Food and Agriculture Sector Criticality Assessment Tool

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Critical Infrastructure & Key Resources (CIKR) Data Collection

The National Infrastructure Protection Program (NIPP) risk management framework is structured to promote continuous improvement to enhance Critical Infrastructure and Key Resources (CIKR) protection.

The Food & Agriculture Sector Criticality Assessment Tool (FASCAT) helps the Food and Agriculture Sector address the second step of this process.

NIPP Risk Management Framework
What is critical within the food and agriculture sector?
What is critical within the food and agriculture sector?

Food and Agriculture Sector Criticality Assessment Tool (FASCAT) helps each state examine the various commodity supply chains that impact their state and evaluate each subsystem/component relative to:

**Threats, Consequences Impacts & Characteristics**
National Critical Infrastructure Prioritization Program (NCIPP) Data Call

2008 - 14 States submitted critical infrastructure data for Food and Agriculture

2009 - 37 States submitted critical infrastructure data for Food and Agriculture

Food and Agriculture was only Sector of the 18 that had **Zero** assets placed on the National Level 1 or Level 2 Critical Infrastructure and Key Resources Lists
FASCAT Results for 2010

• Web version 2.0 released in March 2010 on FoodSHIELD for the data call

• More than 30 web trainings and 13 On-site training and workshops

• 499 total number of sub-systems captured online
FASCAT Results for 2010

• 30 states completed the full Infrastructure Data Collection Application (IDCA) submission for Level 2 consideration in the NCIPP Data Call

• 121 Sub-systems and components from 30 states representing over 1300 nodes gained approval for being on the Level 2 NCIPP list
What led to FASCAT Success?

• **Improved the overall process** for food and agriculture critical system, sub-system and component identification and prioritization

• **Provided greater equity** in cross sector critical system identification for DHS

• **Enabled the states to identify and document** critical food and agriculture system components

• **Improved critical asset reporting** to DHS

• **Provided a common methodology and language** to the process
You need a common Language to communicate

- Vocabulary
- Taxonomy
- Lexicon

Creating a common language For Food and Agriculture means......

Calling the same thing the same thing
Are you “SET” to share information with other critical sector partners?

pronounced “Set” guiding principles

Enter profile data once and use it many ways through use of a Common Organizational Registry Environment (CORE) Information sharing framework.

- Leverage CORE frameworks in relation to other organizations as a mapping index to get the right information to the right person at the right time.

- Employ standards and tools that enable you and partner organizations to communicate, coordinate, collaborate, educate and train within a framework that facilitates targeted, real time knowledge of the people, organizations, resources and capabilities that need to be accessed.

Communicate  Coordinate  Collaborate  Educate  Train
FASCAT is deployed through a CoreSHIELD framework as a tool on the FoodSHIELD portal.

This portal along with Homeland Security Information Sharing Network – Food and Agriculture (HSIN-FA) is part of a larger Integrated Information Sharing Environment (ISE) that has been established for the Food & Agriculture Sector.
The FASCAT tool is a critical component for data acquisition and sharing capabilities designed into this integrated information sharing network being used to capture and share CIKR information along with other sector communication, coordination, collaboration, education and training efforts.
Connecting the Dots Leveraging CCCET Standards on a Common Organizational Registry Environment, CoreSHIELD
[FA-DEMO-STATE] Welcome to FAS-CAT Version 3.0

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DHS Taxonomy

Sub-sector:

Please Select a Sub-Sector

Segment:

Please Select a Segment

Sub-segment:

Please Select a Sub-Segment

Asset:

Please Select an Asset Type

Product Supply Chain:

Info?

View Supply Chain Chart

Commodity Asset Lookup:

Beans

Go!

Asset Definition

Appendix I:

Please Select Appendix I

Appendix II:

Please Select Appendix II

Number of Critical Nodes Assessed:

Total Number of Nodes in Subsystem:

Comments:
<table>
<thead>
<tr>
<th>Asset Appendix Field 1</th>
<th>Commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garbanzo farming, dry, field and seed production</td>
<td>Garbonzo Bean</td>
</tr>
<tr>
<td>Lentil farming, dry, field and seed production</td>
<td>Lentil Bean</td>
</tr>
<tr>
<td>Lima bean farming, dry, field and seed production</td>
<td>Lima bean</td>
</tr>
</tbody>
</table>
Appendix II:
Lima bean farming, dry, field and seed
Commodity assessed
- All Dry Peas and Beans
  - All Dry Peas
    - Cow Peas
  - All Dry Beans
    - Garbanzo
    - Lentil
    - Lima

Crop Description
- Field Production
- Seed Production

FAS Product Description

Field Type
- Traditional
- Organic
- Genetically Modified

FDA Product Description

EPA Product Description

State/s Assessed
- Demo State

County/s Assessed
- Lake County

Production Dollars
- $2,500,000

Associated Employment
- 3400

As provided by IMPLAN Data or other USDA FAS commodity data
Critical Sub-System Points of Contact

- Agriculture, Public Health, Emergency Services,
- Industry, Law Enforcement, Federal, State, Local
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<table>
<thead>
<tr>
<th>Threats</th>
<th>Consequences</th>
<th>2nd &amp; 3rd Order Consequences</th>
<th>Impact of Attack or Disaster</th>
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<tbody>
<tr>
<td>FAD</td>
<td>Chemical/Toxin</td>
<td>Loss of Operation Rights</td>
<td>Intentional Adulteration</td>
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<tr>
<td>Destruction</td>
<td></td>
<td>Pathogen Contamination</td>
<td>Theft</td>
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<tr>
<td>Lost Access</td>
<td></td>
<td>Plant Disease</td>
<td>Production/Processing Disruption</td>
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<tr>
<td>Drought</td>
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<td>Radiological Contamination</td>
<td>Plant Pests</td>
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<td>Food Pathogens Veg.</td>
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<td></td>
<td>Exotic Plant Pest/Disease</td>
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<tr>
<td>Misinformation/Public Messaging</td>
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Welcome to FAS-CAT Version 3.0

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</tr>
</thead>
<tbody>
<tr>
<td>Short Term System Shut Down</td>
<td>Long Term System Shut Down</td>
<td>Loss of Key Input</td>
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<tr>
<td>Loss of Key Output</td>
<td>Loss of Access to Customer(s)</td>
<td>Loss of Plant Stock</td>
<td></td>
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<tr>
<td>Loss/Contamination of Herd/Flock</td>
<td>Mass Casualty - Human</td>
<td>Mass Casualty - Animal</td>
<td></td>
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<tr>
<td>Product Shortage</td>
<td>Reduced Output</td>
<td>Brand Damage</td>
<td></td>
</tr>
<tr>
<td>Loss of Tourism</td>
<td>Loss of Capital</td>
<td>Credit Access</td>
<td></td>
</tr>
<tr>
<td>Cost of Response</td>
<td>Loss of Seed Source</td>
<td>Economic Loss</td>
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Description
In Summary

FASCAT assessments enable states and industry partners to prioritize what is most critical within food and agriculture based on numerical scores.

This process will help focus strategic investments and allocation of resources for best practices of mitigating risk to the state and the nation.
In Summary

The Food and Agriculture Sector Information Sharing Environment (ISE) will facilitate development and implementation of best practices while enhancing awareness and emergency response capability.

Through this improved:

- **C**ommunication,
- **C**oordination,
- **C**ollaboration,
- **E**ducation and **T**raining

The Food and Agriculture Sector will be CCCET