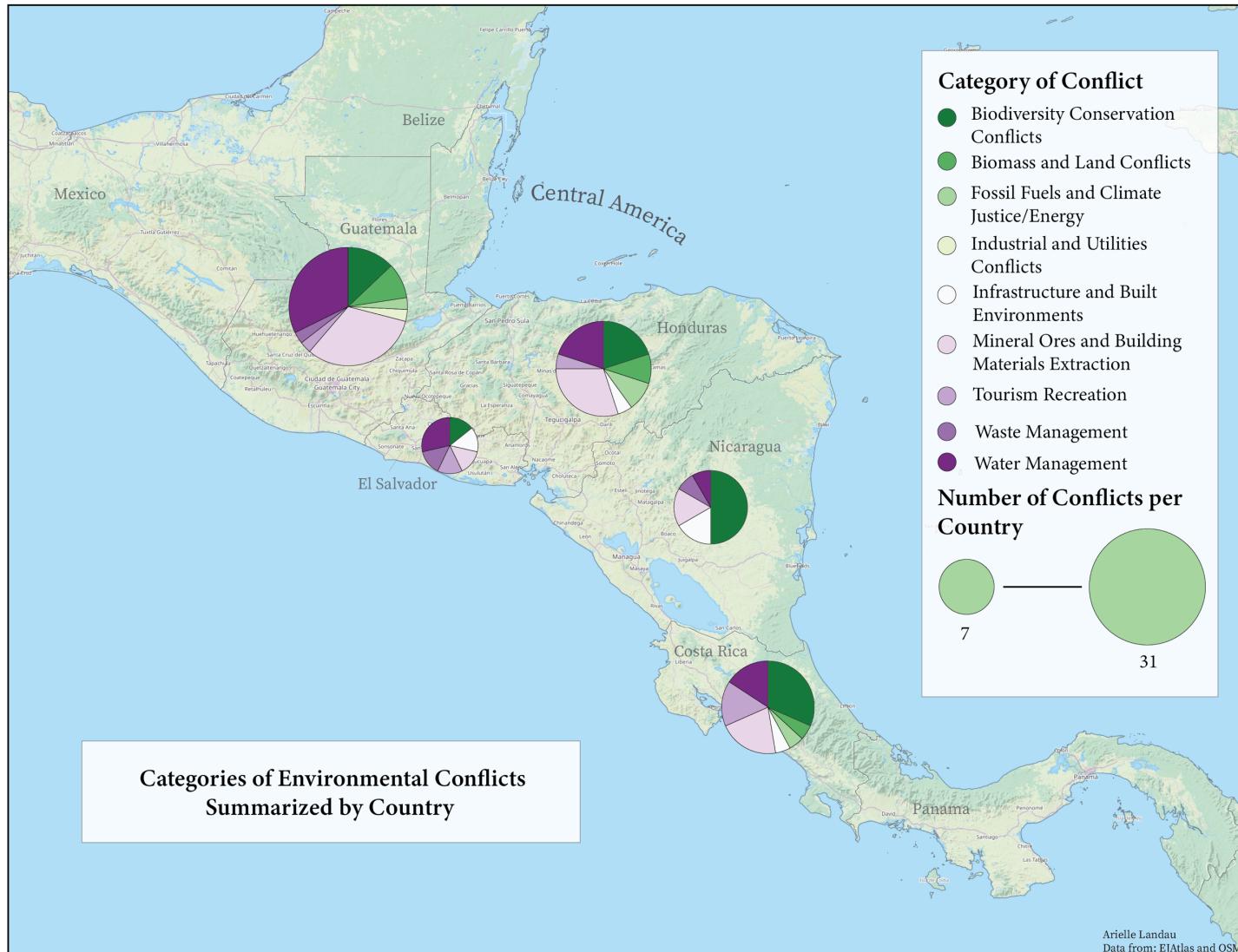


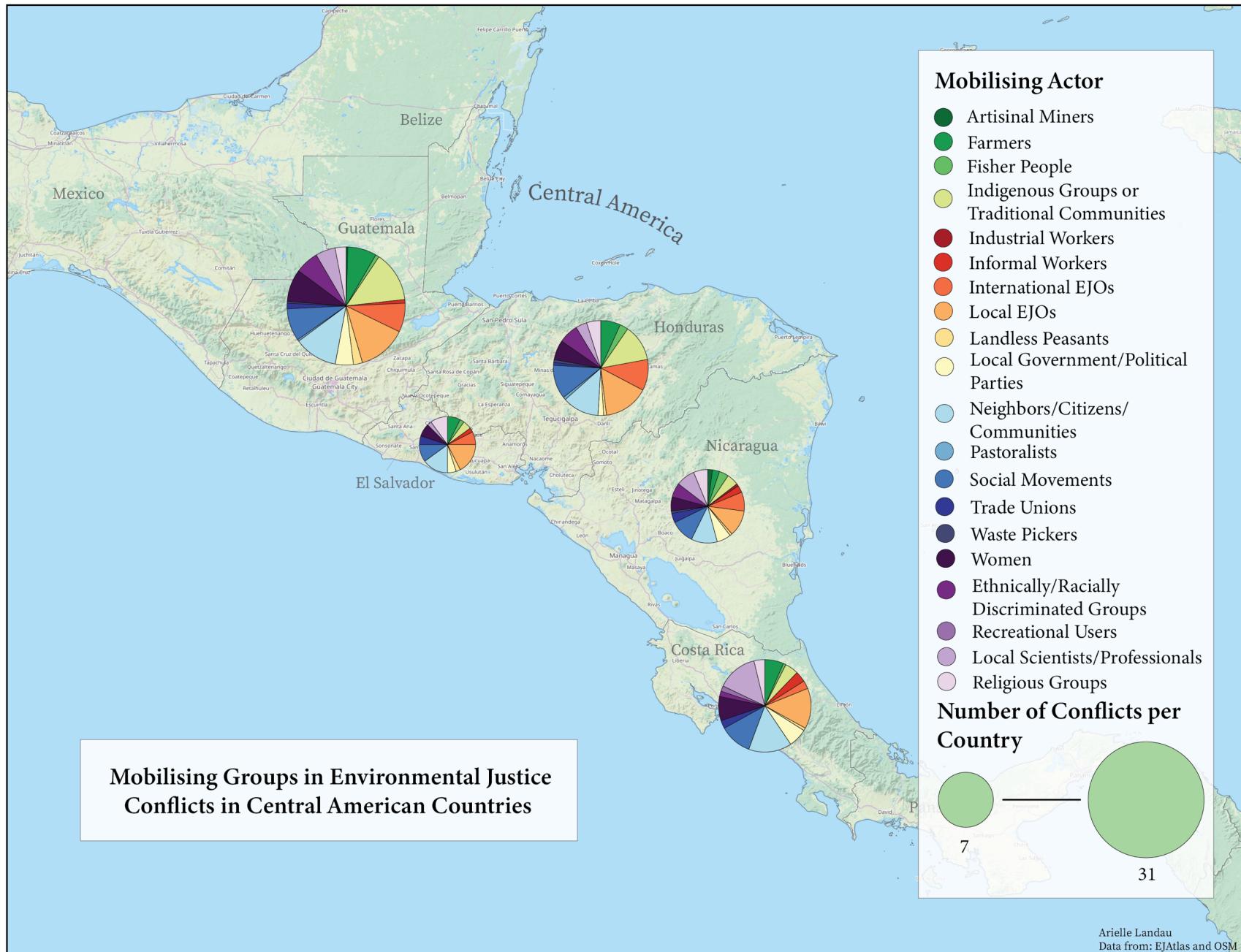
Map Portfolio for the Environmental Justice Atlas

All Spatial Analyses and Maps By Arielle Landau

Visualizing EJAtlas Data

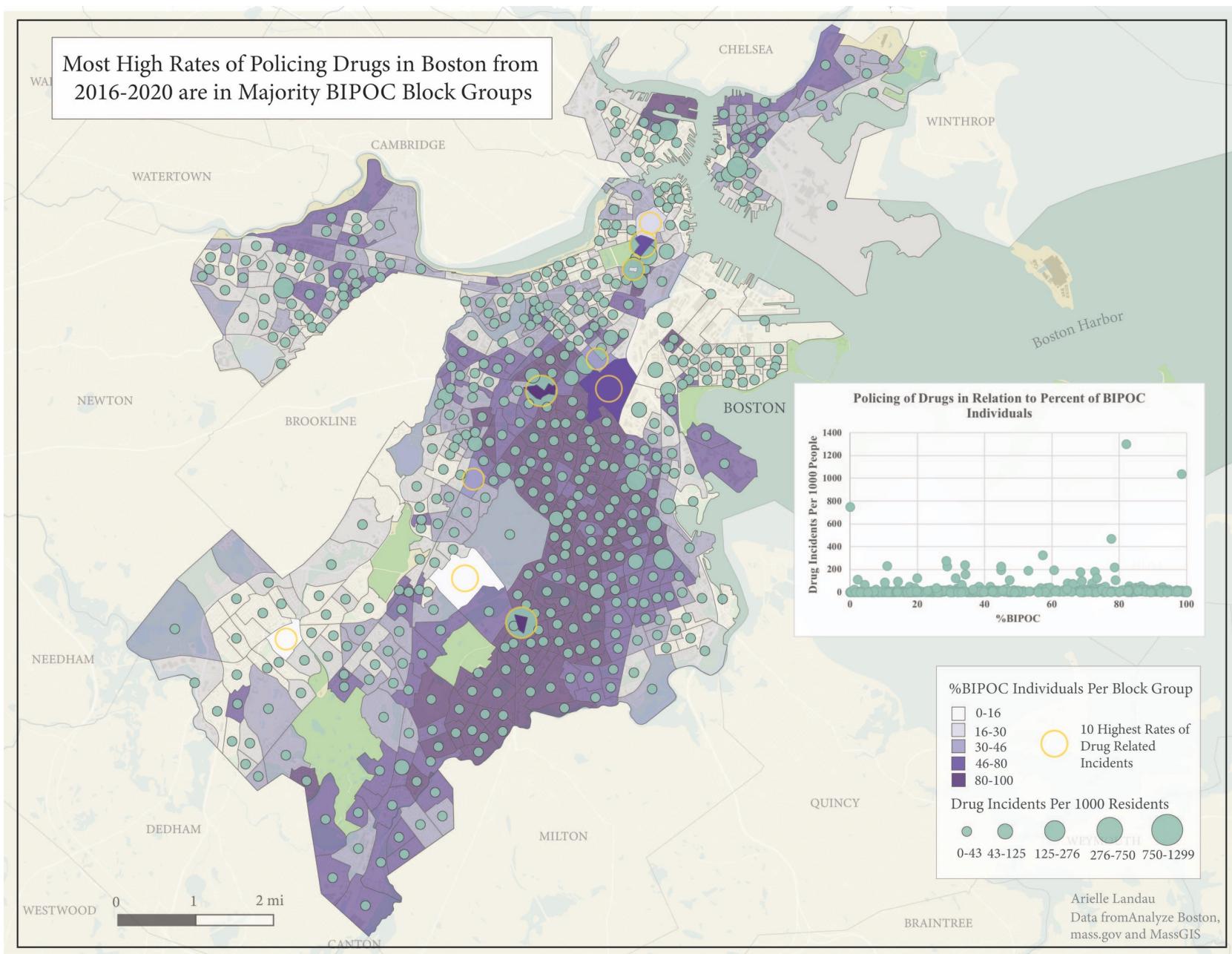


By summarizing the kinds of environmental conflicts in each country, we can see country-specific, but also regional patterns on the kinds of commodities and projects that most often spark resistance. This visual also helps to shed light on the variety of conflicts that environmental and community activists in these countries face.



Visualizing the different kinds of mobilizing actors by country allows us to view specific dynamics on how different communities react to environmental conflicts. For example, local scientists and professionals form a significant amount of the mobilizing groups in Costa Rica, while being less present in other countries. Local and international environmental justice organizations (EJOs), as well as neighbors/citizens/communities and social movements make up large parts of mobilizing actors in all countries.

Demographic Analysis



Maps can also visualize important spatial analyses that uncover discrimination of marginalized groups. By combining statistics with demographic data, maps can show patterns of decision making that lead to structural racism. This map shows how the highest rates of drug related policing in Boston occur in majority Black, Indigenous and People of Color (BIPOC) communities.

Countermapping: Before & After

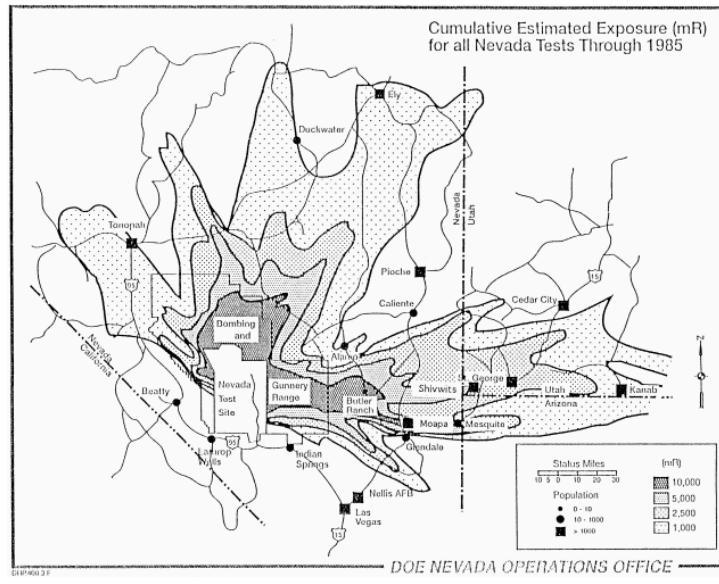
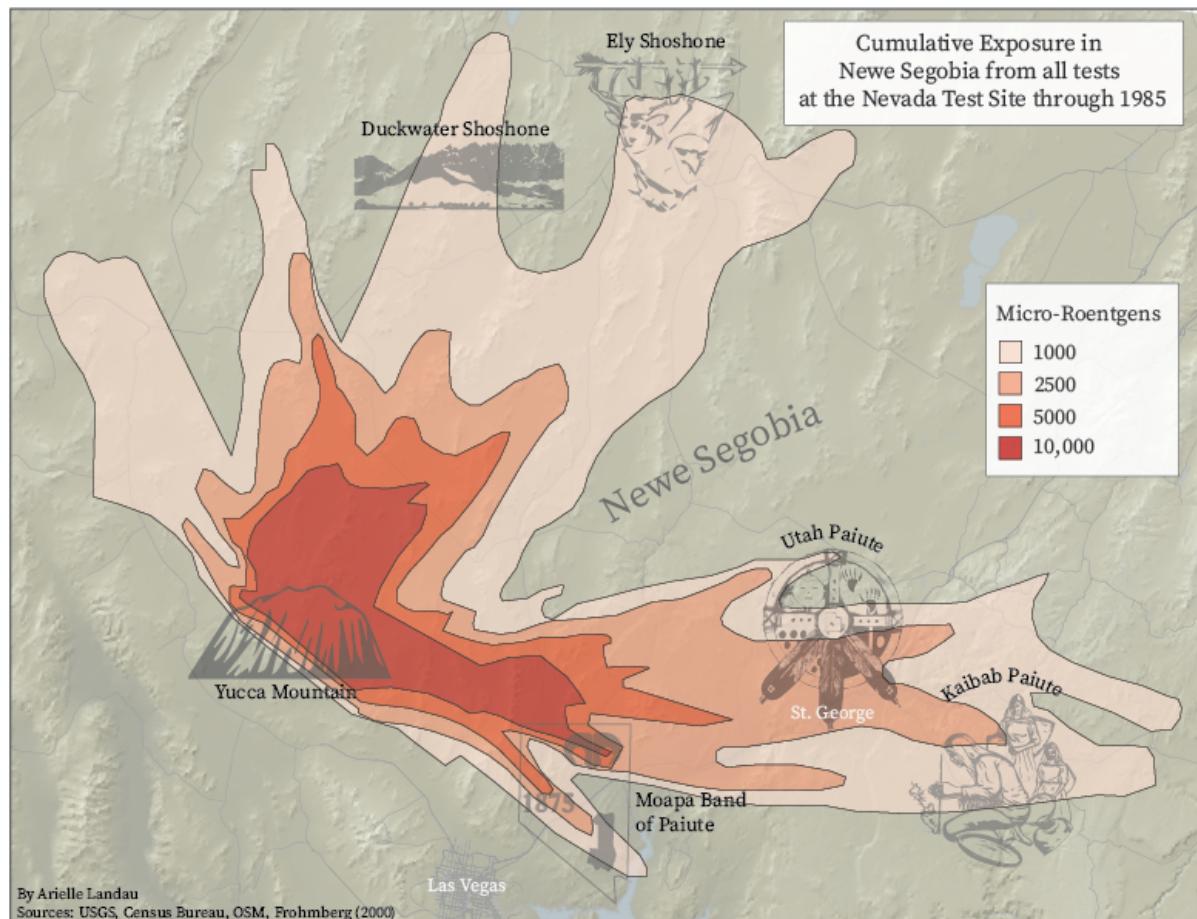


Fig. 2. Spatial distribution of the cumulative external exposures from nuclear weapons testing at the Nevada Test Site through the period of testing (1951–1972) as estimated in the ORERP. The heaviest exposures occur downwind in the directions indicated by the arrows in Fig. 1.

To subjugate the claims of territory by the state, the counter-map for *Newe Segobia*, on the right, does not include delineated boundaries states, and instead refers to the entire area under its original name: *Newe Segobia*. By using indigenous epistemology, this map subverts the power of the state and instead raises the importance of indigenous sovereignty. Instead of prioritizing town names, this map prioritizes the tribal areas that lie within the radiation isodoses. Tribal areas of the Duckwater Shoshone, Ely Shoshone, Moapa Band of Paiute, Kaibab Paiute and Utah Paiute all lie within areas of radiation according to estimates by the DOE. In order to follow the values of counter-mapping, the symbology used to represent tribal areas is from tribal websites and logos, thus representing tribes the way they chose to represent themselves.

Counter-mapping also has important implications for environmental justice conflicts as a strategy to undermine the power usually present in cartographic processes or maps. For example, counter-mapping can disrupt state claims to territory by promoting indigenous place names and ways of seeing the world. The next four maps showcase maps before and after counter-mapping.

The map on the left, produced by the Department of Energy to show cumulative exposure from nuclear testing at the Nevada Test Site, follows normal cartographic standards of boundaries between states established as part of colonization, as well as symbology and visualizations devoid of any cultural and political significance. There are no symbols of cultural landmarks, or the identities and histories of the people exposed to radiation.



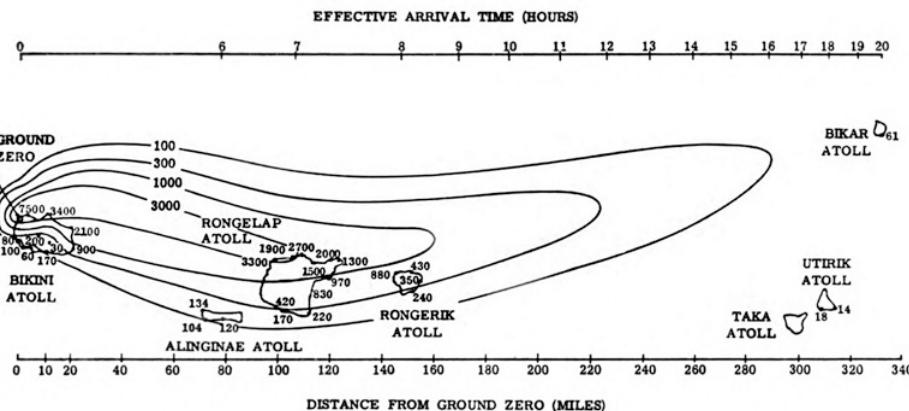
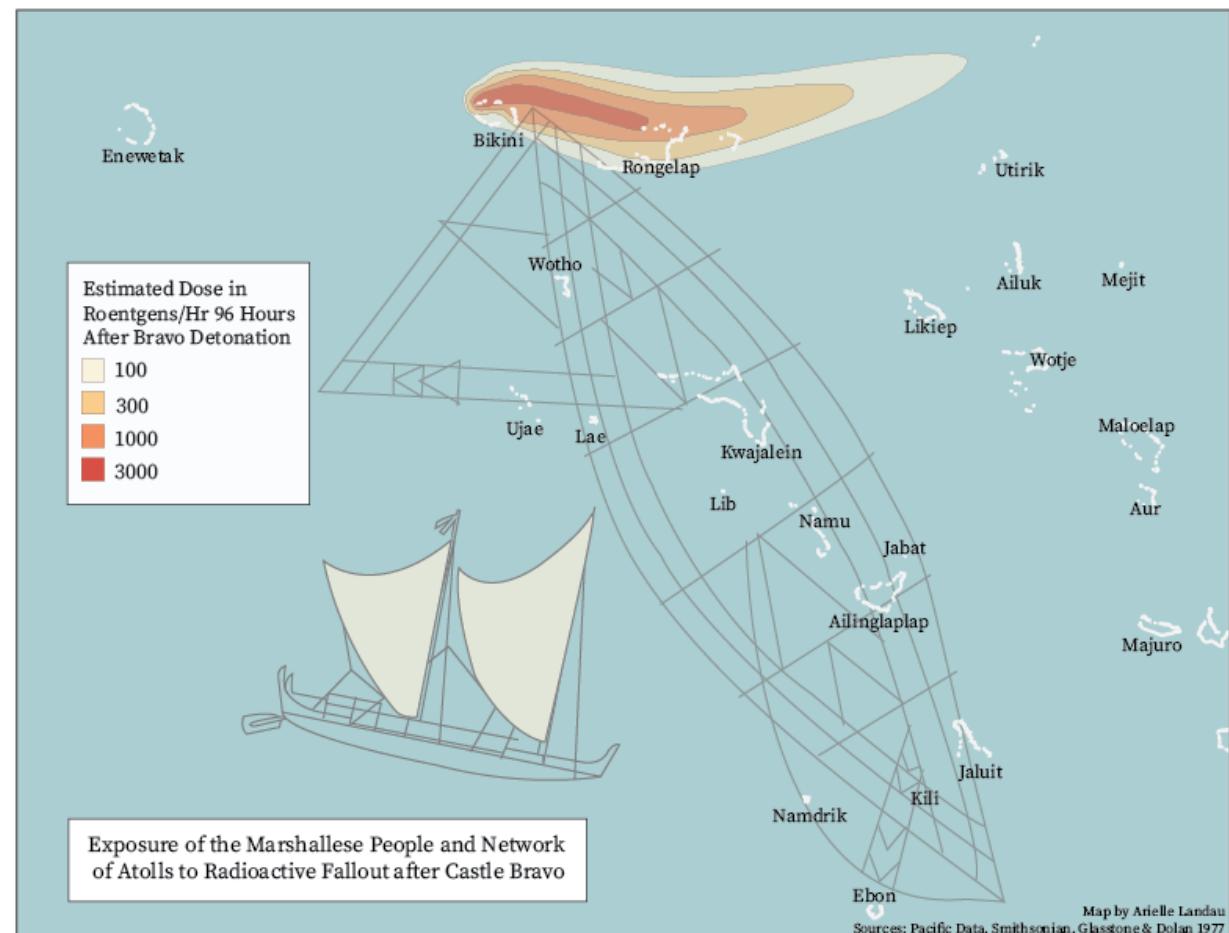


Figure 9.101. Estimated total-dose contours in roentgens per hours at 96 hours after the BRAVO test explosion.

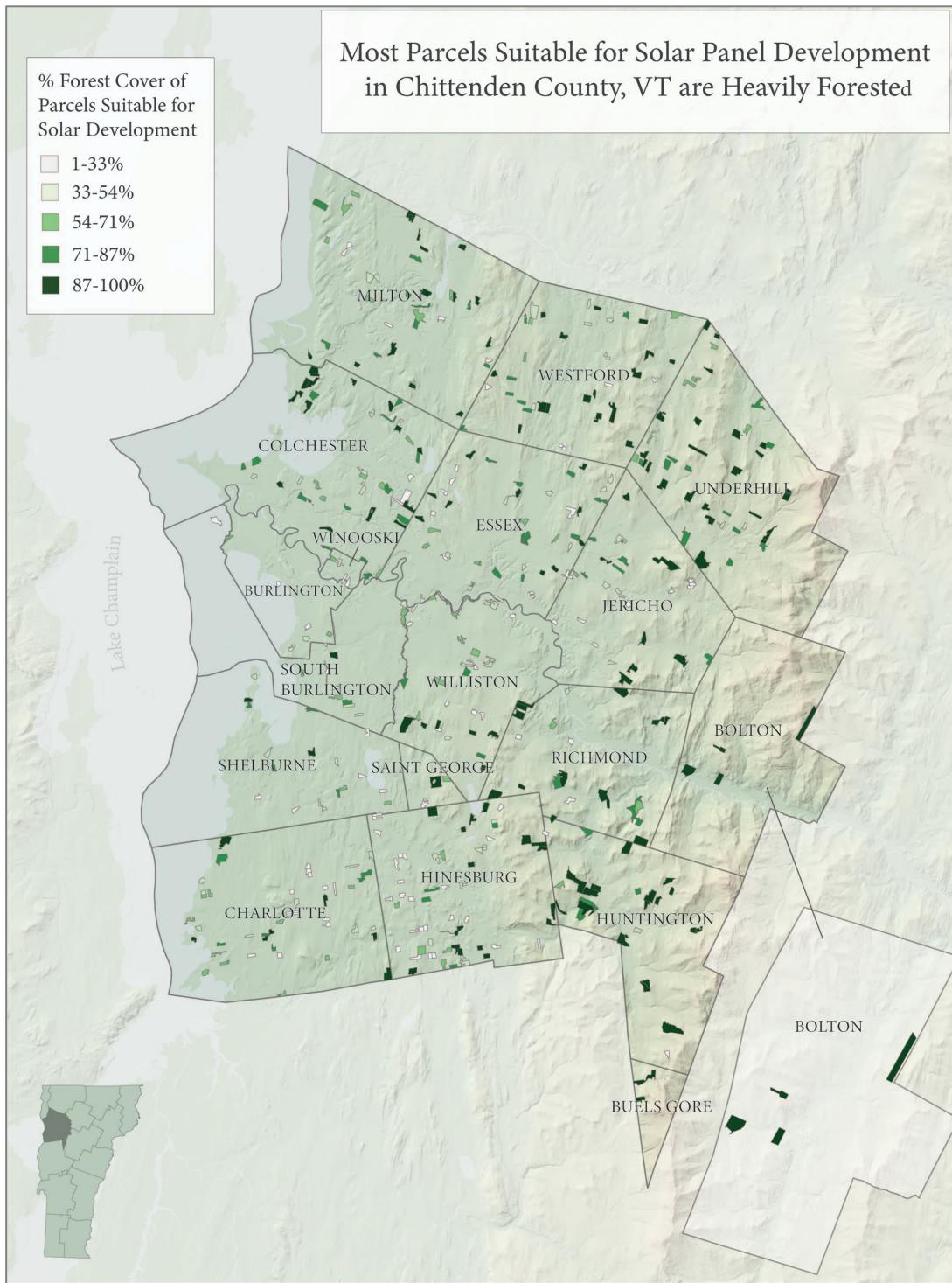
The counter map of estimated dose rates for Castle Bravo, on the right is meant to visualize the cultural significance of the Marshall Islands, as well as emphasize atolls as a network. In the center of the map lies another map: a *rebbelib*, a navigational stick chart for the chain of atolls from Bikini to Ebon. The Marshall Islands has an impressive history of wayfinding, using different stick charts to navigate between atolls. Although the radiation isodoses for Castle Bravo only make up part of the map, the rebbelib shows the fluidity of the Marshallese population, and the importance of voyaging for their culture. The significance of contaminated atolls goes beyond just the physical atolls that lie below the radiation isodoses, but also to the whole network of atolls.

Many colonial maps include images of dominating tall ships in the corners, providing narratives of European power over the New World. To counter western cartographic principles that support colonization, a traditional double hulled canoe, used by the Marshallese for voyaging, is added to provide a narrative that emphasizes Marshallese culture.

The map on the left displays the atolls of the Marshall Islands as thin black lines, proceeding without any recognition of the people who lived on many of these atolls at the time of the Castle Bravo nuclear test. The US military used this map to reconstruct the Marshall Islands as an empty, isolated landmass. Again, we see examples of state produced maps that are devoid of humanity and cultural significance of the area they depict.



Sustainability of Development Projects



Maps, paired with spatial analysis, provide key information on the potentials of a development project to be both ethical and sustainable. This map shows all of the land parcels suitable for solar development in Chittenden County, Vermont for an energy company seeking to expand their solar portfolio. By highlighting how forested each parcel is, we can influence developers into choosing parcels of land that do not disrupt the natural landscape, destroy ecological connectivity, or take away valuable access to nature.