Promoting Food Security Before, During, and After Disasters: Resources to Help Build Food System Resilience

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Background
Resilient food systems should support food security in the face of disasters or disruptions. Food security is defined as when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (1). Food system resilience ensures food security despite disasters or disruptions as it ensures, “the capacity over time of a food system and its units at multiple levels, to provide sufficient, appropriate, and accessible food to all, in the face of various and even unforeseen disturbances” (2). Some recent disruptions that food system resilience can help to address are the COVID-19 pandemic, avian flu outbreak, Russian invasion of Ukraine, and extreme weather events.

Resilience Attributes
Many “attributes” of resilient systems have been identified in research and practice (3). The guide emphasizes the importance of an equity and social justice approach and helps users incorporate that throughout the entire food system resilience planning process. This creates work that is not just done for a community but co-owned by and developed with them. This tool should be used as a preliminary step, but it is not comprehensive of all equity considerations.

Methods
The Johns Hopkins Center for a Livable Future and Bloomberg Center for Government Excellence at Johns Hopkins University (JHU) partnered to launch a Community of Practice (CoP) with representatives of five US cities: Austin, Texas; Baltimore, Maryland; Denver, Colorado; Moorhead, Minnesota; and Orlando, Florida. The CoP aimed to combine evidence and on-the-ground experiences from practitioners to develop this guide. The five cities were selected based on mutual interest in food system resilience planning, and to achieve diversity in geography, population size and density, demographics, climate change risks, form of government, level of existing food systems planning, and regional connections. At least two representatives from each city participated. CoP members worked for local government agencies or institutions that work closely with city government. CoP members participated in monthly group sessions, one-on-one calls, and completed assignments to help develop this guide.

Conclusion
The strategies developed from the use of the guide could be used to form a stand-alone food system resilience plan, or they may be embedded into other planning actions. They could also be used to guide programming or apply for funding to support food system resilience work.

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The development of the guide is an important step in building evidence-based tools that governments and organizations can use to build food system resilience. This is significant as this is a relatively new field, and thus there is limited evidence on what is effective in building food system resilience. Future work to further the evidence for food system resilience include an evaluation of the effectiveness of the planning guide and of the long-term food system resilience at a jurisdictional level.

Results
The guide has six modules (Figure 1), each focusing on unique elements of the food system resilience planning process. In each module, users will find background information, equity checks, peer perspectives, additional resources, and tools.

The guide is intentionally designed to be adapted according to each jurisdiction’s capacity, context, and needs.

Objectives of the Guide
1) To provide local governments with resources to build local food system resilience, and to do so in a way that promotes equitable and just food systems.
2) To enable users to develop a set of tangible food system resilience strategies.
3) To support stakeholders at different stages in food systems and resilience planning to prepare for, respond to, and recover from food system disruptions.

An Equity & Social Justice Approach
The guide centers an equity and social justice approach, which requires that efforts taken before, during, and after disruptions promote procedural, distributional, structural, and intergenerational equity. The approach addresses underlying structural and systemic injustices that drive differential needs (4).

Responding to Shocks & Stressors
Resilience assumes disasters or disruptions will occur. Disruptions can be natural or human-made, and they are commonly described as either shocks or stressors (5).

A shock is a sudden disturbance to a system (e.g., a flood or civil demonstration that prohibits trucks from distributing food to grocery stores).

A stressor is a gradual eroding of a system (e.g., increasing average temperatures from climate change altering the growing seasons in a region).

The use of the guide and the application of food system resilience can enable the system to “bounce back better” from shocks and stressors (Figure 2).

References

Get Started: This module provides a roadmap for local governments and partners to work on food system resilience, a brief overview of the concepts, and details on using this guide.

EQUITY IN RESILIENCE: This module defines an equity and justice centered approach to food system resilience planning and work, why it’s critical, and a framework for applying the approach.

Define & Scope: This module will help you identify food system partners, understand the landscape of food system resilience work, and see how issues you will confront will shape your planning work.

Assess: This module will help you access the baseline level of food system functioning, answer what hazards are most likely to disrupt the food system, and identify people and places that are most vulnerable to disruptions.

Strategize: This module will help you identify and prioritize strategies that target the vulnerabilities in your food system and build resilience. After completing this module, your team will have a set of food system resilience goals.

Implement & Measure: The final module focuses on implementing and measuring your food system resilience goals. We hope that after completing this module you will feel ready and inspired to begin implementing your food system resilience goals.

Figure 1: Six Modules of the Guide (7)

Figure 2: Food System Resilience Timeline (2,6)