Building Community Wealth through Community Resilience

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Climate resilience and adaptation planning efforts often operate within a traditional political economic paradigm focused on risk, including climate risk. Often, these planning exercises do not adequately deal with underlying structural concerns, such as political enfranchisement, economic inequality, racism, and unrestrained growth. These and other problems have not only contributed to anthropogenic climate change, but they have exacerbated its impacts on those most marginalized, including minority and low-income residents. As La'Meshia Whittington Kaminski from the Just Florence Recovery group stated after Hurricane Florence hit the Carolinas, disproportionately affecting black residents, "[w]e are here to say that Hurricane Florence, and Matthew before it, are not just natural disasters. They are the logical outcome of society that believes certain people and lands are expendable."[1]

Evidence from climate-induced disasters, like the slew of hurricanes that have hit the coasts in recent years, demonstrates how black and Latinx communities are often the most immediately impacted because of historical redlining, affordable housing siting, general disinvestment, and the least access to recovery.[2] More chronic issues like increased small-grade stormwater flooding and the urban heat island effect prevalent in these neighborhoods also put its residents at public health risks over the long term—further increasing vulnerability during acute disaster events.[3] If climate planning efforts do not take concerns around equity, justice, and power into consideration during implementation, they have the potential to further segregate U.S. cities; contribute to widening economic, social, and health inequality; and even, in the extreme, create wealthy, ecological enclaves disconnected from the rest of society.[4] By contrast, community resilience planning can, and should, play a prominent role not only in limiting the harm to vulnerable residents but also in building vibrant, equitable, just, and healthy communities based on shared prosperity.

1   Kaminski, L.W. "Just Florence Recovery Press Conference Statement" (October 1, 2018), available at https://justflorencerecovery.org/october10statement/.

2   Bullard, R. and Wright, B. *The Wrong Complexion for Protection: How the Government Response to Disaster Endangers African American Communities*, New York University Press; Deaton, J. (2012). "Hurricane Harvey Hit Low Income Communities Hardest," *Thinkprogress* (September 1, 2017), available at https://thinkprogress.org/hurricane-harvey-hit-low-income-communities-hardest-6d13506b7e60/.

3   Jessdale, B., Morello-Frosch, R., and Cushing, L. "The Racial/Ethnic Distribution of Heat Risk-Related Land Cover in Relation to Residential Segregation," *Environmental Health Perspectives*, 121(7) (2013), pp. 811-817. doi: 10.1298/ehp.1205919

4   Anguelovski, I. et al. "Equity Impacts of Urban Land Use Planning for Climate Adaptation: Critical Perspectives from the Global North and South," *Journal of Planning Education and Research*, 36(3) (2016), pp. 333–348. doi: 10.1177/0739456X16645166

One such way is through community wealth building (CWB)–a new form of equitable community development that seeks to build, from the ground up and according to the principle of subsidiarity, a place-based economic system where democratic ownership and control creates more equitable outcomes, fosters ecological sustainability, and promotes flourishing community life. The CWB field has steadily grown over the past 30 years and includes a broad range of institutions and approaches that aim to improve communities by increasing ownership, anchoring jobs locally, and enabling active democratic partici-pation.[5] CWB suggests that many of the investments made in community development (including public funds in the form of grants and loans and spending on education and other services, as well as private investments required by federal, state, and local policies) would be more effective and empowering if applied to wealth building rather than wealth extraction approaches, such as subsidies and tax breaks to lure large corporations from one jurisdiction to another.[6]

This article explores some real-world examples of institutions implementing CWB-based community resilience strategies, including: (i) alternative business structures (e.g., social enterprises and worker-owned businesses); (ii) mechanisms for community control of land and housing (e.g., resident-owned communities); (iii) municipal enterprise (e.g., public water utilities); and (iv) anchor institutions (e.g., large, nonprofit place-based institutions like universities and hospitals).

Alternative Business Structures

Building out adaptation and resiliency projects creates new opportunities for organiza-tions that subscribe to theories of business that go beyond purely making a profit. In partic-ular, social enterprises (i.e., mission-driven nonprofits with a fee-for-service component) and worker-owned companies could prove to be transformative institutions in building more resilient infrastructure across the U.S. Major determinants of a person's ability to weather the impacts of climate change include political influence and economic stability.[7] This requires jobs that provide families with not only good wages and benefits, but also wealth building opportunities and advanced training–principally for those historically left out from the job market. Unlike traditional businesses, which often seek to boost profits by cutting labor costs, social enterprises and worker cooperatives do not operate on a binary of the bottom-line.

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5   Dubb, S. "Community Wealth Building Forms: What They Are and How to Use Them at the Local Level," *Academy of Management Perspectives*, 30(2) (2016), available at https://lamontanita.coop/wp-content/uploads/2015/04/2016_12_20-Community-Wealth-Building-Forms-What-They-Are-and-How-To-Use-Them-at-the-Local-Level.pdf.

6   Kelly, M. and McKinley, S. "Cities Building Community Wealth," The Democracy Collaborative, available at https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/CitiesBuildingCommunityWealth-Web.pdf.

7   Bullard, R. "Dismantling Environmental Racism in the USA," *Local Environment* 4(1) (1999), pp. 5-19; Blaikie, P., Cannon, T., Davis, I., and Wisner, B. *At Risk: Natural Hazards, People's Vulnerability and Disasters,* Routledge (2004); and Enarson, D. *The Women of Katrina: How Gender, Race and Class Matter in an American Disaster*, Vanderbilt University Press (2012).

The social enterprise Verde Landscape, the worker-owned Thunder Valley Thikága Construction, and the Evergreen Cooperatives are all examples of how to build systemic resilience to climate change by redefining how business models operate.

Verde Landscape is a social enterprise based in the Cully neighborhood of Portland, Oregon—a largely Latinx and low-income area. The social enterprise's core mission is to ensure low-income people directly benefit from environmental investments. One of their major tactics is integrating green infrastructure (e.g., stormwater mitigation that harnesses natural assets, like trees and shrubs, to stem the flow of water) into the local built environment. This socio-ecological resiliency tactic not only limits stormwater runoff, but has a host of co-benefits, such as cleaner air, communal spaces to foster community, and job opportunities with low thresholds to entry.[8]

In order to implement the green infrastructure assets, like rain gardens, Verde Landscape explicitly recruits workers from the Cully neighborhood with barriers to workforce entry and trains them through a long-term investment program. It cultivates relationships with other local institutions to provide the Cully neighborhood with green development, such as 130 units of affordable housing with green infrastructure.[9] Tony DeFalco, Verde's executive director, explains that "we have been intentional that environmental issues need to be paired with social services, such as affordable housing, which was the genesis of Living Cully, and to build wealth among low-income and community members of color."[10]

Thikága Construction is a Lakota employee-owned construction company launched in April 2018 to address the shortage of affordable housing and employment opportunities in the Porcupine District on the Pine Ridge Indian Reservation. Nearly 40 percent of residents on the reservation are below the poverty line and 80 percent are unemployed.[11] There is also a vital need for better, healthier affordable housing—over 70 percent of the population lives either in U.S. Department of Housing and Urban Development (HUD) housing or trailer homes. The worker-owned construction company hopes to fill the critical housing needs in Thunder Valley by designing sustainable housing—including hyper-efficient buildings that cut utility costs drastically—installing solar panels, and integrating water management tactics as part of a larger development strategy for a regenerative community that "recognizes the bond between tradition and innovation by building upon our Lakota values with eco-friendly designs that will ensure the wellbeing of our people, planet, and prosperity."[12]

8   Lamback, S. "Exploring the Green Infrastructure Workforce," Jobs for the Future (2017), available at https://www.jff.org/resources/exploring-green-infrastructure-workforce/.

9   Verde. "Living Cully buys the Sugar Shack..!!" (July 1, 2015), available at http://www.verdenw.org/verde-news/2016/9/7.

10 Author interview with Tony DeFalco (April 1, 2018).

11 Thunder Valley CDC. "Building a Regenerative Community" (May 14, 2013), available at http://lab.community-wealth.org/uploads/2/2/4/8/22483474/tvcdcmaster-plan.pdf.

12 Ibid.

The project evolved out of a Thunder Valley Community Development Corporation (CDC) program that provides job training for Lakotan youth in a holistic manner.[13] More than a construction company, the worker-owned firm constructs pathways out of intergenerational poverty through jobs for reservation residents as well as through partnership with the local CDC to make homeownership a reality. Providing sustainable, efficient, affordable housing while providing jobs and workforce development has clear resiliency outcomes. For instance, Lakotan residents will arguably be less likely to suffer from energy poverty (i.e., payments of more than ten percent of income on energy bills) because of their homes' efficiency, which will be particularly important as more extreme highs and lows in temperature occur with climate change.

The Evergreen Cooperatives are a network of worker cooperatives linked together by a community-controlled corporation based in low-income, high-poverty neighborhoods in Cleveland, OH. Currently, the network includes three companies with a total of more than 200 workers.[14] All the cooperatives are green by design—including a laundry facility that uses less water and energy than competitors, a solar panel installation and lighting retrofit company, and an urban greenhouse—and linked to the procurement needs of nearby anchor institutions, mainly large nonprofit hospitals and universities.[15] In addition to paying good wages and benefits, workers build wealth through their capital accounts (when the cooperatives are profitable) and through Evergreen's homeownership program which has the potential to increase economic resiliency, in turn helping workers better "weather the storm" of climate-related events.[16]

Community-Controlled Land and Housing

Economic development and land use planning at various levels have often historically benefitted wealthier, whiter communities to the detriment of communities of color and low-income neighborhoods.[17] In the face of climate change, climate planning often appears in some instances to be taking a similar path, with higher-income, mostly white neighborhoods prioritized for investment.[18] High-income residents have also been shown to displace low-income communities that live in areas that appreciate in value due to their potential for

13 Thunder Valley CDC. "Workforce Development through Sustainable Construction" (2017), available at http://thundervalley.org/assets/uploads/documents/Initiative%20Reports/2017/2017%20WFD%20FINAL.pdf.

14 Grzegorek, V. "Employee owned Evergreen Cooperative Laundry takes over Cleveland Clinic Laundry Operation, Adding 100 Workers to Coop," *Cleveland Scene* (May 10, 2018), available at https://www.clevescene.com/scene-and-heard/archives/2018/05/10/employee-owned-evergreen-cooperative-laundry-takes-over-cleveland-clinic-laundry-operation-adding-100-workers-to-coop.

15 REDF. "Impact to Last: Lessons from the Front Lines of Social Enterprise" (2015), available at http://redf.org/app/uploads/2015/12/Evergreen-Case-Study-FINAL.pdf.

16 Funes, Y. "Own a Home in Just Four Years? This Coop Program Keeps Workers in the Neighborhood," *YES! Magazine* (August 24, 2015), available at https://www.yesmagazine.org/issues/the-debt-issue/own-home-four-years-evergreen-cleveland-20150824.

17 Green, J. and Hanna, T. "Community Control of Land and Housing," The Democracy Collaborative (2018), available at https://thenextsystem.org/sites/default/files/2018-08/CommunityControlLandHousing.pdf.

18 Anguelovski, I. et al. "Equity Impacts of Urban Land Use Planning for Climate Adaptation" (2016).

higher climate resilience–coined as "climate gentrification."[19] Integrating community land acquisition and management with engineering and socio-ecological resilience tactics, like stormwater infrastructure or local gardens, could make strides in stemming climate-based displacement and allow lower-income communities to experience the economic, health, and other benefits of community resilience. Pasadena Trails in Houston, TX and Eastside Community Network in Detroit, MI provide concrete examples of the power of community land ownership for enabling community resilience.

In 2017, 12 million people in the U.S. lived in manufactured housing.[20] It is one of the most affordable housing options for many families, with the average resident's annual income at just around $28,000.[21] In the traditional model for manufactured housing communities, the residents either rent or own their manufactured house and rent the land. This puts them at the whim of the landowner, who may decide to raise land rents, sell the community, or fail to keep up the grounds. Faced with severe disinvestment, the manufactured housing community of Pasadena Trails organized itself to buy their neighborhood's land in 2008 and turned it into a resident-owned community (ROC). By buying the land, they are able to make collective decisions to make their neighborhood more livable. One of the initial problems was flooding. Poor drainage left residents' front yards wet and the bus stop swamped consistently, so they borrowed capital to invest in a better drainage and stormwater management system. When Hurricane Harvey hit in 2017, Pasadena Trails fared much better than other income-equivalent neighborhoods and became a relief hub for neighboring communities.[22]

More than a thousand miles north, in Detroit, large swaths of the city still stand empty and vacant nearly a decade after the financial crisis. Eastside Community Network (ECN), a local nonprofit that has served lower-eastsiders in Detroit, a predominantly black, low-income area for over thirty years, repurposes the vacant land to rebuild a connected and sustainable community.[23] Using a resident-centered approach, ECN acquires vacant properties through creative land assemblies, including purchasing from the Detroit Land Bank Authority, the municipal authority that owns and resells foreclosed land in the city, outright or in partnership, to create productive spaces for its residents.[24] The nonprofit has community-driven development plans for the open space, including affordable housing, green infrastructure build-outs to alleviate stormwater overflows, and community gardens.[25]

19 Keenan, J.M., Hill, T., and Gumber, A. "Climate Gentrification: From Theory to Empiricism in Miami-Dade County, Florida," *Environmental Research Letters*, 13(5) 054001 (2018). doi: 10.1088/1748-9326/aabb32

20 U.S. Census Bureau. "Total Population in Occupied Housing Units by Tenure by Units in Structure," *2013-2017 American Community Survey 5 Year Estimates* (2018), available at https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_B25033andprodType=table.

21 Prosperity Now. "The Facts about Manufactured Housing" (2017), available at https://familypromise.org/wp-content/uploads/2018/03/Manufactured-Housing-Fact-Sheet_2017.pdf.

22 Green, J. and Hanna, T. "Community Control of Land and Housing" (2018).

23 Eastside Community Network. "About," available at http://ecn-detroit.org/our-vision/.

24 Eastside Community Network. "Green Growth," available at http://ecn-detroit.org/green-growth-1/.

25 Eastside Community Network. "Lower Eastside Action Plan," available at http://ecn-detroit.org/leap.

Anchors in the Local Community: Universities and Hospitals

Anchors institutions are large public or nonprofit organizations rooted in their local communities, with some of the largest and most numerous being educational and health care institutions. These entities can have substantial economic power in their localities. For instance, hospitals and health systems represent $780 billion in total expenditures annually.[26] Moreover, they are often recipients of substantial sums of public money in the form of reimbursements for health care services (e.g., Medicare and Medicaid), tuition assistance, general operating support, research grants, and more. Instead of relying on "footloose," large corporations that often move (or threaten to move)[27] facilities in order to extract tremendous public subsidies to provide vital economic development, deploying anchor institution resources locally represents an alternative.

While not immediately obvious, many of these anchor institutions' missions relate directly to community resilience. For instance, extreme weather events and other climate-change-related effects can have serious ramifications for public health. Health inequities are estimated to generate an additional cost of $300 billion[28] in medical care, lost wages, family leave, and premature death—a figure that will only rise drastically as climate change further burdens low-income people and minorities. The World Health Organization expects that, between 2030 and 2050, climate change will cause a quarter million additional deaths per year.[29] Similarly, anchor educational institutions are deeply invested in the future of young people. Just over five years after Hurricane Katrina hit, one-third of Katrina's displaced children were at least a year behind in school.[30]

Montefiore in New York is one health system that has taken steps to address climate change as a determinant of health and social welfare by investing in energy efficiency and organizing affordable housing. Activated by the grassroots Northwest Bronx Community and Clergy Coalition (NWBCCC), in partnership with a local university and New York City's government, the Bronx Healthy Buildings Program tackles costly energy bills and poor housing conditions that often take away people's income from other basic necessities.[31] The program leverages participating anchors' power to promote "education, organizing, workforce development, and building upgrades," pinpointing specific buildings that are "drivers

26   Howard, T. and Norris, T. "Can Hospitals Heal America's Communities?" The Democracy Collaborative (2015), available at https://community-wealth.org/content/can-hospitals-heal-americas-communities.

27   See, for example: Bagli, C.V. "Opponents of City Subsidies Fret Over Deal With MetLife," *The New York Times* (November 14, 2006), available at https://www.nytimes.com/2006/11/14/nyregion/14metlife.html.

28   Wells, J. "White Wash: Biomedical Research Doesn't Reflect Diversity of American Public," University of California, San Francisco (December 5, 2016), available at https://www.ucsf.edu/news/2016/12/405091/whitewash.

29   World Health Organization (WHO). "Climate Change and Health: Key Facts" (February 1, 2018), available at http://www.who.int/en/news-room/fact-sheets/detail/climate-change-and-health.

30   Reckdahl, K. "The Lost Children of Katrina," *The Atlantic* (April 2, 2015), available at https://www.theatlantic.com/education/archive/2015/04/the-lost-children-of-katrina/389345/.

31   Hiser, J. "The Bronx Health Buildings Program: Tackling Asthma, Creating High-Road Jobs," *Climate Co-Lab Radio* (August 17, 2015), available at http://colabradio.mit.edu/the-bronx-healthy-buildings-program-tackling-asthma-creating-high-road-jobs/.

for high rates of emergency room visits."[32] By supporting tenant organizing and building inspections to determine how to best implement energy efficiency improvements, the health care system helps to enable housing stability.

As centers for innovation and large users of energy, universities have blazed the way in microgrid—small freestanding grids that can operate local generation, storage, and distribution in a coordinated way—development and deployment.[33] Microgrids can also disconnect from the larger grid in "island mode," and continue to operate, even if the rest of the parent grid fails. This makes them a key innovation for resiliency in the event of disaster.[34] The University of Central Florida's Solar Energy Center has coordinated with local government, schools, emergency management personnel, and utilities to install over 115 10-kW solar microgrid systems for local schools throughout Florida at a low cost.[35] During Hurricane Irma, 41 schools were able to open and operate as emergency shelters, providing electricity, heating and cooling, and other essentials while the larger grid was disrupted.[36] Not only do the microgrids provide shelters to communities during disasters, they operate as an educational and job training tool. The program has trained teachers in photovoltaics and renewable energy, who then teach their students. Still relatively nascent, as more microgrids come online wealthier institutions and communities could peel off the public grid in piecemeal privatization. Anchors, such as universities, could use their status as major economic and social actors to convene conversations about how to deploy microgrids so they benefit the whole community—from universal access during storms to the financial benefits of being able to manage energy storage.

Local Public/Municipal Ownership

Municipal or local public ownership describes businesses, services, and assets owned by local or regional governments. With residents and customers as their ultimate shareholders, publicly-owned enterprises do not have the same emphasis on growth and profitability like their for-profit counterparts. They ultimately are accountable to the will of the community and its objectives. Local publicly-owned enterprises are similar to anchor institutions and intrinsically tied to their locality, providing jobs, services, and investments. Being connected to the larger local governmental ecosystem that is making decisions on climate plans and

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32 Ibid.

33 Chenoweth, H. "The Rise of University Microgrids," Higher Ed Facilities Forum (January 3, 2018), available at https://info.higheredfacilitiesforum.com/blog/the-rise-of-university-microgrids.

34 Roberts, D. and Chang, A. "Meet the Microgrid, the Technology Poised to Transform Electricity," *Vox* (May 24, 2018), available at https://www.vox.com/energy-and-environment/2017/12/15/16714146/greener-more-reliable-more-resilient-grid-microgrids.

35 Florida Solar Energy Center. "SunSmart E-Shelters Program" (2018), available at http://www.fsec.ucf.edu/en/education/sunsmart/index.html.

36 Energy Storage Technology Advancement Partners. "Webinar: SunSmart Emergency Shelter (E-Shelter) Program" (October 24, 2017), available at https://www.cesa.org/assets/2017-Files/ESTAP-webinar-slides-10.24.17.pdf; Solar United Neighbors. "Solar + Storage in Florida" (2018), available at https://www.solarunitedneighbors.org/florida/learn-the-issues-in-florida/solar-storage-in-florida/?nabe=4541329907646464:0andutm_referrer=https%3A%2F%2Fwww.google.com%2F.

investments means they have the potential to play a critical role in community wealth building and community resilience. With the urging of their communities, some municipal enterprises are taking up the community resilience mantle.

DC Water, the public water utility in Washington, DC is one such example. In recent years, the Washington Interfaith Network (WIN) and the local construction union affiliated with the Laborers' International Union of America (LiUNA), banded together to leverage the city's mandate to invest $2.6 billion in stormwater infrastructure to better serve the city's residents.[37] It did so by advocating for DC Water to incorporate green infrastructure tactics more amenable to workforce development. After a successful campaign, DC Water took up the mantle, working with a local university to build out a groundbreaking program for green infrastructure that prioritizes training residents with barriers to employment. DC Water also coordinated the end of the training program with the beginning of their contracting process. The new program has enabled contractors to better achieve the local hiring quotas already in place because there is more local technical capacity.

Across the country, in San Francisco, the local public water utility collaborated with People Organizing to Demand Environmental and Economic Rights (PODER)—a youth-led, Latinx environmental justice base-building organization working with the low-income, immigrant residents of San Francisco's Mission and Excelsior neighborhoods to increase the robustness of community resilience and adaptive capacity—to implement a six-acre, food-producing farm that now operates as a major community convening space.[38] The effort is part of the San Francisco Public Utilities Commission's (SFPUC) Environmental Justice program, the first of its kind in the U.S. The farm distributes around 1,000 pounds of fresh fruits and vegetables each season on what used to be underutilized land, creating healthier residents and climate resilience.[39] The consolidation and brittleness of industrial agriculture puts food systems at risk, especially as California experiences more droughts and higher temperatures.[40] Localized, diversified food gardens like the one SFPUC and PODER have collaborated on can provide for community members in times of food insecurity. SFPUC's financial and in-kind support of a grassroots organization deeply entrenched in the community provides an example of supporting bottom-up climate resiliency planning.

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37 Sanchez, A., Marshall, C., and Bruno, A. "Invisible to Invaluable: Organizing Counties in Howard County, MD and Washington, DC, for Clean Water and Economic Opportunity," Industrial Areas Foundation (2014).

38 Gonzalez, R. "Community-Driven Climate Resilience Planning: A Framework 2.0," National Association of Climate Resilience Planners (2017), available at https://kresge.org/sites/default/files/library/community_drive_resilience_planning_from_movement_strategy_center.pdf; People Organizing to Demand Environmental and Economic Rights (PODER). "Programs," available at https://www.podersf.org/programs/.

39 San Francisco Public Utilities Commission. "Hummingbird Farm," available at https://sfwater.org/index.aspx?page=1202.

40 Morris, K.S. and Bucini, G. "California's Drought as Opportunity: Redesigning U.S. Agriculture for a Changing Climate," *Elementa Science of the Anthropocene*, 4 (2016), p. 142. doi: 10.12952/journal.elementa.000142

Conclusions

Preparing for and reducing the risk from climate change is an immense challenge for many communities, especially those that have traditionally suffered from disinvestment and disempowerment. However, it also represents an opportunity to begin to think differently about community development in such areas. As more resources, investment, and attention are directed towards climate change adaptation and community resilience, they could and should be focused on institutions and approaches that address entrenched systemic injustices and inequities and provide residents with opportunities to build wealth and power. As discussed, the seeds of such an approach are already being sown—from linking community energy efficiency and safe, affordable housing efforts to health care institutions; to communities organizing to gain collective ownership of land in order to make stormwater infrastructure improvements and improve standards of living; to worker-owned companies and social enterprises that provide good paying jobs, benefits, and training for local residents; to publicly-owned enterprises that are working with community-led initiatives to provide jobs and support grassroots climate planning. In short, community developers have the opportunity to leverage climate change efforts to create more equitable, just, sustainable, and democratic local communities.

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