

BEYOND VICTORY GARDENS: BOLSTERING RESILIENCE IN FOOD CRISIS RESPONSE

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ABSTRACT

The COVID-19 pandemic disrupted much of daily life, not the least of which was the nation's food supply. Empty grocery store shelves, rotting produce in the fields, and gallons of milk dumped rather than sold manifested as symptoms of the fragile nature of the U.S. food system. Rectifying issues of resilience by incorporating local and regional food sources as supplementary to the existing channels of production and distribution may have prevented such a harsh shock to the system. This article identifies the weaknesses of the U.S.'s industrial and consolidated food supply chain that prioritizes extraction and economic gain over resiliency, and further describes the ways in which the COVID-19 pandemic exacerbated these points of failure. This article first depicts some of the disruptions to the food supply chain stemming from consequences of the pandemic such as issues with matching supply to demand, wasting large quantities of food, and exacerbating systemic food insecurity. This article then provides a comprehensive overview of existing governmental crisis and disaster planning with an eye toward how these plans and policies incorporate or ignore implementing local and

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regional food into the greater food supply. This article concludes by recommending ways to integrate local and regional food sources into government planning, identifying local and regional private entities such as food policy councils, farmers markets, and food banks as the most promising vehicles of change.

I. INTRODUCTION

Food system resilience—most critical in times of crisis—is oft discussed yet rarely implemented. A system’s food security is paramount, meaning it must provide “for all people at all times . . . access to sufficient, safe, nutritious food [and] to maintain a healthy and active life.”¹ Food security, however, can only be achieved in a system that is resilient, meaning at a basic level that the system possesses the ability to “cope with, and adapt to, changes.”² Without resilience, a food system will strain to meet the needs of expansive populations, the consequences of which “hit the poorest and most vulnerable members of . . . society, deepening the gap of food inequality between populations and classes.”³ Resilient food systems preserve a nation’s public health, as well as several facets of political and social stability.

Resilience and sustainability act in concert: “sustainability implies preserving the capacity of a system to function in the future, which is also one of the conditions of maintaining resilience. However, resilience implies the capacity to continue providing a function over time despite disturbances, and thus forms an essential part of what enables sustainability.”⁴ It is sustainability that measures “system performance, whereas resilience can be seen as a means to achieve it during times of disturbance.”⁵ When assessing the resilience of a food system, scholars focus on four primary components:

1. World Food Summit, *Rome Declaration on World Food Security and World Food Summit Plan of Action*, U.N. Doc. WFS 96/REP (Nov. 13-17, 1996); see also Janne Kaseva et al., *Managing Diversity for Food System Resilience*, 4 ADVANCES FOOD SECURITY & SUSTAINABILITY 1, 2 (David Barling & Jessica Fanzo eds., 2019).

2. See Hugo Jose Herrera de Leon & Birgit Kopainsky, *Do You Bend or Break? System Dynamic in Resilience Planning for Food Security*, 35 SYST. DYNAMICS REV. 287, 288 (2019).

3. Serafim Bakalas et al., *Perspectives from CO+RE: How COVID-19 Changed Our Food Systems and Food Security Paradigms*, 3 FOOD SCI. 166, 171 (2020).

4. D.M. Tendall et al., *Food System Resiliency: Defining the Concept*, 6 GLOBAL FOOD SECURITY 17, 18 (2015).

5. *Id.*

- (1) robustness, or the capacity to withstand the disturbance in the first place before any food security is lost;
- (2) redundancy, or the extent to which elements of the system are replaceable, affecting the capacity to absorb the perturbing effect of the disturbance and avoid as much food insecurity as possible;
- (3) the flexibility and thus rapidity (or food system reactivity) with which the food system is able to recover any lost food security; and
- (4) resourcefulness and adaptability, which determines just how much of the lost food security is recovered.⁶

Over the past decade, pleas to ignite government action directed toward increasing the resiliency of the U.S. food system fell largely on deaf ears.⁷ We have long known the risks and weaknesses posed by our extended food production and supply chains and, due primarily to efficiency concerns, neglected the critical role local and regional systems can serve in creating a food supply more resistant to disruption.⁸ The COVID-19 pandemic, for the first time in the lives of many Americans, forced a reckoning with these deficiencies.⁹ Much like the pandemic exacerbated underlying social and political tensions,¹⁰ it also highlighted the fragility of an efficient, but highly consolidated and centralized, food supply chain.¹¹

Empty grocery store shelves, rotting produce in the fields, and gallons of milk dumped rather than sold manifested as symptoms of the fragile nature of the U.S. food system.¹² COVID-19 choked channels of distribution and rendered the national food supply chain paralyzed, unable to match supply to demand because

6. *Id.* at 19.

7. *See generally id.*; Andrew G. Huff et al., *How Resilient is the United States' Food System to Pandemics?*, 5 J. ENVTL. STUD. SCI. 337 (2015).

8. Laura B. DeLind & Philip H. Howard, *Safe at Any Scale? Food Scares, Food Regulation, and Scaled Alternatives*, 25 AGRIC. & HUM. VALUES 301, 313 (2008).

9. David Orden, *Resilience and Vulnerabilities of the North American Food System During the Covid-19 Pandemic*, EUROCHOICES, at 1–2 (Aug. 28, 2020).

10. United Nations, *Shared Responsibility, Global Solidarity: Responding to the Socio-Economic Impacts of COVID-19* 8 (Mar. 2020), <https://unsdg.un.org/sites/default/files/2020-03/SG-Report-Socio-Economic-Impact-of-Covid19.pdf>.

11. Orden, *supra* note 9, at 1–2.

12. *See* David Yaffe-Bellany & Michael Corkery, *Dumped Milk, Smashed Eggs, Plowed Vegetables: Food Waste of the Pandemic*, N.Y. TIMES (Apr. 11, 2020), <https://www.nytimes.com/2020/04/11/business/coronavirus-destroying-food.html>.

of the broader food supply's inherent inflexibility.¹³ Food is security, and consumers did what was necessary in the time of a global pandemic to obtain sustenance—for those with the financial means and access, attention turned from large retailers to local farmers down the road.¹⁴ Consumer reliance on local and regional food systems to supplement the failures of the national food system demonstrated a widely ignored reality that these systems are integral to stable, consistent access to nutrients for all people.¹⁵

More than a decade ago, scholars noted the dangers of the U.S. food system's structure—issues which, regrettably, have not changed:

Although Americans enjoy relatively low food costs compared to other developed economies, consolidation and centralization in American production, distribution and processing systems has made the U.S. food system vulnerable to both accidental and intentional disruption. Confinement of large numbers of livestock at long-distances from processing centers increases animals' susceptibility to disease, and creates greater opportunity for its spread. Likewise, processing large amounts of food in one location and blending content into multiple batches provides increased opportunity to harm sizeable numbers of consumers. As a result of these production choices, food travels long distances, requiring large amounts of energy to reach the majority of consumers.¹⁶

The 2009 article quoted above critiqued government planning for food emergencies in the post-September 11 environment.¹⁷ The authors devoted particular attention to four Homeland Security Presidential Directives ("HSPDs") that implicated food security.¹⁸ For example, HSPD-5 required the Department of

13. Orden, *supra* note 9, at 1–2.

14. See Nellie Peyton, *Farmers Prosper in Pandemic as Americans Shop Local*, REUTERS (Apr. 30, 2020), <https://www.reuters.com/article/us-health-coronavirus-farming-trfn/farmers-prosper-in-pandemic-as-americans-shop-local-idUSKBN22C2YX>.

15. See DeLind & Howard, *supra* note 8, at 313.

16. A. Bryan Endres & Jody M. Endres, *Homeland Security Planning: What Victory Gardens and Fidel Castro Can Teach Us in Preparing for Food Crises in the United States*, 64 FOOD & DRUG L.J. 405, 405–6 (2009).

17. See generally *id.*

18. *Id.* at 426.

Homeland Security (“DHS”) to establish a National Response Framework (“NRF”).¹⁹ NRF implementation included Emergency Support Function (“ESF”) planning mechanisms for food supply security during times of crisis.²⁰ Although the majority of the ESF-11 plan focused on food safety, a nutrition assistance mechanism directed the United States Department of Agriculture’s Food and Nutrition Service to determine nutritional needs in a crisis, obtain and transport appropriate food supplies, and work with state and voluntary agencies to develop operational plans for delivery.²¹ Despite the crisis situation that presumably caused the disruption and triggered the need for food assistance, the government’s food acquisition and delivery plan would use existing commodity distribution networks.²² No mention is made of potential capabilities of local and regional food networks.²³ In brief, the prior article concluded that there was a distinct absence of food-specific planning that encouraged, strengthened, or attempted to integrate regional and local food systems into planning for responding to crisis situations.²⁴ To the contrary, plans relied exclusively on existing national and international food supply chains while ignoring completely the potential of regional and local food systems.²⁵ In a call to action, the authors urged national security planners in all levels of government to “review current comprehensive crisis contingencies, identify gaps and vulnerabilities in the commoditized national-level food system, and incorporate . . . plans for a more diverse, resilient food supply chain that recognized regional and local food stakeholders.”²⁶

As the existential threat of terrorism faded from the public conscious, what efforts were national security planners taking to adjust the various HSPDs and ESF implementing plans to confront evolving threats to food security? This article reviews the limited progress governments have made since 2009 to update and modernize food crisis planning. As this article will argue, federal and state government plans, to the extent they exist, are fundamentally

19. *Id.* at 426–27.

20. *See* FEMA, EMERGENCY SUPPORT FUNCTION #11 (Jan. 2008), <http://www.fema.gov/pdf/emergency/nrf/nrf-esf-11.pdf> [hereinafter ESF #11].

21. *Id.* at 10.

22. Endres & Endres, *supra* note 16, at 428.

23. *Id.*

24. *Id.* at 409.

25. *Id.* at 439.

26. *Id.*

flawed in their continued lack of consideration and incorporation of local and regional food systems. Moreover, these failures by government entities mark an overall trend in agricultural policy that has long pushed the narrative of “get big, or get out,” as opposed to themes of security and resilience.²⁷ The COVID-19 pandemic disrupted this notion as consumers increasingly turned to local food systems to cure the supply and demand struggles experienced in the national food system.²⁸ Struggles to obtain food during the pandemic highlight underlying social inequities that exacerbate the impact of disruptions in the food supply chain in certain populations, expanding the reach of food deserts and disproportionately affecting those who can least afford further difficulty in obtaining food, nutritious or otherwise.

Part II of this article depicts some of the numerous disruptions to the food supply chain attributed to the COVID-19 pandemic. This section discusses the exponential increase in demand for local and regional food products and emphasizes where the food supply chain, as it currently exists, failed to exhibit sufficient resilience to prevent issues of food insecurity. Part III of this article provides a comprehensive overview of federal government crisis and disaster planning and examines each plan and policy for implementation of resiliency themes. Part IV analyzes the key takeaways from observing how the U.S. food supply chain reacted during the initial stages of the COVID-19 pandemic and recommends methods of integrating local and regional food supplies to increase resiliency.

27. See Tom Philpott, *A Reflection on the Lasting Legacy of 1970s USDA Secretary Earl Butz*, GRIST (Feb. 8, 2008), <https://grist.org/article/the-butz-stops-here> (describing how Secretary of Agriculture Earl Butz famously told farmers in the early 1970s to “get big or get out” while promoting policies that supported large-scale farming while terminating programs intended to support smaller farms). This theme was re-emphasized in 2019 by Secretary of Agriculture Sonny Perdue when asked about the struggles of dairy farmers, who responded with “[the] big get bigger and small go out and that’s kind of what we’ve seen here Everyone will have to make their own decisions economically whether they can survive.” Brian Depew, *Get Big or Get Out, A Redux*, CTR. FOR RURAL AFF. (Oct. 23, 2019), <https://www.cfra.org/news/191023/desk-our-executive-director-get-big-or-get-out-redux>.

28. Annie Albrecht, *Study Finds Local Food Systems Respond Nimbly to COVID-19 Supply Chain Impacts*, COLO. ST. U. (Dec. 9, 2020), <https://source.colostate.edu/study-finds-local-food-systems-respond-nimbly-to-covid-19-supply-chain-impacts>.

II. COVID-19 DISRUPTIONS AND INCREASED LOCAL DEMAND

One of the most concerning disruptions to society caused by COVID-19, among the closure of schools, soaring levels of unemployment, and a rapidly growing national deficit, was the shock to the national food supply chain.²⁹ Worldwide, lockdowns have caused the demand for durable goods to rise and discretionary services to drop, while the demand for food has increased as panic buying and food hoarding becomes more common.³⁰ Because food is essential and the national food supply chain is historically prone to disruption, the pandemic's impact on the food supply chain touched nearly everyone.³¹

COVID-19 disrupted the food supply chain at all levels, from production to distribution.³² At the production and harvest stages, growers and farmers struggled to implement necessary protective measures for farmworkers against contracting COVID-19.³³ Despite making efforts "to keep production going and keep employees safe, including scaling back the number of workers they're transporting on buses, spacing workers out more as they harvest and increasing the number of hand-washing stations," workers and advocates continued to speak out about "lapses in on-the-job safety, such as some farms that lack soap and protective equipment, and others that fail to enforce social distancing guidelines."³⁴ Coupled with "limited access to medical care and the crowded living conditions" and reliance upon migrant workers "now immobile because of border

29. *A Shock to the Food System: Lessons Learned from the COVID-19 Pandemic*, DELOITTE 3, 3–5 <https://www2.deloitte.com/global/en/pages/consumer-business/covid-19/shock-to-food-system.html> (last visited Jan. 3, 2021).

30. Carmen M. Reinhart & Rob Subbaraman, *How can we Prevent a COVID-19 Food Crisis?*, WORLD ECON. F. (May 16, 2020), <https://www.weforum.org/agenda/2020/05/preventing-a-covid-19-food-crisis>.

31. See Serpil Aday & Mehmet Seckin Aday, *Impact of COVID-19 on the Food Supply Chain*, 4 FOOD QUALITY AND SAFETY 167, 167–71 (2020).

32. *A Shock to the Food System*, *supra* note 29, at 5–6.

33. Helena Bottemiller Evich & Liz Crampton, *Trump Deems Farmworkers 'Essential' But Not Safety Rules for Them*, POLITICO (May 12, 2020, 11:55 AM), <https://www.politico.com/news/2020/05/12/trump-farmworkers-essential-coronavirus-safety-250142>.

34. Catherine E. Shoichet, *The Farmworkers Putting Food on America's Tables are Facing their own Coronavirus Crisis*, CNN (Apr. 11, 2020, 1:10 PM), <https://www.cnn.com/2020/04/11/us/farmworkers-coronavirus>.

crackdowns,”³⁵ the flaws in food production and harvest became readily apparent.

Similar to farmworkers and field work, workers in meat processing plants experienced outbreaks across the country.³⁶ The consolidation of meat processing in the United States complicated matters—“about 50 cattle slaughterhouses account for around 98 percent of all slaughtering and processing in the United States.”³⁷ Two of the seven largest meat processing plants closed.³⁸ This caused a significant downturn in production of nearly twenty-five percent and could eventually lead to a shortage.³⁹ For example, despite the fact that the “plant produces more than 5 percent of the nation’s pork,” Smithfield Foods temporarily closed its processing plant in Sioux Falls, South Dakota, after more than two-hundred workers became infected.⁴⁰ Ben Lilliston, the interim co-executive director of the Institute for Agriculture and Trade Policy, explained that these types of shortages and struggles are “what happens when a small number of multinational companies control the food supply.”⁴¹

The disconnect between supply and demand during the pandemic was particularly revealing. Transportation services struggled to keep up with “the sudden rush of short-term needs” as consumers impacted food distribution by panic-purchasing food and household supplies, as well as shipping products directly to their

35. Maximo Torero, *How to Stop a Looming Food Crisis*, FOREIGN POL’Y (Apr. 14, 2020, 11:00 AM), <https://foreignpolicy.com/2020/04/14/how-to-stop-food-crisis-coronavirus-economy-trade>.

36. Kyle Bagenstose, Sky Chadde, & Matt Wynn, *Coronavirus at Meatpacking Plants Worse than First Thought*, USA TODAY (Apr. 22, 2020, 3:13 PM), <https://www.usatoday.com/in-depth/news/investigations/2020/04/22/meat-packing-plants-covid-may-force-choice-worker-health-food/2995232001>.

37. Caitlin Welsh, *Covid-19 and Food Security*, CSIS, <https://www.csis.org/programs/global-food-security-program/covid-19-and-food-security> (last visited July 7, 2020).

38. Laura Reiley, *Meat Processing Plants are Closing Due to Covid-19 Outbreaks*, WASH. POST (Apr. 16, 2020, 6:28 PM), <https://www.washingtonpost.com/business/2020/04/16/meat-processing-plants-are-closing-due-covid-19-outbreaks-beef-shortfalls-may-follow>.

39. *Id.*

40. Michael Corkery & David Yaffe-Bellany, *U.S. Food Supply Chain is Strained as Virus Spreads*, N.Y. TIMES (Apr. 13, 2020), <https://www.nytimes.com/2020/04/13/business/coronavirus-food-supply.html>.

41. Reiley, *supra* note 38.

residence.⁴² Manufacturers reported that it could “take weeks for [them] to crank up production at multiples of the volumes they’re used to producing, and for retailers, transporters, etc., to deal with getting those products to the shelves and into homes.”⁴³

While some sectors of the food supply chain struggled with shortages, many more struggled with handling surpluses.⁴⁴ Disruption to food distribution not only posed issues of lost production for farmworkers and meat processing facilities, but it also compounded food waste.⁴⁵ As the Center for Strategic & International Studies reported, “[f]armers of all sizes across the United States—from dairy farmers in Wisconsin to green bean farmers in Florida—[were] forced to destroy harvests amid a severe drop-off in demand stemming from the closures of restaurants, schools, hotels, and other food service outlets.”⁴⁶ The destruction and waste of food was significant: “[t]he nation’s largest dairy cooperative, Dairy Farmers of America, estimates that farmers [were] dumping as many as 3.7 million gallons of milk each day. A single chicken processor is smashing 750,000 unhatched eggs every week.”⁴⁷ These supply-demand disruptions caused by the pandemic exacerbated the disparities and weaknesses of the national food supply chain. The distribution of resources to respond to COVID-19 revealed weaknesses in the food supply chain and highlighted what the United States prioritizes in its food system.

By exposing the flaws of the United States’ consolidated, nationalized food system, the COVID-19 pandemic prompted a substantial increase in demand for locally sourced food.⁴⁸ COVID-19

42. Ellen Rosen, *As Demand Surges, Supplying and Shipping Take on New Importance*, N.Y. TIMES (Apr. 1, 2020), <https://www.nytimes.com/2020/04/01/business/smallbusiness/shipping-coronavirus-trucking.html>.

43. *Id.*

44. See Katie Camero, *Why are Farmers Dumping Milk, Other Items as Americans Need Food in COVID-19 Pandemic?*, MIAMI HERALD (Apr. 16, 2020, 6:30 PM), <https://www.miamiherald.com/news/coronavirus/article242065116.html>.

45. See FOOD AND AGRIC. ORG. OF THE UNITED NATIONS, MITIGATING RISKS TO FOOD SYSTEMS DURING COVID-19: REDUCING FOOD LOSS AND WASTE (2020), <http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1276396>.

46. Welsh, *supra* note 37.

47. *Id.* These numbers reflect statistics available as of the writing of this piece in mid-2020. See *infra* Section III.B.i for a discussion of steps the FDA took to relieve pressure placed on farmers and producers by their standard industry regulations.

48. Brooke McAfee, *Demand for Locally-Sourced Food Increases Amid Pandemic*, U.S. NEWS & WORLD REP. (May 23, 2020), <https://www.usnews.com/news/best-states/indiana/articles/2020-05-23/demand-for-locally-sourced-food-increases-amid-pandemic>.

stripped many consumers of traditional food sources whose availability was tailored to a food system reliant on vulnerable international supply chains.⁴⁹ The consolidation of industrial processing facilities aggravated these mounting food supply chain problems by creating numerous choke points in the distribution chain.⁵⁰ Greeted by barren shelves at the large retailers and closed restaurant fronts—where most Americans obtain their food—they had no choice but to turn to farmers down the road.⁵¹

Before the onset of COVID-19, “Americans were spending about half of their food budget and getting a third of all dietary energy in meals away from home, through schools, workplaces, restaurants, and institutional food service.”⁵² Social distancing, the closure of restaurants, schools, and workplaces, and other CDC recommendations to curb the spread of COVID-19, combined with the U.S. food system’s lack of resiliency made continuing these practices impossible. As news of COVID-19—and the virus itself—spread, “consumers rushed to stock up on essential food items” causing “a sudden and large increase in demand for food products from grocery stores, which led to shortages and higher prices of some products. In addition, the dramatic reduction in restaurant traffic and food service demand . . . led to an even greater increase in demand at the retail level.”⁵³ The United States Department of Agriculture (“USDA”) noted that “almost one half of Americans [had] shopped online for grocery-type items in the month of March,” and inadequate distribution drove people to consider other options.⁵⁴

Consequently, an increasing number of people turned directly to farms to source their food. Local farmers “across the

49. Resilience360, *COVID-19 Exposes Vulnerabilities in the Global Food Supply Chain*, FOOD LOGISTICS (Nov. 9, 2020), <https://www.foodlogistics.com/safety-security/risk-compliance/press-release/21202153/resilience360-covid19-exposes-vulnerabilities-in-the-global-food-supply-chain>.

50. Hallie Casey, *Covid-19 and the US Food Supply Chain: What Happened?*, SUSTAINABLE FOOD CTR. (Aug. 12, 2020), <https://sustainablefoodcenter.org/latest/blog/covid-19-and-the-us-food-supply-chain-what-happened>.

51. See McAfee, *supra* note 48.

52. William Masters, *How the Covid-19 Pandemic Has Dramatically Affected Agriculture and the Way We Eat*, PBS (May 1, 2020, 6:34 PM), <https://www.pbs.org/newshour/economy/how-the-covid-19-pandemic-has-dramatically-affected-agriculture-and-the-way-we-eat>.

53. Robert Johansson, *Will COVID-19 Threaten Availability and Affordability of our Food?*, U.S. DEP’T OF AGRIC. (Apr. 16, 2020), <https://www.usda.gov/media/blog/2020/04/16/will-covid-19-threaten-availability-and-affordability-our-food>.

54. *Id.*

country [were] flourishing as people [grew] wary of making frequent trips to the grocery store and [chose] to cook at home instead of eating out.”⁵⁵ Customers increasingly realized that “they [could] easily go directly to the source and buy from farmers who ship right to doorsteps all over the U.S. as easily as an Amazon package.”⁵⁶ Many community supported agriculture (“CSA”) programs saw their subscriptions double or triple in a matter of days, forcing several to create waitlists of hundreds of potential customers.⁵⁷ LocalHarvest.com, “a website that connects consumers with 7,000 CSAs around the country,” reported that “previously, the site got about 15,000-20,000 visits a day . . . Suddenly it was getting more than twice that. ‘By the end of March, our servers were crashing—we were getting four to five times the usual load,’” commented Guillermo Payet, the site’s founder and president.⁵⁸ Unlike CSAs, farmers’ markets around the nation—despite “long [serving] as a way to increase food access in low-income areas, support small farmers and local businesses, and bolster a strong, locally empowering economy”—were inconsistently designated as essential businesses by only a handful of states.⁵⁹ The U.S.’s focus quickly and overwhelmingly shifted to food sources that could provide the “resilience and transparency” sought by so many in a time of great uncertainty.⁶⁰

Meat processing issues encapsulated the struggles of a dramatic and sudden shift from national to more local and regional food production and distribution.⁶¹ As “many of the country’s

55. Liz Crampton, *Coronavirus has More Americans Turning Directly to Farms for Food*, POLITICO (Mar. 31, 2020, 1:45 PM), <https://www.politico.com/news/2020/03/31/coronavirus-demand-for-local-farms-157538>.

56. *Id.*

57. Hannah Ricker & Mara Karda-Nelson, *Community Supported Agriculture is Surging Amid the Pandemic*, CIV. EATS (Apr. 9, 2020), <https://civileats.com/2020/04/09/community-supported-agriculture-is-surging-amid-the-pandemic>.

58. AC Shilton, *Here’s Why CSAs are Thriving During the Pandemic*, COUNTER (Apr. 28, 2020, 1:38 PM), <https://thecounter.org/csa-sales-struggling-before-coronavirus-covid-19>.

59. Hannah Love & Nate Storrington, *Farmers Markets are Vital During COVID-19, but they Need More Support*, AVENUE (Apr. 8, 2020), <https://www.brookings.edu/blog/the-avenue/2020/04/08/farmers-markets-are-vital-during-covid-19-but-they-need-more-support>.

60. *Id.*

61. See Carson Vaughan, *Business is Booming for Many Small, Local Meat Processors and Butchers, As Massive Slaughterhouses Face COVID Crisis*, BUS. INSIDER (May 25, 2020, 8:47 PM), <https://www.businessinsider.com/business-is-booming-for-small-local-meat-processors-2020-5> (“The sudden demand for local butchers and meat processors arrives after many have closed shop. Once a staple of Main Street America, they have since vanished from

industrial-scale meatpacking facilities [became] coronavirus hotspots and [were] forced to close or reduce their output,” small processors saw “a surge in demand.”⁶² In addition to a shift in processing and distribution, the pandemic also forced local and regional farmers to reconsider their business models.⁶³ For many small meat processing facilities, business nearly doubled.⁶⁴

Though obtaining locally sourced food ameliorated some of the struggles Americans faced in light of COVID-19, the strains on local producers demonstrated the necessity of a more resilient food system combining the efforts of both local, regional, and national producers.⁶⁵ Despite the benefit of making “people more thoughtful about where their food comes from and how many steps in the supply chain it takes for groceries to reach them,” smaller, more local farms nonetheless struggled to meet demand—“[m]ost [did not] have the infrastructure, even as they desperately need[ed] the new source of revenue.”⁶⁶ Overwhelmed with orders, many farmers responded by ceasing to take new orders or customers.⁶⁷ Resulting from struggles to adapt to the shift in demand, the National Sustainable Agriculture Coalition reported that local and regional farms, despite the increased “demand for community-supported agriculture shares and one-off deliveries,” suffered “a decline in sales from March to May of nearly \$689 million.”⁶⁸ Local and regional food producers thus remained financially vulnerable unless they

many small towns in the wake of rural depopulation, industrialized agriculture, and the centralization of the meatpacking industry.”).

62. *Id.*

63. *Id.* As one Nebraska rancher noted, he usually processed about ten percent of “his herd at the local meat locker, and [sold] the rest to a larger industrialized meatpacking plant,” but when he was not able to sell his finished cattle to the larger facilities, “[r]ather than hold back until the supply chain levels out . . . [he] turned to smaller processors . . . and started advertising [his] own products online.” *Id.*

64. *Id.*

65. See generally Kate Clancy & Kathryn Ruhf, *Is Local Enough? Some Arguments for Regional Food Systems*, CHOICES: MAG. FOOD, FARM AND RES. ISSUES (2010), <https://www.choicemagazine.org/magazine/article.php?article=114>.

66. Chloe Hadavas, *We're in a Save-Our-Farm-From-Collapsing Mode*, SLATE (Apr. 12, 2020, 9:00 AM), <https://slate.com/human-interest/2020/04/csa-farmers-markets-coronavirus-demand-rise.html>.

67. Crampton, *supra* note 55.

68. Hadavas, *supra* note 66. See Dawn Thilmany, Becca Jablonski, Sarah Low, Debra Tropp & Blake Angelo, *Mitigating Immediate Harmful Impacts of COVID-19 on Farms and Ranches Selling Through Local and Regional Food Markets*, NAT'L SUSTAINABLE AGRIC. COALITION (Mar. 18, 2020), https://localfoodeconomics.com/wp-content/uploads/2020/03/2020_03_18-EconomicImpactLocalFood.pdf.

received the nearly \$23 billion made available in assistance to farmers.⁶⁹ It was also unclear whether the dramatic rise in demand for local and regional food production/distribution would continue past the pandemic, leaving farmers wondering if a permanent shift in business model was necessary or prudent.⁷⁰ What was clear then and is clear now, however, is the necessity of more developed government planning providing guidance to farmers and consumers and support for supply chains during times of crisis and disaster such as the COVID-19 pandemic.

III. U.S. DISASTER AND FOOD SECURITY PLANNING

With an increasingly complex and globalized food supply chain, disaster planning must prioritize implementing resiliency and redundancy. At the federal level, three primary agencies—the Department of Homeland Security, the United States Department of Agriculture, and the Food and Drug Administration (“FDA”)—hold responsibility for ensuring the food supply chain remains intact during a disaster.⁷¹ Aimed at preventing and reacting to future attacks, the federal government implemented a series of statutes, regulations, orders, directives, and other guiding documents post-September 11.⁷² Some of these documents specifically concern food security, while others establish procedures for intergovernmental coordination that could be useful in a food-related incident.⁷³ The following sections of this article identify and analyze the

69. Eric Lipton & Sharon LaFraniere, *For Farmers, Stimulus Bill Means Subsidies Continue to Flow*, N.Y. TIMES (Mar. 27, 2020), <https://www.nytimes.com/2020/03/27/us/politics/coronavirus-stimulus-bill-farmers.html>.

70. See Monica Jimenez, *How COVID-19 Affects Farmers and the Food Supply Chain*, TUFTSNOW (Apr. 27, 2020), <https://now.tufts.edu/articles/how-covid-19-affects-farmers-and-food-supply-chain>. For example, “will interest in local and regional food climb now that people are cooking more at home and seeking alternatives to overrun grocery stores, and should farmers try to ride that wave . . . will people come out of social distancing and go straight back to their previous habits of eating out?” *Id.*

71. See generally Maggie Gosselin, *Beyond the USDA: How Other Government Agencies Can Support a Healthier, More Sustainable Food System*, INST. FOR AGRIC. AND TRADE POL’Y (Feb. 2, 2010), <https://www.iatp.org/documents/beyond-the-usda-how-other-government-agencies-can-support-a-healthier-more-sustainable-foo>.

72. See generally Henry S. Parker, *U.S. Food Defense Since 9/11: Public Sector Initiatives and Programs*, in BIOSECURITY: UNDERSTANDING, ASSESSING, AND PREVENTING THE THREAT 271 (Ryan Burnette ed., 2013).

73. *Id.* at 274.

government's scheme of planning documents and exposes the gaps resulting from a lack of resiliency in the U.S. food system.

A. *Federal-Level Policies Directed by DHS*

i. The Public Health Security and Bioterrorism Preparedness and Response Act of 2002

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (“2002 Bioterrorism Act”) “is the cornerstone post-September 11 federal statute related to increasing food security.”⁷⁴ The Act directs the Secretary of DHS to “develop and implement a coordinated strategy . . . for carrying out health-related activities to prepare for and respond effectively to bioterrorism and other public health emergencies.”⁷⁵ Although the title of the 2002 Bioterrorism Act indicates a limited scope, it encompasses more public health emergencies than just bioterrorism attacks. The Act also aims to coordinate efforts to bolster emergency preparedness for any other public health emergency, which includes pandemics like COVID-19.⁷⁶

The Act further tasks the Secretary with coordinating activities with state and local governments.⁷⁷ The strategy's implementation must ensure effective public health surveillance and reporting mechanisms, ensure laboratory and medical readiness, properly train and equip personnel, establish effective communication networks, and minimize the duplication of government response planning.⁷⁸

Title III of the Act addresses the safety and security of the food and drug supply.⁷⁹ It directs the President's Council on Food Safety in consultation with the Secretary of Transportation, Secretary of the Treasury, and other relevant agencies and stakeholders to develop a crisis communication and education strategy with respect to threats to the food supply.⁸⁰ The strategies “shall address

74. Endres & Endres, *supra* note 16, at 425.

75. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 101, 116 Stat. 594, 596–97 (2002).

76. *Id.* § 102, at 599.

77. *Id.*

78. *Id.* § 101, at 597.

79. *Id.* § 301, at 662.

80. *Id.*

threat assessments; technologies and procedures for securing food processing and manufacturing facilities and modes of transportation; response and notification procedures; and risk communications to the public.”⁸¹ The Act also highlights the importance of improving the safety of imported food, which includes increased inspections of food imports, improvements to information management systems and coordination between agencies and states, and increased testing for rapid detection of adulteration of food.⁸²

In addition to legislation, the government aimed several HSPDs at increasing food resiliency and strengthening the agriculture sector in response to disaster incidents.⁸³ Although the FDA and USDA are the two agencies with primary responsibility for carrying out mandates related to food, DHS participates in several cooperative initiatives with them.⁸⁴ The following sections analyze the most important DHS actions directed to food security.

ii. Homeland Security Presidential Directive-5

Homeland Security Presidential Directive-5 (“HSPD-5”) was issued to “enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national management system.”⁸⁵ HSPD-5 directed the Secretary of Homeland Security to administer a National Incident Management System (“NIMS”), providing a consistent nationwide approach for governments to work together efficiently and effectively to “prepare for, respond to, and recover from” domestic incidents.⁸⁶ NIMS is not a response plan or resource-ordering system, but instead acts as a set of principles for all threats or hazards, emphasizing command and coordination through the establishment of an incident command system, emergency operations centers, multiagency

81. Public Health Security and Bioterrorism Preparedness and Response Act of 2002 § 301, at 662.

82. *Id.* § 302, at 662.

83. *See* 110TH CONG., COMPILATION OF HOMELAND SECURITY PRESIDENTIAL DIRECTIVES 51 (Comm. Print 2008) [hereinafter HSPD].

84. *Id.* at 52–53.

85. *Id.* at 23.

86. *Id.*

coordination groups, and public information systems.⁸⁷ Certain sections include resource management preparedness and response, command and coordination, and communications and information management.⁸⁸ HSPD-5 requires all federal agencies to adopt NIMS and requires localities to adopt NIMS as a prerequisite to receiving federal preparedness assistance.⁸⁹

HSPD-5 further requires DHS to establish a National Response Plan, now known as the National Response Framework, which “will integrate federal government prevention, preparedness, response, and recovery plans into one . . . all-hazards plan.”⁹⁰ The NRF is built upon concepts in NIMS to “outline government, private sector, and nongovernmental roles to reinforce collaborative incident response.”⁹¹ The NRF is composed of a base document, ESF annexes, and support annexes.⁹²

ESF annexes explain “the coordinating structures that group resources and capabilities into areas most frequently needed in a national response.”⁹³ ESF-11 Agriculture and Natural Resources “coordinates a variety of functions designed to protect the Nation’s food supply.”⁹⁴ One of the five primary functions of ESF-11 is providing nutrition assistance by “working with state agencies to determine nutrition assistance needs, obtain appropriate food supplies, arrange for delivery of the supplies, and authorize the Disaster Food Stamp Program.”⁹⁵ The USDA and Food and Nutrition Service (“FNS”) coordinate nutrition assistance efforts.⁹⁶ ESF-11 requires FNS to establish logistical links with long-term congregate meal services to ensure services are not disrupted.⁹⁷

87. See generally U.S. DEP’T OF HOMELAND SECURITY, NATIONAL INCIDENT MANAGEMENT SYSTEM (2017), https://www.fema.gov/media-library-data/1508151197225-ced8c60378c3936adb92c1a3ee6ff6564/FINAL_NIMS_2017.pdf.

88. *Id.*

89. HSPD, *supra* note 83, at 26.

90. *Id.*

91. U.S. DEP’T OF HOMELAND SECURITY, NATIONAL RESPONSE FRAMEWORK 3–4 (2019), https://www.fema.gov/sites/default/files/2020-04/NRF_FINALApproved_2011028.pdf [hereinafter NRF].

92. *Id.* at 3.

93. *Id.*

94. *Id.* at 40–41.

95. ESF #11, *supra* note 20, at 1.

96. *Id.* at 8.

97. *Id.*

Although distributing food through existing supply channels would be the most efficient method, the COVID-19 pandemic disrupted those channels, resulting in shortages at the retail level.⁹⁸ Before COVID-19, FNS and USDA did not contemplate how a pandemic might disrupt these complex supply chains.⁹⁹ As scholars previously noted, “it appears that the FNS plans to distribute food through existing commodity distribution channels . . . [and] disruptions to the commodity distribution system could foil existing FNS emergency plans and would require implementation of alternative food distribution channels.”¹⁰⁰ The FNS “has not disclosed contingencies acknowledging the need to develop or encourage use of these non-traditional channels.”¹⁰¹ In response to increased insecurity in the national food supply, the USDA announced the Coronavirus Food Assistance Program.¹⁰²

Using funding allocated to the USDA by the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”), the USDA has “partner[ed] with regional and local distributors . . . to purchase \$3 billion in fresh produce, dairy, and meat.”¹⁰³ Under this Farmers to Families Food Box Program, “distributors and wholesalers” provide “produce, dairy, and meat products directly to food banks, community and faith-based organizations, and other nonprofits”¹⁰⁴ Secretary Perdue of the USDA said that “[t]he American food supply chain had to adapt, and it remains safe, secure, and strong, and we all know that starts with America’s farmers and ranchers.”¹⁰⁵ Unfortunately, this plan was the result of emergency legislation—rather than a well-planned ESF-11 that had built-in incentives to build up local and regional food systems—to ensure that Americans

98. See Jaewon Kang & Annie Gasparro, *Some Grocers Bring Back Purchase Limits as Covid-19 Cases Rise*, WALL ST. J. (Nov. 13, 2020), <https://www.wsj.com/articles/some-grocers-bring-back-purchase-limits-as-covid-19-cases-rise-11605263401>.

99. See Endres & Endres, *supra* note 16, at 428 (describing how the FNS had failed to evaluate congregate meal services in the event of a pandemic flu).

100. *Id.*

101. *Id.*

102. Press Release, U.S. Dep’t of Agric., USDA Announces Coronavirus Food Assistance Program (Apr. 17, 2020) <https://www.usda.gov/media/press-releases/2020/04/17/usda-announces-coronavirus-food-assistance-program>.

103. *Id.*

104. *Id.*

105. *Id.*

had access to proper nutrition assistance.¹⁰⁶ On June 23, 2020, USDA announced that it distributed twenty million food boxes and that the program “[had] been an extraordinary success.”¹⁰⁷ Although the distribution numbers looked impressive, what “received much less attention [was] how the program [had] or [had] not benefited local and regional food producers despite the fact that the program was clearly intended to support these farms.”¹⁰⁸ Only seven percent of the \$1.2 billion in contracts initially awarded under this program went to local and regional food system entities.¹⁰⁹ Thus, it is important to build up local and regional producers and food supply chains not in response to, but prior to, disaster events to ensure that the food system will continue to efficiently distribute products without further reliance on the existing, complicated and vulnerable distribution channels.

As the pandemic exposed the inherent weaknesses in the United States’ complex food supply chain that caused disruptions from farm to fork, it also highlighted the importance of prioritizing the existence of a plan to rely on local and regional food systems in the event of a national pandemic. Likewise, this prioritization should be a cornerstone of the ESF-11 in ensuring adequate nutrition assistance during emergencies. Building up local and regional food systems and supply chains in addition to relying on the existing supply chains provides an extra layer of support in food planning which, in turn, increases resiliency. Having these resilient systems in place pre-disaster will allow the government to devote resources to other time-sensitive issues while making sure that those impacted by a crisis and most in need receive proper nutrition.

106. *See id.* (“This new USDA program will take several actions to assist farmers, ranchers, and consumers in response to the COVID-19 national emergency.”).

107. Press Release, U.S. Dep’t of Agric., USDA Farmers to Families Food Box Program Reaches 20 Million Boxes Distributed (June 23, 2020), <https://www.usda.gov/media/press-releases/2020/06/23/usda-farmers-families-food-box-program-reaches-20-million-boxes>.

108. *USDA Food Box Program Falls Short of Supporting Small Farms*, NAT’L SUSTAINABLE AGRIC. COALITION (June 18, 2020), <https://sustainableagriculture.net/blog/food-box-program-and-small-farms>.

109. *Id.*

iii. Homeland Security Presidential
Directive-7 and Presidential Policy
Directive-21

Building upon the planning foundations in HSPD-5, President George W. Bush issued HSPD-7 in December 2003.¹¹⁰ This directive aimed to establish a “national policy for Federal departments and agencies to identify and prioritize United States critical infrastructure and key resources and to protect them from terrorist attacks.”¹¹¹ In 2006, DHS issued the National Infrastructure Protection Program (“NIPP”) to unify and enhance Critical Infrastructure and Key Resources (“CIKR”) protection efforts through intergovernmental and private partnerships.¹¹² In February 2013, President Barack Obama issued Presidential Policy Directive 21 (“PPD-21”) which aimed to increase critical infrastructure security and resilience.¹¹³ PPD-21 directed the Secretary of Homeland Security to update the NIPP and develop a description of the functional relationships within DHS and across the federal government related to critical infrastructure security and resilience.¹¹⁴ The most recent version of the NIPP was published in 2013.¹¹⁵ The NIPP contains general guidelines for CIKR protection and recognizes, through their Call to Action #3, empowering local and regional partnerships to build national capacity that is essential to critical infrastructure security and resilience.¹¹⁶

HSPD-7 further appoints “USDA and HHS (‘FDA’) as sector-specific agencies (‘SSAs’) responsible for protection of critical agricultural and food resources.”¹¹⁷ USDA and FDA must collaborate with all relevant federal departments and agencies, state and local governments, and with the private sector to conduct or facilitate

110. HSPD, *supra* note 83, at 33.

111. *Id.*

112. See U.S. DEP’T OF HOMELAND SECURITY, NATIONAL INFRASTRUCTURE PROTECTION PLAN (2006), https://www.dhs.gov/xlibrary/assets/NIPP_Plan_noApps.pdf.

113. See Press Release, The White House, Presidential Policy Directive – Critical Infrastructure Security and Resilience (Feb. 12, 2013) <https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>.

114. *Id.*

115. See U.S. DEP’T OF HOMELAND SECURITY, NATIONAL INFRASTRUCTURE PROTECTION PLAN (2013), <https://www.cisa.gov/sites/default/files/publications/national-infrastructure-protection-plan-2013-508.pdf>.

116. *Id.* at 22–23.

117. Endres & Endres, *supra* note 16, at 429.

vulnerability assessments of the sector and encourage risk management strategies to protect against and mitigate the effects of attacks.¹¹⁸ To accomplish this, “SSAs must create sector-specific plans (‘SSPs’), which becomes part of the NIPP.”¹¹⁹

USDA and FDA issued the most recent version of the Food and Agriculture (“FA”) SSP in 2015, which “represents a collaborative effort among the private sector; Federal, State, local, tribal, and territorial governments; and nongovernmental organizations to reduce critical infrastructure risk and increase universal sector resilience.”¹²⁰ The FA SSP is broad and is comprised of “agricultural production and food systems that span the farm-to-fork continuum.”¹²¹

The FA SSP identifies several sector risks ranging from food contamination to disruption and disease in animals and products, but it fails to address the effects of a global pandemic such as COVID-19.¹²² Past global health disasters impacting the food supply, such as the Highly Pathogenic Avian Influenza (“HPAI”), have not been incorporated into the FA SSP.¹²³ Instead of incorporating goals to help strengthen coordination, security, and resilience capabilities into the FA SSP, the USDA elected to create a stand-alone HPAI Preparedness and Response Plan to specifically address HPAI.¹²⁴ Although the creation of the standalone plan is listed as a key accomplishment in the FA SSP,¹²⁵ future editions should explicitly designate a pandemic as a sector risk for food and agriculture, and specifically address mitigating strategies used to protect the sector such as building up local and regional food supply chains rather than taking an ad hoc approach as they did with HPAI.

To increase coordination between government and the private sector, the USDA, FDA, and DHS created the Government Coordinating Council (“GCC”) and the Sector Coordinating Council

118. HSPD, *supra* note 83, at 36.

119. Endres & Endres, *supra* note 16, at 430.

120. U.S. DEP’T OF AGRIC. ET AL., FOOD AND AGRICULTURE SECTOR-SPECIFIC PLAN (2015), <https://www.cisa.gov/sites/default/files/publications/nipp-ssp-food-ag-2015-508.pdf> [hereinafter FA SSP].

121. *Id.* at 4–5.

122. *See id.* at 5–7 (listing only food contamination and disruption, diseases and pests, severe weather, and cybersecurity as sector risks).

123. *See id.*

124. *See* U.S. DEP’T OF AGRIC., 2016 HPAI PREPAREDNESS AND RESPONSE PLAN (Jan. 11, 2016), https://www.aphis.usda.gov/animal_health/downloads/animal_diseases/ai/hpai-preparedness-and-response-plan-2015.pdf.

125. FA SSP, *supra* note 120, at vi.

(“SCC”) in 2004.¹²⁶ The GCC, with representation from federal, state, and local governments, is the public sector component of the food and agriculture partnership framework.¹²⁷ The SCC, which is a self-governing body, provides a forum for members of the private sector to “discuss infrastructure security and resilience issues among themselves or to communicate with the government through the GCC.”¹²⁸ The goal of establishing these partnerships is to “ensure a more robust, resilient, and secure sector.”¹²⁹

The National Infrastructure Advisory Council (“NIAC”)¹³⁰ issued *The Prioritization of Critical Infrastructure for a Pandemic Outbreak in the United States Working Group Final Report and Recommendations* (“Report”) in 2007, which contemplated the effects of a pandemic on critical infrastructure sectors including food and agriculture.¹³¹ The Report identified that the FA SCC asserted that avian flu would potentially affect the sector by dramatically affecting the poultry industry and that if a pandemic outbreak hit the United States, “production capacity could be severely limited due to an unavailable workforce.”¹³² The Report says that the SCC and private sector generally have initiated an industry examination of existing plans and recommendations, and that it is imperative that plans and information mechanisms are in place and functional prior to an outbreak of a pandemic.¹³³ Although the FA SCC did identify the susceptibility of the FA sector during a pandemic due to worker shortages, there was not adequate follow up in the FA SSP to be prepared prior to a pandemic like COVID-19.¹³⁴

126. *Id.* at 7, 66; *see also* Sheryl Maddux, *Defense of our Nation’s Food Supply – What is USDA Doing and What Can You Do to Help?*, U.S. FOOD & DRUG ADMIN. (Feb. 21, 2017), <https://www.usda.gov/media/blog/2011/09/16/defense-our-nations-food-supply-what-usda-doing-and-what-can-you-do-help>.

127. FA SSP, *supra* note 120, at 7.

128. *Id.*

129. *Id.*

130. The NIAC includes executive leaders from the private sector and state and local governments who advise the White House on how to reduce risks and improve the security and resiliency of the nation’s critical infrastructure sectors. *See About NIAC*, CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY <https://www.cisa.gov/niac> (last visited Jan. 14, 2021).

131. *See* NAT’L INFRASTRUCTURE ADVISORY COUNCIL, *THE PRIORITIZATION OF CRITICAL INFRASTRUCTURE FINAL REPORT AND RECOMMENDATIONS* (2007), https://www.dhs.gov/xlibrary/assets/niac/niac-pandemic-wg_v8-011707.pdf.

132. *Id.* at 84.

133. *Id.* at 84–85.

134. *Id.* at 20, 23, 40; *see also* FA SSP, *supra* note 120, at 21.

Included in the FA SSP are the goals of supporting response and recovery at the sector level and the continuance of the combined capabilities of the private and public sector to prevent, protect against, mitigate, respond to, and recover from disasters that threaten the national food and agriculture infrastructure.¹³⁵ The first step in achieving sector goals is risk management, and the critical starting point for risk analysis is to define and identify critical food and agriculture assets.¹³⁶

Once identified, the USDA and FDA use the CARVER+Shock methodology to assess risk.¹³⁷ “CARVER” is an acronym identifying vulnerabilities in assets, systems, and networks that compromise the FA sector and stands for: Criticality, Accessibility, Recuperability, Vulnerability, Effect, and Recognizability.¹³⁸ Vulnerability assessments typically look at systems and networks instead of particular assets to identify the products of highest concern, threat agents likely to be used, points in the production process where contamination is likely to occur, laboratory testing and research needs, and potential countermeasures.¹³⁹ In addition to the CARVER+Shock methodology, DHS developed the Threat and Hazard Identification and Risk Assessment (“THIRA”) as a common risk assessment process that helps government and private sector partners understand the risks within their community.¹⁴⁰

Beyond risk assessment, the FA SSP highlights the development and implementation of protective programs and resiliency strategies.¹⁴¹ A main component in building resilience is “to encourage the implementation of protective strategies or risk mitigation activities (‘RMAs’).”¹⁴² RMAs are grouped into five priorities, which include plant disease outbreaks and food contamination, information sharing, cyber risks, livestock disposal and decontamination, and comprehensive engagement of all levels of the FA sector in national planning efforts and goals.¹⁴³

135. FA SSP, *supra* note 120, at 14.

136. *Id.* at 16.

137. *Id.* at 24–26.

138. *Id.* at 24.

139. *Id.*

140. *Id.* at 24.

141. FA SSP, *supra* note 120, at 39.

142. *Id.*

143. *Id.* at 40.

Priority 5 of engaging all levels of the FA sector in planning satisfies the NIPP call to action of empowering local and regional partnerships to build capacity nationally.¹⁴⁴ No specific plan, however, addresses this, but building local and regional food systems to create resiliency in the food supply chain is something that the NIPP and FA SSP have contemplated though not fully acted on.¹⁴⁵ As previously noted, “[i]n neglecting to identify local and regional food system capabilities in their respective SSPs, the agencies missed an opportunity to . . . plan how regional and local food networks could be activated in an effort to support an area hit hard by acute crisis.”¹⁴⁶ Further, if these efforts assessed local and regional capabilities, planners could better integrate the assets in broader response planning.

iv. Homeland Security Presidential Directive-8

Presidential Policy Directive 8 (“PPD-8”), issued in March 2011, is another directive aimed at strengthening the security and resilience of food systems.¹⁴⁷ The directive focuses on systematic preparation for the threats that pose the greatest risk to the country, which include pandemics such as COVID-19.¹⁴⁸ The directive tasked DHS with the creation of a National Preparedness Goal that identifies the core capabilities necessary for preparedness and a National Preparedness System to guide activities to achieve the goal.¹⁴⁹

The National Preparedness Goal contains thirty-two core capabilities reflected across five mission areas: prevention, protection, mitigation, response, and recovery.¹⁵⁰ Of the thirty-two core capabilities, four directly implicate food system security and resilience including supply chain integrity and security, community resilience,

144. *Id.* at 82.

145. *Id.* at 12, 35, 77, 82–83.

146. Endres & Endres, *supra* note 16, at 431.

147. *See Presidential Policy Directive/PPD-8: National Preparedness*, DEP’T OF HOMELAND SECURITY, (Mar. 30, 2011), <https://www.dhs.gov/presidential-policy-directive-8-national-preparedness>.

148. *Id.*

149. *Id.*

150. DEP’T OF HOMELAND SECURITY, NATIONAL PREPAREDNESS GOAL 3 (2015), https://www.fema.gov/media-library-data/1443799615171-2aae90be55041740f97e8532fc680d40/National_Preparedness_Goal%20_2nd_Edition.pdf.

long-term vulnerability reduction, and logistics and supply chain management.¹⁵¹

Supply chain integrity and security aims to secure and make resilient key nodes, methods of transport between nodes, and materials in transit.¹⁵² Community resilience is a mitigation goal and aims to maximize the coverage of the U.S. population that has a localized, risk-informed mitigation plan developed through partnerships across the community.¹⁵³ Another mitigation goal is creating long-term vulnerability reduction by building and sustaining resilient systems, communities, and critical infrastructure to reduce their vulnerability.¹⁵⁴ A response objective of the National Preparedness Goal is logistics and supply chain management, which aims to deliver essential commodities to impacted communities.¹⁵⁵ Although there is not a more detailed discussion of what strategies could be implemented to achieve these goals, building up local and regional food systems to create a more resilient and redundant food system would accomplish all of these goals and should be prioritized in planning moving forward.

The National Disaster Recovery Framework (“NDRF”) is a guide that enables effective recovery support to disaster impacted state and local jurisdictions that is consistent with the vision set forth in the PPD-8.¹⁵⁶ The NDRF “established a common platform and forum for how the whole community builds, sustains, and coordinates delivery of recovery capabilities.”¹⁵⁷ Further, the NDRF defines principles that guide recovery, sets forth roles and responsibilities of recovery coordinators, provides a coordinating structure for communication and collaboration, and details the overall process by which communities can capitalize on opportunities to rebuild.¹⁵⁸ As a companion document to the NRF, the NDRF “differs from its

151. *Id.* at 10, 12, 15.

152. *Id.* at 10.

153. *Id.* at 12.

154. *Id.*

155. *Id.* at 15.

156. See U.S. DEP’T OF HOMELAND SECURITY, NATIONAL DISASTER RECOVERY FRAMEWORK (2016), https://www.fema.gov/sites/default/files/2020-06/national_disaster_recovery_framework_2nd.pdf [hereinafter NDRF]; *Presidential Policy Directive/PPD-8: National Preparedness*, *supra* note 147.

157. NDRF, *supra* note 156, at 1.

158. *Id.*

counterpart Response Framework in the duration of activities before and after a disaster.”¹⁵⁹

The NDRF emphasizes a whole community approach on preparing for recovery in advance of disaster.¹⁶⁰ To achieve this, its goals include “coordinating with whole community partners, mitigating risks, incorporating continuity planning, identifying resources, and developing capacity to effectively manage the recovery process”¹⁶¹ One of the eight guiding principles laid out in the NDRF is resilience and sustainability to maximize the opportunity for achieving recovery success.¹⁶² This principle encourages pre-disaster planning to help build capacity and increase resilience by accounting for continuity of operations, environmental and social risks, and other opportunities prior to an incident.¹⁶³

Reinforcing the whole community approach of the framework, the NDRF tasks individuals, families, and households to have a disaster preparedness kit and recovery plan that addresses evacuation and sheltering needs.¹⁶⁴ Much of the responsibility is placed on local governments, which have primacy in preparing for and managing the response and recovery of its community.¹⁶⁵ Assessing risk is an important baseline in the NDRF, and results of the Strategic Risk Assessment indicated a wide range of threats and hazards that pose threats to the nation, including a strain of pandemic influenza similar to COVID-19.¹⁶⁶ While assessing this risk is the first step, the NDRF delegates responsibilities to individuals, NGOs, the private sector, and local, state, and federal governments, including the federal government’s responsibility of promoting resilience through guidance and grants to reduce the impacts of disaster.¹⁶⁷

While not specifically addressing agriculture and food, the NDRF emphasizes the importance of mitigation planning to ensure speedy recovery after a disaster.¹⁶⁸ The NDRF should task planners with not only revitalizing damaged infrastructure, but also with

159. *Id.* at 42–43.

160. *Id.* at 1.

161. *Id.*

162. *Id.* at 8.

163. NDRF, *supra* note 156.

164. *Id.* at 11.

165. *Id.* at 14.

166. *Id.* at 9.

167. *Id.* at 21.

168. *See id.* at 44.

building redundancy into systems so that they can easily support one another during crises. Planners should utilize the NDRF to assess their own local risks so that governments might lead the way to a more successful recovery post-disaster. The COVID-19 pandemic illustrated that local planners should take affirmative steps to build up local and regional food systems, create interstate food partnerships, and develop other resilience building measures to better ensure that the farm to fork continuum is not disrupted.

v. Homeland Security Presidential
Directive-9

A fourth directive, HSPD-9, directly addressed the defense of the United States' agriculture and food and established a national policy to defend the agriculture and food system against disasters and incidents.¹⁶⁹ This directive is a follow up to HSPD-7, which identified the food and agriculture sector as a CIKR.¹⁷⁰ Although the directive mostly contemplates the effect of terrorist attacks with the introduction of a plant or livestock disease, there is some thought about mitigating more general vulnerabilities at critical production and processing nodes.¹⁷¹

Unfortunately, the mitigation efforts detailed in HSPD-9 fall short of addressing the concept of building up local and regional alternative supply chains, which would be of aid if there were a disruption in larger production and distribution nodes.¹⁷² HSPD-9 notes that federal agencies should "prioritize, develop, and implement, as appropriate, mitigation strategies to protect vulnerable critical nodes of production or processing from the introduction of diseases, pests, or poisonous agents."¹⁷³ A global pandemic such as COVID-19 is not specifically listed as a threat in HSPD-9.¹⁷⁴ Rather, the directive focuses on more localized events.¹⁷⁵

Further HSPD-9 efforts include the creation of a National Veterinary Stockpile containing sufficient amounts of antiviral and

169. See HSPD, *supra* note 83, at 51.

170. *Id.* at 33.

171. *Id.* at 51-52.

172. See *id.* at 53.

173. *Id.*

174. *Id.* at 52 (defining threats vaguely as "terrorist attacks, major disasters, and other emergencies . . .").

175. See HSPD, *supra* note 83, at 52.

animal vaccines as well as a National Plant Disease Recovery System capable of responding to plant diseases and pests.¹⁷⁶ One area of improvement could come from the outreach and professional development section, which mandates that DHS and USDA support the development of a higher education program to address protection of the food supply.¹⁷⁷ This mandate could be an area in which academia can help identify and support developing resiliency into the current food systems through research programs designed to enhance efficiency of local and regional food production and distribution.

In sum, DHS created several programs and policies to enhance disaster preparedness, mitigation, and response. HSPD-5 established NIMS and the NRF, which houses ESF-11.¹⁷⁸ HSPD-7 established the NIPP, CIKR, and the FA SSP.¹⁷⁹ HSPD-8 established the National Preparedness Goal and the NDRF.¹⁸⁰ HSPD-9 addressed the defense of United States agriculture and food and contemplated the effect of terror attacks in the FA sector.¹⁸¹ These actions taken by DHS have mostly overlooked the buildup of local and regional food systems as a solution to build resiliency in the FA sector but do provide an avenue by which this can be thought of and implemented into future planning.¹⁸²

B. FDA and USDA Policies and Programs

Beyond DHS planning and Homeland Security Directives, FDA and USDA take an active role in emergency planning within the food and agriculture sector.¹⁸³ The FDA regulates roughly eighty percent of the U.S. food supply¹⁸⁴ while the USDA's jurisdiction extends to the production and processing of meat, poultry, and

176. *Id.* at 54–55.

177. *See id.* at 55.

178. *Id.* at 26–27.

179. *Id.* at 33–42.

180. *Id.* at 43–50.

181. *See* HSPD, *supra* note 83, at 51–56.

182. *See id.* at 53.

183. *See* FA SSP, *supra* note 120, at 8–9.

184. U.S. FOOD & DRUG ADMIN., FOOD PROTECTION PLAN: AN INTEGRATED STRATEGY FOR PROTECTING THE NATION'S FOOD SUPPLY 6 (2007), <https://www.fda.gov/media/75264/download> [hereinafter FOOD PROTECTION PLAN].

egg products.¹⁸⁵ A brief discussion of the respective agency actions and initiatives follows.

i. FDA Planning

In 2011, Congress passed the FDA Food Safety Modernization Act (“FSMA”) to transform “the nation’s food safety system by shifting focus from responding to foodborne illness to preventing it.”¹⁸⁶ Congress recognized the dramatic changes in the global food system and wanted to ensure the safety of the global food supply.¹⁸⁷ Prevention efforts are now focused on mandatory preventative controls for food facilities, mandatory produce safety standards, and authority to prevent international contamination.¹⁸⁸ Food facilities are now required to implement written preventative control plans to evaluate hazards, specify preventative steps, and outline what actions to take to correct problems that arise.¹⁸⁹

The FSMA also recognized the importance of giving the FDA authority to enforce compliance.¹⁹⁰ To meet this end, the FSMA established a mandated inspection frequency, allowed FDA to access the records of industry food safety plans, and required certain food testing to be carried out by accredited laboratories.¹⁹¹ The FSMA further gave the FDA power to respond via mandatory recalls, expanded administrative detention, suspension of registration, enhanced product tracking abilities, and additional recordkeeping for high risk foods.¹⁹² Built into the Act is a focus on building partnerships with federal agencies, state, local, and foreign governments to better implement strategies and enhance food safety throughout the nation.¹⁹³ The FSMA revitalized the FDA’s authority in

185. *Principal Food Safety Regulatory Organizations: FDA vs. USDA-FSIS*, N.C. ST. EXTENSION, <https://ncfsma.ces.ncsu.edu/wp-content/uploads/2018/01/FDA-versus-USD A.pdf?fwfwd=no> (last visited Dec. 11, 2020).

186. *Food Safety Modernization Act (FSMA)*, U.S. FOOD & DRUG ADMIN. (Nov. 24, 2020), <https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements/food-safety-modernization-act-fsma>.

187. *Id.*

188. *Background on the FDA Food Safety Modernization Act (FSMA)*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/food/food-safety-modernization-act-fsma/background-fda-food-safety-modernization-act-fsma> (Jan. 30, 2018).

189. *Id.*

190. *Id.*

191. *Id.*

192. *Id.*

193. *Id.*

maintaining a safe national food supply but the FDA should contemplate easing restrictions on smaller producers to help build a safe and redundant food supply.¹⁹⁴

The FDA issued a Food Protection Plan in November 2007, which aims to better prevent, intervene, and respond to food emergencies.¹⁹⁵ Although the FSMA provided an opportunity to update the Food Protection Plan, it has not been updated since 2007.¹⁹⁶ The Plan applies to food for people and animals, addresses domestic and imported products, and encompasses food safety domestically and food defense internationally.¹⁹⁷ The Food Protection Plan stresses the importance of prevention through “close interaction with growers, manufacturers, distributors, retailers and good service providers, and importers.”¹⁹⁸ The FDA further recognizes the importance of working with “industry, state, local, and foreign governments to further develop the tools and science needed to identify vulnerabilities and determine the most effective approaches.”¹⁹⁹

Intervention in this plan requires the FDA to work alongside other agencies and governments in a coordinated and risk-based manner using targeted inspections and testing in the areas of greatest concern.²⁰⁰ For response, the FDA stresses the importance of building more efficient communication systems between industry leaders, consumers, and others during food emergencies.²⁰¹

One relevant principle of the Food Protection Plan in light of COVID-19 is a focus on the various risks over a product’s life cycle from production to consumption.²⁰² Although COVID-19, as of this

194. See *Smaller Farms Likely to Face Higher Food Safety Compliance Costs*, NAT’L SUSTAINABLE AGRIC. COALITION, (Aug. 31, 2018), <https://sustainableagriculture.net/blog/fsma-compliance-costs> (discussing estimated FSMA compliance costs for small farms).

195. FOOD PROTECTION PLAN, *supra* note 184, at 5.

196. See *Background on the FDA Food Safety Modernization Act (FSMA)*, *supra* note 188; see also *Guidance & Regulation (Food and Dietary Supplements)*, U.S. FOOD & DRUG ADMIN. (Jan. 30, 2018), <https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements> (listing food related guidance documents and regulations released by the FDA, showing that there have been no updates to the Food Protection Plan since 2007).

197. FOOD PROTECTION PLAN, *supra* note 184, at 6.

198. *Id.* at 11.

199. *Id.*

200. *Id.*

201. *Id.* at 12.

202. *Id.*

writing, is not considered a foodborne virus,²⁰³ key planning should go into maintaining efficient and safe pathways from farm to fork. By building up other local and regional food supply chains, impacts from disease outbreaks in food from large processing facilities could be mitigated by having a redundant system that is still able to function and supply safe food to consumers.

During the COVID-19 pandemic, the FDA encouraged local and regional food suppliers to support traditional supply chains as they failed to match the demand in stores.²⁰⁴ In responding to a question about empty shelves at local grocery stores, the FDA stated:

we understand this is largely an issue of unprecedented demand from the retail sector—not a lack of capacity to produce, process and deliver. . . . FDA has issued temporary guidance to provide flexibility in packaging and labeling requirements to support food supply chains and get foods to the consumer retail marketplace.²⁰⁵

To address the issues brought forth by COVID-19, the FDA implemented a number of measures to curb regulation of the food supply chain.²⁰⁶

One action the FDA took to support food supply chains during the COVID-19 pandemic was flexibility in nutrition labeling.²⁰⁷ Restaurants and food manufacturers had food that they were unable to use and, rather than waste the excess food, businesses wished to redirect it for sale to consumers.²⁰⁸ The FDA released guidance

203. *Food Safety and Coronavirus Disease 2019 (COVID-19)*, CTRS. FOR DISEASE CONTROL & PREVENTION (June 22, 2020), <https://www.cdc.gov/foodsafety/newsletter/food-safety-and-Coronavirus.html>.

204. *See Food Safety and the Coronavirus Disease 2019 (COVID-19)*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/food/food-safety-during-emergencies/food-safety-and-coronavirus-disease-2019-covid-19> (Nov. 24, 2020); *see also* U.S. FOOD & DRUG ADMIN., TEMPORARY POLICY REGARDING NUTRITION LABELING OF CERTAIN PACKAGED FOOD DURING THE COVID-19 PUBLIC HEALTH EMERGENCY (2020), <https://www.fda.gov/media/136469/download> [hereinafter TEMPORARY POLICY REGARDING NUTRITION LABELING].

205. *Food Safety and the Coronavirus Disease 2019 (COVID-19)*, *supra* note 204.

206. *Id.*; *see also* *Guidance Documents & Regulatory Information by Topic (Food and Dietary Supplements)*, U.S. FOOD & DRUG ADMIN. (Dec. 17, 2020), <https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements/guidance-documents-regulatory-information-topic-food-and-dietary-supplements> (listing recent guidance documents related to food security released during the COVID-19 pandemic).

207. *Food Safety and the Coronavirus Disease 2019 (COVID-19)*, *supra* note 204.

208. *Id.*

that provided flexibility for restaurants and food manufacturers to sell packaged food without a nutrition label to consumers directly.²⁰⁹ Although this was specifically targeted towards restaurants and food manufacturers, the FDA could have also looked into providing easier avenues for smaller local and regional food systems to deliver directly to consumers or retail stores without the need for expensive labeling regimes in a time of crisis.

The FDA also took action to permit flexibility in menu labeling for restaurants, removing the requirement to disclose nutrition information and calorie declarations for standard menu items.²¹⁰ While most restaurants were take-out only at the beginning of the pandemic, this helped support the rapid change in business models by restaurants.

Additionally, the FDA created specific measures to accommodate the increased demand of shell eggs sold at retail establishments and supermarkets as well.²¹¹ The industry had enough eggs available, but not enough retail packaging that was appropriately labeled.²¹² To overcome this, the FDA no longer required egg producers to disclose certain information such as the address of the manufacturer, packer, or distributor to be displayed at the point of purchase.²¹³

Although the ad hoc efforts the FDA took in light of COVID-19 aided in matching supply with demand, they could have done more to work with local and regional farmers on strategies to direct an increase of regionally-based produce to retail establishments or directly to consumers. If the FDA had contemplated these actions pre-disaster and built them into disaster planning, significantly less food would have been wasted in the time it took the FDA to formulate these ideas and put them in action. The FDA will surely contemplate this moving forward while recovering from the COVID-19

209. *See id.*; *see also* TEMPORARY POLICY REGARDING NUTRITION LABELING, *supra* note 204.

210. U.S. FOOD & DRUG ADMIN., TEMPORARY POLICY REGARDING NUTRITION LABELING OF STANDARD MENU ITEM IN CHAIN RESTAURANTS AND SIMILAR RETAIL FOOD ESTABLISHMENTS DURING THE COVID-19 PUBLIC HEALTH EMERGENCY GUIDANCE FOR INDUSTRY 2-3 (2020), <https://www.fda.gov/media/138315/download>.

211. U.S. FOOD & DRUG ADMIN., TEMPORARY POLICY REGARDING PACKAGING AND LABELING OF SHELL EGGS SOLD BY RETAIL FOOD ESTABLISHMENTS DURING THE COVID-19 PUBLIC HEALTH EMERGENCY GUIDANCE FOR INDUSTRY 1 (2020), <https://www.fda.gov/media/136671/download>.

212. *Id.* at 2.

213. *Id.* at 3.

pandemic and will hopefully recognize the importance of building in this level of redundancy into food planning.

ii. USDA Planning

Much of the USDA's food and agriculture emergency planning comes from the NRF and ESF-11 as previously detailed in this article.²¹⁴ The USDA recently took steps to incentivize the buildup of local and regional food systems, including a focus on urban agriculture.²¹⁵ The USDA also published the Incident Preparedness, Response, and Recovery Manual in 2011 to provide guidance on how to better manage and respond to food crises.²¹⁶

The Incident Preparedness, Response, and Recovery Manual "describes the organizational structure, and establishes procedures for the implementation of these responsibilities at the national, regional, State, and county levels."²¹⁷ Taking guidance from the previous HSPDs, the manual codifies responsibilities of all levels of government, the private sector, and nongovernmental organizations ("NGOs").²¹⁸ This manual incorporates themes from the NRF and relates them to specific planning in the food context.²¹⁹ While it emphasizes local planning, the manual places much of the burden with state and county emergency boards to best determine how to respond to local crises with federal agencies intervening in accordance to the NRF when needed.²²⁰

The manual includes a discussion about the Defense Production Act of 1950 ("DPA"), which allows the president to "establish priorities under contracts . . . to promote the national defense and . . . to allocate materials, services, and facilities in such manner . . ." ²²¹ "USDA has jurisdiction for food, food resource facilities, distribution of farm equipment, and commercial fertilizer," which

214. See generally NRF, *supra* note 91; ESF #11, *supra* note 20.

215. *Local and Regional Foods*, U.S. DEPT. OF AGRIC. ECON. RESEARCH SERV., <https://www.ers.usda.gov/agriculture-improvement-act-of-2018-highlights-and-implications/local-and-regional-foods> (last updated Aug. 20, 2019).

216. See U.S. DEPT. OF AGRIC., INCIDENT PREPAREDNESS, RESPONSE, AND RECOVERY (2011), https://www.ocio.usda.gov/sites/default/files/docs/2012/DM1800-001_1.pdf.

217. *Id.* at 6.

218. *Id.* at 8.

219. *Id.* at 10.

220. *Id.* at 8–9.

221. *Id.* at 19.

is delegated under the DPA and Executive Order 12919.²²² The Agriculture Priorities and Allocation System (“APAS”) takes the authority granted by the DPA and establishes a procedure for the prioritization of contracts over other contracts to ensure timely delivery of items that have been deemed necessary in times of emergency.²²³ The Secretary of Homeland Security has pre-approved programs that enable the USDA to issue priority contracts without receiving concurrence from DHS, which include programs involving food and food resources, processing and storage, as well as “[p]rograms to protect or restore the agriculture and food system” from attacks, disasters, and other emergencies.²²⁴ The manual also addresses the USDA’s allocation authority, and discusses that it is limited and can be used only when there is insufficient supply of a material, service, or facility to meet national defense supply requirements.²²⁵

The manual then discusses the Commodity Credit Corporation (“CCC”), which funds programs administered by the FSA to stabilize, support, and protect farm income and prices and to “assist in maintaining adequate supplies of agricultural commodities.”²²⁶ The CCC may manage commodity inventories and guarantee or make emergency loans to firms to continue the distribution of food, fertilizer, farm equipment, and other agricultural supplies.²²⁷ The CCC could also be a useful avenue to build up local and regional food systems in preparation for disasters. Although more specific planning is not included in the plan, the CCC should contemplate how the buildup of these localized food systems would affect the stability of food distribution during the COVID-19 pandemic and other disasters.

The manual incorporates HSPD-5 into its planning with the adoption of NIMS and the plan lays out the key roles of implementing NIMS.²²⁸ In Chapter 3, the manual describes reporting

222. See U.S. DEPT. OF AGRIC., INCIDENT PREPAREDNESS, RESPONSE, AND RECOVERY (2011), https://www.ocio.usda.gov/sites/default/files/docs/2012/DM1800-001_1.pdf.

223. *Id.* at 19.

224. *Id.* at 20.

225. *Id.* The DPA gained a lot of attention with its use during the COVID-19 pandemic, but a more in-depth discussion about the DPA and its implications on current food security planning follows later in the article. See *infra* Section III.C.

226. INCIDENT PREPAREDNESS, RESPONSE, AND RECOVERY, *supra* note 216, at 20.

227. *Id.* at 20–21.

228. *Id.* at 22–23.

requirements for certain groups to ensure that information is transmitted efficiently in response to a disaster.²²⁹ Much of the responsibility of planning is placed on the state emergency boards (“SEB”), established in all fifty states to provide a source of USDA representation in each state and to make the state’s existing incident management structure more efficient and responsive to the needs of citizens.²³⁰ In response to an incident, the SEB is tasked with a variety of duties, including integration and coordination with other state level groups, coordination with county emergency boards, preparation of reports on the status and damage of critical infrastructure, and coordination with federal agencies.²³¹

More importantly, in preparation and planning, the SEBs: verify that procedures for recovery are up to date; review trends and risks; participate in exercises; “[r]ecommend prevention, preparedness, and mitigation measures” for agricultural related emergencies; monitor for potential emergencies; and “[p]romote preparedness and mitigation measures through ongoing contacts” with key players in the agricultural sector.²³² Similar responsibilities are tasked to county emergency boards.²³³ A hefty burden is placed upon local emergency planning to ensure a resilient food system. Instead of looking to federal government resources to build up local food supply chains, planning should place greater pressure on these state and county emergency boards to recognize the importance of building redundancy in their systems and how it could benefit mitigation and response efforts in future disasters.

In the Incident Preparedness, Response, and Recovery Manual, much discussion concerns the need to build resiliency in our food systems.²³⁴ Yet there are no concrete objectives or plans aimed specifically at building up local and regional food to combat disasters, like the COVID-19 pandemic, that cause disruptions in the food supply.²³⁵ In addition to USDA’s Incident Preparedness,

229. *Id.* at 37.

230. *Id.* at 61.

231. *Id.* at 65–66.

232. INCIDENT PREPAREDNESS, RESPONSE, AND RECOVERY, *supra* note 216, at 66–67.

233. *Id.* at 81–82.

234. *See generally id.* at 88, 91–93 (noting the need to create resilience programs to protect critical infrastructures like the Food and Agriculture Sector and the partners involved in creating effective resiliency programs).

235. *Id.* at 92 (“State and local food protection and agricultural agencies have jurisdiction of the food supply at the retail and wholesale levels, including the receipt of agricultural products in the local jurisdiction”).

Response, and Recovery Manual, the Agency maintains a myriad of programs and policies aimed at helping local and regional producers.²³⁶ USDA could expand and incorporate its programs into future disaster planning, and a discussion about relevant programs and policies follows.

iii. USDA Programs Supporting Local and Regional Food Systems

The following grant and loan programs and initiatives show a commitment by the USDA to build local and regional food supplies. The Agricultural Marketing Service (“AMS”) is a sub-agency of the USDA and administers programs that create marketing opportunities for U.S. producers.²³⁷ Several programs administered by AMS help build up local and regional food systems.²³⁸ These programs demonstrate that the USDA recognizes the importance of these more localized systems and their place in increasing viability and resilience by alleviating administrative and technical barriers.²³⁹ The USDA should take the extra step to incorporate these programs into mitigation planning for disasters.

a. Local Agriculture Market Program

The Local Agriculture Market Program supports enterprise and market development along the entire length of local and regional food system value chains.²⁴⁰ The Local Agriculture Market Program encompasses both the Farmers Market Promotion Program (“FMPP”) and the Local Food Promotion Program (“LFPP”).²⁴¹ The FMPP funds projects that develop and expand “direct producer-to-consumer markets to help increase access to and

236. See *Grants, Loans, and Other Support*, AGRIC. MKTG. SERV. U.S. DEP’T OF AGRIC., <https://www.ams.usda.gov/services/local-regional/food-sector/grants> (last visited Jan. 15, 2021).

237. *About AMS*, AGRIC. MKTG. SERV. U.S. DEP’T OF AGRIC., <https://www.ams.usda.gov/about-ams> (last visited Jan. 15, 2021).

238. See *Grants, Loans, and Other Support*, *supra* note 236.

239. *Regional Food System Partnership*, AGRIC. MKTG. SERV. U.S. DEP’T OF AGRIC., <https://www.ams.usda.gov/services/grants/rfsp> (last visited Jan. 15, 2021).

240. *USDA Announces \$23 Million in Grants Available to Local and Regional Food Systems*, AGRIC. MKTG. SERV. U.S. DEP’T OF AGRIC. (Apr. 18, 2019), <https://www.ams.usda.gov/content/usda-announces-23-million-grants-available-local-and-regional-food-systems>.

241. *Id.*

availability of locally and regionally produced agricultural products.”²⁴² The LFPP, in turn, sponsors projects that develop and expand local and regional food enterprises that serve as intermediaries to help increase access to and availability of local and regional food.²⁴³ Relatedly, the Regional Food Systems Partnerships (“RFSP”) program administers grants to support partnerships “that connect public and private resources to plan and develop local or regional food systems.”²⁴⁴ The RFSP program is focused on building and strengthening local and regional food economy viability and resilience.²⁴⁵

b. Specialty Crop Block Grant Program

The Specialty Crop Block Grant Program (“SCBGP”) also administered by AMS enhances the competitiveness of specialty crops such as fruits, vegetables, tree nuts, dried fruits, horticulture, and nursery crops.²⁴⁶ The types of programs funded include school and community gardens, farm to school programs, certification and training for farmers, processing, aggregation, and distribution of locally grown specialty crops, and improved access to specialty crops in underserved communities.²⁴⁷

c. Beginning Farmers and Ranchers Loans and Microloans

The USDA’s Farm Service Agency (“FSA”) also houses valuable loan and grant programs to help local and regional producers build their food enterprises.²⁴⁸ One program is the Beginning Farmers and Ranchers Loans which provides access to land and

242. *Id.*

243. *Id.*

244. *Regional Food System Partnership*, *supra* note 239.

245. *Id.*

246. *Specialty Crop Block Grant Program*, AGRIC. MKTG. SERV. U.S. DEP’T OF AGRIC., <https://www.ams.usda.gov/services/grants/scbgp> (last visited Jan. 15, 2021).

247. RENÉE JOHNSON & TADLOCK COWAN, CONG. RSCH. SERV., R43950, LOCAL FOOD SYSTEMS: SELECTED FARM BILL AND OTHER FEDERAL PROGRAMS 6–7 (2016).

248. *Farm Loan Programs*, FARM SERV. AGENCY U.S. DEP’T OF AGRIC., <https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/index> (last visited Jan. 15, 2021).

capital for producers.²⁴⁹ Demonstrating a commitment to creating new farmers and ranchers, “there is a special focus on the particular credit needs of farmers and ranchers who are in their first 10 years of operation.”²⁵⁰ In addition to beginners loans, the FSA also administers a microloan program to finance the needs of small, beginning farmers to participate in direct marketing and sales such as farmers’ markets, CSA’s, restaurants, and grocery stores.²⁵¹ Microloans simplify and expedite the application process and add flexibility for meeting loan eligibility and security requirements to help smaller producers.²⁵²

d. Business and Industry Guaranteed Loan Program and Rural Cooperative Development Grant Program

The USDA’s Rural Business-Cooperative Service offers grant and loan programs to further strengthen rural local and regional food systems.²⁵³ One program is the Business and Industry Guaranteed Loan Program which aims to develop or improve business in rural areas by aiding the existing credit market through federal guarantees on business loans.²⁵⁴ Each year a minimum of five percent of total funding is dedicated to local or regional food enterprise development which includes construction of food processing, aggregation, and distribution facilities.²⁵⁵ The Rural Business-Cooperative Service also offers a Rural Cooperative Development Grant Program, which improves the economic conditions of rural areas by

249. *Beginning Farmers and Ranchers Loans*, FARM SERV. AGENCY U.S. DEP’T OF AGRIC., <https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/beginning-farmers-and-ranchers-loans/index> (last visited Jan. 15, 2021).

250. *Id.*

251. *Microloan Programs*, FARM SERV. AGENCY U.S. DEP’T OF AGRIC., <https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/microloans/index> (last visited Jan. 15, 2021).

252. *See id.*

253. *Rural Business-Cooperative Service*, RURAL DEV. U.S. DEP’T OF AGRIC., <https://www.rd.usda.gov/about-rd/agencies/rural-business-cooperative-service> (last visited Jan. 15, 2021).

254. *B&I Loan Guarantee Program and Local and Regional Food Enterprise Loans*, NAT’L SUSTAINABLE AGRIC. COALITION, <https://sustainableagriculture.net/publications/grass-rootsguide/local-food-systems-rural-development/local-food-enterprise-loans> (last updated July 2019).

255. *Id.*

helping businesses start, expand, or improve rural cooperatives through cooperative development centers.²⁵⁶

e. Office of Urban Agriculture and Innovative Production

The USDA has also devoted recent focus to urban agricultural systems with the creation of the Office of Urban Agriculture and Innovative Production built into the 2018 Farm Bill.²⁵⁷ The newly created office administers two grant programs to help promote urban agriculture. One, through the Office of Urban Agriculture, makes one million dollars available for planning projects that initiate or expand efforts of farmers, gardeners, schools, and other stakeholders in urban areas.²⁵⁸ Types of projects funded include “food access, education, business and start-up costs for new farmers and development of policies related to zoning and other needs of urban production.”²⁵⁹ The USDA is also making two million dollars available for implementation projects “that accelerate existing and emerging models of urban, indoor and other agricultural practices”²⁶⁰

f. Cooperative Agreements for Community Compost and Food Waste Reduction

The second grant program stemming from the Office of Urban Agriculture is the Cooperative Agreements for Community Compost and Food Waste Reduction.²⁶¹ The USDA has allocated

256. *Rural Cooperative Development Grant Program*, RURAL DEV. U.S. DEP’T OF AGRIC., <https://www.rd.usda.gov/programs-services/rural-cooperative-development-grant-program> (last visited Jan. 15, 2021).

257. Eric Hansen, *USDA Launches Office of Urban Agriculture and Innovative Production at NRCS*, NAT’L ASS’N CONSERVATION DIS. (May 8, 2020), <https://www.nacdnet.org/2020/05/08/usda-launches-office-of-urban-agriculture-and-innovative-production-at-nrcs>; see also 7 U.S.C. § 6923 (2018).

258. Hansen, *supra* note 257; *USDA Announces Grants for Urban Agriculture and Innovative Production*, FARM SERV. AGENCY U.S. DEP’T OF AGRIC. (May 6, 2020), <https://www.fsa.usda.gov/news-room/news-releases/2020/usda-announces-grants-for-urban-agriculture-and-innovative-production>.

259. *USDA Announces Grants*, *supra* note 258.

260. *Id.*

261. *See USDA Announces Cooperative Agreements for Community Compost and Food Waste Reduction*, NAT. RES. CONSERVATION SERV. U.S. DEP’T OF AGRIC. (May 11, 2020),

nine-hundred thousand dollars for local governments to host a community compost and food waste reduction pilot project during 2020.²⁶² This grant program aims to minimize waste and maximize use in urban areas.²⁶³ In addition to grants supporting urban agriculture, the 2018 Farm Bill also directs USDA's National Institute of Food and Agriculture "to support research, education, and extension activities for facilitating the development of urban, indoor, and other emerging agricultural production, harvesting, transportation, aggregation, packaging, distribution, and markets."²⁶⁴ This recent focus on building up urban agricultural systems is encouraging in light of traditional reliance on complex and international food supply chains. By creating this level of redundancy, especially in urban centers, more people may become self-reliant and contribute to a more resilient food supply than relying on retail shelves for food.

g. Farmers Market Nutrition Program

The USDA's Food and Nutrition Service ("FNS") aims to increase food security and reduce hunger by providing access to healthy food and nutrition education in a way that supports American agriculture.²⁶⁵ FNS administers the Farmers' Market Nutrition Program ("FMNP") which provides grants to allow farmers' markets and roadside stands that accept government benefits provided by the Special Supplemental Nutrition Program for Women, Infants, and Children ("WIC"); this, in turn, helps to build local food systems and create access to healthy and locally grown food.²⁶⁶ FMNP currently operates in forty-nine states at a variety of farmers' markets, roadside stands, and farms.²⁶⁷ In addition to providing WIC

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=NRCSEPRD1583831>.

262. *Id.*

263. *Id.*

264. *Urban, Indoor, and Emerging Agriculture*, NAT'L INST. FOOD & AGRIC., <https://nifa.usda.gov/program/uie-ag> (last visited Dec. 28, 2020).

265. *Home*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., <https://www.fns.usda.gov> (last visited Dec. 28, 2020).

266. *Farmers' Market Nutrition Program*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., <https://www.fns.usda.gov/fmnp/wic-farmers-market-nutrition-program> (last visited Dec. 28, 2020).

267. *Id.*

recipients with access to local food, FNS also administers the Senior Farmers' Market Nutrition Program, designed to provide low-income seniors eligible for Supplemental Nutrition Assistance Program ("SNAP") benefits with access to locally grown food through farmers' markets, roadside stands, and community supported agriculture programs.²⁶⁸

h. Farm to School Grant Programs and DoD Fresh

FNS also supports farm to school grant programs which distribute grant funding to improve access to local foods in schools.²⁶⁹ Grants can be used for "training, supporting operations, planning, purchasing equipment, developing school gardens, developing partnerships, and implementing farm to school programs."²⁷⁰ The 2018 Farm Bill expanded funding for this program, and beginning in the 2019-2020 school year, the farm to school grant program supported 126 grants serving more than 5,400 schools and 3.2 million students.²⁷¹ Another initiative through a partnership between USDA and the Department of Defense ("DoD")—called DoD Fresh—aims to also increase local food in schools.²⁷² DoD Fresh uses the DoD's procurement system to provide local and regional food to schools.²⁷³ The program requires that all produce through this program be grown in the United States and vendors are encouraged to provide local products in season.²⁷⁴

268. *Senior Farmers' Market Nutrition Program*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., <https://www.fns.usda.gov/sfmnp/senior-farmers-market-nutrition-program> (last visited Dec. 28, 2020).

269. *Farm to School Grant Program*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., <https://www.fns.usda.gov/cfs/farm-school-grant-program> (last updated Oct. 16, 2020).

270. *FY 2020 Farm to School Grant*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., (Oct. 8, 2019), <https://www.fns.usda.gov/cfs/fy-2020-farm-school-grant>.

271. *USDA Announces Record-Breaking Funding for 2019 Farm to School Grants*, FOOD & NUTRITION SERV. U.S. DEP'T OF AGRIC., (July 16, 2019), <https://www.fns.usda.gov/pressrelease/usda-10819>.

272. *Using USDA DoD Fresh to Purchase Local Produce*, OFF. COMMUNITY FOOD SYS. U.S. DEP'T OF AGRIC., <https://fns-prod.azureedge.net/sites/default/files/f2s/DoDFresh.pdf> (last updated Dec. 2017).

273. *Id.*

274. *Id.*

These programs show a commitment by the USDA to build up local and regional food supply chains²⁷⁵ but fall short of incorporating them into disaster mitigation and planning. To further ensure that these programs create significant change to combat disruptions during disasters like COVID-19, the USDA must continue to fund these programs, expand them, and integrate them into disaster response planning to help build a resilient and redundant food system through local and regional food.

C. *The Defense Production Act of 1950*

With increasing disruptions in the food supply exacerbated by the COVID-19 pandemic, President Donald Trump relied on the Defense Production Act of 1950²⁷⁶ to keep meatpacking facilities in operation despite the often high numbers of COVID-19 cases in these plants due to cramped working conditions and lack of personal protective equipment.²⁷⁷ Instead of building redundancy through local and regional food, the administration pushed the continued use of traditional supply chains for meat facilities, creating a dangerous environment for workers.²⁷⁸

Passed at the start of the Korean War, the DPA gave the president the power to set wages, prices, and ration consumer goods.²⁷⁹ The current version of the law allows the president through executive order to “require that performance under contracts or orders . . . which he deems necessary or appropriate to promote the national defense shall take priority over performance under any other contract”²⁸⁰ It also allows the president to “allocate materials, services, and facilities in such manner, upon such conditions, and to such an extent as he shall deem necessary or appropriate to promote the national defense.”²⁸¹ Requirements for controlling the

275. See *Grants, Loans, and Other Support*, *supra* note 236 (listing more than thirty programs to “help[] communities scale up local and regional food systems and strengthen their economies”)

276. See 50 U.S.C. § 4501 (2018).

277. *Meat and Poultry Processing Workers and Employers*, CTR. DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html> (last updated Nov. 12, 2020).

278. Exec. Order No. 13,917, 3 Fed. Reg. 26,313 (Apr. 28, 2020).

279. Anshu Siripurapu, *What is the Defense Production Act?*, COUNCIL ON FOREIGN REL., <https://www.cfr.org/in-brief/what-defense-production-act> (last updated Apr. 29, 2020).

280. 50 U.S.C. § 4511(a) (2018).

281. *Id.*

general distribution of materials in the civilian market include that a material is a scarce and critical material essential to defense, and further, that the requirements for national defense cannot otherwise be met without a significant dislocation of the normal distribution of such material.²⁸²

On April 28, 2020, President Trump issued Executive Order 13917 on Delegating Authority Under the DPA with Respect to Food Supply Chain Resources During the National Emergency Caused by the Outbreak of COVID-19 (the “Executive Order”).²⁸³ The Executive Order directed processors of beef, pork, and poultry in the food supply chain to “continue operating and fulfilling orders to ensure a continued supply of protein for Americans.”²⁸⁴ The Executive Order explains that some processing facilities had to shut down due to outbreaks of COVID-19 among workers, but that “[s]uch closures threaten the continued functioning of the national meat and poultry supply chain, undermining critical infrastructure during the national emergency.”²⁸⁵ Further highlighting the shortfalls of relying on these large facilities in traditional supply chains, the Executive Order points out that closure of a single beef processing facility can result in the loss of over ten million servings of beef in a single day.²⁸⁶

Instead of implementing a plan based on redundancy and resiliency where local and regional food supply chains could easily supplement traditional large-scale food supply chains, the government forced those plants to remain open,²⁸⁷ further exacerbating the number of COVID-19 cases in communities where these meatpacking plants were located. Alternatively, the federal government should explore ways to build local and regional food systems that can seamlessly supply people with food in times of crisis without relying on and exacerbating the spread of COVID-19 in consolidated meatpacking plants forced to stay open.²⁸⁸

282. 50 U.S.C. § 4511(b) (2018).

283. Exec. Order No. 13917, *supra* note 278.

284. *Id.*

285. *Id.*

286. *Id.*

287. *See id.* (ordering the Secretary of Agriculture “to take all appropriate action under that section to ensure that meat and poultry processors continue operations consistent with the guidance for their operations jointly issued by the CDC and OSHA”)

288. *See* Laura Reiley, *In One Month, the Meat Industry’s Supply Chain Broke. Here’s What You Need to Know*, WASH. POST (Apr. 28, 2020, 10:07 PM), <https://www.washingtonpost.com/business/2020/04/28/meat-industry-supply-chain-faq> (describing

D. *Multi-Agency Cooperative Initiatives and State Actions*

i. Strategic Partnership Program
Agroterrorism Initiative

Beyond federal agency specific planning, inter-agency initiatives and state-level planning have aimed to address food resiliency. The Strategic Partnership Program Agroterrorism Initiative (“SPPA”) is a joint effort of the Federal Bureau of Investigation (“FBI”), DHS, USDA, and FDA, in partnerships with private industry and the states to help secure the nation’s food supply.²⁸⁹ The SPPA aims to “collect the necessary data to identify sector-specific vulnerabilities, develop mitigation strategies, identify research gaps and needs, and increase awareness and coordination between the food and agriculture government and industry partners.”²⁹⁰ The initiative was first created to meet the requirements of the NIPP, food and agriculture SSPs, and HSPD-9,²⁹¹ and was reauthorized in the Securing Our Agriculture and Food Act in 2017.²⁹² After an assessment of the various nodes of the production and processing food chain, the SPAA identified large scale food processing and crowded agriculture production as nodes of highest concern.²⁹³ The SPAA then issued several mitigation strategies to help combat the effects of a terror attack in the agricultural industry including encouraging industries to develop specific food defense plans.²⁹⁴ It remains true that “[r]egional and locally-orientated food supplies, due to their smaller scale, may be better suited to avoid the higher-risks identified in large-batch processing and animal confinement.”²⁹⁵ While

consolidation of processing plants consuming smaller operators and the impact of COVID-19 on large processing plants).

289. U.S. Food & Drug Admin. et al., *Strategic Partnership Program Agroterrorism (SPPA) Initiative*, U.S. FOOD & DRUG ADMIN. (Aug. 2005), <https://www.fda.gov/food/food-defense-programs/strategic-partnership-program-agroterrorism-sppa-initiative>.

290. *Strategic Partnership Program Agroterrorism (SPPA) Initiative: Second Year Status Report July 2006 - Sept. 2007*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/food/food-defense-programs/strategic-partnership-program-agroterrorism-sppa-initiative-second-year-status-report-july-2006>, (last updated June 22, 2018).

291. *Id.*

292. *See* Securing Our Agriculture and Food Act, Pub. L. No. 115-43, 131 Stat. 884 (codified as amended at 6 U.S.C. § 528 (2012)).

293. *Strategic Partnership Program Agroterrorism (SPPA) Initiative*, *supra* note 289.

294. *Id.*

295. Endres & Endres, *supra* note 16, at 437.

identifying large scale food processing and crowded agriculture as nodes of highest concern, the SPPA should look into building up local and regional food supplies as an effective form of mitigation to protect against failures in these critical nodes.

ii. State-Level Policies: NRF and Food
Emergency Response Plans

The National Association of State Departments of Agriculture has developed a Food Emergency Response Plan (“FERP”) Template for states and localities to use in drafting their own FERPs for integration into their own State Emergency Operations Plans.²⁹⁶ Most recently issued in 2011, the FERP Template aims to protect public health by enhancing the protection of the United States’ agricultural industry and food security through “increased prevention, detection, response, and recovery planning.”²⁹⁷ A food emergency as addressed by the plan “involves the adulteration and/or contamination . . . of food that impacts or may impact human health.”²⁹⁸ The FERP Template contemplates “food emergencies that may involve a large number of people in a small area, or that are widespread, involving a number of localities or states.”²⁹⁹

The FERP Template further enforces the importance of mitigation and says that “a state should conduct hazard analysis regarding the food industry prior to the identification of ‘situations’ for emergency response planning.”³⁰⁰ They further recommended that states facilitate the creation of mutual aid and emergency management assistance compacts for interstate assistance.³⁰¹ This could conceivably be expanded to instruct states to have emergency interstate contracts to supply local food to one another in the event of a crisis or where conventional supply chains are failing as they did during the COVID-19 pandemic. The FERP Template directs states as part of the planning process to assess various aspects of their unique food systems to better plan for specific disruptions in their

296. NAT’L ASS’N ST. DEPT. AGRIC. (NASDA), FOOD EMERGENCY RESPONSE PLAN TEMPLATE viii-ix (2011), https://www.fsis.usda.gov/wps/wcm/connect/dffa9797-79bf-4ed5-991c-54f76fd7943d/NASDA_FERP_v4.pdf?MOD=AJPERES.

297. *Id.* at 4–6.

298. *Id.*

299. *Id.*

300. *Id.* at 2.

301. *Id.*

areas.³⁰² These include unique physical or geographic features, where food distribution and processing centers are located within the state, cultural aspects of the state, and major population areas.³⁰³

iii. Illinois Emergency Management Agency

With much of the burden of planning falling on local and state governments, a discussion of Illinois emergency planning doctrine follows to demonstrate a state level approach to emergency planning in the agricultural sector. The Illinois Emergency Management Agency (“IEMA”) is responsible for coordination of overall emergency management for the state, and the Illinois Emergency Operations Plan (“IEOP”) establishes the structure by which the Illinois state government coordinates and manages disaster response and recovery.³⁰⁴ The IEOP describes the Illinois Disaster Management System (“IDMS”), which is used by the state in conformance with NIMS when the IEOP is implemented for response and recovery operations in the state.³⁰⁵ Housed in the IEOP is Annex 14 – Agriculture, which provides strategic and operational guidance for support in emergency response in the agricultural sector.³⁰⁶ This annex contemplates disease outbreaks, but focus is on the safety and security of the existing commercial food supply with a lack of discussion about local and regional food supplies.³⁰⁷

In addition to the IEOP and response actions, Illinois has also developed the Illinois Natural Hazard Mitigation Plan (“INHMP”) which establishes a process for identifying and mitigating the effects of natural hazards in Illinois.³⁰⁸ Unfortunately, the influenza pandemic hazard is only two paragraphs in the 752 page document and “could be greatly expanded to become a full hazard

302. NAT’L ASS’N ST. DEPT. AGRIC., *supra* note 296, at 3.

303. *Id.*

304. Ill. Emergency Mgmt. Agency (IEMA), *Illinois Emergency Operations Plan*, IEMA (Dec. 2019) <https://www2.illinois.gov/iema/Preparedness/Pages/IEOP.aspx>.

305. *Id.*

306. *See* Ill. Emergency Mgmt. Agency (IEMA), *Ill. Emergency Operations Plan Annex 14 – Agriculture* (Dec. 2019), <https://www2.illinois.gov/iema/Preparedness/Documents/IEOP/Annex%2014%20Agriculture%202019Final.pdf>.

307. *Id.*

308. *See* Office of the Governor, *2018 Ill. Natural Hazard Mitigation Plan* (Oct. 2018), https://www2.illinois.gov/iema/Mitigation/Documents/Plan_IllMitigationPlan.pdf.

profile.”³⁰⁹ Instead of building a pandemic influenza hazard into the INHMP, Illinois elected to create the Illinois Pandemic Influenza Preparedness and Response Plan in 2014, but merely states that food and other basic necessities should be supplied and that they are to be safe and available in sufficient quantities.³¹⁰ These response and mitigation measures do little to ensure that local and regional food supplies are able to supplement the food supply when traditional supply chains are failing during a pandemic like COVID-19, and planners must contemplate these failures in future state and local planning.

Although a majority of this article addresses the actions of the federal government in crisis planning, states and localities must play a leading role in assessing and implementing their own resilient, regionally based food systems because of the lack of federal government planning to build local and regional food systems and to avoid shortfalls of a one size fits all approach. The FERP recognizes the uniqueness of each state and that reality that their planning must change based off the characteristics of their established food systems.³¹¹ Federal programs therefore must support state and local initiatives via grants, loans, or regulatory flexibility to help better build local and regional food systems to create a more resilient and redundant food supply throughout the United States.

IV. PLANNING FOR FUTURE RESILIENCY

Now forced to reckon with the consequences of a food system and supply prioritizing industrialized agriculture and efficiency, “[t]he pandemic indicates the urgency of rethinking the food system and its characteristics.”³¹² The formalized integration of local and regional food systems into the larger food supply chain by government entities and agencies through their existing programs will provide necessary change. While federal government planning falls far short of ensuring a resilient and redundant food supply chain, a fundamental framework from which to build upon

309. *Id.* at Appendix B4.

310. See State of Ill., Ill. Department of Public Health, *Pandemic Influenza Preparedness and Response Plan* (May 2014), at 68, http://www.idph.state.il.us/pandemic_flu/Illinois_Pandemic_Flu_Plan.pdf.

311. See *Strategic Partnership Program Agroterrorism (SPPA) Initiative*, *supra* note 289.

312. Ludivine Petetin, *The COVID-19 Crisis: An Opportunity to Integrate Food Democracy into Post-Pandemic Food Systems*, 11 EUR. J. RISK REG. 326, 332 (2020).

already exists in initiatives like that of the USDA's efforts to develop urban agriculture. Ultimately, some form of food democracy³¹³ that closes the gap between producer and consumer is the goal.

Integrating local and regional producers yields benefits beyond the strengthening and stabilizing of the U.S. food supply; integration allows consumers to "take charge of their consumption" as they are "buying fruit and vegetable boxes and going to their local butchers and bakers."³¹⁴ It is these actions that turn consumers "into 'active citizens' who carefully choose what is on their plate."³¹⁵ As consumers increasingly purchase locally and directly, their consumption generally includes more nutritious foods that consequently benefit public health.³¹⁶ Good for both citizens and the environment, the restructuring of our food system could also promote the use and spread of more sustainable farming practices and "construct alternative models of production, distribution, and retailing that offer choices and alternatives for people with various incomes."³¹⁷ The COVID-19 pandemic has "[created] a rare opportunity for radical change," based on

a strong framework for multilevel food governance by putting the emphasis on local and regional production that encourages the consumption of seasonal and healthy produce (in combination with longer food supply chains and the provisioning of sustainable products),

313. "Following an identified shift in food policy from state control to growing power of large corporations over the food system, food democracy is a trend where 'demands from below' are given a voice and citizens regain control over the food system." Jana Baldy & Sylvia Kruse, *Food Democracy from the Top Down? State-Driven Participation Processes for Local Food System Transformations Towards Sustainability*, 7 POL. & GOVERNANCE 68, 68 (2019). Food democracy possesses four key dimensions:

The first key dimension involves knowledge and becoming knowledgeable about food and food systems to shorten the distance between producer and consumer. The second key dimension comprises sharing ideas, which involves clarifying and discussing food-related issues and values among participants with the effect that they can 'make better decisions for both themselves and others.' The third dimension is efficacy as the individuals' 'capacity to determine and produce desired results. As regards food and the food system, this involves citizens' work to address and solve food problems. An orientation towards the community good is the fourth key dimension of food democracy.

Id. at 70.

314. Petetin, *supra* note 312, at 333.

315. *Id.*

316. *Id.*

317. *Id.* at 334–35.

employing local agricultural workers and establishing better relationships between producers and retailers, whilst ensuring that the security and diversity of food are maintained.³¹⁸

The COVID-19 pandemic also revealed the need for—and absence of—several components of a food system that are critical to efficiency and reliability. The following section discusses the primary lessons learned about the U.S. food supply chain in times of crisis: (1) the need for resiliency; (2) the need for evolving and flexible government response planning; and (3) the increased need to address systemic issues of food insecurity heightened by a crisis environment.

A. The Need for Resiliency

If nothing else, the COVID-19 pandemic demonstrated the absolute need for bolstered resilience in the U.S. food system. While no one program or method of incorporating local and regional food into the greater supply chain can create or ensure resiliency, what COVID-19 revealed about durability is that the U.S. food supply chain does not have enough resiliency. Because resiliency results from cooperative effort between government, citizens, and producers, the solution to the lack of resiliency is necessarily multifaceted.

While government planning neither envisions nor proposes concrete methods of increasing resiliency, the weaknesses of the food supply chain made apparent during the COVID-19 pandemic offer starting points. A resilient U.S. food system would not rely so heavily on existing supply chains tailored to a model of industrial agriculture; it would support and facilitate developing the infrastructure required by local and regional producers to supplement and bypass potential choke points in the supply chain. Resilience looks not like children going without meals because schools and restaurants have closed, but instead manifests itself in affordable, ample food for all, including the most food insecure peoples and regions.

The potential of resilient food systems that incorporate local and regional producers exists in the initiatives of local food policy

318. *Id.* at 336.

councils and food banks. As grocery store shelves ran empty because of transportation issues, and as financial struggles increased because of unemployment, it was the availability of food at food banks and food policy council measures to increase accessibility to food that granted swift relief to the hungry.³¹⁹ Many food pantries altered their hours of operation and service methods to not only increase the safety of all involved, but also to increase the amount of people that they could serve.³²⁰ Numerous food policy councils across the nation compiled and distributed information to help those in need, farmer and consumer alike, obtain the resources to survive financial strife and health problems.³²¹ It cannot be the case, however, that food banks and food policy councils, largely unsupported or funded by state and local governments, can function as the sole source of resiliency.

B. Dynamic and Collaborative Government Response Planning

Government disaster and crisis response planning ignores basic elements of food system resilience such as the formal or otherwise supported incorporation of local and regional food into the overall food supply.³²² Government response planning, even as recent as post-September 11, is outdated and incapable of responding to the evolving challenges of food security in times of crisis.³²³ In place of preparedness, state, and especially federal governments, are guilty of reactionary action.³²⁴ State and federal planning exhibits themes of extraction and production to the exclusion of resiliency and stability. Planning of this nature is “inconsistent with the normative goal of food security” because such planning structures are “resistant to any form of change, in particular positive forms of

319. See generally Anne Palmer, *COVID-19 Responses: Food policy Councils are “Stepping in, Stepping Up, and Stepping Back”*, 10 J. OF AGRIC., FOOD SYS., & CMTY. DEV., 1 (2020).

320. See, e.g., *Coronavirus (COVID-19) Updates*, CMTY. FOOD BANK S. ARIZ. (July 1, 2020), <https://www.communityfoodbank.org/covid-19-update>.

321. *How to Get Food During the Coronavirus*, D.C. FOOD POLY COUNCIL (2020), https://dcfoodpolicycouncil.org.files.wordpress.com/2020/05/how-to-get-food-during-the-coronavirus_english.pdf; *COVID-19 Response Updates*, R.I. FOOD POLY COUNCIL (Nov. 2020), <https://rifoodcouncil.org/covid-19>; *COVID-19 Food System Rapid Response*, CHI. FOOD POLY ACTION COUNCIL (Dec. 2, 2020), <https://www.chicagofoodpolicy.com/covid19>.

322. Endres & Endres, *supra* note 16, at 407–09.

323. *Id.* at 425, 428–29, 432.

324. *Id.* at 429.

change,” resulting in “staticity and rigidity, rather than the adaptiveness and flexibility required in a resilient food system.”³²⁵ The incorporation of local and regional food systems as supplemental to existing supply chains would increase the robustness, redundancy, adaptability, and flexibility of the U.S. food supply, yet none of the government plans addressed in this article do much—if anything at all—to tackle issues of resilience.

Despite the DHS’s numerous programs and policies to enhance disaster preparedness, mitigation, and response, these programs are emblematic of the dearth of planning focused on resiliency: FNS relies on existing commodity distribution channels rather than the development or encouragement of non-traditional channels; the NIPP and FA SSP do nothing to assess local and regional capabilities and assets in broader response planning; and planners have yet to utilize NDRF to assess local risks.³²⁶ The same is true of FDA and USDA planning, though these agencies do more to focus on at least acknowledging resiliency issues in the food supply, if only because of the food-related nature of these agencies. Much of the efforts made by the FDA’s and the USDA’s programs (FNS, FMNP, school grant programs, FSA, AMS, etc.) represent mere desire for resiliency in place of its actual pursuit, and a series of ad hoc efforts instead of formal, planned responses to the pandemic. Government planning requires far more responsive strategies for the inevitable consequences disasters and crises place on the U.S. food supply.

C. Systemic Issues of Food Insecurity Heightened in a Crisis Environment

Food security prioritizes “ensuring sufficient, appropriate, and accessible food to all.”³²⁷ Sufficiency relates to a food’s quantity and nutritional quality; appropriateness is examined through the lens of “culturally, technically, and nutritionally appropriate food,” and accessibility considers both physical and economic means of access to food.³²⁸ A pressing issue in even “normal” times, issues of food insecurity are only exacerbated during times of crisis, and were especially aggravated during the COVID-19 pandemic. The United

325. Tendall, *supra* note 4, at 19.

326. Endres & Endres, *supra* note 16, at 427–29, 431.

327. Tendall, *supra* note 4, at 19.

328. *Id.*

Nations World Food Programme (“WFP”) warned that the number of people facing acute food insecurity would “rise to 265 million people in 2020, up by 130 million from the 135 million in 2019, as a result of the economic impact of COVID-19.”³²⁹ The negative consequences of food insecurity reach beyond the inability to eat fresh, nutritious foods—or, at worst, the inability to access food at all—as the impact to emotional, mental, and physical health alike also affects levels of societal unrest.³³⁰

Any plans to effectively resolve the many symptoms of food insecurity must address its multiple dimensions and dynamic nature, and the plans must further do so by accounting for the exacerbation in times of crisis and disaster. Before the COVID-19 pandemic, many already struggled to afford food, but price rises for certain food products, coupled with unprecedented levels of unemployment and financial struggle, “substantially [increased] the spread and magnitude of this problem”³³¹ Affecting economic accessibility, “high food prices have multiple antecedents, including decreased supply (caused by production disruption); and increases in production, processing, distribution, or retail cost that are passed on to the consumer.”³³² Further, the “amount of income available to purchase food can be influenced through changes in the amount of the population making a living wage, unemployment, or the failure of safety nets that supplement earned income.”³³³ Physical inaccessibility occurs when:

community members are unable to travel to provisioning points. Provisioning points may be inaccessible due to events including transportation barriers or impedances, lack of proximity to a provisioning point, or interruptions to normal means of transit. Populations may be unable to leave home in the event of illness or disability; as

329. *COVID-19 Will Double the Number of People Facing Food Crises Unless Swift Action is Taken*, WORLD FOOD PROGRAMME (Apr. 21, 2020), <https://www.wfp.org/news/covid-19-will-double-number-people-facing-food-crises-unless-swift-action-taken>.

330. *See, e.g., Food Security and Political Stability in the Asia-Pacific Region*, ASIA-PAC. CTR. FOR SEC. STUD. (Sept. 11, 1998), https://apcss.org/Publications/Report_Food_Security_98.html (discussing the interrelation between food security and political stability).

331. Gwen M. Chodur et al., *Assessing Food System Vulnerabilities: A Fault Tree Modeling Approach*, 18 BMC PUB. HEALTH 1, 4 (2018).

332. *Id.*

333. *Id.*

a result of curfew, quarantine, or other mandated seclusion; or due to safety concerns.³³⁴

The pandemic impacted most—if not all—of these elements of accessibility with the months of stay-at-home orders around the nation and rising unemployment combined with high food prices.³³⁵

Composing another critical element of food security, food availability was also drastically altered by the pandemic. Food unavailability is generally caused by two major drivers: “supply chain failure and failure of the food donation system (e.g., food banks, food pantries, soup kitchens, shelters, and emergency government assistance programs).”³³⁶ Food banks provided essential resources to those most in need during the pandemic but struggled to maintain adequate resources to sustain those efforts.³³⁷ While the food supply chain did not completely fail in response to the burdens of COVID-19, it failed the most food insecure populations and left many with limited (or no) access to kitchen staples such as meat and flour.³³⁸ The issue was not the lack of availability of a food supply, but a lack of systems and structures in place to distribute these foods to those most in need during a time of crisis.³³⁹

The third component of food security is food acceptability, meaning the food supply must be nutritionally, religiously, and culturally adequate and appropriate, and cannot be “distasteful to consumers for reasons including flavor, appearance, or actual or perceived quality,” even in emergency situations.³⁴⁰ While at the time this article was written, little data could speak to the appropriateness of the foods available during the COVID-19 pandemic, it is nonetheless an important consideration in government efforts to ensure future food security and resilience. Food is deeply personal for a myriad of social, religious, and cultural reasons, and resilience

334. *Id.*

335. See Nicholas Kulish, *‘Never Seen Anything Like It’: Cars Line Up for Miles at Food Banks*, N.Y. TIMES (Apr. 8, 2020), <https://www.nytimes.com/2020/04/08/business/economy/coronavirus-food-banks.html?action=click&module=RelatedLinks&pgtype=Article>.

336. Chodur et al., *supra* note 331, at 5.

337. Kulish, *supra* note 335.

338. *Explainer: How the Coronavirus Crisis is Affecting Food Supply*, REUTERS (Apr. 2, 2020), <https://www.reuters.com/article/us-health-coronavirus-food-explainer/explainer-how-the-coronavirus-crisis-is-affecting-food-supply-idUSKBN21L0D2>.

339. Welsh, *supra* note 37.

340. Chodur et al., *supra* note 331, at 7.

cannot rely on the simple availability and accessibility of food while neglecting to address aspects of its quality.³⁴¹

In more dire circumstances, issues of food insecurity are the ones that can drive a food system to “[cross] a threshold that would be defined as a system failure.”³⁴² The primary drivers of food insecurity, though known well in advance of the pandemic, can no longer be ignored and must be considered and addressing government crisis and disaster planning moving forward.

V. CONCLUSION

Resiliency will not be found through government efforts alone—this much is clear from the government’s unwillingness or inability to date to successfully incorporate local and regional food into crisis and disaster response planning. Rather, resiliency in the U.S. food system must come from the collaborative effort of private actors supported by government funding and coordinating initiatives. It is often the smaller, private groups like food banks, farmers’ markets, and food policy councils, after all, that take concrete action to address issues of food insecurity caused by a lack of resiliency.

Though the government may tangentially address food system resiliency, the actual bolstering of resilience will be more likely to come from increased federal and state support for local and regional establishments that have the capability—but lack the resources—to effectively respond in times of crisis and disaster. Additionally, the various USDA grant and loan programs combined with the department’s increased focus on resiliency serve as promising vehicles by which to offer this support. The U.S. food system ought not have forced an Omaha food pantry that went from one-hundred daily visitors to nine-hundred in a matter of days to rely upon the charitable donations of Feeding America and Jeff Bezos to satisfy demand,³⁴³ but instead might have channeled relief and directed resources to those organization. Food banks, food policy councils, and farmers markets are set to become the modern equivalent of victory gardens if the government will rise to the occasion.

341. See generally Joan Sabaté, *Religion, Diet, and Research*, 92 THE BRITISH J. OF NUTRITION 199 (2004).

342. Chodur, *supra* note 331, at 4.

343. Kulish, *supra* note 335.

If the government takes the initiative to reform the form and substance of its crisis and disaster planning documents at both state and federal levels, certain plans exhibit potential to substantially impact issues of resiliency in the food system. On the federal level, government planning could enhance and expand upon NIPP goal #3³⁴⁴ of empowering local and regional partnerships to build capacity nationally as essential to critical infrastructure security and resilience. Additionally, the federal government could provide greater funding—and increase its accessibility—through the NDRF and CCC. State governments could facilitate the creation of mutual aid and emergency management assistance compacts for interstate assistance, conceivably expanding to instruct states to maintain emergency interstate contracts that sustain the local food supply in times of crisis. Beyond this, the government might create new planning independent of the existing crisis response framework to specifically address issues raised during the COVID-19 pandemic.

Policymakers simply cannot continue ignoring the mounting problems the lack of resiliency in the U.S. food system is inflicting upon the entire country and especially its most vulnerable populations. The COVID-19 pandemic exacerbated the food system's fragility, which stems from a dearth of formal incorporation or consideration of the indispensable role local and regional food supplies occupy in the fight for food security and resilience. No efforts to prevent future disruptions in the food supply chain during times of crisis and disaster will be complete or effective absent their integration.

344. See *supra* Section III.A.iii.