

On a Saturday afternoon in mid-March in a vacant lot in San Juan, Puerto Rico, volunteers gathered around to help support wooden beams while others worked to bolt them together to form the skeletal framework of a dome. Inspired by Buckminster Fuller's visions of futuristic cities in the 1960s, these new dome prototypes were being built in expectation of a very different future—one where extreme events are increasingly common.

The impacts of Hurricane Maria in 2017 resulted in devastation that can still be seen today on the island, including thousands dead and many areas without electricity for months. Less than two years later, a powerful earthquake on the south side of the island again crippled Puerto Rico's fragile electricity distribution and generation infrastructure.

Planning for both the expected and unexpected underscores recent efforts to reimagine the island's future in anticipation of climate change and a range of other potential hazards—environmental and otherwise. Organizations like Resilient Power Puerto Rico are working to make Puerto Rico not only more effective at responding to future hurricanes, but to create resilient communities capable of not only adapting but thriving in a range of uncertain future scenarios. Their dome prototype, in tandem with the organization's solar micro-grid initiatives, could offer communities a way to quickly and relatively inexpensively create spaces for schools in the aftermath of events like Hurricane Maria or the earthquakes of early 2020.



Likewise, Coastal Marine Resource Center's ¡Solar Libre! project offers not only material and technological support for solar microgrids, but is working to transfer knowledge and expertise in solar panel installation and maintenance to trainees, called "brigades," of primarily young women.

In imagining a desirable future for Puerto Rico in a likely scenario of increasing climatic risk, actors involved—including local government, community organizations, and international nongovernmental organizations and philanthropies—have been focused on resilience. In cases of physical infrastructure like the electrical grid, this manifests itself in plans for smaller sections of the grid, from single structures to networks of buildings, to detach themselves and maintain some degree of function when the larger grid system fails. These infrastructural connections are not only physical, however, but are social as well, and some worry that in planning for resilience, the islands existing inequalities will only be exacerbated by plans that provide for contingency for those who can afford it and leave others at the mercy of federal agencies. As one person who attended a post-Maria planning meeting said, "they presented resilience to us

as this kind of shiny object, but we need to hear it in terms of rice and beans—what’s it really going to look like?”

For Puerto Rico, thinking about future equity in environmental planning also involves addressing complicated past and present relationships, including the long colonial history with the United States and the current fiscal oversight board, appointed by the federal government, that severely restricts spending in an effort to repay the island’s debt. For some involved in resilience planning, focusing on local projects without addressing the larger political and historical context seems an unnecessary diversion from real change.

Through interviews with local stakeholders, my research supported by the award from TEDC is working to better understand how a resilient future for Puerto Rico is being negotiated in light of the island’s complex history with the mainland US, and whose futures are being represented when plans for a shared future are written.