

Comprehensive Integrated Border Management System: Issues and Challenges [Mains Article]

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GS (M) Paper-3: “Security challenges and their management in border areas; linkages of organized crime with terrorism”

Existing System of Border Guarding

- The need for effective means to prevent infiltration along the India-Pakistan border first arose during the 1980s when Punjab was in the grip by militancy and numerous incidents of infiltration by

Sikh militants were observed.

- At that time, the BSF was provided with night surveillance capabilities such as Passive Night Vision Goggles (PNG), Night Weapon Sights (NWS), Hand Held Search Lights (HHSL), Hand Held Deep Search Metal Detectors (HHMD), etc.
- As cross-border threats increased and the BSF embarked on a modernisation process, the organisation acquired more sophisticated devices such as Hand Held Thermal Imagery (HTTI) systems, Long Range Reconnaissance Observation Systems (LORROS), Battle Field Surveillance Radars (BFSR), etc.
- These equipment proved to be game changers and force multipliers by enhancing the detection capabilities of BSF personnel.

SECURITY UPGRADE



PLANNED

➤ Any person trying to enter India from Gujarat to J&K can be tracked by **multiple technologies like CCTV cameras, thermal image devices, night vision devices, surveillance radar, underground monitoring sensors & laser barriers**

➤ All **unfenced 130 riverine sections** on 2,900-km-long border will be covered using **laser barriers**

➤ The project will cost govt **Rs 1cr**

per km. Two pilot projects in Jammu & Punjab are already on

➤ The entire border will be covered with **hi-tech systems in two years** and **50-60 private companies** are expected to take up projects

➤ A **control room will be set up after every 5-6 km** where any activity will be noticed and BSF men will be alerted. If one device is not working, others will alert jawans

PRESENT STATUS

➤ Though CCTV cameras, night thermal imagers and sensors are used in sensitive areas, **technology used is not superior. More than 150,000 flood lights have been installed on 50,000 poles** by govt on border to track movement using binoculars

➤ There were **222 infiltration attempts** from Pakistan in **2014; 100 in 2015**

➤ At any given time, **70 battalions of BSF** are posted on the border from Kutch to Kashmir. **1/3rd of them not on border**

Shortfalls in the existing system of Border Guarding

Despite these successes, sustained and successful attempts by infiltrators in breaching the international border continued, which, in turn, compelled the BSF to review the effectiveness of the existing electronic surveillance systems. Some highlighted shortcomings were:

- The high-tech equipment being used did not provide all-round security and did not work in adverse climatic conditions.
- Significant gaps remained at rivers and nullahs running along the fences;
- Being manpower intensive, the system was not effective in providing rest and relief to BSF troops.
- It is not an integrated system and therefore failed to provide a common operating picture at all levels.

Given these shortcomings, the BSF argued that a new, efficient and high-tech surveillance system for border guarding is urgently required to prevent infiltration by terrorists and smugglers.

Need for CIBMS

- During the past couple of years, the Jammu sector has witnessed quite a few instances of successful infiltration by terrorists as a prelude to attacks on strategic installations — prominent among these being the Pathankot and Uri terrorist attacks in 2016.
- These incidents have not only raised serious concerns about the efficacy of the existing border security system but also a consequent demand for the deployment of high-tech border surveillance equipment by the BSF.

What is CIBMS?

- The CIBMS is a more robust and integrated system that is capable of addressing the gaps in the present system of border security by seamlessly integrating human resources, weapons, and high-tech surveillance equipment.
- At the moment, BSF is working on a Comprehensive Integrated Border Management System (CIBMS) which will be deployed along the International Border with Pakistan.
- CIBMS is expected to counter infiltration and cross-border terror attacks.
- The system employs latest technology which would detect infiltration via land, underwater, air and tunnels.
- The concept of CIBMS is the integration of manpower, sensors and command and control to improve situational awareness and facilitate quick response to emerging situations.

Components of CIBMS

- Among major components of CIBMS is the 'virtual fence'.
- The second component is the command and control, which will help in optimum use of resources for border management.
- Another component is power management to keep CIBMS running.

Sealing the border with Pakistan using smart technology-aided fence will be in place by December next year.

KIREN RIJU Minister of state for home affairs

Underlining Role of Technology

Comprehensive Integrated Border Management System (CIBMS) to be deployed on Pakistan border

CIBMS integrates manpower, sensors and command & control to facilitate quick responses

CIBMS will counter infiltration and cross-border terror attacks by using technology that can detect infiltration via land, underwater, air and tunnels



ITBP's operational requirements include better road network on LAC

Aim of CIBMS:

- The purpose of the CIBMS is to eventually replace manual surveillance/patrolling of the international borders by electronic surveillance and organising the BSF personnel into quick reaction teams to enhance their detection and interception capabilities.

Background:

- The use of high-tech solutions for border security was being considered by the Ministry of Home Affairs (MHA) since 2012 when it released an Expression of Interest (EoI) for a Comprehensive Integrated Border Management System (CIBMS).
- In 2014, the BSF also submitted a detailed report on CIBMS to the MHA, but no decision was taken to implement the system until January 2016.
- The trigger for implementing the CIBMS was the 2016 Pathankot terrorist attack and the subsequent warning by the division bench of the Punjab and Haryana High Court that if no decision to protect the India-Pakistan border, stern action would be taken against the officials of the MHA.

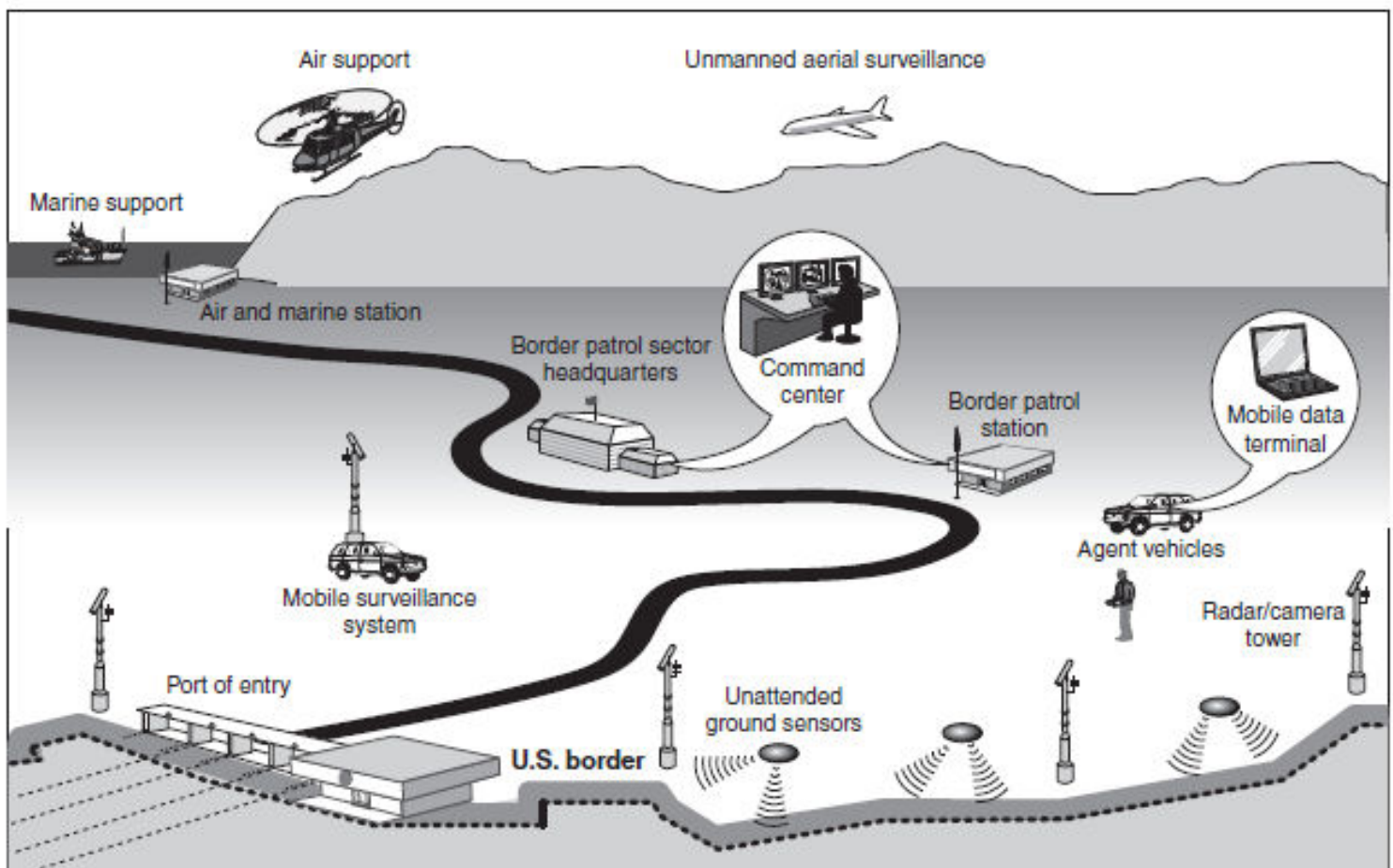
Induction of CIBMS

- The Union Home Secretary sanctioned the implementation of CIBMS through two pilot projects.
- The aim of the pilot projects was to test the CIBMS on various parameters such as requirement of manpower, user friendliness, technical training, repair and maintenance.
- At present, the CIBMS is being implemented along two stretches in the Jammu sector of the India-Pakistan border.
- The two stretches were selected for their difficult terrain characterised by several cross-border streams and dense growth of elephant grass.
- The fact that several intruders were arrested with large consignments of heroin and fake Indian currency notes in these stretches highlights their vulnerability.

CIBMS in US

- The United States, have tried high-tech solutions for securing their borders, but with mixed results.
- In this context, a review of the Secure Border Initiative net (SBI net) of the United States provides a clearer picture of the likely problems that the BSF might face while implementing the CIBMS.

US government's SBInet Programme



- Following the September 11, 2001 terrorist attacks, the Department of Homeland Security (DHS) launched the high-tech component of the Secure Border Initiative-network called SBInet in 2005.
- In April 2006, the SBInet was to comprise of "surveillance technologies, such as sensors,

cameras, and radars, as well as command, control, communications, and intelligence (C3I) technologies, including software and hardware to produce a Common Operating Picture (COP).

- SBInet was implemented as a pilot project along two stretches of the US-Mexico border.

Failure of SBInet:

- The DHS assessment revealed that the system suffered numerous technical glitches such as a large number of false alarms, line of sight constraints, unreliable information transmission, and equipment malfunction.
- Based on the assessment, the DHS concluded that the SBInet programme was not viable and cost effective as it had resulted in tremendous cost escalation.
- The programme did not and could not provide a single technological solution to border security. In light of the poor assessment report, the SBInet was finally shelved on 2017.

Criticisms of SBInet and parallels with the CIBMS:

- One of the criticisms levelled against the SBInet programme was that while the DHS was clear that it wanted a technical infrastructure that would complement the two other components, i.e., tactical infrastructure (border fence) and personnel, it was vague about the kind of electronic surveillance system it was seeking.
- Instead of formulating well defined objectives and providing clear specifications, the DHS asked prospective contractors to create their own vision for the project. The DHS also failed to specify performance metrics to judge the final product.
- Bidders were also asked to quote their own prices for the products they were offering.
- SBInet was that the Custom Border Patrol (CBP) had claimed that its own officers were capable of managing the SBInet from command and control centres. But in reality, they did not have the required expertise and handed over electronic surveillance to the contractors with little direction or oversight.

Challenges ahead for CIBMS in India:

- In the case of India, it is widely accepted that the operation and maintenance of the existing sophisticated equipment remain a problem.
- At present, many of the high-tech surveillance devices deployed by the BSF are not optimally utilised because the required technical expertise is not uniformly available among the force's personnel.
- The high cost of the electronic devices and the lack of easy availability of spare parts act as a deterrent against their use.
- Control centres manned by incompetent BSF officials and centralised decision making could hamper timely and effective response on the ground given that detection and interception of infiltrators at the border require a quick response which is achieved only through a decentralised decision making process.
- The lack of technical expertise, erratic power supply and adverse climatic and terrain conditions in the border areas could potentially undermine the functioning of the sophisticated system.

Conclusion:

- Technical solutions are necessary to complement the traditional methods of border guarding. They

not only enhance the surveillance and detection capabilities of the border guarding forces but also improve the impact of the border guarding personnel against infiltration and trans-border crimes.

- However, caution must be exercised while advocating the use of high-tech and high-cost electronic devices for border security.
- The experiences of countries such as the United States that have employed high-tech devices demonstrate that not only are the costs of such devices prohibitive but that they also fail to provide a comprehensive solution to border security problems.
- Instead of high-cost and innovative technological solutions that require extensive technical expertise, a judicious mix of properly trained manpower and affordable and tested technology is likely to yield better results.

[Ref: IDSA, Indian Express, Economic Times]