

Security for Nation is Security for Human Kind

India's Security Requirements -A Global Perspective



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INTRODUCTION: Threats To Security

India is facing transnational security and multi-dimensional threats



1. Terrorism – 33 incidences, 1500 fatalities - Mar 93 to Nov 08, 84, 000 lost lives in J & K;
2. Natural Disaster - 89, 63, 204 in deadly disasters;
3. Manmade Disaster: Ex. 20, 000 in Bhopal Gas Tragedy in 1984;
4. War & Invasions: Over 3 million people died in 1965 & 1971 wars;
5. Crime Over 0.6 million cases.



TOP PRIORITIES: Information Sharing & Securing Border

One/two most effective ways to protect our homeland security:

- 1. Information systems that share data across law, health, emergency agencies;**
- 2. Tighter border security;**
- 3. National ID card;**
- 4. Emergency response equipment/training for front-line responders;**
- 5. Up-to-date threat assessments;**
- 6. Improve airport security;**
- 7. Detailed plans for security of critical infrastructure**



BORDER SECURITY

1. Land border of **15,107 km.** running through **362** border blocks, **92 districts** in **17 states**;
2. Coastline border of **7,517 km.** touching **13 states** and union territories;
3. India also has a total of **1,197** islands accounting for **2,094 km.** of additional coastline.

COASTAL & MARITIME SECURITY

1. India has a coast line of just over **7500 kilometers**
2. The stretch lie **13 major** and nearly **200 minor ports.**
3. These, account for over **600 million tons** of goods going out and coming in,
4. Valued at **USD500 billion** in **2008-09** and doubling every five to six years.
5. Of this, energy imports alone will total **100 million tons** by **2013.**



COASTAL : Small Vessel Security

0.1 million fishing boats; **77, 000** mechanized boats; **66,000** mechanized deep-sea vessels;
Fishing fleet of India consisted of **10,260** traditional crafts powered by sails or oars

Threat

1. Mode of conveyance to WMD (weapon of mass destruction) and terrorists;
2. Maritime transportation Security remains a 'weak link' due to the ease of concealment within a ship and the assured freedom of navigation at sea.
3. The growing containerization of trade has compounded the problem of such illicit transfers.
4. The protection and security of the landside perimeter of a port is difficult due to their large size.

Goals for Protection & Prevention

Develop a strong partnership between small vessel community and public and private sectors;



Develop layered security with Boat Reporting System (BRS), Vessel Identification System (VIS), & Vessel Monitoring System (VMS);



Enhance cooperation among international, central, state, & local governments for better coordination



IDENTIFICATION SECURITY

Secure Identification:

1. **E-Verify:** Develop an Internet-based system allows participating employers to electronically verify the employment eligibility of newly hired employees;
2. **Real ID:** Enhance the country's security because driver license serve various purposes, such as access to central buildings, nuclear power plants, boarding the aircraft, etc.;
3. **India-Visit Traveler Information:** Program will invoke biometric procedures that will be applicable to international travelers holding a non-Indian passport or visa.



CYBER SECURITY

Few Cyber Crime Stats of India

1. Intellectual property data worth \$4.6 billion was stolen last year(2008 – 09);
2. \$600 million were spent for damages;
3. \$12 million of data is out – sourced to countries without any data protection;

Endorsement of the following action items to combat Cybercrime:

1. Requirement of International Cooperation
2. Immediate enactment of substantive, procedural and mutual assistance laws;
3. Making cybercrime laws as comprehensive and assistance between and among economies;
4. Security and Technical guidelines that can be used by governments and corporations vs cybercrime
5. Outreach programs to economies & consumers regarding cyber security & cyber ethics
6. Early warning systems against viruses and illegal network intrusions
7. Computer Emergency Response Team



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CRITICAL INFRASTRUCTURE & KEY RESOURCES (CIKR) SECURITY





NAME OF THE SECTOR	Total Cost of Security Solution (in USD Million)
Hotel Infrastructure	100
Major Public Assembly & Outdoor Events	30
National Monuments & Worship Places	42
Education Sector	2287
Transport Sector –	
• Aviation Sector –	84
• Railway Sector –	340
• Road Sector -	80
Communication & Postal Sector	1430
Power Sector	22
Banking & Financial & Judicial	570
Government Facilities & Real Estates	175
Public Health & Healthcare	2700
Industry	100
Agriculture, Food & Dams	40
TOTAL	7900

1. Over and above the security spent for various security domains there is an utter need to safeguard the Critical Infrastructures of the nation
2. The total estimated amount for Security and Protection of various Critical Infrastructures of India include an approximate sum of

US\$ 8 Billion

Why CIKR is important ?

1. In the event of attack, CIKR can cut-off or disrupt functioning of govt. & business alike;
2. In the event of direct attack and natural, manmade or technological hazards can cause human casualties, property destruction, & economic effects;
3. CIKR can be used as WMD (weapon of mass destruction) and can unleash even more devastating physical & psychological consequences on our society.
4. Any threat, compromise or exploitation of these infrastructures could have devastating impact on our national security, economic stability and the public at large.
5. It has become critical to develop a strong external security mechanism, which concentrates on vigilance, assesses activities and monitors movement of people.



HOSPITALITY SECTOR

1. Major Luxurious Hotels – 18
2. Major Deluxe Hotels – 21
3. 5 Star Hotels – 166
4. 4 Star Hotels – 125
5. 3 Star Hotels – 400
6. Heritage Hotels – 173
7. Major Business Hotels – 14
8. Major Conference Centers – 24
9. Total no. of hotels, cottages and guest houses – 5,73,578
10. Hill Station – 33
11. Beach Resort – 91
12. Wildlife Resort – 93
13. Casinos - 1

MAJOR PUBLIC ASSEMBLY & OUTDOOR EVENTS

1. Convention Centers – 10
2. Botanical Gardens – 07
3. National Parks / Public Aquarium – 97 / 02
4. Wildlife Sanctuaries – 441
5. Major Zoos / Museums – 18 / 41
6. Major Theme & Amusement Parks – 20
7. Major Fairs – 16;
8. Major Parades – 03.
9. Major Stadiums / Auditoriums – 27;
10. Major sports / Golf Clubs – 45 / 08;
11. Professional Sports League & Federation – 33.

NATIONAL MONUMENTS & WORSHIP PLACES

1. Ancient Monuments – 3,650;
2. Major Religious Monuments – 12;
3. Worship Places – 26,38,515;

5. Major Hindu Temples / Cave Temples – 14 / 7;
6. Historic Gurdwaras (Total) – 23 (186);
7. Major Churches / Mosques – 73 / 62;
8. Famous Heritage Palaces – 16;
9. Famous Forts & Palaces – 24;
10. Famous Tombs & Mosques – 11.



EDUCATIONAL SECTOR

1. Central/State /Deemed – Universities – 20 /216 / 101;
2. Professional Colleges – 5,744;
3. Arts, Science , commerce colleges – 11,698;
4. Polytechnics – 1,274;
5. Technical / Industrial / Arts & Crafts Institutes – 5,465;
6. Pre Junior Colleges/Higher Sec. Schools – 53,643;
7. Technical Training Schools – 2,021;
8. Primary / Jr. Basic Schools – 7,72,568;
9. Middle / Sr. Basic Schools – 2,88,493;
10. High / Post Basic Schools – 67,157

TRANSPORT SECTOR

1. National Highways (in Kms)-66,590;
2. State Highways (in kms) – 1, 31,899;
3. Railway Hospitals – 121;
4. Railway Schools – 365;
5. Good Sheds – 2,300
6. Major District Roads(in Kms) – 25,50,00;
7. Access Controlled Expressway (in Kms) – 200;
8. Number of National Highways – 259;•
9. International Airports – 12;
10. Domestic Airports – 87;
11. Number of Stations – 6,853;
12. Number of Yards – 300;
13. Number of workshops – 700.

TELE COMMUNICATION & POSTAL SECTOR

1. Telephone Exchanges – 35,508;
2. Cellular Phone Service Providers – 22;
3. Telecommunications Companies – 53;
4. Telecom Circle – 18;
5. Landline Users (in Mn) – 37.75;
6. Cellular Subscribers (in Mn) – 391.8;

7. Internet Users (in Million) – 81;
8. Operating Internet Service Providers – 183;
9. Total Post Offices – 1,55,333;
10. Computerized Post Offices – 9,639;
11. P. O. National Data Center – 732.



REAL ESTATES & GOVERNMENT FACILITIES:

1. Office & Apartment Buildings – 19,72,03,165;
2. Residences – Cum – Other Users – 86,75,223;
3. Shops & Offices – 1,47,29,321;
4. Factory, Workshops & Work Sheds – 24,32,003;
5. Other Non – Residential Use – 2,80,44,283;
6. Number of Retail Centres (in Million) – 2.1;
7. Major Shopping Malls – 810;
8. Major Super Markets – 16;
9. Embassies (Govt.) – 110;
10. National Research Laboratories/Inst. – 90;
11. Corporate Research Labs – 08;
12. Government Research Labs – 08;
13. Institute of Science & Technology – 08;
14. CSIR Research Institutes / Labs – 40;
15. Research Associations – 11.

BANKING, FINANCIAL & JUDICIARY SECTOR

1. Commercial Banks – 77,773;
2. Co – Operative Banks – 12,369;
3. Total ATM Centres – 31,078;
4. Financial Institutions (in No) – 21.
5. Supreme Court – 01, High Courts – 21

POWER SECTOR

1. Hydroelectric Power Stations – 281
2. Thermal Power Stations – 23
3. Wind Energy Farms – 447
4. Tidal Energy Farms – 02
5. Nuclear Power Reactors -17



PUBLIC HEALTH & HEALTHCARE SECTOR:

1. Sub – Centers – 1,46,026;
2. Community Health Centres (CHC) – 3,346;
3. Primary Health Centres (PHC) – 23,346;
4. Eye Banks – 163;
5. Internship Training Hospitals – 465;
6. Ayurveda Hospitals – 4,38,721;
7. Unani Hospitals – 43,578;
8. Siddha Hospitals – 17,560;
9. Naturapathy Hospitals – 541;
10. Homeopathy Hospitals – 2,17,460;
11. Government Blood Banks – 924;
12. Voluntary / private Blood Banks – 368 / 718;
13. Blood Banks in Charitable Centres – 520
14. Hospitals & Dispensaries – 6, 64,286;
15. Government Hospitals – 11,289;
16. Major Military Hospitals – 05.

INDUSTRY SECTOR

1. Small scale Units – 13,74,974;
2. Unregistered Small Scale Units – 91,46,216;
3. Aluminums / Steel related Plants – 40 / 39;
4. Vehicle related Factories – 592;
5. Pesticides & Agro based Chemical Industries – 625;
6. Oil Refineries – 20;
7. Dye Pigments Industry – 1,550

AGRICULTURE / FOOD / DAM SECTOR

1. Fruits/Veg./Food Processing Units – 5,198 / 500;
2. Ware Houses / Godowns – 494 / 1,451;
3. Major Agricultural Firms – 345;
4. Major Fertilizer Companies – 47;
5. Total Dams – 4,300;
6. Major Dams – 256;
7. Ponds & Tanks – 22,000 (in sq. Kms).



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MAJOR SECURITY EQUIPMENTS

- Bomb Containment with Vehicle
- Explosive Detector (Handheld) for 10 Explosives
- Vision through Walls
- Intelligent Airfield & Runway Surveillance and Fallen Object & Debris Detection System
- Automatic Vessel Detection, Identification & Classification System

- Boom Barrier
- Bollards
- Turnstiles
- IVAC
- Door Frame Metal Detector
- Baggage Scanner
- Access Control System with Biometrics & RFID Cards, National ID Card
- Intelligent Surveillance System
- Mobile Video Surveillance

- CCTV & PTZ Cameras
- DVRs
- Video Analytics
- High Capacity Servers
- Central Monitoring Station
- Cabling & Accessories
- Godowns Security System
- Emergency Response System
- Stadium Security System



POTENTIAL OF INDIAN SECURITY MARKET

1. The continuous threat of terrorism, development of India's infrastructure, and the eventual expansion of the nation's
2. Central Government put in place a new Coastal Command Centre and has earmarked **USD1.2 billion** to acquire interceptors, weapons, boats, helicopters, radars etc.
3. Civil aviation capacity promise to increase overall security spending to over **USD10-12 billion** by **2016**.
4. Airport Security spending in India is expected to total over **USD3.2 billion** by **2016**
5. Central Government is likely to spend over **USD7.5 billion** and State Government close to **USD2 billion** on police modernization



1. Since substantial industrial expansion is expected in the infrastructure sector, cost of security gadgets that need to be implemented will work out to be in the tune of **5bn USD** in the next two years.
2. Corporate are likely to scale up their security budgets by **35-40%**.
3. According to the industry estimates, security installations for manufacturing hubs in sectors, such as petroleum, petrochemicals, and power will grow over **125%** by **2012**.
4. As a result, the size of the private security business will likely to enhance at least five times in next four to five years and may touch **10 bn USD**. from the current **5bn USD**.
5. However, the current size of the electronic security solutions market, which includes systems like CCTV, intrusion, access control, fire detection and perimeter protection, is estimated at **USD300 million** and is expected to grow at the rate of **25%** year-on-year. This, however, does not include one-time spends for special events like **Commonwealth Games in 2010**.



CASE STUDY: Security Blanket

To provide security blanket for each city in India will be Herculean task that will involve few thousand crores towards implementing security systems, including CCTV, various cameras, high capacity servers, high bandwidth and may more. Besides, it will require huge manpower for installations, maintenance and monitoring of control systems.

For example, there is an estimate of 50,000 cameras will be installed “electronic eyes” to monitor the city as part of a unique security blanket for the country’s commercial capital – Mumbai. According to the preliminary report, the cost of the entire project will be around INR 5 billion (100 mn USD) This figure tells that Govt. of India and the State Govt. have to invest huge amount of money to provide security blanket for all cities in India.



1. Present security scenario clearly speaks a paradigm shift of threat perspective.
2. The battlefield has moved from the borders into the cities, civilian assets to inflict damage on the economy instead capturing geographical territories.
3. Orientation from Government to Public-Private Relationship.
4. Participation by Indo-Europe Government.
5. Government aiming to facilitate need-based Public-Private Relationship to invest heavily in our security market with business incentives to overcome both tariff & non-tariff barriers to reap benefits.



INDIA AHEAD

1. The heightened awareness is providing an added boost to the security which has historically grown at 20-30 per cent annually.
2. India will offer the international companies with the capability of developing high end technology (security equipments & solutions) with optimum labour cost at far more better price without marginalizing their profit margin.
3. With a huge opportunity ahead, there is a serious interest and participation of funding agencies in the security systems and services market
4. Our end-user analysis points out that at present the government/public sector demand remains high for overall security systems followed by industrial and commercial sector.
5. Special events such as Commonwealth Games 2010 will also add growth in other avenues of security market, which is forecasted to grow at a CAGR of more than 34% during 2010-2012.
6. Moreover, Indian Government and private stakeholders are working together to establish a climate of sustainability and growth that will ensure the progress of Indian Security Industries



MICRO TECHNOLOGIES

1. Micro Technologies (India) Ltd. is an R & D based Security Organization since 1992 located with its global presence;
2. Aim is to give “Complete Integrated Information Technology Solutions” to the client;
3. Developed more than 200+ generic software and hardware products in security & life support systems;
4. Our new focus areas include Super Security, Messaging and GIS;
5. Comprises of a core team of more than 500 qualified and experienced professionals possessing expertise in wide spectrum;
6. The international version of vehicle security system (Micro VBB), gets global insurance approval by the SAIAS (South African Independent Accreditation Services (Pty) Ltd. ;
7. Micro Technologies nominated on Forbes ‘Best Under A Billion’ List among 20 Indian and 200 Asian Companies selected out of 12000 reputed companies.
8. Chosen as one of the fastest growing companies in India by Deloitte for its ‘Deloitte Technology Fast 50 (India) Award’ and ‘Deloitte Technology Fast 500 Asia Pacific’ Award for the second consecutive years-2007 & 2008.



MICRO TECHNOLOGIES - Initiatives

Micro Technologies pioneers the first ever think tank in the security segment, in India, Micro Technologies has set up a non-profit security forum Micro Secure Think Tank (MSTT) in order to educate and spread awareness about new and improved technologies in the fight against terrorism.

Micro Technologies has fore-fronted various movements called 'Elite Brigade' in association with member companies which is a voluntary, non-political, educational movement for young people and is trained to deal with situations during Flood, Earth Quake, Fire, Terrorism etc.

The company also made a significant contribution in education and installation 'Wi-fi Security System' in the unprotected wireless systems across India.



SECURITY is a ***VALUE*** like all other values for
a Nation, Organization, Institution or Company.

Thank You

