

WORKBOOK 8.1: CRITICAL INFRASTRUCTURE AS TARGETS

Purpose: To present descriptions and consequences of an attack for each category of critical infrastructure

Critical Infrastructure	Descriptions	Consequences
Banking and Finance	The banking and finance sector may account a significant percentage of a nation's annual gross domestic product and is vital to the world economy.	As direct attacks and public statements by terrorist organizations demonstrate, this sector is a high-value and symbolic target.
Chemical sector	The chemical sector is an integral component of a nation's economy, converting various raw materials into diverse products, many of which are critical to the health and well-being of a nation's citizenry, security, and economy.	Due to its size and the inherent dangers of many chemicals, the chemical sector may be an attractive target for attack.
Commercial facilities	A wide range of assets represents the commercial facilities sector. These include hotels, commercial office buildings, convention centers, stadiums, theme parks, residential buildings, shopping centers, and other sites where large numbers of people gather to pursue business activities, conduct personal commercial transactions, or enjoy recreational pastimes. The sector is a dominant influence on a nation's economy. The majority of facilities in the commercial facilities sector operate under the principle of "open public access," meaning that the public may move	The large numbers of people gathered together and ease of access make commercial facilities attractive targets for attack.

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	freely through these facilities without the deterrent of highly visible security barriers.	
Communications	Communications are an integral part of a nation’s health and safety, economy, and public confidence. A nation’s economic and national security relies on the security of the assets and operations of critical communications infrastructure.	Past terrorist attacks and catastrophic natural disasters have emphasized the need to protect this critical infrastructure to ensure that the full range of preparedness activities can take place.
Critical manufacturing	The critical manufacturing sector is an integral component of a nation’s economy, contributing greatly to the gross domestic product and employing tens of thousands of a nation’s workers.	While the contributions the critical manufacturing sector makes to a nation are immense, they do not come without risk — the economic and strategic value of the industry may make it an attractive target for terrorists.
Dams	The dams sector is a vital and beneficial part of a nation’s infrastructure and continuously provides a wide range of economic, environmental, and social benefits, including hydroelectric power, river navigation, water supply, wildlife habitat, waste management, flood control, and recreation.	The potential risks in the event of asset failures, regardless of causation, within the dams sector are considerable and could result in significant destruction, including loss of life, massive property damage, and severe long-term consequences.

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Defense industrial base	<p>The defense industrial base sector consists of government and private sector organizations that can support military operations directly:</p> <ul style="list-style-type: none"> ▪ Perform research and development ▪ Design, manufacture, and integrate systems ▪ Maintain depots and service military weapon systems, subsystems, components, subcomponents, or parts <p>All of these are intended to satisfy a nation’s military national defense requirements.</p>	<p>An attack on any elements of this industrial base may endanger many more lives due to the resulting reduction in a nation’s military defense capabilities.</p>
Emergency services	<p>The emergency services sector is a primary “protector” for other critical infrastructure sectors.</p>	<p>The loss or incapacitation of emergency services sector capabilities would notably affect a nation’s security, public safety, and morale.</p>
Energy	<p>A healthy energy infrastructure is one of the defining characteristics of a modern global economy.</p>	<p>Any prolonged interruption of the supply of basic energy — electricity, petroleum, or natural gas — would do considerable harm to a nation’s economy and its people.</p>

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<p>Food and agriculture</p>	<p>Interference with the food or agricultural infrastructure could have a devastating effect on a nation’s public health and economy.</p> <p>Securing this sector presents unique challenges because food and agriculture systems are extensive, open, interconnected, and diverse, with complex structures.</p>	<ul style="list-style-type: none"> ▪ Food products move rapidly in commerce to consumers, but the time required for detection and identification of attacks and contaminations, such as animal or plant disease introduction or food contamination, can be lengthy and complex. ▪ Therefore, attacks and contaminations on the food and agriculture sector could result in severe animal, plant, public health, and economic consequences.
<p>Government facilities and national monuments or icons</p>	<p>Government facilities, and elements associated with them, represent attractive targets for terrorist groups and criminals because they:</p> <ul style="list-style-type: none"> ▪ Provide unique services ▪ Often perform sensitive functions ▪ Have significant symbolic value <p>National monuments and icons memorialize or represent significant aspects of a nation’s heritage, tradition, or values.</p>	<ul style="list-style-type: none"> ▪ Because government facilities often are located inside privately held buildings, those facilities become targets as well. ▪ Many monument and icon sites represent the foundation of the country, making them symbolic targets.

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Health care and public health facilities	The health care and public health sector constitutes a significant portion of the economy for many nations.	<ul style="list-style-type: none"> ▪ Due to the diffuse nature of the sector, many health care targets for potential attack are exceptionally hard to protect. ▪ Ensuring a resilient health care and public health system capable of withstanding disruption and poised to protect lives and health during emergencies is vital for a nation's safety and security.
Information technology sector	<p>The information technology sector is central to a nation's security, economy, public health, and safety.</p> <p>These important systems enable a nation's economic activity, which is essential to maintaining homeland and national security.</p>	An attack on the information technology could have severe consequences for the many other critical infrastructure sectors rely on this sector for products and services, including the reliable operation of networks and systems, and the movement and storage of critical data.
Nuclear reactors, materials, and waste	Nuclear power plants are among the best defended and physically hardened critical infrastructure in any country.	A terrorist attack involving a nuclear reactor, materials, or waste would be a significant security event regardless of the scope, especially if it resulted in release of radioactive material to the environment.
Transportation, postal, and shipping systems	A nation's transportation, postal, and shipping networks involve an expansive, open, and accessible set of interconnected systems of airways, roads, tracks, terminals, and conveyances that provide services essential to our way of life.	The sheer size and capacity of the sector, which moves, distributes, and delivers billions of passengers and millions of tons of goods each year, makes it a highly attractive target for terrorists.

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Water	Safe drinking water is central to the life of every individual and society.	<ul style="list-style-type: none"> ▪ A drinking water contamination incident or the denial of drinking water services would have far-reaching public health, economic, environmental, and psychological effects across the nation. ▪ The interruption or cessation of drinking water service would also disrupt other critical services such as fire protection, health care, and heating and cooling processes, resulting in significant consequences to the national or regional economies.