

# INDIA RISK SURVEY 2016



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### Acknowledgments:

We would like to express our highest appreciation and deepest gratitude to all those who gave us the support to complete this report.

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## Foreword

It is possible to have convenience if you want to tolerate insecurity, but if you want security, you must be prepared for inconvenience. Globalization offers extraordinary potential in the form of technological innovation and business expansion for companies around the world. Increased connectivity and engagement of countries and companies provides extraordinary and remarkable opportunity for growth. The *India Risk Survey (IRS)* Report is designed to offer organizations the insights necessary to compete in this increasingly complex operating environment in India.

The *India Risk Survey 2016* attempts to showcase the views and perceptions of key business leaders, public figures, as well as professionals across various sectors and geographies regarding operational, safety and strategic risks. The report provides a snapshot of current perceptions on global risks and threats.

The survey covers all levels of management from top to bottom, various types of industries ranging from IT, Manufacturing, Infrastructure, Retail to name a few and covers all the four regions of the country. Survey responses were also received from the North, South, East & West regions of India, and from overseas including APAC, Americas and EMEA region.

The Risk Wheel, developed by Pinkerton, determines the multitude of risks every organization faces and can be classified into four main categories: Hazard and Event Risk, Operational & Physical Risk, Technological & Information Risk, Market & Economic Risk. The result of the *India Risk Survey (IRS) 2016* aptly reflects the changes in the risk spectrum that India has faced in the previous cycle. The results provide a snapshot of current perceptions on the risks under question. Respondents surveyed this year have ranked 'Strikes Closures & Unrest' as the number one affecting Indian economy in sharp contrast from last year when 'Corruption, Bribery and Corporate Frauds' emerged as the top-most risk. The change is remarkable as 'Strikes, Closures & Unrest' was ranked 6<sup>th</sup> in 2015, which was actually on a decline from its ranking at 2<sup>nd</sup> position in 2014.



For the past 5 years, the report has been calling attention to potential risks and providing a base for preventive and curative action. Over this period, the evolution in understanding how these risks are thought about and assessed has been significant.

We would like to express our sincere appreciation and gratitude to all the professionals and supporting organisations, for providing us with the necessary support, for gathering on-ground information that enabled us to capture this perception accurately.

We hope that this report will serve as a tool to enable the industry and government decision makers to holistically analyse the impact of various risks so as to plan and execute strategies to prevent, mitigate or control the impact of these risks to their respective business establishments.

**Karan Bains**  
Country Director  
Pinkerton



## Foreword

Risks to business establishments is detrimental to growth and development of any country. The nature of risks globally has changed enormously, and with their occurrences becoming more unexpected and their effects becoming more profound, risks need to be taken more seriously. Further, the advent of digital revolution and the pace of information exchange has completely transformed the methods and practices of business, globally. In these changing times it is important to be informed about potential risks. Knowledge about impending risks can benefit investors, so that they could take well-informed business decisions.

India has emerged as a promising investment destination. With the IMF projecting a GDP growth rate of 7.5 per cent for India, amidst the backdrop of a globally slow macro-economic situation, there are reasons for policymakers to look at all aspect of securing business establishments. The initiatives of the Government and the investor friendly Budget proposal for 2016-17 will go a long way in converting the projection to reality. In such a business friendly environment, knowledge about impending risks to businesses can further boost real GDP growth and investment in the country.

The *India Risk Survey* analyses and quantifies 'potentially destructive' risks to business enterprises in the country. Into its fifth edition, the *India Risk Survey* has made a mark in the country by bringing to the forefront major risks affecting business establishments. It has proved to be a referral for policymakers, corporates and members of the civil society, for prioritising risk according to the perceived degree of damage these risks pose to established business operations.

The *Risk Survey* is also a measure of what Corporate India thinks about the risk situation in the country. It acts as a mirror image of the corporate risk perception by bringing to the forefront potential risks that business leaders think can effect business operations and continuity. The survey is an attempt to sensitise the Government and the corporate world about emerging risks and possible dangers these risks could pose to business establishments.

I am confident that this report will prove to be an important document for policymakers, senior executives and members of civil society.

A handwritten signature in black ink, appearing to read 'A. Didar Singh'.

**Dr. A. Didar Singh**  
Secretary General  
FICCI

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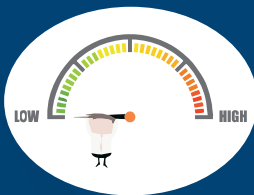
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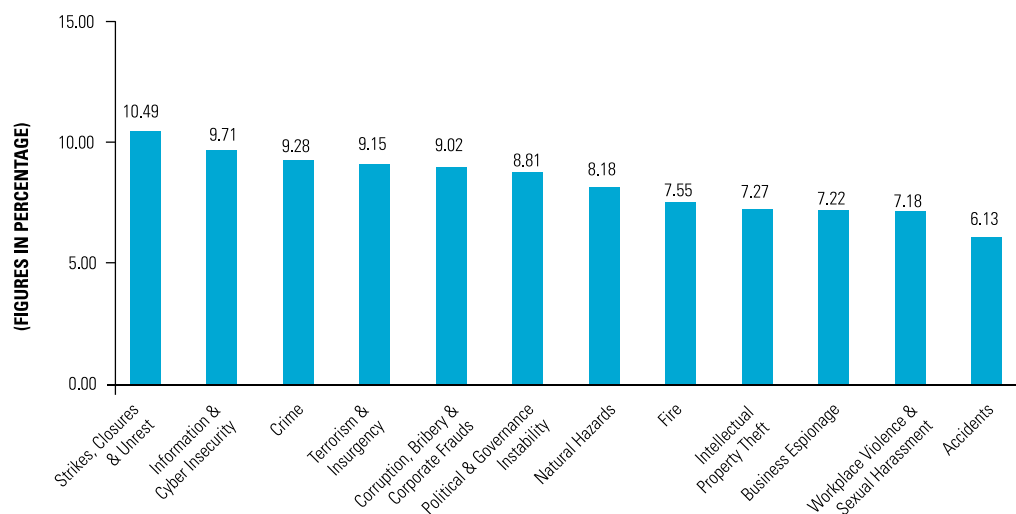


# Executive Summary

The *India Risk Survey 2016 (IRS 2016)* is an attempt to showcase the views and perceptions of business leaders, policymakers, experts, as well as professionals across various sectors and geographies, regarding strategic, operational and safety risks to business establishments. The survey spreads across the entire industry spectrum covering different

geographical zones of the country. The results of the survey will provide industry experts and government decision-makers with an important tool to holistically analyse the impact of various risks, so as to plan and execute strategies to prevent, mitigate or control the impact of these risks to business establishments.

## Overall Risk Rating



The survey encompasses 12 key risks that pose a number of threats to the entire economic ecosystem of the country. Though each risk is rated on a mutually exclusive basis, for the purpose of the survey, a deeper reading would reveal their interconnectedness across sectors, domains and geographies. An interesting trend that emerges out of the survey results is that new risk categories have made their way to the top, but there is not much difference in percentage terms between the top five risk categories (as the above graph clearly highlights).

A majority of the respondents surveyed this year have ranked 'Strikes, Closures & Unrest' as the major risk affecting the Indian economy. This is in sharp contrast to last year's survey results, in which 'Corruption, Bribery and Corporate Frauds' emerged as the topmost risk. This particular group of risks continues to command serious concerns for Corporate India, particularly in a year which has seen major unrests in the form of the Jat and Patel (to name a few) demand for reservations in education and government jobs, etc. In addition to the heightened social unrest this year, labour unrest, strikes and demonstrations protesting reforms, land acquisition and industrial projects continue to shape business perception. The risk category held top spot in the 2013 survey results, went down to No. 2 in 2014, and subsequently declined to 6<sup>th</sup> position in 2015.

'Information & Cyber Insecurity' has been ranked as the second biggest threat to businesses in India, for two consecutive years. The high rating points to the fact that it is a persistent risk for both private and government sectors in a high-technology driven global economy, where a growing trend is the rise in cyber-aided hacking. Information insecurity along with infringement of intellectual property and corporate fraud remain some of the crucial concerns in business strategy, across sectors and geographies.

'Crime' has jumped to 3<sup>rd</sup> position in 2016, from its 5<sup>th</sup> ranking in last year's *India Risk Survey*. The National Crime Records Bureau (NCRB) data for 2014 shows an increase of 8.9 per cent in crime over 2013. In terms of numbers, NCRB registered a total of 72,29,193 cognisable crimes, comprising 28,51,563 Indian Penal Code (IPC) crimes and 43,77,630 Special & Local Laws (SLL) crimes in 2014, as against 66,40,378 registered cases in 2013. Higher crime numbers are often closely associated with the rise in civic unrest, which creates favourable conditions for criminals of all hues. Further, crime against women in India is on the rise, which continues to shape the country's image internationally and within the wider business community.

'Terrorism & Insurgency' has dropped a spot from its previous ranking at No. 3 to No. 4 this year. The timely response and relative success of security agencies in pre-empting terror plots has inspired confidence and trust among the business community in the security agencies across India. In June 2015, India carried out a special operation and surgical strikes inside Myanmar against Naga insurgents.<sup>1</sup> With that said, the threat of terrorism has not diminished in India, as witnessed during

the gruesome January 2, 2016 attack on the Pathankot Air Force Station in Punjab. In recent months, intelligence agencies have sounded multiple terror alerts, highlighting the possibility of further such attacks. The devastation that take place from terror attacks can easily disrupt the entire business operations. A major fear is the rise of terrorist activities in the Middle East and its expansion to the Indian subcontinent. Along with it, growing radicalisation of disgruntled youth is a major concern for policymakers of the nation.

Internationally, the ghost of terrorism has grown in recent years and presents an altogether different face, with terrorist groups now having global presence. Organised terrorism has been responsible for two of the most horrific terror attacks in Europe in recent months—the November 13, 2015 attacks in Paris and, more recently, the March 22, 2016 attack on Zaventem Airport, Brussels. The lone-wolf terror attacks which are very difficult to detect have added an altogether new dimension to the threat of terrorism. These incidents clearly show that terrorists can now strike with impunity on countries hitherto considered immune from such attacks. Along with terrorism, insurgency by leftist guerrillas groups, called Naxals, and other ethnic insurgencies in various parts of India, pose major risks for business establishments and operations. The Naxal threat, in particular, is as severe as terrorism, and their presence in many states of the country, some of which are extremely rich in mineral resources, has a debilitating effect on new business establishments.

India's sustained improvement in its ratings in global corruption and ease of doing business indexes in the last two years has contributed to the decline in the ranking of the risk of 'Corruption, Bribery & Corporate Frauds', which has slipped four places to 5<sup>th</sup> position in the *India Risk Survey 2016*. In the *Corruption Perceptions Index (CPI) 2015*, India improved its rank to 76, which is the best in the South Asian region after Bhutan. India did even better than another major Asian neighbouring country, which has been ranked 83<sup>rd</sup> in the index. In the World Bank's Doing Business Index, India improved its rank to 130 in 2015, up four places from 134 in 2014. Likewise, after five years of constant decline, India's rank improved 16 places to 55 in the World Economic Forum's (WEF) *Global Competitive Index 2015–16*.

The risk of 'Political & Governance Instability' has been ranked at No. 6 in the *IRS 2016* this year. The ranking of this risk this year points towards the direction of combining government policies, and industrial and business demands with the same package of big-ticket economic reforms currently underway in India. The recent policy changes, such as proposed introduction of Goods and Services Tax and approval of Foreign Direct Investment in multi-brand retail etc., will create a positive environment for business in the country and will help in reducing the risk of 'Political & Governance Instability'. Another area of concern voiced by various industry bodies is retrospective tax demands served on many multinational corporations. The pro-reform policies of the present government will, however, go a long way to instill long-term confidence and in turn boost economic growth.

<sup>1</sup> The Hindu. 2016. "Myanmar operation: 70 commandos finish task in 40 minutes." *The Hindu*. June 10. <http://www.thehindu.com/news/national/myanmar-operation-70-commandos-finish-task-in-40-minutes/article7302348.ece>, accessed on 16 June 2016.

Top three risks in each region of India

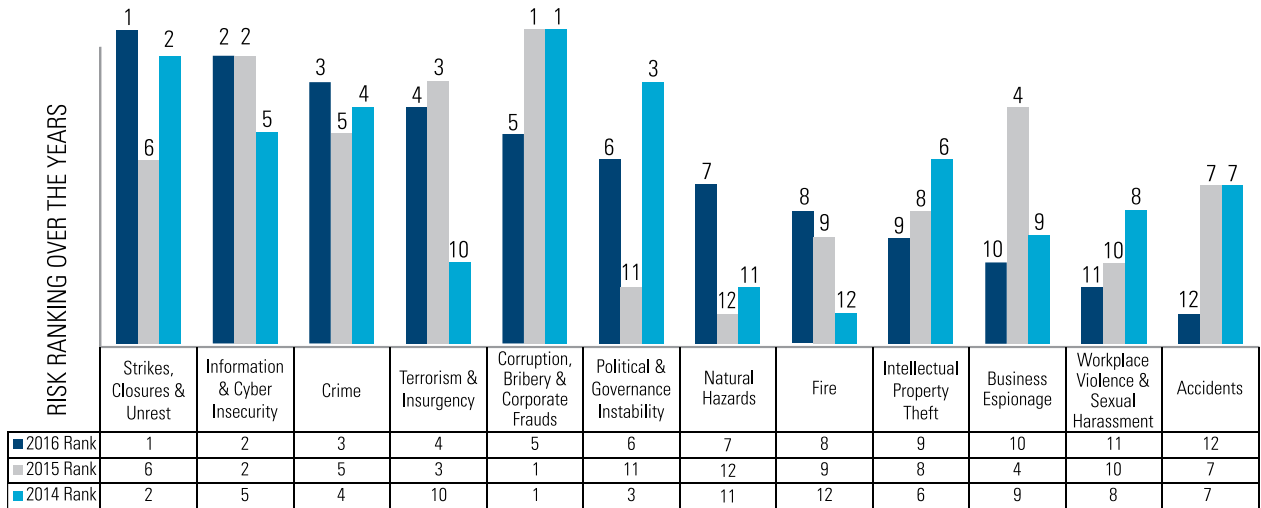


Top three risks across industry sectors

Sector	No. 1 Risk	No. 2 Risk	No. 3 Risk
<b>Education</b>	Strikes, Closures & Unrest	Information & Cyber Insecurity	Crime
<b>e-Commerce</b>	Political & Governance Instability	Strikes, Closures & Unrest	Terrorism & Insurgency
<b>Govt. &amp; PSU</b>	Information & Cyber Insecurity	Terrorism & Insurgency	Natural Hazards
<b>Financial services</b>	Information & Cyber Insecurity	Strikes, Closures & Unrest	Corruption, Bribery & Corporate Frauds
<b>Hospitality</b>	Strikes, Closures & Unrest	Crime	Terrorism & Insurgency
<b>Infrastructure</b>	Strikes, Closures & Unrest	Political & Governance Instability	Corruption, Bribery & Corporate Frauds
<b>IT/ITES</b>	Information & Cyber Insecurity	Intellectual Property Theft	Strikes, Closures & Unrest
<b>Logistics &amp; Transportation</b>	Strikes, Closures & Unrest	Corruption, Bribery & Corporate Frauds	Crime
<b>Manufacturing</b>	Strikes, Closures & Unrest	Crime	Political & Governance Instability
<b>Media &amp; Entertainment</b>	Strikes, Closures & Unrest	Crime	Workplace Violence & Sexual Harassment
<b>Medical Services</b>	Strikes, Closures & Unrest	Crime	Political & Governance Instability
<b>NGOs</b>	Corruption, Bribery & Corporate Frauds	Strikes, Closures & Unrest	Crime
<b>Retail</b>	Political & Governance Instability	Crime	Strikes, Closures & Unrest
<b>Security Services</b>	Corruption, Bribery & Corporate Frauds	Crime	Strikes, Closures & Unrest
<b>Telecom</b>	Information & Cyber Insecurity	Corruption, Bribery & Corporate Frauds	Business Espionage
<b>Legal</b>	Corruption, Bribery & Corporate Frauds	Crime	Strikes, Closures & Unrest



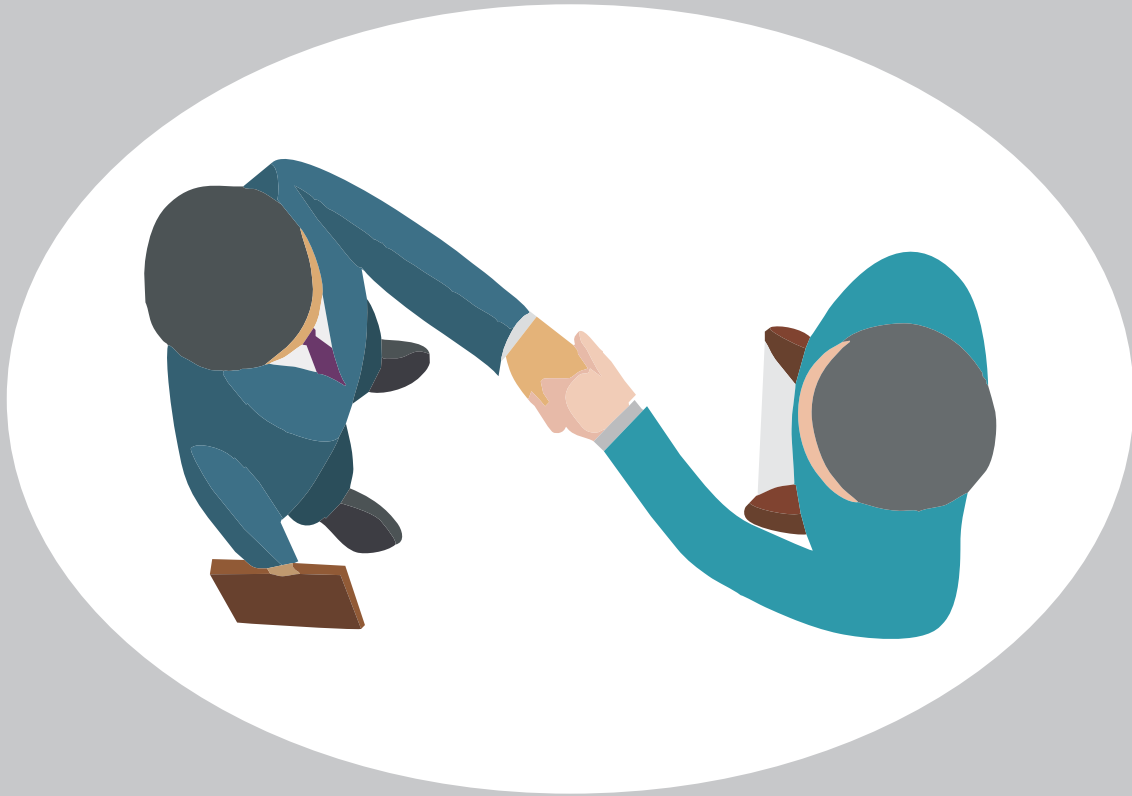
## OVERALL RISK RANKING – YEAR-WISE TRENDS



The above figure indicates that the top five risks that impacted the Indian business environment over the last year include, ‘Strikes, Closures & Unrest’, ‘Information & Cyber Insecurity’, ‘Crime’, ‘Terrorism & Insurgency’, and ‘Corruption, Bribery & Corporate Frauds’. ‘Corruption, Bribery & Corporate Frauds’, which held the No. 1 position in the 2015 and 2014 survey results, has slipped to No. 5 position this year. The

rise of ‘Strikes, Closures & Unrest’ can be attributed to major unrests in the form of the Jat and Patel (to name a few) demand for reservations in education and government jobs, etc., in the last few months along with the persistent threat of labour unrest in manufacturing zones. ‘Information & Cyber Insecurity’ has maintained its second rank in this year’s survey as well.





## Introduction

Globalisation has turned out to be the most pervasive force in the last two decades. The world has never been so interconnected in terms of economies, markets and cultures. The trend has offered remarkable potential in the form of transnational partnership, technological innovation and scope for business expansion around the world. But an interconnected and interdependent world comes along with a complex array of strategic and operational challenges for multinational corporations as they venture into unknown territories. The increased scale of globalised operations is matched by the increased level of multi-dimensional risks, which may range from macro-level strategic risks, like political and governance instability, to operational risks, such as fire and accidents. Organisations, therefore, need to calibrate their business operations within a comprehensive risk framework, which gives them the ability to anticipate different risk scenarios.

India has emerged as the fastest growing major economy in the world and is expected to clock

over 7 per cent in GDP growth in 2016–17.<sup>2</sup> The government has promised pro-investor policies and to remove barriers to new business establishment and operations. Through its flagship programme the 'Make in India' initiative, the government is striving to promote manufacturing activity locally and boost job creation. While India is getting all the attention from the international business community, faster than ever, companies cannot underestimate the multitude of challenges in business operations in India, particularly with reference to the vastly divergent risk landscape the country offers. A lack of preparation against risk mitigation could leave the entire financial as well as operational functions vulnerable to attacks with disastrous consequences for a long time. A holistic risk-management strategy would help businesses to both anticipate and pre-empt existing and evolving risks, and also deal with them effectively.

This survey is a joint effort of FICCI and Pinkerton to highlight the severity of such risks and their impact on the industry, across economic sectors and geographical regions of the country. The results

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<sup>2</sup> India Brand Equity Foundation. 2016. "Indian Economy Overview." 22 April. IBEF, <http://www.ibef.org/economy/indian-economy-overview>, accessed on 22 April 2016.

of the survey are based on a collation of a set of 12 risks that have been identified after a series of brain-storming sessions. The *India Risk Survey 2016* thus aims to focus on the major risks that have the potential to adversely impact businesses in the country. The *India Risk Survey 2016*

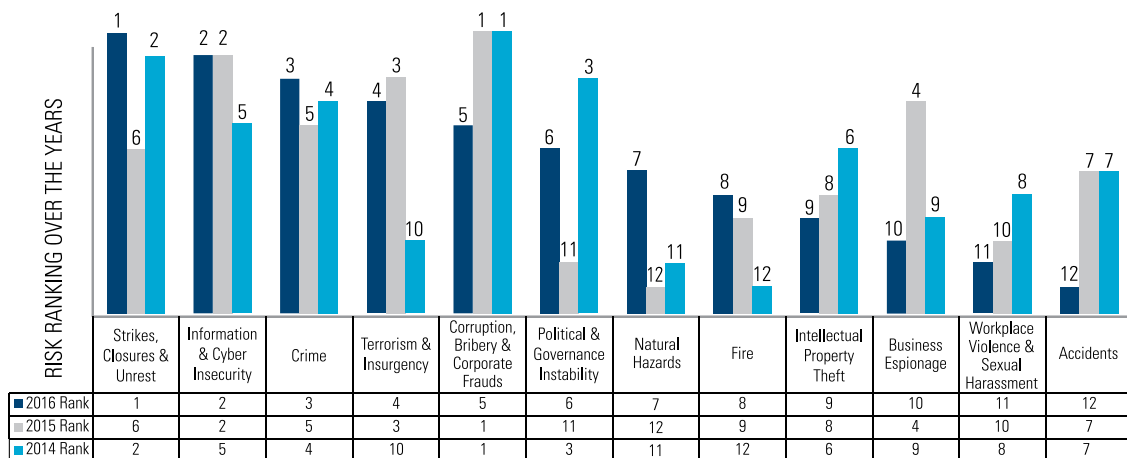
also provides inputs that we hope will help our business leadership in devising risk-mitigation strategies, in order to create a secure business environment. However, the applicability of each risk to individual organisations may vary.





# Trend Analysis

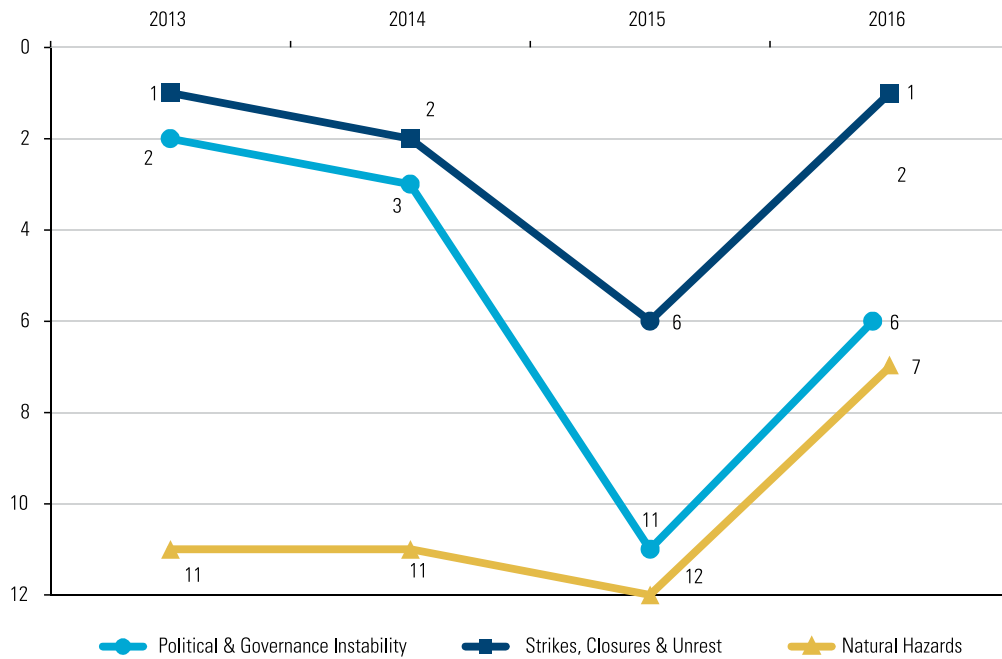
## OVERALL RISK RANKING - YEARLY TRENDS



In the 2016 edition of the *India Risk Survey*, a majority of the respondents from corporate India perceive 'Strikes, Closures & Unrest' as the top risk, replacing previous year's 'Corruption, Bribery & Corporate Frauds'. This risk category was ranked as the 2nd highest in 2014 survey as well. Similar to last year's rating, corporate India rated 'Information & Cyber Insecurity' as the 2nd highest risk to their businesses. 'Crime' replaced 'Terrorism & Insurgency' at the 3rd position this year, while

'Terrorism & Insurgency' took the No. 4 position, which was occupied by 'Business Espionage' in last year's survey. 'Corruption, Bribery & Corporate Frauds' which was the top most risk in last year's survey has slipped to No. 5 rank this year, while 'Political & Governance Instability' has jumped to 6th spot this year from No. 11 a year before. 'Natural Hazards' has attained No. 7 position in 2016 from the last spot at No. 12 in 2015. 'Accidents' slipped to 12th rank this year from No. 7 spot in last year.

## Factors Influencing the Risk Gainers



## Strikes, Closures & Unrest



### Trends

- Increased intensity of incidents, often resulting in civic disturbance and violence

### Threat Mapping

- Violent agitations for reservation in education and government jobs by the Jats in Haryana, Kapus in Andhra Pradesh and Patels in Gujarat
- Severe disruptions in mobile connectivity and supply-chain operations in the affected areas
- Human and material losses and damage to essential infrastructure

Political & Governance Instability



**Trends**

- Higher expectation of businesses and people in comparison to the pace of reforms

**Threat Mapping**

- Upcoming legislative assembly elections in some of the key states add to the policy uncertainty scenario
- Slow pace of big ticket reforms such as GST, land acquisition and labour reforms

Natural Hazards



**Trends**

- India is prone to earthquakes, floods, drought and cyclones

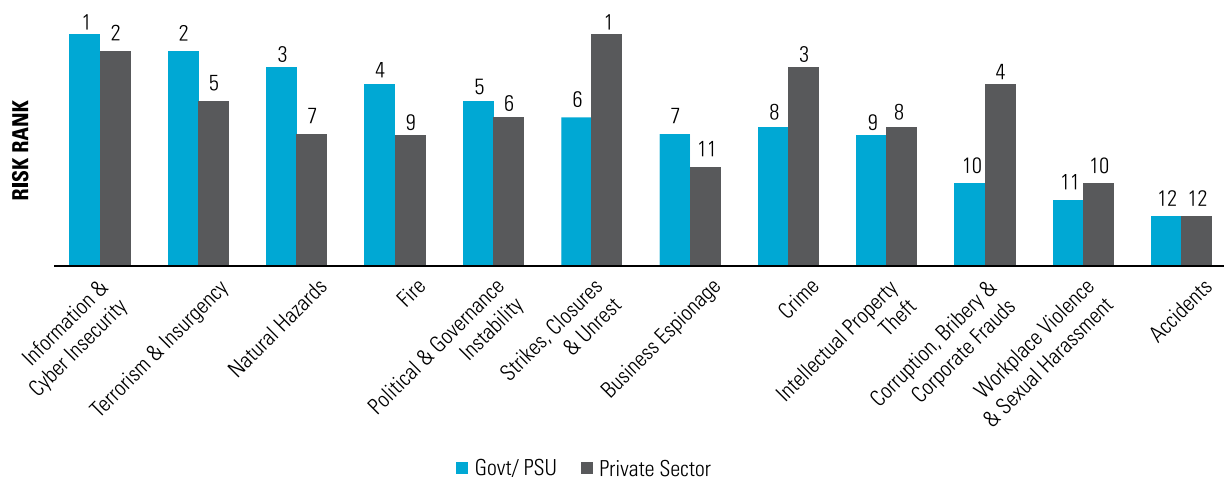
**Threat Mapping**

- Floods in Chennai in November 2015 reportedly cost the Indian economy an estimated INR 20,000 crore (USD 3 billion) in losses<sup>3</sup>

<sup>3</sup> Preetika Rana. 2015. "How Chennai Floods Stack Up Against Other Natural Disasters in 2015". *The Wall Street Journal* - India Real Time. 11 December. <http://blogs.wsj.com/indiarealtime/2015/12/11/how-chennai-floods-stack-up-against-other-natural-disasters-in-2015/>, accessed on 18 April 2016.

## Risk Ranking - Comparative Perspectives on Risk

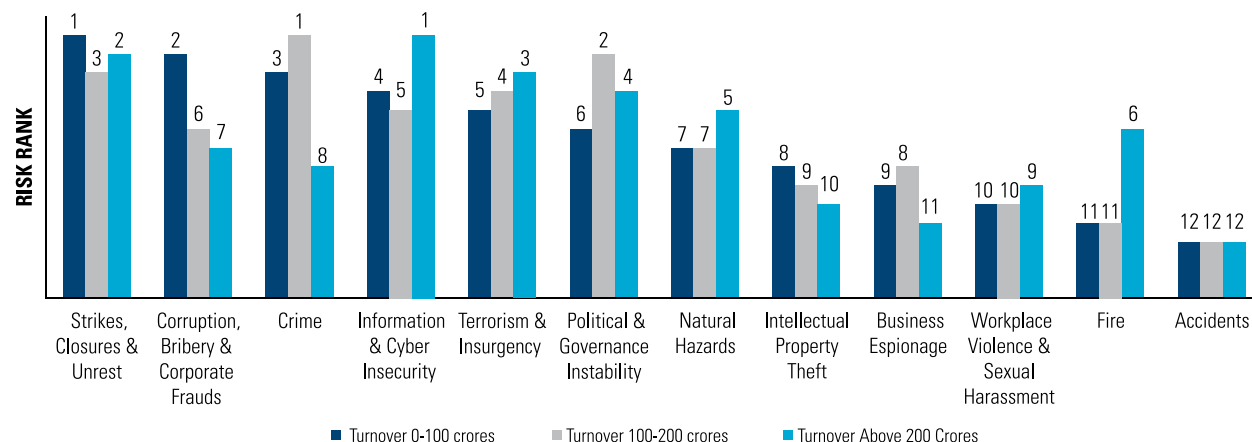
### RISK RANKING - GOVT./PSU Vs PRIVATE SECTOR



The perception of risk categories significantly differs between the Government/PSU and the private sector as the survey results suggest. The Government/PSU sector has ranked 'Information & Cyber Insecurity' as the top risk, while the private sector considers this risk category as the second highest threat to their operations. The perception of the Government/PSU's of the threat of 'Information & Cyber Insecurity' as the top most risk stems both from the public sector bank's vulnerability to cybercrimes, as well as transnational non-state actors targeting government websites. For instance, in early July 2015, the official website of the National Institute of Technology in Raipur, Chhattisgarh was hacked and defaced by some international cyber hacker.<sup>4</sup> In comparison, private sector companies have over time invested in upgrading their IT and security infrastructure.

For the private sector, 'Strikes, Closures & Unrest' ranks as the top most risk, the same is ranked by the Government/PSU at No. 6. 'Terrorism & Insurgency' is regarded as the second highest threat by the Government/PSU, the same is ranked at No. 5 by the private sector. 'Natural Hazards' is rated as the No. 3 risk by the Government/PSU, but for the private sector the risk category comes at No. 7. While the Government/PSU rates 'Fire' at No. 4, it is perceived as a low threat by the private sector at No. 9. Government/PSU rates 'Crime' at No. 8, but it is ranked at No. 3 by the private sector, which also ranks 'Corruption, Bribery & Corporate Frauds' at No. 4 spot compared to the Government/PSU ranking of No. 10. Both the Government/PSU and the private sector rank 'Accidents' at No. 12.

### Risk Ranking – Company Turnover



<sup>4</sup> Rashmi Drolia. 2015. "Digital India Week: Pakistan hacker defaces Chhattisgarh NIT website". *The Times of India*. 2 July. <http://timesofindia.indiatimes.com/tech/tech-news/Digital-India-Week-Pakistan-hacker-defaces-Chhattisgarh-NIT-website/articleshow/47912443.cms>, accessed on 15 April 2016

For the first time, this year’s survey has introduced risk perception by companies on the basis of their turnover giving a peek into the nature of challenges small and medium level enterprises face in comparison to large corporations. For the purpose of the survey, the companies were graded according to the turnover, viz., up to INR 100 crore (USD 15 million) between INR 100 crore to 200 crore (USD 15-30 million), and companies with a turnover of more than INR 200 crore (USD 30 million).

For small companies ‘Strikes, Closures & Unrest’ constitutes the topmost risk, whereas medium-scale companies rate ‘Crime’ as the major risk in doing business in India. For large companies with a turnover of above INR 200 crore (USD 30 million) ‘Information & Cyber Insecurity’ is the primary risk.

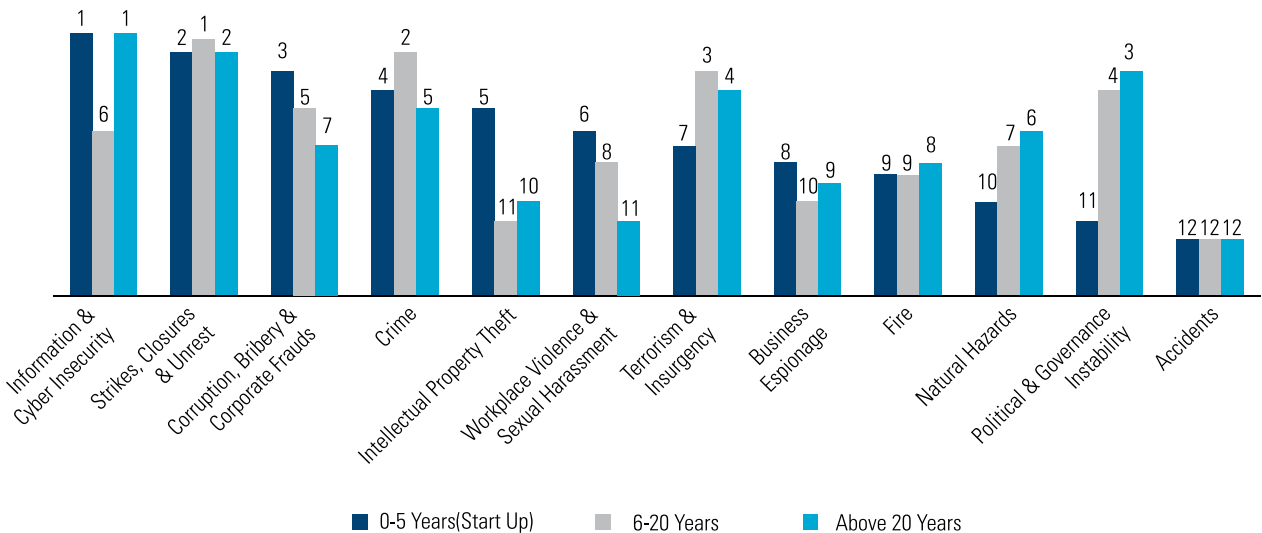
Companies exceeding an annual turnover of INR 200 crore (USD 30 million) rate ‘Information & Cyber Insecurity’, ‘Strikes, Closures & Unrest’ and ‘Terrorism & Insurgency’ as the top three respectively. While small companies with an annual turnover of upto INR 100 crore (USD 15 million), ‘Strikes, Closures & Unrest’ is rated as the highest risk to their business operations. For these companies ‘Corruption, Bribery & Corporate Frauds’ and ‘Crime’ constitute the other two major risks, at No. 2 & 3 ranking respectively. For medium-scale companies with an annual turnover of between INR 100-200 crore (USD 15-30 million) ‘Crime’, ‘Political & Governance Instability’, and ‘Strikes, Closures & Unrest’ are the predominant risks in the descending order. The risk of ‘Natural Hazards’ and ‘Fire’

is a much bigger risk for companies having turnover of ₹ 200 crore and above (USD 30 million) as they place them at No. 5 and No. 6 position respectively. All companies consider ‘Accidents’ as the lowest risk category to their business.

### Risk Ranking – Company Existence

For start-ups and companies with less than five years of existence, ‘Information & Cyber Insecurity’ and ‘Strikes, Closures & Unrest’ constitutes the top two risk to their operations. Companies between 5-20 years of existence have rated ‘Strikes, Closures & Unrest’ and ‘Crime’ as the top two grave threats to their operations. For start-ups and those with less than five years of existence, ‘Corruption, Bribery & Corporate Frauds’ is the third highest risk. The same risk category is ranked at No. 5 by companies between 5-20 years of existence and at No. 7 by companies with more than 20 years of existence. For companies between 5-20 years of existence, ‘Terrorism & Insurgency’ is the third highest risk, but companies with more than 20 years of existence have ranked ‘Political & Governance Instability’ at No. 3 position. For start-ups and companies with less than five years of existence, ‘Crime’ is the fourth highest risk, but companies with more than 20 years of existence have rated ‘Terrorism & Insurgency’ at No. 4 spot. All companies have ranked ‘Accidents’ at No. 12 spot.

### Risk Ranking - Company Existence

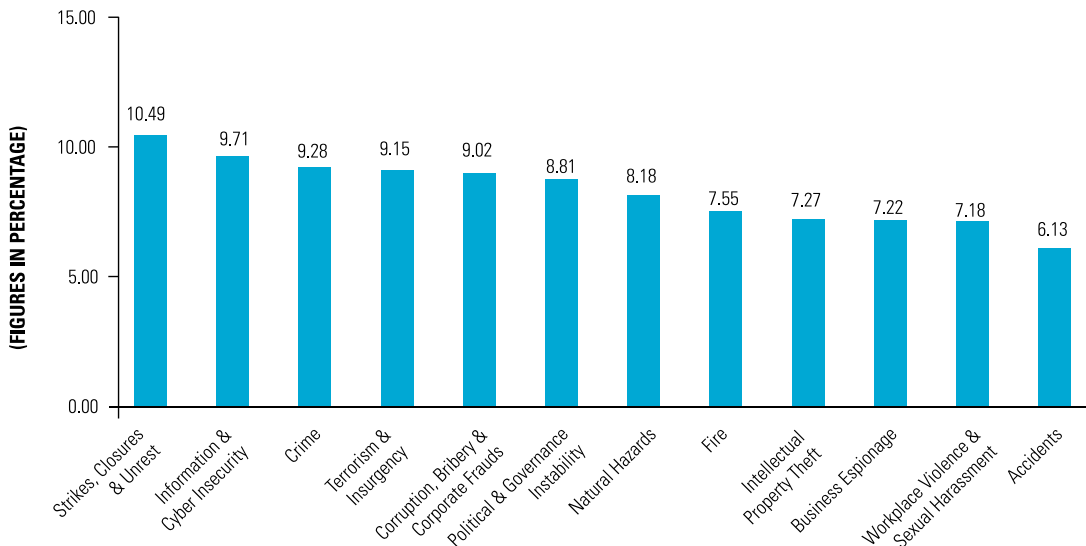






# Overall Risk Ranking

Overall Risk Trends - 2016



As with the earlier editions of the *India Risk Survey*, this year too, the survey presents the perception of different categories of risk by business leaders and professionals in public and private sectors spread across the country. As with any country, India

continues to face a dynamic environment with regard to changing threat perceptions. *India Risk Survey 2016* thus tries to capture the movement of a particular risk in the spectrum comprising a set of 12 risks.

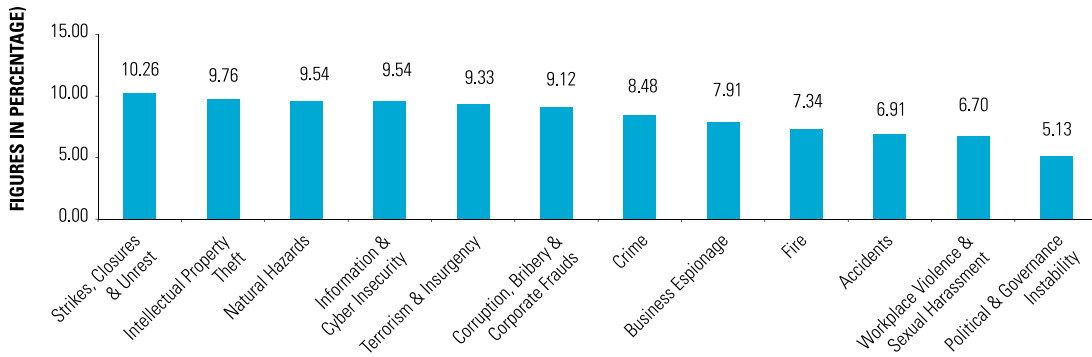
Risk Trends Chart



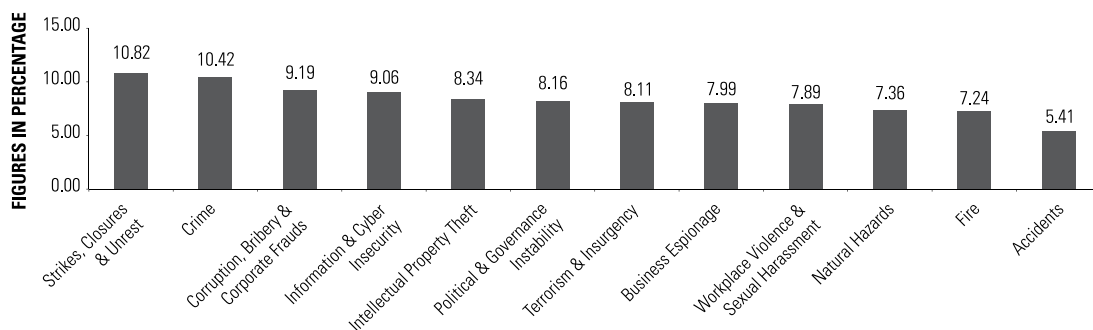


# Region Wise Risk Ranking

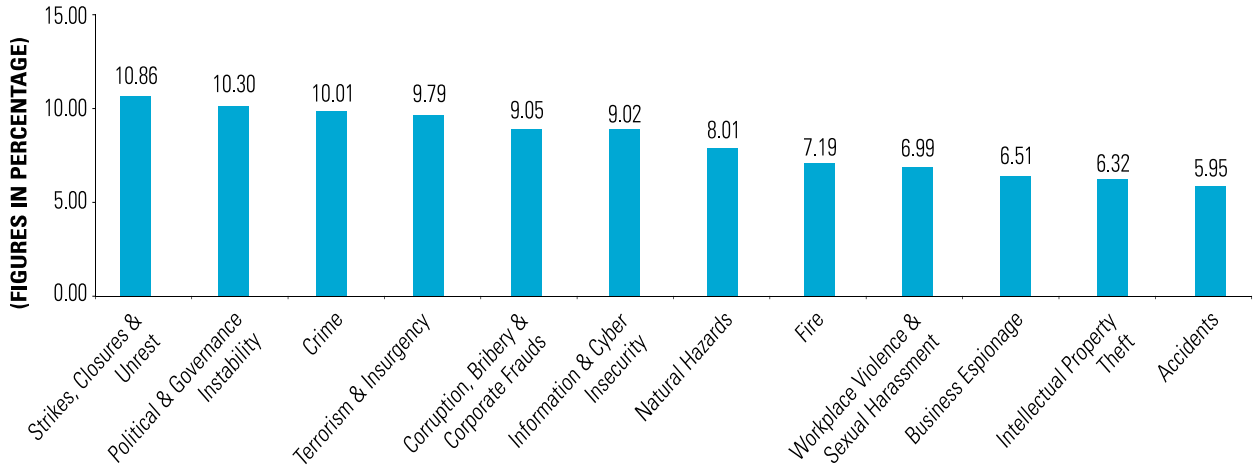
Risk Ranking – Eastern Region



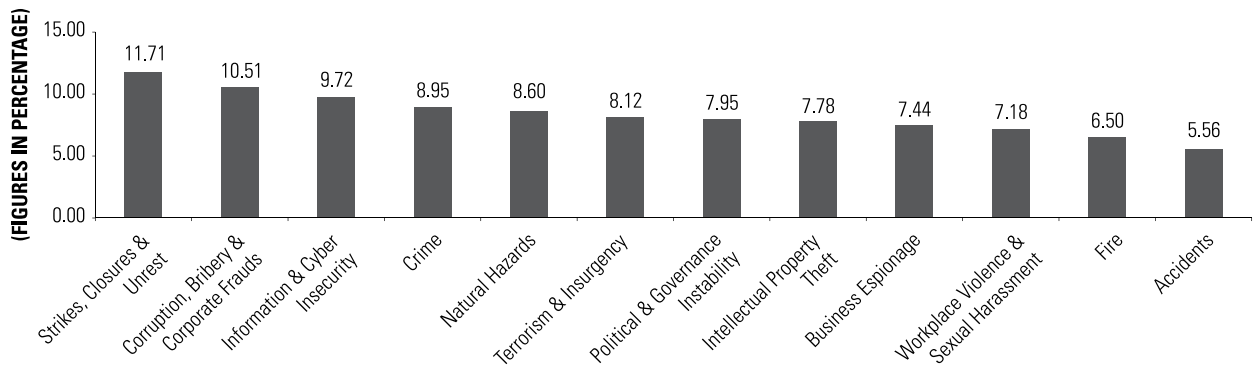
Risk Ranking – Western Region



Risk Ranking – Northern Region



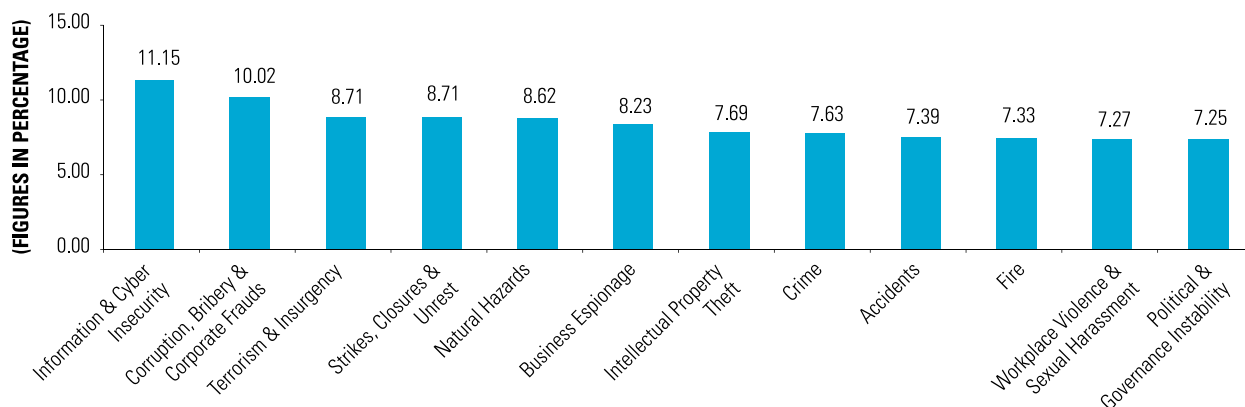
Risk Ranking – Southern Region



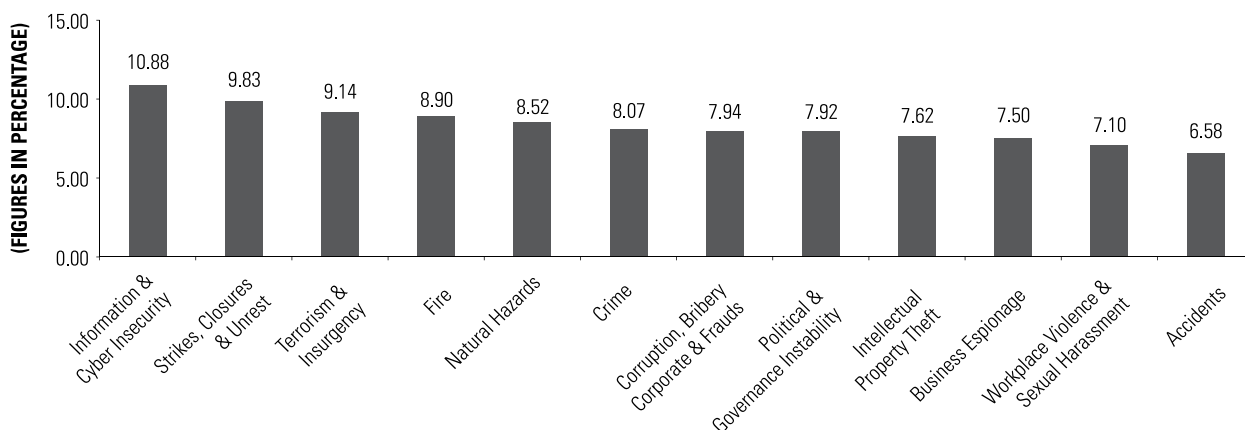
“ Today’s fast-paced business environment encounters a complex and ever-changing risk landscape that may negatively impact the organizational value. The only way to respond to it, is by having a dynamic and holistic perspective of risk management approach to ensure business continuity. India Risk Survey 2016 will certainly aid companies adopt smarter strategies in managing and mitigating their risks and enhance & protect their organizational value.”

– Jack Zahran, President, Pinkerton

### Risk Ranking – Outside of India



### Risk Ranking – PAN India



All the four regions of India – North, South, East and West – view ‘Strikes, Closures & Unrest’ as the top most risk for businesses in the country. The northern region has ranked ‘Political & Governance Instability’ and ‘Crime’ as the other top two risks respectively. The South, on the contrary, has ranked the risk of ‘Corruption, Bribery & Corporate Frauds’ and ‘Information & Cyber Insecurity’ at No. 2 and No. 3 respectively. The risk perception of the eastern region is different with its rankings of ‘Intellectual Property Theft’ at No. 2 and ‘Natural Hazards’ at No. 3. The high rating for ‘Natural Hazards’ also stems from the fact that the eastern region suffers massive seasonal flooding due to shifting of major rivers and more than average monsoon than the

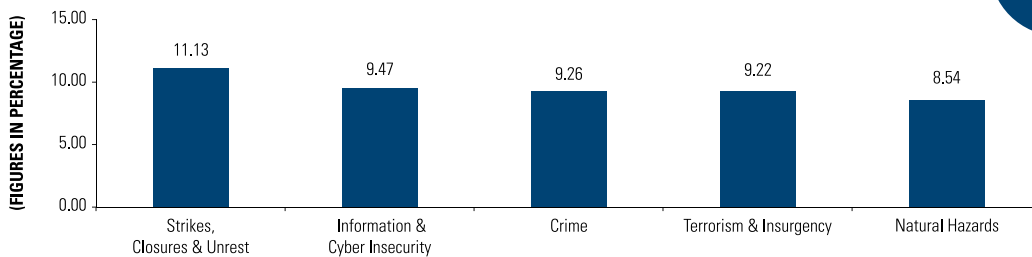
rest of India. Hilly and forest terrain in India’s north-eastern states is another risk for businesses in the region. The west region ranks ‘Strikes, Closures & Unrest’ as the topmost risk followed by ‘Crime’ & ‘Corruption, Bribery & Corporate Frauds’ at No. 2 and No.3 respectively. For respondents from Outside of India ‘Information & Cyber Insecurity’ constitutes the top most risk followed by ‘Corruption, Bribery & Corporate Frauds’ and ‘Terrorism & Insurgency’ at No. 2 and No.3 positions respectively.

Pan India respondents have ranked ‘Information & Cyber Insecurity’ and ‘Strikes, Closures & Unrest’ as the top two risks respectively.

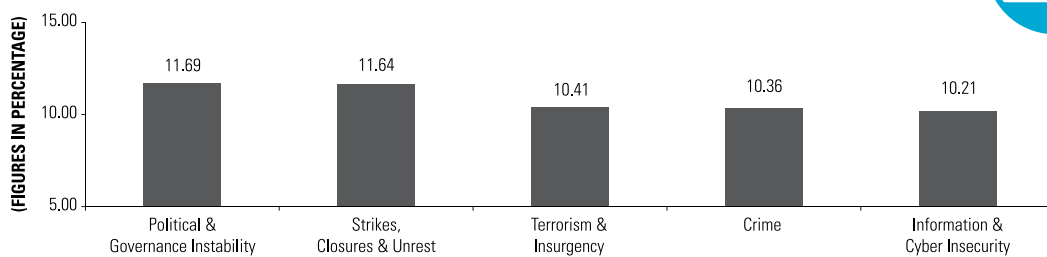


# Industry Wise Risk Ranking

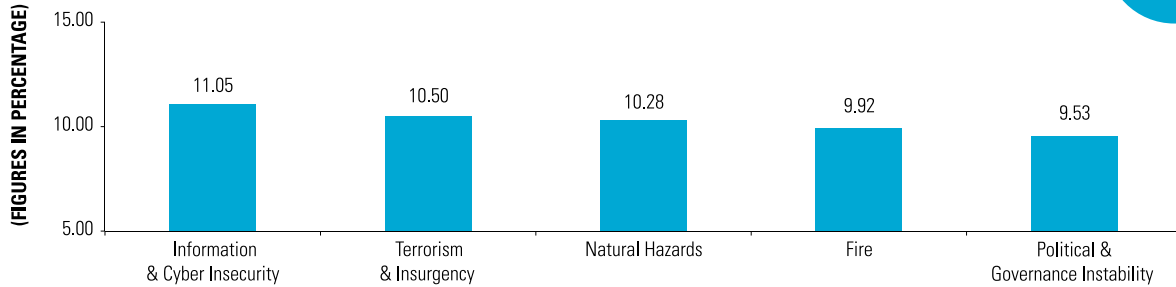
## Risk Ranking – Education



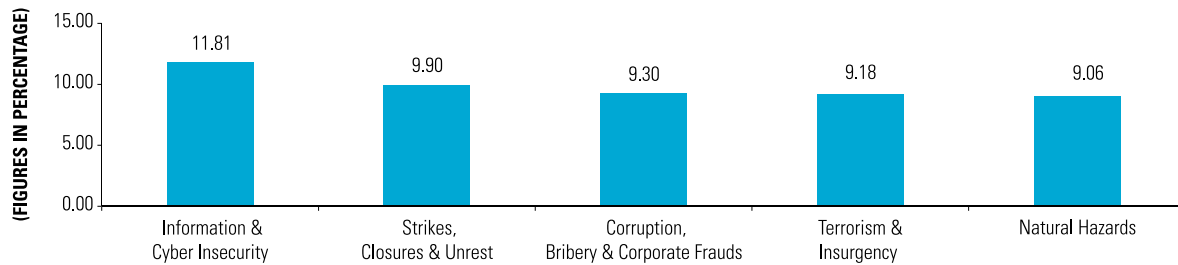
## Risk Ranking – e-Commerce



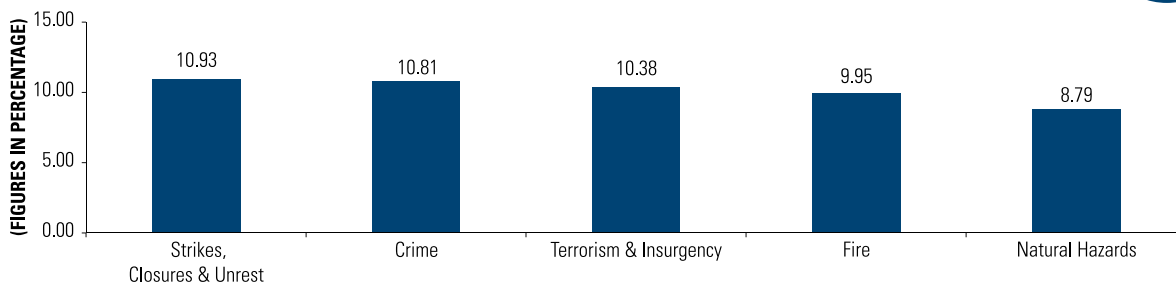
### Risk Ranking – Govt. & PSU



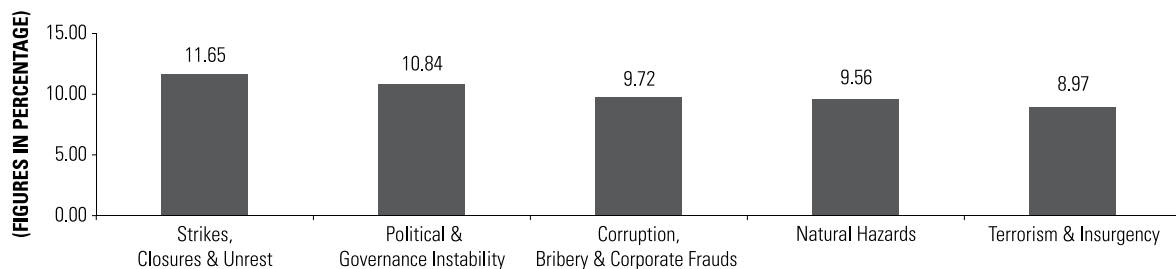
### Risk Ranking – Financial Services



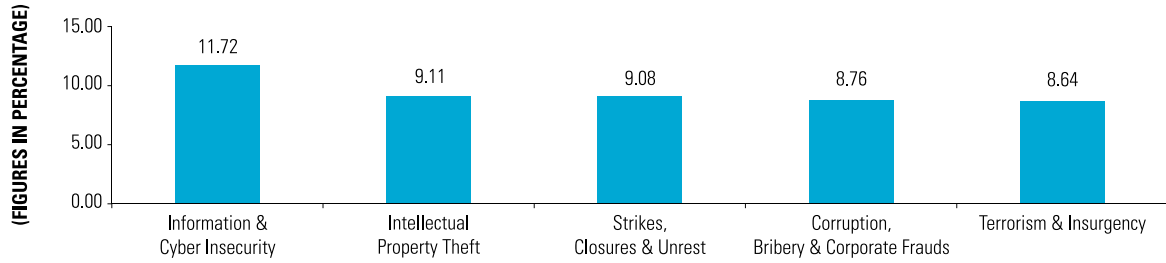
### Risk Ranking – Hospitality



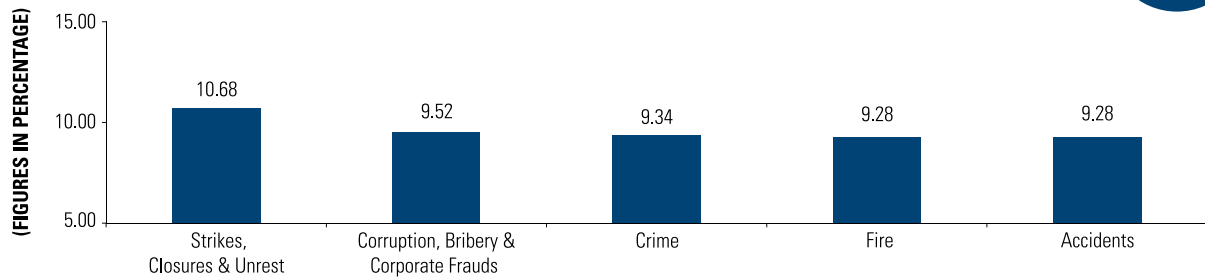
### Risk Ranking – Infrastructure



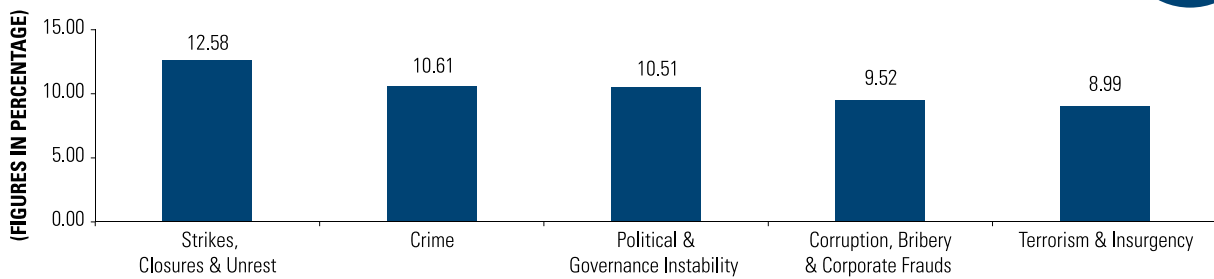
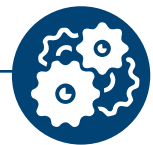
## Risk Ranking – IT/ITES



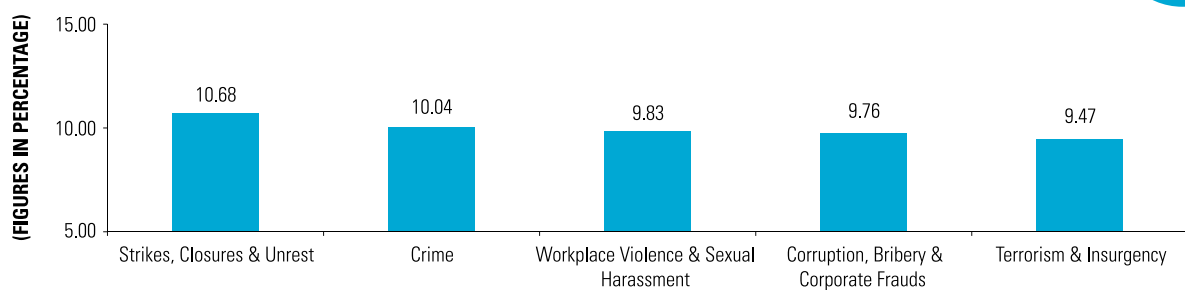
## Risk Ranking – Logistics and Transportation



## Risk Ranking – Manufacturing

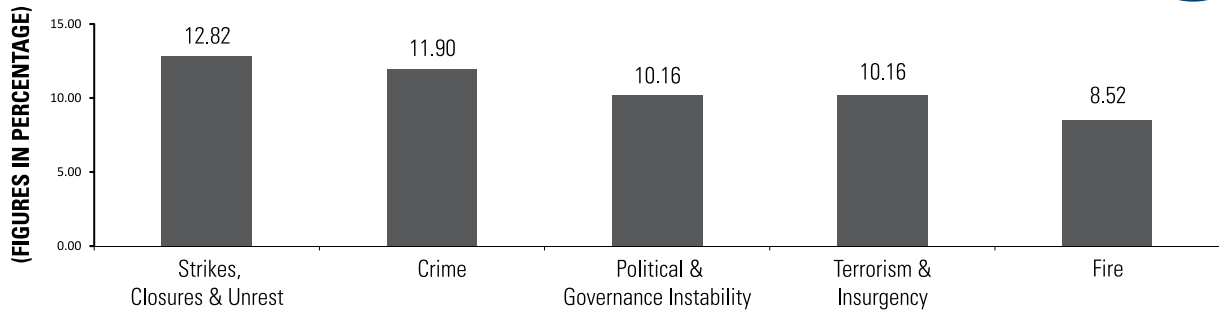


## Risk Ranking – Media and Entertainment

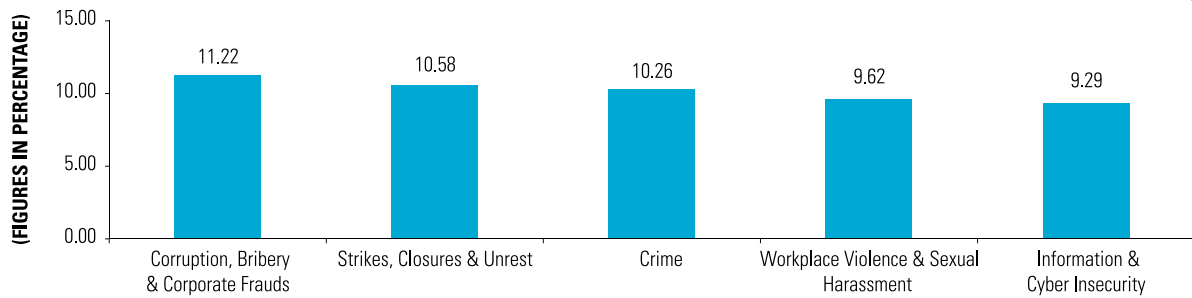




### Risk Ranking – Medical Services



### Risk Ranking – NGOs



### Risk Ranking – Retail

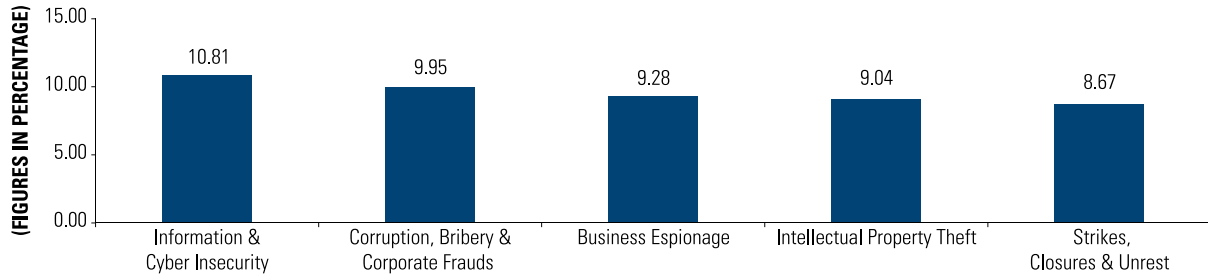


### Risk Ranking – Security Service Providers





Risk Ranking – Telecom



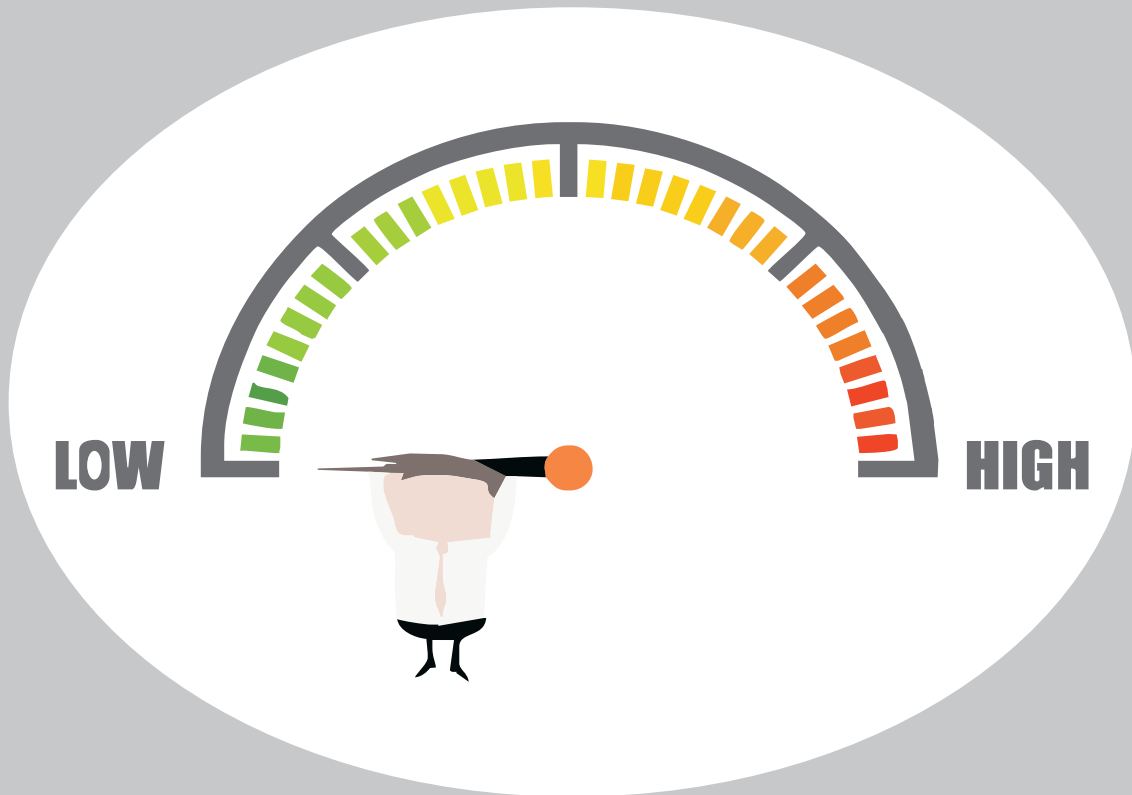
Risk Ranking – Legal



Industry-wise rankings of risk categories presents a more diverse and sectoral perception. While the Government/ PSU, Financial Services, IT/ITES and the Telecom sectors have ranked 'Information & Cyber Insecurity' as the top risk, while for sectors such as Education, Hospitality, Logistics & Transportation, Manufacturing, Media and Medical Services, 'Strikes, Closures & Unrest' constitutes the top most risk. For the e-commerce sector, 'Political & Governance Instability' is the top risk. Security Service Providers, Legal industry and NGOs have ranked 'Corruption, Bribery & Corporate Frauds' as the

top most risk. For a majority of the other sectors 'Crime' and 'Strikes, Closures & Unrest' are the primary concerns. The Telecom sector considers 'Business Espionage' as the third most important risk, while IT/ITES gives 2<sup>nd</sup> rank to 'Intellectual Property Theft'. The Media & Entertainment industry have rated 'Workplace Violence & Sexual Harassment' as the third highest risk affecting their operations in the country. This particular risk category is unique to the Media & Entertainment sector and does not feature in any other sector's top three risk ranking.



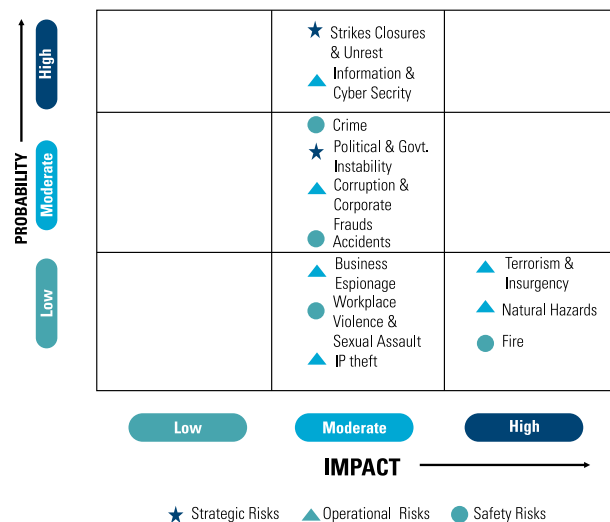


# Risk Categorisation

The *IRS 2016* segregated risks in three categories, viz., Strategic, Operational and Safety risks. Strategic risks are those that impact directly the achievement of an organisation's business objectives. At the national level these are risks which have a grave impact on the national security and its survivability. Strategic risks are majorly determined by the top leadership of the organisation. Operational Risks are defined as the probability of loss occurring from the internal inadequacies of an organisation or a breakdown in its controls, operations or procedures. Lastly, Safety risks are those risks which have the potential to jeopardise employee safety. These could be either internal or external or both. Employees being the critical assets to an organisation, any potential hazard or threat to their safety could affect business continuity.

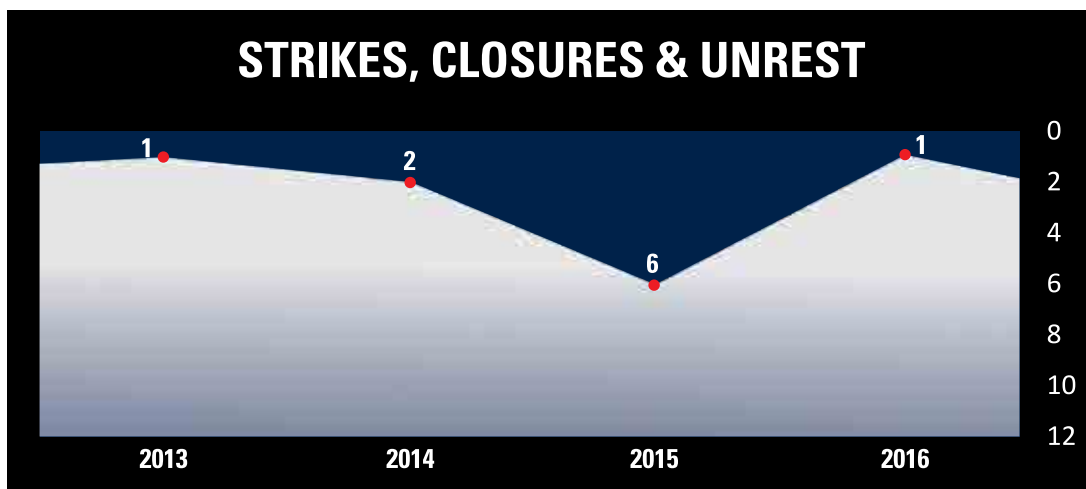
The graph on 'categorisation of risk' represents a particular risk that falls within the categories of either Strategic, Operational or Safety risks. The probability and impact of these risks illustrate their importance to the corporate sector. The categorisation is generic. Some of the risks considered 'Strategic' for some industries can be categorised as 'Operational' risk for another set of industries.

Categorization of Risk





## Risk - in Detail



'Strikes, Closures & Unrest' catapults to the top position in the Risk Ranking of *IRS 2016*

### Highlights

- Rising demand for OBC reservation in education and government jobs. The Jat agitation alone caused losses worth INR 34,000 crore (USD 510 million) and affected supply-chain operations
- Incidents of social unrest have gone up albeit marginally than previous year. But, it has generated negative outlook for business prospects in the country, both in the national and international media
- Industrial strikes and lockouts showed a waning trend this year



## Year-on-Year Ranking

The risk of 'Strikes, Closures & Unrest' can never be underestimated in India, wherein deep rooted class, social and gender discriminations still affect and shape societal relationships and beyond. Not surprisingly, this risk category commands the most serious concern for corporate India, despite recent decades of strong economic growth and poverty alleviation.

## Incidence Mapping

The defining event in this category has been the ongoing Jat agitation, demanding OBC reservation for the community in education and government jobs.<sup>5</sup> The agitation during February 2016 alone caused economic losses worth INR 34,000 crore (USD 510 million) in affected areas,<sup>6</sup> while at least 34 people died and over 200 injured during clashes with the police. The Indian Railways alone suffered losses worth INR 55.92 crore (USD 8.4 million).<sup>7</sup> India's leading car manufacturer Maruti Suzuki temporarily shut down production at its Gurgaon and Manesar plants. The damage to the Munak canal which supplies water to the North and Northwest parts of Delhi created shortage in water supplies for a fortnight. Prior to the Jats, the Patels in Gujarat and Kapus in Andhra Pradesh had raised similar demands. Recent developments show that the issue of reservation is far from over with several political outfits and their regional units lending their support to such demands.<sup>8</sup>

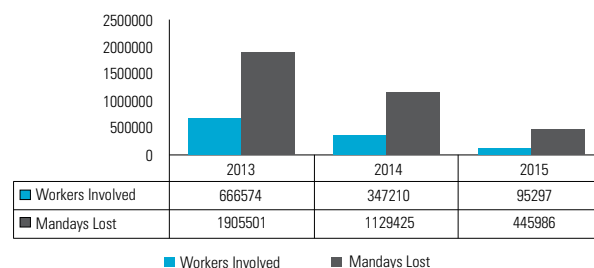
Along with the reservation agitations and resulting violence, social strife remains the most potent risk to business operations across the country, and has been a major cause to dampen investor confidence. India registered a total of 650 incidents of social strife, most of them involving violence. Though almost touching the statistics of violence in the previous year,<sup>9</sup> such incidences are a major reason for the risk of 'Strikes, Closures & Unrest' being placed at No. 1 this year. Such incidences declined from a high number of 823 cases in 2013 – the year when this risk category topped the *India Risk Survey's* risk ranking – to 644 in 2014. The number of such incidents in 2015 (until Oct) was 650.<sup>10</sup> Among India's 35 states and union territories, 8 states together accounted for nearly 85 per cent of all communal incidents in the

country. These states are spread across all geographic regions and ruled by different political parties.<sup>11</sup>

In addition to the above two types of violence, risk from industrial strikes, disputes and lockouts has relatively declined as per the data from the Ministry of Labour.<sup>12</sup> The provisional data for the first four months of 2015 from the ministry shows 40 strikes and lockouts. During the same period in 2014 and for 2013, the official data shows 53 and 121 strikes and lockouts respectively.

Overall, the total number of strikes and lockouts stood at 143 in 2014, which was down from 198 in 2013 and 447 in 2012. In terms of the number of workers joining the strikes, it has come down from a high of 1.81 million organised sector workers in 2003 to one million in 2014.<sup>14</sup> The provisional figures for the first four months of 2015 indicate that less than 100,000 workers were affected as a result of strikes and lockouts. For the same period, the mandays lost due to strikes and lockouts stand at 445,986, as compared to 1,129,425 in 2014. Globally, with economic slowdown engulfing the Eurozone and economies and companies restructuring their operations, there has been a sharp increase in industrial action by workers, employees and unions in Belgium, Germany, France and others countries. For instance, a series of strikes by German flagship carrier Lufthansa's flight attendants and pilots cost the company an estimated USD 158 million (INR 1,051 crore).<sup>15</sup> France has been facing a series of strikes since mid-March with unions protesting President Francois Hollande's move to reform the labour laws.

**Strike & Lockouts (2013 -2015)**



Source: Labour Bureau. n.d. "Statistics – Industrial Disputes". Ministry of Labour & Employment, Government of India. <http://labourbureau.nic.in/idthab.htm>, accessed on 20 April 2016.

<sup>5</sup> The Times of India. 2016. "Police on alert as Jats vow to resume agitation". *The Times of India*. 12 June. <http://timesofindia.indiatimes.com/city/jaipur/Police-on-alert-as-Jats-vow-to-resume-agitation/articleshow/52709709.cms>, accessed on 17 June 2016.

<sup>6</sup> Indo-Asian News Service. 2016. "Jat quota protests cost Rs 34,000 crore loss to northern states". NDTV. 22 February. <http://www.ndtv.com/indianews/jat-quota-protests-cost-rs-34-000-crore-loss-to-northern-states-1280132>, accessed on 20 April 2016.

<sup>7</sup> PTI. "Jat agitation: Railways suffered Rs 55.92 crore loss due to cancellation". *The Indian Express*. 9 March. <http://indianexpress.com/article/india/indianews-india/jat-agitation-railways-suffered-rs-55-92-cr-loss-due-to-jat-agitation/#sthash.jll7WoS3.dpuf>, accessed on 12 April 2016.

<sup>8</sup> The Tribune. 2016. "After Cong, INLD backs Jat agitation". *The Tribune*. 16 June. <http://www.tribuneindia.com/news/haryana/after-cong-inld-backs-jat-agitation/252121.html>, accessed on 17 June 2016.

<sup>9</sup> PTI. 2016. "650 cases of communal violence in India till October 2015: Government". *The New Indian Express*. 22 December. <http://www.newindianexpress.com/nation/650-Cases-of-Communal-Violence-in-India-Till-October-2015-Government/2015/12/22/article3190676.ece>, accessed on 20 April 2016.

<sup>10</sup> Rakesh Dubbudu. 2015. "India had 58 communal incidents per month in the last 5 years & 85% of these incidents occurred in just 8 states". *Factly*. 1 December. <https://factly.in/communal-incidents-in-india-statistics-57-communal-incidents-per-month-last-4-years-85-these-incidents-happen-in-8-states/>, accessed on 23 April 2016.

<sup>11</sup> Ibid.

<sup>12</sup> Labour Bureau. n.d. "Statistics – Industrial Disputes". Ministry of Labour & Employment, Government of India. <http://labourbureau.nic.in/idthab.htm>, accessed on 20 April 2016.

<sup>13</sup> Prashant K. Nanda. 2015. "Industrial strikes and lockouts see steep decline in India". *Live Mint*. 2 September. <http://www.livemint.com/Politics/tjP4DiG7Uro95iNCiebrAO/Industrial-strikes-and-lockouts-see-steep-decline-in-India.html>, accessed on 15 April 2016.

<sup>14</sup> Deutsche Welle. 2016. "Airport strikes to impact 'tens of thousands'". 25 April. <http://www.dw.com/en/airport-strikes-to-impact-tens-of-thousands/a-19214292>, accessed on 26 April 2016.

As noted in the *India Risk Survey 2015*, India's labour market has undergone a sea change over the last three decades. A majority of the labour unrests were reported in new manufacturing units. If the first half of 2015 was dominated by strikes in critical coal and banking sectors, the latter half of the year was dominated by the 2 September 2015 "Bharat Bandh"<sup>15</sup> by India's 11 central trade unions to protest against the proposed changes in labour laws. The unions claimed that the strike was a success, with 150 million workers joining the agitation.

### Impact and Combat

Civic and labour unrest not only disrupt business operations and production cycles, it also puts an enormous financial burden on the business establishment; in addition to inflicting terminal damage to a country's brand reputation and overall security perception of the nation. Civic and labour unrest is an India-wide phenomenon and affects all sectors in varying degrees. A handicap in dealing with various forms of social strife is the nonexistence of a unified set of laws. At present, the laws to deal with communal incidences, caste agitations, and other forms of violent demonstrations are covered under various sections of the Indian Penal Code (IPC). A single and cohesive set of laws will help define the incidents and fix accountability at multiple levels, including the police.

Most labour problems are a result of disputes over wages, working conditions or union representation. Labour strikes usually have a major impact in southern states where industry presence is relatively higher. A lot of strikes are also ideologically driven as most trade unions in India are affiliated with one political parties or the other.

India's labour laws are regarded as most stringent and complex in the world, with multiple and often overlapping laws, complicating the regulatory environment for businesses. As noted in the *India Risk Survey 2015*, there are close to 44 central labour laws and above 100 state labour laws in the country, most of which are archaic in reference to a globalised economic perspective. The rules governing payment of wages and salaries are set forth in the Payment of Wages Act, 1936, and the Minimum

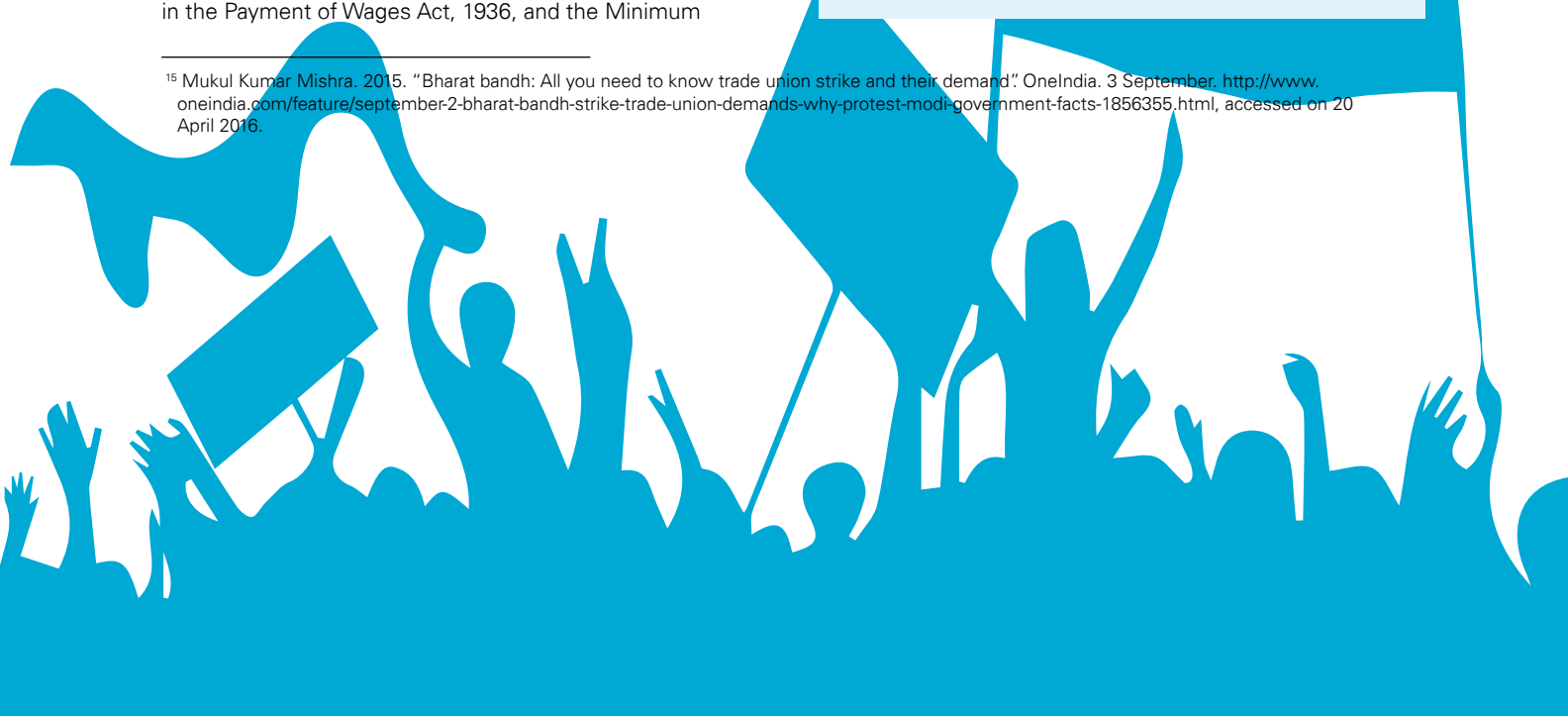
Wages Act, 1948. Retrenchment, closure and layoffs are governed by the Industrial Disputes Act of 1947, which requires prior government permission to lay-off workers or close businesses employing more than 100 people. Due to this, businesses have found ways to circumvent these rules through contract workers, which is another point of conflict in the labour-employer ties.

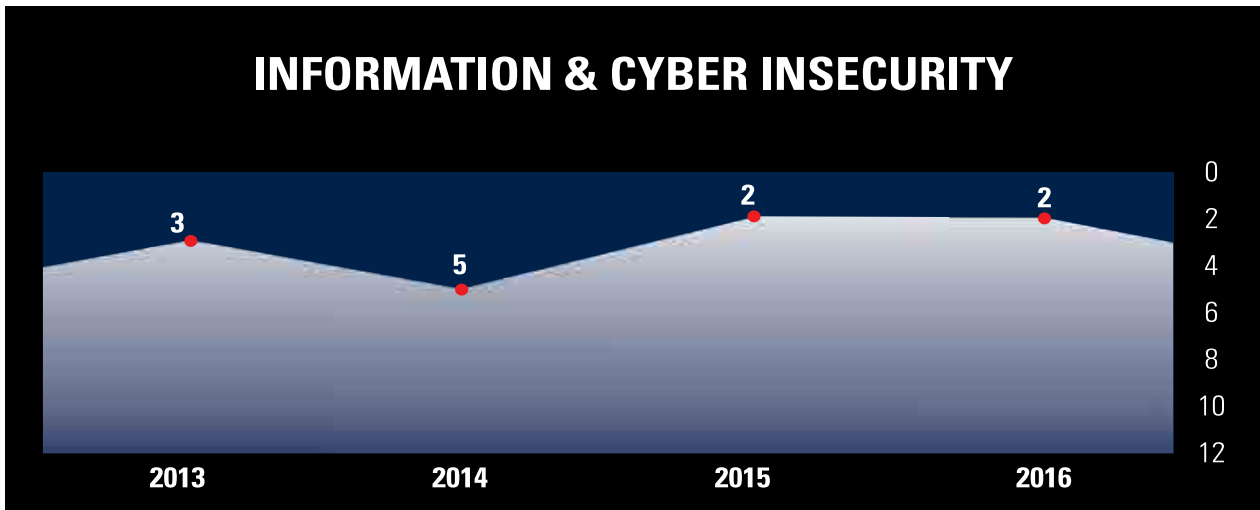
### Draft Industrial Relation Bill, 2015

A draft Industrial Relation Bill is currently in circulation for discussion. Some of the key provisions to be amended are as follows:

- Factories employing less than 300 workers can be shut down without prior government approval.
- Retrenched workers should be paid an average salary of 45 days, instead of the 15 days at present.
- Unions can be formed only if 10 per cent of the employees or 100 workers, whichever is less, support the proposal. Currently, seven members can form a union.
- Units employing less than 40 people to be exempted from 14 labour laws as a move to give smaller units freedom from compliance with the rigours of the labour law. The definition of a factory is being revised by raising the threshold of minimum workers from 20 to 40 for units operating without power and from 10 to 20 for units operating with power. The micro, small and medium enterprises employing up to 40 workers will be given relaxation under the purview of amended law.
- Restriction on night shifts for women will be removed to allow women to work after 8 p.m., subject to provision of providing adequate security by the employer.
- The new provisions dispense the companies with the need to keep documentary records and registers, and to replace them with electronic records by employers.

<sup>15</sup> Mukul Kumar Mishra. 2015. "Bharat bandh: All you need to know trade union strike and their demand" OneIndia. 3 September. <http://www.oneindia.com/feature/september-2-bharat-bandh-strike-trade-union-demands-why-protest-modi-government-facts-1856355.html>, accessed on 20 April 2016.





### 'Information & Cyber Insecurity' retains its second position in IRS 2016

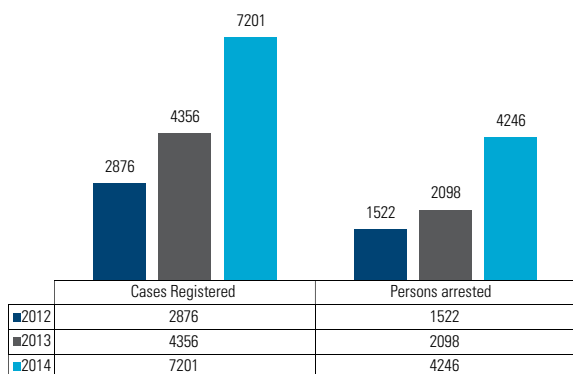
#### Highlights

- A persistent risk for both the government and private sectors in a tech-driven globalised economy. The NCRB recorded a total of 7,201 cases under the IT Act in 2014, showing a 65 per cent rise from 2013.
- Symantec estimated one million web attacks every day in 2015. A SophosLabs research ranked India at No. 5 among the countries with the highest percentage of endpoints exposed to a malware attack.
- The spear-phishing campaigns targeting employees has increased by 55 per cent in 2015

#### Year-on-Year Ranking

'Information & Cyber Insecurity' is a persistent business risk in a high-technology driven globalised economy. Indian companies are increasingly being targeted, which is reflected in the high-risk rating given by the Government & PSU and Telecom sectors to risk of 'Information & Cyber Insecurity'. With increase in the number of people accessing the internet through any mode, computers or hand-held devices, and the growth of revolutionary financial transaction platforms for online shopping and payments, this risk is definitely going to increase further. As per the government data sourced from the NCRB, a total of 7,201 cases were registered in 2014 under the IT Act,<sup>16</sup> which registered a 65.3 per cent rise in cyber-related cases as compared to 2013. Greed or financial gain accounted for the maximum 18 per cent of the cyber-crime cases. In real terms, it stood at 1,736 out of 9,622 cases.

#### NCRB - IT Crimes (2012-2014)



NCRB. 2014. *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.gov.in/StatPublications/CII/CII2014/Compendium%202014.pdf>, accessed on 22 April 2016.

#### Incidence Mapping

The World Economic Forum (WEF) focused its Global Agenda Council on cybersecurity and strengthening global security in the cyber age by establishing international norms on cyber warfare. This year's forum added to the existing "Risk and Responsibility in a Hyper-connected World" project, with the purpose to establish context and tools for a dialogue on cyber-resiliency.<sup>17</sup> According to Symantec Inc. there were one million web attacks every day in 2015.<sup>18</sup> The retail sector had the highest rate of malware attacks in 2015, with more than one per cent of email classified as malicious.<sup>19</sup> The spear-phishing campaigns targeting employees increased by 55 per cent in 2015. A SophosLabs research ranked India at No. 5 among the countries with the highest percentage of endpoints exposed to a malware attack and are thus more prone to cyberattacks. The other countries ranked higher than India are Algeria, Bolivia, Pakistan and China in that order.<sup>20</sup>

<sup>16</sup> NCRB. 2014. *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.gov.in/StatPublications/CII/CII2014/Compendium%202014.pdf>, accessed on 22 April 2016.

<sup>17</sup> Wendy St. Clair. 2016. "Cyber security in 2016: Reflecting on the World Economic Forum." *Forbes*. 4 February. <http://www.forbes.com/sites/centurylink/2016/02/04/cyber-security-in-2016-reflecting-on-the-world-economic-forum/#297ba4ce7f0d>, accessed on 22 April 2016.

<sup>18</sup> Symantec. 2015. *2016 Internet Security Threat Report*. USA: Symantec. <https://www.symantec.com/security-center/threat-report>, accessed on 22 April 2016.

<sup>19</sup> Ibid.

<sup>20</sup> Poulomi Das. 2016. "India ranks among the top 5 countries at risk for cyber-attacks in 2016." *Business Insider*. 20 May. <http://www.businessinsider.in/India-ranks-among-the-top-5-countries-at-risk-for-cyber-attacks-in-2016/articleshow/52364243.cms>, accessed on 17 June 2016.



In 2016 data-mining experts from the University of Maryland and Virginia Tech, listed India among the countries which are most vulnerable to cyberattacks in a report on cyber vulnerability.<sup>21</sup> The book's authors conducted a two-year study that analysed more than 20 billion automatically generated reports, collected from 4 million machines per year worldwide.

A growing concern in the cyber arena is cyber-aided hacking, commonly reported in the media. Indian companies were targeted through a 'Bitterbug' malware that spread through documents reportedly by a group involved in cyberespionage and based outside the country. In an unprecedented incident in the US, authorities charged five Chinese hackers with conducting cyber espionage against American companies in nuclear power, metals and solar energy under the Economic Espionage Act.<sup>22</sup> The results of a Federal Bureau of Investigation (FBI) survey stated that half of the 165 private companies that participated in the survey claimed to be victims of economic espionage or theft of trade secrets.<sup>23</sup>

The FBI has reportedly seen an increase of 53 per cent in such cases. In India, reports of transnational hackers breaching the computer systems at the Eastern Naval Command in Visakhapatnam, where the indigenous nuclear submarine Arihant has been undergoing sea trials, highlight the threat from cyber hackers that the country is currently facing.<sup>24</sup>

## Impact and Combat

For businesses, while the ever-expanding global cyber economy has opened a window of opportunities, the inherent risks which sneak along in a tech-driven interconnected world pose unparalleled risks. Incidences of cyber-crime causing data leakage can have far-reaching impact and losses on businesses, which go beyond the mere financial or reputational damage. The case in point is the 11 million leaked or stolen files from the Panama law firm Mossack Fonseca which has exposed details of individuals and companies involved in alleged financial irregularities. Purely from an information security point of view, the case will have long-lasting ramifications across the world. Already several governments have launched criminal investigations around the world.<sup>25</sup> More recently in one of the world's biggest ever cyber heists, hackers breached the computer systems of Bangladesh Bank, and transferred USD 81 million (roughly INR 542 crores) from its account at the Federal Reserve Bank of New York to casinos in the Philippines between February 4-5, 2016.<sup>26</sup>

From an organisational perspective, an in-depth audit and regular review of cyber-security protocols can reveal vulnerabilities, which should help in creating and augmenting cyber resilience of the organisation. A major gap in cyber-security comes from the lack of awareness among employees, which calls for regular communication and training sessions.

“ India continues to be an attractive investment destination despite subdued economic growth, worldwide. Nations across the world are realizing her geopolitical importance, and recognize the robustness and vibrance of the world's largest democracy. But paths of glory are riddled with risks — both overt and covert. As a nation we need to take cognizance of all these threats, present and evolving. A calibrated and preemptive risk mitigation strategy, leveraging powerful mapping, location and GIS-based data and technologies, will ensure that India's march towards growth and prosperity continues unhindered. Indigenous Indian organisations who have India's best interests at heart have leading capabilities in map data, location and GIS technologies to help Indian government mitigate risks ”

- Rakesh Verma, Managing Director, MapmyIndia

<sup>21</sup> V.S. Subramanian, M. Ovelgonne, T. Dumitras and B.A. Prakash. 2015. *The Global Cyber – Vulnerability Report*. Switzerland: Springer Publishing International University of Maryland. <http://www.springer.com/us/book/9783319257587>, accessed on 22 April 2016.

<sup>22</sup> FBI. 2015. "Economic espionage: FBI launches nationwide awareness campaign". Federal Bureau of Investigation. <https://www.fbi.gov/news/stories/2015/july/economic-espionage/economic-espionage>, accessed on 22 April 2016.

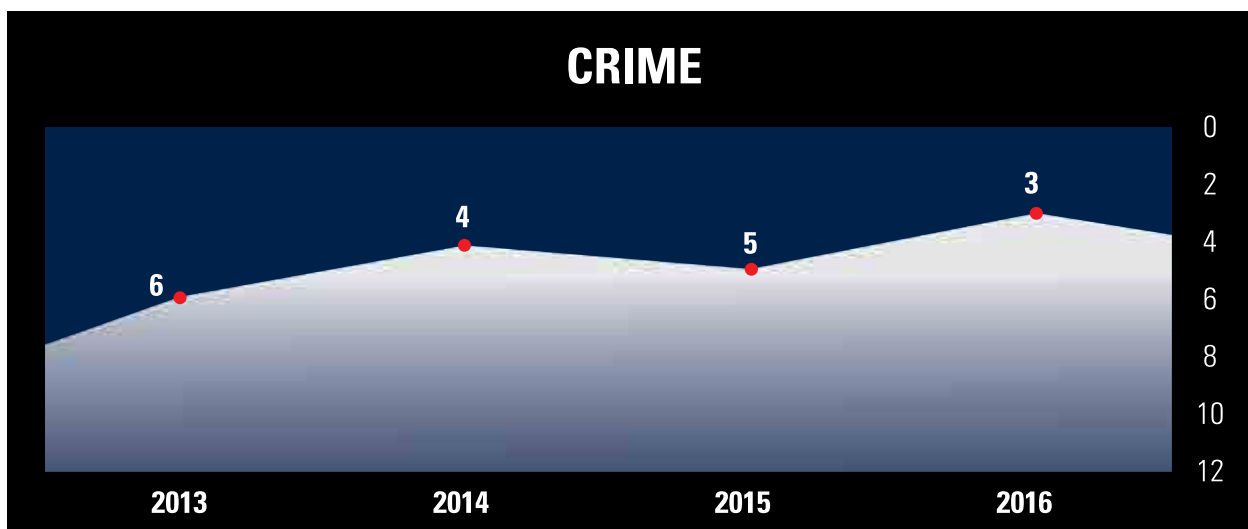
<sup>23</sup> Wesley Bruer. 2015. "FBI sees Chinese involvement amid sharp rise in economic espionage cases". CNN. 24 July. <http://edition.cnn.com/2015/07/24/politics/fbi-economic-espionage>, accessed on 22 April 2016.

<sup>24</sup> Naval-technology.com. 2012. "India investigates cyber attacks on its Eastern Naval Command". 5 July. <http://www.naval-technology.com/news/newsindia-investigates-cyber-attack-eastern-naval-command>, accessed on 22 April 2016.

<sup>25</sup> ICIJ. 2016. "Giant leak of offshore financial reports expose global array of crime and corruption". *The International Consortium of Investigative Journalists*. 3 April. <https://panamapapers.icij.org/20160403-panama-papers-global-overview.html>, accessed on 22 April 2016.

<sup>26</sup> NDTV. 2016. "Bangladesh Bank Says Hackers Tried to Steal \$951 Million". NDTV, 14 March. <http://gadgets.ndtv.com/internet/news/bangladesh-bank-says-hackers-tried-to-steal-951-million-813256>, accessed on 17 June 2016.





**‘Crime’ has jumped two places to No. 3 in the risk ranking of IRS 2016**

**Highlights**

- Gurgaon, Indore and Delhi topped the list of Indian cities in Asia in the Crime Index 2016. The National Crime Records Bureau (NCRB) data shows an 8.9 per cent year-on-year increase in the overall crime rate in 2014.
- Delhi tops the list of Indian cities in terms of major NCRB crime indicators, including murders and rapes.
- Madhya Pradesh tops the list of Indian states in terms of highest incidences of rape.

**Year-on-Year Ranking**

India ranks 143rd in the Global Peace Index (GPI) 2015.<sup>27</sup> The survey includes 162 countries and is conducted by the Institute of Economics and Peace. The index measures the relative position of nations’ and region’s peacefulness. Globally, Ireland tops the ranking in the GPI survey. In South Asia, with the exception of Pakistan which was ranked at 154, all other nations received ranking above that of India – Bhutan at 18, Nepal at 62, Bangladesh at 84 and Sri Lanka at 114.

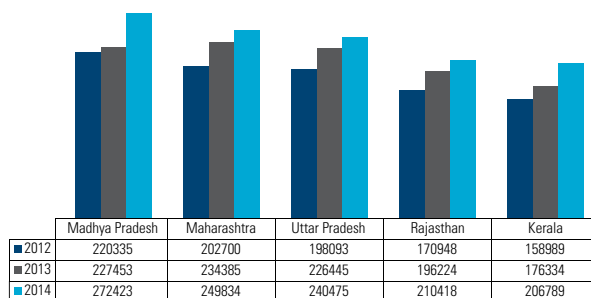
The Crime Index 2016<sup>28</sup> ranks Gurgaon and Delhi as the top two Indian cities with high crime index rate in Asia. In fact, with a rate of 74.07, Gurgaon ranks as the top most crime prone city in the Crime Index. Indore is ranked tenth with a Crime Index rate of 63.93. Delhi is ranked fifteenth with a crime index rate 60.28.

**Incidence Mapping**

The NCRB report for 2014 registers an increase of 8.9 per cent in the overall crime rate as compared to the 2013 figures. A total of 72,29,193 cognisable crimes were registered in 2014, comprising 28,51,563 Indian Penal Code (IPC) crimes and 43,77,630 Special & Local Laws (SLL) crimes, which totalled to 588,815 more cases than that of 2013.<sup>29</sup>

Among the Indian states, in percentage terms, Madhya Pradesh registered the highest increase of 9.6 per cent in the total IPC crimes reported in the country. At 8.8 per cent increase, Maharashtra registered the second highest number of crimes among the states. It is followed by Uttar Pradesh with 8.4 per cent increase, Rajasthan with 7.4 per cent increase and Kerala with 7.3 per cent increase in the total crime registered in 2014. In real terms, Madhya Pradesh registered a total of 272,423 incidence of IPC crimes in 2014.

**NCRB IPC CRIME DATA (2012-2014)**



Source: NCRB. 2014. *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.gov.in/StatPublications/CII/CII2014/Compendium%202014.pdf>, accessed on 22 April 2016.

<sup>27</sup> Institute of Economics & Peace. 2015. *Global Peace Index 2015: Measuring Peace, Its Causes and Its Economic Value*. Sydney: Institute of Economics & Peace. June. <http://www.visionofhumanity.org/#/page/indexes/global-peace-index>, accessed on 22 April 2016.

<sup>28</sup> Numbeo. n.d. "Crime Index 2016". Serbia: Numbeo Doo. [http://www.numbeo.com/crime/region\\_rankings.jsp?title=2016&region=142](http://www.numbeo.com/crime/region_rankings.jsp?title=2016&region=142), accessed on 22 April 2016.

<sup>29</sup> NCRB. 2014. *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.gov.in/StatPublications/CII/CII2014/Compendium%202014.pdf>, accessed on 22 April 2016

The NCRB data reports a total of 1,32,939 cases of sexual offences (comprising rape, attempt to commit rape, assault on women with intent to outrage her modesty, and insult to the modesty of women) in 2014, out of which assaults on women with the intent to outrage her modesty accounted for 61.9 per cent (82,235 cases) of the total of such incidents reported. Madhya Pradesh also tops the list of states in sexual offences registered under the IPC. The highest number of rape cases (5,076 cases) were reported in Madhya Pradesh followed by 3,759 cases in Rajasthan.

Among the Indian cities, Delhi tops the list of cities with the highest (155,654 cases) incidence of crimes registered under the IPC. Delhi was followed by Mumbai with 40,361 cases and Bengaluru with 31,892 cases in 2014. The cities of Delhi, Mumbai, Bengaluru and Kolkata together accounted for 22.7 per cent, 6.5 per cent, 5.2 per cent and 4.2 per cent respectively, of the total registered IPC crimes reported from 53 mega cities in the country. As per the NCRB data, Delhi recorded the maximum cases (472 cases) of murder, followed by Bengaluru with 241 cases. With 1,813 registered cases of rape, Delhi is being labelled by the media as the "rape capital"<sup>30</sup>. The national capital is followed by Mumbai and Jaipur with 607 and 263 registered rape cases respectively. A total of 5,761 rape cases were reported in 53 mega cities of the country.

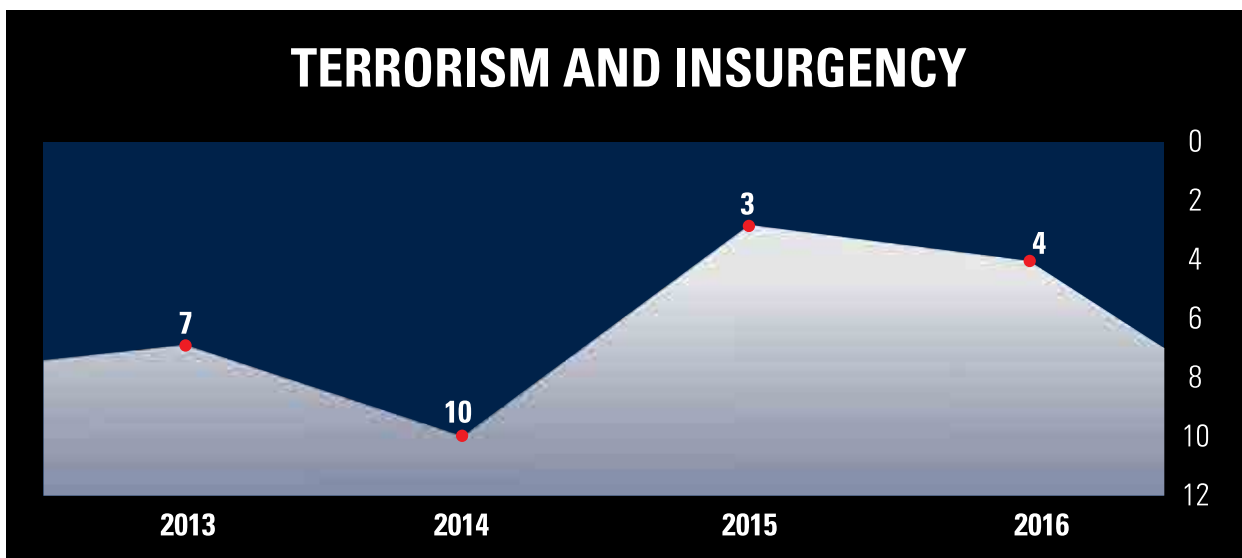
**Impact and Combat**

The risk of 'Crime' has stayed among the top five risk categories in the last three *India Risk Surveys*. This shows that it is a serious concern for the Indian economy. Crime permeates all social and economic aspects of India and uniformly affects the social and economic differentiators. With respect to white-collar crimes, every business is potentially a crime victim and crimes committed against a business can impact profitability and operations, which, in turn, can even lead to business failures. With the rising cost of crime affecting profitability and operations, businesses must increase preventive measures and develop more sophisticated methods to detect crime.

While the government is primarily responsible for crime regulation, businesses are encouraged to defend themselves against crime to avoid becoming the target. Preventive safeguards may not completely prevent an incidence of crime, appropriate safeguards, which employ a combination of human and technical solutions, will reduce the likelihood and severity of criminal activities.

<sup>30</sup> Rukmini S. 2015. "Delhi is now India's rape capital, show NCRB data." *The Hindu*. 19 August. <http://www.thehindu.com/news/cities/Delhi/delhi-is-now-indias-rape-capital-show-ncrb-data/article7554551.ece>, accessed on 22 April 2016.





**‘Terrorism and Insurgency’ drops one place to fourth position in IRS 2016**

### Highlights

- The US State Department’s annual survey for 2015 on worldwide terrorism revealed that terror attacks decreased in 2015 for the first time in three years.
- Rise of global terrorism and brazen attacks in Europe, Africa and the Middle East presents a new form of Islamist terrorism. India too is vulnerable to these attacks.
- Maoist insurgency is responsible for a majority of incidents and deaths in India and continues to affect vast swathe of territory in the mineral-rich belt of the country.

### Year-on-Year Ranking

While the US State Department noted in its annual survey that terror attacks decreased in 2015 for the first time in three years. According to the State Department’s Country Reports on Terrorism, the total number of terrorist attacks decreased 13 per cent from 2014 to 2015. The total fatalities due to terrorist attacks declined 14 per cent year-over-year in 2015.<sup>31</sup> India, however, remains one of the most persistently targeted countries with regard to terrorism. The country has been the target of transnational and domestic terrorist groups and Maoist insurgents. This is clearly highlighted by the fact that India retained its 6th rank on the Institute of Economics and Peace’s Global Terrorism Index (GTI) for 2015.<sup>32</sup> The index is based on a survey of 162 countries, and studies major global trends and patterns in terrorism. It groups terrorism in India broadly into three categories – Communists, Islamists and Separatist. As per the GTI survey, India recorded a total of 416 terrorist deaths in 2014. The year also recorded 763 incidents related to terrorism and insurgency.

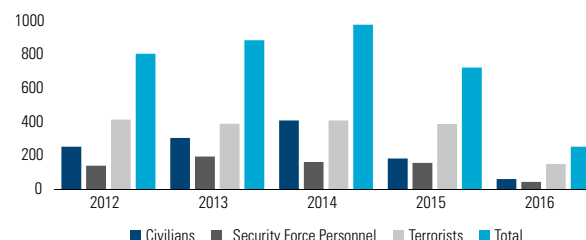
### Incidence Mapping

Between 2000 and 2014, India was included 14 times in the top 10 countries most affected by terrorism. The threat of terrorism has not diminished in India. This was reinforced by the gruesome January 2, 2016 attack on the Pathankot Air Force Station in Punjab. In recent months, intelligence agencies have raised multiple terror alerts,

thus raising the possibility of further such attacks. The devastation from terror attacks can easily disrupt entire business operations. A major fear is the rise of terrorist activities in the Middle East and its expansion to the Indian subcontinent. Along with it, growing radicalisation of disgruntled youth is a major concern for policymakers of the nation.

Internationally, terrorism has attained global presence and presents an altogether different face with terror groups becoming global and technologically more advance. These terror groups have been recently responsible for two of the most horrific terror attacks in Europe in recent months – the November 13, 2015 attacks in Paris and the more recently March 22, 2016 attack on Zaventem Airport, Brussels. Both these incidents clearly show that terrorists can now strike with impunity on countries hitherto considered immune from such attacks.

### India Terror Fatalities



Source: SATP. 2016. “India fatalities: 1994–2016” South Asia Terrorism Portal. <http://www.satp.org/satporgtp/countries/india/database/indiafatalities.htm>, accessed on 20 April 2016.

<sup>31</sup> Bureau of Counterterrorism and Countering Violent Extremism. 2016. *Country Reports on Terrorism 2015*. Washington DC: US Department of State Publications. <http://www.state.gov/j/ct/rls/crt/2015/index.htm>, accessed on 17 June 2016.

<sup>32</sup> Institute for Economics & Peace. 2015. *Global Terrorism Index 2015: Measuring and Understanding the Impact of Terrorism*. Sydney: Institute for Economics & Peace and National Consortium for the Study of Terrorism and Responses to Terrorism. <http://economicsandpeace.org/wp-content/uploads/2015/11/Global-Terrorism-Index-2015.pdf>, accessed on 20 April 2016.

Along with terrorism, insurgency by naxals pose major risks for business operations in the country. The GTI survey notes that naxal terrorists are the most frequent perpetrators and are responsible for a majority of deaths in India. Two outlawed Maoist groups claimed responsibility for 172 deaths in 2014, which constituted 41 per cent of all terror casualties in the year. Police personnel are the main target of these attacks and account for over half of the deaths and kidnapping; these are widely used by extremists for ransom as well as securing release of naxal prisoners lodged in Indian jails. The states of Bihar, Chhattisgarh and Jharkhand reported a majority of these Maoist attacks, although more than 200 out of 640 districts continue to remain afflicted by naxals. About 50 per cent of these districts are situated in the mineral rich regions and mostly inhabited by tribal population. Data from South Asia Terrorism Portal (SATP) show that in the first four months of 2016 (up to 10 April 2016) naxals were responsible for 146 killings, which included deaths of 42 civilians, 27 security force personnel and 74 naxals.<sup>33</sup>

### Major Naxal Attacks in 2016

- **March 30:** Seven CRPF jawans were killed in a landmine explosion triggered by the Naxals in Dantewada District, Chhattisgarh.
- **March 17:** At least four persons working on a road construction site were killed allegedly by PLFI cadres in a village under Basia Police Station limits of Gumla District, Jharkhand.
- **March 3–4:** Three troopers of CoBRA were killed and at least 15 others injured in an encounter with Naxals cadres in Sukma District, Chhattisgarh.
- **January 27:** Seven police persons were killed while eight others injured in a landmine blast by Naxals at Chattarpur Block in Palamu District, Jharkhand.

India's northeast region continues to remain afflicted with ethno-nationalistic insurgencies, although the intensity of many of these movements has come down in recent years. The National Democratic Front of Bodoland (NDFB) was responsible for killing seven people in 2013 and 80 people in 2014.<sup>34</sup> Other more active separatist groups in the region include United Liberation Front of Assam and National Liberation Council of Taniland (NLCT), both of which were responsible for the deaths of 10 person in 2014.<sup>35</sup> Assam registered 106 deaths in 2014, which is 25 per cent of the total deaths in that year due to such insurgencies.<sup>36</sup> Until

April 17, 2016, the state registered 24 casualties.<sup>37</sup> Separatist insurgencies are more active in Bodoland, Kamtapur and Meghalaya.

### Impact and Combat

The fact that India has featured 14 times in Global Terrorism Index in the list of 10 countries most affected by terrorism for the period 2000-2014 period, is a clear evidence that the risk cannot be underestimated by business establishments in the country. Terror attacks have a significant and long-lasting negative impact on the economy. For instance, the tourism sector, which contributed 7 per cent of France's GDP,<sup>38</sup> suffered massively due to the November 13, 2015 attack in Paris. Again data on consumer spending in France after the Paris terror attack also indicate that business suffered as shoppers preferred to stay at home after the attacks in the month and rest of 2015.<sup>39</sup> The economic impact of the 9/11 attacks on New York's World Trade Center has been estimated at USD 3.3 million.<sup>40</sup>

To combat the menace of terrorism and various ethno-nationalist insurgencies, the Indian government is pursuing close partnership with like-minded countries in information sharing and collaboration, as well as pursuing a more combative approach. Close partnership with Bangladesh has worked in favour of India to weed out terror networks based in the neighbouring country. Likewise, New Delhi sanctioned a cross-border Army anti-terror operation inside Myanmar in June 2015.<sup>41</sup>

“Currently businesses across major geographies are exposed to a more risk-prone environment, due to a combination of factors like terrorism and insurgency, global security imbalances, regional geopolitical outbreaks, etc. The situation has underlined the need for risk assessment-based business planning. The India Risk Survey has become a benchmark in providing business leaders a method to evaluate potential risks to their business establishments and develop strategies to mitigate such risks.”

Harshavardhan Neotia, President,  
FICCI and Chairman, Ambuja Neotia Group

<sup>33</sup> SATP. 2016. "CPI-Maoist Incidents 2016" South Asia Terrorism Portal. [http://www.satp.org/satporgtp/countries/india/maoist/data\\_sheets/Major\\_incidents\\_2016.htm](http://www.satp.org/satporgtp/countries/india/maoist/data_sheets/Major_incidents_2016.htm), accessed on 20 April 2016.

<sup>34</sup> Shreerupa Mitra-Jha. 2015. "Putting Global Terrorism In Perspective". *Governance Now*. 14 December. <http://www.governancenow.com/news/regular-story/putting-global-terrorism-perspective>, accessed on 19 April 2016.

<sup>35</sup> Venkat Ananth. 2015. "Boko Haram, not ISIS, the deadliest terror group: report." *Live Mint*. 20 November. <http://www.livemint.com/Politics/xtDKahvEPJim7Td91H63FL/Boko-Haram-not-Isis-the-deadliest-terror-group-report.html>, accessed on 23 April 2016.

<sup>36</sup> Ibid.

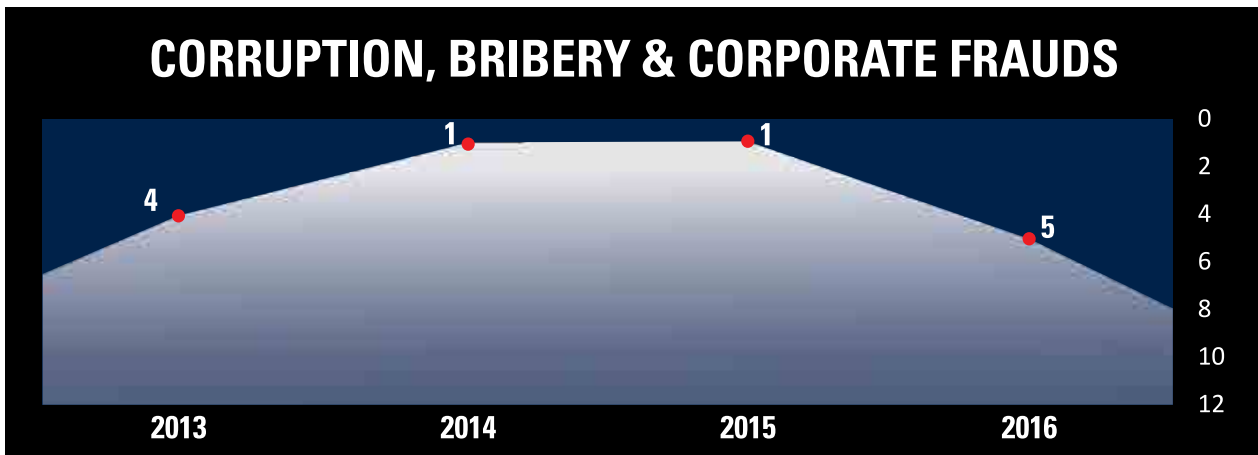
<sup>37</sup> SATP. 2016. "Insurgency related killings in Assam 1992-2016" South Asia Terrorism Portal. [http://www.satp.org/satporgtp/countries/india/states/assam/data\\_sheets/insurgency\\_related\\_killings.htm](http://www.satp.org/satporgtp/countries/india/states/assam/data_sheets/insurgency_related_killings.htm), accessed on 24 April 2016.

<sup>38</sup> Jay Newton-Small. 2015. "The Cost of the Paris Attacks." *Time*. 23 April. <http://time.com/4123827/paris-attacks-tourism/>, accessed on 24 April 2016.

<sup>39</sup> William Horobin. 2016. "French economy slows after fourth quarter after Paris attack." *The Wall Street Journal*. 29 January. <http://www.wsj.com/articles/french-economy-slows-in-fourth-quarter-after-paris-attacks-1454065250>, accessed on 20 April 2016.

<sup>40</sup> Jay Newton-Small. 2015. "The cost of the Paris attack." *Time*. 23 November. <http://time.com/4123827/paris-attacks-tourism>, accessed on 20 April 2016.

<sup>41</sup> The Times of India. 2015. "Myanmar hot pursuit signals massive change in India's strategy." *The Times of India*. 10 June. <http://timesofindia.indiatimes.com/india/Myanmar-hot-pursuit-signals-massive-change-in-Indias-strategy/articleshow/47606735.cms>, accessed on 20 April 2016.



### 'Corruption, Bribery & Corporate Frauds' slips to No 5 position in IRS 2016 ranking

#### Highlights

- India is ranked 76 in Transparency International's *Corruption Perceptions Index 2015*. In 2014 and 2013 India's rank was 85 and 94 respectively.
- India's international rating in the *Corruption Perceptions Index* has declined, however, India's score remained 38 on a scale of 100.

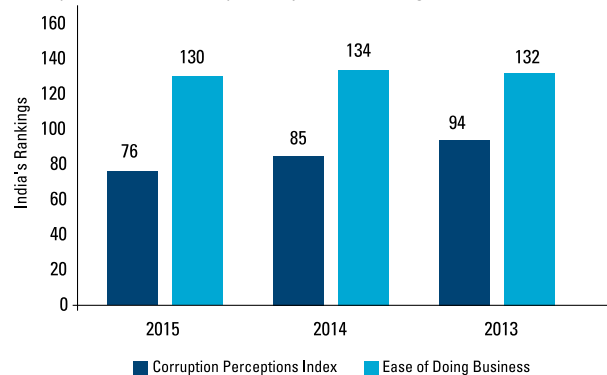
#### Year-on-Year Ranking

The decline in the ranking of 'Corruption, Bribery & Corporate Frauds' in IRS 2016 could be the result of India's improved rating in the *Corruption Perceptions Index (CPI) 2015*.<sup>42</sup> India's rank has improved to 76 from 85 in 2014 and 94 in 2013. However, there has been no improvement in India's score, which remained 38 on a scale of 100 in 2015, though compared to 2013, there is an improvement of two points. India did even better than China which has been ranked 83 in the index. Among the SAARC countries, only Pakistan was able to improve its position, but it was ranked much below at 117. Except Bhutan, which is ranked at 27, India's ranking at 76 is the best among the South Asia countries, viz., Sri Lanka (83), Nepal (130) and Bangladesh (139).

#### Incidence Mapping

There is a strong correlation between ease of doing business and the level of corruption in a country. From the last two years, the central government has worked extensively towards reviving investor interest in the economy, which has improved perception of India in international markets.<sup>43</sup> This is reflected in India's improved rankings on the World Bank's Doing Business Index. India

is ranked 130 in 2015, up four places from 134 in 2014.<sup>44</sup> Likewise, after five years of constant decline, India's rank improved 16 places to 55 in the World Economic Forum's (WEF) *Global Competitiveness Index 2015-16*.<sup>45</sup> In the last year's report, India stood at 71st position. WEF attributed the reversal in trend to the pro-business, pro-growth and anti-corruption stance adopted by the Indian government.



Source: Transparency International. 2015. *Corruption Perception Index 2015*. Berlin: Transparency International. <http://www.transparency.org/cpi2015>, accessed on 22 April 2016; World Bank. 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington DC: The World Bank. <http://www.doingbusiness.org/data/exploreeconomies/india>, accessed on 20 April 2016.

<sup>42</sup> Transparency International. 2015. *Corruption Perception Index 2015*. Berlin: Transparency International. <http://www.transparency.org/cpi2015>, accessed on 22 April 2016.

<sup>43</sup> Asit Ranjan Mishra. 2016. 'Modi has changed investors' perception of India: Tekehiko Nakao'. *Live Mint*. 15 March. <http://www.livemint.com/Money/QQaCdsidrVbuxnwn7VdWAN/Modi-has-changed-investors-perception-of-India-Takehiko-Na.html>, accessed on 22 April 2016.

<sup>44</sup> World Bank. 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington DC: The World Bank. <http://www.doingbusiness.org/data/exploreeconomies/india>, accessed on 20 April 2016.

<sup>45</sup> Klaus Schwab and Xavier Sala-i-Martin. 2015. *The Global Competitiveness Index 2015-16*. Geneva: World Economic Forum. [http://www3.weforum.org/docs/gcr/2015-2016/Global\\_Competitiveness\\_Report\\_2015-2016.pdf](http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf), accessed on 20 June 2016; see also Yuthika Bhargava. 2015. "India climbs 16 places in WEF's Global Competitiveness Index". *The Hindu*. 1 October. <http://www.thehindu.com/business/Economy/india-climbs-16-places-in-wef-global-competitivenessindex/article7708043.ece>, accessed on 22 April 2016.



According to the NCRB data, share of incidents registered under the Prevention of Corruption Act, 1988 was 27.3 per cent of the total cases registered in 2014. In 2014, the Central Bureau of Investigation (CBI) registered 611 corruption cases in comparison to 649 cases in 2013 and 703 cases in 2012. However, cases registered by the Vigilance and Anti-Corruption Bureau of various states increased to 4,966 cases in 2014 from 4,266 in 2013.<sup>46</sup>

**Impact and Combat**

‘Corruption, Bribery & Corporate Fraud’ is a constant threat to Indian polity and economy and is both endemic and systemic. India’s complex web of regulatory framework, project clearance system and its implementation, create enabling conditions for graft. The cost of corruption and its impact is high. In fact, The Guardian noted that “the opportunity costs of corruption in terms of lost investment growth and jobs are \$50bn in India every year.”<sup>47</sup>

Corruption remains a major barrier to growth and distorts the market, denying level-playing field to everyone. The larger societal impact is that it perpetuates inequalities,

increasing the scope of crime, civic unrest and conflict in the society. For businesses, corruption increases the cost of operation, which is hard to account for in official records. According to a WEF report, “Indian firms pay 50 per cent of total project cost, on an average, as bribes to speed up clearances for real estate and infrastructure ventures.”<sup>48</sup>

The following measures are adopted by the government to check the menace of corruption in India:

- The minimum punishment under Prevention of Corruption Act, 1988 has been increased from six months to three years.
- The maximum punishment for corruption cases has increased from five years to seven years.
- Corruption by public servants will now be considered as criminal misconduct.
- E-auctioning of public projects and resources to impart greater transparency.

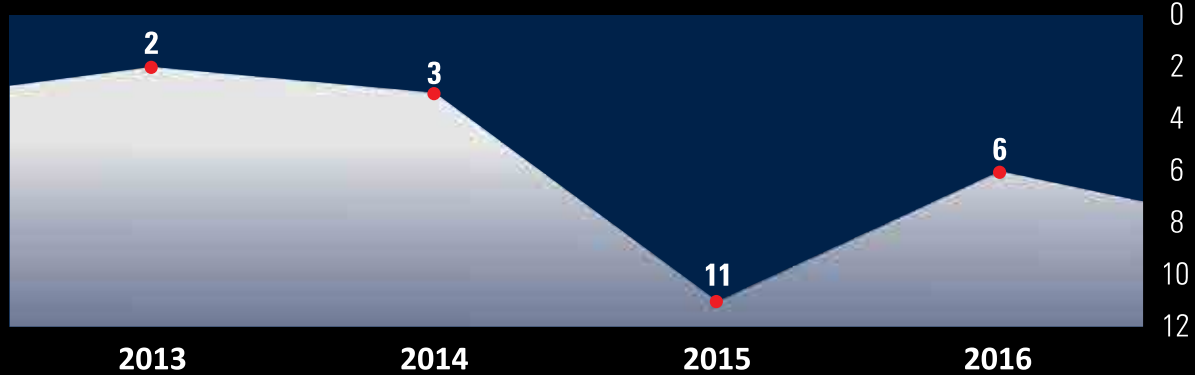
<sup>46</sup> NCRB. 2014. *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.gov.in/StatPublications/CII/CII2014/Compendium%202014.pdf>, accessed on 22 April 2016.

<sup>47</sup> Craig Jeffrey. 2015. “Despite its anti-corruption creativity, India is a one man one bribe democracy”. *The Guardian*. 6 April. <http://www.theguardian.com/commentisfree/2015/apr/06/india-corruption-bribery-zero-rupee-note>, accessed on 22 April 2016.

<sup>48</sup> Vikas Dhoot. 2016. “Firms pay 50% of cost as bribes”. *The Hindu*. 23 March. <http://www.thehindu.com/business/Industry/firms-pay-50-of-cost-as-bribes/article8386124.ece>, accessed on 22 April 2016.



## POLITICAL & GOVERNANCE INSTABILITY



'Political & Governance Instability' jumps 5 places to reach the sixth spot in the risk ranking this year

### Trend

- Legislative assembly elections in Uttar Pradesh, Punjab, Uttarakhand, Goa, Manipur in 2017
- Tax notices to foreign companies may spook investor confidence amid India's attempt to attract investment

### Year-on-Year Ranking

The gains made by 'Political & Governance Instability' in the *India Risk Survey 2016* may be a result of some of the key states such as West Bengal, Tamil Nadu, Assam and Kerala that underwent legislative assembly elections this year. Further, the states of Uttar Pradesh, Punjab, Uttarakhand, Manipur and Goa will have elections in the first half of 2017. The new government formation often creates haze around future policy direction in the states. At the Centre, while the government has pushed reforms and revised FDI limits, and secured the passage of the real estate bill, political deadlock and social tensions have so far prevented the government from implementing some of the big-ticket economic reforms necessary for economic development that can boost investor confidence. In recent times, there has been positive developments on the Goods and Services Tax (GST) with political consensus gradually building in favour of it.<sup>49</sup>

### Incidence Mapping

Political consensus over second generation of economic reforms remains missing between the ruling and opposition parties and state governments. This is also

reflected in the apparent disconnect between industry aspirations and the ruling class over the nature and pace of these reforms.<sup>50</sup> The government has launched many pro-business initiatives to boost manufacturing and job creation such as the "Make in India" campaign, which has created a favourable investment climate in India for global investors. The "Make in India" initiative has reportedly attracted more than USD 400 billion of investment pledges.<sup>51</sup> The recent Income Tax Department notices to some multi-national companies have created an environment of concern among major investors.<sup>52</sup> On February 4 this year, the IT Department sent a fresh notice to Vodafone warning that the British company's assets could be seized if it failed to pay INR 142 billion in taxes.

### Impact and Combat

Political stability is critical for creating a healthy business environment as it affects the overall business confidence in an economy. A stable government at the centre has helped India move four places in the World Bank's Doing Business rankings in 2016. India moved up from 134 to 130 last year, in the ranking which includes 189 economies across the world.<sup>53</sup> Further, the report mentions India

<sup>49</sup> PTI. 2016. "India Inc Hails Model GST Law, Expects Rollout from Next Fiscal". *The Economic Times*. 15 June. <http://economictimes.indiatimes.com/news/economy/policy/india-inc-hails-model-gst-law-expects-rollout-from-next-fiscal/articleshow/52751462.cms>, accessed on 17 June 2016.

<sup>50</sup> Soyen Park and Yizhe Daniel Xie. 2016. "Can India Reproduce the 'East Asian Miracle'?: The Diplomat. 19 April. <http://thediplomat.com/2016/04/can-india-reproduce-the-east-asian-miracle/>, accessed on 20 April, 2016.

<sup>51</sup> Daniel Ten Kate. 2016. "India's inspiration: Reshaping the world's biggest democracy". Bloomberg QuickTake. 29 March. <http://www.bloombergvew.com/quicktake/indias-aspirations>, accessed on 20 April 2016.

<sup>52</sup> PTI. 2016. "Income Tax department slaps Rs 29,000 crore tax demand notice on Cairn Energy". *The Economic Times*. 15 March. [http://articles.economictimes.indiatimes.com/2016-03-15/news/71543345\\_1\\_cairn-india-ltd-assessment-order-cairn-energy](http://articles.economictimes.indiatimes.com/2016-03-15/news/71543345_1_cairn-india-ltd-assessment-order-cairn-energy), accessed on 13 April 2016

among the economies that has made significant progress in easing business regulation.<sup>54</sup> India is expected to clock 7.5 per cent economic growth rate in 2016-17, as per the International Monetary Fund (IMF) projections.<sup>55</sup> This is mainly driven by private consumption, which, in turn, has benefited from lower fuel costs and higher real incomes.<sup>56</sup>

The international lending agency, however, cautioned in its World Economic Outlook that sustainable growth would require labour reforms as well as reducing infrastructure

bottlenecks. Further, monetary environment has remained consistent with achieving the RBI inflation target of 5 per cent in the first half of 2017, but a weak monsoon (although initial forecast predicts a good monsoon) and rising public sector spending could pose upside risks. A lot of inflation in India stems from a lack of supply side reforms and in future, inflation could rise again with higher commodity prices, in particular oil prices.

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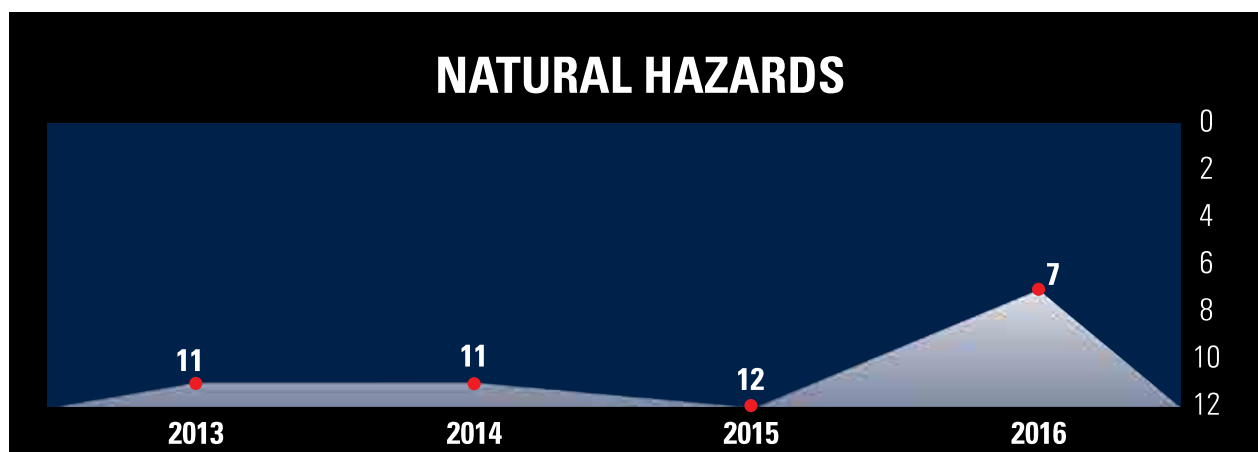
<sup>53</sup> World Bank. 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington DC: The World Bank. <http://www.doingbusiness.org/data/exploreeconomies/india>, accessed on 20 April 2016.

<sup>54</sup> Ibid. p. 16.

<sup>55</sup> IMF. 2016. *World Economic Outlook 2016: Too Slow for too Long*. Washington DC: International Monetary Fund. <http://www.imf.org/external/pubs/ft/weo/2016/01/pdf/text.pdf>, accessed on 20 April 2016; see also Business Standard. 2016. "IMF retains India's growth forecast, cut global projection". *Business Standard*. 13 April. [http://www.business-standard.com/article/economy-policy/imf-retains-india-s-growth-forecast-cuts-global-projection-116041201039\\_1.html](http://www.business-standard.com/article/economy-policy/imf-retains-india-s-growth-forecast-cuts-global-projection-116041201039_1.html), accessed on 20 April 2016.

<sup>56</sup> FE Online. 2016. "Moody's, IMF, Carlyle & Fitch bullish: What makes India a bright star in the world economy." *The Financial Express*. 13 April. <http://www.financialexpress.com/article/economy/moodys-imf-carlyle-fitch-bullish-what-makes-india-a-bright-star-in-the-world-economy/236191/>, accessed on 18 April 2016





### 'Natural Hazard jumps to No. 7 position in IRS 2016'

#### Highlights

- The Indian economy suffered losses worth INR 200 billion (20,000 crore) during the Chennai floods.
- Chennai floods were assessed to be eighth most expensive natural disaster of 2015.
- India is ranked 13<sup>th</sup> in the extreme risk category in the Climate Vulnerability Index.
- Possibility of major earthquake in South Asia as per the Home Ministry's disaster management experts.

#### Year-on-Year Ranking

India is situated in a unique geographical setting, making 'Natural Hazard' a major operational risk for companies. Drought, floods, earthquakes and cyclones take a toll on both human and financial resources with impunity. Moreover, the impact of many of these natural disasters becomes severe due to poor disaster preparedness and lack of early warning systems.

Maplecroft has ranked India at No. 13 in the extreme risk category in the Climate Change and Environmental Risk Atlas 2015. The Atlas identified 32 'extreme risk' countries in its Climate Change Vulnerability Index (CCVI).<sup>57</sup> Indian workforce's overdependence on the agriculture sector and reliance on unpredictable seasonal monsoon enhances its vulnerability in food production and tackling poverty, and affects social stability, which increases the risk of conflicts and instability.<sup>58</sup>

#### Incident Mapping

In January this year, the Home Ministry's disaster management experts warned of mega earthquakes

with a magnitude of 8.2 or greater on the Richter scale in north India in the near term. The input came a day after a 6.7 magnitude earthquake struck Manipur.<sup>59</sup> The experts attributed three recent major earthquakes to tectonic shift, causing tremors in the region – in the India-Nepal border in 2011, in Nepal in April 2015, and the most recent earthquake in Manipur in January 2016. Experts believe that these tremors have cracked the tectonic plates creating potential for multiple earthquakes in the near future.

Severe weather in Chennai and other parts of Tamil Nadu in early December 2015 claimed lives of at least 55 people.<sup>60</sup> The floods in Chennai were the eighth-most expensive natural disaster in the world in 2015, causing economic losses worth INR 200 billion in an assessment by Aon Benfield, a UK reinsurance broker.<sup>61</sup> Major IT companies like Cognizant, Infosys and TCS, and automobile companies like Ford, Renault-Nissan, Daimler India and Yamaha, suffered major losses due to stalled operations and production cycle.<sup>62</sup>

<sup>57</sup> Maplecroft. 2014. *Climate Change and Environmental Risk Atlas 2015*. UK: Maplecroft. <http://maplecroft.com/portfolio/new-analysis/2014/10/29/climate-change-and-lack-food-security-multiply-risks-conflict-and-civil-unrest-32-countries-maplecroft>, accessed on 22 April 2016.

<sup>58</sup> Ibid.

<sup>59</sup> Pradeep Thakur. 2016. "Big earthquakes coming, warn MHA experts." *The Times of India*. 6 January. <http://timesofindia.indiatimes.com/india/Big-earthquake-coming-warn-MHA-experts/articleshow/50460633.cms>, accessed on 22 April 2016.

<sup>60</sup> Recent Natural Disaster. 2015. "Severe weather in Chennai, India kills 55." *Recent Disaster Register*. 14 November. <http://www.disaster-report.com/2015/11/severe-weather-in-chennai-india-kills-55.html>, accessed on 22 April 2016.

<sup>61</sup> Aon Benfield. 2015. *Global Catastrophe Recap*. UK: Aon Benfield. November. <http://thoughtleadership.aonbenfield.com/Documents/20151208-if-november-global-recap.pdf>, accessed on 22 April 2016. See also DNA. 2015. "Chennai floods losses estimated at Rs 20,034 crore to India's economy, says Aon Benfield report." *DNA*. 11 December. <http://www.dnaindia.com/money/report-chennai-floods-losses-estimated-at-rs-20034-crore-to-the-india-s-economy-says-aon-benfield-report-2154521>, accessed on 22 April 2016.

<sup>62</sup> Ketan Thakur. 2015. "Chennai rains: Automakers forced to shut down production; face Rs 180 crore loss." *ETAuto.com*. 17 November. <http://auto.economictimes.indiatimes.com/news/industry/chennai-rains-automakers-forced-to-shut-down-production-face-rs-180-crore-loss/49820147>, accessed on 22 April 2016.

### Impact and Combat

India remains the top three most disaster-hit countries in 2015 suffering a whopping economic losses worth INR 20,000 crore (USD 3.30 billion), as per an analysis by the United Nations Office for Disaster Risk Reduction. The agency has warned of severe droughts across the globe in 2016. Natural disaster affected a total of 98.6 million in 2015 of which 92 per cent were attributed to adverse weather phenomenon. Further, the World Meteorological Organization (WMO) assessed 2015 as the hottest year since its 136 years of reporting.<sup>63</sup>

The Indian government has taken initiatives for improving disaster management and constituted an 'Expert Group'

to study related issues and give recommendations for improving preparedness and prevention with respect to natural disasters caused by earthquakes, floods and cyclones.<sup>64</sup>

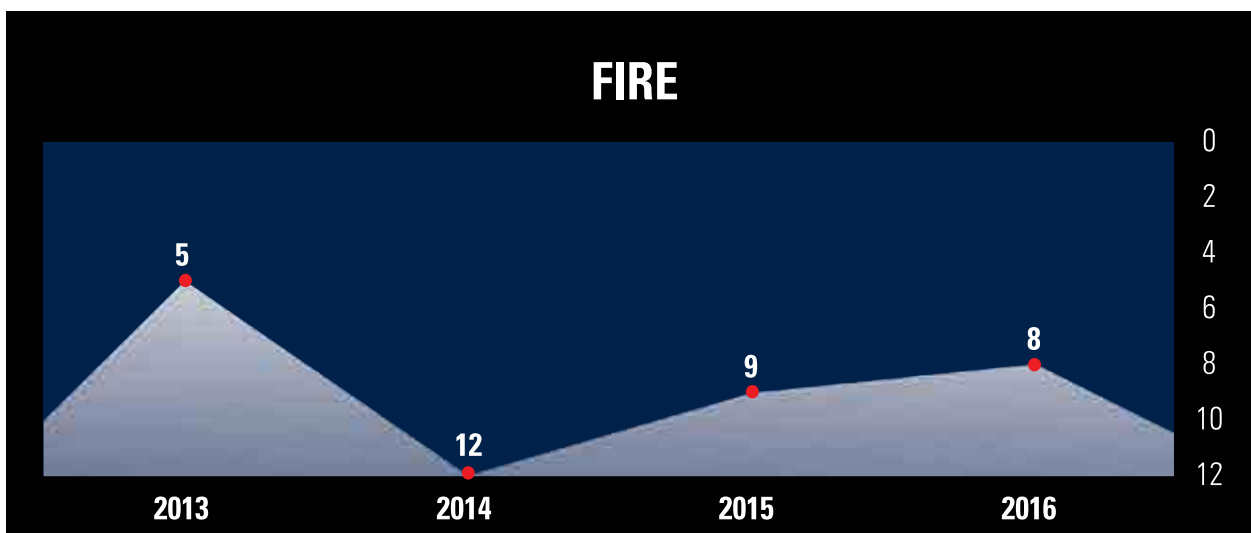
#### Key Facts:

- Around 9 per cent or 113 million people in India are acutely exposed to flood hazard.
- At the city level, Kolkata and Delhi are ranked high in exposure to natural disasters.
- Almost 81 per cent of South Asia's nearly 1.4 billion population is prone to at least one type of natural hazard.

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<sup>63</sup> Shreerupa Mitra-Jha. 2016. "Natural disasters cost India \$3.30 bn in 2015: Here is why we should be very worried." *F.India*. 12 February. <http://www.firstpost.com/india/natural-disasters-cost-india-3-30bn-in-2015-heres-why-we-should-be-very-worried-2622940.html>, accessed on 22 April 2016.

<sup>64</sup> SRISTI. n.d. "Disaster planning and management." *Disaster Management Information System*. [http://www.sristi.org/dmis/plan\\_manage](http://www.sristi.org/dmis/plan_manage), accessed on 22 April 2016.



### 'Fire' climbs one place to attain No. 8 position in the risk ranking of IRS 2016

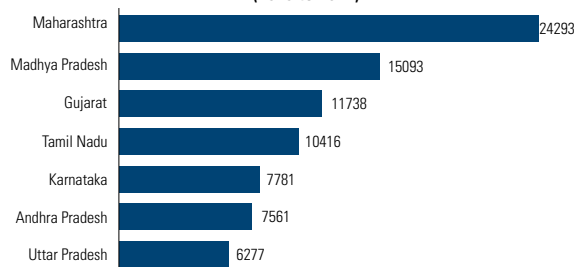
#### Highlights

- As per National Crime Records Bureau (NCRB) data a total of 1,13,961 people lost their lives due to fire accidents between 2010 and 2014. Maharashtra alone accounted for 24,293 deaths or 21.3 per cent of all the deaths due to fire accidents.
- An average of 62 deaths per day occurred due to fire accidents between 2010 and 2014, as per NCRB.
- Maharashtra, Madhya Pradesh, Gujarat and Tamil Nadu accounted for 54 per cent of all the deaths or 61,540 deaths from 2010 to 2014. Karnataka, Andhra Pradesh and Uttar Pradesh follow Tamil Nadu in that order.

#### Year-on-Year Ranking

According to the statistics released by the NCRB, fire accidents accounts for about 4.3 percent (19,513) of the total deaths reported due to natural, un-natural and other causes of accidents in 2014.<sup>65</sup> Between 2010 and 2014, a total of 1.21 lakh fire accidents of various types took place in India causing more than 1,13,961 casualties.<sup>66</sup>

**Number of Death due to Fire Accidents by State (2010 to 2014)**



Source: Rakesh Dubbudu. 2016. "Fire Accidents caused an average of 62 deaths per day in the last 5 years." *Factly*. 13 April. <https://factly.in/fire-accidents-caused-an-average-of-62-deaths-per-day-in-the-last-5-years/>, accessed on 24 April 2016.

<sup>65</sup> Rakesh Dubbudu. 2016. "Fire Accidents caused an average of 62 deaths per day in the last 5 years." *Factly*. 13 April. <https://factly.in/fire-accidents-caused-an-average-of-62-deaths-per-day-in-the-last-5-years/>, accessed on 24 April 2016.

<sup>66</sup> Ibid.

<sup>67</sup> Daily Mail. 2016. "Indian army depot fire kills 16, raises safety fears." *Daily Mail*. 31 May. <http://www.dailymail.co.uk/wires/afp/article-3617217/Multiple-casualties-India-army-ammunition-depot-fire.html>, accessed on 20 June 2016

<sup>68</sup> Sushant Singh. 2016. "Ammo depot fire at Pulgaon: Storing high explosives." *The Indian Express*. 7 June. <http://indianexpress.com/article/explained/pulgaon-depot-blast-central-ammunition-depot-ammunition-depot-pulgaon-fire-2838258/>, accessed on 17 June 2016.

<sup>69</sup> Ignatius Pereira. 2016. "Fireworks show in Kerala goes awry, kills 107." *The Hindu*. 10 April, <http://www.thehindu.com/news/national/kerala/live-kerala-kollam-temple-fire-several-dead/article8457603.ece>, accessed on 17 June 2016.

<sup>70</sup> Ibid.

<sup>71</sup> S. Anil Radhakrishnan. 2016. "Kollam temple pyrotechnics display was conducted despite ban." *The Hindu*. 11 April. <http://www.thehindu.com/news/national/kerala/kollam-temple-pyrotechnics-display-was-conducted-despite-ban/article8458985.ece?homepage=true>, accessed on 18 June 2016.

### Impact and Compact

“Fire” is a state subject and has been included as municipal function in the XII Schedule of Indian Constitution in terms of the Article 243-W. But India’s existing fire-fighting infrastructure is less than adequate to respond effectively against increasing incidents of fires. Most fire departments in the country reportedly suffer from a lack of funds and personnel. Fire safety guidelines stipulate at least one fire station within every 10 square kilometre in urban areas and within every 50 square kilometre in rural areas. The Standing Fire Advisory Council norms recommend 70,868 fire stations, but there are only 1,705 fire stations with 6,026 fire tenders/vehicles manned by a total 49,769 fire professionals.<sup>72</sup> Besides, there are 284 fire stations operating in industrial sectors with a fleet of 1,064 appliances and vehicles of various specifications manned by 13,843 fire personnel.<sup>73</sup> In fact, there is a shortage of 97.59 per cent fire stations, 96.28 per cent fireman and 80.04 per cent fire tenders and rescue vehicles in the country.<sup>74</sup> Urban fire services suffer a deficiencies of 72.75 per cent in fire stations, 78.79 per cent in manpower and 22.43 per cent in firefighting and rescue vehicles.<sup>75</sup>

In today’s fast paced business environment, any disruptions to business can lead to huge financial losses. In the case of an incident, restoring the physical loss or damages to the property is only part of the cost that has to be borne by the organisation. Higher costs are the damages and losses incurred due to breakdown in the production cycle. Though fires are caused either due to the actions of individuals, which may be accidental or deliberate, or through their failure to take necessary precautions for curbing fire incidents, such as regular inspections, maintenance and repair of defective equipment, etc. It is important to note that fires start when source of ignition comes into contact with any combustible material. If one can identify and control the possible sources of ignition or eliminate its contact with combustible materials, one can greatly reduce the possibility of accidental fire.

Conducting regular fire safety audits and trainings is found to be an effective tool for assessing fire safety standards in an organisation. Further, more attention needs to be drawn to the lack of funds and equipment at the state level to deal with fire incidents.

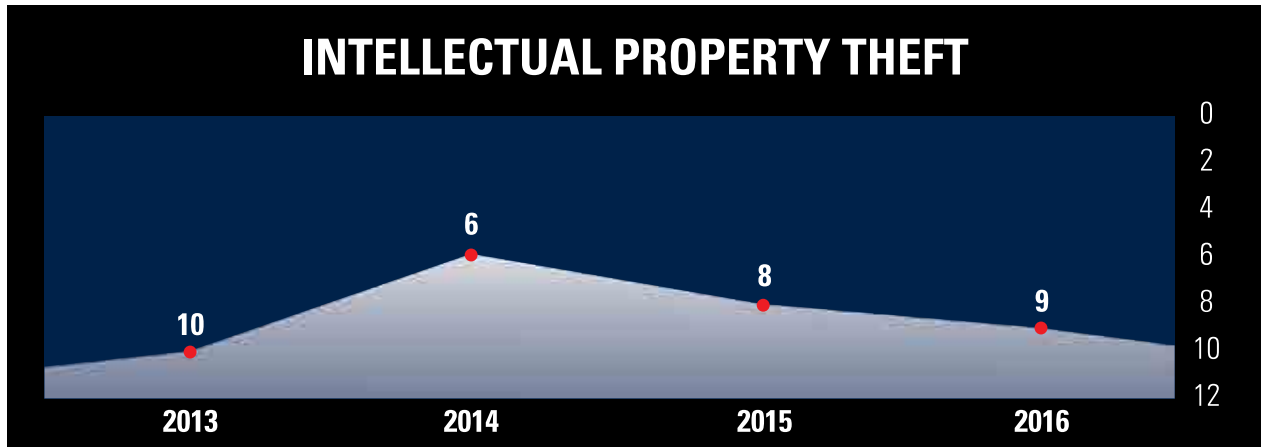
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<sup>72</sup> National Disaster Response Force and Civil Defence. n.d. “Fire Cell”; Ministry of Home Affairs, Government of India. <http://ndrfandcd.gov.in/Fire.aspx>, accessed on 18 June 2016.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.

<sup>75</sup> Ibid.



### 'Intellectual Property Theft' drops to No. 9 in the risk ranking of IRS 2016

#### Highlights

- The National IP Policy recently announced by the Government of India will create the necessary conditions for improvement in tackling IP theft in the country.
- Counterfeit drugs, piracy in movies, music, publications and software are some of the major IP related risks.

#### Year-on-Year Ranking

Compared to last year, India has improved its score from 7.23 to 7.05 in 2016 in the US Chamber of Commerce's Intellectual Property Index for 2016.<sup>76</sup> The index maps the IP environment in 38 economies around the world, collectively accounting for nearly 85 per cent of the global gross domestic product (GDP). Each economy's score is based upon 30 indicators spread across six categories, viz., patents, copyrights, trademarks, trade secrets, enforcement and international treaties. The report noted that "India still have ample room to improve its IP environment in order to unleash the benefits of intellectual property. India is still maintaining policies tying market access to sharing of IP and technology. Such forced-localization policies tend to undermine the overall innovation ecosystem and deter investment from foreign IP-intensive entities."<sup>77</sup>

The government has recently brought out the National Intellectual Property Rights Policy.<sup>78</sup> The policy seeks to facilitate domestic IPR filings, for the entire value chain from IPR generation to commercialisation. It aims to promote research and development through tax benefits. The Policy recognises the abundance of creative and

innovative energies that flow in India, and the need to tap into and channelise these energies towards a better and brighter future for all.<sup>79</sup> This will usher a positive investment regime in the country and will boost foreign investments. The government further emphasised that the aim of the new policy is to create awareness about economic, social and cultural benefits of IPRs among all sections of society.<sup>80</sup>

#### Incidence Mapping

India has consistently featured in the US Special 301 list along with China as a priority watch list country since the list came into existence. Countries listed are subject to scrutiny by the United States Trade Representative (USTR) and may face investigations and possible sanctions. On February 24, 2016 US President Barack Obama signed the Trade Facilitation and Trade Enforcement Act of 2015,<sup>81</sup> which introduces important measures relating to intellectual property rights (IPR) issues. The focus of the law is to enhance compliance of IPR over the US's trading partners.

<sup>76</sup> Global Intellectual Property Centre. 2016. *Infinite Possibilities: 2016 U.S. Chamber Index Fact Sheet*. Washington DC: US Chamber of Commerce. [http://www.theglobalipcenter.com/wp-content/themes/gipc/map-index/assets/pdf/2016/GIPC\\_IP\\_Index\\_4th\\_Edition.pdf](http://www.theglobalipcenter.com/wp-content/themes/gipc/map-index/assets/pdf/2016/GIPC_IP_Index_4th_Edition.pdf), accessed on 22 April 2016.

<sup>77</sup> Ibid.

<sup>78</sup> DIPP. 2016. *National Intellectual Property Rights Policy*. Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, Government of India. [http://dipp.gov.in/English/Schemes/Intellectual\\_Property\\_Rights/National\\_IPR\\_Policy\\_12.05.2016.pdf](http://dipp.gov.in/English/Schemes/Intellectual_Property_Rights/National_IPR_Policy_12.05.2016.pdf), accessed on 22 June 2016.

<sup>79</sup> Press Information Bureau. 2016. "Cabinet approves National Intellectual Property Rights Policy". Press Information Bureau, Government of India. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=145338>, accessed on 22 June 2016.

<sup>80</sup> DNA. 2016. "National Intellectual Property Rights Policy: Everything you need to know". *DNA*. 15 May. <http://www.dnaindia.com/money/report-all-you-need-to-know-about-national-intellectual-property-rights-policy-2212037>, accessed on 22 June 2016.

<sup>81</sup> Maushami P. Joshi and Shividhya Ragavan. 2016. "Trading charges". *The Hindu*. 20 April. <http://www.thehindu.com/opinion/op-ed/trade-facilitation-act-and-its-impact-on-ip-policy-in-india/article8495224.ece>, accessed on 22 April 2016.

Further, counterfeit drugs, piracy of movies, music and software is also on the rise. Alcohol and tobacco are among the most illegally traded products in the world. Nearly 15-20 per cent of the liquor consumed in India is counterfeit.<sup>82</sup>

**Impact and Combat**

Like many emerging economies, IPR laws in India are evolving and developing, by employing global best practices. India’s Patent Act was amended in 2005 to comply with the World Trade Organization’s Agreement on Trade-Related Aspects of IP Rights. Since then, India allows product patents, in addition to process patents, for pharmaceutical products. India has also included amendments to prevent “ever-greening” of patents. The broad level contours of IP policy are now visible in the form of the National IP Policy.

**Intellectual Property Office of Singapore notes the following IP Risks for Different Industries<sup>83</sup>**

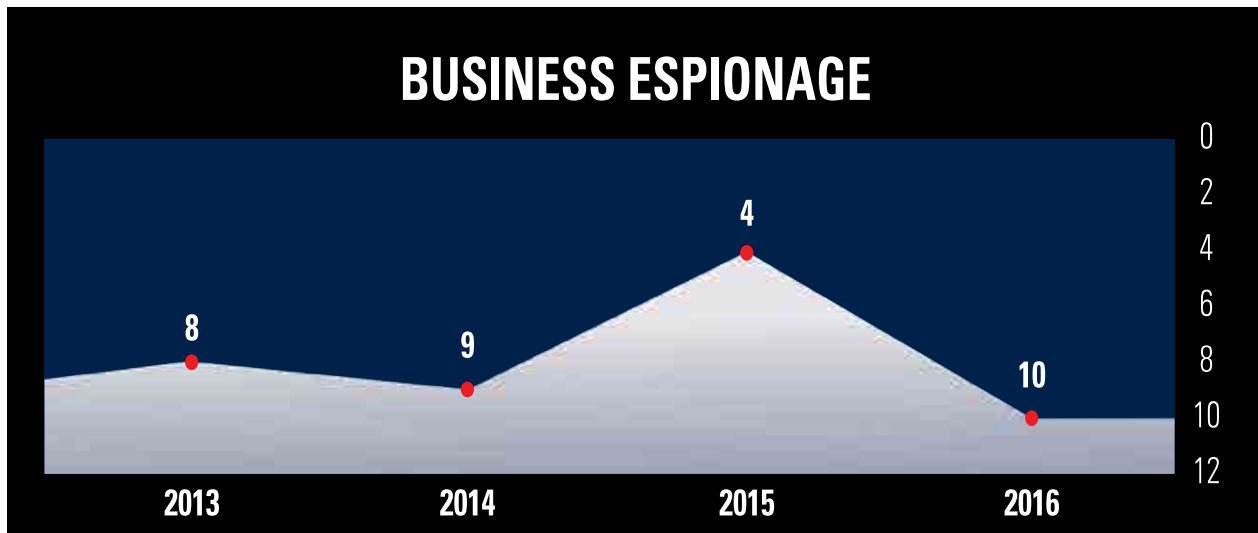
Industry	Type of IP Risk
IT, Education, Food, Music, Software	Copyright
Biomedical, Education, Research & Development	Patent
Retail, food, healthcare, education, manufacturing, service sectors, domain names	Trade Mark
Manufacturing	Industrial Design Rights

“ There are 2 key risks in today’s publishing environment- the first being the constant change in government policies and regulations around the education and eCommerce sectors, which creates uncertainty, impedes investment and growth, and increases the risk of doing business in India. The second key risk comes in the form of the increasing menace of digital piracy which adversely affects our ability to get an optimum return on our investment. ”

- Vikas Gupta, Managing Director, Wiley India Pvt. Ltd.

<sup>82</sup> World News. 2016. “Fakes don’t kill brand; they kill businesses”. World News. 23 April. <http://worldnewsreport.in/fakes-dont-kill-brands-kill-businesses>, accessed on 22 April 2016.

<sup>83</sup> Intellectual Property Office of Singapore. “Intellectual Property Factsheet India - A guide for Singapore companies venturing into India”. [http://www.iesingapore.gov.sg/~media/IE%20Singapore/Files/Publications/Brochures%20Local%20Companies/IE\\_IP\\_Factsheet\\_India.pdf](http://www.iesingapore.gov.sg/~media/IE%20Singapore/Files/Publications/Brochures%20Local%20Companies/IE_IP_Factsheet_India.pdf), accessed on 24 April 2016.



### From 4th rank in 2015, 'Business Espionage' slips to No.10 position in IRS 2016

#### Highlights

- A legal article published in Indian *Law Journal* defines 'corporate espionage' as a practice where there is an involvement of impregnation in a corporate system, which is done through spying or with the systems that endorse leaking or copying information, affecting the growth of the organisation (victim).<sup>84</sup>
- The concept of espionage is accompanied not by any straight jacket formula of spying, but through various means such as trade secrets, data copying, blackmail, surveillance, plans, etc., which result in getting the confidential information of the organisation.

#### Year-on-Year Ranking

Corporate espionage or stealing the trade secrets has been a persistent risk for businesses since time immemorial and with the coming of the digital revolution, it has become more sophisticated and covert. The Berlin-based corruption watchdog Transparency International (TI) has ranked India 76<sup>th</sup> out of 168 countries in its *Corruption Perception Index 2015*.<sup>85</sup> The score indicates a prevalence of bribery and lack of punishment for corruption among other impediments to a healthy work environment. As discussed earlier, the World Bank's *Doing Business 2016*, ranks India at 130 out of 189 countries.<sup>86</sup> India's corruption perception score remains the same as last year's, i.e., 38/100, showing lack of improvement. India shares its rank along with six other countries: Brazil, Burkina Faso, Thailand, Tunisia and Zambia. China fared worse than India and Brazil is ranked at 83 with a score of 37.

#### Incidence Mapping

Corporate espionage is not a recent phenomenon in India although it has become more sophisticated and

professional as evident in the corporate espionage scandals recently reported in the country. For decades, businesses have relied on competitive intelligence to seek out information about rival companies or policy decision in the government circles. Access to sensitive information known only to few powerful politicians and influential bureaucrats is often not just a source of profit, but also provides competitive advantage over business rivals.

Citing an example, a source said that during the discussion of a contentious deal in the oil & gas sector, divergent views were exchanged between petroleum and law ministries in a Cabinet Committee on Economic Affairs meeting. The minutes were leaked to the company in question. It helped the company identify the people in favour of and against the deal. Subsequently, the ministry in favour of the deal was supplied with more information in support of the deal, while that against it was not only provided with documents stating the benefits of the deal, but also given details of the poor track record of public-sector companies operating in the sector. It ultimately led to a war of white papers. Many Indian companies are

<sup>84</sup> Harish Sinha. 2010. "Corporate espionage and the Information Technology (Amendment) Act, 2008". *Indian Law Journal* 3 (2). April-June. [http://indialawjournal.com/volume3/issue\\_2/article\\_by\\_harsh.html](http://indialawjournal.com/volume3/issue_2/article_by_harsh.html), accessed on 22 April 2016.

<sup>85</sup> Transparency International. 2015. *Corruption Perception Index 2015*. Berlin: Transparency International. <http://www.transparency.org/cpi2015>, accessed on 22 April 2016. See also The Wall Street Journal. 2016. "Indian still has bid corruption problems, says Transparency International." *The Wall Street Journal*. 28 January. <http://blogs.wsj.com/indiarealtime/2016/01/28/india-still-has-big-corruption-problems-says-transparency-international>, accessed on 22 April 2016.

<sup>86</sup> World Bank. 2016. *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington DC: The World Bank. <http://www.doingbusiness.org/data/exploreeconomies/india>, accessed on 20 April 2016.

now taking steps to prevent themselves from becoming victims of espionage. This includes setting up the top management's offices away from the regular employees, increasing usage of access control offices and, if need be, keeping board meetings in secret locations.<sup>87</sup>

### Impact and Combat

Corporate espionage within the workplace and corporate environment can have a devastating impact on businesses. While mostly espionage is directed at competitors, they also indicate the willingness of companies to use underhand means to get advantages. This is often also directed at the government, with firms seeking to influence ministries or extract information before other companies that would give them an undue advantage in the market. To quote statistics, more than 35 per cent of the companies across sectors are involved in some form of espionage to gain an advantage over their competitors since 2014.<sup>88</sup>

In conclusion, it can be said that all organisations need to re-assess their security policies, and take appropriate steps in order to protect themselves from becoming a victim of corporate espionage. There is a need to amend the Corporate Espionage and the Information Technology (Amendment) Act, 2008 to make it more up to date. The business houses must identify their sensitive information. Information such as R&D processes, new market strategies, pricing structures, customer lists, etc., must be identified as sensitive and adequately protected. Risk assessment must be done and vulnerabilities identified and accordingly addressed. Adequate training should be provided to employees, users, managers, etc., so that they can protect the sensitive information of the organisation. At the end of the day, the more knowledge organisations have about such malpractices, the better they will be equipped to fight against it.<sup>89</sup>

“Corporate espionage is more like an organized crime now. While there are strict laws and punishments for this kind of crime in other countries, in India we are still trying to distinguish between corporate espionage and competitive intelligence. India Inc should also align itself with new and effective countermeasures being taken by corporates around the world. Policy makers here should re-assess laws and take appropriate measures to protect companies from being victimized.”

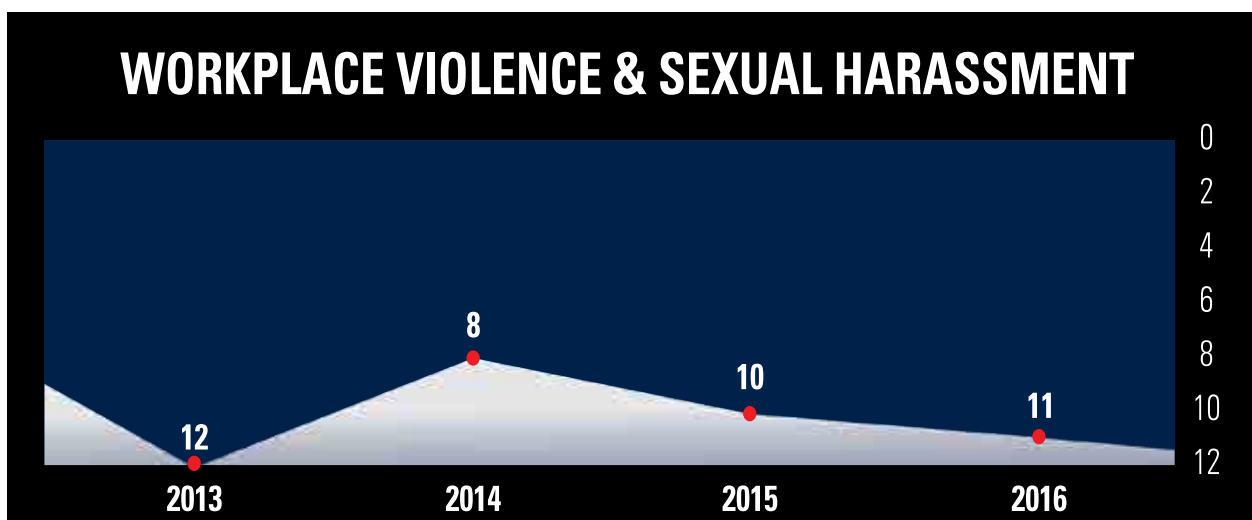
- Saurabh Sinha, Ethics & Compliance Officer, Telenor

<sup>87</sup> Dev Chatterjee and Ishita Ayan Datt. 2015. "Corporate espionage is not new to India Inc. says CEOs." *Business Standard*. 21 February. [http://www.business-standard.com/article/companies/corporate-espionage-is-not-new-to-india-inc-say-ceos-115022000432\\_1.html](http://www.business-standard.com/article/companies/corporate-espionage-is-not-new-to-india-inc-say-ceos-115022000432_1.html), accessed on 22 April 2016.

<sup>88</sup> Rohan Venkataramakrishnan. 2015. "Oil ministry leaks are a reminder of how shocking big corporation espionage is in India." *Scroll.in*. 19 February. <http://scroll.in/article/707996/oil-ministry-leaks-are-a-reminder-of-how-shockingly-big-corporate-espionage-is-in-india>, accessed on 22 April 2016.

<sup>89</sup> Harish Sinha. 2010. "Corporate espionage and the Information Technology (Amendment) Act, 2008". *Indian Law Journal* 3 (2). April-June. [http://indialawjournal.com/volume3/issue\\_2/article\\_by\\_harsh.html](http://indialawjournal.com/volume3/issue_2/article_by_harsh.html), accessed on 22 April 2016.





### 'Workplace Violence and Sexual Harassment' slips to No. 11 in IRS 2016 risk ranking

#### Highlights

- Workplace violence is rising across all sectors in India. Doctors are among the vulnerable sections to incidents of verbal abuse and physical assaults.
- More than 500 cases of sexual harassment at workplace registered in 2014, as per the National Crime Records Bureau (NCRB).

#### Year-on-Year Ranking

Violence or the threat of it against co-workers is often described as workplace violence. It can occur at or outside the workplace, and can vary from verbal abuse to physical assaults, and in worst cases, violent attacks causing death as well. The US government statistics shows that between 1992 and 2012, there were 14,770 workplace homicide victims, or roughly 700 a year on average.<sup>90</sup> As a risk to human resources, workplace violence is a growing concern for employers worldwide, including in India. While no personnel is immune from workplace violence, some categories of workers are more exposed to the risk. Mostly workers in public dealings, delivery services, and even doctors and health professional are prone to workplace violence. In fact, a study by the Indian Medical Association (IMA) in 2015 revealed that over 75 per cent of doctors in India face some form of violence at workplace. A maximum of 48.8 per cent of the incidents take place with those in the emergency health care services, especially in intensive care units (ICU). The attacks on doctors ranged from verbal abuse to physical assaults, but are less reported unless physicians perceive risk to their life.<sup>91</sup> A Firstpost article quoting the medical journal

*The Lancet* noted that between 2010 and 2015, violence against doctors has increased by 7,000 in India.<sup>92</sup>

#### Incidence Mapping

In recent years, major automobile companies in India have faced situations which led to workplace violence and fatal injuries to co-workers. The most infamous case in recent years remains the worker unrest in Maruti Suzuki's Manesar plant in 2012 where a general manager died. Not only that, workers targeted Japanese expatriates and nearly 100 managers in the ensuing clashes.<sup>93</sup> Earlier in 2009, during the labour unrest at the Coimbatore-based auto-parts makers Pricol, the workers attacked the company's Vice President with iron rods.<sup>94</sup> The VP later succumbed to the injuries. A year before in 2008, the Managing Director of Graziano Trasmissioni, an Italian auto-component manufacturer was bludgeoned to death by an armed mob of 200 workers who were dismissed from their jobs.

While sexual harassment at the workplace is often clubbed with IPC crimes dealing with criminal cases, from the last few years it has evolved as a crime category. The NCRB data shows that in 2014 out of 9,735 cases involving outraging the modesty of women, 57 such cases occurred

<sup>90</sup> Jeanne Sahadi. 2015. "How common is workplace violence?" CNN. 26 August. <http://money.cnn.com/2015/08/26/news/workplace-violence-virginiashooting>, accessed on 22 April 2016.

<sup>91</sup> Firstpost. 2015. "At risk while saving lives: 75% Indian doctors face violence at work, reveal study." First Post. 4 May. <http://www.firstpost.com/india/saveothers-lives-or-their-own-75-doctors-in-india-face-violence-at-work-says-study-2226444.html>, accessed on 22 April 2016.

<sup>92</sup> Ibid.

<sup>93</sup> DNA. 2012. "Peace at Manesar: Temporary or permanent." DNA. 17 August. <http://www.dnaindia.com/analysis/column-peace-at-manesar-temporary-or-permanent-1728952>, accessed on 22 April 2016.

<sup>94</sup> The Hindu. 2015. "8 Pricol staff get double life term." *The Hindu*. 4 December. <http://www.thehindu.com/news/cities/Coimbatore/8-pricol-staff-get-doublelife-term/article7946941.ece>, accessed on 22 April 2016.

at office premises, 469 of such cases took place at other locations related to work, 121 of such cases took place in public transports and 9,088 of such cases occurred at other places.<sup>95</sup> Most of the cases of insult to the modesty of women at office premises were reported in Delhi (11 cases) and Maharashtra (10 cases). Andhra Pradesh tops the list (65 cases) of such cases involving insult to the modesty of women in public transport, followed by Kerala (11 cases), Maharashtra, West Bengal & Delhi (8 cases each).

### **Impact and Combat**

Eliminating workplace violence requires a strategic crisis management plan. Employers need to establish a non-

tolerance policy for workplace violence, including any form of bullying and verbal or non-verbal threats. Employers should clearly define workplace violence in respective Codes of Conduct or other policies and procedures, and provide multiple methods for reporting incidents of workplace violence. A specific aspect of such policies should be to prevent reprisals for reporting inappropriate conduct and transparent levels of communication should be instituted. Based largely on the Supreme Court's detailed guidelines in the Vishakha case in 1997, the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, makes it obligatory for employers to address workplace harassment.

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<sup>95</sup> NCRB. 2014. "Chapter 5 – Crime against women." In *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs.



The risk of 'Accidents' is ranked 12<sup>th</sup> in the risk ranking of IRS 2016

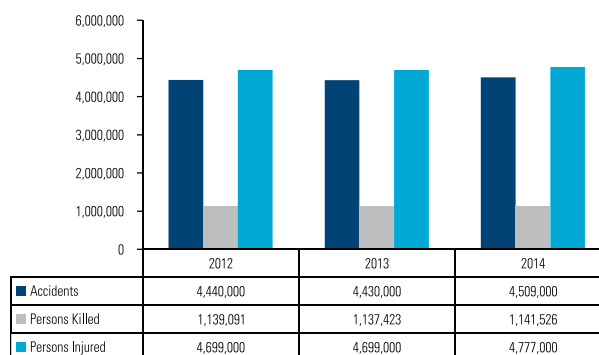
### Highlights

- From 2010-2013, death due to accidents have sharply declined from 7.7 per cent in 2010 to 1.4 per cent in 2013.
- Traffic accidents is a major cause of deaths in India. Traffic fatalities may nearly double in South Asia by 2020 taking over the number of fatalities from major public health diseases.

### Year-on-Year Ranking

The NCRB takes a very broad view of the accidental deaths category.<sup>96</sup> Between 2010 and 2013, incidences of accidental deaths declined sharply from 7.7 per cent in 2010 to 1.4 per cent in 2013. In 2014, it went up by 12.8 per cent, as compared to the year before. In real terms, a total of 4,51,757 'accidental deaths' were reported during the year. 'Un-natural causes' took more than 70 per cent share (3,16,828) in the total death by accidents, while 25.4 per cent (1,14,728) of deaths happened due to 'other causes'. The 'forces of nature' took 4.5 per cent share with 20,201 deaths. According to NCRB, 4,81,805 traffic accidents, which include road, railway and trespassing accidents, led to 1,69,107 deaths across the country in 2014. Traffic accidents cause a majority of 37.4 per cent fatalities in the overall accidental death category. The report said that a total of 1,41,526 people were killed and 4,77,731 injured in over 4.5 lakh incidents of road accidents last year. Almost half of the deaths in road accidents (47.9 per cent) were due to over-speeding. Among the Indian states, Tamil Nadu topped the list (67,250 cases), followed by Maharashtra (44,382 cases), Karnataka (43,694 cases), Madhya Pradesh (39,698 cases) and Kerala (35,872 cases) have reported the maximum number of road accidents accounting for 14.9 per cent, 9.8 per cent, 9.7 per cent, 8.8 per cent and 8 per cent respectively.

Accidents (2012-2014)



Source: NCRB. 2014. "Chapter 1 – Accidents in India." In *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.nic.in/StatPublications/ADSI/ADSI2014/chapter-1%20accidents.pdf>, accessed on 22 April 2016.

### Incidence Mapping

The Minister for Road Transport and Highways, Mr. Nitin Gadkari, has set a goal of reducing road fatalities by 50 per cent by 2020.<sup>97</sup> The government had announced its intention for a stronger law that ensures better compliance for road transport and safety after the death of Union Minister Mr. Gopinath Munde in a road accident in June 2014.

<sup>96</sup> NCRB. 2014. "Chapter 1 – Accidents in India." In *Crime in India 2014: Compendium*. New Delhi: National Crime Record Bureau, Ministry of Home Affairs. <http://ncrb.nic.in/StatPublications/ADSI/ADSI2014/chapter-1%20accidents.pdf>, accessed on 22 April 2016.

<sup>97</sup> The Hindu. 2016. 21 dead as Kolkata flyover collapses". *The Hindu*. 1 April. <http://www.thehindu.com/news/cities/kolkata/flyover-collapses-in-kolkata/article8417691.ece>, accessed on 22 April 2016.

While road accidents cause an unacceptable human toll, industrial accidents and fatalities during construction projects highlight the impact of risks posed by accidents. For instance, at least 21 people died and more than 60 injured as two parts of an under-construction flyover collapsed in a congested market in north Kolkata on April 1, 2016.<sup>98</sup> While an official probe is still on, media reports informed that relief efforts to the accident site were hampered due to multiple factors, including congestion and narrow streets.

Earlier in November 2015, a worker died and two others wounded in the Coromandel International's fertilizer plant in Kakinada, Andhra Pradesh.<sup>99</sup> The worker was killed in a blast while handling some scrap containing an explosive chemical. In mid-October, a major gas leak was detected at the Oil India gas plant near the India-Pakistan border in Jaisalmer city's Dandewala area, which lasted for more than a week.<sup>100</sup> According to the website of the National Disaster Management Authority (NDMA), 130 chemical accidents had been reported in the country in the decade up to October 2013, causing 259 deaths and 563 serious injuries.<sup>101</sup>

### Impact and Combat

Higher incidence of accidents, whether industrial or individual, increase liability for businesses, particularly for the insurance sector. All companies, large or small, are vulnerable to litigations or disputes emanating from injured workers and worker compensation. For the government, a higher risk of accidents is bad advertisement among industry and creates an impression of a weak legal framework. As the *India Risk Survey 2015* noted, a boom in population and the absence of matching infrastructure and regulatory framework is primarily responsible for higher numbers in accidents. For instance, by 2020, the WHO projects that road accidents will attain the highest threat to public health, surpassing serious public health concerns.<sup>102</sup> In South Asia, traffic fatalities are expected to nearly double by 2020. The primary factor behind growing incidences of accidents has been attributed to the growing number of vehicles in the region, typically 10 per cent growth rate per year in major urban centres, and relative lack of infrastructure to cater to that demand.

<sup>98</sup> Ibid.

<sup>99</sup> The Hindu Business Line. 2015. "Worker killed, 2 others hurt at Coromandel's fertilizer unit". *Business Line*. 22 November. <http://www.thehindubusinessline.com/news/national/worker-killed-2-others-hurt-at-coromandels-fertiliser-unit/article7905878.ece>, accessed on 22 April 2016.

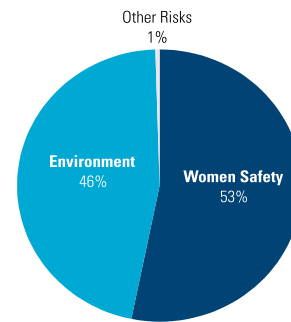
<sup>100</sup> PTI. 2015. "15 days on, gas leak continues in Jaisalmer, well likely to be shut". NDTV. 18 October. <http://www.ndtv.com/india-news/15-days-on-gas-leakage-continues-in-jaisalmer-well-likely-to-be-shut-1233618>, accessed on 22 April 2016.

<sup>101</sup> Shreeja Sen. 2014. "Industrial disaster: Is India better prepared than it was in 1984?". *Live Mint*. 2 December. <http://www.livemint.com/Politics/NtYcWmazGAis6CEpj4yAkP/Industrial-disasters-Is-India-better-prepared-than-it-was-i.html>, accessed on 22 April 2016.

<sup>102</sup> World Bank. n.d. "Road safety: A development challenge for South Asia". The World Bank. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTSARREGTOPTRANSPORT/0,,contentMDK:20674828~pagePK:34004173~piPK:34003707~theSitePK:579598,00.html>, accessed on 22 April 2016.

## OTHER RISKS

Based on the deliberations from industry experts and survey findings, 'women safety outside workplace' and 'environmental risks' have emerged as new risks, in addition to the 12 risks discussed in *IRS 2016*. If these risks would have been ranked on a scale of 1 to 12 as aforementioned risk they would have been ranked as No. 1 and No. 4 risk respectively.



Source: Deliberations from industry experts and survey responses of *IRS 2016*

### Environmental Risks

- Air pollution is the fifth largest cause of deaths in India as per the Global Burden of Disease report. Of the 6-7 million premature deaths each year due to air pollution, more than 50 per cent of those occur in China and India alone.<sup>103</sup>
- In 2014, the World Health Organisation released a list of world's 20 most polluted cities, 13 of which were in India.<sup>104</sup>
- A report by the University of British Columbia compared Delhi to Beijing, saying that Delhi had 7 days of "healthy" air in 730 consecutive days, as compared to Beijing's 58.
- The National Green Tribunal (NGT) on 1 March 2016 issued notices to thirteen cement companies over gross violation of its orders, environmental norms and provisions of Motor Vehicles Act for causing air pollution.<sup>105</sup>
- Verisk Maplecroft's hazard indices ranked India's population first in a list of those most exposed to natural hazards. The research identifies flooding as one of the biggest risks to communities and businesses in South Asia, and suggests that in India alone 113 million people – 9% of the population – are acutely exposed to flood hazard.<sup>106</sup>

### Women Safety Outside Workplace

- There were 4,037 incidences recorded in Chennai in 2000, a rate of 59.8 per 100,000 women, but by 2013, the number of crimes against women in Chennai had fallen to 838, a rate of 19.46 for every 100,000 females.
- A total of 3,37,922 cases of crime against women (both under various sections of IPC and SLL) were reported in the country during the year 2014 as compared to 3,09,546 in the year 2013, thus showing an increase of 9.2% during the year 2014.
- The crime rate under crimes against women was reported as 56.3 in 2014. Delhi UT has reported the highest crime rate (169.1) compared to 56.3 at all India level during the year 2014, followed by Assam (123.4), Rajasthan (91.4), Tripura (88.0), West Bengal (85.4), Madhya Pradesh (79.0) and Telangana (78.3).



<sup>103</sup> Vibhor Jain. 2016. "Decoding Air Quality Index." *The Indian Express*. 22 April. <http://indianexpress.com/article/blogs/decoding-air-quality-index-2765225/#sthash.rRLC35AL.dpuf>, accessed on 24 April 2016

<sup>104</sup> Mayank Jain. 2016. "Not just Delhi: These six Indian cities have an air pollution worse than Beijing." *Scroll.in*. 5 January. <http://scroll.in/article/801365/not-just-delhi-these-indian-cities-have-an-air-pollution-problem-worse-than-beijing>, accessed on 5 January 2016.

<sup>105</sup> DNA. 2016. "NGT issues notices to 13 cement companies for causing air pollution." *DNA*. 1 March. <http://www.dnaindia.com/money/report-ngt-issues-notices-to-13-cement-companies-for-causing-air-pollution-2184314>, accessed on 24 April 2016.

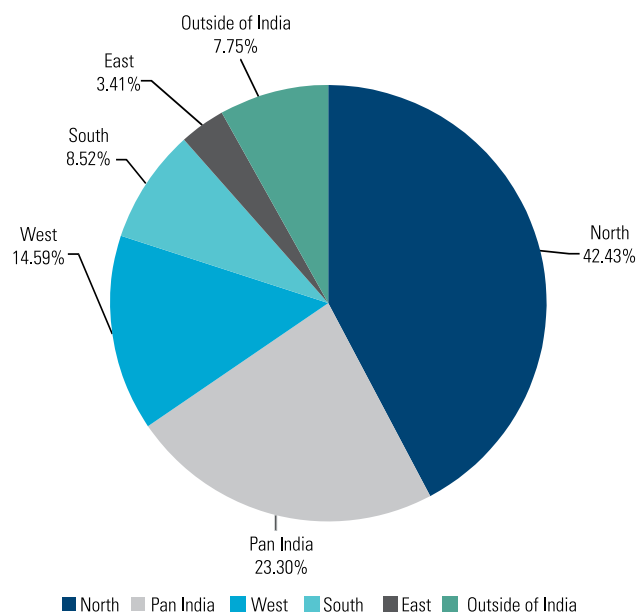
<sup>106</sup> Rahul Bhatia and Tess Riley. 2016. "India crippled by extreme weather as 100 million exposed to floods." *The Guardian*. 21 April. <http://www.theguardian.com/sustainable-business/2016/apr/21/india-drought-flooding-natural-disasters-risk-population-economy-insurance>, accessed on 22 June 2016



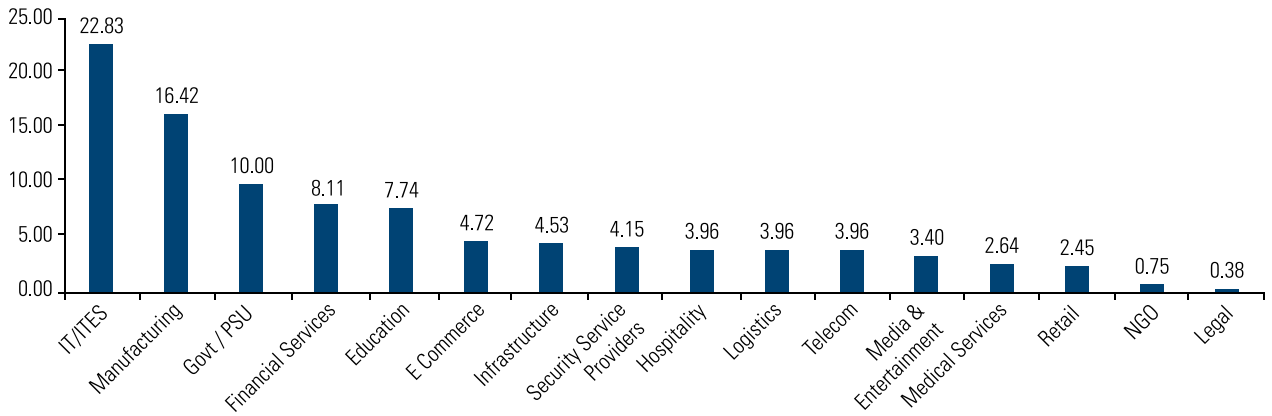
# Methodology and Respondents

The aim of the *IRS 2016* is to quantify twelve prominent risks and rank them as per their criticality to the respective businesses and regions of India by the IRS team. The methodology adopted included a risk survey covering various industries and regions, both in India and abroad. The respondents included were from lower, middle and upper management professionals. The results that were received through this process are presented in the form of graphical descriptions along with the trend observed for each risk in the report. The highest risk has been categorized as No. 1 and the lowest risk is ranked as No. 12.

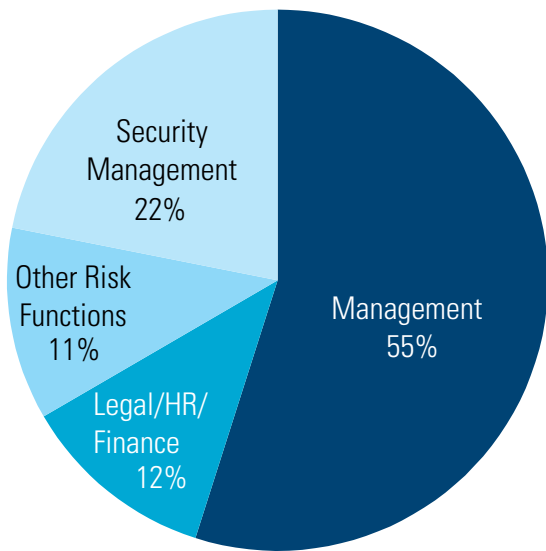
## Regionwise Contribution



### Industry-wise Contribution



### Designationwise Contribution











## About Pinkerton

Pinkerton is the industry's leading provider of risk management services and solutions for organizations throughout the world.

Pinkerton approaches corporate risk management in a uniquely holistic way. Pinkerton provides services and solutions that are designed to address the different risk areas of a business and its operations, both inside and outside of the company.

Pinkerton has broken down the multitude of risks every organization faces and identified four main categories of risk factors that impact a company's value:

**Hazard & Event Risk** – How resilient is your firm during and after a serious incident?

**Operational & Physical Risk** – What factors could impact your business' continuity?

**Technology & Informational Risk** – Are the proper controls in place to fully protect your bottom line?

**Market & Economic Risk** – How secure is your corporate strategy from outside threats?



Because we offer comprehensive solutions and unmatched expertise in each of these areas – coupled with access to our global network of resources – Pinkerton is the industry leader in corporate risk management.

## The Industry Leader Since 1850

Pinkerton offers national and global organizations a vast selection of reliable risk management services and solutions, including: Global Employment Screening; Security Risk Management; Investigations; Protection Services; Response Services; and Intelligence Services.

Pinkerton traces its roots to 1850 when Allan Pinkerton founded The Pinkerton National Detective Agency. Throughout its rich history, Pinkerton created forerunner to the Secret Service, hired the country's first woman detective, and has remained the industry leader in developing innovative security and risk management solutions for national and international corporations.

With employees and offices worldwide, Pinkerton maintains an unmatched reputation for protecting clients and their assets around the globe.

**Our values** – Our Values create the foundation for our corporate culture. They help shape our behavior and create measurable expectations for clients, employees and stakeholders. Our key values can be summarized in three words: Integrity, Vigilance and Excellence.

**Integrity** - The overriding principles of our firm are honesty and ethical conduct. To uphold our reputation for reliability and accuracy, Pinkerton places utmost importance on integrity. It has allowed us to sustain our commitment throughout our 160 year history.

**Vigilance**- Unparalleled protection requires the tenacity to continually see, hear, evaluate and analyze...over and over. The vigilance instilled in the Pinkerton culture means that our agents, analysts and consultants offer clients a level of attentiveness and alertness that – we believe – cannot be equaled by anyone.

**Excellence** - It's crucial to get the job done and get it done right. This is how we earn the privilege of retaining our long-term client relationships.

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## About FICCI

FICCI is the voice of India's business and industry. Established in 1927, it is India's oldest and largest apex business organization. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

## FICCI Security Department

FICCI has many specialised committees where key concerns of the industry are debated and discussed with the specific aim of presenting the recommendations to the Government for favourable decisions.

Considering internal security is the backbone of growth and overall development of a nation, FICCI has constituted two specialised committees to look into various aspects of security –

- Committee on Homeland Security (HLS) is chaired by Mr. G. K. Pillai, Former Union Home Secretary, Govt. of India, which is working towards bridging the gap between policing and technology.
- Committee on Private Security Industry (PSI) is chaired by Ms. Manjari Jaruhar, Former Special DG – CISF, Govt. of India. The committee has been advocating for key policy issues confronting the industry.

## Some of the focus areas:

**SMART Policing:** FICCI has instituted Award for best practices in SMART Policing in India, with the objective to promote initiatives taken by the Police for the safety and security of Indian citizens. This can change public perception and build positive and progressive image of the police among people. FICCI SMART Policing Awards provide a platform to police officials across India to learn from the experiences of other states and also for possible adoption of the best practices to further enhance policing in their respective states.

**Police Modernisation:** FICCI is working towards bridging the gap between policing and technology. We engage with various enforcement agencies and provide them a platform to interact with industry, to articulate their requirements and to understand new technologies for security. This initiative is under our umbrella theme of "Safe & Secure Nation".

**Road Safety:** United Nations has proclaimed 2011-20 as the Decade of Action on Road Safety. FICCI feels that the Indian Industry can play a significant role in addressing the issue of road safety and will be promoting potential private sector interventions in Road Safety through their core business activities.

**Indian Unmanned Aerial Vehicle (UAV) Policy & Regulations:** FICCI has initiated formulating Working Groups in areas of: (a) enabling regulations for developmental use of UAVs, and prevention of rogue UAVs; (b) framework for permission and licencing for manufacturing of UAVs; and (c) technological structure for detection and neutralisation of unidentified UAVs. FICCI will submit the suggestions and recommendation for Indian UAV Policy & Regulations to the Ministry of Home Affairs.

**Security Standards and Guidelines:** FICCI is working with the Bureau of Indian Standards (BIS) for creation of standards and guidelines for electronic security.

**Capacity Building Programmes:** FICCI has initiated capacity-building programmes and workshops as an attempt to increase awareness about Women Safety at Work Place, Forensics of Fraud Detection, White Collar Crimes, etc.

**Public Procurement for Internal Security:** FICCI is working towards advocacy for bringing well-defined procedures for fair and transparent procurement of security products and solutions, so as to provide level playing field to the industry.

**Enforcement of Private Security Agencies Regulation (PSAR) Act 2005:** Major portion of the private security industry is unorganised. FICCI is advocating the proper enforcement of the Act.

**Armed Security for Cash Logistics:** FICCI is advocating for a well-articulated policy for deployment of armed private security guards for protection of cash vans, which carry crores of public money every day.

**Private Security Workers' Categorisation as Skilled / Highly Skilled Workers:** FICCI is working towards appropriate categorisation of the private security guards.

**Minimum Standards/Guidelines for Cash Logistics Companies:** FICCI is advocating for establishment of standards and operating guidelines for cash logistics companies.



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