



## Fortifying Borders and National Security - Key Strategies for Enhancing Intelligence Gathering and Engaging the Private Sector in Defence Manufacturing

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### Strengthening India's Defence through Indigenous Production and Hybrid Threat Mitigation

**Intro:** In an era marked by escalating geopolitical tensions, **Lt. Gen. Shokin Chauhan** shares invaluable insights on India's defence strategies. From enhancing indigenous production to combating hybrid warfare, his expertise unveils critical pathways for fortifying national security and engaging private sector innovation. Speaking to **Mahima Sharma** on **Socio-economic Voices** this week, he shares the future of India's defence landscape in this compelling and exclusive interview at **Indiastat**.

**MS: What's your take on India's Defence Industry: Achievements and Challenges? And what should be the practical road ahead amid rising geo-political tensions?**

**Lt. Gen. Chauhan:** India's defence industry has made significant strides over the last few decades, but it still faces several challenges.

Here's a breakdown of its key achievements, challenges, and the challenges ahead: Achievements

**Increased Indigenous Production:** India has been actively pushing the "Make in India" initiative, and there has been success with platforms like the Tejas Light Combat Aircraft, INS Vikrant (the indigenous aircraft carrier), and BrahMos missiles (developed in collaboration with Russia). There has also been an expansion in manufacturing defence equipment such as tanks, artillery, and armoured vehicles.

**DRDO's Progress:** The Defence Research and Development Organisation (DRDO) has been critical in developing several indigenous technologies, including missile defence systems, radar systems, and combat drones. However the DRDO needs to be restructured to make it more accountable and that too is being done now.

**Private Sector Participation:** The liberalisation of the defence sector has encouraged private companies like Tata Advanced Systems, Larsen & Toubro, and Mahindra Defence to enter defence manufacturing.

This has increased competition and driven innovation.

**Space Capabilities:** India's advancements in space technology, led by ISRO, have also contributed to its defence capabilities, such as satellite-based surveillance and missile guidance systems.

**Export Potential:** India is emerging as a defence exporter, albeit on a smaller scale. Exporting to countries like Vietnam, Philippines, and African nations has provided a boost to its global standing.

#### Now let's come to the Challenges

- **Dependence on Imports:** Despite advancements, India still imports about 60-70% of its defence equipment. Major platforms like fighter jets, submarines, and helicopters are sourced from countries like Russia, France,

Israel, and the US.

- **Technology Transfer:** India faces hurdles in gaining access to cutting-edge technology, especially from Western nations, due to geopolitical concerns and Intellectual Property Rights (IPR) restrictions. Indigenous production often relies on outdated technology.
- **Delays in Projects:** Long development timelines for indigenous defence projects lead to cost overruns and performance limitations. For example, the Tejas program was delayed by several decades, and key systems are still imported.
- **Bureaucratic and Policy Issues:** India's defence procurement process is notoriously slow, impacted by bureaucratic red tape, corruption, and complex approval mechanisms.
- **Budget Constraints:** While India's defence budget is one of the largest globally, it is constrained by competing priorities such as social welfare, infrastructure, and education. This often leaves inadequate funding for modernization and research & development.
- **Human Resources and Skill Gap:** The defence manufacturing sector requires a specialised workforce, but the industry is still grappling with a shortage of skilled talent and technical expertise in areas such as aerospace, cybersecurity, and advanced materials.

**Coming to the Practical Road Ahead, as per my expertise and experience, I am sharing some facts and key areas:**

- **India should boost R&D investment** to drive innovation in artificial intelligence, cyber defence, and hypersonic technologies, leveraging collaboration with academia and startups. Public-private partnerships, especially between entities like DRDO and private companies, can accelerate production and innovation.
- **Strengthening technology-sharing agreements and joint ventures with allies**, such as missile defence with Israel and fighter jets with Russia, can serve as templates for future partnerships. India should make its indigenous defence systems globally competitive by fostering export-friendly policies, easing licensing, and supporting government-backed initiatives.
- **Defence procurement needs streamlining** with reduced bureaucracy, transparency, and fast-track mechanisms for faster acquisitions. Given the rise of cyber and electronic warfare, India must focus on cybersecurity, information warfare, and quantum computing to stay ahead.
- **India's defence strategy should align with its geopolitical goals**, notably regarding China's influence and Indo-Pacific tensions.
- **Strengthening alliances with Quad members** (US, Japan, Australia) and building defence ties with ASEAN and African nations are key to regional stability.

**MS: How do you assess the effectiveness of current counter-terrorism strategies in India compared to international benchmarks, such as the Global Terrorism Index, which ranked India at 8th in the world?**

**Lt. Gen. Chauhan:** India's counter-terrorism strategies have been successful but still face significant challenges, since the Global Terrorism Index (GTI), ranks India as the 8th most affected country by terrorism.

This underscores the threat India faces, especially in regions like Jammu & Kashmir (J&K), Central India (affected by Maoist insurgency), and parts of our North-East.

### **Effectiveness of India's Counter-Terrorism Strategies**

**Security Forces' Role and Successes:** The Indian Army, Assam Rifles, and CAPFs have significantly reduced threats in these regions. In J&K, following the revocation of Article 370, security operations have intensified, with a notable decline in militancy and enhanced coordination among the Army, CRPF, and local police. In Central India, the SAMADHAN initiative has weakened Maoist influence, and in the North-East, the Assam Rifles and Indian Army have maintained control effectively.

**Intelligence and Surveillance:** India's intelligence network, led by RAW, IB, MI, and NIA, has advanced, enhancing surveillance, cyber intelligence, and counter-radicalization. The use of UAVs, satellite imagery, and human intelligence has strengthened India's capacity to pre-empt attacks, though coordination gaps between state and central agencies persist.

**Legislative Framework:** Laws like UAPA, NIA Act, and AFSPA support counter-terrorism but face criticism for human rights concerns. Despite their effectiveness, judicial delays and low conviction rates hinder their impact.

**Counter-Radicalization Programs:** India's local counter-radicalization efforts in states like Kerala and Kashmir have seen moderate success, yet lack central coordination and struggle to maintain grassroots engagement.

**Cross-Border Terrorism:** Cross-border terrorism from Pakistan fuels conflict in J&K. India's Balakot airstrikes in 2019 marked a proactive shift, while the Fence and Army deployments along the Line of Control have curbed infiltration. Diplomatic efforts through forums like FATF have had limited success in curbing Pakistan's support for terrorism.

**Urban Terrorism and Global Terror Threats:** Urban areas remain vulnerable to attacks from home-grown radicals and IS-inspired cells. Although India has been relatively insulated from global terror networks, tracking lone-wolf attacks and online radicalization remains challenging due to evolving tactics.

### Comparison with International Benchmarks

India's counter-terrorism approach can be compared favorably with several international benchmarks:

#### United States

The US boasts a robust inter-agency coordination system among its intelligence agencies (CIA, FBI, NSA), a capability India still struggles to achieve. While India is improving its surveillance and intelligence-gathering efforts, it lags in adopting advanced technologies like predictive analytics and AI.

#### Israel

Israel's counter-terrorism strategy integrates military, intelligence, and political efforts. Its proactive strikes and intelligence-driven operations serve as a model for India, though regional complexities with Pakistan and China hinder India's ability to adopt a fully proactive approach without escalating internal conflicts.

#### UK and France

The UK and France emphasize counter-radicalization, particularly against Islamist terrorism, employing community policing, deradicalization programs, and sophisticated online monitoring. While these methods may be advanced, their effectiveness is questioned. In contrast, India's deradicalization efforts remain fragmented.

### Challenges India Faces in Meeting Global Benchmarks

**Coordination Issues:** India's counter-insurgency operations are complex. Security forces strive to use minimum force, yet they sometimes face criticism for human rights violations. This can breed local resentment and undermine long-term peace efforts.

**Judicial System Bottlenecks:** The slow judicial process weakens counter-terrorism efforts, leading to low conviction rates for arrested militants and diminishing the deterrent effect.

**Technology Integration:** To keep up with global counter-terrorism measures, India must enhance its use of cybersecurity, data analytics, and AI, especially as threats from cyber-terrorism and online radicalization rise.

**So, what's the way forward?** It requires a three-pronged strategy:

1. **Improving Intelligence Sharing and Technology:** Prioritize modernizing intelligence by integrating real-time data sharing.
2. **Counter-Radicalization:** Implement a national de-radicalization framework focused on local communities, ensuring inclusivity and transparency based on our unique perspectives.
3. **Proactive Diplomacy:** Continue leveraging diplomatic pressure in forums like the UN, FATF, and BRICS to isolate state sponsors of terrorism.
4. **Focus on Urban Terrorism:** With a shift towards lone-wolf attacks and urban targets, India must enhance urban security, smart policing, and public awareness campaigns.

**MS:** With the ongoing tensions along the Indo-China border and recent incursions, how effective do you believe India's current border guarding operations are? What statistical evidence can you provide to support your assessment, and what changes would you advocate for?

**Lt. Gen. Chauhan:** India's current border guarding activities along the Indo-China border have had mixed success, primarily due to challenging terrain, harsh weather, and the advanced tactics of the People's Liberation Army (PLA). China's increasing assertiveness, particularly in Ladakh, Arunachal Pradesh, and Sikkim, continues to complicate matters, as these areas remain contested.

### Key Achievements of India's Border Guarding Operations

1. **Forward Deployment and Surveillance:** In response to Chinese incursions, particularly after the 2020 Galwan Valley clashes, India has deployed troops forward in crucial sectors. Enhanced surveillance through drones, satellites, and UAVs has improved detection of PLA movements along the Line of Actual Control (LAC). The Indian Army and the Indo-Tibetan Border Police (ITBP) have established a permanent presence in key areas and built multiple advance landing grounds (ALGs) and observation posts.
2. **Infrastructure Development:** The Indian government, notably through the Border Roads Organisation (BRO), has fast-tracked the construction of airstrips, bridges, and other critical border infrastructure. Significant projects like the Darbuk-Shyok-Daulat Beg Oldie (DSDBO) road have been completed, enhancing military mobility and access to remote locations. Vital tunnels, such as the Atal Tunnel, have also been put into service, improving all-weather connectivity in Ladakh and facilitating troop and supply transport during winter.
3. **Bilateral Engagement and De-escalation:** India has utilized diplomatic channels and Corps Commander-level discussions to manage tensions along the LAC. Although friction remains high in key areas like the Depsang Plains and Eastern Ladakh, these talks have sometimes led to disengagement.
4. **Enhancing Air Strength and Missile Deployment:** India has strengthened its air capabilities by deploying Apache helicopters, Sukhoi Su-30 MKIs, and Rafale jets in regions like Leh and Tezpur. The installation of surface-to-air missiles (SAMs), including the Akash system, has further bolstered India's defense capabilities along the border.

Despite these advancements, several challenges persist.

### Challenges in India's Border Guarding Activities

1. **Infrastructure Disparity:** China has developed an extensive network of highways, railroads, and airfields along the LAC, enabling rapid troop and heavy machinery deployment. This gives China a logistical advantage over India.
2. **Ambiguous LAC Demarcation:** The Line of Actual Control (LAC) remains poorly defined and contested, leading to frequent confrontations during patrols. This ambiguity allows China to assert claims over territories that India considers its own.

3. **Technological Lag:** While India has improved its use of satellites and drones for surveillance, it still falls short of China's capabilities in real-time monitoring and border management. The PLA's integration of artificial intelligence and satellite reconnaissance provides it with a significant advantage in tracking movements and coordinating operations.
4. **Challenging Terrain and Weather:** Indian border guards face serious logistical hurdles in high-altitude areas like Ladakh and Arunachal Pradesh. The difficult terrain complicates military rotations and supply deliveries, especially during winter when roads can become impassable.

### Now coming to answer your query on, "Data-Based Support and Suggested Adjustments for Border Guarding Activities"

**Chinese Incursions:** The Indian Ministry of Defence reports an increase in Chinese breaches along the LAC, with over 200 incursions by the PLA in 2021 alone. From 2016 to 2021, such transgressions rose by 50%. The 2020 Galwan Valley clash marked the most intense confrontation in decades, resulting in 20 Indian soldier fatalities and an undetermined number of Chinese casualties.

**Infrastructure Development:** By 2023, India completed 42 of the 73 key highways being built along its border with China. Despite this progress, it still lags behind China in infrastructure development. The government has boosted the border infrastructure budget by ₹15,000 crore (\$2 billion) for 2023–2024.

**Force Deployment:** As of 2023, India has added 50,000 troops along the LAC, raising the total to over 200,000. The number of air assets, including UAVs, fighter jets, and helicopters, has significantly increased for better monitoring of Chinese movements.

### Suggestions for Enhancing Border Guarding:

1. **Improved Surveillance and Technology:** Invest in advanced surveillance tools like UAVs, AI analytics, and high-resolution satellites. Setting up integrated command centers will enhance response times to intrusions.
2. **Accelerated Infrastructure:** Expedite the construction of all-weather roads, tunnels, and airstrips along the LAC. Prioritize projects like the Zojila Tunnel to facilitate troop movement and focus on dual-use infrastructure for both military and civilian benefits.
3. **Advanced Air Defence Systems:** Install cutting-edge air defence systems, such as the S-400, to protect against aerial incursions. Increasing armed drones for border patrol will enhance deterrence and response times.
4. **Strengthening Strategic Partnerships:** Bolster military ties with allies like the US, Japan, and Australia through frameworks like the Quad. Joint exercises on border security will improve readiness and intelligence sharing.
5. **Specialized Mountain Warfare Units:** Expand and modernize mountain warfare units, enhancing combat readiness with more high-altitude training. Establish quick reaction forces for rapid deployment in challenging terrains.
6. **Crisis Management and Diplomatic Channels:** Maintain bilateral contacts with China while being prepared for military responses. Strengthening communication channels can help prevent escalation during tense periods.

**MS:** With the rise of hybrid warfare tactics employed by various state and non-state actors, what new intelligence-gathering methods should India prioritise? How do current intelligence failures correlate with these emerging threats?

**Lt. Gen. Chauhan:** India must enhance its intelligence capabilities to tackle the rising threat of hybrid warfare, which combines conventional combat with cyberattacks and disinformation tactics from adversaries like China and

Pakistan. I am sharing certain key areas for improvement:

1. **AI and ML for Data Analysis:** Implement AI-driven analytics to process large datasets from social media and satellite imagery, identifying trends and threats in real time.
2. **Big Data Analytics:** Utilize big data to correlate information from various sources, establishing a centralized platform for immediate intelligence sharing among agencies.
3. **Cyber Intelligence (CYBINT):** Develop robust offensive and defensive cyber capabilities to monitor and counter cyber threats targeting critical infrastructure.
4. **Counter-Disinformation Units:** Invest in social media intelligence (SOCMINT) to combat misinformation and establish units dedicated to identifying and neutralizing hostile narratives.
5. **Signals and Electronic Intelligence (SIGINT and ELINT):** Enhance capabilities to intercept enemy communications and monitor non-communication signals, especially near borders.
6. **Human Intelligence (HUMINT):** Strengthen HUMINT by infiltrating terrorist networks and expanding intelligence operations in neighboring countries.
7. **Space-Based Surveillance:** Prioritize satellite capabilities for real-time intelligence on military developments and threats across borders.
8. **Inter-Agency Coordination:** Improve collaboration and information sharing among intelligence agencies to respond effectively to hybrid threats.

**Now coming to answers the part on “India’s Role Amid Global Conflicts”**

**As conflicts escalate in the Middle East and Ukraine, India should:**

- Act as a mediator advocating for peace through multilateral institutions.
- Avoid joining alliances that compromise India’s autonomy in international affairs.
- Reduce dependency on Middle Eastern oil by investing in renewables and exploring new markets.
- Increase and diversify strategic petroleum reserves to manage supply disruptions.
- Collaborate with regional partners to focus on security concerns close to home.
- Maintain readiness along borders with China and Pakistan amid potential distractions from global tensions.
- Enhance defenses against cyber threats and foreign influence operations.
- Strengthen trade ties with neutral countries to mitigate economic impacts from conflicts.
- Build domestic capabilities in essential industries to reduce reliance on imports.
- Use diplomatic influence to promote peace initiatives and humanitarian efforts, preparing for potential refugee flows.

In summary, India should navigate these conflicts carefully, enhancing security and economic resilience while maintaining a constructive global presence.

**MS: What role do you see India and Vietnam playing in shaping the regional security architecture in Southeast Asia in the next five years? How can they work together to ensure stability?**

**Lt. Gen. Chauhan:** Rising geopolitical tensions in Southeast Asia, especially due to China's assertiveness in the South China Sea, position India and Vietnam to significantly influence regional security over the next five years. Both nations prioritize a rules-based order, maritime security, and regional stability. Their collaboration could reshape Southeast Asia's security dynamics.

**Key Roles for Vietnam and India:**

1. **Balancing China's Influence:** India is enhancing its ties with Southeast Asia through its "Act East" policy, strengthening its naval presence and engaging in ASEAN. Vietnam, a strong advocate against China's

territorial claims, contributes to regional stability with its military advancements. Together, they can reassure smaller Southeast Asian nations, promoting a multipolar balance.

2. **Enhancing Maritime Security:** Concerns over China's actions necessitate improved naval cooperation, including joint drills and intelligence sharing. India's Freedom of Navigation Operations (FONOPs) can bolster Vietnam's stance on open sea lanes, reinforcing adherence to international maritime laws like UNCLOS.
3. **Defence and Security Cooperation:** India is ramping up defense ties with Vietnam, supplying key military equipment. This partnership can evolve through technology transfers, training programs, and joint exercises, enhancing both nations' crisis readiness and addressing security threats such as cybercrime and terrorism.
4. **Collaboration in Indo-Pacific and ASEAN Frameworks:** India and Vietnam value ASEAN's role in regional stability. By supporting ASEAN's significance in major power dynamics, they can jointly promote a free, rules-based Indo-Pacific system alongside allies like the U.S., Japan, and Australia.
5. **Economic Cooperation as Strategy:** Both nations are working to reduce reliance on China by diversifying supply chains and strengthening economic ties. Initiatives like the India-Myanmar-Thailand Trilateral Highway can enhance connectivity and provide alternatives to China's Belt and Road Initiative.
6. **Building Coalitions and Multilateral Engagement:** Strengthening regional forums such as Mekong-Ganga Cooperation and ADMM-Plus will allow both countries to address security concerns collectively. Their cooperation with other like-minded nations can help establish a robust security framework that protects smaller states from larger powers.

#### **Collaborative Actions for Stability that India and Vietnam can take are...**

- Conduct regular joint military exercises to enhance interoperability and readiness.
- Share satellite and surveillance data to improve maritime domain awareness.
- Strengthen maritime law enforcement cooperation to secure regional sea routes.
- Advocate for adherence to international laws, supporting peaceful dispute resolution, especially in the South China Sea.
- Collaborate on regional infrastructure and trade projects to deepen economic integration and lessen dependency on China.

**Together, India and Vietnam can foster an inclusive, rules-based order in the Indo-Pacific,** effectively counterbalancing China's influence while promoting regional peace and prosperity.

**MS: With the increasing acknowledgment of climate change as a national security threat, how should the Indian military adapt its operational frameworks to address climate-related risks? What data supports the urgency of this adaptation?**

**Lt. Gen. Chauhan:** The Indian military needs to adapt its strategies to tackle climate-related risks that threaten national security. Here are some key approaches:

#### **Adapt to Climate Change**

- Integrate climate risks into all planning to manage supply chain disruptions and infrastructure challenges.
- Incorporate climate scenarios into drills, focusing on issues like rising sea levels and extreme weather.

#### **Climate-Resilient Infrastructure**

- Strengthen bases in vulnerable areas, such as coastal regions and flood-prone mountains.
- Invest in renewable energy to reduce carbon footprints and operational disruptions during extreme weather.

#### **Humanitarian Assistance and Disaster Relief (HADR):**

- Expand capabilities for large-scale rescues in climate-related disasters.
- Prepare for potential resource conflicts, particularly over water-sharing with neighbouring countries.

### **Strengthen Cooperation:**

- Work with civilian disaster agencies and regional partners to improve climate response efforts.
- Conduct joint military drills and coordinate disaster responses with neighbouring countries to manage climate crises effectively.

### **Research and Innovation**

- Invest in gear and systems suited for extreme weather.
- Leverage satellites and AI to monitor climate patterns, allowing for quick resource deployment.

### **Evidence of Need for Adaptation**

Climate disasters in India have surged twelvefold since 1970, affecting 75% of districts, with significant coastal vulnerabilities.

- The rapid melting threatens water security and could escalate tensions in border regions like Ladakh.
- Climate change may intensify disputes over shared resources, particularly water.
- Climate-induced migration could pressure borders, requiring military intervention.
- Other countries, like the U.S. and U.K., are already treating climate change as a national security priority.

To counter rising climate threats, the Indian military must integrate climate considerations into its operations, bolster infrastructure, and enhance disaster response capabilities.

### **About Lt. Gen Shokin Chauhan**

*Lt Gen Shokin Chauhan, a distinguished military leader with five Presidential awards, served as Director-General of Assam Rifles before retiring in 2018. Post-retirement, he chaired the Ceasefire Monitoring Group, fostering peace with insurgent groups in Nagaland. A geopolitical scholar and strategic thinker, he earned a PhD on India-Nepal relations and contributed to influential forums. He also authored Bridging Borders, while consulting and lecturing on strategic leadership, geopolitics, and security issues.*

### **About the Interviewer**

*Mahima Sharma is an Independent Journalist based in Delhi NCR. She has been in the field of TV, Print & Online Journalism since 2005 and previously an additional three years in allied media. In her span of work she has been associated with CNN-News18, ANI - Asian News International (A collaboration with Reuters), Voice of India, Hindustan Times and various other top media brands of their times. In recent times, she has diversified her work as a Digital Media Marketing Consultant & Content Strategist as well. Starting March 2021, she is also a pan-India Entrepreneurship Education Mentor at Women Will - An Entrepreneurship Program by Google in Collaboration with SHEROES. Mahima can be reached at [media@indiastat.com](mailto:media@indiastat.com)*

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