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FEMA's Role in Logistics Management for Disaster Response

The Federal Emergency Management Agency (FEMA) plays a key role in responding to domestic emergencies and disasters. Part of FEMA's response role is logistics and supply chain management to ensure supplies such as food and water arrive at areas in need. To fulfill this role, FEMA manages vendor contracts, sources and tracks commodity shipments, and maintains lines of communication among various responders. FEMA regularly coordinates these activities with private-sector entities.

National Response Framework and Emergency Support Functions

FEMA's logistics and supply chain support authorities stem from the National Preparedness System and the National Response Framework (NRF)—interagency guidance that delineates agency roles and responsibilities in federal responses to all types of incidents, including emergencies and major disasters declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288, as amended). The NRF organizes federal capabilities and resources for disaster response into 15 emergency support functions (ESFs).

Each ESF has at least one coordinating agency, primary agency, and supporting agency. Along with the General Services Administration (and 15 supporting agencies), FEMA coordinates ESF#7, "logistics," assuming responsibility for "centralized management of supply chain functions in support of local, state, tribal, territorial, insular area, and Federal governments for an actual or potential incident." That includes activities such as:

- managing transportation of material from storage facilities and vendors to incident survivors;
- providing logistical support to fire and other first responders;
- coordinating the procurement of communications equipment and services; and
- managing electronic data interchanges to allow for endto-end visibility and tracking of response resources.

FEMA's Logistics Management Operations

FEMA's supply chain resilience guide establishes procedures for FEMA, state, local, tribal, and territorial governments (SLTTs), and the private sector to maintain supply chains. Those steps are:

 research and mapping, including identifying commodity suppliers and the commodities' destinations;

- analysis, including assessing the abilities of entities involved in disaster response;
- outreach, including identifying and prioritizing challenges and meeting to discuss initial analyses;
- action, including developing and implementing preparedness activities; and
- assessing and refining, including building relationships, updating analysis, and targeting outreach.

FEMA's Logistics Supply Chain Management System oversees the agency's supply chain operations. These begin with an order for commodities, which can come from FEMA's headquarters or a regional office, in anticipation of need. FEMA's Logistics Management Center approves the order, forwarding it to the Supply Chain Integration Branch, which sources the commodities and forwards the order to the Transportation Management Branch. The Transportation Management Branch as sumes responsibility for moving commodities between locations, including by contracting with private transportation companies.

Like other agencies, FEMA can source contractors and supplies without full and open competition, as is usually required, when there is a need of an "unusual or compelling urgency." For example, this might occur if a disaster so degraded an area's infrastructure that soliciting competitive bids would delay the delivery of life-saving supplies.

Another tool available to FEMA is the Defense Production Act (DPA, P.L. 81-774). The law provides the President certain authorities that can influence domestic industry in the interest of national defense. During the Coronavirus Disease 2019 (COVID-19) pandemic, FEMA invoked the DPA to strengthen the supply chain for personal protective equipment (PPE), which was scarce. FEMA used the DPA to prioritize federal government contracts with private businesses to purchase PPE and to fund the private sector to expand domestic PPE production, among other activities.

Private Sector Integration

FEMA's disaster response activities require working with the private sector. This includes establishing contracts with private-sector entities to provide logistics and supply chain management support. For example, FEMA operates an "advance contract" program that awards pre-disaster contracts—primarily to private companies—so that supplies and services can be quickly deployed when a disaster occurs. In FY2022, FEMA had 101 advance contracts covering a variety of services and commodities, including provision of bottled water, commercial meals, generators and generator maintenance, and operations support.

Before, during, and after a disaster, FEMA's National Business Emergency Operations Center (NBEOC) serves as a clearinghouse for private-sector entities to share information among themselves and government entities. The NBEOC is open to multi-state private sector organizations including chambers of commerce, universities, businesses, and non-profits. SLTTs can use the NBEOC to connect with the clearinghouse's private-sector members and to FEMA's regional private-sector liais ons.

The federal government has designated 16 critical infrastructure sectors "so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety." Examples include the chemical, communications, and energy sectors. The nature of these critical infrastructure sectors entails coordination with the private sector; for instance, communications networks and electric utilities may be privately owned.

The Cybersecurity and Infrastructure Security Agency (CISA) is responsible for ensuring the security of the country's critical infrastructure—primarily through oversight of voluntary public-private partnerships for information sharing and best practices. CISA, like FEMA, is a Department of Homeland Security (DHS) agency. But through ESF#14, "cross-sector business and infrastructure," FEMA and CISA are both given certain responsibilities for connecting the federal government and private sector when disaster response logistics involves multiple critical infrastructure sectors. FEMA's specific duties include:

- convening private-sector entities through the NBEOC to identify incident response is sues for resolution;
- facilitating information sharing from the federal government and SLTTs to private-sector entities;
- tracking private sector capacities and capabilities; and
- deploying FEMA's private-sector coordination staff to SLTTs requiring coordination with industry.

Challenges in FEMA's Response to Hurricanes Irma and Maria

Hurricanes Irma and Maria hit the Caribbean over two weeks in September 2017, causing extensive damage. A 2020 report from the DHS Office of Inspector General on FEMA's execution of its ESF #7 responsibilities found that FEMA:

- Lost visibility of 38% of its commodity shipments to Puerto Rico, worth \$257 million. This occurred because FEMA did not follow protocols such as fully utilizing its Global Positioning System transponder technology to track the shipments.
- Provided inadequate oversight of transportation contracts, contributing to lost visibility and "significantly delayed" commodity shipments.

• Could not give "reasonable as surance" that it quickly gave out sufficient amounts of life-saving commodities.

Congress has held multiple hearings on the response to Irma and Maria, both before and after the 2020 report. Several of these hearings examined FEMA's role in the response, although they did not focus on the results of the 2020 report.

Issues for Congress

Congress may wish to monitor FEMA's emergency and disaster response logistics management responsibilities. Some logistical and supply chain challenges may be outside FEMA's control. For example, the rapid succession of Hurricanes Harvey, Irma, and Maria in 2017 stretched government and private sector resources. But other factors contributing to FEMA's difficulties responding to Hurricanes Irma and Maria—for example, not following commodity tracking protocols—are likelier to fall within the purview of Congress's oversight functions.

The COVID-19 pandemic caused unforeseen shortages of key commodities, including PPE. To address this, the federal government took certain novel approaches, including creating the Supply Chain Stabilization Task Force (SCTF), a White House-led initiative comprised of officials from FEMA, the Department of Defense, and the Department of Health and Human Services. The SCTF sought to manage the federal government's efforts to obtain and distribute PPE.

A FEMA report found that the SCTF sometimes lacked communication and duplicated efforts with other COVID-19 task forces, but helped increase the speed of PPE production. Congress may wish to further examine the efficacy of the federal government's COVID-19 supply chain efforts, including the SCTF, and whether they duplicated FEMA's responsibilities under ESF #7.

The task force model may also be of interest as FEMA's disaster response efforts could grow more complex. According to the National Oceanic and Atmospheric Administration, the U.S. averaged 5.5 billion-dollar disasters (disasters causing at least \$1 billion in damage) per year in the 1990s, 6.7 per year in the 2000s, and 12.8 per year in the 2010s. In 2020, there were 22 billion-dollar disasters, 20 in 2021, and nine in the first six months of 2022. These trends could stretch FEMA's response resources and its ability to manage logistics. Congress could consider whether a task force model, potentially including other federal agencies as well as the private sector, may ameliorate some of these potential challenges.

Congress may consider FEMA's future DPA use for disaster response. A 2021 FEMA report on the agency's pandemic response noted "there is an opportunity to use the DPA as a pre-disaster resource to build agreements and formalize engagement with the private sector based on critical resource gaps." During the pandemic, FEMA's DPA office was small and the agency lacked experience with some of the law's capabilities, contributing to FEMA invoking the DPA less than it might have. Congress may consider expanding FEMA's capabilities in this area.

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