignty and integrated border governance. The rationale for a nodal border management authority stems from the fact of absence of a unified command has hampered real-time action against illegal immigration, encroachments, and the unauthorized use of borderlands. Designating an empowered force such as the BGF as the nodal administrative authority can institutionalize a streamlined and accountable system of border management, coordination, and community outreach.

Under the proposed framework, the Central Government may notify the BGF as the nodal agency for border areas in consultation with the Ministry of Home Affairs and concerned State Governments. This formal recognition would enable the BGF to operate in close coordination with district administrations while enjoying statutory backing to enforce security and development mandates. Parallely establishment of a Border Area Coordination Committee (BACC) with the District Deputy Commissioner as Chairperson and the BGF Commandant as Co-Chairperson further ensures horizontal coordination across departments, avoiding bureaucratic delays and administrative lethargy.

The codified legal framework should also facilitate conferment of decisive powers to the Border Guarding Forces (BGF) so that they are poised to evolve into a multidimensional apex authority with expanded prerogatives in India's border management architecture. The envisioned Border Security and

Management legislature should clearly delineate the roles and responsibilities of all institutions operating along the borders, eliminating jurisdictional ambiguities and fostering unified command. BGFs, as the Nodal Administrative Agency in frontier areas, should be entrusted not only with the traditional security mandate but also with coordinating governance, developmental interventions, and trans-border cooperation. A specialized component within the BGFs shall be designated and legally empowered to perform police functions, including the investigation and prosecution of trans-border crimes such as illegal migration, smuggling, and other non-military threats. Special courts should be instituted to ensure expeditious disposal of such cases. Furthermore, the framework should be structure in a way that it incorporates legal provisions for the integration of advanced surveillance technologies, including drones, biometric systems, and AI-enabled monitoring tools, with due safeguards to protect privacy and civil liberties. Such enactments should also go one step forward by recognizing airports and seaports as functional extensions of the national border, thereby bringing them under the broader ambit of border security governance. This comprehensive model thus should aim to transform BGFs into an agile, legally fortified force capable of addressing both traditional and emerging threats to national security in a coordinated and holistic manner.

Expanding the Role of BGFs Beyond Security is equally crucial as modern border management is no longer a narrow military or policing function and embraces within its precincts, the contours of development, demography management, environmental protection, and community integration. Prime Minister Narendra Modi's Vibrant Villages Programme and the thrust on Integrated Border Management mark a decisive evolution in India's national security paradigm, placing community-driven development at the forefront of border protection. Acknowledging that true border security extends beyond fences and patrols, the 'Vibrant Villages' initiative aims to rejuvenate isolated frontier

settlements by enhancing infrastructure, generating livelihoods, expanding digital access, and ensuring essential public services. These border villages, often overlooked due to their remoteness, are now being reimagined as strongholds of resilience and strategic significance. Collectively, these initiatives reinforce India's territorial integrity while nurturing a deep sense of identity and participation among border populations, transforming them into vital stakeholders and the first guardians of the nation's sovereignty. The BGF as proposed thus should be empowered to move beyond traditional roles to encompass varied verticals such as:

- **Preservation of Territorial Integrity:** Through monitoring of land use, identifying illegal encroachments, and taking preventive steps against foreign occupation.
- **Support to Civil Administration:** Assisting in land demarcation, documentation of demographic data, and helping implement development schemes such as the Border Area Development Programme (BADP).
- **Community Engagement and Civic Action:** Through initiatives like health camps, vocational training, and national integration programs to build trust and goodwill between border communities and the state.

These holistic roles turn BGF into not just defenders of physical borders, but custodians of national interest at the margins of the State.

In a nutshell, India's evolving border management strategy must reflect the complexity of 21st century challenges, where the defence of territorial integrity is no longer confined to patrols and barbed wire, but must be rooted in governance,

development, legal empowerment, and proactive civilian integration. The proposed codification of a comprehensive Border Security and Management Act, alongside the institutionalization of Border Guarding Forces (BGFs) as nodal administrative authorities, marks a vital cohesive point in unifying and modernizing India's otherwise fragmented border governance architecture.

BGFs must be reimagined not merely as sentinels of security, but as multifunctional agents of state authority, addressing challenges like cross-border infiltration, illegal migration, demographic destabilization, and environmental degradation, while simultaneously reinforcing public services and civic trust in some of the most sensitive and underserved areas of the country.

India already has templates to build upon: the 'Seema Darshan' initiative in Gujarat that encourages civic engagement with border areas, the 'BADP (Border Area Development Programme)' which seeks to bridge infrastructure gaps, and the 'Indo-Myanmar Border Area Development Program' aimed at promoting cross-border connectivity and indigenous welfare along with projects like BRO-led infrastructure development in Arunachal Pradesh, and the emphasis on Last Mile Digital Connectivity under the Digital India programme, all echo the same principle: 'border security is as much about empowering those who live at the margins as it is about keeping threats out'. These emerging models blend hard deterrence with soft outreach, and military readiness with civic resilience, ensuring that our borderlands are not forgotten outposts but thriving frontiers, upheld by vigilant forces and proud, empowered citizens. □

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EFFECTIVE BORDER MANAGEMENT THROUGH ENCOMPASSING OF TECHNOLOGY



– Sri Uday Kumar Singh

Abstract

The conflicts following the Kargil War and the Ops Sindoor incident illustrate a significant strategic transformation in India, characterized by a more assertive approach in addressing the terrorist actions carried out by non-state actors supported by Pakistan. It demonstrates India's firm determination to root out trans-border terrorism even if that requires smart cross-border operations in any scenario. The need for advanced technology in border management in India has become increasingly critical due to the complex geopolitical landscape, vast and diverse terrain, and the necessity for effective surveillance and security measures. Border surveillance plays a crucial role in ensuring national security and the territorial integrity of a nation. With the continuous advancement in technology and developing Border Management ecosystem, the inclusion of dynamic technology and encompassing it with AI (Artificial Intelligence) in the Border security is enhancing capabilities in diverse areas such as surveillance, logistics, data, etc. It has the potential to witness exponential changes in the way the Border guarding forces executes its operations by developing smart strategies by using real-time inputs powered by this extremely helpful technological tool in this most strategically important domain.

Keywords: Border Security, Border-Management, Encompassing Technology, Artificial Intelligence, Surveillance and Comprehensive Integrated Border

Management System (CIBMS)

Introduction

Historical records show that the Concept of Border Surveillance and Security has existed in Bharat since the 3rd century BCE. With advancements in transportation technologies and economy-boosting trade, the necessity for protecting the nation's borders took stronger roots. Modern border management is increasingly defined by the integration of advanced technologies, which enhance both security and efficiency. The shift from traditional, manpower-intensive methods to technology-driven solutions addresses complex challenges such as illegal migration, terrorism, and contraband smuggling, while also streamlining legitimate travel and trade. Today, with the increase in terrorist activities. The rise of illegal tracking and land-grabbing activities has heightened the importance of border surveillance and security, particularly in the context of technological advancements. As a result, efficient border monitoring and protection have become vital for the territorial defense of nations, garnering considerable attention from governments worldwide.

Border surveillance and protection have become the sine qua non of territorial defense of a nation and have gained vital importance for governments worldwide. Many complex challenges like cross-border terrorism, unauthorized immigration, and drug and arms trafficking are

plaguing government agencies now and they are looking for high-end technologies to tackle these issues and address inevitable gaps. This endeavor has led to the development and deployment of various innovative technologies. It is crucial to highlight the importance of seamlessly combining contemporary high-tech solutions with skilled personnel and field operatives. In the absence of such encompassing, these sophisticated systems may fail to fulfill their purpose of ensuring dependable border surveillance and security, potentially draining essential resources from the budget. Technological innovations play a vital role in transforming border security and surveillance approaches. The difficulties arising from a complex historical context, vast and challenging landscapes, and multifaceted geopolitical circumstances can be effectively managed through the advancement of these technologies. The need for advanced technology in the form of Artificial Intelligence (AI) in border management in India has become increasingly critical due to the complex geopolitical landscape, hostile neighbors, vast and diverse terrain, and the necessity for effective surveillance and security measures to plug the gaps in border. Comprehensive Integrated Border Management System (CIBMS) utilizes AI-driven analytics to enhance situational awareness and improve decision-making processes regarding border security. CIBMS aims to improve the detection and monitoring capabilities of the Border guarding Force by integrating various high-tech surveillance devices. This includes thermal imagers, infrared cameras, radars, and unattended ground sensors to create a comprehensive surveillance network.

Technological Advancement and Border Security

Historically, nations relied heavily on physical barriers for their defense. Nevertheless, the progress in weaponry and technology has diminished the effectiveness of these barriers. Accordingly, technologists have been forced to develop sophisticated means for effective border surveillance and security. The outcome has been an increase in expenses associated with the acquisition and upkeep of essential systems, which also necessitate a highly

skilled workforce to effectively utilize their potential. Currently, a variety of sophisticated surveillance systems and remotely operated weaponry are accessible, and numerous nations have adopted these technologies, relying on them while diminishing the role of human intelligence (HUMINT).

The discourse on border security generally divides into two distinct groups: proponents of physical barriers and advocates for advanced technological solutions. This division is further complicated by the strong arguments presented by each side to support their respective positions, which ultimately necessitates that policymakers depend on existing data and their personal experiences to arrive at the most effective resolution. There are challenges related to the adoption of AI, including a lack of technical skills among border management staff and the need for continuous training to keep up with evolving technology.

Technological advancements have transformed border security surveillance, allowing countries like India to take preventive measures to protect their borders. India's deliberate efforts to use advanced surveillance technologies demonstrate its commitment towards safeguarding its borders and upholding peace and stability along the border.

The integration of advanced technologies offers prospects for improving security and situational awareness as both nations endeavor to protect their borders and promote their interests. Although innovation carries significant potential, there remain persistent worries about its wider effects on human rights, regional stability, and the risk of escalation. To successfully influence the future of border surveillance technology, it is essential to encourage dialogue, transparency, and international cooperation as we traverse this intricate environment.

Significance of CIBMS

The evolution of border technologies and the enhancement of operator skills have progressed to meet contemporary requirements. A primary objective

of the latest generation of technologies is to address the challenge of single points of failure. It is expected that these innovations will generate centralized real-time data, thereby enabling interventions at multiple points.

The Comprehensive Integrated Border Management System (CIBMS) is a crucial initiative by the government to enhance border security and management. CIBMS is a technology-driven approach to border security that aims to integrate various surveillance and monitoring devices with a robust communication network. It's designed to create a seamless and integrated system that provides real-time information to border guarding forces, enabling them to effectively detect and prevent cross-border crimes. CIBMS is a significant step towards modernizing India's border management and enhancing national security. CIBMS is a comprehensive and technology-driven approach to border management in India. It aims to improve border security, enhance situational awareness, and facilitate quick response to emerging threats by integrating advanced surveillance technologies with a robust communication and command system. While challenges remain in its implementation, CIBMS holds significant potential for strengthening India's border security apparatus.

Integration of CIBMS and Artificial Intelligence

Integration of Artificial Intelligence (AI) is enhancing the potential of the security systems. However, AI is still a developing technology and a report issued by the European Parliament has outlined several challenges in the use of AI technology in border control and security systems. Concerns about varying levels of accuracy, along with issues related to data protection and privacy risks, underscore the need for vigilant oversight and regulation of artificial intelligence applications. In India, the Comprehensive Integrated Border Management System (CIBMS) is progressively incorporating artificial intelligence (AI) to enhance border security and optimize operational efficiency.

This integration aims to address the

challenges posed by India's complex and diverse border terrain, particularly with neighboring countries like Pakistan and Bangladesh. AI-driven predictive analytics are being utilized to analyze patterns of movement and potential threats along the borders. By processing vast amounts of data from various sensors and surveillance systems, AI can identify anomalies that may indicate infiltration attempts or illegal activities, allowing for proactive responses.

Technology assist in Border Patrol and Intrusion detection

AI technology is significantly transforming border security by enhancing detection and monitoring capabilities. The integration of AI into border patrol operations aims at reducing the human effort required for continuous monitoring, allowing personnel to focus more on field operations rather than surveillance. This has been part of broader efforts to modernize border security infrastructure with AI and other advanced technologies. AI algorithms can identify and classify individuals, detecting suspicious behavior and raising flags for anomalies. The system can detect and track drones, providing critical information for counter-drone measures. AI-powered software can identify unusual patterns of behavior, alerting authorities to potential security threats.

AI systems analyze historical data to identify patterns indicative of potential threats. This predictive capability allows border authorities to anticipate illegal activities before they occur, improving response times and resource allocation. Even advanced algorithms can evaluate subtle emotional cues from travelers, further refining the identification of suspicious individuals. AI systems compile and analyze vast amounts of data from different sources, such as travel records and social media activity, enabling more informed risk assessments for individuals crossing borders.

AI technologies streamline administrative tasks such as scheduling for border patrol. For instance, AI has been used to reduce the time required for scheduling from 16 hours to just eight minutes by

automating the process, allowing supervisors to focus on more critical operational tasks.

AI predicts and prevent crimes at Border

AI has the potential to significantly predict and prevent criminal activity at borders through various advanced technologies and methodologies. AI systems can analyze vast amounts of data, identifying patterns and trends that may indicate potential criminal activities. This includes monitoring travel records, social media activity, and historical data to forecast risks associated with individuals or groups attempting to cross borders. AI can evaluate behavioral anomalies and emotional cues from travelers, which helps in assessing the likelihood of illicit intentions. For instance, algorithms can detect unusual behaviors that deviate from normal patterns, prompting further investigation.

AI technologies such as drones and high-resolution cameras are equipped with machine learning algorithms that can autonomously monitor border areas for suspicious activities. These systems can differentiate between normal and abnormal movements, alerting authorities to potential threats. AI-driven facial recognition systems assist in identifying individuals at border checkpoints, flagging those with criminal backgrounds or outstanding warrants. This capability enhances the ability to prevent unauthorized entries effectively.

AI minimizes processing times at border checkpoints by automating document verification and risk assessments. This efficiency allows border control agencies to focus their resources on high-risk areas and individuals, enhancing overall security measures. AI is also instrumental in detecting cross-border fraud by recognizing patterns indicative of fraudulent activities. This includes financial crimes and identity-related frauds, allowing authorities to act swiftly against potential threats.

Skill required for the effective use of technology in Border Management

To effectively utilization of technology in

border security, agencies need to develop a specific set of skills that encompass both technical and analytical competencies. Border security personnel must have a comprehensive understanding of various AI algorithms, including how they function and their applications in threat detection and data analysis. This knowledge enables them to select appropriate algorithms for specific tasks, such as identifying suspicious activities from video feeds or analyzing traveler data. Modern border management platforms integrate with national and international watch-lists, enabling real-time identification of individuals of interest. They also use risk-based targeting, analyzing passenger data to flag high-risk individuals while facilitating smooth passage for low-risk travelers. Real-time analytics help optimize resource allocation and identify emerging threats.

Given the increasing reliance on digital systems, a solid understanding of cybersecurity principles is vital. Border security agents must be equipped to protect sensitive data from cyber threats and ensure the integrity of AI systems used for monitoring and surveillance. Skills in image and video analysis are necessary as AI technologies often involve processing visual data from surveillance cameras. Understanding how to interpret results from AI-powered image recognition systems can aid in identifying potential threats based on visual cues.

Collaboration across various disciplines such as law enforcement, technology, and policy-making is crucial for successful encompassing of technology. Personnel should be skilled in working with diverse teams to integrate AI solutions into existing border management frameworks. Equipping border security agencies with these skills will enhance their ability to effectively implement AI technologies, thereby improving operational efficiency and threat detection capabilities while addressing ethical concerns associated with their use.

Conclusion

The encompassing of technology in border management strategy is expected to lead to substantial

improvements in how the country conducts its Border Management. As technology continues to advance, AI will play a crucial role in developing smart strategies that utilize real-time data for effective decision-making in this critical area of national security. AI enhances the efficiency of border patrol operations by automating surveillance, improving threat detection accuracy, expediting processing times, optimizing data utilization, streamlining administrative tasks, and enabling predictive

analytics. These advancements allow border security agencies to respond more effectively to challenges while maintaining a focus on safety and efficiency. Effective border management today relies on a comprehensive ecosystem of technologies. By integrating biometrics, automated controls, advanced surveillance, and real-time analytics, border agencies can address evolving threats while facilitating legitimate movement.

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An Expert of Security Matters



ROLE OF WATER RESOURCES IN EFFECTIVE BORDER MANAGEMENT: AN INTRO- DUCTION TO TRANSBOUNDARY RIVERS IN INDIA



– Dr. Uttam Kumar Sinha

Water does not respect borders, but borders define the dynamics of water. Borders are traditionally imagined as barriers that shield territories from external threats. They are fences of protection, markers of where state power ends and another begins. Rivers, on the other hand, flow according to the logic of gravity and geography, unmindful of lines drawn to assert sovereignty. They create what scholars call borders of interdependence—spaces where upstream and downstream actions are inherently linked, where ecological flows bind nations together regardless of political divisions.

In a region as politically sensitive and climate vulnerable as South Asia, India's transboundary rivers are not merely channels of life but also vectors of strategy, security, and statecraft. From the predominantly snow-fed Indus river system in the west to the largely precipitation-driven mighty Brahmaputra in the east, the rivers that flow across India's international boundaries carry more than sediment and water—they carry the weight of diplomacy, competition, cooperation, and conflict.

This article explores the strategic significance of India's transboundary rivers within the framework of contemporary border management and regional security. It analyses how water flows shape borders of protection—maintained through infrastructure, surveillance, and territorial control—while simultaneously creating borders of interdependence,

sustained through treaties, diplomatic engagement, and shared vulnerabilities stemming from climatic and demographic pressures. The enduring challenge lies in reconfiguring India's riverine borders from sites of tension and contestation into corridors of cooperation and shared security, a task marked by intermittent successes as well as enduring complexities.

Landscape of India's Transboundary Rivers

India shares river systems with all its neighbours—Pakistan, China, Nepal, Bhutan, and Bangladesh—making it one of the most river-interlinked countries in the world. In the northwest, the Indus originates in Tibet and, along with its major tributaries—the Jhelum, Chenab, Ravi, Beas, and Sutlej—flows through India before entering Pakistan. Despite the longstanding Indus Waters Treaty, the Indus river system has recently become one of the most politically charged river systems globally. However, in recent years, the treaty has come under renewed political stress. Cross-border terrorism and India's abeyance of the treaty as a punitive response to Pahalgam terror attack have unsettled the longstanding predictability that once defined Indus water relations. Additionally, mounting water challenges in Pakistan, combined with India's efforts to maximise its legal utilisation of the eastern rivers, have heightened Islamabad's sense of vulnerability. This convergence of strategic anxieties, nationalist politics, and environmental pressures has transformed

the Indus basin from a symbol of resilient cooperation into a landscape of intensifying political contestation. The Ganga, while primarily an Indian river, is fed by several tributaries that originate beyond its borders. The Gandak, Kosi, and Ghaghara flow in from Nepal, enriching the basin as the Ganga winds its way through the fertile plains of northern India before entering Bangladesh. In the northeast, the Brahmaputra, known as Yarlung Tsangpo in Tibet, flows from Tibet into Arunachal Pradesh and Assam before entering Bangladesh. This river is of growing concern due to China's upstream activities. Another significant river is the Teesta, which originates in Sikkim and flows into Bangladesh, and has become a major flashpoint in the water relations between the two countries. These rivers are indispensable for agricultural irrigation, drinking water, energy generation, and cultural identity, sustaining millions of lives across their basins.

Strategic and Politico-Diplomatic Importance

As discussed, transboundary water flows are deeply intertwined with India's development, economic growth, and foreign policy. Their strategic significance is evident in two principal ways.

First, riverine borders such as those in Ladakh (Indus), Arunachal Pradesh (Brahmaputra), and the eastern Nepal borderlands (Ganga tributaries) require robust monitoring and infrastructural presence. The construction of dams, hydropower stations, and canals along these rivers serves dual purposes: advancing regional development while simultaneously strengthening India's defensive posture. For instance, dams built in Arunachal Pradesh are not just energy assets but also strategic instruments that can serve as leverage against potential upstream diversions by China.

Second, control over river flows translates directly into strategic leverage in regional geopolitics. China's dominance over the headwaters of both the Brahmaputra and the Indus fuels Indian anxieties over possible upstream manipulation. At the same time, India's own control over key flow points into Pakistan

and Bangladesh shapes its downstream diplomatic calculus, offering it both bargaining power and responsibility.

Together, the two dimensions illustrate that water is far more than a natural resource; it is a strategic asset embedded deeply in the complex matrix of India's border management and regional diplomacy.

Key Treaties and Institutional Frameworks

India's water-sharing treaties are often hailed as benchmarks of hydro-cooperation in a politically fractious region. The Indus Waters Treaty of 1960, brokered by the World Bank, allocated the three western rivers (Indus, Jhelum, Chenab) to Pakistan and the three eastern rivers (Ravi, Beas, Sutlej) to India. The Ganga Water Treaty of 1996 with Bangladesh allocates dry-season flows at the Farakka Barrage, providing predictability but raising concerns about actual flow data and seasonal variability. Agreements with Nepal, such as the Kosi Agreement (1954) and Gandak Agreement (1959), focus primarily on flood control and irrigation, though they often stir nationalist resentment in Nepal due to perceptions of Indian dominance. The Mahakali Treaty concluded between Nepal and India (1996) was said to be on 'equal footing'. Implementation of Pancheshwar Multipurpose Project was the centrepiece of the Mahakali Treaty. The provisions of the treaty have not been implemented even after almost three decades of its enforcement. At present the finalization of Detailed Project Report of the project is underway. In contrast, India-Bhutan hydropower cooperation has been a relative success, delivering economic gains while reinforcing strategic partnership.

However, there remains a glaring absence of any binding water-sharing agreement with China, despite its control over the headwaters of several rivers crucial to India.

China Factor: Headwaters and Hegemony

As Asia's "uppermost riparian," China wields formidable control over rivers flowing into India, including the Indus (via the Shyok), Sutlej, and

Brahmaputra. In recent years, China's construction of dams and hydropower stations on the Yarlung Tsangpo, the upper reaches of the Brahmaputra, has raised alarms in New Delhi. The controversial 60 gigawatt (GW) super dam in the Medok near the Arunachal border, confirmed by satellite imagery and Chinese state media, could alter downstream flows and sediment transport, with profound ecological and security implications for northeast India.

Moreover, China's reluctance to share real-time hydrological data during periods of tension, such as during the 2017 Doklam standoff, illustrates its willingness to use river data as a strategic tool. The absence of a formal treaty framework leaves India vulnerable to both flow disruption and data denial.

Emerging Challenges to Existing Frameworks

India's bilateral treaty/agreements frameworks for managing transboundary rivers are under growing stress. Climate change is accelerating glacier melt, altering monsoon patterns, and producing unpredictable flow volumes that render existing treaties outdated in both spirit and capacity. Data opacity persists, as many treaties lack real-time data-sharing mechanisms or third-party verification, fuelling mistrust and misinformation.

Domestic politics add yet another layer of complexity to existing treaties and negotiations for new ones. India's federal structure means that state governments hold significant sway over transboundary water decisions. For instance, West Bengal's resistance has stalled the Teesta agreement with Bangladesh, while states like Uttar Pradesh and Bihar exert strong influence over water negotiations with Nepal. Meanwhile, technological asymmetries, particularly China's advanced dam-building and river engineering capabilities, shift the strategic balance in ways that limit India's options.

Currents of Cooperation

In this complex landscape, hydrodiplomacy emerges as a vital instrument for India's border management strategy. Effective hydrodiplomacy extends beyond treaties to confidence-building, disaster cooperation, and joint monitoring.

India must promote integrated basin-wide dialogues instead of siloed bilateral talks. Multilateral frameworks involving Bangladesh, Nepal and Bhutan can enhance regional understanding. Linking hydrological intelligence—satellite monitoring, river modelling, upstream dam tracking—to border surveillance systems can strengthen national security planning.

Technological cooperation with neighbours through sharing flood data, forecasting models, and river training knowledge builds resilience and trust. Even with China, where formal treaties remain elusive, Track-II diplomacy, scientific exchanges, and multilateral forums such as SCO and BRICS can nudge Beijing toward more responsible riparian behaviour.

Transboundary rivers are double-edged swords: they can ignite disputes or foster cooperation. Within India's border management toolkit, water is both a potential instrument of coercion and a channel for diplomacy. Nowhere is this duality more evident than along the Line of Actual Control with China and the International Border or Line of Control with Pakistan, where rivers intertwine with questions of sovereignty and security. Harnessing these flows not merely as natural resources but as strategic assets is essential if India is to transform its riverine frontiers from fault lines into stability. □

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ROLE OF BORDER GUARDING FORCES IN EFFECTIVE BORDER MANAGEMENT



– Dr. Anand Kumar

India's geographical expanse and geopolitical neighbourhood present formidable challenges for securing its borders. With over **15,100 km of land borders** and **7,500 km of coastline**, India shares boundaries with **seven countries on land**—Pakistan, China, Nepal, Bhutan, Bangladesh, Myanmar, and Afghanistan—and **maritime borders with several others**. This vast and diverse frontier requires a robust, agile, and coordinated security mechanism. At the core of this mechanism are India's **Border Guarding Forces (BGFs)**, whose role in effective border management is indispensable.

Understanding Border Management

Border management encompasses the strategic and operational deployment of personnel, infrastructure, and technology to **secure national frontiers, regulate the movement of people and goods, and prevent cross-border crimes**. It ensures national sovereignty while facilitating legitimate travel, trade, and cultural exchange. Efficient borders management is essential not just for security but also for economic growth, regional cooperation, and community well-being.

Key Objectives of Border Guarding Forces

The primary responsibility of India's border guarding forces is to **safeguard territorial integrity, prevent infiltration, and curb illegal activities**, including smuggling, human trafficking, and terrorism. Their role is multidimensional and

dynamic:

1. Security and Surveillance

- **Preventing Unauthorized Entry:** BGFs actively patrol border zones to prevent illegal immigration, infiltration, and unauthorized crossings.
- **Combating Trans-Border Crime:** They intercept smuggling of narcotics, weapons, counterfeit currency, and contraband goods.
- **Patrolling and Surveillance:** With frequent foot and vehicle patrols, border fencing, observation towers, night vision devices, and drones, BGFs maintain a constant vigil.

2. Intelligence Gathering and Sharing

- **Collection of Actionable Intelligence:** Border forces gather information on potential threats, movements of hostile elements, and criminal networks.
- **Coordination with Intelligence Agencies:** They regularly share intelligence with central and state agencies, ensuring a coordinated national security response.

3. Infrastructure Development

- **Physical Barriers and Monitoring Tools:** BGFs oversee the construction and maintenance of border fencing, floodlighting, bunkers, and surveillance systems.

- **Border Roads and Outposts:** In coordination with the Border Roads Organisation (BRO), these forces facilitate the development of border roads and outposts to ensure troop mobility and area dominance.

4. **Community Engagement**

- **Confidence Building:** Regular engagement with border communities builds trust and encourages cooperation with security forces.
- **Empowering Locals:** Through initiatives like Village Defence Committees and border community participation, locals act as eyes and ears, aiding in intelligence and early warnings.

5. **Law and Order and Special Operations**

- **Support During Crises:** BGFs assist state police in maintaining order in border areas, particularly during communal tensions or natural disasters.
- **Counterterrorism and Insurgency:** In certain sectors, such as the northeast, BGFs like Assam Rifles also conduct counter-insurgency operations.

6. **Promoting Legal Trade and Bilateral Cooperation**

- **Smooth Border Transit:** Forces play a critical role in regulating movement through integrated check posts (ICPs), ensuring safe and legal trade and travel.
- **Cross-Border Cooperation:** They often engage in flag meetings, joint patrols, and information sharing with counterparts from neighbouring countries.

India's Border Guarding Architecture

India follows the “**One Border, One Force**” policy, allocating specific forces to each international boundary:

Border	Assigned Force
Pakistan & Bangladesh	Border Security Force (BSF)
China	Indo-Tibetan Border Police (ITBP)
Myanmar	Assam Rifles (AR)
Nepal & Bhutan	Sashastra Seema Bal (SSB)
LoC (J&K)	Indian Army (with BSF in support)
Coastal Areas	Indian Navy, Indian Coast Guard, State Marine Police

Additionally, the **Department of Border Management** under the Ministry of Home Affairs, created in 2004, coordinates the development and monitoring of land and coastal borders.

Unique Challenges in Indian Border Management

India's borders are marked by a variety of terrain—deserts, forests, rivers, and glaciers—making surveillance and mobility challenging. Each border poses distinct security threats:

Indo-Pakistan Border

- Cross-border terrorism remains a major concern.
- Political instability in Pakistan increases infiltration attempts.
- Diverse terrain: deserts (Rajasthan), agricultural plains (Punjab), and snowy peaks (J&K).

Indo-China Border

- Unresolved boundary disputes and Chinese aggression (e.g., Galwan) create persistent tension.
- Harsh climatic conditions and lack of infrastructure complicate troop movement.

Indo-Bangladesh Border

- High levels of illegal immigration and smuggling.
- Complex riverine terrain makes fencing and surveillance difficult.

Indo-Nepal & Indo-Bhutan Borders

- These open borders are vulnerable to smuggling of arms, drugs, and counterfeit currency.
- Cross-border movement of insurgents and terrorists using least resistance routes.

Indo-Myanmar Border

- Drug trafficking from the Golden Triangle.
- Insurgent sanctuaries and ethnic ties across borders make enforcement difficult.

Coastal and Maritime Borders

- Threats include piracy, terrorist infiltration (e.g., 26/11 Mumbai attacks), illegal fishing, and arms trafficking.
- Overlapping jurisdictions between the Navy, Coast Guard, and police need better integration.

Government Initiatives for Strengthening Border Management

1. Technological Integration

- **Comprehensive Integrated Border Management System (CIBMS):** Combines physical barriers with sensors, thermal imaging, radars, and drones.
- **Hi-Tech Surveillance:** Use of UAVs like Nishant, Rustom, and satellite-based monitoring enhances situational awareness.

2. Infrastructure Development

- **Border Infrastructure and Management (BIM) Scheme:** Funds fencing, roads, outposts, and helipads.
- **BRO Projects:** Roads like DS-DBO Road,

Sela Tunnel, and Trans-Arunachal Highway improve logistics and accessibility.

3. Integrated Check Posts (ICPs)

- ICPs streamline border crossing for cargo and passengers by housing customs, immigration, and quarantine under one roof.

4. Development of Border Areas

- **Border Area Development Programme (BADP):** Targets basic amenities, healthcare, education, and employment in border villages.
- **Vibrant Villages Programme (VVP):** Enhances infrastructure in remote northern border villages to curb migration and reinforce sovereignty.

5. Legal and Institutional Reforms

- **End of Free Movement Regime (FMR)** at the India-Myanmar border due to insurgency risks.
- **Forest (Conservation) Amendment Act (2023):** Allows forest land diversion for border infrastructure within 100 km of international borders.

Challenges in Implementation

Despite major efforts, numerous obstacles hinder effective border management:

- **Infrastructure Gaps:** Roads often end 60–80 km short of the LAC, unlike China's seamless access.
- **Manpower Shortage:** Over 83,000 vacancies exist across CAPFs and Assam Rifles.
- **Poor Coordination:** Multiplicity of forces at certain borders leads to overlapping jurisdictions and diluted accountability.
- **Technological Threats:** Use of drones by adversaries for drug drops and weapon deliveries demands constant upgradation of countermeasures.

- **Maritime Security Lapses:** Coordination between Navy, Coast Guard, and coastal police needs strengthening.
- **Project Delays:** The CAG noted slow progress in completing strategic border roads despite urgent deadlines.

Suggested Measures for Improvement

To meet existing and emerging challenges, India must adopt a **holistic and forward-looking approach** to border management:

1. **Inter-Agency Coordination:** Establish unified command structures where multiple agencies operate in tandem, such as along the LAC and coastal areas.
2. **Smart Border Technologies:**
 - Use of AI and facial recognition for identity management.
 - Deployment of laser walls, seismic sensors, and radar-based detection.
 - Drone-based real-time reconnaissance.
3. **Capacity Building and Local Sensitisation:**
 - BGFs must be trained in local languages and cultures for better community engagement.
 - Promotion of Civil-Military Cooperation (CIMIC) to win hearts

and minds in sensitive areas.

4. Enhanced Cross-Border Cooperation:

- Deepen intelligence sharing and joint operations with neighbours like Bhutan and Myanmar.
- Institutionalise dialogue mechanisms to resolve disputes and enhance mutual trust.

5. Community Participation:

- Empower local communities through incentives, infrastructure, and employment.
- Use border populations as informal informants and first responders in crisis.

Conclusion

The **Border Guarding Forces** are India's first line of defence and a critical link in the nation's security architecture. Their role extends beyond mere territorial protection to ensuring socio-economic development, fostering diplomacy, and responding to dynamic threats from adversaries and non-state actors. As India's strategic environment evolves, so must its approach to border management—through **technology infusion, community involvement, regional cooperation, and institutional reform**. Only then can India truly secure its borders and its future. □

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ENHANCED SURVEILLANCE FOR EFFECTIVE BORDER MANAGEMENT



–Mrs. Radha Vacher

Border Management is a crucial and a vulnerable area to look into as it is linked with security, threat, immigration, supply of goods, growth, logistics, labor management, etc. It also impacts the nearby boundary states to a large extent especially due to some antisocial practices like illegal supply of goods, illegal immigration, etc

Enhanced Surveillance is one of the importance key areas which can help to manage borders better. Enhanced Surveillance are latest, new, upcoming technology driven solutions which can make things easy, smart and better. It includes technology, remote monitoring, drones, AI, IOT, Robotics, data analytics, etc which can monitor in day and night, also in all climate conditions.

There is also a wide need of shift from the traditional patrolling to smart enabled communications systems.

We will be looking at the above topic from these for the below perspectives:

1. **GEORAPHICAL DYNAMICS**
2. **SMART FENCING & SURVEILLANCE**
3. **TECHNOLOGY for SURVEILLANCE**
4. **USE OF ARTIFICIAL INTELLIGENCE in SURVEILLANCE**
5. **BENEFITS/OUTCOMES OF TECHNOLOGY & ENHANCED SURVEILLANCE**

6. **GROWING ERA – WAY AHEAD**

7. **RISING BHARAT**

1. **GEORAPHICAL DYNAMICS**

Bharat shares the borders with Pakistan in the West, Nepal – Bhutan – China in the North, Bangladesh – Myanmar – China again in the East and Sri Lanka & Water ports in the South.

Every corner and border has its separate areas of concerns which should be addressed individually.

Each border should have smart surveillance systems as it is a matter of national integrity, security and concern for the nation.

The borders are covered with mountains, deserts, rivers, dense forests and open lands. There are wide empty patches also. There are activities happening on borders which can stopped by proper and smart surveillance system. Cross Border infiltration, smuggling, terrorism, illegal immigration and trafficking are current challenges which the nation is facing. Using smart surveillance methods and moving ahead from the traditional pedagogy, the above challenges can be taken care of for a peaceful and growing atmosphere.

There is a huge gap in the manual process which was human driven and there was a shortage of human resource which made the surveillance challenging and there was a lot of scope for the unwanted thing to occur.

2. SMART FENCING & SURVEILLANCE

Smart Fencing is the next important aspect in border defense management. Smart fencing can actually help border management and it is very much needed for security, monitoring and management.

The major features of smart fencing border system is as follows:

a. High Strength Fences are essential elements of smart fencing systems for border security, designed to withstand cutting, climbing, and impacts. Typically, constructed from durable materials like steel and features like anti-climb spikes and detecting sensors.

b. Tech Poles are modern tech fences with features of lighting, communication. Environmental monitoring and security. Equipped with sensors, cameras, communication equipment like Wifi – 5G, tech poles collect data and offer services to the surrounding area.

c. Solar Connect is also part of the tech poles and fencing system to ensure continuous power supply. It also decreases the carbon footprint with low operating cost in a sustainable manner. It can remotely monitor real time updates on the fence's status and performance.

d. Lights like LED are attached to provide efficient and effective illumination to improve visibility and safety. These poles are designed to be energy efficient, consuming less electricity than traditional lighting technologies. Sensors control the light levels, adjusting them as per environmental conditions.

e. IoT Gateway acts as a bridge between IoT devices, like sensors and smart devices, and data processing systems. It collects data from connected devices, possess it locally of necessary, and then sends it to the cloud for storage, analysis and action. It is essential for gathering data, conduct local processing or filtering, and transmit processing or filtering, and transmit pertinent information to a central command center or cloud based system for additional analysis and decision making.

f. AI Prediction System helps to utilize machine learning algorithms, an AI prediction system analyzes data from sensors and cameras to predict potential security threats.

This innovative technology enables border security forces to anticipate and prevent breaches before they occur.

g. Drones are a valuable tool for aerial surveillance along the border, offering real-time video footage and imagery. With the ability to cover large areas quickly, drones can be equipped with a variety of sensors such as cameras and thermal imaging to enhance surveillance capabilities.





3. TECHNOLOGY for SURVEILLANCE

Technology can really solve a lot of problems on the borders and manage things very well. The management can get a lot of real needed data with help of technology.

a. High definition surveillance camera can help track areas and monitor dark spots with audio facility as well

b. Non Adhar people entering borders can also be traced with help of **Trackers installed** with their visa / entry card to track movement and illegal activities especially in areas like Kolkata where there are illegal Bangladeshi immigrants. These illegal immigrants settle in Indian states and also make fake adhar and voter cards ultimately polluting our system. They also supply illegal products and make the environment dirty.

c. Tech Objects like hidden audio visual radars can help trace agent rackets which help these illegal immigrants enter the Indian states. It can record, decode and send signals to the nearby intelligence or defense authority.

d. Alert emergency booths can also help common citizens in deep border villages, cities and areas can also give a platform to common citizens to raise concerns of the nearby observations and can inform about the various anti-social things occurring.

e. Strict action on the local people helping and supporting the **illegal agents** and immigrants to practice these things in border areas

f. Drones for must for aerial surveillance especially when it comes to hilly areas and mountains. It can really to have a blueprint of the actual position of things.

g. Satellite based imagery can also help if there is any movement and can alert the officials for the same. Highly recommended for deserts, mountains, rivers, forests, etc



4. ARTIFICIAL INTELLIGENCE in SURVEILLANCE

a. AI Powered Bird Nests: These nests will look like natural but will be AI powered and can any movement which is seen in the air. It can be helpful in specially areas like POK, Arunachal Pradesh Borders and Leh.

b. Border Robots: Smart Robots using latest robotics can be made which can sense the person entering using biometric, retina scan, heart beat scan, etc. This can store data and can trace the person if any case of emergency.

c. AI RATS: The rats made from artificial intelligence can help track land movement in border areas and will be really helpful in forests, hilly areas as well.

d. SMART FISHES: The Fishes looking real but made from the latest artificial intelligence can monitor and track any movement happening in water bodies specially water ports and ships.

e. TRACKER CHIPSET: This can be made mandatory for every good which seems to be vulnerable and at risk for long term tracking and safety.

f. INTEGRATION WITH COMMAND CENTERS: This is very important with the help of AI to regularly send actual and live data over the borders for real time monitoring and action if needed

AI, Robotics, IOT, ML can help Bharat manage borders very well and have a structured track and data of immigrant, movement of people and goods.



5. BENEFITS / OUTCOMES OF TECHNOLOGY & ENHANCED SURVEILLANCE

The upcoming era is going to be highly tech driven. The threats and risks can also be through technology. So it's high time, we as a nation should adapt tech innovations and adapt these changes immediately when it comes to sensitive areas like borders.

This will be lead more peace in Border States and the country as a whole can focus on growth and development. Even the new infrastructure which is getting build also has a huge scope of tech intervention as an integral part of the development index.

It is rightly said, what can be measured, can be managed. The technology will also help Bharat understand the loop holes and areas where the issues and problems are taking place. Also understanding the root cause can also help find real time solutions for the same.

This will also be big help to the defense infrastructure

and ecosystem of Bharat as with these innovations, the defense system can focus on new research and development with more advancements, trainings, development and leading the front in terms of defense tech and innovations.

6. GROWING ERA – WAY AHEAD

As Bharat is a growing nation and marching towards a developed economy. The government should aggressively take initiatives in border management and infrastructure building. Lot of initiatives like Comprehensive Integrated Border Management System (CIBMS) are already in place and more tech support can strengthen the ecosystem.

Agencies like BSF, ITBP, SSB and Indian Army will play a vital role in deployment of modern technology making it a core part of the system.

Cross Border Initiatives and co-ordination with neighboring countries should be a regular practice in the agenda. Regular meetings and discussions over the concerns can help manage things better.

Joint technology collaborations and investments with bilateral agreements can also be a great step for future vision and growth.

Learning from global best practices and advisors will also Bharat and other countries to make better policies and practices

Looking at the Vision ahead, there is also a continuous need of trainings personnel for tech updates and smart infrastructure including enhanced surveillance.

Inviting Public - Private Partnerships can also help the current ecosystem.

7. RISING BHARAT

Bharat is already marching to be innovation capital of the world leading the front as a guiding light to the world. These technology and artificial intelligence as a boon for border and defense management will contribute a lot for Vision Vikshit Bharat 2047 which our Honorable Prime Minister, Shri Narendra Modi envisions.

The Defense Tech is already on the rise and the leap has just started for Bharat, the world is looking at Bharat as the incubation of technology and innovation.

Hence, Keeping Borders Safe, Tracked and Monitored will also help us grow as a country and technology has a key role to play in the 21st Century. □

JAI JAWAN, JAI KISAN, JAI VIGYAN, JAI ANUSANDHAN!! JAI HIND, JAI BHARAT!!



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EFFECTIVE BORDER MANAGEMENT AGAINST BIOLOGICAL WARFARE: AN INDIAN CONTEXT



Dr. Deep Narayan Pandey

Introduction

In the 21st century, the threat of biological warfare is becoming increasingly significant due to rapid advancements in biotechnology, synthetic biology and the dual-use nature of biological research. Biological warfare involves the deliberate use of pathogenic biological agents such as bacteria, viruses, or other toxins to cause illness or death in people, animals or plants. For a country like India, with extensive land and maritime borders, a diverse population and multiple points of entry, effective border management against biological threats is a critical aspect of national security. India's unique geopolitical positioning and its proximity to volatile regions increase the possibility of biological threats either as acts of war or terrorism. As such, developing a robust strategy for border management that can detect, prevent and respond to such threats is essential. This paper tries to explore the existing mechanisms, challenges and recommendations for strengthening India's border management against biological warfare.

Understanding Biological Warfare

Biological warfare involves the intentional release of pathogens or toxins to harm or kill humans, animals or plants. These agents can spread quickly and cause widespread disruption. The effects are not limited to health but also impact economic stability, public morale and national security. Biological weapons are difficult to detect and attribute, making them

appealing for non-state actors and rogue states. Examples include anthrax, smallpox, plague and genetically engineered organisms. Unlike conventional warfare, the effects of biological attacks may take time to manifest, allowing perpetrators to escape detection.

1. INDIA'S BIOLOGICAL THREAT

LANDSCAPE - India faces complex threats across its land and maritime borders. As a signatory of the Biological and Toxins Weapons Convention (BTWC, 1972), India formally opposes bioweapons and supports global norm development. However, the increasing accessibility of biotechnology, dual-use research, porous borders and geopolitical tensions highlight the urgent need for an effective border management strategy specifically targeting biological threats beyond conventional CBRN approaches (Bharatshakti.in, 2020).

India shares borders with countries experiencing internal instability, terrorism or strained diplomatic ties. Its borders with Pakistan, China, Bangladesh, Nepal and Myanmar as well as its extensive coastline, present vulnerabilities to infiltration, smuggling and covert operations involving biological materials. Additionally, the rise of pandemics, such as COVID-19, has highlighted the porous nature of borders and the need for effective surveillance, quarantine and rapid response. There is also the risk of biological materials being trafficked across borders for nefarious purposes.

2. LEGAL AND POLICY FRAMEWORK

- India's approach to managing biological disasters and biosecurity threats is structured through a combination of legal frameworks, institutional mechanisms, and international commitments. The Disaster Management Act, 2005 provides the foundational legal framework for disaster response, including biological emergencies, and established the National Disaster Management Authority (NDMA) to coordinate national-level responses, particularly for CBRN (chemical, biological, radiological, and nuclear) threats. The Ministry of Health and Family Welfare (MoHFW) is designated as the nodal authority for biological disasters, while the Integrated Disease Surveillance Programme (IDSP) monitors disease outbreaks. The National Centre for Disease Control (NCDC) plays a critical role in monitoring and controlling communicable diseases.

Additionally, the Defence Research and Development Organisation (DRDO), particularly through the Defence Research and Development Establishment (DRDE) is engaged in research and development for detection and protection against biological agents. On the international front, India is a signatory to the Biological and Toxin Weapons Convention (BTWC) and the Chemical Weapons Convention (CWC), and supports UN Security Council Resolution 1540. Despite having the Chemical Weapons Convention Act, 2000 and various administrative measures addressing CBRN risks, India lacks dedicated national legislation on biosecurity, which is currently managed largely as a health-sector subject under non-binding guidelines. The disaster management architecture established by the 2005 Act includes NDMA and state-level SDMA, with Standard Operating Procedures (SOPs) for CBRN incidents formulated down to the municipal level. The National Disaster Response Force (NDRF), including specially trained paramilitary battalions, serves as the first line of response in such emergencies (Bharatshakti.in, 2020).

3. INSTITUTIONAL ROLES AND CAPABILITIES

1) Border Guard Agencies - Border agencies such as BSF, SSB, ITBP and Assam Rifles guard frontiers with Pakistan, Bangladesh, Nepal, Bhutan and China. While their core role is territorial security, they can be adapted to support biological threat identification and early warning at entry points.

2) NDRF and State Disaster Response Forces - Sixteen NDRF battalions (drawn from CRPF, BSF, CISF, ITBP, SSB, Assam Rifles) are designated as first responders to CBRN incidents. State Disaster Response Forces (SDRFs) supplement local-level response.

3) Defence Research & Development Establishment (DRDE) - DRDE in Gwalior (DRDO) leads India's biodefence research and is home to Advanced Biological Defence Research Centres (ABDRCs) with BSL-4 facilities inaugurated in 2021 and 2024, focusing on detection, diagnostics, antibody development and rapid test kits for agents like anthrax, plague, botulinum toxin and viral hemorrhagic fevers.

4. Border-Related Threat Vectors and Vulnerabilities - This can be subdivided into two namely **(1) Porous Borders and Biothreat Pathways:** India shares long land borders and extensive maritime zones. Movement of people, livestock, cargo, migratory wildlife and natural vectors heightens risk for both natural zoonotic spillovers and potential intentional release near border zones. **(2) Cross-Border Biological Collaboration Risk:** Alleged covert bio-collaboration projects between Pakistan and China (e.g. anthrax vector research) have been cited as potential threats to India's bio-security environment, albeit not officially confirmed, they highlight the perception of emerging threats in the region. Apart from that, Dual-use research materials (pathogens, toxins, genetically modified organisms) may be smuggled or illicitly transferred across borders. India's biotech sector and research labs, while vital also raise insider/security control challenges (gktoday.in).

5. DETECTION, SURVEILLANCE AND FIELD?LEVEL PREPAREDNESS

1) **Biosensors and Real-time Detection** - India has invested in real-time bio-detection systems, although they remain limited in availability and field deployment. Rural and border health facilities often lack integrated detection-capable equipment.

2) **Training and Exercises** - Post-1998 and the 1999 Kargil conflict, India significantly improved CBRN training. DRDO laboratories such as DRDE, INMAS and DL-Jodhpur contribute to training paramilitary forces. NDRF battalions receive regular drills and QRT (Quick Reaction Team) training for biological emergencies. The recent nationwide Operation Abhyaas mock drill (May-7,-2025) simulated emergency responses across 244 districts, bolstering readiness for complex threats including CBRN scenarios.

3) **Crisis Communication and Public Awareness** - Effective consequence management requires inter-agency coordination, standard operating procedures, and public outreach. Past analyses note the need for SOP drills involving local police, civil defense, NGOs, media and health agencies to reduce panic and miscommunication (reddit.com)

6. GAPS AND CHALLENGES

1) **Fragmented Governance and Authority** - Biosecurity currently resides with MoHFW/health departments, resulting in uneven state-level implementation. Absence of legally binding national directives limits uniform preparedness.

2) **Limited Field-scale Detection and Surveillance Capabilities** - Border posts and border agencies lack robust point-of-entry biosensors or rapid screening tools. Detection infrastructure is concentrated in few urban centers and research labs, not across frontier posts.

3) **Coordination Deficits across Agencies** - Border forces, NDRF, MoHFW, NDMA, DRDO, intelligence agencies, and state governments often

operate in silos. Integration of real-time intelligence, pathogen detection, public health surveillance and security actions is inadequate.

7. **Human Resource and Training Gaps** - Although specialized training exists, there is no dedicated bio-threat cadre distinct from CBRN responders. Experts propose creating a specialist cadre drawing doctors and scientists to manage biothreat response across agencies (gktoday.in).

8. PROPOSED FRAMEWORK FOR EFFECTIVE BORDER MANAGEMENT OF BIOLOGICAL WARFARE THREATS

India must prioritize centralized biosecurity governance by formulating a National Biosecurity Strategy under the National Disaster Management Authority (NDMA) or the Prime Minister's Office (PMO), thus elevating biosecurity to the status of a national security issue. A National Biosecurity Expert Group comprising stakeholders from DRDO, NCDC, MoHFW, intelligence agencies, border forces, and state surveillance bodies should be instituted to coordinate efforts and provide expert guidance. Crucially, these efforts must be backed by legally binding central directives to ensure uniform compliance across states, rather than relying solely on voluntary guidelines. Strengthening border detection infrastructure is vital and includes the deployment of portable biosensors and DRDE-developed rapid diagnostic kits for pathogens like anthrax, plague, and dengue at critical entry points such as border crossings, customs and ports. Establishing Regional Emergency Response Centres in border states and fostering cross-border cooperation for disease reporting are also essential.

A dedicated Bio-Threat Response Cadre must be formed by drawing from medical officers, microbiologists, epidemiologists, DRDO scientists and security personnel, and trained extensively in pathogen detection, PPE use, decontamination, and public communication. Finally, international and regional cooperation should be deepened through

partnerships with South Asian neighbors, focusing on shared surveillance, quarantine protocols, databases for pest/pathogen exchange and joint training, while maintaining stringent export controls under SCOMET and regulating dual-use technologies to curb illicit transfers (ebook.inflibnet.ac.in).

Recommendations & Future Directions

To effectively address the growing risks posed by biological threats, it is imperative to enact a dedicated National Biosecurity Act that uniformly governs intentional, accidental and natural bio-threats across all states. Biosecurity oversight should be elevated to central authorities with powers and frameworks comparable to those managing nuclear and chemical threats. Strengthening border infrastructure by installing advanced detection devices and integrated surveillance technologies is essential to prevent cross-border biohazards (pmc.ncbi.nlm.nih.gov). The creation of a specialized bio-response cadre with jurisdiction spanning borders, laboratories, and health sectors would ensure swift, coordinated action during biological emergencies. Moreover, regional

collaboration must be enhanced through shared bio-surveillance data, joint training programs, and harmonized quarantine protocols. Public awareness and preparedness should also be expanded via community-level training, strategic media coordination, and regular public drills to ensure resilience at the grassroots

Conclusion

India's existing structures including NDMA, NDRF, DRDE and IDSP provide a foundation for biosecurity. However, effective border management against biological warfare requires elevating biosecurity to a national-level doctrine, integrating surveillance and detection at border zones, fostering cross-agency coordination and creating specialized human-capacity. With growing geopolitical tensions and increasing access to dual-use technologies, proactive investments in detection systems, dedicated legal frameworks, rapid diagnostics, and multi-layered coordination are urgent. A robust biosecurity posture at India's borders will help deter, detect and contain bio-threats i.e. whether deliberate or natural protecting public health, national security and regional stability. □

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CHEMICAL WARFARE AND EFFECTIVE BORDER MANAGEMENT: INDIAN PERSPECTIVE



– Dr. Satish Kumar Saini

Introduction

The threat of chemical warfare has become a significant concern in modern national security, especially for countries with complex and sensitive borders like India. Chemical weapons, which use toxic substances to cause mass harm, can have devastating effects on both military personnel and civilians. Given India's long and porous borders with neighboring countries such as Pakistan and China, managing this threat effectively is critical. These regions are prone to geopolitical tensions and unconventional warfare risks, making chemical threat preparedness a top priority.

India has demonstrated a strong commitment to chemical weapons non-proliferation by ratifying the Chemical Weapons Convention (CWC) in 1996 and implementing the Weapons of Mass Destruction (WMD) & Delivery Systems Act, 2005. These legal frameworks prohibit chemical weapons development and use, while setting the stage for stringent domestic enforcement. However, laws alone cannot guarantee security. India's vast and difficult terrain demands practical measures such as deploying advanced detection technologies conducting specialized training, and enhancing intelligence operations.

Understanding Chemical Warfare and Its Effect on Border Management

Chemical warfare involves the use of toxic chemical substances as weapons to cause harm, incapacitate, or kill enemy forces and civilians. Unlike conventional weapons, chemical agents can spread rapidly and indiscriminately, making them a particularly dangerous threat to national security. For countries like India, with extensive and porous borders adjoining sensitive regions, chemical warfare poses complex challenges for border management.

The possibility of chemical attacks along borders necessitates enhanced vigilance and preparedness. Border management agencies must not only focus on conventional threats but also be equipped to detect, identify, and respond to chemical agents swiftly. This includes deploying advanced detection technologies, providing protective gear to personnel, and conducting specialized training for chemical emergencies. Chemical warfare can disrupt normal border operations by causing casualties among security forces contaminating critical infrastructure and creating panic among border communities. It also complicates surveillance and patrolling activities, potentially allowing hostile actors to exploit the confusion. The risk of using chemical weapons increases the need for coordinated action among multiple agencies- military, paramilitary, intelligence and disaster response teams.

Policy Framework in India

India's commitment to chemical weapons non-proliferation is firmly anchored in its ratification of the Chemical Weapons Convention (CWC) in 1996. As a responsible member of the international community, India pledged not only to prohibit the development, production, and use of chemical weapons but also to destroy its existing stockpiles under the supervision of the Organisation for the Prohibition of Chemical Weapons (OPCW). This treaty forms the backbone of India's legal and diplomatic stance against chemical warfare and establishes a framework for cooperation and transparency at both national and international levels. Complementing this, India has enacted domestic legislation such as the Weapons of Mass Destruction (WMD) and Their Delivery Systems Act, 2005, which provides stringent legal measures to curb the proliferation and unauthorized use of chemical weapons within its borders.

This act empowers law enforcement agencies to prosecute offenders effectively and enhances regulatory oversight on materials that could be used in chemical weapon production. To manage emergencies related to chemical threats, the National Disaster Management Authority (NDMA) has developed comprehensive guidelines for Chemical, Biological, Radiological, and Nuclear (CBRN) disaster management. These guidelines emphasize preparedness at the national and state levels, including specific protocols for border security forces to detect, respond and mitigate chemical threats.

Technological Measures

Technological advancements play a crucial role in strengthening India's defense against chemical warfare at its borders. Both the BSF and ITBP have progressively integrated state-of-the-art CBRN detection systems and sensors along high-risk zones, particularly in areas vulnerable to infiltration or chemical agent deployment. Portable chemical detection kits, which allow quick on-site analysis of

suspicious substances, have become standard issue for frontline border personnel. These kits enable early identification of chemical threats, allowing for swift containment and minimizing casualties.

In addition to ground-based detection, India is leveraging aerial surveillance technology to monitor vast and difficult terrain. Collaborations between the Defence Research and Development Organisation (DRDO) and the Indian Space Research Organisation (ISRO) have resulted in the development of Unmanned Aerial Vehicles (UAVs) equipped with chemical sensors capable of detecting hazardous agents from the air. These UAVs enhance real-time monitoring and surveillance capabilities, providing critical intelligence that aids decision-making and rapid response along remote border regions.

Capacity Building and Training - India prioritizes capacity building by regularly training its security forces, especially through the National Disaster Response Force (NDRF), which conducts chemical warfare drills in vulnerable border areas. Collaborations with international bodies like OPCW further enhance skills ensuring personnel are well-prepared to detect and respond to chemical threats effectively. These can be some strategies and used as a measure for capacity building:-

- 1) India recognizes that technology alone is insufficient without skilled human resources, leading to a strong emphasis on capacity building and training.
- 2) The National Disaster Response Force (NDRF) regularly conducts specialized chemical warfare drills, especially in vulnerable border states like Jammu & Kashmir and the Northeast.
- 3) These drills simulate chemical attack scenarios to train personnel in detection, containment, evacuation, and medical response, ensuring preparedness for real incidents.
- 4) India actively collaborates with international organizations such as the OPCW to enhance technical expertise and operational protocols.

5) Such partnerships enable knowledge exchange, access to best practices, and advanced training programs for Indian security forces and emergency responders, reflecting India's commitment to global norms and effective chemical threat response.

Recent Incidents and Media Coverage

Recent media reports have brought attention to the risks associated with chemical warfare along India's borders, especially amid continuing regional tensions and cross-border conflicts. Newspapers such as The Hindu, The Indian Express, and The Times of India have highlighted concerns over the potential use of chemical agents in hostile actions or proxy conflicts, underscoring the need for vigilant border management and preparedness. In response, the Indian government has intensified its focus on modernizing border infrastructure, specifically targeting threats related to Nuclear, Biological, and Chemical (NBC) warfare. Official statements from the Ministry of Defence indicate ongoing efforts to upgrade surveillance technologies, improve protective gear for frontline personnel, and enhance rapid response capabilities. This modernization drive is designed not only to counter conventional military threats but also to address the evolving spectrum of unconventional risks, including chemical warfare, ensuring that India's borders remain robust against multifaceted security challenges.

Challenges

Despite these efforts, India faces several significant challenges in managing chemical warfare threats at its borders. The country shares long, porous borders with Pakistan and China, making comprehensive surveillance and control extremely difficult. These regions are characterized by rugged terrain, dense forests, and remote outposts, which complicate monitoring efforts and create vulnerabilities that hostile actors might exploit.

Another pressing concern is the smuggling of dual-use chemicals substances that have legitimate industrial uses but can also be diverted for

weaponization. Non-state actors and terrorist groups may attempt to exploit gaps in border security to obtain such materials, raising the risk of chemical attacks within India. Moreover, the rural communities residing near border areas often lack adequate awareness of chemical threats and the appropriate safety measures, which can delay detection and response during incidents. Enhancing community outreach and education remains a critical area for improvement in India's overall chemical warfare defense strategy.

Conclusion

The specter of chemical warfare presents a formidable challenge to India's national security, especially given its extensive and sensitive borders shared with neighboring countries marked by historical conflicts and ongoing geopolitical tensions. Effective border management against chemical threats is not merely a tactical necessity but a strategic imperative that requires an integrated approach combining legal frameworks, technological innovation, human resource development, and international cooperation. India's adherence to global conventions such as the Chemical Weapons Convention (CWC), along with domestic laws like the WMD Act, underscores its commitment to non-proliferation and chemical disarmament. However, legal instruments serve as only one component of a broader security architecture.

Technological advancements have considerably enhanced India's capacity to detect, monitor, and respond to chemical threats at its borders. The deployment of state-of-the-art chemical sensors, portable detection kits, and UAV-based surveillance demonstrates the country's willingness to leverage cutting-edge solutions to safeguard its sovereignty. Simultaneously, the focus on capacity building through rigorous training exercises conducted by the National Disaster Response Force (NDRF) and border security agencies ensures that personnel are equipped not only with the tools but also with the skills necessary to confront chemical incidents effectively.

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PREVENTING INSURGENCY AND SMUGGLING OF ARMS AND DRUGS TO SECURE INDIA'S BORDERS



– Dr. Shabnam Bormon

India's extensive international borders span diverse terrains and adjoin multiple countries, making border management a complex challenge. Vulnerabilities along these borders have long been exploited by insurgents and criminal networks to infiltrate terrorists, smuggle arms, and traffic narcotics. Such activities undermine India's national security, strain the economy, and disrupt social stability. National Security Adviser Ajit Doval emphasized that the *vulnerability of India's international borders* has impeded the country's economic growth, as adversarial forces use border gaps to facilitate terrorism, radicalism, drug trafficking, arms smuggling, and other organized crimes (Kumar, 2024). This paper examines the geographical and strategic vulnerabilities of India's borders and how insurgency and smuggling of arms and drugs threaten the nation. It also discusses the role of border security forces, technological integration for surveillance, intelligence networks, cross-border cooperation, and public participation in securing India's borders.

Geographical and Strategic Vulnerabilities of India's Borders

India shares land borders with seven countries; namely Pakistan, China, Bangladesh, Myanmar,

Nepal, Bhutan, and a small border with Afghanistan in Pakistan-occupied Kashmir. Besides that the country is surrounded by international waters in almost three sides. Each border region presents unique geographical and strategic vulnerabilities:

Western Border (India–Pakistan)

The western frontier comprises deserts (Rajasthan), fertile plains (Punjab), marshes (Rann of Kutch), and mountainous terrain in Jammu & Kashmir. This border is highly sensitive due to historical conflicts with Pakistan, continued claims and counter-claims over Pakistan Occupied Kashmir and unprovoked military interferences by Pakistan. The difficult terrain and sprawling stretches make infiltration and smuggling hard to fully contain. Further, the perennial war like situation with Pakistan hampers any focused attention to infiltration.

Northern Border (India–China)

The Himalayan boundary with China is characterized by high-altitude mountains, harsh climate, and disputed alignments (e.g. Aksai Chin, Arunachal Pradesh). There is minimal illicit smuggling of arms/drugs directly across the Himalayas due to the inhospitable geography and heavy military presence. However, Chinese-made weapons have indirectly found their way into India

via other routes – for example, through Myanmar or black markets – arming insurgent groups in India’s northeast (Bhattacharyya, 2010).

Eastern Border (India–Bangladesh and India–Myanmar)

India’s eastern frontiers are largely porous and culturally interlinked with neighbouring countries. Despite substantial fencing, many stretches (especially along rivers and in Assam/Meghalaya’s forests) remain permeable. The open waterways and char lands (river islands) further enable illicit crossings. Smugglers have trafficked everything from cattle and fake currency to arms and narcotics across this border. Infiltration of militants has also occurred; e.g., Bangladesh-based jihadist groups like **Harkat-ul-Jihad(HuJI)** and **Jamaat-ul-Mujahideen Bangladesh (JMB)** sent operatives into India since 2015, some of whom were later implicated in terror incidents in India. Bangladesh’s cooperation in recent years has improved as by 2017, Bangladesh declared ‘almost zero’ insurgent camps on its soil (TOI, 2017), yet the sheer length and demographic pressures keep this border vulnerable. The ongoing political instability in Bangladesh would certainly make it further difficult to contain infiltration in the coming days.

The India–Myanmar border passes through rugged mountains and dense forests in the Northeast. It is extremely porous, with strong ethnic ties (Naga, Kuki, etc.) straddling both sides. Porous borders and tacit tolerance by local authorities enabled around 150–200 insurgent camps to operate in Myanmar and Bangladesh during past decades. Myanmar is also part of the ‘Golden Triangle’ – a global hub of illicit drug production (notably opium and methamphetamines) encompassing Myanmar, Laos, and Thailand. The proximity of Northeast India to the Golden Triangle makes this border a major conduit for narcotics. Manipur and Mizoram, for example, have been entry points for heroin and meth (“Yaba” tablets) produced in Myanmar (UNODC, 2005). The terrain’s difficulty and limited surveillance infrastructure have facilitated

drug traffickers. This border’s vulnerability is both geographical (hills, jungles, cross-border tribes) and governance-related (ongoing conflict and weak law enforcement on the Myanmar side), creating a haven for insurgency-narcotics nexus. Recent instability in Myanmar (post-2021 coup) has further reduced cooperative policing, potentially increasing cross-border illicit flows.

Himalayan Neighbours (India–Nepal and India–Bhutan)

India’s border with Nepal is unique as it is an open border as per longstanding treaty – allowing visa-free movement for nationals. Smugglers and militants have exploited the Nepal route to enter India clandestinely. Pakistani terror groups have in some cases used Nepal as a staging ground to send operatives into India, taking advantage of the unrestricted entry. The open border has also enabled trafficking of arms, fake Indian currency, and drugs by organized networks. In recent years, Chinese-made small arms have been smuggled via Nepal to arm insurgents in Northeast India (Bhattacharya, 2010). India’s border with Bhutan is comparatively well-managed due to Bhutan’s cooperation. Bhutan border’s vulnerability is low; it is mostly used for friendly transit and trade, though occasional smuggling of contraband (forestry products, etc.) occurs.

Maritime Borders

India’s coastline and maritime boundaries (with Pakistan, Sri Lanka, Bangladesh, Myanmar, Thailand, and Indonesia in various stretches) present another set of vulnerabilities. The sea routes have been used to smuggle arms and drugs on a significant scale. In September 2021, Indian agencies seized nearly 3,000 kg of heroin at Mundra port in Gujarat, the largest such haul in India (Ministry of Defence, 2022). This and other cases reveal that India is a target and transit route for international drug cartels via maritime channels. The Arabian Sea and Bay of Bengal have seen smugglers using boats (sometimes flying other

nations' flags) to traffic heroin, meth, and even small arms. The Indian Coast Guard has intercepted vessels carrying narcotics and illicit weapons – for instance, in recent years Sri Lankan fishing boats were caught with drugs and arms (AK-47s and pistols) on board, indicating a nexus between drug smuggling and gun-running on maritime routes (Ministry of Defence, 2022). Coastal vulnerability was also tragically demonstrated by the 2008 Mumbai terror attack, where terrorists exploited the sea route. Thus, securing the maritime 'border' is integral to an all-encompassing border security strategy.

Threats of Insurgency and Smuggling to National Security, Economy, and Social Stability

Cross-border insurgency and the smuggling of arms and narcotics pose interrelated threats that cut across the domains of security, economic well-being, and social stability. These threats often feed into each other – insurgent movements are bolstered by illicit smuggling, and the proceeds of drug and arms trade finance further violence, a phenomenon termed 'narco-terrorism' (Boyce, 1987).

Threats to National Security

Insurgency and terrorism are the most immediate security threats. When militant groups infiltrate across borders, they carry out violent attacks, assassinations, and sabotage that can destabilize regions. For example, Pakistan-backed terrorist infiltrations in Jammu & Kashmir have fuelled a decades-long conflict, with attacks on security forces and civilians. Similarly, Northeast India has endured insurgencies (in Nagaland, Manipur, Assam, etc.) wherein rebels used sanctuaries in Myanmar or Bangladesh to strike Indian targets. The flow of illicit arms is especially detrimental because weapons smuggled in from abroad amplify the firepower of extremist and criminal groups. Moreover, drug trafficking across borders funds insurgent networks – the profit from narcotics sales is used to purchase weapons and sustain militant cadres. It has been documented that Kashmiri and Punjabi militants, as well as northeast insurgents, have relied on drug

money to finance their so-called struggle against the Indian Government (Jamwal, 2022). This narco-insurgency nexus means that seemingly 'criminal' smuggling is in fact a national security threat, as it strengthens anti-India forces.

Threats to the Economy

Insurgency and smuggling activities also inflict economic harm at multiple levels. For example, persistent terrorism in Jammu & Kashmir and parts of Northeast India has historically hampered tourism, infrastructure development, and investor confidence, thus limiting economic growth in those border regions. There are direct costs as well: counter-insurgency and anti-smuggling operations entail heavy government spending on security forces, surveillance technology, border fencing, and counter-narcotics efforts. These funds could otherwise be used for development projects.

Smuggling of goods like arms, drugs, and counterfeit currency has a corrosive effect on the formal economy. Drug trafficking generates black money and strengthens organized crime syndicates that infiltrate the economy. The illicit funds from narcotics are laundered into legitimate businesses or underground channels, distorting markets and funding further illegal enterprises. Moreover, India is situated between the two largest regions in the world for illegal opium cultivation, known as the 'Golden Crescent' (Afghanistan–Pakistan–Iran) and the 'Golden Triangle' (borders of Myanmar, Laos and Thailand). Punjab, located near the Golden Crescent, is considerably affected by the issue of narcotics smuggling and led to high local consumption and gun violence amongst Punjabi youth (UNODC, 2005). Similarly, Northeast India, positioned at the intersection of the Golden Triangle, acts as a corridor, where narcotics have significantly impacted the youth, particularly in the border states of Mizoram, Manipur, Nagaland, and Arunachal Pradesh that share a boundary with Myanmar. One more devastating consequence of the drug trade is the high rate of HIV/AIDS infections among users (UNODC, 2005). This

demonstrates how narco-trafficking translates into tangible economic costs – lost human capital and increased policing and healthcare costs.

Another economic threat is smuggling of counterfeit currency and contraband. As noted in one analysis, the trafficking of Fake Indian Currency Notes (FICN), often printed in a state-sponsored manner in Pakistan, aimed to destabilize India's economy by causing inflation and fund terrorism, termed 'economic terrorism' (Bhutani, 2020). Pakistan's Inter-Services Intelligence (ISI) has played a key role in injecting fake Indian currency notes into India via multiple countries, including Nepal, Bangladesh, Myanmar, Thailand, Malaysia, Sri Lanka, Dubai, and even China, which is beginning to serve as a new transit point. Frequently, the ISI recruits members of the Indian diaspora to deliver the counterfeit currency back to India. (Bhutani, 2020). Although, high-quality FICN influx has reduced after demonetization in 2016, earlier it inflicted financial losses and security risks. Moreover, rampant cross-border smuggling of taxable goods (gold, electronics, etc., aside from arms/drugs) deprives the government of revenue and harms local industry.

Threats to Social Stability

Perhaps the most far-reaching impact of insurgency and smuggling is on the social fabric and stability of communities. Cross-border insurgency and terrorism breed fear and violence in society, displacement of people, and create an atmosphere of tension especially in border areas. For instance, years of insurgent violence in Northeast India fuelled ethnic mistrust and displaced populations from conflict zones. In Kashmir, cross-border terrorism has at times led to targeted killings that increased communal divides.

Drug proliferation is a major social threat associated with border smuggling. In regions like Punjab and Northeast India, easy availability of heroin, synthetic drugs, and other narcotics (due to cross-border trafficking) has led to addiction

epidemics. Narcotics also fuel other crimes like human trafficking and gang wars, further destabilizing society. As one report highlighted, **drug and arms trafficking across borders often go hand in hand** – firearms smuggled alongside drugs contribute to criminal violence domestically UNODC, 2024).

Furthermore, illegal migration and refugee flows spurred by insurgency in neighbouring states can strain social harmony. For example, the influx of Rohingya refugees from Myanmar's conflict has created socio-political sensitivities in India and Bangladesh While humanitarian in nature, unmanaged migration may inflame nativist sentiments and competition over resources, affecting social stability. Even internal demographic imbalances, like in Assam where the claims of illegal Bangladeshi migrants have led to agitation and violence in the past.

Finally, corruption and lawlessness bred by smuggling networks corrode public trust in authorities. When border smuggling cartels flourish, they often co-opt local youth as couriers and bribe officials, entangling ordinary people in crime. Such corruption scandals undermine morale and citizens' faith in governance, which is destabilizing in the long run.

Role of Security Forces deployed in Border in Countering Threats

India deploys a robust array of border security forces to guard its frontiers and also to counter insurgency and smuggling. The principle of "One Border, One Force" is followed, whereby distinct forces are assigned to different border sectors, in coordination with the army and local law enforcement. The key border guarding forces and their roles are:

Border Security Force (BSF)

The BSF is India's primary border guard for the Pakistan and Bangladesh borders. With approximately 250,000 personnel, BSF mans a vast network of Border Out Posts (BOPs) along the International Border. Its duties include patrolling the border day and night, maintaining fence integrity,

intercepting infiltrators, and preventing smuggling of contraband. The BSF has been instrumental in both foiling terrorist infiltrations and seizing illicit arms and narcotics. For example, BSF patrols in Punjab routinely recover weapons and narcotics thrown across the fence or dropped by drones. In 2023 alone, BSF shot down or recovered around 100 drones carrying drugs, weapons, and explosives along the Pakistan border (Firstpost, 2023). By May 2025, the BSF's Punjab Frontier had intercepted its 100th drone of the year, seizing 111 kg of heroin, 60 firearms, 14 grenades, and 10 kg of explosives in those drone incidents (Lama, 2025). This showcases the BSF's frontline role in adapting to new smuggling tactics. BSF also conducts anti-tunnelling operations (detecting cross-border tunnels), and works with state police to bust smuggling rackets in hinterland. On the Bangladesh front, BSF faces challenges of dense population and myriad smuggling rackets (cattle, drugs, human trafficking). It has to exercise restraint to avoid civilian harm while securing the border. Coordination with its counterpart Border Guard Bangladesh (BGB) is a big part of its role (joint patrols, flag meetings, etc.). Overall, the BSF is a critical bulwark against both insurgents and smugglers on India's most challenging borders, often being the first line of engagement with hostile elements.

Assam Rifles and Indian Army

Along the sensitive India–Myanmar border, as well as for counter-insurgency operations in Northeast India, the Assam Rifles (a paramilitary force under the Army's operational control) is the key agency. Assam Rifles has a legacy of over 180 years and is deployed in the volatile northeastern states. It not only guards the Myanmar border in difficult jungle terrain but also conducts counter-insurgency operations to dismantle militant networks. The Indian Army supplements border guarding in high-threat areas (for example, parts of Jammu & Kashmir and Line of Control are directly manned by the Army and specialized Army units like the Rashtriya Rifles fight insurgents inland). The dual role of Assam Rifles –

border guarding and fighting militants – has been effective in places like Manipur and Nagaland, where they have seized huge caches of arms and drugs and destroyed insurgent camps.

Indo-Tibetan Border Police (ITBP)

The ITBP guards the India–China border across the Himalayas. While its focus is on conventional border security (detering incursions, rescue in high altitudes) rather than anti-smuggling, ITBP has to contend with issues like Tibetan refugee flows and occasional arms smuggling in border markets (historically, some trading posts saw small arms or wildlife contraband). The ITBP, along with the Army, forms a deterrent to infiltration in the mountainous north. They have also been modernizing with better surveillance equipment to monitor remote passes.

Sashastra Seema Bal (SSB)

The SSB is responsible for India's open borders with Nepal and Bhutan. Its role is more about intelligence and vigilance, given the fact that there is no physical barrier in respect to these two countries. SSB troops patrol border areas, set up mobile checkpoints on key routes, and liaise with local police to intercept smugglers. The SSB has had successes in catching arms and drug consignments headed into India from Nepal – for example, busting modules that smuggled Chinese pistols and gold. They also work to build goodwill with border populations, to encourage residents to report illegal crossings. The challenge for SSB is to secure a long border with few restrictions without disrupting the legitimate flow of people and trade. Hence, they rely heavily on human intelligence and selective checks. With Bhutan, SSB's task is simpler due to Bhutan's proactive measures against insurgents.

Indian Coast Guard (ICG) and Navy

Though not traditionally termed “border security force,” the Coast Guard and Navy perform border protection in the maritime domain. The ICG patrols India's territorial waters and Exclusive

Economic Zone to prevent seaborne infiltration and smuggling. In recent years, Coast Guard ships in joint operations with intelligence agencies have seized large drug shipments on the high seas. For instance, in 2022 the ICG and Directorate of Revenue Intelligence (DRI) jointly intercepted Indian boats off Lakshadweep carrying 218 kg of heroin that had been mid-sea transhipped from a foreign vessel (Ministry of Defence, 2022). The Navy, on its part, has occasionally been involved in intercepting suspicious ships in the Arabian Sea that could be carrying arms or terrorists (e.g., operations post-26/11 attacks). The Coast Guard's expanding radar and coastal surveillance network is vital for plugging what was a gaping border vulnerability at sea.

These border forces operate under the coordination of the Ministry of Home Affairs (for BSF, SSB, Assam Rifles (administratively), and ITBP) and Ministry of Defence (for Army, Coast Guard). Each force has developed area-specific expertise – for example, BSF's Camel and Horse units for the Thar desert and Rann of Kutch, ITBP's high-altitude training for Himalayas, and Assam Rifles' cultural understanding of Northeast tribes. They are the backbone of preventing unauthorized border crossings. Importantly, these forces also engage in hearts-and-minds activities in border regions: conducting medical camps, school programs, and infrastructure works to gain the trust of local communities.

However, the forces face challenges such as difficult service conditions, vast stretches to cover (often one BSF jawan guards several kilometres at night), and the ever-evolving tactics of adversaries (tunnels, drones, etc.). They also suffer casualties in skirmishes and attacks – underscoring the high stakes of their role. Between 2015 and 2018, dozens of Indian border personnel were martyred in cross-border firing and militant attacks in J&K (Ministry of Home Affairs, 2018). This sacrifice highlights that border forces are on the frontlines of India's security. Strengthening these forces – via better equipment, training,

motivation, and numbers – is thus a priority in any strategy to prevent insurgency and smuggling.

Technological Integration and Surveillance Enhancements

Given the vast and difficult terrain of India's borders, technology acts as a force-multiplier for border security operations. In recent years, the government has pursued a Comprehensive Integrated Border Management System (CIBMS) to modernize surveillance and detection capabilities. Key technological integrations include:

Smart Fencing and Sensors

High-tech border fencing is being installed in vulnerable stretches. Smart fences are integrated with vibration sensors, motion detectors, and alarm systems. For example, along parts of the India–Pakistan and India–Bangladesh borders, pilot projects of CIBMS have been implemented that link sensors (seismic, infrared, laser) and surveillance cameras to a central control room (Ministry of Home Affairs, 2018). The Ministry of Home Affairs reported that technological solutions with integrated sensors, radars, and day/night cameras are being deployed under CIBMS on varied terrains of the western and eastern borders. One such pilot was executed in Dhubri, Assam (on the Brahmaputra riverine border) using a technological fence since conventional fencing was not feasible (Ministry of Home Affairs, 2025). Laser walls have also been set up in some riverine sections of the Punjab border to detect crossovers where the river makes fencing impractical. These sensor-fence combinations significantly improve detection rates.

Electro-Optical Surveillance:

Border forces are now equipped with an array of electro-optical devices for day-night surveillance. These include Hand-held Thermal Imagers (HHTI) that detect body heat at night, Night Vision Devices (NVDs) and binoculars, Long-range surveillance cameras (PTZ cameras) that can pan-tilt-zoom, and ground surveillance radars to spot movement.

According to an official statement, the government has deployed **HHTIs, NVDs, UAVs, CCTV/PTZ cameras, and infrared sensors** on borders to amplify the eyes on the ground (Ministry of Home Affairs, 2025). These devices have led to many successful interceptions, such as detecting intruders crossing the fence on camera and directing patrols to intercept them before they reach villages.

Unmanned Aerial Vehicles (UAVs) and Drones

Both the government and security forces have increasingly turned to aerial surveillance via drones. UAVs help monitor border stretches that are hard to access regularly, such as marshes or thick jungles. Drones are also used to investigate alarms triggered by sensors before sending troops. Furthermore, anti-drone technology is being adopted to counter the enemy's use of drones for smuggling. In 2023, BSF and Punjab Police formed special teams to trace drone flight paths and recover payloads, leveraging drone detection radars. These technologies are vital in the face of the drone threat which, as noted earlier, now accounts for a substantial portion (up to 60%) of smuggling attempts in Punjab by 2023 (Firstpost, 2023).

Command and Control Systems

Under modern border management, command and control centres have been established where feeds from various sensors and cameras are collated. The CIBMS architecture envisions a seamless information network connecting border posts, regional headquarters, and national level, ensuring that intelligence and field data are shared rapidly (Ministry of Home Affairs, 2018).

Surveillance Towers and Aerostats

In flat terrain like parts of Punjab or deserts of Rajasthan, elevated surveillance platforms are used. Tall masts with thermal cameras can survey many kilometers of flat land. Similarly, there have been experiments with aerostat balloons (blimp-like balloons tethered to the ground) mounting cameras/radars that can look deep across the border. These

can spot incoming threats (vehicles or human movement) well before they reach the border. Some of these technologies were tried as part of comprehensive border management.

Other Innovations

The government also employs ground-penetrating radars to detect tunnels (especially in Jammu sector where cross-border tunnels have been found), seismic sensors to pick up footsteps, and satellite imagery for periodic border area monitoring. Additionally, at crossing points, biometric systems and X-ray scanners for cargo have been installed to catch smuggled items concealed in trucks or luggage. The Land Ports Authority of India has upgraded several integrated checkpoints with such tech to balance security and trade facilitation.

Intelligence Networks and Information Sharing

Effective intelligence gathering is crucial to pre-empt and prevent insurgent and smuggling activities. India has therefore developed multi-tiered intelligence networks that involve various agencies and cooperation with border communities and foreign partners.

On the domestic front, agencies like the Intelligence Bureau (IB) and Research & Analysis Wing (R&AW) monitor cross-border threats. A significant step to integrate intelligence efforts was the formation of the Multi-Agency Centre (MAC) under IB, which facilitates daily sharing of terrorism-related intelligence among all stakeholder agencies (IB, R&AW, Army, state police, etc.). Similarly, for narcotics, the Narcotics Control Bureau (NCB) hosts a Narco Coordination Centre (NCORD) where intelligence on drug trafficking is pooled from central and state bodies. Since insurgency and smuggling span multiple states and countries, these coordination bodies are vital to get the full picture.

The Army and BSF have their own signals units that listen to militant radio frequencies or satellite phones that might be used by infiltrators. After repeated drone incursions, the BSF in 2022 has started

working with Defence Research & Development Organisation(DRDO) to deploy drone detection radars and frequency scanners to pick up the presence of UAV remote controls – this is a form of technical surveillance to cue the forces.

Human intelligence (HUMINT) remains the bread and butter in border areas. Friendly locals give tips about suspicious new faces or activities like stockpiling of narcotics or arms.

Intelligence sharing with neighbouring countries is another crucial element. With Bangladesh, India has a strong mechanism: there are regular bilateral consultations where intel on insurgent movements or drug shipments is exchanged. Bangladesh’s crackdown on Northeast insurgent leaders in 2009–2010 was in part facilitated by Indian intelligence dossiers handed to them. The two countries also liaise on real-time border crime info; for example, if BGB learns of a gang planning to smuggle arms into India, they pass it on to BSF and vice versa. Myanmar’s cooperation is more episodic due to their internal strife, but Indian intelligence maintains links with certain Myanmar military intelligence officers at the local level. Joint operations against insurgents (like Operations Sunrise) involved sharing locations of camps. Nepal and Bhutan, being friendly, often alert Indian counterparts if they detect any anti-India terror cell on their soil. Nepal has quietly handed over or deported several Indian fugitives (including terrorists or gangsters) based on Indian intel – this is an informal but vital exchange.

At the international level, India is part of global anti-drug and anti-terror intelligence forums. Through the UN Office on Drugs and Crime (UNODC) and the International Narcotics Control Board (INCB), India gets data on global trafficking trends, for example, INCB’s 2023 report highlighted growing drug links in South Asia (UNODC, 2024). India also works with the Financial Action Task Force (FATF) to track terror financing, which includes narco-money. All this intelligence flow helps in taking pre-emptive action domestically.

Cross-Border Cooperation with Neighbours

No country can effectively secure its borders in isolation – cooperation with neighbouring countries is essential, since insurgency and smuggling are transnational problems. India has, over the years, entered into various bilateral and multilateral agreements to improve border security coordination and to address the root causes of cross-border crimes. Key cooperative frameworks include:

Coordinated Border Management and Liaison Mechanisms

With Bangladesh, a notable arrangement is the Coordinated Border Management Plan (CBMP) signed in 2011 (Ministry of Home Affairs, 2025). Under the CBMP, Border Security Force (BSF) and Border Guard Bangladesh (BGB) conduct synchronized patrols in vulnerable areas, share real-time information, and hold Border Coordination Conferences at different command levels. There are also border haats (markets) set up at the Indo-Bangladesh border to provide a legal avenue for local trade, reducing incentive for smuggling. A similar mechanism exists with Pakistan at a lower intensity: BSF and Pakistan Rangers have periodic flag meetings and annual DG-level talks. They discuss ceasefire adherence and occasionally issues of smuggling etc.

With Nepal and Bhutan, India has long-standing open border treaties (with Nepal since 1950) and friendship treaties (with Bhutan since 1949, revised 2007) which include mutual security assurances. Bhutan has been exemplary so far as mutual assistance in preventing cross border illicit activities is concerned. As we all know, Bhutan partnered India in Operation All Clear to help eliminate anti-India terror networks operating from Bhutan’s soil. Noteworthy that Bhutan and India have a bilateral border management security cooperation that involves training of Royal Bhutan Police by Indian experts, and an annual border coordination meeting. This has ensured no revival of militant camps in Bhutan.

With Myanmar, in 2018, an MoU on Defence Co-operation was signed which, inter alia, aimed at cooperation in patrolling the border. Perhaps the most significant cooperation has been direct military collaboration: e.g., Operation Sunrise (2019) where Indian Army and Myanmar Army coordinated strikes on Naga and Manipuri insurgent camps on Myanmar soil. Myanmar handed over certain insurgents like some leaders of Arakan Army (who were hostile to both nations).

Legal Agreements and Treaties

India has entered into various treaties for extradition and legal assistance with neighbours to combat cross-border crimes. For instance, India has extradition treaties with Bangladesh and Bhutan, and an extradition arrangement with Nepal (though not a formal treaty). There are also Mutual Legal Assistance Treaties (MLATs) with many countries (including Bangladesh, and with others via multilateral conventions) to facilitate exchange of evidence and information in criminal investigations that span borders.

With regard to narcotics, India is a signatory to the SAARC Convention on Narcotic Drugs and Psychotropic Substances (1990) and actively participates in the BIMSTEC anti-drug working groups. Bilaterally, India has MoUs with Myanmar to prevent illicit trafficking in narcotic drugs – these involve sharing lists of known traffickers and coordinating border seizures. Similarly, India and Pakistan technically cooperate under the framework of the Paris Pact Initiative and UNODC programs against Afghan-origin drugs, although direct bilateral engagement is minimal.

Cross- Border Joint Operations

In certain scenarios, India has undertaken joint or coordinated actions with neighbours to tackle insurgents or smugglers. India and Bangladesh have conducted coordinated raids along the border, such as simultaneous crackdowns on cross-border cattle smuggling syndicates. In 2020, India and Bangladesh

launched “Operation Satark” (vigilant) – a week-long joint operation where both BSF and BGB increased surveillance and shared information live, resulting in seizures of arms and narcotics. With Sri Lanka, the Indian Navy and Coast Guard work with Sri Lankan Navy to curb drug smuggling in the Indian Ocean, sharing maritime surveillance information and conducting joint patrols (like the INDOSRI joint exercises). This multilateral approach in the maritime domain has paid off – e.g., the Sri Lankan vessel *Shenaya Duwa* carrying a huge narcotics consignment (and arms) was intercepted in 2021 after Indian intel tipped off Sri Lankan authorities (Ministry of Defence, 2022).

Border Infrastructure and Demarcation Agreements

To reduce disputes and ambiguities that smugglers exploit, India has pursued clear demarcation of borders and improvement of border infrastructure in partnership with neighbours. The landmark India–Bangladesh Land Boundary Agreement (2015) resolved enclaves and simplified the border line, which helped close many loopholes and brought residents into formal governance, reducing illegal havens. Border Working Groups (BWG) with Pakistan and Bangladesh address issues like missing border pillars, which if resolved, leave less room for argument or inadvertent crossing. Additionally, India is collaborating on developing Integrated Check Posts (ICPs) at major crossings (for example, Atari-Wagah with Pakistan, Petrapole-Benapole with Bangladesh, Raxaul-Birgunj with Nepal).

Information and Training Exchanges

India offers training to neighbouring countries’ officers in border management, narcotics control, and counter-insurgency at Indian institutions. For example, Indian Police Academy courses often include Bangladeshi and Nepalese officers. These build personal networks that ease later cooperation. Intelligence-sharing “hotlines” exist between counterpart agencies (like BSF-BGB, and at times

between India's narcotics bureau and Sri Lanka's). When both sides of a border share real-time information (say, about a fleeing criminal or a suspicious boat), the chances of interception improves.

Going forward, India is working to strengthen these partnerships. One area is maritime cooperation where India, Sri Lanka, and Maldives revived the Trilateral Maritime Security Cooperation which focuses on curbing smuggling and terrorist use of seas. Another is with Myanmar and Thailand under BIMSTEC frameworks to combat the Golden Triangle drug trade collectively. Additionally, India advocates for regional mechanisms like a SAARC Terrorism Monitoring Desk (proposed earlier) to be activated.

Public Awareness and Civic Participation

Engaging the public and local communities is a vital aspect of preventing insurgency and smuggling. The people living in border areas are not merely bystanders; they can be the first line of defence in reporting suspicious activities and resisting the lure of illicit trade. Thus, Indian authorities have increasingly focused on public awareness programs and encouraging civic participation in border security.

One major initiative is awareness campaigns against drugs and illegal activities. In Punjab and Northeast states, where drug abuse became a social epidemic, governments and NGOs have run intensive campaigns like *Nasha Mukht Bharat* (Addiction-Free India) to educate youth on the dangers of drugs (MoSJE, 2025). Punjab has opened many de-addiction centres and involved local village councils in identifying addicts and getting them help – a community-driven model to break the cycle that smugglers prey on. Similarly, in border villages of Manipur/Mizoram, Assam Rifles conducts outreach to explain how drug trafficking funds insurgent violence that ultimately harms those communities. The idea is to stigmatize collaboration with traffickers as a betrayal of the community's well-being.

Another key effort is community policing and vigilance committees. In many border districts (for

example, along the Indo-Bangladesh border in Assam and West Bengal), the BSF and local authorities have set up village defence parties or border residents' committees. Villagers are given hotline numbers to report any unusual movement (like strangers taking shelter, or large consignments being stored in someone's barn). In some cases, villagers have heroically alerted BSF about armed infiltrators, enabling their capture. To facilitate this, BSF has increased its community engagement. One PIB report highlighted that BSF holds local meetings and has even deployed some women personnel and trained dogs in villages to build rapport and trust (Ministry of Home Affairs, 2025). Winning the confidence of border communities means they are less likely to be swayed or coerced by insurgents and smugglers.

Civic participation in border area development is another facet. The Border Area Development Programme, beyond infrastructure, also supports skill development, sports, and cultural activities in border villages. For example, BSF organizes sports tournaments, medical camps, and civic action programs in Jammu, Rajasthan, and Northeastern border areas. These foster goodwill and make the population more receptive to cooperating with forces. Some border states have even mooted the concept of 'Border Wardens' – recruiting local youth as a auxiliary force or informants for border guarding (somewhat akin to the Village Guards scheme in Nagaland against insurgents, or the SPOs in J&K).

There have been instances where Pakistani or Bangladeshi smugglers marry local women or use financial inducements to create local conduits. To counter this, local NGOs and the government provide alternative livelihoods – e.g., encouraging border community women to form self-help groups rather than depend on smuggling income, or providing scholarships to youth so that they pursue legitimate careers rather than joining insurgent ranks.

Public awareness is also raised through media and social messaging. Doordarshan and All India

Radio run programs in border in regional languages that highlight the heroism of security forces and the havoc caused by drugs and terrorism.

An interesting aspect of civic participation is the ‘See Something, Say Something’ approach at transit hubs. For example, railway and bus stations in Punjab and NE states have posters urging travellers to report unclaimed suspicious parcels (which might contain narcotics or explosives). Similarly, fishermen in coastal areas have been trained post-26/11 to report unknown vessels or arms wrapped in packets floating (some arms/drugs are dropped off at sea with GPS for local contacts to pick up). This kind of vigilance by ordinary citizens expands the surveillance net far beyond what forces alone could achieve.

Conclusion

Securing all of India’s borders against insurgency, arms trafficking, and drug smuggling is an enormous task that demands a multi-pronged and sustained approach. The overarching lesson is that no

single measure is sufficient. Comprehensive border management involves integration of manpower, technology, intelligence, diplomacy, legal power, and community involvement. The results, while encouraging, also remind us to not be complacent. As long as there are conflicts and profit in contraband, adversaries will seek creative ways to undermine our borders – from cyber realms to underwater routes perhaps. Continuous innovation, vigilance, and cooperation are needed. By building on the measures discussed – fortifying border infrastructure, leveraging technology like CIBMS, enhancing forces and intelligence, tightening laws, deepening bilateral ties, and engaging the public – India can significantly mitigate the threats. A secure border not only protects the nation’s sovereignty but also allows its people, especially those in frontier regions, to pursue their livelihoods and aspirations in peace. Thus, preventing insurgency and smuggling is not just a security imperative but a cornerstone for India’s continued unity, prosperity, and stability.

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GEO-POLITICAL IMPLICATIONS OF NORTH-EASTERN BORDER AREAS WITH SPECIAL REFERENCE TO SILIGURI-TENTULIA CORRIDOR

Prepared by CSC, Forum for Awareness of National Security (FANS)

Abstract

The Indo-Bangladesh border region, particularly the Siliguri Corridor—commonly referred to as the “Chicken’s Neck” is of immense strategic and economic importance to India’s national security and regional diplomacy. This narrow land strip, approximately 21 kilometres wide at its narrowest point, is the only physical link connecting mainland India to its eight north-eastern states. Geopolitically sensitive, the corridor is flanked by Nepal to the northwest and Bangladesh to the south and southeast, with the Kingdom of Bhutan and the erstwhile Himalayan kingdom of Sikkim integrated into India in 1975, bordering its northern reaches.

The Siliguri Corridor serves as a critical juncture in eastern South Asia, where the city of Siliguri in West Bengal functions as a vital logistical and transit hub. It facilitates not only domestic connectivity but also regional trade and movement across borders with Bangladesh, Nepal, and Bhutan. The proximity of China through the Chumbi Valley in Tibet further amplifies its strategic vulnerability. Given its crucial role in trade, infrastructure development, and defence preparedness, this corridor has become a focal point in India’s Act East Policy, sub regional cooperation frameworks (such as BBIN and BIMSTEC), and transnational connectivity initiatives. This article explores the evolving geo-

political and geo-economic dynamics of the region with a special focus on the Siliguri–Tentulia corridor and the implications it holds for regional security, diplomacy, and sustainable development.

Introduction

The North-Eastern border regions of India occupy a position of immense geo-political significance, serving as a strategic bridge between mainland India and its eastern frontier. Among these, the Siliguri–Tentulia corridor stands out as a critical zone, often referred to as the “Chicken’s Neck” due to its narrow geographical span and pivotal role in connecting the north-eastern states to the rest of the country. Flanked by Nepal, Bhutan, Bangladesh, and China, this corridor is not only a vital transit point but also a potential flashpoint influenced by competing regional interests, cross-border movements, and emerging economic corridors. With increasing infrastructural developments, shifting regional alliances, and evolving security challenges, the corridor demands focused scholarly and strategic attention. There is a need to explore the broader geopolitical implications of the North-Eastern borderlands, with particular emphasis on the Siliguri–Tentulia axis, evaluating its role in India’s national security, regional diplomacy, and connectivity aspirations within the Bay of Bengal and Indo-Pacific frameworks.

Connectivity and Logistics: India's Strategic Perspective

India's north-eastern region is a landlocked area surrounded by five international borders, namely China, Bhutan, Nepal, Bangladesh, and Myanmar. The Siliguri Corridor, a narrow stretch of land situated between Nepal and Bangladesh, remains the only terrestrial route that connects the Indian mainland to its eight north-eastern states. This corridor holds immense importance for India's national security, economic development, and regional diplomacy. Given its proximity to multiple international boundaries and its vulnerability in the event of geopolitical tensions, particularly with China, ensuring resilient and diversified connectivity options has become an imperative for India.

Often referred to as the Chicken's Neck due to its narrow width of only about approximately 21 km at its thinnest point, the Siliguri Corridor serves as a vital passage for both civilian and military logistics. It is not just a transportation route but a strategic lifeline for more than forty five million citizens residing in the north-eastern states. From India's strategic perspective, any disruption to this corridor during a crisis could isolate the region from the rest of the country, which underscores the necessity for creating alternative connectivity routes.

To address these challenges, India has initiated multiple infrastructure development projects aimed at enhancing accessibility, security, and economic integration of the north-eastern region. The construction of strategic border roads under the India China Border Roads initiative and the development of Advance Landing Grounds in Arunachal Pradesh are aimed at ensuring rapid military deployment and improved border access. Simultaneously, under the broader vision of the Act East Policy, India is focusing on transforming the north-eastern region into a gateway for regional trade and connectivity with Southeast Asia.

The Indian Railways has been playing a crucial role in strengthening this connectivity. A broad gauge double-line railway runs through the Siliguri Corridor and electrification work is currently underway to improve operational efficiency.

Additionally, an older meter gauge line connecting Siliguri Junction to Islampur in North Dinajpur district has been converted to broad gauge, significantly improving access to bordering towns such as Bagdogra, Adhikari, Galgalia, Thakurganj, Naxalbari, and Taiabpur. Some of these towns lie close to the India Nepal border, making this route strategically valuable. National Highway 10, an essential roadway, connects Siliguri to Guwahati in Assam and is being expanded and reinforced under national infrastructure programmes including Bharatmala and the Special Accelerated Road Development Programme for the Northeast.

In an effort to reduce dependence on the Siliguri Corridor and facilitate smoother movement of goods and people, India has proposed the development of the Tentulia Corridor through Bangladesh. This proposed corridor would stretch approximately four to six kilometers through Tentulia Upazila and Debangarh Union in Bangladesh, linking Chopra in North Dinajpur district with the towns of Jalpaiguri and Mainaguri in Jalpaiguri district of West Bengal. The corridor, once operational, would reduce the travel distance between these points by about eighty four kilometres approximately and significantly ease access to the north-eastern states. The matter should be taken up proactively at diplomatic level with the Government of Bangladesh, recognizing the mutual economic and logistical benefits that such a route would offer.

The Tentulia Corridor aligns with India's broader regional goals under initiatives like the Bangladesh Bhutan India Nepal framework and the Bay of Bengal Initiative for Multi Sectorial Technical and Economic Cooperation. It represents a strategic diplomatic move to foster sub regional connectivity while ensuring that India's north-eastern region is never logistically isolated. Furthermore, the operationalization of this corridor would facilitate faster troop movement in emergencies, better access for disaster response, and improved trade routes.

India is also exploring maritime connectivity as an alternative to the land corridor. The operationalization of the Chattogram and Mongla ports in Bangladesh for Indian cargo, under the Protocol on Inland Water Transit and Trade and the

Coastal Shipping Agreement, has allowed direct access to Assam, Tripura, and Meghalaya through the riverine network. These routes reduce both transport costs and transit time. In addition, India is developing the Sittwe Port in Myanmar under the Kaladan Multi Modal Transit Transport Project, which will link the port to Mizoram by river and road. Maritime connectivity is also being strengthened through cooperation with Thailand, Vietnam, and other nations in the Indo Pacific region, creating multiple access routes that bypass the narrow land corridor entirely.

From India’s perspective, these investments in connectivity and logistics are not merely about transportation. They are a comprehensive assertion of sovereignty, regional leadership, and national resilience. The Siliguri Corridor, while still vital, must be supported by a network of alternate routes, both land and sea based. The focus is not only on securing physical territory but also on ensuring uninterrupted economic development, integration of border communities, and preparedness in the face of geopolitical uncertainties. As such, the connectivity strategy in and around the Siliguri - Tentulia corridors represents the convergence of infrastructure, diplomacy, and national security.

Security of the Corridor Centric Region: India’s Strategic Concerns and Considerations

The Siliguri Corridor, India’s narrow land bridge to its northeastern region, remains one of the most strategically sensitive territories from both a military and national security perspective. Recognizing its vulnerability, India has developed a multi-layered security architecture across this corridor and its adjacent border regions. Various central and state security forces are deployed to guard the international boundaries that converge in this area.

The Indian Army and Indo Tibetan Border Police (ITBP) are tasked with securing the Line of Actual Control (LAC) with China, especially in the Sikkim and Arunachal Pradesh sectors. Along the borders with Nepal and Bhutan, the Sashastra Seema Bal (SSB) maintains vigilance, while the Border Security Force (BSF) is deployed along the Indo Bangladesh border. Additional internal security is ensured by the Assam Rifles, paramilitary units, and

the state police forces of West Bengal and the northeastern states. Siliguri, being a critical logistics hub and military transit point, also hosts a significant presence of army formations under the Eastern Command headquartered in Kolkata.

The existential vulnerability of the corridor was dramatically highlighted during the 1962 Sino Indian War, when the Chinese Army advanced across Arunachal Pradesh and threatened Indian positions. Indian defense planners continue to consider the possibility of a renewed Chinese incursion. The corridor’s narrow width, just around 21 kilometres at its narrowest, means that a Chinese military thrust of barely 130 kilometres from the Chumbi Valley (between Sikkim and Bhutan) could potentially sever all of Northeast India, home to more than 50 million Indian citizens, from the mainland. This threat was again brought into sharp focus during the 2017 Doklam standoff, when Chinese troops attempted to construct a road southward into territory claimed by Bhutan, close to India’s strategic tri-junction at Doka La. India’s firm military response underscored the corridor’s importance in strategic doctrines such as “No Compromise on Siliguri.”

While the creation of Bangladesh in 1971 substantially reduced the threat of hostile military action from the east, internal security threats remain a concern. Insurgency movements in Assam, Nagaland, and Manipur, although much reduced in intensity, continue to pose risks. Smuggling, illegal migration, and transnational crime networks operating across the porous Indo Bangladesh and Indo Nepal borders further complicate the region’s security matrix.

From a long-term strategic viewpoint, India must explore territorial and diplomatic solutions to enhance redundancy and resilience. One such proposal involves the inclusion of Tentulia Upazila of Panchagarh district, Bangladesh, into Indian territory through a calibrated land exchange. Tentulia is geographically surrounded by Indian territory on three sides—north, west, and south—forming a near enclave and offering a potential alternative alignment that could drastically reduce the corridor’s vulnerability. With an area of 189.12 square kilometers and a population of over 1.2 lakh, Tentulia could serve

as a vital transit link to Jalpaiguri and Mainaguri through Chopra in North Dinajpur, reducing travel distances and opening up multiple road and rail options. The successful execution of the 2015 India and Bangladesh Land Boundary Agreement (LBA), which peacefully resolved the long-standing issue of 162 enclaves, sets a precedent for bilateral negotiation and exchange of territory.

In the current geopolitical environment, marked by China's aggressive posture across the Himalayas and maritime Indo Pacific, the security of the Siliguri Corridor is no longer just a military imperative. It is a civilizational lifeline. Any disruption in this corridor would not only paralyze civilian life and logistics but also affect India's economic and military reach to the East, including strategic installations in Arunachal Pradesh, the Northeast's hydropower grid, and India's Look East diplomatic policy.

India must therefore adopt a proactive doctrine, integrating diplomacy with Bangladesh, robust defense infrastructure, civilian and military mobility corridors, and multi modal logistics to secure this corridor from all conceivable threats—conventional, non-conventional, or hybrid. The strategic and economic lifeblood of Northeast India, and indeed India's national security posture in Eastern South Asia, depends on it.

Conclusion: Strategic Imperatives and the Road Ahead

Given the complex geopolitical, security, and logistical challenges associated with the Siliguri Corridor, India must approach this vital region with strategic depth and long-term planning. The stability and security of this corridor are not merely issues of regional infrastructure ,they are central to India's national unity, defence posture, and its outreach to Southeast Asia.

In this context, the following thought-provoking questions must be deliberated with urgency and vision:

(a) *How vulnerable is the Siliguri Corridor in today's evolving geopolitical landscape, particularly in the face of increased Chinese assertiveness and the emergence of new hybrid security threats? What are the implications of a potential blockade or disruption for India's northeastern region?*

(b) *What strategic, economic, and logistical benefits would India gain if Bangladesh agrees to a territorial realignment that includes the Tentulia Upazila into Indian territory through a fair and peaceful land exchange? Can such a move create alternate access routes that reduce the pressure on the existing corridor while enhancing regional cooperation?*

(c) *Given the fluctuating trajectory of India's bilateral relations with China marked by alternating phases of dialogue and confrontation ,can South Asia ever achieve genuine stability without securing key transit regions like the Siliguri Corridor and establishing a durable balance of power in the eastern Himalayas?*

These are not merely academic or theoretical questions; they strike at the heart of India's strategic future. The need of the hour is a proactive and visionary approach that combines strong defence preparedness with innovative diplomacy, especially with close neighbours like Bangladesh. Revisiting historical boundaries through cooperative frameworks, investing in robust infrastructure, and diversifying access to the Northeast are all essential components of this strategy.

Ultimately, safeguarding the Siliguri Corridor must be seen not only as a matter of territorial control but as a critical investment in India's long-term sovereignty, regional influence, and national resilience. □

Forum for Awareness of National Security (FANS) is a social organisation for socio-economic, geo-political strategy(ies), and contemporary discourses. The RSJM focuses on internal and external security, international socio-economic and cultural relations, defense, military strategy, global peace and prosperity, terrorism, Maoism, cyber security, artificial intelligence, and psychological warfare. In addition, it aims to bring the "Himalaya Hind Mahasagar Rashtra Samuh", a vast human and cultural territory, into a new economic discourse. It will prove to be a model for global peace and prosperity.

SECURING THE PERIPHERY: A CRITICAL APPRAISAL OF INDIA'S BORDER MANAGEMENT POLICIES WITH EMPHASIS ON VIBRANT VILLAGE PROGRAMME



– Dr Rupa Hazarika &
Sri Bishaldeep Kakati

Some 10,000 years ago, the concept of borders as existed amongst human beings was natural borders like mountains, water bodies, forests etc that separated one area from another in a distinctive way. With the advent of agriculture and the rise of modern civilization, humans began to develop the idea of competing for land in order to control its resources, primarily to ensure food security for their communities. This shift marked the emergence of the concept of borders. Territorial security became closely tied to group identity, as people began to define themselves in relation to others, belonging to one group while distinguishing themselves from those who were unfamiliar or perceived as outsiders. *Finnish Professor of Geography, Anssi Paasi, opined in his paper 'Boundaries as Social Processes: Territoriality in the World of Flows':* 'National identity is one of many, often co-existing and overlapping identities (religions, tribal, linguistic, class, gender, etc.)...' and that, 'Boundaries are both symbols and institutions that simultaneously produce distinctions between social groups and are produced by them.'

Post the second world war, when the entire globe got divided into two halves- The Allied and the Axis, the UN stepped in to restore peace and security amongst the countries at large. In this regard, it is

important to understand that even though the concept of inter-state and international relations and communications was broadly accepted in 1919, or after the end of the first World War, its implementation came into the scheme of things after almost two decades, right after the Allied power defeated Germany and Italy in 1945

With the progress of scientific research and strategic analysis countries across the globe soon started realising the importance of having proper borders and demarcation as it not only helps in maintaining international relationship between establishment but it also provides a clear idea about the total land under a country's control. Further secured borders also meant a country preventing another country either from invasion or attachment. In fact, the UN in its amendments and principles mandates countries to maintain their borders and take necessary steps to ensure that every area is protected.

Borders are basically divided into two types: Natural Borders and Artificial Borders. Natural Borders as the name itself suggests is the natural division in the form of mountains, oceans, seas etc that exists between two countries that separate them. For instance, Niagara Falls is considered as a natural

border between the US and Canada. On the other artificial border areas usually present on land and several security systems are added over here to ensure that both nations are well protected.

In the context of India, the country shares international boundaries with many Asian Countries possessing 14,880 kilometres of land borders that span 92 districts across 17 states. In terms of coastal line, the country has an extension of 5,422 kilometres touching the boundaries of 12 states and Union Territories. The country has an additional 2,094 kilometres of coastline. With only states like Madhya Pradesh, Chhattisgarh, Jharkhand, Delhi and Haryana, almost all other states of the country share international borders or coastline, as such it remains pivotal for the country to formulate proper policies for effective border management. The main Indian borders are: India-Bangladesh border, Indo-China border, India-Pakistan border, India-Myanmar border and India-Bhutan border.

India since time immemorial had grappled many a time with issues pertaining to sharing of its borders with its neighbouring countries. Be it with Pakistan, Bangladesh or China the country's border areas have always remained very very sensitive. It is because of the borders and questions on territorial jurisdiction the country has always been involved in numerous wars either with arms and ammunition, diplomatically or with use of AI as well. As such, it has been always necessary for the country to prominently focus on protecting the borders and that is where the question of effective border management comes into limelight or scheme of discussion.

Effective border management is a multidimensional approach which basically focuses on strengthening national security, free flow of people and trade and stopping illegal activities like smuggling, human trafficking etc. It encompasses within itself vivid essential factors like securing the borders, managing entry and exit, intelligence and

sharing of vital information, development of infrastructure and integration of technology, international cooperation and most importantly preventing illegal activities.

Further, to understand effective border management in respect of India in a better manner, one has to first take into consideration the possible problems faced by the country while sharing international borders. India's predicament while sharing the international borders with different countries are mainly terrorism, hostility, issues relating to remote and inaccessible areas along with cross border terrorism, illegal smuggling of drugs and ammunition, immigration etc.

The issue of terrorism has bothered India since long and the problem of terrorists entering via the border areas has disturbed the country a lot. Be it the Indo-Pak border or the Indo-China border, the country had to always deal with terrorism at the border locations. The problem of hostility has also been a major issue for the nation. The trouble of hostility occurs when the borders are not managed and maintained by both the countries in question which can even escalate to wars of such magnitude that military forces need to engage in order to suppress the conditions. Further, most international border areas are located in far-off places for which often it becomes difficult for the country to provide adequate military support or keep proper surveillance in remote and inaccessible areas. Along with it, the illicit flow of arms and ammunition and the illegal trade of drugs especially in the Indo Myanmar Border have also posed challenges to India's national security. Not to forget that the country has also been troubled by the issue of illegal immigration especially from the Indo Bangladesh border for which the nation has still not been able to come up with a proper policy to resolve the same. As such from this it is evident that the country has specific issues across different international borders. Therefore to ensure effective

border management, India has over the years taken many important schemes or policies so as to ensure the robust border management in the country and in the process reduce the plight of the citizens and the nation as a whole.

The key schemes undertaken by India for effective border management include Border Infrastructure and Management (BIM) scheme, Comprehensive Integrated Border Management System (CIBMS), Border Area Development Programme (BADP), and the Vibrant Villages Programme. It is essential to understand each of the schemes properly to know how the nation has evolved in terms of effective border management.

The Border Infrastructure and Management Scheme (BIM) is a scheme undertaken by the Central Government of India that aims at enhancing infrastructure development at India's international boundaries. It is implemented by Border Management-I Division under Ministry of Home Affairs (MHA). The primary focus of this scheme is to enhance security along the borders of the country by construction of border fence, border roads, border flood lights, border out posts, helipads etc. Under this scheme, technology is also used to enhance security especially in those places, where it is difficult to reach and physical fencing sometimes is not possible across the India-Pakistan, India-Bangladesh, India-China, India-Nepal, India-Bhutan and India-Myanmar borders.. With the help of this scheme, the country is expected to properly manage, monitor and guard the borders. The funds allocated under the BIM scheme for development in the Indo Bangladesh border was Rs. 722.25 crores for 2014-15, Rs. 672.93 crores for 2015-16, Rs 700.70 crores for 2016-17, Rs. 1152.80 crores for 2017-18, Rs. 1019.55 crores for 2018-19, Rs. 996.53 crores for 2019-20, Rs. 671.76 crores (revised estimate) for 2020-21. For development in the Indo Bhutan border funds allocated was Rs. 10.34 crores for 2014-15, Rs. 33.82 crores for 2015-16, Rs

20.76 crores for 2016-17, Rs. 20.02 crores for 2017-18, Rs. 11.34 crores for 2018-19, Rs. 10.31 crores for 2019-20, Rs. 9.88 crores (revised estimate) for 2020-21. In case of Indo Myanmar Border, for the purpose of border development, funds allocated was Rs. 18.31 crores for 2014-15, Rs. 9.80 crores for 2015-16, Rs. 23 crores for 2016-17, Rs. 5 crores for 2017-18, Rs. 6.27 crores for 2018-19, Rs. 20 crores for 2019-20, Rs. 20.38 crores (revised estimate) for 2020-21. Further in respect of Indo-China, fund allocated for the purpose of securing borders was Rs. 182.31 crores for 2014-15, Rs. 425.25 crores for 2015-16, Rs. 229.94 crores for 2016-17, Rs. 211.38 crores for 2017-18, Rs. 270.13 crores for 2018-19, Rs. 351.89 crores for 2019-20, Rs. 237.93 crores (revised estimate) for 2020-21. In fact, the approved cost of the scheme during the period 2021-22 to 2025-26 is Rs. 13,020 crore

Another scheme undertaken by the government of India, for effective border management is the Comprehensive Integrated Border Management System (CIBMS). The CIBMS uses advanced technology to enhance surveillance and security framework to enhance effectiveness of border management. It uses modernized technology like infrared sensors, thermal imaging devices, motion detectors and unarmed vehicles to create a virtual fence that enhances the prospects of security. This, thereby helps the country to monitor, manage and neutralize threats coming from under countries in real time. Currently, the CIBMS is implemented across India's border with Pakistan and Bangladesh. Pilot projects under this scheme have already been implemented in specific areas covering the Indo-Pak border and the India-Bangladesh border. The system has been now slowly extended to critical border stretches as well as to monitor the issue of high infiltration. Furthermore the CIBMS also aims to address the issue of smuggling of arms and ammunition and narcotics with the key focus on reducing human error and generating swift and correct

information. In the longer run, the government of India aims to expand CIBMs to tough terrains along the Indo-China border and also in the coastal areas to reduce the risk of threat via sea routes. Mr G Kishan Reddy, the then Minister of State for Home Affairs, Govt of India, called for integrating new technology and infrastructure to ensure a safe and smart border management system. While speaking at 'Smart Border Management – 2019' organized by FICCI, Mr Reddy had emphasized on the fact that the government has, for the first time, initiated a Comprehensive Integrated Border Management System (CIBMS) to cover areas where physical fencing is not feasible. "The recorded date and information can be shared with all intelligence and security forces," said Mr Reddy. "CIBMS includes integration of manpower, sensors, networks, intelligence and command and control solutions to improve situational awareness at different levels of hierarchy to facilitate prompt and informed decisions and a quick response to emerging situations," added Mr Reddy.

Under CIBMS, recognizing the need for advanced security measures to prevent intrusions from China and Pakistan, the Ministry of Home Affairs

(MHA) is establishing a dedicated Space and Technology Cell. This initiative aims to enhance border management and support operational efficiency. In collaboration with ISRO and DRDO, the ministry has identified specific areas where space technology can be utilized to monitor and curb suspicious activities along India's extensive borders—spanning 15,106.7 km of land and 7,516.6 km of coastline shared with seven neighboring countries. To strengthen surveillance capabilities, cutting-edge equipment such as Hand Held Thermal Imagers (HHTIs), Long Range Reconnaissance and Observation Systems (LORROS), and night vision goggles/devices are also being deployed.

The Border Security Force (BSF) has also implemented a 3D-based Geographic Information System (GIS) to enhance surveillance and operational planning. This system captures, stores and displays geospatial data related to specific locations on the Earth's surface. Satellite imagery provided by ISRO and the National Technical Research Organisation (NTRO) is integrated into the system, allowing both BSF headquarters and field units to access real-time visual data. Additionally, the use of drones, Unmanned

	Main Threat	What needs to be done?	What has been done?
Pakistan	War, insurgency, smuggling	C.I.B.M.S monitoring with a well-trained and larger BOLD-QIT more than one route connecting far flung areas, especially Jammu and Kashmir	C.I.B.M.S in some stretches, 3rd route to Leh to be opened by 2023.
China	War	Armored vehicle, capable infrastructure, high altitude airfields.	Daulet Beg Oldie airfield running, some bridges and tunnels armored vehicle capable.
Bangladesh	Smuggling, human trafficking	C.I.B.M.S monitoring with BOLD-QIT throughout including riverine stretches	Brahmaputra river covered, rivulets still remaining.
Nepal	Smuggling, human trafficking	C.I.B.M.S. monitoring with BOLD-QIT	Planning stage.
Bhutan	Smuggling	Armored vehicle capable road connectivity till Bhutan-China border.	B.R.O working on it.
Myanmar	Smuggling, insurgency, trafficking.	C.I.B.M.S monitoring with bigger and more efficient BOLD-QIT to tackle insurgency, road for swift troop movements.	Some roads are present. C.I.B.M.S. planning stage.

Table: A Gist of Border Infrastructure Development (Source: PIB)

Aerial Vehicles (UAVs), and aerostat balloons equipped with day and night vision technology is being explored to further strengthen monitoring capabilities.

The Border Area Development Programme (BADP) The Border Area Development Programme launched during the Seventh Five Year Plan is another important scheme undertaken by the Government of India for effective border management. The scheme's two main objectives are: to promote balanced development in sensitive border regions of the Western sector by providing adequate infrastructure, and to foster a sense of security among the local population.

In the 2020–21 fiscal year, the Border Area Development Programme (BADP) was allocated INR 784 crores, which was distributed among border States and Union Territories based on factors such as the length of the international border and population. The funds can be used for various development activities within 10 km of the border, including the construction of roads, bridges, culverts, primary schools, healthcare facilities, irrigation systems, playfields, mini-stadiums and indoor courts for sports like basketball, badminton and table tennis.

The Border Area Development Programme (BADP) has played a vital role in fostering an environment conducive to normal economic activity in border regions, with the potential to significantly enhance the quality of life for residents. It has been especially crucial in areas prone to cross-border infiltration and insurgency, such as Jammu & Kashmir and the North-Eastern states. By developing essential infrastructure, the programme helps integrate these remote regions with the hinterland, fostering a sense of national care and encouraging residents to remain in their communities—thereby contributing to safer, more secure borders. BADP has not only driven socio-economic development but also instilled a sense of confidence and belonging among the border population.

Moreover, The Vibrant Village Programme (VVP), launched by the Central Government in the

Union Budget of 2022–23 and set to continue until 2025–26, is a strategic initiative aimed at transforming the socio-economic landscape of India's northern border villages. The programme addresses a long-standing issue: the lack of adequate facilities in remote border areas, which has historically led to migration and depopulation. Such migration not only hampers regional development but also poses serious national security concerns, as uninhabited border zones become vulnerable to external threats. This concern was echoed by Deepak Pabing, the nodal officer of East Kameng in Arunachal Pradesh, who noted that "several uninhabited villages after migration can be easily captured by the enemy." To counter this, the VVP focuses on improving living conditions in identified villages by enhancing infrastructure and delivering essential services in education, healthcare, and employment. The broader vision of the programme is to shift the perception of these villages from being the "last villages" of the country to becoming its "first villages." The scheme operates on a 90:10 funding ratio, with 90% contributed by the Centre and 10% by the States. In its first phase, the programme covered 19 districts and 46 blocks, adopting 662 villages, including 455 in Arunachal Pradesh, 75 in Himachal Pradesh, 51 in Uttarakhand, 46 in Sikkim, and 35 in Ladakh. A second phase aims to extend coverage to the entire border. Significant progress has already been made in infrastructure development. The Border Roads Organisation (BRO) has completed 8,500 km of roads and constructed over 400 permanent bridges. Additionally, the government initiated the Kilo Volt Leh electricity line, linking Ladakh to the National Electricity Grid. High-speed internet has been extended to more than 1,500 villages under the BharatNet Broadband Project, with over 7,000 villages connected in the past four years alone. To promote tourism and generate employment, the programme emphasizes ecotourism and adventure tourism. Tourist footfall in Ladakh, Sikkim, and Arunachal Pradesh rose by 30% between 2020 and 2023, stimulating local economies. Moreover, 901 road sector projects have been approved under the scheme. So far, Rs. 312 crore has been spent, and 136

villages in Arunachal Pradesh, Sikkim and Uttarakhand have been connected. An additional 113 roads and eight long-span bridges (LSBs) are nearing completion.

The programme's implementation has been hands-on, with 17 central ministries, 92 IAS officers, and 256 state officers spending 48 hours in the adopted villages. Their efforts have resulted in the expansion of 4G connectivity, road access and livelihood schemes. As a result, 127 villages have been electrified and 474 received electricity for the first time.

These efforts are beginning to yield tangible results. Border villages now display improved connectivity, accessibility, employment prospects and popularity. In Arunachal Pradesh alone, reports indicate that 30% of previously migrated residents have returned to their native villages. Enhanced tourism opportunities such as eco-resorts, adventure activities and cultural sites have further boosted local income and employment. An additional benefit of the VVP has been the strengthened relationship between locals and security forces. Farmers now supply fresh,

locally grown produce to Army and ITBP personnel, providing affordable food for the forces and a steady livelihood for villagers. Moreover, medical facilities at Army and ITBP installations have been made accessible to residents, significantly improving healthcare access in remote areas. In summary, the Vibrant Village Programme is not just a development initiative—it is a strategic effort to secure India's borders by revitalizing communities, reversing migration and building a sustainable future for the people living at the nation's frontiers.

Moreover, In the Union Budget presented of 2025, the Ministry of Finance announced a 49% increase in the allocation for border infrastructure and management, raising the budget from 13,756.51 crore in the current financial year to 15,597.25 crore for the upcoming fiscal year beginning April 1. Thus with the focus on properly implementing the schemes for effective border management alongside increasing the budget for improving the border infrastructure, the Government seems to be completely focussed on strengthening the country's national security apparatus. □

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VIBRANT BORDER VILLAGE PROGRAMME FOR EFFECTIVE BORDER MANAGEMENT



– Dr. Sadananda Payeng

The main aim of BADP is to meet the special development needs and wellbeing of the people living in remote and inaccessible areas situated near the international border and to saturate the border areas with the entire essential infrastructure through coverage of central/ state/BADP/ local schemes and participatory approach. (Border area development programme, Ministry of Home Affairs, Department of border Management, Govt of India, 2015). The programme is funded by central Government and cover all the villages which are located within the 0-10 KM of the international border. After coverage of villages in 10 KM radius, then another 20 KM will be covered under it and further the coverage will be extended to 30 KM. Border area development programme is a holistic and integrated approach to develop the socio-economic condition of the people in border areas in terms of connectivity, livelihood, cultural development, employment generation, economic development and women empowerment etc. People in the border areas can help the security personnel deployed in such areas in meeting their targets. Considering the importance of the people in border areas for national security, Government of India has taken some initiatives for the development of border areas. Border area development programme is a centrally sponsored scheme to address the unique needs of India's border regions. Till now the programme has covered infrastructure development for border security forces, socio-economic

development, education, health, agriculture, Animal husbandry and other related sectors. Through Panchayati Raj system, the programme emphasizes a participatory and decentralized approach to involve the local people to participate in development of their own locality. But the development of border areas as compared to cities and town is not up to the mark and sectors like Animal Husbandry has potential to contribute in the socio-economic development of the people in border areas. Livestock and poultry sector can play a significant role in employment generation, sustainable development, economic, women empowerment etc. Income generated from livestock and poultry farming can be utilized during uncertainties like natural calamities, health problems, educational expenses for children and for socio-religious purposes. Livestock sector contributes 5.50 Per cent to the national economy and 30.23% to agricultural GVA and 6.34% to workforce for animal production. (Annual report, 2023-24, Department of Animal Husbandry and Dairying Ministry of Fisheries, Government of India). These data shows that livestock and poultry sector have tremendous scope for the betterment of rural people.

Effective strategies for border area development:

1. Infrastructure Development:

Infrastructure is one of the limiting factors in border area as the border areas are far from Headquarters of district administration. Infrastructure like Community

Training Centers enabled with IT and small demonstration units (pig breeding unit, poultry farm, cattle farm, goat farm etc.) for vocational training in different aspects of agriculture and livestock sectors can be created to cater the needs for developing requisite manpower. Veterinary First Aid service centers can be taken up for providing treatment of livestock in border areas. Formation of livestock and poultry cooperatives and linking with existing cooperative in district and state level can help the farmers in getting quality feed, treatment facilities through cooperatives and marketing of their product. Price of feed and treatment cost will be reduced in such situations as the feed and treatment facilities will be aided by cooperative. Road connectivity along with electricity supply, access to telecom and television will play a crucial factor for improvement of living condition and also will help to access veterinary services and marketing of their produces. Moreover, connectivity helps in transportation of feed, livestock, poultry, and other necessary items of farm to such remote areas. For commercial livestock and poultry farming proper electricity supply is important to perform different farming activities. Access to mass media helps in gathering knowledge about scientific farming, recent technological advancement in this sector, knowledge about value added product, online marketing and demand and supply. Basic amenities like adequate housing, clean drinking water sanitation practices are important for improving living standards and it will ultimately contribute in farming sectors. Establishing IT-enabled common service centers can provide access to information, government services, and online resources for residents. Keeping in mind that the infrastructure development should not only cater to the current needs, but also should have scope for further expansion.

2. Livelihood Promotion: Road map should be prepared to use the existing resources in fullest potential based on the availability. After identification of their existing livelihood pattern and traditional practices different farming activities can be implemented in consultation with the villagers. Based

on one village one product concept, model egg village, pig village, goat village and poultry village can be introduced based on their interest and existing livelihood pattern. Skill development and entrepreneurship training in this livestock sector will help in development of model village for creating sustainable livelihood. Moreover, such model villages can also act as tourism potential and it will motivate the farmers of another region to take up such types of farming. Creation of cooperative model through Self Help Group (SHG), Joint liability group, Farmer Producer organization (FPO), FPC, Farmers club etc. for socioeconomic upliftment through different livestock activities and with help of these cooperatives and organizations, farmers can avail financial aid for livelihood.

3. Cultural Vibrancy: Culture is one of the important aspects which can unite the people of border areas which will form the foundation for sense of national identity and patriotic sentiment. When an individual feel patriotic they tend to take pride in their nation's cultural achievement and heritage encouraging the preservation and promotion of cultural practices. Organizing livestock and poultry fairs and festivals related to livestock can promote cultural exchange and community participation.

4. Convergence with line Departments: Convergence promotes a holistic approach to livestock development by integrating with different departments like agriculture and rural development department etc. Convergence of all centrally sponsored schemes like National Livestock Mission (NLM), Rastriya Gokul Mission (RGM), RKVY, NRLM etc. with border area development programme will be helpful for filling gaps in infrastructure and providing livelihood opportunities. It will include aligning resources from different departments like Animal husbandry, agriculture and rural development with key areas of focus on breed improvement, feed and fodder development, disease control and market access.

5. Community Participation: Community participation in remote areas is crucial for creating

sustainable and impactful initiatives. It will actively involve local people in planning, implementation, and evaluation of different developmental schemes. Engaging community-based organization viz, SHGs, NGOs will help to identify and address specific needs within the community. This approach will aim to empower communities, foster ownership and ensure that development efforts are relevant, sustainable and responsive to local needs. While formation or giving training to rural organization, community sentiment should be considered for better and effective implementation of development programmes. Culture, tradition and religious values of the people need to be considered for effectiveness of livestock and poultry project in border villages.

6. ICT application as a tool for Livestock management in remote areas: Information and communication technology (ICTs) can play a critical role in society's growth. ICTs can be used for retaining and spreading information, which can increase people's prospects and serve as a significant source of empowerment, especially for the socially and economically vulnerable section of people in border areas. ICTs can help the people in border areas in collection of useful knowledge about livestock farming practices, animal health care and treatment, animal insurance, consumer support, and livestock finance and management. ICT adoption in livestock production has the potential to contribute to broader area development goals, poverty reduction, food security, and improvement of rural livelihoods. By empowering farmers with access to real time information, decision support tools, and market opportunities, ICT can enhance resilience, reduce vulnerabilities, and improve the livelihoods of smallholder farmers and rural communities in border areas.

7. Employment generation and women empowerment: Livestock and poultry sector can create self-employment opportunities among the educated youth, small and marginal farmer and

developed entrepreneur. With the increase in demand of livestock products, now a days educated youth are inclined towards livestock farming and some of them has adopted scientific livestock farming as their main source of income. Entrepreneurship development through livestock and poultry sector can contribute in employment generation leading to the economic development of our country which is not exceptional in border areas too. Moreover, in India it is also evident that women play major role in livestock and poultry farming. As women are involved in this sector traditionally since time immemorial, so by giving proper training and guidance women farmer can be encouraged to take up livestock farming in business mode for development of their economic condition, health status through proper nutrition, education status which will empower the women to take part in decision making process.

CONCLUSION: Growth and development of people residing in border villages is important in view of border security and if the villagers are equipped with the necessary facilities for overall development, they will become more patriotic. Livestock and poultry sector can contribute in overall socio-economic development of the people residing in border village like many other sectors. Training and awareness among the farmers regarding scientific livestock farming will further motivate the farmers to take up improved livestock and poultry breeds, scientific managerial practices etc. leading to the development and growth of border villages. Border village development programme can be linked with Department of Animal Husbandry and Dairying, Department of Agriculture, Rural Development, Fishery etc. for effective utilization of available resources. By implementing the above extension strategies, the vibrant border village development programme can effectively improve the living conditions of the people and address the various challenges in livestock sector of border areas, thereby contributing to the overall development and security of the region. □

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PUTTING AN END TO ILLEGAL MIGRATION: SECURING INDIA'S BORDERS THROUGH STRONGER ENFORCEMENT AND POLICY REFORMS



– Sri N. C. Bipindra

Illegal migration has long posed significant challenges to India's internal security, economic stability and demographic balance. With its vast and porous borders, especially with nations like Bangladesh, Nepal and Myanmar, India remains vulnerable to a constant influx of undocumented migrants. While humanitarian and geopolitical factors contribute to this influx, the consequences of unchecked migration are far-reaching, affecting national security, employment opportunities, social harmony and access to public services.

This article explores the root causes of illegal migration to India, the role of judicial and governmental mechanisms in addressing the issue and the potential solutions to safeguard the nation's sovereignty and socio-economic fabric.

Understanding the Root Causes of Illegal Migration to India

Illegal migration to India primarily stems from a confluence of economic, political, environmental and social factors in neighboring countries. Some of the key reasons include:

Economic Disparities: A significant portion of illegal migrants from countries like Bangladesh and Nepal enter India seeking better employment opportunities, wages, and living conditions. India, being an economic powerhouse in the region, acts as a magnet for low-skilled labor from impoverished neighbouring regions.

Political and Ethnic Persecution: Ethnic minorities fleeing persecution in countries like Myanmar (e.g., the Rohingyas), Afghanistan and Pakistan often seek refuge in India. Despite India's non-signatory status to the 1951 Refugee Convention, it has witnessed an influx of asylum seekers under humanitarian grounds.

Environmental Disasters: Recurring floods, river erosion and climate-induced displacement, particularly in Bangladesh, force thousands to cross over to India in search of habitable land and basic amenities.

Open Border Policies and Historical Ties: The Indo-Nepal Treaty of Peace and Friendship allows free movement across the Indo-Nepal border. Similarly, cultural and familial ties across the borders often result in undocumented migration, with people choosing to overstay or avoid formal documentation processes.

Consequences of Unchecked Illegal Migration

National Security Threats: Illegal migration can serve as a cover for infiltration by anti-national elements, including terrorists and criminals. There have been multiple instances where illegal migrants were found to be involved in cross-border smuggling, espionage or terror plots.

Economic Strain: The presence of undocumented migrants burdens India's public

infrastructure and welfare schemes. Illegal migrants often access subsidised resources like healthcare, housing and education, diverting resources meant for Indian citizens.

Social and Communal Tensions: Illegal migrants, particularly when concentrated in specific regions, alter the local demographic balance. This often leads to socio-political unrest and communal tensions, as seen in parts of Assam and West Bengal.

Electoral Manipulation: There have been concerns that illegal migrants are enrolled in voter lists, thereby influencing election outcomes and disrupting the democratic process. This has led to strong opposition in states like Assam, demanding cleansing of electoral rolls.

Effective Mechanisms to Prevent Illegal Migration

India has taken several policy and structural initiatives to tackle illegal migration, though more comprehensive and tech-driven reforms are needed.

Border Fencing and Surveillance: A major part of India's strategy to curb illegal infiltration involves physical barriers like fencing along the Indo-Bangladesh and Indo-Myanmar borders. Advanced surveillance technologies such as drones, thermal imaging and motion sensors are being deployed to monitor border activity.

Integrated Check Posts (ICPs): ICPs have been established to streamline immigration, customs and border security procedures. These posts ensure legal passage and act as choke points for illegal entries.

National Register of Citizens (NRC): The NRC exercise in Assam aimed to identify genuine citizens and weed out illegal migrants. Although controversial, it marked a critical step toward managing demographic authenticity and border control.

Strengthening of BSF and Assam Rifles: The Border Security Force (BSF) and Assam Rifles have been fortified with better equipment and expanded

personnel to monitor sensitive border regions. The establishment of border outposts and regular patrols has helped reduce illegal crossings.

Role of Judiciary in Combating Illegal Migration

The Indian judiciary has played a proactive role in upholding national interest while balancing humanitarian considerations:

Supreme Court on Deportation and NRC: In *Sarbananda Sonowal v. Union of India* (2005), the Supreme Court termed illegal immigration from Bangladesh as "external aggression" and emphasised the need for strong action. The court ordered the dismantling of the Illegal Migrants (Determination by Tribunals) Act, 1983, for being unconstitutional.

Rohingya Deportation Case: In 2021, the Supreme Court refused to stop the deportation of Rohingya Muslims detained in Jammu, maintaining that illegal migrants could not claim protection under Article 21 (Right to Life) when their presence was deemed a national security concern.

Voter List Scrutiny: Courts have directed Election Commissions in border states to scrutinise voter lists for illegal entries and take corrective measures, ensuring that electoral integrity is maintained.

Upholding Detention Powers: Judiciary has consistently upheld the state's right to detain and deport illegal migrants under the Foreigners Act, 1946, while asking for safeguards to prevent human rights violations.

Government's Role in Deporting Illegal Migrants

The responsibility to detect, detain, and deport illegal migrants lies squarely with the Union and State governments. Some of the key initiatives include:

Bilateral Agreements: India has signed repatriation agreements with several countries, including Bangladesh, to facilitate the return of illegal migrants. The 2018 Rohingya repatriation agreement

between Myanmar and Bangladesh, supported by India, aimed to send back the displaced community, though implementation remains slow.

Foreigners Tribunals: In Assam, Foreigners Tribunals (FTs) are quasi-judicial bodies tasked with identifying illegal migrants and deciding on their citizenship status. Their findings facilitate deportation proceedings.

Amendments to Citizenship Laws: The Citizenship Amendment Act (CAA), 2019, allows persecuted minorities from Pakistan, Bangladesh and Afghanistan to apply for Indian citizenship. While the Act aims to distinguish illegal migrants from refugees, it has sparked widespread debate and political protests.

Detention Centres: States like Assam and Karnataka have established dedicated detention centres for housing illegal migrants awaiting deportation, ensuring that national laws are implemented efficiently and fairly.

Innovative and Long-Term Solutions

To manage the problem of illegal migration holistically, India must look beyond enforcement and develop a long-term vision based on diplomacy, technology and community participation:

Borderland Development: Improving infrastructure, education and employment in border districts can act as a deterrent against harbouring or facilitating illegal migrants. Community vigilance groups can also play a role in reporting suspicious entries.

Smart Surveillance and Biometric Systems: Linking border surveillance to biometric data collection and facial recognition systems at check-

posts can ensure that individuals cannot overstay their visas or enter undetected.

Regional Cooperation: India must work with neighbouring countries through forums like BIMSTEC and SAARC to create economic opportunities in source countries and foster regional stability. Stronger coordination with Bangladesh has shown positive outcomes and should be expanded.

Public Awareness Campaigns: Educating citizens about the consequences of sheltering illegal migrants and promoting the use of legal migration channels can reduce complicity and negligence at the local level.

Conclusion

India stands at a crucial juncture where balancing national security with humanitarian considerations is paramount. Illegal migration is not merely a border issue - it impacts the economy, internal security, societal harmony and democratic integrity. By reinforcing its judicial and policy frameworks, deploying modern surveillance infrastructure and ensuring close cooperation with neighboring states, India can effectively stem the tide of illegal migration.

The ultimate goal must be to create a system that protects genuine refugees and asylum seekers while ensuring that national sovereignty, economic resources and public order are not compromised. Illegal migration is not an insurmountable challenge. With political will, community participation and regional coordination, India can build a robust and secure border management regime that upholds both its democratic values and security imperatives. □

– EOM

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THE FREE MOVEMENT REGIME AND INDIA'S BORDER SECURITY DILEMMA



– Dr. Pushpita Das

In the aftermath of the ethnic conflict in Manipur, in February 2024, the Union Home Minister Sri Amit Shah, announced that the Ministry of Home Affairs (MHA) has decided to suspend the Free Movement Regime (FMR) which allowed tribes residing along the India-Myanmar international border to travel 16 km inside each other's territories without visa or passport. The union government argued that the FMR is misused by the insurgents to cross the international border with impunity and carry out attacks inside India. It further argued that the FMR enabled influx of illegal migrants from Myanmar and allowed drug trafficking and weapon smuggling networks to flourish in the region. Under these circumstances, Sri Shah asserted that scrapping the FMR is required “to ensure the internal security of the country and to maintain the demographic structure of India's North Eastern States bordering Myanmar”¹.

In fact, the Manipur government in September 2023 had also urged the Ministry of Home Affairs (MHA) to suspend the FMR and fence the entire India-Myanmar border in view of persisting ethnic conflict in the state. Biren Singh Government had asserted that largescale influx of ‘illegal immigration’ of Chins from Myanmar following the February 2021 coup d'état was detrimental to the security of the state. It claimed that the Kuki village chiefs, who share close ethnic ties with the Chin community, were settling the Chin refugees in new villages in the protected and reserved forests of Manipur in gross violation of the

FMR provisions. The state government also accused the Kuki insurgent groups of not only encouraging the illegal migrants to illegally cultivate poppy but also colluding with the Chin insurgents from Myanmar to carry out attacks against security personnel and civilians in the state.²

The announcement to suspend the FMR invited stiff opposition from the Naga, Mizo, and Kuki communities who share strong cross-border ties, as well as from the Nagaland and Mizoram governments. The Nagaland and Mizoram governments passed unanimous resolutions against the imminent suspension of the FMR arguing that such a move would result in the disruption of historical, social, tribal, and economic ties.³ The Nagaland government in particular emphasized the adverse impact of scrapping of FMR on daily activities such as cultivation and the traditional land-holding system that spans across the international border. The Mizoram government, on its part, stated that the international border is a British construct which divided the Zo communities and therefore, they do not recognise it. Various civil society groups, student organizations as well as political leaders representing these tribes held protest marches, disrupted government services and send letters to the prime minister and the home minister to reconsider the decision.

What is the Free Movement Regime?

The FMR is a unique system along the India-

Myanmar border which was formalized in 2018 to promote greater cross-border interactions between tribal communities under the Act East Policy. Before 2018, the FMR existed but it was in form of a tacit understand between the Indian and the Myanmar government. The need for implementing FMR post-Independence arose from the two factors. First, since the Indian administration did not reach these remote areas, it could not provide basic amenities to the border residents. Second, the India-Myanmar international border area comprise a single socio-economic space for the tribes, and they habitually travel between the two countries to carry on with their traditional way of life and livelihood. The enforcement of the international border disrupted this arrangement.

Accordingly, on 26 September 1950, the Ministry of Home Affairs (MHA) amended the Passport (Entry into India) Rules of 1950 whereby the 'hill tribes, who is either a citizen of India or the Union of Burma and who is ordinarily a resident in any area within 40 km (25 miles) on either side of the India-Burma frontier' were exempted from the carrying passport or visa while entering into India.

In fact, this decision of India was in response to the Burmese decision to allow tribespeople of neighbouring countries to enter its territory. The Burma Passport rules of 1948 stipulated that the indigenous nationals (hill tribes) of those countries who share a common land border with Burma are exempted from passports or permits to enter into Burma, provided they reside within twenty five miles from the land border. In addition, the tribespeople were allowed to carry items equivalent to a headload. The Government of India also provisioned that citizens of Myanmar could stay for 72 hours in India, while the Myanmar government allowed only a 24 hours stay for Indians in Myanmar. This unique arrangement is called the Free Movement Regime.

Interestingly, the provisions of the FMR has been revised periodically in view of deteriorating security situation in the Northeast due to raging ethnic

insurgencies. These revisions not only introduced travel documents but also gradually reduced the distance permissible under the Regime. The first batch of restrictions to FMR were introduced in August 1968 when the MHA introduced a permit system for travelling across the Myanmar border. It stipulated that both Indian and Burmese citizens should carry permits issued by their respective governments while entering into India.

The second set of revisions to the FMR was undertaken in 2004 when the security situation along the Myanmar border became dire because of rampant cross-border movement of insurgents, drug traffickers and arm smugglers, India decided to reduce the FMR limits to 16 km. Since no formal agreement on the free movement of hill tribes across their shared border existed between India and Myanmar at that time, the Indian government prepared a draft Memorandum of Understanding (MoU) on the matter, to be negotiated with the Myanmar government. After much persuasion, Myanmar finally agreed to the draft MoS. Accordingly, the provisions of FMR were included in the Agreement on Land Border Crossing which both the countries signed on 11 May 2018.

Free Movement Regime: Benefits and Drawbacks

The FMR is a goodwill gesture of the Indian government towards the tribal people inhabiting the Myanmar border. By easing cross-border travel, the FMR allows the Nagas, Kukis, Mizos, and Chins to attend religious or cultural events, and engage in social practice, thus preserving their socio-cultural unity and age-old linkages. The FMR boosts local economy by enabling small-scale trade and commerce in remote border regions through border haats and informal exchanges. By promoting people-to-people contact, it enhances trust and goodwill between India and Myanmar, as the FMR allowed citizens of Myanmar to avail unrestricted education and medical facilities in India. These facilitations, in turn, has helped India garner the cooperation of the tribal people and reduce their alienation.

While the FMR was introduced to mitigate the hardships of the border residents because of the existence of an international border amidst them, unfortunately, its provisions have been exploited by insurgents, drug traffickers, and illegal arms smugglers. In fact, existence of FMR coupled with a poorly guarded border enabled the insurgents and traffickers to intensify their activities thereby jeopardising the security of the region. Furthermore, the lack of biometric verification and weak enforcement of the FMR provisions had made it difficult to monitor who is crossing the border, leading to fears of demographic imbalance and infiltration by undocumented migrants.

Significantly, the existence of FMR has hindered the crystallisation of the India-Myanmar international boundary into line separate two sovereign nations. The border residents continue to hold land across the border and have built houses and villages right on the international border. Interestingly, the residents of Longwa village in Nagaland straddling the international border reportedly enjoys 'dual citizenship' of India and Myanmar. These factors creates jurisdictional overlap, further complicating border security and its effective management.

Free Movement Regime: New Provisions

Given that the FMR had been beneficial for the tribal people, the Government of India did not completely scrap it, but revised its provisions in December 2024 in order to strictly regulate cross-border movements. Under the new guidelines, the

limits of FMR has been reduced from 16 km to 10 km; 43 points have been designated along the border for entry and exit, 35 points will be established in Phase I; QR code enabled passes are issued by the Assam Rifles, which have biometric details of people; police and health officials are deployed for security and health checks of passengers at crossing points; the permit is for single entry of person and a stay up to seven days is permitted; entry and exist has to be from the same crossing point and the permits have to be deposited once the travel is over.

Conclusion

The Free Movement Regime was introduced as a liberal policy to allow cultural continuity and traditional rights of borderland communities straddling the India-Myanmar boundary. While the regime did facilitate the hill tribes to maintain cross-border socio-economic links, its increasing misuse by insurgents, traffickers, and illegal migrants exposed critical vulnerabilities in India's internal security and border management. In response, the Government of India tried to address the problems by introducing restrictions in the FMR. However, poor enforcement of its provisions and a poorly guarded India-Myanmar border exacerbated the security situation in the region. With the implemented of the new guidelines to FMR and effective guarding of the international border with fences and increased deployment of Assam Rifles, it is hoped that India will be able to combat the security challenges emanating from across the India-Myanmar border. □

¹ "MHA decides to scrap Free Movement Regime (FMR) between India and Myanmar to ensure the internal security of the country and maintain the demographic structure of India's North Eastern States bordering Myanmar", Press Information Bureau, New Delhi, 8 February 2024, Press Release: Press Information Bureau.

² Prabin Kalita, Manipur Chief Minister N Biren Singh: Manipur CM N Biren Singh: 'Involvement of mercenaries from Myanmar likely in attack on security forces', The Times of India, 2 January 2024. Also see Babie Shirin, Manipur violence: 2 Myanmar-based militants arrested, arms and cash recovered, India Today, 24 October 2023.

³ Sukrita Baruah, In Nagaland, BJP leader moves resolution against Centre's decision to seal Indo-Myanmar border, The Indian Express, 2 March 2024; Mizoram Assembly adopts resolution against Centre's decision to fence India-Myanmar border, The Indian Express, 28 February, 2024.

⁴ *Annual Report 1950-51*, New Delhi: Ministry of Home Affairs, 1951, p. 24-25.

⁵ *The Burma Passport Rules, 1948*, at <http://www.burmalibrary.org/docs15/MYANMAR%20PASSPORT%20RULES.pdf>.

⁶ *Annual Report 1968-69*, New Delhi: Ministry of External Affairs, 1951, p. 76.

⁷ *Annual Report 2004-05*, New Delhi: Ministry of Home Affairs, 1951, p. 74.

⁸ “Cabinet approves Agreement between India and Myanmar on Land Border Crossing”, Press Information Bureau, January 3, 2018, at <http://pib.gov.in/newsite/PrintRelease.aspx?relid=175218>, accessed 23 August 2018.

⁹ “India’s most unique village which lies in two countries! | - Times of India”, *the Times of India*, 3 May 2024.

¹⁰ Mukesh Ranjan, “After scrapping FMR, Centre brings in new system for movement across India-Myanmar border, *The Indian Express*, 29 December 2024.

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BORDERS OF OPPORTUNITY: BRIDGING TRADE AND LIVES ACROSS INDIA'S NORTH-EAST



– Flying Officer Dr. Panchanan Barman

In the rippling terrains of India's north-east, where rivers mark invisible lines and communities live in the echoes of history, cross-border trade is more than economics - it is a thread stitching survival, aspiration, identity and culture. Trade is not merely an economic activity; it is a manifestation of human interaction, interdependence and emotional exchange.

The need for such trade is both historic and humanitarian. Partition and political shifts left border populations isolated, disconnected from their cultural and economic lifelines. In places like Sabroom of Tripura, basic commodities such as salt travel thousands of kilometers due to the lack of local trade linkages. Re-establishing these historic trade ties is not just a matter of convenience; it is a necessity for sustainable development and regional peace and harmony. Borders, by definition, divide nations. But for communities living along India's north-eastern frontier, borders have long been sites of connection, trade and mutual reliance. Partition and subsequent geopolitics may have redrawn lines on maps, but they could not erase the social and economic interdependence that once defined this region. For many in these regions, cross-border trade is not merely a policy initiative, but a lifeline.

Tripura – A Case for Reconnection:

The state of Tripura has a rich historical legacy, once ruled by the Tripuri dynasty and culturally linked with Comilla, Chittagong and Sylhet - now in Bangladesh. Following its annexation to the Indian Union in 1949, the state found itself landlocked and disconnected. Today, Tripura shares an 865 km border with Bangladesh, offering a critical opportunity for rebuilding lost connectivity. Essential commodities like salt, which travel from Kutch in Gujarat through several trans-shipment points before reaching southern Tripura. The logistical expense and delay not only burden consumers but underscore the urgent need for localised cross-border sourcing from nearby Bangladeshi districts. The Srinagar and Kamalasagar Border Haats, functioning weekly under bilateral agreements, offer local traders a platform to sell bakery goods, textiles, fruits and more. In return, Bangladesh exports melamine goods, fish, beverages and plasticware. Controlled through custom clearances and Border Security Force (BSF) check posts, these haats serve as microcosms of regional co-operation. At Matinagar, informal early-morning trade reveals how local economies survive beyond official frameworks. Vegetables, fish and soft drinks come in from Bangladesh; in return, India sends bicycles, motorcycles and even cattle.

Akhaura and the Promise of Logistics Corridors

The Akhaura Land Customs Station (LCS) near Agartala serves as a vital logistics hub. Goods imported from Kolkata via Ashuganj in Bangladesh include cement, rice, textiles and processed food. Exports from India include gas-based electricity, fruit and beverages. The development of the Integrated Check Post (ICP) at Akhaura - under the Land Ports Authority of India - has improved facilities for both passengers and freight. The future holds even more promise, with Sabroom, located on the banks of the Feni River, positioned to connect with Cox's Bazar Port in Bangladesh. This linkage will provide India's Northeast with maritime access to the Bay of Bengal, transforming trade logistics. These infrastructural projects demonstrate India's effort to shift from defensive border management to economic and strategic connectivity.

Indo-Myanmar Links and the Stilwell Road Corridor:

North-East India's eastern flank, bordering Myanmar, holds equal importance. The opening of the Mineral Bridge over the Tizu River and roadwork connecting Avangkhu (Nagaland) to Layshi (Myanmar) mark a new chapter in India - Myanmar trade. Communities in Myanmar's Sagaing Region, long isolated can now access Indian goods more efficiently, while Indian traders can explore new markets for hardware, textiles and pharmaceuticals. The revival of the Stilwell Road, originally built during WWII, adds strategic depth. The Pangsau Pass Market, held thrice a month, is both a trade venue and a cultural confluence. Here, tribal populations trade salt, knives, biscuits and medicines, often across makeshift stalls. Tourists also flock to the Lake of No Return, adding a layer of heritage tourism to this vibrant frontier. The entire area operates under a relaxed permit regime. No passport is required, but domestic passes are issued by local authorities. This practical approach fosters people-to-people contact,

cross-border camaraderie and regional peace.

Golokganj - Assam's Trade Window to Bangladesh:

The Golokganj Border Trade Center, located in Dhubri district of Assam, facilitates large-scale export of coal and stone to Bangladesh. Inaugurated in 2009, it has become a key economic node. However, the logistics chain remains largely manual. Documents are exchanged through physical channels involving multiple handovers between customs, banks and BSF personnel. The absence of adequate lighting, staff housing and mosquito protection threatens both efficiency and health of security personnel. Yet, on average, 200 trucks carrying coal and stone cross the border daily, revealing the massive trade volume. The foreign exchange side is handled by Indian banks like AXIS, HDFC and ICICI, which process Letters of Credit (LCs) from Bangladeshi banks. Exporters typically wait up to three weeks for payments after submitting required documents like origin certificates and sulphur content reports (for coal).

Maritime Silk Route, Project Mausam and India's Act East Vision:

India's north-eastern trade routes cannot be viewed in isolation. As China promotes its Maritime Silk Route, India has responded with Project Mausam and the revival of the Cotton Route, aiming to reassert its historical trading influence from East Africa to Southeast Asia. The trade of cotton from Maharashtra, once carried to Egypt and Europe via ancient ports, is now part of India's cultural-economic diplomacy. In this light, India's 'Act East Policy' is not merely diplomatic jargon - it reflects the intent to integrate the North-East India with broader Asian economies. These projects recognize that the Indian Ocean and land corridors are interconnected. From the Chindwin River in Myanmar to the Brahmaputra in Assam, rivers are not barriers - they are lifelines that can be

harnessed for regional commerce and integration.

Borders as Bridges, Not Barriers:

The North-East India has historically been a periphery - distant from Delhi's policy circles but central to India's aspirations in Asia. Border trade, when effectively managed, can uplift marginal communities, deepen cultural ties and create new economic opportunities. But success depends on more than infrastructure. It requires:

- Institutional coordination between customs, banks and border forces.
- Policy facilitation of informal trade through

regularization and legal frameworks.

- Security sensitizations, where soldiers also serve as agents of cooperation, not only control.
- People-to-people diplomacy, recognizing that cultural interdependence can be more durable than treaties.

Ultimately, economic exchange fosters emotional bonding. Trade is not just about goods - it's about goodwill. Let our borders not divide, but define a new era of regional unity and inclusive development. □

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ILLEGAL MIGRATION FROM NEIGHBORING COUNTRIES TO INDIA



– Prof. Pradeep Kamat

Abstract

Illegal migration into India from neighbouring countries, particularly Bangladesh, presents a persistent and multidimensional challenge impacting national security, socio-economic stability, and demographic composition. This paper examines the drivers of such migration—including economic distress, political unrest, and porous borders—and critiques India’s institutional response across legislative, administrative, and judicial domains. Special attention is given to Assam, a state historically burdened by demographic shifts due to large-scale influxes of undocumented migrants. The study evaluates landmark legislative interventions like the Immigrants (Expulsion from Assam) Act, 1950, and Section 6A of the Citizenship Act, introduced under the Assam Accord, highlighting their limited efficacy due to administrative lapses, political inertia, and legal ambiguities. The research underscores the need for a coordinated border management strategy leveraging technology, community participation, and diplomatic engagement for effective deportation and deterrence. It also advocates for judicial streamlining, centralized immigration databases, and humane detention practices. The paper explores socio-political consequences, including strain on welfare resources, risks of radicalization, and erosion of indigenous cultural identity in Assam. Concluding with a call for pragmatic, legally sound, and humane policy reforms,

this study offers a roadmap for balancing India’s constitutional obligations with the imperative to preserve national sovereignty and internal harmony.

Introduction

Illegal migration from neighbouring countries to India represents a multifaceted challenge that continues to test nation’s governance structures, security apparatus, and socio-economic resilience. Given India’s geopolitical position, sharing extensive and often porous borders with countries such as Bangladesh, Nepal, Pakistan, Myanmar, and Bhutan, inflow of undocumented migrants has escalated in recent decades. This trend is propelled by variety of factors including poverty, political instability, ethnic and religious persecution, and environmental vulnerabilities in these neighbouring nations. While India has historically maintained a tradition of humanitarianism and openness, current scale and nature of illegal migration necessitate a comprehensive and coordinated policy response to protect national interests while preserving human dignity.

At heart of any sustainable solution lies the imperative to strengthen border management systems. Despite efforts by Border Security Force and other agencies, India’s vast and difficult terrain borders remain vulnerable. Modernization of border infrastructure is urgently needed. The deployment of

advanced technologies such as biometric entry-exit systems, electronic fencing, drones, radars, and thermal imaging can enhance real-time surveillance and reduce unauthorized crossings. Additionally, it is crucial to improve coordination among the BSF, local police forces, intelligence agencies and customs officials. A holistic border management approach would include integrating intelligence inputs and leveraging community participation, where local residents serve as vital eyes and ears, reporting suspicious activities and supporting enforcement. Investment in capacity building and training for border personnel is essential, equipping them to handle complex situations with both vigilance and empathy.

The judiciary plays an indispensable role in shaping and enforcing immigration laws. Cases of illegal migration often become entangled in protracted legal battles where migrants seek to delay deportation through petitions and appeals. Such delays not only undermine the rule of law but also strain public resources. Courts must balance protection of individual rights with enforcement of national laws. Expedited hearings and clear judicial pronouncements are essential to discourage frivolous claims and to support government efforts in identifying and deporting illegal entrants. Furthermore, judiciary's role in distinguishing between genuine refugees, who may require protection under international law, and economic migrants is vital to maintaining the integrity of India's asylum policies. Judicial activism should complement executive actions, reinforcing a legal environment that deters illegal entry and stay.

The responsibility of identifying and deporting illegal migrant's rests primarily with the executive branch. However, government has faced significant challenges in streamlining this process due to fragmented data systems and diplomatic hurdles. A centralized and digitized repository that integrates data from immigration checkpoints, police records, and border patrol units is essential for accurate and timely identification of illegal migrants. Establishing specialized immigration enforcement units at both

central and state levels can enhance operational efficiency. Furthermore, diplomatic engagement with neighbouring countries must be intensified to facilitate smooth and timely repatriation. Political sensitivities in source countries often delay deportation, necessitating robust bilateral agreements and confidence-building measures. In managing migrants awaiting deportation, humane detention facilities that adhere to international human rights standards must be established to ensure dignity and avoid adverse humanitarian implications.

The ramifications of unchecked illegal migration extend beyond administrative inconvenience; they have serious security and economic consequences. From a security standpoint, illegal migrants can inadvertently or deliberately facilitate cross-border criminal activities such as drug trafficking, smuggling, and even infiltration by extremist groups. This risk is particularly acute in border states facing insurgencies or communal tensions. Economically, the influx of undocumented migrant's places pressure on limited public resources, including healthcare, education, housing, and employment. Migrants often work in informal sectors under precarious conditions, which may depress wages and exacerbate unemployment among local populations. These dynamics contribute to social tension and undermine efforts toward inclusive development. Furthermore, demographic shifts resulting from illegal migration can disrupt social cohesion and challenge the implementation of welfare programs designed for citizen populations.

An often-overlooked dimension of this issue is the significant number of foreign nationals lodged in Indian prisons who remain unidentified or have not been processed for deportation. These detainees may be incarcerated for a range of offenses, from minor infractions to serious crimes. The backlog in processing foreign prisoner's strains prison system, exacerbates overcrowding, and complicates prison administration and security. To address this, government should initiate systematic identification

protocols early in incarceration process through collaboration among prison authorities, immigration officials, and foreign diplomatic missions. Creating dedicated task forces to audit foreign prisoners and expedite their repatriation would alleviate these challenges while respecting rights and dignity of detainees.

Another sensitive but critical aspect of India's immigration policy concerns visa regime for Pakistani nationals, particularly those seeking visas on humanitarian grounds relating to divided families. While humanitarian concerns warrant empathy, evidence suggests that this visa category is increasingly exploited for unauthorized stays or illegal migration. Such misuse not only poses risks to national security but also complicates diplomatic relations. A comprehensive reassessment of this policy is required to introduce stringent verification mechanisms such as biometric authentication, time-bound visa validity, and mandatory exit procedures. Enhanced digitization of visa issuance and tracking systems would promote transparency and reduce abuse. While outright abolition of the policy may carry diplomatic repercussions, recalibrating it to safeguard national interests while accommodating genuine humanitarian cases is imperative.

Case Study of Illegal Migration in Assam

One of the most intense frontlines in India's battle against illegal immigration and democratic change is Assam, the largest state in Northeast. Since independence, Assam has been hotspot of illegal migration from Bangladesh. There exists sufficient public database to suggest that approximately 40% of illegal migrants from Bangladesh have settled down in Assam. While various steps have been taken by Government of India at various points of time over last several decades to stem migration, problem however continues to persist.

At the turn of the last century, Assam's Muslim population stood at 12.4 percent. By the time

of the first post-independence census in 1951, this figure had nearly doubled to 24.7 percent. As per the 2011 Census, the Muslim population in Assam further increased to 34.2 percent and is now estimated to have reached approximately 40 percent. Several districts—including Barpeta, Bongaigaon, Darrang, Goalpara, Hailakandi, Karimganj, Morigaon, Nagaon, Hojai, and South Salmara—report Muslim populations exceeding 50 percent (see Abhijit Majumder, *India's New Right*, 2024, p. 288).

Prior to independence, Assam was a Governor's Province. With the partition of India, Pakistan emerged as two separate regions: West Pakistan and East Pakistan. A substantial wave of illegal migration from East Pakistan into Assam followed. In response, the Indian government enacted the Immigrants (Expulsion from Assam) Act, 1950, to protect the interests of indigenous Assamese communities (see Amish Tandon, *Indian Citizenship and Immigration Law*, 2022 p. 287–288). The legislation's statement of objects and reasons explicitly recognized the disruptive impact of mass influxes from East Bengal on Assam's economy and internal security. Following this, the 1951 Census saw the preparation of the first National Register of Citizens (NRC) for Assam, under the direction of the Ministry of Home Affairs.

Despite the creation of Bangladesh in 1971, illegal migration into Assam continued unabated. This demographic transformation was neither organic nor incidental; it was driven primarily by persistent and large-scale infiltration, particularly through the riverine and porous border regions along the Brahmaputra—from Dhubri to Darrang. Over time, migrants dispersed into cities, towns, and rural areas, including tribal belts such as Bodoland, and autonomous councils of the Tiwa, Mising, Karbi Anglong, and North Cachar Hills.

Political motives—especially the creation of loyal vote banks—combined with administrative corruption, civic apathy, and weak enforcement, contributed to a systematic and sustained demographic

shift. This transformation lies at the heart of Assam's contemporary political dynamics. The anti-immigrant Assam Movement of the 1970s and 1980s revolved around the "three Ds": detection, detention, and deportation of illegal immigrants. The intensity of public unrest eventually led to the signing of the Assam Accord on August 15, 1985. The Accord, a tripartite agreement among the Central Government, the Assam Government, the All Assam Students' Union (AASU), and the All Assam Gana Sangram Parishad, aimed to safeguard the cultural, economic, and political rights of the indigenous Assamese (see *ibid*, p. 288).

In pursuit of these objectives, the Illegal Migrants (Determination by Tribunal) Act, 1983 (IMDT Act), was enacted. Intended to expedite the identification and deportation of illegal migrants in Assam, the Act ultimately proved ineffective. A key flaw was the burden of proof being placed on the government, making enforcement cumbersome and administratively burdensome. The failure of the Act led to its eventual invalidation by the Supreme Court of India. Between 1980 and 1985, Assam witnessed widespread and often volatile agitations centered on the migrant issue—culminating in the Assam Accord, which remains a foundational document in the state's demographic and political discourse.

Assam Accord

The objective of 'Assam Accord' was to take appropriate steps towards arresting and containing illegal migration of foreigners into state of Assam. The Assam Accord provided the following:

- a) The cut-off date for detection and deletion of foreigners was fixed at 1.1.1966. Persons who came to Assam prior to 1.1.1966 were outside Assam Accord and were to be regularised.
- b) Persons who came to Assam between 1.1.1966 and 24.3.1971 were to be detected in accordance with Foreigners Act and Foreigners Tribunal Order. The names of such 'detected' persons would be deleted from

electoral rolls and they would be required to get themselves registered with relevant registration offices. After period of 10 years from date of detection, names of such persons would be restored to electoral rolls.

- c) Essentially all illegal migrants who had come to Assam 25.3.1971 onwards would be expelled from India. All persons who were expelled earlier but have since re-entered Assam shall be expelled again.
- d) Provisions were made for adequate constitutional, legislative and administrative safeguards to protect, preserve and promote cultural, social, linguistic identity and heritage of Assamese people.
- e) Provisions in Assam Accord included securement of India's international border(s) with Bangladesh taking appropriate steps such as erection of physical barriers such as walls, wire fencing etc. at appropriate places, increased patrolling by security forces along international border, increasing number of check posts to prevent future infiltration. All necessary steps were to be undertaken to prevent infiltration, including construction of roads to facilitate patrolling, intensification of riverine patrolling etc.
- f) Enforcement of law restricting acquisition of immovable property for foreigners in Assam.
- g) Joint efforts of all stakeholders towards development and growth of Assam.

Introduction of Section 6A to the Citizenship Act

The execution of Assam Accord was followed up by introduction of Section 6A in 1985, via Citizenship Amendment Act, 1985. The objective behind introduction of Section 6A was to give effect to certain parts of Assam Accord, more particularly aspects relating to detection and determination of foreigners and grant of citizenship. The statement of objects and reasons of this amendment indicated that its purpose was to give effect to Assam Accord and to grant

deemed citizenship to all persons of Indian origin who came to Assam before 1.1.1966 including persons whose names were included in electoral rolls used for purpose of general election of 1967 and who have been ordinarily resident in Assam ever since. The further object of such amendment was to grant deemed citizenship, through process of registration, to those persons of Indian origin who came to Assam on or after 1.1.1966 but before 25.3.1971 from Bangladesh and have been ordinarily residents in Assam ever since.

Features of Section 6A of the Citizenship Act

Region Specific Nature: Section 6A was specific to state of Assam for purpose of specifically addressing illegal migration from Bangladesh. (see *ibid* p. 300)

Deemed Citizenship: All persons of Indian origin (from undivided India) who came from Bangladesh to Assam before 1.1.1966 and had since resided in Assam, were conferred 'deemed' Indian citizenship. 1.1.1966 was cut-off date for 'deemed Indian citizenship'. (see *ibid* p. 300)

Registration: Persons who came to Assam between 1.1.1966 and 25.3.1971 and had resided in Assam since, were required to get themselves registered with appropriate registration authority. Further, such persons were to be disenfranchised for a period of 10 years. A core requirement for being eligible for registration was that person should have come to Assam after 1.1.1966 but before 25.3.1971 and resided continuously in Assam since then (*Anil Barman v. Union of India*, W.P.No. 266/2019 (10.6.2019, Guwahati High Court). Hence 'ordinary residence' in Assam was a condition precedent (*Ashma Khatun v. Union of India*, W.P. (C) No. 8592/2018 (30.1.2019, Guwahati High Court). Registration was a mandatory requirement and could be either voluntary or pursuant to an order of a Foreigners Tribunal (under provisions of Foreigners Act and Foreigners Tribunal Order) declaring concerned person to be foreigner (Declaration Order). (see *ibid* p. 301)

Time Period for Registration: Registration was required to be made within following prescribed

timelines: An application for registration was required to be made in prescribed form by registrant with registering authority. R. 19 (1) of Citizenship Rules, within a period of 30 days from date of receipt of Declaration Order of Foreigners Tribunal. The said period of 30 days could be extended by registering authority, for reasons recorded in writing, to a maximum of 60 days (R.19(2) of Citizenship Rules). (see *ibid* p. 301)

Extension of Time for Registration: During course of registration exercise, it came to attention of government that numerous persons who had been declared as foreigners by Foreigners Tribunal did not apply for registration in timely manner. Consequently, applications of large number of people were rejected for being belated. In some cases, post a Declaration Order, instead of obtaining a registration, these persons had somehow managed to get their names included in electoral rolls. Such aspects came to light once 'quit India' notices were issued by authorities to such persons (*Md. Samsul Haqu v. Member, Foreigner's Tribunal*, W.P. (C) No. 464/2009 (7.9.2009, Guwahati High Court). The above issues were addressed by government by introduction of following one-time timelines in year 2013 (R. 19 (2A) was introduced in Citizenship Rules with effect from 16.7.2013).

Implementation of Assam Accord

The steps taken by Assam government towards implementation of Assam Accord are discussed below. On basis of information available on official website of Government of Assam, following progress has been made. (<https://assamaccord.assam.gov.in/portlets/assam-accord-and-its-clauses>).

The Foreigners Issue: Clause 5 of Assam Accord contains provisions regarding detection and expulsion of foreigners from the state of Assam (who have entered or re-entered post 24.3.1971). It also provides for registration and regularisation of (Assam domiciled) foreigners who have entered Assam within designated dates. (see *ibid*, p. 339)

The progress made on this count is as follows:

- a) The government has suitably strengthened its machinery for more effective and expeditious foreigner's detection and government detection.
- b) Thousands of re-infiltrators from Bangladesh have been detected and deported. This is continuous and ongoing process.
- c) There are about 100 Foreigners Tribunals functioning in Assam for detection and deportation of foreigners.

Preservation and Promotion of Cultural, Social, Linguistic Identity and Heritage of Assamese People:

Clause 6 of Assam Accord requires provision of appropriate constitutional, legislative and administrative safeguards to protect, preserve and promote cultural, social, linguistic identity and heritage of Assamese population. The progress made on this count is as follows (see *ibid* p. 339) :

- a) Establishment of Srimanta Sankardeva Kalashetra Society which is committed to work for preservation, promotion and upliftment of the people of Assam.
- b) Modernisation of Jyoti Chitran Film Studio and efforts to make the studio film hub of entire north-eastern region.
- c) Financial assistance to *satras* of Assam as well as historic monuments for their preservation, protection and development.

Economic Development: Clause 7 of Assam Accord requires government to ensure all all-round economic development of Assam. The following steps have been taken in this regard (see *ibid* p. 340):

- a) Construction of rail-cum-road bridge(s) over various places.
- b) Setting up of Numaligarh Refinery Ltd., which has displayed creditable performance since its commencement in 1999 and has been conferred status of Mini Ratna PSU.
- c) Reopening of Shil Ghat Jute Mill

- d) Setting up of Assam Gas Cracker Project
- e) Setting up of Indian Institute of Technology and other Central / State Universities.

Security of International Border: Clause 9 of Assam Accord mandates government to secure international borders to prevent infiltration from Bangladesh. This includes construction of physical barriers, fencing, patrolling, roads along border etc. The progress on this aspect is summarised below (see *ibid* p. 340-341):

- a) Out of total length of 280 kilometres of Indo-Bangladesh border in Assam, 208 kilometres have been fenced.
- b) With respect to riverine / char area of border, feasibility study is ongoing for use of 'high-tech physical and non-physical' barriers to seal these areas.
- c) Floodlight work along border is in progress and numerous border check posts set up.

Prevention of Encroachment of Government Land:

Clause 10 of Assam Accord mandates strict enforcement of laws to prevent encroachment of government lands and lands in tribal belts and blocks; and to evict unauthorised encroachers. Land administration (in protected belts and blocks) is being done as per relevant provisions of Assam Land and Revenue Regulation 1886 and its rules (see *ibid* p. 341).

Restricting Acquisition of Immovable Property:

Clause 11 of Assam Accord mandates strict enforcement of laws to restrict acquisition of immovable property by foreigners in Assam. Efforts are made to strictly implement Assam Alienation of Land (Regulation) Act, 1980 (which restricts acquisition of immovable property by foreigners in Assam). (see *ibid* p. 341)

Registration of Births and Deaths: Clause 12 of Assam Accord requires maintenance of birth and death registers. About 700 centres have been set up in Assam by Health and Family Welfare Department to issue birth and death certificates. Steps are taken to computerise process and introduce an online system for the same. (see *ibid* p. 342)

Young leaders such as Shri. Sarbananda Sonowal and Shri. Himanta Biswa Sarma—both of whom subsequently served as Chief Ministers in Assam under the BJP—emerged as vocal proponents of a firm stance against illegal immigration. Despite their strong political positioning, the actual implementation of deportation measures remained limited. As of 2020, only 329 out of approximately 1.43 lakh individuals declared as foreigners by the Foreigners' Tribunals had been deported to Bangladesh. In a continued effort to address the issue, the Assam government constituted yet another panel in 2021—the fourth such initiative in thirty-six years—aimed at facilitating the effective execution of the Assam Accord and related migration control measures.

Conclusion

In conclusion, illegal migration from neighbouring countries to India presents a complex and enduring challenge that demands a well-calibrated, multidimensional strategy. While India's geopolitical location and humanitarian traditions have shaped its historical openness, the scale, persistence, and evolving nature of undocumented migration necessitate decisive policy and institutional reforms. Strengthening border controls through modern

surveillance technologies, biometric tracking, and intelligent infrastructure, coupled with enhanced inter-agency coordination, is essential to deter unauthorized crossings. Simultaneously, the judiciary must support expedited and firm enforcement of immigration laws, distinguishing between genuine asylum seekers and economic migrants while ensuring due process and the rule of law.

Improving government mechanisms for identification, data integration, and deportation, as well as streamlining the functioning of Foreigners Tribunals, are critical to operational efficiency. The backlog of foreign prisoners and the misuse of visa categories—especially those involving humanitarian grounds—highlight the urgent need for rationalized and secure visa policies. Public awareness, political resolve, and robust diplomatic engagement are indispensable for sustainable migration governance. India's commitment to justice and human rights must be balanced with the imperatives of national security, demographic stability, and socio-economic equity. Only through a comprehensive, pragmatic, and humane approach can India safeguard its sovereignty while preserving the rights and dignity of all individuals within its borders. □

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SEEMANTA CHETANA MANCHA PURVOTTAR AT A GLANCE



– Dr. Binita Bhagawati

Seemanta Chetana Mancha Purvottar is committed to nation-building process with the people from the international border areas of entire North-Eastern Region. Hence, the organisation has been working for the safe and secured border areas maintaining peace and harmony and emphasized on the development of border villages under the Akhil Bharatiya Sanstha 'Seema Jagaran Mancha'.

GENESIS OF SEEMA JAGARAN MANCHA SINCE 1985

A humble journey of Seema Jagaran Mancha has been started with a concentration for promoting the feeling of Nationalism and Patriotism.

After Independence, Indians had to face some new challenges with porous international border, vulnerable border areas, lack of security arrangement etc. and it was the most provocative situation of our country.

Pitamaha Bhisma said in Mahabharata, "the border of the country is like mother's attire. Its protection is the primary duty of every child." Keeping this morale, Rastriya Swayam Sevak Sangha inducted a new Aayam for dedicating border areas. This new Aayam "Seema Jagaran Mancha" was founded on the Tithi of Ram Navami at Jodhpur in 1985 and since its inception, the organisation is working for the upliftment of border areas.

As India shares land borders with seven countries; Afghanistan, Bangladesh, Bhutan, China, Myanmar, Nepal and Pakistan, also sharing maritime

borders with Sri Lanka, Maldives, Indonesia.

Hence, Seema Jagaran Mancha (Akhil Bharatiya Sanstha) have their organizational structure in every international border state with Purnakalin Karyakarta, Vistarak and Pracharak, who are dedicating themselves in sensitizing border dwellers regarding national security and integrity.

ACTIVITIES OF SEEMANTA CHETANA MANCHA PURVOTTAR SINCE 2008

The North-Eastern region is bounded by five international borders, i.e., Bangladesh, Bhutan, China, Myanmar and Nepal which are less accessible due to remoteness, difficult terrain, infrastructural bottlenecks etc. Assam is directly inter-linked with Bhutan and Bangladesh border. Therefore, Seemanta Chetana Mancha Purvottar has been formed under the umbrella of "Seema Jagaran Mancha" for involving entire North-East. In the year 2008, it was formed in Dhubri district on the same tithi of Ram Navami and striving for border security as well as national security.

Mostly, five international borders i.e., Bangladesh, Bhutan, China, Myanmar and Nepal are linked with eight states of North-Eastern region, i.e., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura. All states have their own state committee and the karyakartas of Seemanta Chetana Mancha Purvottar maintains strong dedication for safe and secured international border areas. Assam has nine international border districts. They are, Dhubri, South Salmara Mankachar, Cachar,

Sribhumi, Udalguri, Tamulpur, Baksa, Chirang and Kokrajhar.

A LOOK AT THE VISION AND MISSION

VISSION

1. To promote patriotism among the people of our country in general and those living in the international border areas in particular.

2. To plan and work for the socio-economic, cultural, educational, intellectual, physical health and supporting development of the people living in the international border areas.

3. To strive for eradication of wrong customs, superstitions, and any other social evils present in the society by organizing various meetings, exhibitions, seminars, symposium, trainings etc. from time-to-time.

4. To arrange educational facilities, establish hostels for students of under-privileged and weaker sections of the society.

5. To bring awareness about all the programs, facilities, grants, schemes, etc. declared by the State and the Central Government among the people living in the international border areas.

6. To plead and demand before government for construction of barbed wire fencing or any other high-tech wall on the "0" line along the international borders for the safety and security of our border and nation.

7. To involve and integrate army, defense, military, para-military or other security agencies and government administrations with the society for appropriate border management and national security.

8. To help the government administration at the time of crisis of whatsoever manner in the border areas for the interest and welfare of the masses and to strive for ensuring border security, national security, unity and all-round development so as to transform our motherland Bharat to a "Vishwa Guru" again.

MISSION

Towards attainment of the organization's 'vision' by promoting patriotism and nationalism among the people of our country in general and the

international border areas in particular through organizing various plans, programs, meetings, seminars, symposiums, exhibitions, activities, sports, village meetings, charities, services, etc. with "Vyakti Nirman to Rashtra Nirman" and work in an integrated way with the security agencies, government administrations and the society for border security, national security, self-reliance, all round development and unity among the people of our great motherland Bharat.

INITIATIVES THAT FOSTER UNITY, AWARENESS AND PATRIOTISM IN SENSITIVE FRONTIER REGION.

To foster unity, awareness and patriotism in sensitive frontier regions, Seemanta Chetana Mancha has some year long scheduled programs like Raksha Bandhan, Desh Bhakti Samabesh, Bharat Mata Pujan, Shastra Pujan and Celebration of Pratistha Diwas. The organisation initiated a unique celebration of Raksha Bandhan at different places of international border districts by tying 'Rakhi' in the hands of the soldiers and officers those are staying away from their families. This program created an emotional bonding between the armed forces and the people living in the border areas. With the dedication of our karyakartas by observing fixed calendar events a spontaneous feeling towards our nation and a sense of patriotism have been developed among the mass people involved in the same mission.

Apart from the fixed programs, the organisation proceeds with various plans, programs, seminars, meetings, social activities, cultural activities etc., for promoting the feeling of patriotism and nationalism.

A special program "Sarhad ko Swaranjali" has been organised in different international border (Bangladesh and Bhutan) mostly in Assam, which also helps in developing patriotism and nationalism, the inner moto of Seemanta Chetana Mancha Purvottar. The karyakram like 'Balidano ko Shradhanjali', 'Bijay Diwas' etc., have long run affect upon the society.

EMPOWERING YOUTH, WOMEN AND SOCIAL UPLIFTMENT

Seemanta Chetana Mancha Purvottar has given thrust for all round development specially to

youths and women staying in the international border areas since its inception. Organising pre-requirement coaching camps for both boys and girls of border areas in the age group of 18-25 years are the positive step of Seemanta Chetana Mancha Purvottar. In those seven days residential camp, the officials and Jawans from Shahastra Seema Bal (SSB) and Border Security Force (BSF) provide them physical training to prepare for recruitment in security forces. It is of great privilege for Seemanta Chetana Mancha that some participants (boys and girls) trained there had joined in security forces and posted at different places all over India.

Again, for implementing Central Government Agnipath scheme, Seemanta Chetana Mancha had taken initiatives in various districts of Assam and got fruitful results. Online Coaching for judicial service examination as a part of educational activities is also one of the impact of Seemanta Chetana Mancha upon the student community.

In order to have physically sound and healthy youth, Seemanta Chetana Mancha Purvottar have been regularly organising various sports meet, football tournaments, indigenous games competition etc. Every year Seemanta Chetana Mancha Purvottar has organized State Level Kreedha Mahotsav with a specific motive for identifying the raw talents of border areas. Before that a qualifying round is done among the youth players residing in 0-20-kilometre radius from international border areas. This also help in strengthening peace and harmony, discipline and fraternity, friendship and feeling of oneness among the youths.

Activities focused specially to women in order to have self-reliance by providing training on various subjects like handicrafts, sewing, fruit preservation and other activities of skill development.

Celebration of World Environment Day, Yoga Day, Tree Plantation, Gau mata sewa on the occasion of Buddha Purnima etc., are remarkable works of Seemanta Chetana Mancha Purvottar in order to bring societal change and upliftment.

CAPACITY BUILDING EFFORTS THROUGH CAMPAIGNS AND TRAINING SESSIONS

Awariness program, exhibition on border related issues, students meet among those students coming from different border districts, students' communication or interaction with some influencing persons regarding border awariness are the important steps of Seemanta Chetana Mancha. There are some probodhan programs on the topic "Border security, national security and role of Civilian" arranged in the educational institution for sensitizing the student community.

Yearly two Seema Chintan Baithak were held with senior karyakartas for future planning and action. State Convention is also organized for two days. In this state convention, all karyakarta of the State committee, District Committees, Sahayak Nagar Committees along with the karyakartas of nagar/sector committees have to participate and they are re-oriented for their future activities. Again, karyakarta Prasikshan Sibir are also organized in district level and state level every year for capacity building of our members.

PARTNERSHIPS AND PUBLIC PARTICIPATION IN COLLABORATION WITH SOCIAL ADMINISTRATION, SECURITY FORCES AND CITIZENS FOR A SECURE AND AWARE SOCIETY

The MOU signed on 21.12.2022 between Border protection and Development Department, Government of Assam and Seemanta Chetana Mancha Purvottar Assam state committee is a glorious chapter through which Seemanta Chetana Mancha Purvottar is associated with Government of Assam for implementing the future prospects taken into consideration for the people residing in international border areas. Initiative is also held on how Seemanta Chetana Mancha will be able to play a role for the implementation of Act East Policy of India by organizing a brain storming session. The senior most secretary of Act East Policy Department, Government of Assam and most of the experts, along with Hon'ble Member of Parliament, Hon'ble minister of Act East Policy were present in that session.

With an objective of resolving problems and issues of border dwellers, a National Institute of Border Studies (NIBS) has been formed. The main focus of this institution is research and depth studies on border related issues. Apart from some important activities, they organized a session on "Seema Ka Vishay Par Charcha". Former Hon'ble Governor of Assam Mananiya Gulap Chand Kataria made interaction with the educationist, teachers, professors and students coming from various educational institution.

Annual Calender Program observed with the citizens, celebration of some festivals like Rong Utsav, Vijaya Sanmilan with the local people, Rakhi Bandhan Karyakram, Deepawali celebration at different Border Security Camp, Nagarik Sanmilan among the civilians including Lawyers, Doctors, Businessman, teachers, students etc. are some good examples of public participation.

Again, in order to create an awarness and vast knowledge about the borders, "Seema Darshan Yatra" are arranged through which the tourist attraction about the organization have been increased.

OUR IMPACT ON SOCIETY

The organization devoted to spot immediate action for rendering their service in time of any unhappening situation. All our karyakarta extending their helping hands in different flood affected areas and their team spirit increases a positive attitude towards the organization.

In time of COVID 19, the members of Seemanta Chetana Mancha Purvottar took great initiative through awarness campaigns and sanitization program. They also distributed food

packets to the villagers and served the covid warriors i.e., police personnel, health workers, etc., by providing tea, snacks, water bottles.

On the other hand, medical camp for general health check-up in remote places of all border districts, blood donation camp, eye camps have been organized. Those activities of Seemanta Chetana Mancha Purvottar have the great impact on society as well as among the mass people.

The theme song of Seemanta Chetana Mancha Purvottar has tried to spread the feelings of Patriotism. From last five years, this song is spreading in a combined mode i.e., song with action (Nritya Bhangima) in order to strengthen the inner spirit of nationalism and patriotism among the coming generation. This endeavours have been done in most of the international border districts of Assam, considering the students of schools and colleges. The parents and guardians of those students along with general public are involved in this program Hence, organizing dance competition has also been a great influence on the society.

CONCLUSION

In conclusion, it may be mentioned that the achievements and endeavours of Seemanta Chetana Mancha Purvottar have been increasing day by day for creating a conducive atmosphere in the border villages of Assam in particular and North Eastern region in general. The organization have some future plans like Youth Conclave for North East the SOUL festival with great moto of unity in diversity and feeling of oneness. These continuing efforts are going on and committed workers have doing their level best to fulfil the vision and mission of Seemanta Chetana Mancha Purvottar. □

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সুৰক্ষা

স্বাৰলম্বন

একতা

সীমান্ত চেতনা মঞ্চ পূৰ্বোত্তৰ



ধ্যেয় গীত

সৰহদ কোঁ প্ৰণাম...

সৰহদ তুৰো প্ৰণাম... ৩

দেশ কী বক্ষা ধৰ্ম হমাৰা।
দেশ কী সেৱা কৰ্ম হমাৰা।
গুপ্ত উঠেগা জল থল অম্বৰ
জগ মে গৌৰৱ গান....।।
সৰহদ তুৰো প্ৰণাম..... ৩

সীমায়ে হম ৰথে সুৰক্ষিত।
দেশ ৰহেগা সদা অখণ্ডিত।
ইসী কে হিত মে জীয়ে মৰেংগে
চলতে সীনা তান....।।
সৰহদ তুৰো প্ৰণাম..... ৩

জন-জন মে সন্তাৰ জগায়ে।
ভেদ ভাৱ সব দূৰ ভগায়ে।
এক দেশ হো এক সংস্কৃতি
সমৰস অমৃত পান....।।
সৰহদ তুৰো প্ৰণাম..... ৩

পৰম শিখৰ পৰ লে জায়েংগে।
দেশ কা বৈভৱ প্ৰকটায়ৈংগে।
বিশ্ব গুৰু বনকৰ উভৰেংগে
পায়েংগে সন্মান....।।
সৰহদ তুৰো প্ৰণাম..... ৩

‘দেশৰ সীমা মাতৃৰ বস্ত্ৰ স্বৰূপা, ইয়াক বক্ষা কৰা পুত্ৰৰ প্ৰথম কৰ্ত্তব্য
- পিতামহ ভীষ্ম

CODIFYING BORDER LAWS : LEGAL FRAMEWORK FOR NATIONAL SECURITY AND BORDER MANAGEMENT



MEDIA HIGHLIGHTS





PRATISTHA DIVAS (FOUNDATION DAY)



BHARATMATA PUJAN



DESHBHAKTI SAMAVESH



SHAKTI PUJA



WORLD ENVIRONMENT DAY



SARHAD TUJHE PRANAM (DANCE PROGRAM)



YOGA DIVAS 2025



RAKSHA BANDHAN 2025



FREE HEALTH CAMP AMBUBACHI MAHAYOG 2025

STATE ANNUAL CONVENTION' 2024

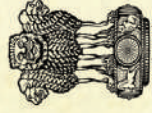


SEEMANTA KREEDA MAHOTSAV' 2025





National Health Mission, Assam



GOVERNMENT OF ASSAM

RBSK

RASHTRIYA BAL SWASTHYA KARYAKRAM
राष्ट्रीय बाल स्वास्थ्य कार्यक्रम

RASHTRIYA BAL SWASTHYA KARYAKRAM (RBSK)

Early child health screening & early intervention of 4Ds in children from birth to 18 years of age



Defects at Birth

Deficiencies

Diseases

Developmental Delay and Disability



Newborn

Facility based newborn screening at delivery points.
Community based newborn screening through home visits by ASHAs.

6 weeks - 6 years

Anganwadi centre based screening by the dedicated Mobile Health Teams.

6-18 years

Government and Government aided school based screening by Mobile Health Teams.

In Assam there are 306 Mobile Health Teams (two teams each in 153 Health Blocks)



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for any Health Related Queries



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- অসমত শৈক্ষিক উৎকৰ্ষতা আৰু উদ্ভাৱনৰ প্ৰসাৰৰ দিশত বিশেষ পদক্ষেপ
- দিব্যাংগসকলক গৱেষণাৰ ক্ষেত্ৰত উৎসাহিত কৰা



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In pursuit of preserving the pristine natural resources

Assam Pollution Control Board, has been relentlessly working towards sustainable environmental management in Assam and facilitating industrial growth.

The Board is glad to share some of the remarkable milestones achieved during the recent past

- Integrated 41 Business Reform Action Points with Ease of Doing Business portal, granting 18,000+ consents to industries.
- Implemented National Clean Air Programme in Guwahati, Nalbari, Nagaon, Sivasagar, and Silchar, integrating Mission LiFE.
- Installed 63 Manual and 9 Continuous Ambient Air Quality Monitoring Stations.
- Adopted e-tools (e-Office, GeM, e-Auctioning) for efficient and transparent operations.
- Monitoring water quality at 237+ locations under National Water Quality Monitoring Programme.
- Establishing Assam's first Hazardous Waste Transport, Storage, and Disposal Facility in Lekai, Dibrugarh.
- Facilitated Common Bio-Medical Waste Management Facilities at Panikhaiti and Bajali with more units on the anvil.
- Earned NABL Accreditation for Central Laboratory (88 Air/Water Quality Parameters).
- Planted 20,000 saplings at IOCL, Digboi Refinery; besides about 50,000 at other locations
- Collaborated with 100+ reputed institutions for pollution control.
- Showcased sustainable practices leading to awareness and action at India International Science Festival (IIT Guwahati), 77th Assam Sahitya Sabha, and Advantage Assam 2.0, demonstrating advanced air and water quality monitoring tools and various other activities..
- Launched the "Chief Minister's Green Fellowship," programme by sending 60 students to 7 countries for 4-6 weeks, to receive advanced training on environmental issues.

Exclusive PCBA/2025-26/05



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