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AN EXERCISE FRAMEWORK FOR RESILIENT HEALTH, FOOD, AND AGRICULTURE SYSTEMS

Joshua Dise – Systems Analyst

March 29th, 2023

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UNCLASSIFIED UNLIMITED RELEASE

SAND2023-011110





BACKGROUND

- **Office of Health Security, Health, Food, and Agriculture Resilience Directorate (HFAR)**
 - Enhance DHS efforts related to the prevention of, readiness for, response to, and mitigation and recovery from global health threats.
 - Lead DHS policy relating to food, animal, and agricultural incidents, and the impact of such incidents on animal and public health.
 - Provide oversight, coordination, and integration of veterinary public health, food defense, agricultural security.
- **Sandia National Laboratories (SNL)**
 - Department of Energy, Federally Funded Research and Development Center.
 - Perform, analyze, integrate, support, and/or manage basic and applied research and/or development.
- **HFAR-SNL Relationship**
 - Perform and support risk assessments to inform prioritization of activities and investments.
 - Provide strategic guidance.
 - Develop and facilitate exercises and engagements with Federal, SLTT, and private sector partners.



WHAT IS A TABLETOP EXERCISE?

- **Discussion-based** sessions where team members and **relevant stakeholders** meet in an informal, classroom setting to discuss their unique roles and responsibilities given a plausible, historic, or hypothetical emergency scenario.
- Duration depends on **audience**, incident **complexity**, and **objectives**.
- Provide opportunities to prepare organizations, teams, or personnel to **respond more effectively and efficiently** to an emergency.
- Benefits
 - Cost effective
 - Validate plans and capabilities
 - Identify planning assumptions
 - Identify resources gaps
 - Identify opportunities for improved communication and coordination
 - Build consensus towards improving emergency preparedness regimes

(Source: FEMA. (2018). Benefits of Pre-Event Exercises and Training. Retrieved from https://www.fema.gov/sites/default/files/2020-08/fact-sheet-3_pre-event-exercizes-training.pdf)



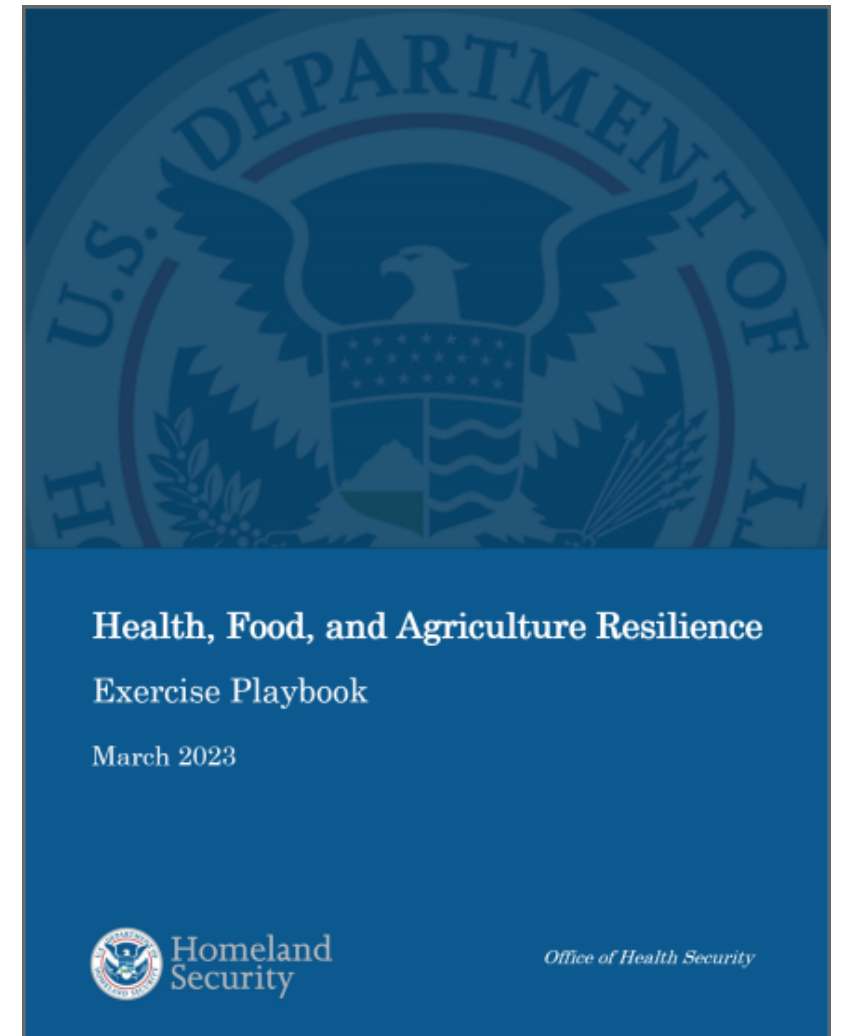
OBJECTIVES & INTENDED AUDIENCES

- **Objectives**

- Identify optimal mechanisms for communication.
- Assess response capabilities.
- Identify gaps in coordination and interoperability.
- Identify opportunities for enhanced communication and coordination.

- **Intended Audience**

- Policymakers
- Organizational implementers (e.g., senior leadership)
- Operational personnel (e.g., “on-the-ground” personnel)





SECTORS & SCOPE

Current TTX scenarios were developed to impact or involve the following components of the food and agriculture sector:

- Livestock & Poultry
- Crops & Forestry
- Aquaculture & Fisheries
- Food Manufacturing and Distribution
- Wildlife
- Supply Chain Infrastructure
- Agribusiness
- Emergency Management
- Public Health

Each TTX is flexible and scalable to involve a broad set of key stakeholders and impacts across spatial and temporal scales. Possible exercise scopes include:

- Individual Community
- State & Local Authorities
- Regional
- National
- Cross-Broder/Multi-National

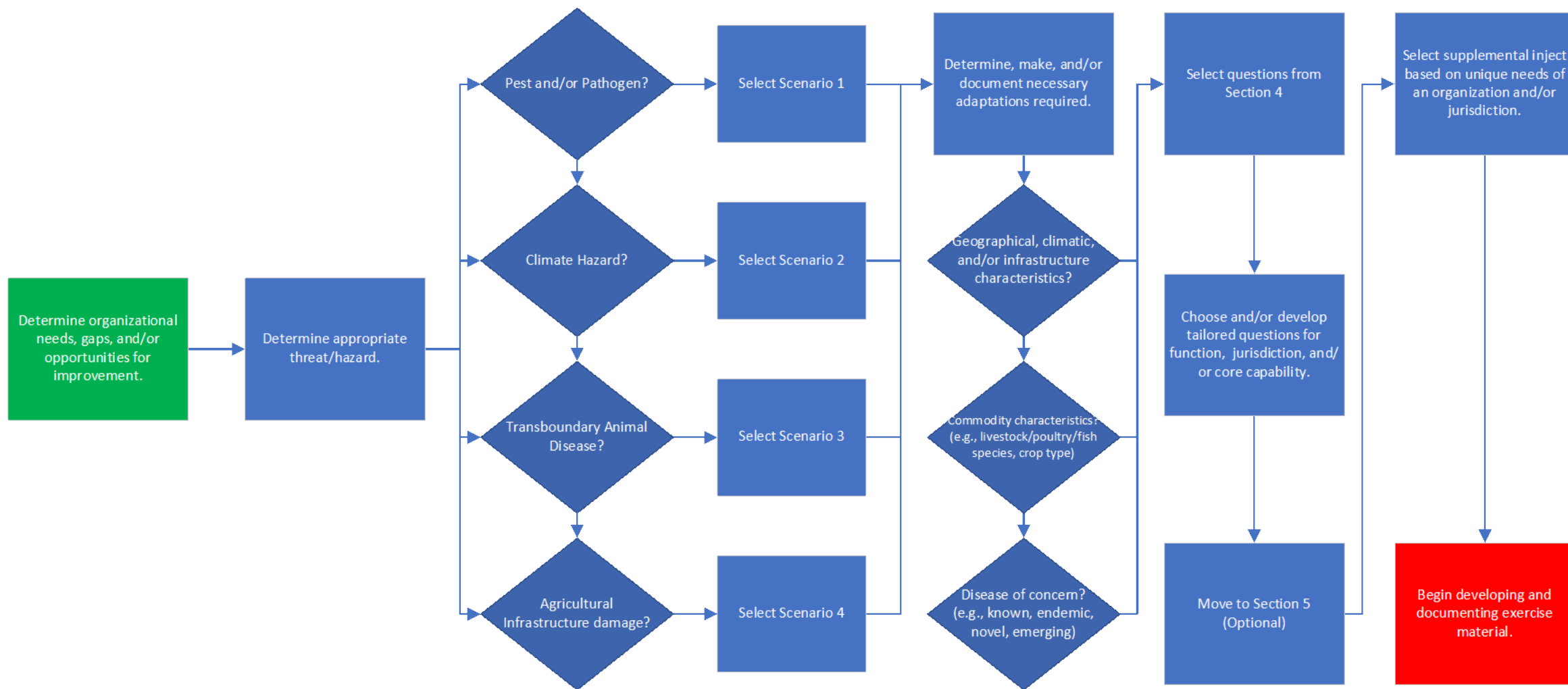


STRATEGIC THEME ALIGNMENT

Category	Recommendations
Coordinating	<ul style="list-style-type: none">• Operationalizing the “One Health” approach, which recognizes that animal health, plant health, environmental health, and public health not only share the same threat spaces but also share opportunities to provide surge capacity during emergencies.• Ensuring a “whole-of-community” view that actively seeks out, builds trust with, and provides incentives for industry, university, extension, professional organization, and community stakeholders to participate in health, food, and agriculture readiness efforts from planning through recovery.
Capacity Building	<ul style="list-style-type: none">• Expanding existing training and exercise efforts as opportunities for ongoing capability development, plan development, and identification of gaps within existing plans.• Ensuring stable and ongoing support for building capability at all levels within the health, food, and agriculture spaces in anticipation of—rather than in the wake of—catastrophic events and disruptions.
Integration	<ul style="list-style-type: none">• Including HFA communities in broader catastrophic event training and exercise contexts and determining how cross-training could build capabilities, particularly at local levels, where significant variation in emergency response and HFAR sector capabilities may exist across jurisdictions.• Creating opportunities to integrate HFAR and emergency management planning efforts by identifying potential areas for shared support and working to plan for what supplies, staff, and equipment would need to be reserved for concurrent emergencies within a sector.

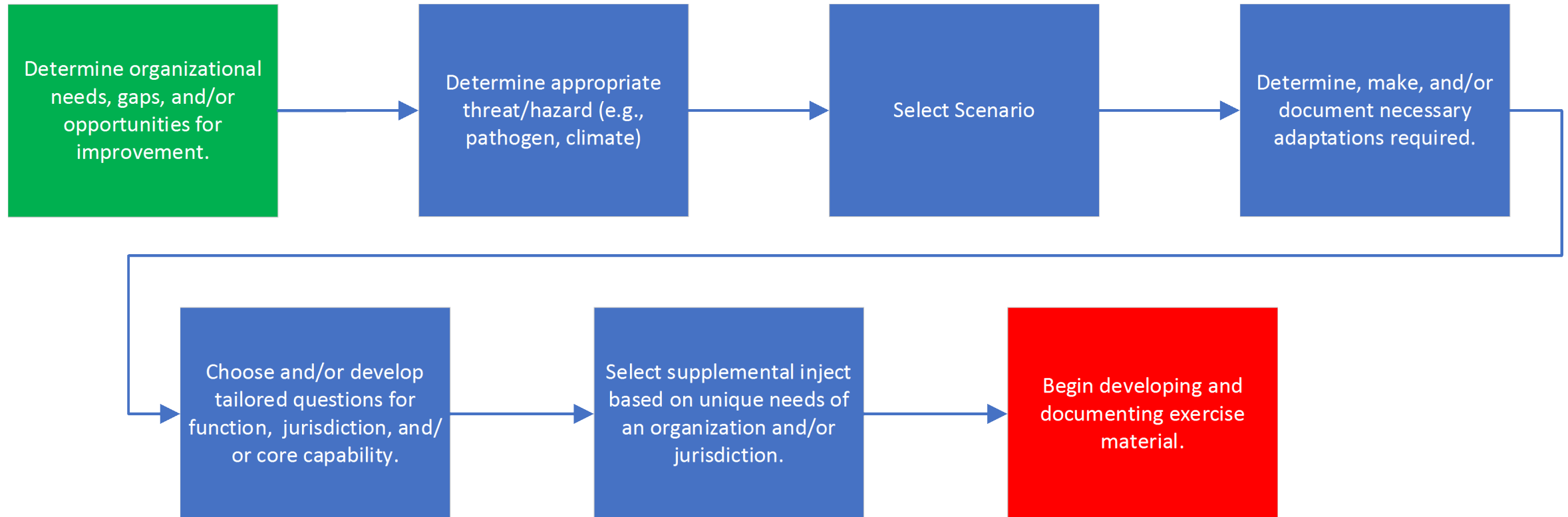


HOW TO USE THE PLAYBOOK





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EXERCISE PRODUCTS TO DATE

- **4 Off-the-Shelf Exercise Packages**

- Earthquake, Historic Drought, Plant Health Systems, Multi-State Transboundary Animal Disease

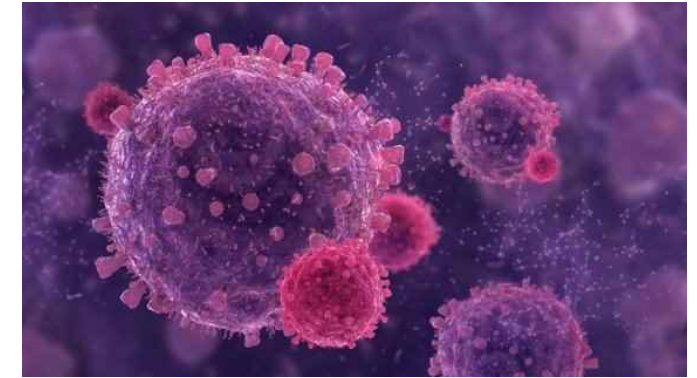
- **HFAR Exercise Playbook (v1.0)**

- A 'Catalog' of fictional, yet realistic scenarios of interest by DHS/OHS/HFAR, illustrating novel challenges impacting the FA systems with associated exercise objectives and question sets.
- Use cases: federal, state, local, international partners; architecture development; risk assessment.

Scenario	Domains							Scope					Functional Pillars & Capabilities				
	Livestock & Poultry	Crops & Forestry	Aquaculture & Fisheries	Food Manufacturing & Distribution	Wildlife	Supply Chain Infrastructure	Agribusiness	Community Level	State & Local Authorities	Regional	National	Cross-Border/Multi-National	Prevention & Preparedness	Protection & Detection	Mitigation	Response	Recover
Extreme Heat & Drought	x	x		x	x	x	x	x	x	x	x				x	x	x
Plant Pathogen		x		x		x	x	x	x	x	x	x	x	x		x	x
Earthquake	x	x		x		x	x	x	x	x	x					x	x
Transboundary Animal Disease	x				x	x	x	x	x	x	x	x	x	x		x	

NEXT STEPS

- 'Beta-testing' and further refinement of completed exercise material.
- Continued scenario development
 - African Swine Fever (Pre-diagnosis validation and cross border response triggers)
 - Nuclear Accident/Radiological Contamination
 - Food Safety & Security
 - Emerging Zoonotic Disease





THANK YOU!

JOSHUA DISE
JTDISE@SANDIA.GOV