

## The Counterterror Dimension to the Planning of Smart Cities

DEEPAK SINHA

**ABSTRACT** The Indian government’s “Smart Cities Mission” aims to drive economic growth and improve quality of life through “smart” solutions for the delivery of infrastructure and services. This is expected to transform living spaces, enhance quality of life, and provide employment opportunities, in turn helping reduce crime rates and promoting law and order. Among the challenges to the “Smart Cities” programme is terrorism—especially in urban spaces—which is a deterrent to economic and social growth. The government’s responses have been ad hoc and reactive. While the country’s counterterror response mechanism and architecture have slowly evolved, little attention has been given to adapting infrastructure development to meet counterterror requirements. Unfortunately, even the Smart Cities Mission has ignored this aspect. This paper suggests actions that should be incorporated in the ongoing initiative to build safer cities.

### INTRODUCTION

The design and planning of cities and the way they grow and evolve have a direct impact on the security and safety of citizens. Therefore, if factors that impact on security are integrated into the design and planning of cities, the capabilities of security forces are enhanced.

A good example is Paris. The city today—with its wide boulevards, avenues, large squares and vast open spaces—is a product of the Revolution of 1789 and the two others that followed in 1830 and 1848. Emperor Luis Napoleon III (1851–71)

Observer Research Foundation (ORF) is a public policy think-tank that aims to influence the formulation of policies for building a strong and prosperous India. ORF pursues these goals by providing informed analyses and in-depth research, and organising events that serve as platforms for stimulating and productive discussions.



To know more about  
ORF scan this code

commissioned Baron George-Eugene Haussmann to draft an urban restructuring plan for Paris that would make it difficult for future rebels to construct barricades—the usual tactic to stop imperial troops from advancing along roads and alleyways within the city. It was his ruthless intervention, cutting through and opening up the city, along with simultaneous improvement of civic infrastructure, that continues to define the Paris of today. His restructuring further ensured that barricades constructed subsequently in 1871, 1945 and 1968 were far less effective as they were difficult to construct and could be easily outflanked/bypassed.

In India, the Smart Cities Mission aims to “drive economic growth and improve the quality of life of people by ... the application of Smart Solutions which will enable cities to use technology, information and data to improve infrastructure and services.”<sup>1</sup> All available documentation issued by the Ministry of Housing and Urban Affairs make only a cursory mention of security issues, suggesting that core infrastructure elements should include the “safety and security of citizens, particularly women, children and the elderly.”<sup>2</sup> The government hopes to achieve this by engaging with citizens and making them the eyes and ears of the city, in addition to incorporating crime monitoring by video.

Understandably, area-based development transforms town centres—inner cities and slums—into more liveable spaces, improves the quality of life, creates employment, and enhances incomes of the average citizen, especially the poor. This in turn helps lower the incidence of crime and associated law-and-

order issues. However, this is of little consolation to security planners who must also take into account the vast and diverse array of terrorist networks and threats that the country has had to deal with over the past few decades.

Considering the current situation, terror threats are likely to become part of the new normal, especially given the rapid pace of urbanisation. The Smart Cities Mission must, therefore, incorporate counterterror measures that can help mitigate the impact of such attacks without turning India’s cities into fortresses or virtual war zones. Resorting to such methods will only create fear psychosis or siege mentality among residents—the very environment that terrorists aim to achieve. This brief examines the threat profile confronting the country today and explores measures that can be incorporated to mitigate such threats by integrating aspects of counterterror response in the design of smart cities.

## **EVOLVING TERROR AND COUNTERTERROR TACTICS**

The tactics and aims of terrorist organisations have evolved over the decades. Earlier, their goal was to garner attention and sympathy for their cause by carrying out targeted attacks aimed at taking hostages and subsequently releasing them when their demands were met. The Iranian Embassy siege in London in April 1980, for example, lasted six days and was meant to draw attention to the treatment of its Arab minorities by the Persian majority. It ended with all but one of the terrorists being killed in an assault by a special forces team after one hostage was executed.

Today, terrorists no longer look for sympathy or support for their cause from the general population but want to attract ideologues/believers while oppressing the general populace with violence aimed at creating a climate of fear. They resort to random mass killings and indiscriminate bombings, usually by lone wolves or small teams of terrorists, causing maximum destruction, especially within urban centres. There are numerous examples of these types of attacks, e.g. the Mumbai attacks of 2008 that led to over 174 fatalities and hundreds more being injured. Renowned South Asia and counterterrorism expert Bruce Riedel suggests that this attack has “set a gold standard for how a small group of suicidal fanatics can paralyze a major city, attract global attention, and terrorize a continent.”<sup>3</sup> Moreover, their actions damage the credibility of the government and the security establishment.

With the evolution of terror tactics, counterterror strategies have also had to evolve. While specialist intervention units (e.g. Special Action Groups of NSG or the German Police’s GSG9 or the US Delta Force) are necessary in incidents such as the recent hostage situation at a supermarket in Trebes, France, their importance has dwindled because of the need for swift neutralisation of emerging threats before they can cause excessive damage or destruction. Thus, there is an increased requirement for well-trained and well-equipped Quick Reaction Teams (QRTs)/Special Weapons and Tactics Teams (SWAT) within each city/district. Such teams must be capable of responding speedily and neutralising the threat.

## INDIA’S THREAT PROFILE

India accounts for 17 percent of the world’s population and is experiencing rapid demographic changes that have wide-ranging implications. As per the 2011 Census, India’s total population as of 1 March 2011 was 1.21 billion. According to estimates, it is only expected to stabilise at 1.72 billion by 2060.<sup>4</sup> In the context of this brief, it is important to note that young people from the countryside are flocking to cities in search of jobs and economic opportunities. Some estimates suggest that 30 Indians move from a rural to an urban area every minute.<sup>5</sup> Given the existing state of India’s cities and towns, the impact of this shift on infrastructure and physical security is easy to visualise. In the Safe Cities Index 2017, both Delhi and Mumbai ranked below Mexico City at 10 and 11, respectively, out of 17 cities with a population of 15 million and higher,<sup>6</sup> while their overall ranking out of 60 cities is a lowly 43 and 45, just ahead of Bogota.

As per the South Asia Terrorism Portal, terrorist violence in India since 2005 has accounted for the deaths of over 21,623 people, including 10,169 terrorists, 7,824 civilians and 3,630 security forces personnel.<sup>7</sup> While approximately 95 percent of these deaths have been in Jammu and Kashmir, North East and LWE-affected areas, the other 1,045 deaths have been caused by extremists elsewhere.

Focusing on urban centres, which the Smart Cities Mission attempts to promote, the magnitude of the problem with regard to the impact of terrorism is best understood by

looking at India's two largest metropolitan cities: Delhi and Mumbai. Between 1997 and 2012, Delhi reported a total of 32 terrorist-related incidents, in which 134 people lost their lives and 884 were injured.<sup>8</sup> Between 1993 and 2011, Mumbai saw 14 terrorist-related incidents, resulting in 719 fatalities and 2,393 injured.<sup>9</sup>

Tactics that terrorists have employed in India, especially in urban areas, have involved primarily the use of improvised explosive devices, though there have also been some major attacks by suicide squads, e.g. the 2008 Mumbai attack by an Islamist group and the earlier assault on the Akshardham Temple in Ahmedabad. In all instances, as is the usual practice of terrorist groups universally, vulnerable and densely populated areas as well as high-value locations were targeted. While India has not yet witnessed lone-wolf attacks or vehicles mowing down people (a recent trend in the West), this is no cause for complacency as there is the possibility of copycat attacks. The country must be prepared to deal with all contingencies and tactics that terrorists might employ in the future.

## **INCORPORATING COUNTERTERROR STRATEGIES INTO INFRASTRUCTURAL DEVELOPMENT**

All counterterrorism (CT) strategies aim at risk mitigation by simultaneously reducing threat and vulnerabilities.<sup>10</sup> Threat reduction includes measures that prevent terrorism by tackling underlying causes and pursuing and neutralising terrorists and their supporters. These measures are primarily in the realm of

intelligence acquisition, data analysis and dissemination, force deployment and tactical responses. Vulnerability reduction requires steps that focus on protecting assets and people, while simultaneously preparing to deal with the consequences of a potential attack. These are passive measures that focus primarily on infrastructural development and related aspects to make cities safer.

In this context, the developed world, especially the UK, has made rapid progress in establishing robust CT strategies, both in the active and passive domains. They have also introduced statutory guidelines to incorporate CT design features into existing and new infrastructure and “crowded spaces” development. “Crowded spaces” are sites to which members of the public have access, e.g., streets, shopping malls, cafes, stadiums, open air parks, office/residential buildings, and schools. Such sites are viable targets given their crowd densities.

Comparatively, India's progress in this area has been extremely tardy and disjointed, because neither the political establishment nor those responsible for formulating counterterror policies understand the complexities involved. Moreover, given the fractured and divisive nature of Indian polity—especially the political leadership, with their single-minded focus on winning elections—there has been a lack of consensus to put in place robust counterterror measures. The federal nature of India's democracy and the inherent fear and hostility towards government measures to restrict citizens' freedom have only added to the difficulties.

For India, the following constitute major constraints:

- (a) The lack of a clear-cut counterterror strategy or doctrine, resulting in the failure to issue policy guidelines to state and local authorities or other stakeholders who can ensure standardised implementation of measures.
- (b) The inability to establish required control and coordination structures, such as the National Counter Terror Centre or the requisite integrated database, the NATGRID that would provide the necessary inputs for the NCTC to carry out its responsibilities.
- (c) The single-minded focus on active measures, such as enhancing the strength of the intervention units, without any consideration for passive measures that can greatly reduce the impact of terror attacks.
- (d) The fragmented and diffused nature of municipal authorities, especially in the mega cities, leading to a lack of coordination.
- (e) The divisive nature of politics, which has resulted in increased “ghettoisation” of communities on religious and ethnic lines. This acts as an enabler for terrorists while making it more difficult for intelligence organisations to penetrate such localities. It also adversely impacts counter-radicalisation measures.

CT strategies that impact infrastructural development require three crucial elements:

**(a) Municipal preparedness**

CT does not fall in the functional domain of city governments. However, it should be

included as part of disaster management (DM). Schedule XII of 74 Constitution Amendment Act does cover DM as part of the functions to be devolved to city governments (CGs). Yet, DM is not assigned to CGs. The framework of DM covers the National Disaster Management Authority (NDMA), SDMA (STATE DMA) and DDMA (District DMA). A city disaster management cell must be put in place, which should have a section dedicated to dealing with curative and preventive actions. There should be a support system to identify the typology of CT incidents (to be planned), attend to emergencies and follow up. On the preventive side, it is necessary to conduct massive awareness drives and educate vulnerable groups, to enable local modules and support to specific groups.

**(b) Municipal action plan**

A municipal action plan should be prepared based on (a) above. It must cover implications on individual services and necessary precautions to prevent potential attacks. Services such as water supply, roads and waste management need preventive measures to be incorporated in the planning stage.

**(c) Risk assessment**

CT protective security measures must be proportional to the level of threat. Because threats vary, it is necessary to assess the likelihood of the threat, the vulnerability of the target and the impact such an attack would have if it were to occur. The UK, for example, has five levels of threat:<sup>11</sup>

- (1) CRITICAL: attack is imminent
- (2) SEVERE: attack is highly likely
- (3) SUBSTANTIAL: attack is strongly possible
- (4) MODERATE: attack is possible but not likely
- (5) LOW: attack is unlikely

For low-level risks, contingency plans are usually sufficient, and they can be managed locally.<sup>12</sup>

#### (d) Risk neutralisation/mitigation

CT design principles must aim to:

- (1) Deter: by physical and electronic security measures coupled with good management practices
- (2) Detect: by providing alarms and visual-detection systems along with verification.
- (3) Delay: for a sufficient period of time to ensure that quick response teams can react effectively by putting in place physical security measures.<sup>13</sup>

In the wake of increased attacks against urban population centres, additional preventive measures might be at odds with the stated aim of making cities more inclusive, liveable and accessible. This is unavoidable but can be mitigated by adopting aesthetically appealing measures, e.g. giant planters instead of bollards or barriers/barbed wire.

There are several key factors that can provide necessary guidelines during the initial

stages of planning. These include:

- (a) Considering forward planning and flexibility to counter developing threats
- (b) Providing mitigation measures proportionate to the threats
- (c) Designing to enhance the setting
- (d) Including multifunctional elements
- (e) Ensuring an accessible and inclusive environment
- (f) Designing with maintenance in mind.<sup>14</sup>

### SUGGESTED MEASURES

Given the guiding principles, the following are specific protective measures that can be incorporated into the infrastructure design planning:

- (a) Build better blast resistance by incorporating external barriers and a strengthened perimeter in vulnerable areas to prevent a penetrative or close-proximity attack. The devices must be aesthetically designed to merge with the surrounding constructions. Moreover, it is incumbent that the building material used should reduce the risk of fragmentation, including the use of blast-resistant glazing. Techniques with respect to structural design must be incorporated to reduce the risk of building collapse or fire.
- (b) Improve building management facilities by designing better entrances and better access control systems to resist hostile entry, and implementing fire-resistance measures, e.g. separate electrical and ventilation conduits and hazardous material storage.

- (c) Improve vehicle management systems to mitigate the risk of hostile vehicles approaching the proximity of the building without screening or at high speeds.
- (d) Increase lines of sight around the building by using CCTV and access control, regulating entry and maintaining litter-free surroundings to ensure that suspicious objects are easily located.<sup>15</sup>
- (e) Ensure fool-proof arrangement for safe water supply. The treatment plant should have regular checks for quality control and management.
- (f) Design roads with adequate scope for movement of safety vehicles, e.g. fire trucks.
- (g) Train municipal employees to act on short notice.
- (h) Improve coordination with local police.
- (i) Supplement security systems by community policing.

## CONCLUSION

In the current global context, when all countries are so deeply impacted by terrorism, India has made little systematic effort to combat the scourge. This is primarily because of lack of consensus within the political establishment, which only tends to respond because of public pressure following an incident. Even when engaging with such threats, the focus has been on active measures, especially the use of force, with no attention to the passive domain. Even the Smart Cities Mission has only looked at the subject of law and order in cursory terms and ignored the far greater threat that terrorism poses. Infrastructure designs incorporating measures that can mitigate terror threats must be given the requisite attention. However, given the cost factor, such measures are unlikely to be incorporated if they are not given statutory backing. The Smart Cities Mission must take cognizance of this issue and tackle it with urgency if India is to work towards making its cities not only “smart” but also safe. 

### ABOUT THE AUTHOR

**Brig Deepak Sinha (Retd)** is a Consultant with ORF. He served for over three decades in the army, and has an M.A. and M.Phil. in Defence and Strategic Studies from the University of Madras. He has also been the India Head of a Security Integration MNC specialising in Access Control & CCTV Systems.

## ENDNOTES

1. Ministry of Housing and Urban Affairs, Government of India. "What is Smart City," accessed 24 March 2018, <http://smartcities.gov.in/content/innerpage/what-is-smart-city.php>.
2. Ibid.
3. Bruce Riedel, "Markaz: Modeled on Mumbai? Why the 2008 India attack is the best way to understand Paris," *Brookings*, accessed 24 March 2018, <https://www.brookings.edu/blog/markaz/2015/11/14/modeled-on-mumbai-why-the-2008-india-attack-is-the-best-way-to-understand-paris/>.
4. K.S. James, "India's Demographic Change: Opportunities and Challenges," *Science* 333, no. 6042 (29 July 2011): 576–580.
5. Amy Kazmin, "India's population shift sparks a rethink of rural strategy," *Financial Times*, 1 June 2016, accessed 24 March 2018, <https://www.ft.com/content/950a3f1c-ef47-11e5-9f20-c3a047354386>.
6. Chris Clague, editor, "Safe Cities Index 2017: Security in a Rapidly Urbanizing World," Economist Intelligence Unit, accessed 24 March 2018, <http://safecities.economist.com/safe-cities-index-2017>.
7. South Asia Terrorism Portal, accessed 25 Mar2018, [http://www.satp.org/satporgtp/countries/india/database/Cumulative\\_Fatalities.htm](http://www.satp.org/satporgtp/countries/india/database/Cumulative_Fatalities.htm).
8. Ibid, [http://www.satp.org/satporgtp/countries/india/database/delhi\\_blast.htm](http://www.satp.org/satporgtp/countries/india/database/delhi_blast.htm).
9. Ibid, [http://www.satp.org/satporgtp/countries/india/database/mumbai\\_blast.htm](http://www.satp.org/satporgtp/countries/india/database/mumbai_blast.htm).
10. J. Coaffee, C. Moore, D. Fletcher and L. Boshier, "Resilient Design for community safety and terror resistant cities," *Municipal Engineer*, 2008, accessed 29 April 2018, <https://www.escholar.manchester.ac.uk>.
11. Security Service MI5, "Threat Levels," accessed 29 April 2018, <https://www.mi5.gov.uk/threat-levels>.
12. Home Office, HM Government, UK, "Crowded Places: The Planning System and Counter-Terrorism," 2012, accessed on 25 March 2018, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/375208/Crowded\\_Places-Planning\\_System-Jan\\_2012.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375208/Crowded_Places-Planning_System-Jan_2012.pdf).
13. Ibid.
14. University of Birmingham, "Resilient Design Tool for Counter Terrorism," accessed 25 March 2018, <http://www.securedbydesign.com/wp-content/uploads/2014/02/resilient-design-tool-for-counter-terrorism.pdf>.
15. Home Office, HM Government, UK, op. cit.



Ideas • Forums • Leadership • Impact