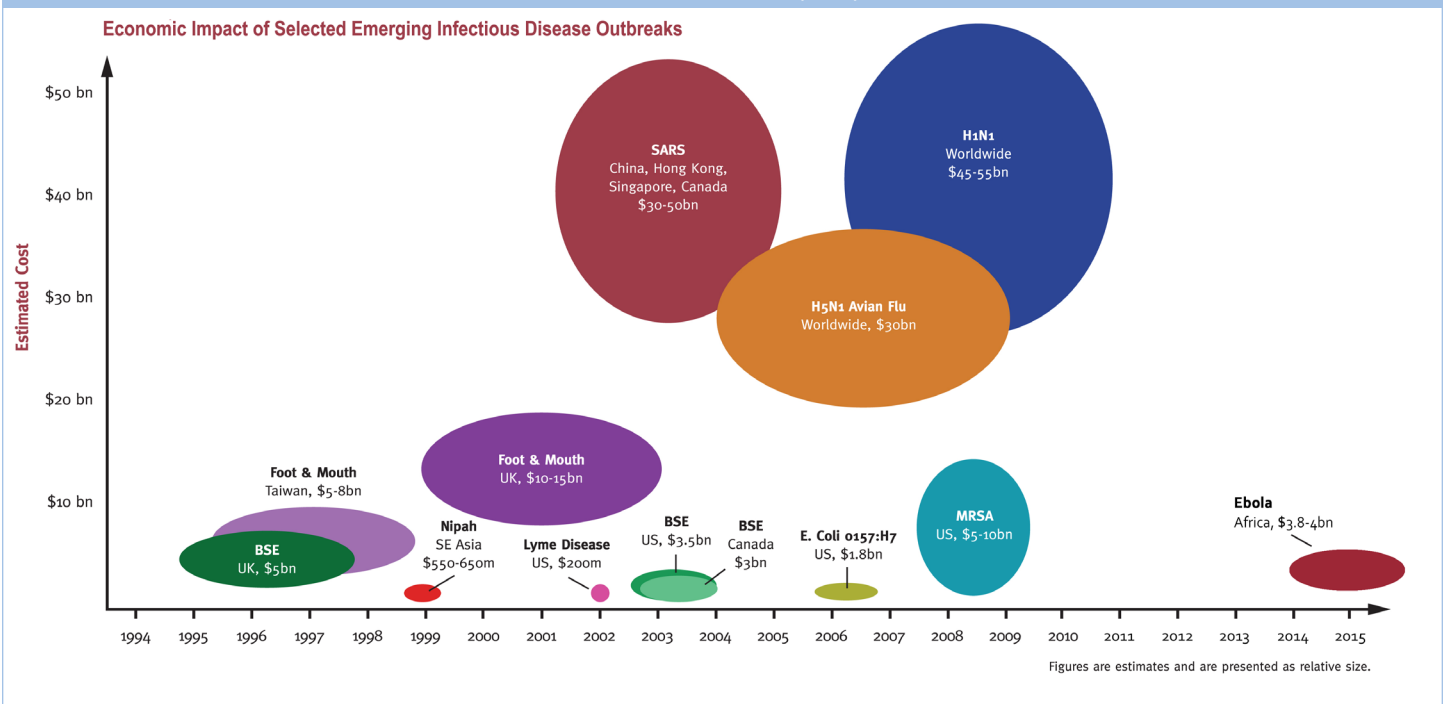


THE BUSINESS CASE FOR PREVENTION, PREPAREDNESS & RESPONSE TO PANDEMICS, EPIDEMICS & OUTBREAKS

With the rise of globalization and with increasingly interconnected value chains, the economic costs of epidemics and infectious disease outbreaks are far reaching. The impacts range from macroeconomic destabilization in affected and non-affected countries to worksite operational disruptions. In emerging markets, weak institutions, poor infrastructure and governance, and under-resourced public health systems contribute to the threat of emerging infectious disease (EID) outbreaks. Companies operating in these environments must consider

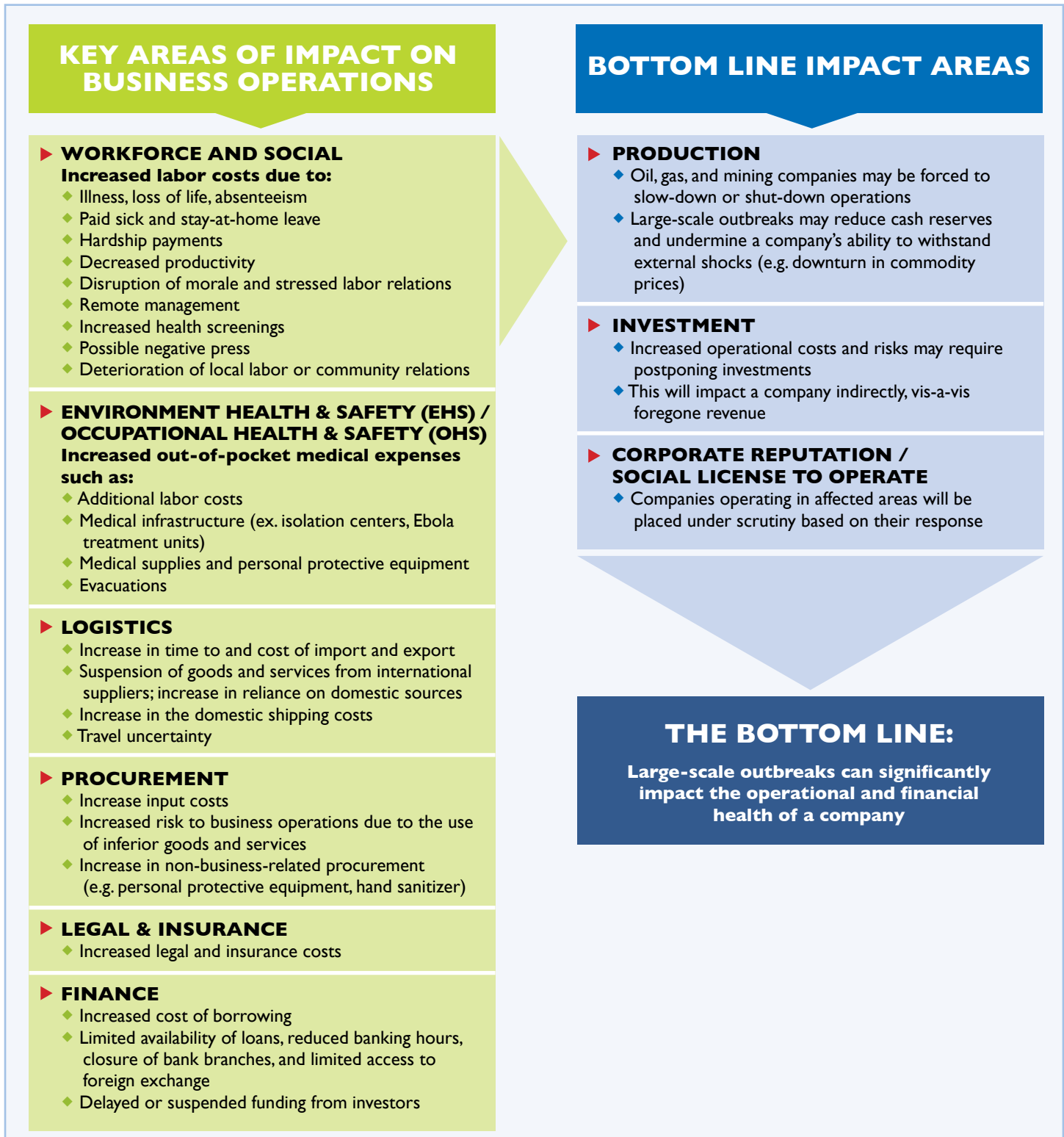
on-site risks and vulnerabilities along supply chains, as EIDs and other disease outbreaks can jeopardize operations and, ultimately, the bottom line. The private sector has an important role to play not only in internal risk mitigation, but as a leading partner in strategic preparedness and effective response to epidemics and infectious disease outbreaks. Adopting risk mitigation measures contributes to the resiliency of a company but also serves to strengthen the systems supporting the local operating environment.

FIGURE I: ESTIMATED COSTS OF SELECTED OUTBREAKS, 1999-2015 (USD)



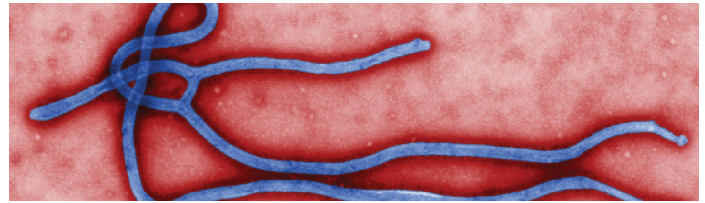
BUSINESS COSTS OF A LARGE-SCALE OUTBREAK

Companies should consider the direct and indirect impacts of a large-scale outbreak and where they are most vulnerable. Disruptions across operations can have material impacts on a company's bottom line.





SPOTLIGHT ON EBOLA



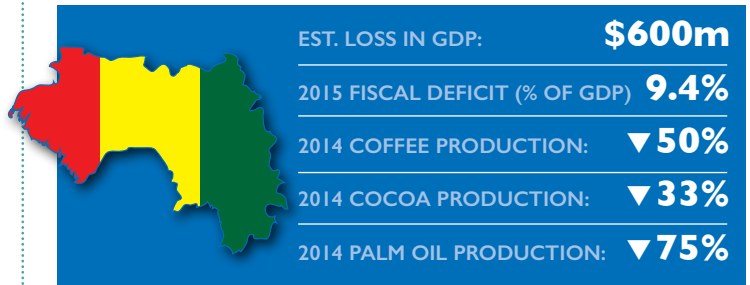
SNAPSHOT: West Africa’s outbreak of the Ebola Virus that began in 2014 quickly escalated to an international humanitarian and socioeconomic crisis. Weak institutions, poor infrastructure, and lack of capacity and resources within the local and national public health systems contributed to the crisis. The outbreak caused significant disruptions in national and international trade and decreased economic activity at the industry and the firm level.

INDUSTRIES AFFECTED: Mining, oil & gas (onshore & offshore), agribusiness, construction, transport & logistics.

EXAMPLES OF EBOLA’S IMPACT ON THE PRIVATE SECTOR

MINING	<p>GUINEA</p> <ul style="list-style-type: none"> ◆ Rio Tinto suspended construction on \$20 billion Simandou iron ore mine project ◆ Guinea Alumina Corporation postponed \$5 billion bauxite project ◆ RUSAL, the Russian-owned bauxite company, repatriated 50% of its foreign staff
	<p>LIBERIA</p> <ul style="list-style-type: none"> ◆ Australian iron-ore company Tawana Resources suspended all non-essential activities and sent home many African and foreign workers ◆ ArcelorMittal delayed \$1.7 billion mine expansion as its major subcontractors declared force majeure and withdrew ◆ Aureus Mining delayed the New Liberty commercial gold mining project.
	<p>SIERRA LEONE</p> <ul style="list-style-type: none"> ◆ London Mining filed for bankruptcy due to the drop in iron ore prices and after failing to secure financing during the Ebola crisis
OIL & GAS	<p>LIBERIA</p> <ul style="list-style-type: none"> ◆ ExxonMobil delayed the startup of its first offshore Liberia exploration well. The project was planned to start in late-2014 at offshore Liberia Block 13, but was pushed back because of “safety, health and logistical issues related to Ebola.” In October 2014, ExxonMobil began prohibiting non-essential staff from traveling to countries hit by the Ebola outbreak ◆ Tullow Oil accelerated its existing plan to relinquish its licenses and pull out of Liberia and Sierra Leone

GUINEA



LIBERIA



SIERRA LEONE



\$2.8b

28k

11k

COMBINED GDP LOSSES FROM 2014-2015 FOR LIBERIA, SIERRA LEONE & GUINEA

CASES OF EBOLA REPORTED

DEATHS FROM EBOLA REPORTED

ROLE OF PRIVATE SECTOR IN PREVENTION, PREPAREDNESS & RESPONSE

The private sector has **unique resources, competencies, and capabilities** to prevent, prepare, and respond to EIDs and other disease threats. In emerging markets, this responsibility goes **beyond financial donations; collaboration and coordination** of technical skills, physical assets, and outreach are critical in limiting the negative impacts of an infectious disease outbreak.

PREVENTION: GOOD BUSINESS PRINCIPLES

Business risk and EHS/OHS processes, already instituted by companies, can provide a good framework to build a plan for outbreak, epidemic, and pandemic risks on the worksite and elsewhere.

PREPAREDNESS: STRONG PARTNERSHIPS & INDUSTRY LEADERSHIP

With limited public sector resources, industry leaders can play an important role through participation in simulations and trainings, sharing lessons learned, and working with the public sector and NGOs to develop response models that leverage private sector knowledge in areas of expertise (e.g. health and safety, distribution services, construction, and logistics).

RESPONSE: EXISTING NETWORKS & INFRASTRUCTURE

The private sector has existing accommodation, communication and transportation networks, which can be repurposed quickly to play a critical role in bolstering emergency response systems and continuity of the business operating environment.

KEY TAKEAWAYS

- ◆ The costs of emerging infectious diseases are substantial and the next large-scale outbreak is inevitable
- ◆ Large-scale outbreaks can disrupt the operational and financial health of a company
- ◆ Risk mitigation and business continuity plans should not be limited to operational diligence “inside-the-fence”, as large-scale outbreaks have wide-reaching impacts.
- ◆ The private sector has unique competencies and capabilities to prevent, prepare, and respond to EIDs, especially in developing countries with limited public sector resources.
- ◆ Companies should assess direct and indirect costs of emerging infectious disease and consider the benefits of adopting prevention, preparedness, and response measures.

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