U.S. Department of Justice
National Institute of Corrections

Resilience in Corrections

A Proactive Approach to Changing Conditions

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Resilience in Corrections: Planning and Preparation for Changing Environmental Conditions
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ABSTRACT

This white paper describes the issues facing corrections policy and leadership as the impacts of climate change and its related consequences confront departments, agencies, and facilities in coming years. Not only will corrections have to manage the effects of more extreme weather and temperatures than in the past. Corrections will also have to develop and improve its flexibility and resiliency in its operations to weather the multiple coming changes while maintaining its core functions of protecting the public, corrections staffs, and offenders. Programs and precedents do exist to provide foundations for future action when correctional policymakers and practitioners determine those issues must be addressed.

TABLE OF CONTENTS

INTRODUCTION

Wildfires in Colorado. Hurricanes and flooding in New Orleans and New Jersey. Rains and flooding in Iowa. Drought in California. Tornadoes in Missouri and Oklahoma. Seacoast erosion in Louisiana. Sea level rise in the Carolinas. Water shortages in the West bringing calls for diversion of other water sources, even the Great Lakes. Extreme heat in Texas. Extreme snowfall in Pennsylvania. Ice in Georgia. Tests of aging power grids and transportation infrastructure. Unprecedented social and individual costs in health, economy, and food. Higher pricing of carbon-based fuels. More crime, primarily violent.

The future.

In some cases, corrections departments and their facilities will be directly hit. In others, the hit will be on their share of remaining state and local budgets after the damages have been paid for. In others, the basics of operations will be completely rethought as the easy access to and low costs of energy, water, food, materials, and transporting/locating of inmates, probationers, parolees, and others under correctional supervision diminish or come at higher political costs. In yet others, systems of routine care, maintenance, and distribution of not just inmates but also records and equipment will be placed at severe risk. In all cases, the growing effects of extreme weather, climate change, and their related aftereffects promise to change correctional planning and operations for years to come.

While climate change and its associated impacts remain politically contested, at operational levels of important public and private institutions in the U.S. it is not in doubt.[1] Key organizations and political actors have already begun their planning to adapt to, mitigate, and counteract the climate change already "baked" into the future through past greenhouse

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gas emissions that have yet to impact global temperatures. Current and future emissions will extend that period of adaptation, mitigation, and counteraction for which these institutions, charged with protection of national security and welfare, have to prepare.

For example, President Obama in November 2013 issued an Executive Order (2013) mandating federal preparation for impacts of climate change.[2] This included development of "climate resilient investment" by federal departments and management of federal lands and water as well as creation of a "Council on Climate Preparedness and Resilience" with an accompanying task force of state, local, and tribal leaders to advise that council. This executive order followed previous efforts and analyses already begun by the U.S. military,[3] insurance companies,[4] major businesses,[5] the World Bank,[6] and major cities around the globe.[7] Simply put, organizations with expectations and responsibilities based in clear understanding of most likely futures have decided to invest heavily in planning, preparation, and operations for continued and intensifying impacts of climate change and its related outcomes in the near term.

With very similar expectations and responsibilities, shouldn't corrections?

THE POTENTIAL IMPACT

Climate change events naturally will vary from state to state and within states. Correctional leaders developing their responses to, and plans for, these events will need to have clear understandings of all the possibilities. Depending on the state and locality, these possibilities include:

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- Extreme weather conditions and events that damage facility infrastructure and raise or lower temperatures past traditional comfort levels of staff and inmates which may impact morale and behavior as well as future lawsuits over prison conditions[8];
- Access to sufficient potable water as drought and other public and private demands compete with correctional needs and uses[9];
- Higher and unstable fuel prices eating into facility and department budgets through uses from facility operations to inmate and staff transport[10];
- Infrastructure issues as buildings, roads, and facility land designed and developed for uses at different temperatures now unsuited for more common extreme high and lows and for longer periods of time[11];
- Narrowed availability of and accessibility to food as heat and drought affect traditional levels of production of crops and meat[12];
- New and extended health issues deriving from heat stress, mental illness associated with unstable and unhealthy conditions, infectious diseases (and the insects carrying them) "moving" to new areas[13];
- Power outages associated with an aging and vulnerable electrical power grid system[14];
- Safety of staff and inmates with morale and interactions tested by increasingly pressurized contexts; and
- Higher crime rates associated with hotter temperatures bringing more violent offenders into state and local corrections, particularly incarceration.[15]

These possibilities are not hypothetical. Already we see the impact of extreme heat and lack of adequate water supplies on lawsuits, staff recruitment and retention, and infrastructure built for past climates. The ratcheting of fuel prices, always from higher

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bases than the previous ratcheting, is old news. The major highways for transporting inmates and non-inmates will need additional repairs and closures and some may have to be moved. California produce and Texas cattle are at this writing in decline. Power grid concerns have become hot button issues at the highest levels of national security. All these possible results will become more common and frequent nationally, if not in specific locales, and most corrections organizations will face more than one more than once. As mentioned above, even if a particular department or facility is not directly impacted, it will likely be drawn into greater budgetary competition for funds remaining after the climate change events have been paid for. All will be affected by the higher costs, lesser accessibility and availability, and greater call for new ideas and practices to deal with this changing, fluxing future whether directly impacted physically or fiscally.

THE ROLE OF LEADERSHIP

Two difficulties immediately arise for correctional leaders considering action and planning either to respond proactively to potential threats or to plan for likely events. One, they must psychologically come to terms with the slow-motion but very real changes occurring in our climate. The science of climate change and the consensus of actual climate scientists are overwhelming even if the politics of accepting that science and consensus are not. Two, while acknowledging the politics of moving toward adaptation, mitigation, and prevention, correctional leaders through their own routine management decisions, such as budgeting, land and material use, and infrastructure maintenance and extension, can act in many productive ways that have value without reference to climate change. That is, many of the options considered to deal with climate change at the department and/or facility level will be good management whether or not the projections of climate scientists are totally or

All will be affected by the higher costs, lesser accessibility and availability, and greater call for new ideas and practices to deal with this changing, fluxing future.

partially true. Even without climate change, pressures on and competition for state funds will likely continue escalating in future years, making decisions on better use of resources, improving self-sufficiency, and maximizing efficient use of fuel, water and other resources good in themselves.

Planning for future impacts of climate change, whether immediate events such as weather emergencies or drawn-out consequences of long-term change such as infrastructure, must assess the probabilities of these climate change-related outcomes for individual facilities and the operation of the corrections department as a whole. While "strategic planning" frequently raises howls among staff, primarily because of perceived lack of ties with later operations, climate change planning with efforts to address the concerns outlined above can be made more "emergency footing," and incentives associated with ideas and implementations directly relating the planning to later action. Department responsibilities and reporting can be distributed among executive staff and facility managers and staff with those most effective being demonstrably applauded and rewarded. That the entire department has committed to the enterprise must be clear. The same planning format can then be used at other facilities and at other organizational levels.

For what will they plan? The list of concerns initially provided above may detail the agenda but not the responses, which will vary from organization to organization. Most corrections departments have policies and procedures for dealing with at least some of the concerns discussed above, at least in isolation. But how many are ready for downed electrical grids that prolong past generator capacity? How many do the training and have the activities prepared to handle summers that now feature two or three times the number of one hundred degree days as in the past? This does not include the concerns that may arise in

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combination, such as hurricane and flood, wildfire and destroyed roads or bridges, or trucked water transported with fuel priced in the high range of the usual ratcheting. In any case, prior policies and procedures developed in different environments than those faced today and those to come and should at the least be reexamined for soundness.

For those correctional leaders at facility and department level seeking new ideas and practices to buffer and avoid the possible problems, many precedents already exist for study and copy.[16] The National Institute of Corrections features a "Green Corrections" section with training and models,[17] and Green Prisons does the same along with hosting "regional sustainability" forums.[18] Several states such as Illinois[19], Ohio[20], California[21], and Oregon have already started initiatives. In Washington state, Evergreen State College and the state DOC have a "Sustainability in Prisons Project" with over a decade of experience.[22] Other states and cities, such as Louisiana and New Orleans and New Jersey and its communities, have already gone through traumatic events and provided case studies of impacts and responses.[23]

While these efforts do not address the full complexity of the current and coming storm of climate change, they demonstrate both the necessary awareness and acceptance of the need and the range of models and concepts available for other states and organizations to base new action upon. Among these new options are:

- Use of rooftops for energy generation, conservation, and food stuffs through solar panels, white reflective paint, and roof gardens;
- Co-generation of electrical power through current technology, the excess of which can be sold back to power utilities;

For those correctional leaders at facility and department level seeking new ideas and practices to buffer and avoid the possible problems, many precedents already exist.

- Water conservation and harvesting, including recycling of waste water; and
- Reduced fuel usage for department and staff through increased telecommuting and teleconferencing of all possible functions including operations, health care, and meetings.

Again, even should climate change impact be less than currently projected, all of these actions can effect savings and efficiencies for departments and facilities. Added benefits of such proactive efforts might include revenue potential from sold power and products and the preparation of reentering inmates for careers in the areas such as alternative energy, water management, and food production. The latter may find multiple opportunities in the growing business response to the challenges posed by climate change as well as delivering positive contributions to their communities when reentering since many of those communities are and will be particularly hard hit by the problems discussed here as well.

RESILIENCE-ORIENTED LEADERSHIP

Effective corrections leadership in this changing environment will require more than just clear missions and solid coordination at the facility and department level. The kind of proactive vision and resilient recoveries necessary will require particular qualities of leadership. As Zolli and Healy have detailed[24], resilience-oriented leadership will have to focus on:

- ensuring that there are sufficient reserves available to any given system;
- or diversifying its inputs;
- or collecting better, real-time data about its operations and performance;

The kind of proactive vision and resilient recoveries necessary will require particular qualities of leadership.

- or enabling greater autonomy for its constituent parts;
- or designing firebreaks so that a disturbance in on part does not disrupt the whole.

In addition, such leadership will have to continue and extend partnerships with other state, local, and federal agencies as well as with private and non-profit organizations that engaged in similar efforts and/or able to share or exchange needed resources. The leadership that created the Evergreen State/Washington DOC "sustainability" project is a good example. In other words, traditional corrections leadership will need to be complemented and supplemented with flexible and creative interaction both inside and outside the department's boundaries on a scale to match the challenges ahead.

CONCLUSION

The future combination of more strained resources with new and different challenges makes maintenance of status quo strategies of incarceration policy even less tenable than their generally troubled state today. Those pressures will require corrections leaders to demonstrate their actual capacities more effectively and to work in partnerships with external groups to find alternatives to incarceration on greater scales than currently. This must include better data and analysis to report what works and does not in delivering maximum public safety through corrections policies and what alternatives might be more effective.

Failing this will leave important decision-making blind in a turbulent time. However, proactive and resilient leadership will survey its current and coming environments with knowledge of the threats, of the options to address them and their effectiveness, and of the paths and partnerships to pursue to provide the public and policymakers with the safety and effectiveness that they expect within the challenged resources available in the unprecedented days ahead.

AUTHOR BIOS

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Michael Connelly teaches undergraduate and graduate criminal justice in the University of Oklahoma's College of Liberal Studies. He was most recently a partner in JCO Consulting, which served correctional and sentencing resources to state and local governments, and managed its Corrections Sentencing 2020 blog. He was previously Administrator of the Evaluation & Analysis Unit of the Oklahoma Department of Corrections and also served as executive director of sentencing commissions in Maryland and Wisconsin. Prior to that, he was research director for the Oklahoma Criminal Justice Resource Center, which staffed the state sentencing commission and allowed him to serve as state Statistical Analysis Center director.

Dr. Connelly also managed grant projects for the Justice Research and Statistics Association, including BJA technical assistance on program evaluation to state and local criminal justice agencies. He has partnered with the Pew Center on the States and the Crime and Justice Institute on sentencing and corrections policy reform in various states. In addition, he was previously an associate professor of public policy and administration for Southwestern Oklahoma State University, coordinating its criminal justice program, as well as since adjuncting for the University of Maryland, Norwich University, and Columbia College.

His research has appeared in policy, political science, education, criminal justice, and sentencing journals as well as in professional and government publications. He previously served on the executive board of the National Association of Sentencing Commissions.

He received his Ph.D. in political science with an outside field in criminology from the University of Missouri.

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David Feldman is Professor and Chair of the Department of Planning, Policy and Design – and Professor of Political Science – at the University of California, Irvine. His Ph.D. is from the University of Missouri, and his B.A. is from Kent State University in Ohio. His current research is directed at trans-boundary conflicts over water resources management, the role of civil society groups in environmental decision-making, especially in newly-emerging democracies, the geopolitics of energy and resource policy, and public perceptions of environmental risk.

Feldman served as Head of the Political Science Department at UT (2003-7), and as a staff member of what is now the Institute for a Secure and Sustainable Environment from 1993-2003. He was also on the research staff at Oak Ridge National Laboratory from 1988-1993.

At Irvine, Feldman has also served as a lead author for a 2008 U.S. Climate Change Science Program report on climate variability and water that was published by the National Oceanic and Atmospheric Administration, and is co-Principal Investigator on a five-year, $4.5 million National Science Foundation grant to explore *Low Energy Options for Making Water from Wastewater* through the Partnerships for International Research and Education program. He is the author of nearly 80 articles, book chapters, and books, and is an extramural funding reviewer for NSF's *Decision Making under Uncertainty Collaborative (DMUU)* (2010) and reviewer for the final report (2012) of the Southwest Climate Assessment, produced by the University of Arizona's NOAA-funded Climate Assessment of the Southwest.

His most recent books include *Water* (Polity Books, 2012), which explores trans-boundary conflicts over water resources world-wide; *The Politics of Environmental Policy in Russia* (with Ivan Blokov of Greenpeace Russia, Elgar Books, 2012) – an examination of the challenges facing an environmental civil society in newly-emerging democracies; *The Geopolitics of Natural Resources* (Elgar, 2011), and *Water Policy for Sustainable Development* (Johns Hopkins, 2007).

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