

JUSTICE, EQUITY, AND EMERGENCY MANAGEMENT

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COMMUNITY, ENVIRONMENT AND DISASTER
RISK MANAGEMENT VOLUME 25

JUSTICE, EQUITY, AND EMERGENCY MANAGEMENT

EDITED BY

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CONTENTS

<i>List of Tables and Figures</i>	<i>vii</i>
<i>Abbreviations and Acronyms</i>	<i>ix</i>
<i>About the Authors</i>	<i>xiii</i>
Chapter 1 Introduction <i>Alessandra Jerolleman and William L. Waugh, Jr.</i>	 <i>1</i>
Chapter 2 Mutual Aid: A Grassroots Model for Justice and Equity in Emergency Management <i>Miriam Belblidia and Chenier Kliebert</i>	 <i>11</i>
Chapter 3 Agricultural and Fishery Disasters: Public Policy Challenges and Just Recovery in a Critical Infrastructure Sector <i>Jerry V. Graves</i>	 <i>31</i>
Chapter 4 Lessons from Co-occurring Disasters: COVID-19 and Eight Hurricanes <i>Alessandra Jerolleman, Shirley Laska and Julie Torres</i>	 <i>59</i>
Chapter 5 Federal Indian Policy and the Fulfillment of the Trust Responsibility for Disaster Management in Indian Country <i>Samantha J. Cordova</i>	 <i>89</i>
Chapter 6 Equity and Justice in Hazard Mitigation <i>Oluponmile Olonilua</i>	 <i>107</i>
Chapter 7 Just Recovery for Individuals with Access and Functional Needs <i>Jacob Fast</i>	 <i>131</i>

Chapter 8 The Underside of Epiphany: Wandering Wonderings <i>Richard Krajewski, Lorna Jarrett Blanchard, Maraya Ben-Joseph, Mây Nguyễn, Tươi Nguyễn, Bryan Parras, David Rico, M. Kalani Souza, Dezzi Synan, Kristina Peterson, Julie Maldonado, Alessandra Jerolleman and Nathan Jessee</i>	153
Chapter 9 The Role of Emerging Technologies and Social Justice in Emergency Management Practice: The Good, the Bad, and the Future <i>Paula R. Buchanan and Chayne Sparagowski</i>	175
<i>Index</i>	201

LIST OF TABLES AND FIGURES

Tables

Table 3.4.	DOL Survey Findings (Hernandez & Gabbard, 2018)	42
Table 9.1.	Strengths and Weaknesses of Social Media Usage	188

Figures

Fig. 3.1.	Agriculture and Related Industries in the US Workforce (USDA Economic Research Service, 2021a)	35
Fig. 3.2.	Legal Status of Crop Farmworkers, 1991–2016 (USDA Economic Research Service, 2021c)	37
Fig. 3.3.	Farms by Size and Income, 2019 (USDA Economic Research Service, 2021b).	41
Fig. 3.4.	Statutory Authorities and Fishery Disasters (Upton, 2019)	48
Fig. 4.1.	2020 Hurricane Season (NASA Scientific Visualization Studio)	63
Fig. 4.2.	Louisiana Parishes (Counties) Examined in This Study	63
Fig. 4.3.	The Observed Paths of Eight Hurricanes That Threatened Louisiana in 2020	64
Fig. 4.4.	Overlapping New Orleans Emergency Events: October 2019–Current	82
Fig. A1.	2020 Hurricane Season – St. Bernard parish	87
Fig. 6.1.	Four Phases of Emergency Management	115
Fig. 9.1.	The Communication Process	178

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ABBREVIATIONS AND ACRONYMS

(CAFR)	Comprehensive Annual Financial Report
(FEMA)	Federal Emergency Management Agency
(MARN)	Mutual Aid Response Network
(PPFPE)	<i>Prima facie</i> political equality
(BIPOC)	Black, Indigneous, People of Color
(EMAC)	Emergency Management Assistance Compact
(FEMA)	Federal Emergency Management Agency
(LGBTQ)	Lesbian, Gay, Bisexual, Transgender, Queer
(MADR)	Mutual Aid Disaster Relief
(MARN)	Mutual Aid Response Network
(NEMA)	National Emergency Management Association
(NGO)	Non-governmental Organizations
(NIMS)	National Incident Management System
(SMA)	Southern Movement Assembly
(VOAD)	Voluntary Organizations Active in Disaster
(Farm Bill)	Agriculture Improvement Bill
(CDC)	Center for Disease Control and Prevention
(CRS)	Congressional Research Service
(DHS)	Department of Homeland Security
(DOL)	Department of Labor
(ERS)	Economic Research Service
(FLSA)	Fair Labor Standards Act
(FSA)	Farm Service Agency
(FHA)	Farmers Home Administration
(FEMA)	Federal Emergency Management Agency
(FA Sector)	Food and Agriculture Sector
(GCFI)	Gross cash farm income
(GDP)	Gross domestic product
(HMGP)	Hazard Mitigation Grant Program
(IA)	Individual Assistance
(MSA)	Magnuson-Stevens Fishery Conservation and Management Act
(MSAWPA)	Migrant and Seasonal Agricultural Worker Protection Act
(NIPP)	National Infrastructure Protection Plan
(NLRA)	National Labor Relations Act
(NMFS)	National Marine Fisheries Service
(NOAA)	National Oceanic and Atmospheric Administration
(NAP)	Noninsured Disaster Assistance Program
(PPFPE)	<i>Prima facie</i> political equality
(PA)	Public Assistance

(RMA)	Risk Management Agency
(Stafford Act)	Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988
(SSP)	Sector-Specific Plans
(SBA)	Small Business Administration
(USDA)	United States Department of Agriculture
(USGCRP)	United States Global Change Research Program's
(EOC)	Emergency Operations Center
(GOHSEP)	Governor's Office of Homeland Security and Emergency Management
(NHC)	National Hurricane Center
(NWS)	National Weather Service
(NOHSEP)	New Orleans Office of Homeland Security and Emergency Management
(VOAD)	Voluntary Organizations Active in Disasters
(BIA)	Bureau of Indians Affairs
(FEMA)	Federal Emergency Management Agency
(Indian Country)	Governments, Lands, and Peoples of the more than 570 federally recognized Tribal Nations within the borders of the United States
(NCAI)	National Congress of American Indians
(CEM)	Comprehensive Emergency Management
(DOT)	Department of Transportation
(DMA2K)	Disaster Mitigation Act of 2000
(EPA)	Environmental Protection Agency
(FEMA)	Federal Emergency Management Agency
(FMA)	Flood Mitigation Assistance Program
(HMGP)	Hazard Mitigation Grant Program
(IEMS)	Integrated Emergency Management System
(LHP)	Landslide Hazard Program
(LEP)	Limited English Proficiency
(NEHRP)	National Earthquake Hazards Reduction Program
(NFIP)	National Flood Insurance Program
(NRCS)	Natural Resource Conservation Service
(NSF)	National Science Foundation
(PDM)	Pre-Disaster Mitigation
(PA)	Public Assistance
(RFC)	Repetitive Flood Claims program
(SARA)	Superfund Amendments and Reauthorization Act
(ADA)	Americans with Disabilities Act
(AAPD)	American Association of People with Disabilities
(FEMA)	Federal Emergency Management Agency
(ICE)	Immigration and Customs Enforcement
(LEP)	Limited English proficiency
(UNDDR)	UN Office for Disaster Risk Reduction

(NHW)	Natural Hazards Workshop
(AFCEMA)	Atlanta Fulton County Emergency Management Agency
(APS)	Atlanta Public Schools
(CARES)	Coronavirus Aid, Relief, and Economic Security
(FCC)	Federal Communications Commission

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ABOUT THE AUTHORS

Miriam Belblidia is a leader in the New Orleans water sector who has dedicated herself to reducing risk from flooding and environmental hazards for more than a decade.

She has lived in New Orleans for 10+ years and founded Water Works in 2012, serving as Co-founder and CEO from 2012 to 2018, where she demonstrated a commitment to equitable solutions that respect historic context and local wisdom. In 2019, she stepped back to create space for native New Orleanians and trans and queer people of color to step into leadership roles. Water Works also transitioned to “Imagine Water Works” at this time, and she became the organization’s Director of Research and Advocacy. Most recently, she organized in opposition to HB197, which would have criminalized protestors on “critical water infrastructure” with 3–15 years of hard labor. In June, she celebrated a victory alongside countless individuals and organizations statewide as the bill was vetoed.

Miriam was a Co-founder and the first President of the Water Collaborative of Greater New Orleans, a 300-member regional water management group. In 2018, she joined the University of Pittsburgh’s faculty as a Visiting Senior Lecturer and Director of the Center for Disaster Management. She has championed increased community engagement in planning and decision making, and works alongside residents using a co-creation model to advance a shared vision for “living with water.”

Maraya Ben-Joseph works with the Olohana Foundation as Project Director and Board Member. She represents the organization at international conferences, collaborating with community, state, federal, and indigenous institutions seeking to mitigate the adverse effects of climate change, particularly on native and rural communities. She is actively involved in: the Indigenous Phenology Network, the National Center for Atmospheric Research/University Corporation for Atmospheric Research: Rising Voices, Pacific Risk Management Ohana Indigenous Knowledge Working Group, the Momi-toring Program (“Mothers Participating Directly in Climate Observation”), and The VICTree Gardens Program (“Virtually Interconnected Community Tree Gardens”). Raised in New York, she grew up in a multicultural, multilingual family within a community (Rudolf Steiner Fellowship Foundation) dedicated to the care of the human being and the land. From a young age, she has worked on farms, in gardens, in orchards and with farm animals. In addition she has worked with elders and with children. She graduated from Prescott College with a degree in Community Capacity Building: Native and Indigenous Practice. The focus of her education has been: conservation, nature immersion, wilderness awareness, agroforestry,

Hawaiian cultural studies, and restoration at the community level. Currently she is an elementary school teacher at the Kona Pacific Public Charter School, as well as a farmer, mother, wife and musician. She inculcates diverse spiritual, economic, educational, cultural, racial, and ethnic perspectives into her worldview giving rise to her passions, her commitments and her responses to the needs of an ever evolving future.

Lorna Jarrett Blanchard is an advocate of disability rights who develops programs to move her community towards inclusion. According to Blanchard, however, “Those are just words. I simply am a person on a mission to lift people to more resilience.

I am ...

Born into diversity.

Demanding equality and inclusion.

Searching for wisdom.

Celebrating life.

Growing old, wistfully walking blessed.”

Paula R. Buchanan is a disaster scientist and emergency management researcher. Her work lies at the intersection of public health, education, risk communication, and outreach messaging. She has professional experience in communications, university-level instruction, business continuity, and project management. She has an MBA and MPH with a Health Systems Management and Policy concentration from the University of Alabama-Birmingham; and graduated from Tulane University with a BS in Biology, BA in History, and a minor in Economics.

A central question of her research is the extent to which socio-technical systems function as a communication channel to provide populations with accurate information to mitigate public health impacts associated with, or exacerbated by, disasters. She is interested in using mixed methods to better understand the multifaceted nature of her interdisciplinary research interests. She is also passionate about using social media, information technology, and data visualization tools to effectively communicate with targeted audiences.

Samantha J. Cordova holds a Master of Social Work with an emphasis in Community Practice and Policy from Boston University, and is currently pursuing a Doctor of Science in Emergency Management at Jacksonville State University. She has worked with several Tribal Governments and organizations on issues related to emergency management and federal funds management. Her professional and research interests include indigenous emergency management, emergency management funding, and emergency management ethics.

Jacob Fast is an Assistant Professor of Disaster and Healthcare Mission Management at Lee University in Cleveland, Tennessee. He is also the Academic Coordinator for the Learn-Engage-Achieve-Program (LEAP) at Lee, designed to serve undergraduate students who are either low-income, first-generation, and/or have a documented disability. His education includes a Master of Education from

the University of Tennessee at Chattanooga, a Master of Business Administration from Lee University, and a Doctor of Science in Emergency Management that is in-progress through Jacksonville State University. He is a member of the Southeast Tennessee Medical Reserve Corps as well as an active volunteer for the American Red Cross.

Jerry V. Graves is an Urban and Coastal Resilience Planning Consultant based in New Orleans, Louisiana. He previously served in the public sector for over a decade. He is also currently a member of the master of public administration faculty at the University of New Orleans and Tulane University. He earned a Doctorate in Urban Studies and Master's degree in Public Administration from the University of New Orleans. He also earned a Bachelor's degree in Political Science from the University of Louisiana at Lafayette.

Alessandra Jerolleman is an Associate Professor in Jacksonville State University's Emergency Management Department. She is a Community Resilience Specialist and Applied Researcher at the Lowlander Center, as well as a Co-founder of Hazard Resilience, a United States based consultancy providing leadership and expertise in disaster recovery, risk reduction, and hazard policy. She is one of the founders of the Natural Hazard Mitigation Association and served as its Executive Director for its first seven years. She is a subject matter expert in climate adaptation, hazard mitigation, disaster recovery, and resilience with a long history of working in the public, private, and non-profit sectors. She is involved in various aspects of planning and policy and the national and local level, including participation in several workshops each year. Her experience includes the following: conducting independent research on disaster risk reduction and hazard mitigation for various organizations such as the National Wildlife Foundation; working as the Lead Grant Writer and Emergency Planner for the First Peoples' Conservation Council, through her role with the Lowlander Center on coastal community resettlement; community based resilience planning across the United States; working with Save the Children USA along the Gulf Coast following hurricanes and tornadoes, on a resilience initiative around children's needs in emergencies; hazard mitigation planning at the local, state, and campus level; community education and outreach regarding mitigation measures and preparedness; development of collaborative networks and information sharing avenues among practitioners; and delivery of training and education to various stakeholders. She speaks on many topics including: Just Recovery; hazard mitigation and climate change; campus planning; threat, hazard, and vulnerability assessments; hazard mitigation planning; protecting children in disasters; and, public/private partnerships.

Nathan Jessee is a Postdoctoral Research Associate at Princeton University's High Meadows Environmental Institute. He uses collaborative ethnographic research to study social, political, and cultural dimensions of environmental change and development in coastal Louisiana. He is currently working on a book based on doctoral research conducted alongside Isle de Jean Charles

Biloxi-Chitimacha-Choctaw Tribal leaders focused on legacies of ecocide, community resettlement planning, and the politics of climate change adaptation.

M. Kalani Souza is a gifted storyteller, singer, songwriter, musician, performer, poet, philosopher, priest, political satirist, and peacemaker. A Hawaiian practitioner and cross-cultural facilitator, he has experience in promoting social justice through conflict resolution. His workshops and lectures inspire, challenge, and entertain the listener while calling all to be their greater selves.

His native roots allow him a unique perspective of the collision of two worlds: one steeped in traditional culture and the other a juggernaut of new morality and changing economic and political persuasion. He is a messenger of integration and collaboration in a world normally rife with exclusion, oppression, and hopelessness. His work in behavior modification research, leadership, teambuilding, and political strategy gives him generous insights into group dynamics and systems of governance.

He is the Founding and current Director of the Olohana Foundation, a 501(c)(3) non-profit based on Hawaii's Big Island since 2008. Olohana focuses on building community capacity, cohesiveness, resilience, and emergency preparedness around food, energy, water, and knowledge systems.

He is also a Coastal Community Resilience Trainer with Federal Emergency Management Agency Consortium member, the National Disaster Preparedness Training Center at the University of Hawaii, in Honolulu, Hawaii. He serves as a Cultural Competency Consultant for the National Oceanic and Atmospheric Administration Pacific Services Center of the US Department of Commerce and is regularly called to lead and participate in workshops and webinars on topics including disaster preparedness, community, relationships, knowledge systems sharing, indigenous environmental stewardship, and climate change adaptation. He also serves as a mentor with the Hawaii non-killing effort out of the Spark Matsunaga Center for Peace and as a board member for the Ala Kahakai Trail Association, part of the National Park Services Ala Kahakai National Historic Trail.

Previously, he taught Conflict Resolution at University of Hawaii at Manoa in the Department of Urban and Regional Planning. He served as the Chairman of the Indigenous Knowledge and Education (IKE) Hui of the Pacific Risk Management Ohana, a collection of federal, state, county, and non-governmental agencies that work primarily to mitigate and respond to disasters in the greater Pacific region; and recently consulted with the Presidents Ocean Policy Task Force around the indigenous knowledge and science integration perspective in Washington DC.

He was on the Committee for Intense Public Conflict of the Association for Conflict Resolution, a body of 6,000 international professional peacemakers; and served as one of two Hawaiians in the Native Network, a group of 450 peacemakers on the Department of the Interior out of the Morris Udall Center for Peace in Tucson, Arizona.

He engaged in a musical and media project, the Big Blue O, that produced an album in 2011. The project is also working on a film highlighting issues of

community and cultural capacity through the lens of our relationships to one another and to water.

Chenier Kliebert joined Water Works in 2015, co-founded Imagine Water Works in 2018, and became its Executive Director in early 2019. Klie is a native New Orleanian with deep, multigenerational family ties to St. James Parish who brings a unique blend of experience in communications and grassroots organizing, social and community science, and non-profit management to the team. As a Creole, Cajun, and Indigenous person, Klie also has a passion for telling the story of Louisiana, in particular with an intersectional racial and gender analysis. In their role at IWW, Klie not only leads the organization's daily work, but is also the Lead Organizer for the Trans Clippers Project and the Mutual Aid Response Network.

While at the Foundation for Louisiana, Klie supported efforts toward climate justice, immigrants' rights, criminal justice and bail reform, housing justice, and more. Prior to joining IWW, Klie worked for the Public Laboratory for Open Science and Technology, an open source international community of scientists and resident activists focused on using simple DIY tools to collect data about our local environments.

Klie is a member of the Baton Rouge Immigrants Rights Coalition; a Fellow with Project South's first BAM (Building A Movement) Institute for Disaster Preparedness, Response, and Recovery (2019–2021); a Grantmakers United for Trans Communities Leadership Fellow (2019); a Loyola University Institute for Environmental Communications Fellow (2016); and was the first Safety Officer for the Gathering of Open Science and Hardware (2017). Klie has co-written multiple Codes of Conduct specifically within science and tech spaces, and they are a contributor to the Global Open Science Hardware Roadmap: an actionable plan to make science hardware open and accessible to everyone by 2025. Klie is a Volunteer Programmer for the New Orleans Film Society in the "Louisiana Shorts" and "Southern Shorts" categories (2018–present) and an Administrator for the "Nonprofit Happy Hour" (2016–present), an online peer learning group of over 50,000 non-profit professionals.

Sometimes a writer and sometimes a photographer, Klie was accepted as a 2019 Artist In Residence with Works On Water in NYC, exploring concepts of consent with our bodies and with nature – and how these relationships drive our current water management practices.

Richard Krajewski passed away peacefully at his home on December 9 in Gray. He had been diagnosed with a rare and very aggressive form of liver cancer less than a month earlier.

"Dick" was many things, a pastor, father, husband, partner, colleague, philosopher, researcher, teacher, mentor, advocate, friend and, most importantly, working to model his life after that of Jesus.

All of what he tried to do and be was predicated on principles of justice, mercy, and grace. During his ministry, he mentored and inspired many young people and included people who were ignored or left out of the circle. He worked

for the inclusion of all God's people especially for those with special needs. His work embraced justice in long-term community recovery from disasters and has been recognized internationally by practitioners and academics. He was an innovator for making the world better, serving as a founding board member of the Gender and Disaster Network, Wetlands Theological Project, National Hazards Mitigation Association, and Lowlander Center.

Shirley Laska is a Professor emerita of Sociology, University of New Orleans, where in 2002 she created the Center for Hazards Assessment, Response and Technology (UNO-CHART) following a near-decade stint as Vice President of Research. Before this appointment, she established the Environmental Social Science Research Institute. In its 18-year existence CHART has refined collaborative responses to extreme weather risks first with coastal non-hurricane events, then Hurricane Katrina, later the massive Macondo BP oil spill, and now COVID-19. It has served as a training center for more than 150 graduate research assistants now leading a wide variety of risk reduction organizations and positions. Numerous peer-reviewed publications, research grants, service on several National Academy of Sciences (NAS) and Naval Research Advisory Committee (NRAC) committees and awards from the American Sociological Society and Rural Sociology filled her academic career.

During this current "retirement" decade (2009–), she co-founded with Kristina Peterson, a post-disaster, long-term sustainable recovery specialist, the Lowlander Center, which is honing an even more applied Participatory Action Research approach to community collaboration honoring the knowledge and capacity of coastal, inland Louisiana and Alaskan indigenous communities as they cope with extreme risk from the changing climate and the carbon-based enterprises that harm them directly and contribute to climate change. With the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Indians Tribal Community, Lowlander Center visioned and prepared their resettlement proposal for the Rockefeller National Disaster Resilience Competition for which the state received \$52 million to implement the project (2016). Concurrent with the rural work, prior to COVID-19, Lowlander initiated an urban resilience project in conjunction with African American congregations: the storm proofing of rental properties, to improve renters' opportunities to return to their homes after a hurricane, as homeowners with mitigation improvements are more likely to be able to do. An edited volume by Laska, *Louisiana's Response to Extreme Weather – A Coastal State's Adaptation Challenges and Successes*, Springer/open access has recently (2020) been published.

Julie Maldonado is Associate Director for the Livelihoods Knowledge Exchange Network (LiKEN), a link-tank for policy-relevant research toward post-carbon livelihoods and communities. She is Co-director of Rising Voices: Climate Resilience through Indigenous and Earth Sciences, works with the Institute for Tribal Environmental Professionals to support tribes' climate change adaptation planning, and is a Lecturer in the University of California-Santa Barbara's Environmental Studies Program. She is also a founding member of the Culture and Disaster Action Network.

As a public Anthropologist, she has consulted for the UN Development Program and World Bank on resettlement, post-disaster needs assessments, and climate change. She worked for the US Global Change Research Program and is an author on the 3rd and 4th US National Climate Assessments. Her Doctorate in Anthropology from American University focused on the social and cultural impacts of environmental change and habitual disasters in coastal Louisiana. She was the Lead Editor for a special issue for the journal *Climatic Change* entitled, *Climate Change and Indigenous Peoples in the United States: Impacts, Experiences and Actions*, which was published in 2012. Her book, *Seeking Justice in an Energy Sacrifice Zone: Standing on Vanishing Land in Coastal Louisiana*, and co-edited volume, *Challenging the Prevailing Paradigm of Displacement and Resettlement: Risks, Impoverishment, Legacies, Solutions*, were both released in 2018. As part of LiKEN, she organized and is Executive Producer of the Paper Rocket Productions film, *Protect*, which was released in December 2018.

Mây Nguyễn was an Attorney in Louisiana before joining the Asian Pacific Environmental Network. She continues to serve on the Board of Directors for the Foundation for Louisiana and the Lowlander Center. She is originally from New Orleans and grew up in a SouthEast Asian immigrant community in Oakland. Her childhood years were spent observing her mom organize the apartment's residents to start and tend to their one-acre community garden. She returned to New Orleans after Hurricane Katrina to assist with the recovery effort as the Inaugural Business Development Director at the Mary Queen of Viet Nam Community Development Corporation – raising over \$4 million to recover minority-owned small businesses and farmer's market. At the same time, she was organizing alongside local leaders to shut down a landfill that threatened to contaminate the water source for home and community gardens. The campaign was documented in the Emmy-nominated documentary, *A Village Called Versailles*. Five years later, in the wake of the BP Oil Spill, she led a successful campaign to win recognition and compensation for loss of traditional subsistence use of seafood that fishers brought home to barter, feed the family, and provide for community events.

She holds a Juris Doctor degree and a certificate in Public Interest Law and Policy from the University of California, Los Angeles School of Law, a Master's in International Economics and Southeast Asia Studies from Johns Hopkins University School of Advanced International Studies, and a Bachelor's degree from Amherst College.

Tươi Nguyễn is a woman who lives for her family. She has eight children, including one in heaven, and one love. She is driven toward public service. For about 15 years, she was the manager of her apartment building of dozens of immigrant and refugee families from Viet Nam, Laos, and Cambodia. She organized an urban farm of approximately one acre to feed her community. She believes that she has done good to others. Her friends and people in her community say that she is God sent.

Oluponmile Olonilua is an Associate Professor in the Political Science Department at Texas Southern University where she was the first doctoral candidate to receive a PhD in Urban Planning and Environmental Policy in 2006. She was a Mary Fran Myers Scholarship award winner in 2009; which allowed her to attend her first Natural Hazards Workshop that year. She has been a regular attendee every year since. She is now the Continuing Education Credit Coordinator for the Natural Hazards Workshop, a Board Member of the Natural Hazards Mitigation Association, and a member of the Texas Floodplain Managers Association. She teaches Emergency Management and Homeland Security at Texas Southern University and is a certified Floodplain Manager. She is also a Hazard Mitigation/Floodplain Management Plan Reviewer for Community Rating System credits with the Insurance Services Office. She has published her research in several journals including the *Journal of Emergency Management*, *Journal of Risks, Hazards, Crisis, and Public Policy*, and *World Health and Medical Policy*.

Bryan Parras is one of the Gulf Coast's most dynamic environmental justice organizers fighting along the entire central and eastern United States. He grew up in a community on the east side of Houston, Texas, near one of the largest concentrations of petrochemical plants, refineries, and storage tanks in the world. He is deeply involved in the documentation of environmental racism experienced by marginalized communities from Houston and throughout the greater Gulf Coast region. He has maintained his indigenous roots by core values that have survived over 500 years of suppression. He hopes to learn more about his indigenous roots by reconnecting with other indigenous communities and practices. In 2016, he helped organize the Peace & Dignity Journey along the Gulf Coast, connecting New Orleans with Houston and for the first time opening up the Gulf Coast to the continental journey awakening old trails and trade routes from South to North. He continues to help lead the rising environmental justice movement and is currently helping people in Houston and the Gulf Coast fight for a Just Recovery after Hurricane Harvey. For Harvey's one-year anniversary, he organized a People's Tribunal with a coalition of housing, immigration, labor, and environmental organizations.

Kristina Peterson is an Applied Social Scientist who studies scientist/community interaction including how to support and prepare both scientists and community members for working together and how that work transforms both parties. She is a Co-founder of the Lowlander Center, a non-profit organization that helps create solutions through education, research, and advocacy, beginning at the community level, for Lowland people and places in the bayous of Louisiana. She was a founding board member of the Natural Hazard Mitigation Association and the Gender and Disaster Network.

She has created and helped create innovative just housing and land use programs especially in post-disaster situations. She was an early innovator on reuse of building materials and the deconstruction of buildings as a resource for affordable housing.

She is an Advisory Board member of the Thriving Earth Exchange of the Geophysical Union and is a fellow in the Society of Applied Anthropology. Her recent awards include the “Distinguished Service to Rural Communities” from the Rural Sociology Association in 2014, for her years of advocacy and justice work in rural communities, and from the PCUSA-Earth Care, the William Gibson Environmental Award. She was named by her colleagues, the Mother Jones of Disaster Recovery.

Her most recent notable work has been to develop a team of topic experts to work with the Tribal experts of Isle de Jean Charles to create one of the winning proposals in the National Rockefeller HUD NDRC competition – \$52,000,000 for a “proof of concept” culturally appropriate, sustainable resilient coastal resettlement community.

She publishes on community adaptation to disasters, the crisis in climate and the BP oil disaster as well as the use of traditional knowledges in decision making and planning. Other publications include appropriate entrée and engagement practices, as well as participatory action methods with communities.

David Rico has worked for several years as a line cook throughout Pennsylvania and the District of Columbia. The past three years his main employer has been through Chef Jose Andres’ Think Food Group. Outside of that, he is affiliated with the I-Collective, a group of Indigenous chefs, seed keepers, and storytellers from all over Turtle Island. This group practices gastro-diplomacy through serving pre-Columbian meals alongside their histories of settler colonialism and genocide. Currently, he is working to establish Sovereign Earth Works as a non-profit organization which runs HeartSeed Farm in DC. Sovereign Earth Works and it’s affiliations are a collective of Queer, Trans, Black, Indigenous, Two-Spirit, People of Color co-constructing liberation from the white cis-hetero capitalist patriarchy by reclaiming ancestral lands to create safer spaces where they can freely exist and live. They reclaim food sovereignty by cultivating relevant, nutrient-dense foods. They reclaim emotional and spiritual well-being through a collective commitment to healing from trauma.

Chayne Sparagowski, AEM, GA-CEM, is a seasoned Emergency Management Specialist currently employed by the Atlanta-Fulton County Emergency Management Agency in Atlanta, Georgia. He was previously employed by the DeKalb County Emergency Management Agency in Georgia and the Coastal Bend Council of Governments in Corpus Christi, Texas. Prior to entering the field of emergency management, he worked as a technician for a radio communications company specializing in public safety networks, and as a journalist.

He earned an Associate’s degree in Emergency Administration and Management from Northwest Florida State College. He is currently completing a Bachelor’s in Emergency Management and Administration from West Texas A&M.

In addition to his work, he is also active in a number of professional organizations. He has held several leadership positions, including serving as the chair, with

the International Association of Emergency Managers Emerging Technology Committee. He has served as a member of the Committee on Emergency Management with the American Meteorological Society. Additionally, he also served as an Emergency Management Representative to the National Tsunami Hazard Mitigation Program. He remains active in leadership roles with various local committees and programs related to emergency management and preparedness.

Dezzi Synan is an eclectic artist in many mediums, a poet, a musician, a baker, and a peacemaker, residing in Honolulu with dual citizenship between the United States and Japan, befriending gentle creatures of all sorts.

Julie Torres attended University of New Orleans where she earned two BS degrees in Earth Science and Biology, followed by an MS in Earth and Environmental Sciences. She is a lifelong resident of southeastern Louisiana and knows the coast well. Her current projects include mapping and data visualization for Louisiana-focused projects across several scientific disciplines.

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CHAPTER 1

INTRODUCTION

Alessandra Jerolleman and William L. Waugh, Jr.

The events of the past few years, including the COVID-19 pandemic, have continued to illustrate the fact that disasters lead to disparate outcomes. In the two years following the publication of *Disaster Recovery Through the Lens of Justice the Field of Emergency Management*, scholars and practitioners in emergency management and related disciplines concerned with disasters, have begun to talk more about the need to minimize inequity. However, this growing awareness is not necessarily coupled with the changes to the laws, regulations, and processes needed to truly change outcomes. Smaller jurisdictions, rural jurisdictions, undocumented families, renters, and others still face additional challenges to recovery. One illustration of this is the case of El Portal in Florida.

THE STORY OF EL PORTAL AND HURRICANE IRMA

As of the middle of 2020, there were three cities in South Florida who had yet to receive the vast majority of FEMA reimbursement from Hurricane Irma expenses incurred in 2017 – Florida City, Miami Shores, and El Portal. This is the story of the smallest of these cities, El Portal.

El Portal is a village in Miami-Dade County, Florida, governed by a Commission with an elected mayor and four elected members. The village name means “the gate” in Spanish and was incorporated as a village in 1937. The village provides general government, public safety, building code enforcement, physical environment, and culture and recreation. The County provides water, wastewater, and fire services. Current estimated population is 2,150 according to metrics utilized by Florida’s Office of Economic and Demographic Research.

One of the most important duties of cities, town, villages, etc. is to be prepared for emergencies. In fact, in the El Portal 2015 Comprehensive Annual Financial Report (CAFR), the auditors wrote this statement—"We recommend that the organization develop and implement a written disaster recovery policy that includes the following components:"

- Location of, and access to, off-site storage.
- A listing of all data files that would have to be obtained from the off-site storage location.
- Identification of a backup location with similar or compatible equipment.
- Responsibilities of various personnel in an emergency.
- Priority of critical applications and reporting requirements during the emergency period.

The audit recommendation was repeated in the 2016 and 2017 CAFRs but by 2018, the recommendation was completed. What finally moved the village to develop and implement a written disaster recovery policy was Hurricane Irma. Hurricane Irma hit the South Florida coast on September 9, 2017, as a Category 3 hurricane. Here are the highlights from the 2018 Mayor State of the Village presentation:

- The clean-up took almost 2 months to complete. Total debris removal 23,015 cubic yards, removing 79 trees and 5,907 tree limbs.
- No electricity for 10 days.
- Lack of internet for 26 days.
- Maintain disaster documentation of all emergency services and contractors.
- Lack of disaster response and recovery procedures and contractors in place.
- Lessons learned:
 - Implement a community-wide disaster preparedness and disaster response and recovery plan with MAAS and contractors in place.
 - Include business continuity planning.
 - Review available technology for continued internet and back-up power; mobile applications that can interface with each other and existing inventories, and automate damage assessments and maintain recovery documentation.
 - Training, debris management planning.
 - Assess all staff capabilities.

Equally important is the financial stability of the village as the hurricane approached land. The 2016 CAFR noted unassigned general fund balance at \$966,418. The 2017 CAFR noted the unassigned general fund balance at \$577,805 or 27.98% of total general fund expenditures. It was a decrease of \$388,612 from 2016 mainly due to public works and public safety expenditures that exceeded the budget. As debris removal expenses continued

to increase, on August 1, 2018, the village executed a line of credit with Florida Community Bank in the amount of \$1,250,000. The maturity date was July 31, 2019, pledged with grant proceeds and ad valorem revenues.

The Miami Herald stated “The Village still hasn’t paid off the debt. In July 2019, it reached a deal with its bank, Synovus, to get another year to pay off the loan, with the bank raising the interest rate from 2.01 to 2.05%.” On September 24, 2019, the village received a letter from FEMA that questioned the \$2 million the village sorely needs. FEMA, the letter said, is reviewing “questionable invoices” and other documents submitted by consultants who helped El Portal manage clean-up for Hurricane Irma in 2017. FEMA officials were alarmed by what they saw in the submission and decided that a full review of submissions was needed right away. FEMA turned over all of El Portal’s Irma-related costs to the state – \$2,077,290 in total. But the state has delivered just over \$145,000 of that to El Portal, the Division of Emergency Management said. The invoices are now in the hands of the Department of Homeland Security’s Office of Inspector General for further investigation.

Credit: Courtesy of Ines Beecher, OMB Director at City of Hilaeh, USA, for the contribution of the data and the case example.

This volume began from a desire to take the principles proposed in *Disaster Recovery Through the Lens of Justice* and apply them to specific contexts in Emergency Managers. The authors in this volume interrogate the applicability of the principles to technological innovation, indigenous peoples, persons with access and functional needs, agricultural disasters, and several other contexts. It is my hope that this effort will lead us closer to truly operationalizing and applying these principles in a way that leads to systemic change and better outcomes.

PRINCIPLES FOR JUST DISASTER RECOVERY

The following principles were proposed in *Disaster Recovery Through the Lens of Justice*, and are presented below with minor revisions in italics.

Principle # 1: Just Recovery requires that all community members (regardless of their socio-economic status, race, gender, sexual identification, land tenure, *education, access and functional needs, age, tribal affiliation*, etc.) be provided with the ability to exercise their agency fully through free and informed choice in support of their personal well-being. Full and informed choice is not possible if there is any coercion, exclusion from public policies, or other barriers to full participation. Furthermore, agency cannot be fully exercised if a full and complete array of options is not understood and made available within a timely fashion and in means that are accessible.

Principle #2: Just Recovery begins from the principle of *prima facie* political equality (PPFPE), which clearly establishes that any different or unequal treatment must be justified by the discriminator; only equality is inherently defensible.

Any expectation that disaster victims or communities prove their deservedness in the face of impartial bureaucratic processes puts the onus on the victims to justify the need for equal treatment and fails the PPFPE test. *The use of benefit cost modeling to determine eligibility for disaster risk reduction values the recovery of some communities over others, based solely on economic considerations, and does not permit for PPFPE.*

Principle #3: Just Recovery requires the full harnessing of the communities transformative and adaptive capacity in order to reduce risks for the future. Holistic disaster risk reduction is not possible without acknowledging, *and working to eliminate*, existing patterns of unequal distribution of risk. It is not sufficient to simply mitigate against current risks in rebuilding, instead underlying structures and patterns must be questioned. Colorblind and a-historic recovery is not Just.

Principle #4: Just Recovery is not possible without equal access to resources and programs, including full participating in decision making processes that govern resource allocation, future development, and other related functions. *The federal recognition process does not permit all indigenous peoples to practice self-determination and participate fully in these processes.*

MUTUAL AID: A GRASSROOTS MODEL FOR JUSTICE AND EQUITY IN EMERGENCY MANAGEMENT

In Chapter 2, authors Belblidia and Kliebert describe the role that grassroots mutual aid played in New Orleans through a case study of the Imagine Water Works' Mutual Aid Response Network (MARN), which was developed in 2019 and responded to the COVID-19 pandemic and a record-breaking Gulf Coast hurricane season in 2020. They describe the differences between how mutual aid is typically understood within emergency management and the historic understanding of community mutual aid which dates back to the mid-1700s, and has been widely used within communities of color. Belblidia and Kliebert provide the following recommendations in order to build resilience in a just manner:

- (1) Develop trusted and ongoing relationships between the emergency management and grassroots mutual aid communities. Find ways to collaborate, redistribute resources, and share information prior to, and during, disasters.
- (2) Invest in grassroots mutual aid projects *prior* to disasters. In the same way that we know mitigation saves money, investing in building mutual aid networks prior to crises helps lessen the impacts and improves the ability of communities to recover more quickly. Pre-disaster funding allows community groups to build capacity and invest in preparedness.
- (3) If developing grassroots mutual aid projects, include clear guidelines that advance equity and justice. Developing group norms that center the experience and leadership of those most vulnerable in disasters helps disrupt systems of harm. Intentionally enforce guidelines, such as no shaming or prescriptive care within a group, not from a militaristic standpoint but by holding a firm and compassionate line to minimize inflicting further harm in times of crisis.

- (4) For government: support grassroots mutual aid projects while working to reduce systemic inequities within government programs and traditional disaster response. Rather than attempting to co-opt or abdicate responsibility for local response efforts, explore opportunities to collaborate or support grassroots mutual aid by providing typically difficult-to-access information and material resources.

AGRICULTURAL AND FISHERY DISASTERS: PUBLIC POLICY CHALLENGES AND JUST RECOVERY IN A CRITICAL INFRASTRUCTURE SECTOR

In Chapter 3, Graves provides an overview of federal agricultural and fishery disaster policy and explores whether such policies and practices are consistent with the principles of Just Recovery. He observes that both federal agricultural disaster policy and federal fishery disaster policy fail to accommodate the needs of the industry's significant immigrant workforce and fail to support just outcomes. In particular, he notes that federal fishery policy fails to support outcomes that are consistent with the principles of Just Recovery because: (1) the federal fishery disaster declaration process is unpredictable, slow, and underfunded, making recovery and holistic risk reduction unlikely; and (2) once a federal fishery disaster is declared and a spending plan is approved, key fishery-dependent stakeholder groups often do not have equal access to resources and programs. Graves also notes that Just Recovery following agricultural disasters cannot occur while a majority of the agricultural workforce (1) lacks agency and access to the public policy process and (2) is underserved by federal disaster policy in terms of recovery resources, opportunities to reduce future risk, and mechanisms that promote community resilience.

LESSONS FROM CO-OCCURRING DISASTERS: COVID-19 AND EIGHT HURRICANES

In Chapter 4, Jerolleman, Laska, and Torres, describe the response by Louisiana government leaders and emergency managers to a set of disasters to which they had never before had to respond simultaneously: a global pandemic and an "epidemic" of landfalling hurricanes during the 2020 season (eight cones over Louisiana) with challenging, unusual characteristics: (1) two hurricanes passing over the same location within 36 hours, a fujiwhara – Hurricanes Marco and Laura, (2) 150 mph winds inadequately forecasted and of an almost unprecedented speed, (3) a difficult to forecast surge magnitude that led to incorrect immediate response, (4) delayed long-term recovery efforts from responders outside of the area because of initial reporting errors regarding surge heights and wind speed, and (5) a storm, Zeta, that passed directly over a densely populated area that would have been hard hit by rain if the storm had slowed. The authors find that forecasters, state and local officials, and residents responded with expertise

and commitment, adhering to close collaboration, modifying evacuations, and undertaking protective measures, all contributing to a low death rate from storms and a modest death rate from COVID. More just outcomes were supported by the general capacity of the responders, commitment to keep the residents informed about both risks and appropriate responses to them and the provision of special services, calculated for the new situation of the pandemic and the storm epidemic, for those without the means to respond adequately to both.

FEDERAL INDIAN POLICY AND THE FULFILLMENT OF THE TRUST RESPONSIBILITY FOR DISASTER MANAGEMENT IN INDIAN COUNTRY

In Chapter 5, Cordova describes the ways in which colonization and the federal reservation system have located Tribes in static, often hazard-prone, areas; removing their foundational capabilities for avoiding disaster and environmental hazard impacts. Cordova applies the Just Recovery principles to help understand how federal Indian Policy violates not only the trust responsibility to sufficiently resource disaster management for Tribal Nations, but also broader principles of justice. The Just Recovery principles speak directly to the need for self-determination, self-governance, and sovereignty for Tribal Nations in disaster management. She argues that the federal trust responsibility is not fulfilled through the federal government allowing applications to program-dictated grant opportunities or even consistent, yet insufficient, recurring funding for disaster management. Instead, the fulfillment of the trust responsibility for disaster management hinges on the allocation of sufficient resources and legal space for self-governance for Tribal Nations to return to pre-colonization levels of capability and sovereignty for disaster management for their citizens and residents.

JUSTICE IN HAZARD MITIGATION

In Chapter 6, Olonilua discusses issues of diversity in hazard mitigation whether Just Recovery is considered or not. She suggests that justice in hazard mitigation is crucial considering unequal distribution of resources, systemic racism, and social vulnerability to hazards. The chapter provides recommendation for how to achieve diversity in hazard mitigation, arguing that there must be a considerable and conscientious effort made to involve underserved communities in order to achieve Just Recovery during the hazard mitigation phase of emergency management.

JUST RECOVERY FOR INDIVIDUALS WITH ACCESS AND FUNCTIONAL NEEDS

In Chapter 7, Fast explores the unique disaster response considerations that must be taken into account for individuals with access and functional needs, and the

subsequent challenges in recovery that may be experienced by this population. He describes the ways in which socio-political systems create the circumstances by which hazards disproportionately impact some individuals more than others. It is also these systems that either provide policies, procedures, and processes to help every person recover in an effective and positive manner, or create further inequalities and inequities leading to additional harm and delivering insufficient opportunities for substantial recovery. The chapter applies the principles for Just Recovery and illustrates the applicability of this concept to individuals with access and functional needs.

THE UNDERSIDE OF EPIPHANY: WANDERING WONDERINGS

Chapter 8 presents a post-humous publication based extensively upon the teachings of Revered Richard Krajewski, a close friend and mentor, whose work in the disaster field was always in support of more just outcomes. Other authors include Lorna Jarrett Blanchard, Maraya Ben-Joseph, Mây Nguyễn, Tươi Nguyễn, Bryan Parras, David Rico, M. Kalani Souza, Dezzi Synan, Kristina Peterson, Julie Maldonado, Alessandra Jerolleman, and Nathan Jessee, all of whom had the good fortune to know and love Revered Krajewski and all of whom participated in a post-humous discussion of justice based upon their experiences as Revered Krajewski's extended family.

Emerging from his teachings and to honor his call, a group of his mentees, collaborators, and co-conspirators organized a special session at the July 2020 Natural Hazards Workshop, *Just Dialogue: An Intergenerational Conversation on Justice, Sustainability, and Abundance*. Enough is abundance, as Dick Krajewski, a longtime leader in the hazards community, was known for saying. In this way he reminded us that when we live as if we already have enough, we live sustainably and in ways that help lift oppression and reduce inequality and injustice. The session brought together people from diverse and intersecting places of Dick's life for an intergenerational conversation about hope and healing, and invited the Natural Hazards community to engage in a just dialogue to which we bring our whole, true selves (open and vulnerable) to ask – *what are the questions for the Natural Hazards community to be questioning, and to be asking, to motivate change and to move our systems of research and practice toward more equitable futures for all?* This session provides the bulk of this chapter.

THE ROLE OF EMERGING TECHNOLOGIES AND SOCIAL JUSTICE IN EMERGENCY MANAGEMENT PRACTICE: THE GOOD, THE BAD, AND THE FUTURE

In Chapter 9, Buchanan and Sparagowski focus on the role of emerging technologies in emergency management and how they may both support and inhibit more just outcomes. For example, is an emerging technology affordable

enough for all to use, or does the technology add to the so-called “digital divide,” increasing the gap between the haves and have-nots? Or does the emerging technology serve as an equalizer, providing access and availability for all socio-economic status groups? This chapter serves as an introduction to these issues and how they impact emergency management practice in a discussion of how the communication process functions, how emerging technologies impact communication strategies in emergency management, and the importance of including a social justice framework in emergency management operations and plans to understand how these emerging technology tools can be used to keep people and property safe from disasters.

THE BROADER PICTURE

The chapters are illustrative of the meaning and application of the principles of Just Recovery in particular circumstances or to particular communities. Many other examples can be found. The principles should be considered in preparedness, mitigation, and response efforts, as well, because those activities can have great impact on recovery and often are the first steps in recovery. The importance of social networks, community organizations, broad public participation in decision making, and intergovernmental cooperation and collaboration in all four processes is backed up by academic research and practical experience. However, the failure of be responsive to community needs and preferences continues. Information is not shared and resources are not allocated equitably. For example, the response to the COVID-19 pandemic in the United States was characterized by the withholding of risk information from the public, presumably to prevent panic, when that decision served to increase stress and anxiety as people tried to gauge risk in order to protect themselves and their families. Professional emergency managers would have been much more sensitive to the necessity to provide accurate information to build public trust and reduce anxiety. While some people learned to track down accurate information and guidance for personal protection and to not to rely upon the muddled information provided by some official sources, others came to disregard all sources of information.

Similarly, access to vaccines was controversial when some believed that groups were given access for reasons other than their relative vulnerability to the coronavirus. It also became evident that access was much easier for those with private transportation and those with sufficient computer skills to negotiate the online appointment maze. Clearer vaccination priorities, more accessible appointment processes, and better distribution of the vaccines were needed. Our memory of the pandemic will be colored by memories of the struggle to deal with conflicting advice and get vaccinated and the relief that followed. Special efforts to provide vaccinations to people in communities with fewer medical resources were only slowly initiated and the expansion of vaccination sites with the support of community organizations, the Federal Emergency Management Agency (FEMA), the National Guard, and other groups helped reach more and more people.