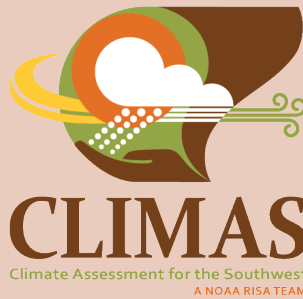


POLICY BRIEF

Supporting Tribal Data Governance For Indigenous Community Climate Resilience

DOMINIQUE DAVID-CHAVEZ
DANIEL B. FERGUSON
ANDREW CURLEY
TRAVIS LANE
SHELDWIN YAZZIE
SARAH LEROY
STEPHANIE RUSSO CARROLL

Indigenous communities use data, information, and knowledge to support climate resilience decision-making. However, the governance of that data raises challenges that have implications for tribal sovereignty.



Strengthening Indigenous Governance

A Call to Action for Native Nations, Tribal Citizens, Governments, Organizations, Scholars, and Funders

Tribal communities have the right to define, collect, protect, interpret, manage, and apply data in a way that respects Indigenous ethics, values, and relational responsibilities. These rights are critically relevant in the context of increasing climate impacts, where Indigenous communities need access to culturally relevant data to inform effective decision-making and to strengthen climate resilience.

Understanding Existing Data Governance Challenges

This brief describes priority concerns regarding data governance and climate resilience in Southwest Indigenous communities and makes recommendations to enhance climate resilience through data governance for Indigenous communities. Indigenous communities use data, information, and knowledge to support climate resilience decision-making. However, the governance of that data raises challenges that have implications for tribal sovereignty. Challenges include the limited availability of environmental data for tribal lands, available data not reflecting community values and decision-making needs,¹ insufficient support of Indigenous rights for environmental self-determination,² and extractive climate research practices that provide little direct benefit for Indigenous communities³. In response to these challenges, Indigenous communities can support community climate resilience by drawing on the emerging framework of Indigenous data sovereignty, the availability of Indigenous Knowledge, and deep place-based knowledge. In addressing these challenges, a summit on Indigenous data governance and climate for supporting tribal data governance convened in Arizona in September 2018⁴ with three main objectives:

- Building shared knowledge around data sovereignty as it relates to Indigenous community climate resilience and environmental health.
- Co-developing principles for tribal data governance to inform climate research in Indigenous communities.
- Supporting the development of a network of people focused on community-driven climate resilience work.

Recommendations shared in this brief draw on insights and experiences shared at the summit by tribal leaders, government partners, non-governmental representatives, Indigenous scholars, and activists. Our findings represent opportunities for addressing data related needs for Indigenous community climate resilience, including direct steps

for improving research partnerships towards these efforts. Applications for this brief include environmental decision-making as well as policy development for tribal lands, such as environmental assessments, public health research, water policy, and climate adaptation planning.

Indigenous Data Sovereignty for Climate Resilience

To respond to challenges for data governance in Indigenous communities, the climate summit drew upon the framework of Indigenous data sovereignty which enhances Indigenous nations' rights to govern the collection, ownership, and application of their own data.⁵ International advances in ethics standards for scientific research impacting Indigenous communities highlight the continued need for Indigenous-led research partnerships.⁶ Under the leadership of an Indigenous-led advisory committee and using Indigenous research and facilitation methods, we invited participants to share stories of climate resilience activities in their communities and to co-design strategies for addressing data-related needs. Resilience activities discussed included maintaining cultural practices and language; supporting healthy food and water systems; community-based activism and outreach for environmental education; and Indigenous priority-driven environmental, health, and economic research and development. Outputs from this workshop include research proposals—including one funded National Science Foundation postdoctoral fellowship to extend our research—and an Indigenous data sovereignty summit held in Arizona to identify data related needs of tribal leaders in the region.⁷

Recommendations for Supporting Tribal Data Governance

The following recommendations offer a synthesis of actions for supporting tribal data governance for Indigenous community climate resilience that emerged from the summit. A foundational point articulated by the participants is that Indigenous community resilience is rooted in cultural practices, such as Indigenous language, protocols, stories, and knowledge systems. We also identified a need for tribal leaders, community members, and non-tribal partners to continue to learn about and apply principles of Indigenous data sovereignty and tribal data governance to address historic colonial power imbalances. The following recommendations from summit participants represent opportunities towards this goal:

- Ensure data sharing practices respect and protect Indigenous data in all of its forms (language, stories, traditional and sacred knowledge, ceremony) and prioritize benefit within and across tribal communities.
- Identify and support existing community-driven resilience efforts.
- Establish community defined indicators for health and success in climate initiatives.
- Maintain community control regarding what and how data are collected to ensure useful, relevant data.
- Create capacity-building and data leadership opportunities for Indigenous data stewards.
- Develop digital infrastructure to support tribal data governance.
- Support community engagement and leadership in the development of laws, policies, protocols and codes of ethics for external engagement with governmental and non-tribal entities.
- Promote Indigenous data sovereignty education, relationship-building, and research timelines; promote consultation practices and consent protocols that honor tribally defined cultural considerations.

This brief was produced by the Native Nations Institute and Climate Assessment for the Southwest with funding support from NOAA's Regional Integrated Sciences and Assessments program, the National Integrated Drought Information System and has been made available to the US Indigenous Data Sovereignty Network.

Questions?

For more information, contact the Native Nations Institute at nni@email.arizona.edu.

Join the Network!

For more information on the US Indigenous Data Sovereignty Network and to join its community of practice that supports Indigenous data sovereignty through data governance-focused research, policy advocacy, and education, visit usindigenousdata.org and join us on Twitter: @USIDSN.

Suggested Citation

Dominique David-Chavez, Daniel B. Ferguson, Andrew Curley, Travis Lane, Sheldwin Yazzie, Sarah LeRoy, and Stephanie Russo Carroll. 2019. Policy Brief: Supporting Tribal Data Governance for Indigenous Community Climate Resilience. Tucson: Native Nations Institute and the Climate Assessment for the Southwest, University of Arizona.

-
- 1 | Rainie, S. C., Briggs, E., Riggs, P., Palmanteer-Holder, N. L., & Schultz, J. L. (2017). Data as a Strategic Resource: Self-determination, Governance, and the Data Challenge for Indigenous Nations in the United States. *The International Indigenous Policy Journal*, 8(2). <https://doi.org/10.18584/iipj.2017.8.2.1>
 - 2 | Tsosie, R. (2007). Indigenous people and environmental justice: The impact of climate change. *University of Colorado Law Review*, 78, 1625–1677.
 - 3 | David-Chavez, D. M., & Gavin, M. C. (2018). A global assessment of Indigenous community engagement in climate research. *Environmental Research Letters*, 13(12), 123005. <https://doi.org/10.1088/1748-9326/aaf300>
 - 4 | Supporting Tribal Data Governance for Community Resilience: A Southwest Indigenous Climate Summit held at the University of Arizona in Tucson and the Pascua Yaqui Reservation in Pima County, Arizona September 11-13, 2018
 - 5 | Kukutai, T., & Taylor, J. (Eds.). (2016). *Indigenous data sovereignty: Toward an agenda*. Canberra, Australia: ANU Press.
 - 6 | Garrison NA, Hudson M, Ballantyne LL, Garba I, Martinez A, Taulii M, Arbour L, Caron NR, Carroll Rainie S (2019) Genomic Research Through an Indigenous Lens: Understanding the Expectations. *Annual Review of Genomics and Human Genetics*, 20(1):annurev-genom-083118-015434. <https://doi.org/10.1146/annurev-genom-083118-015434>
 - 7 | Stephanie Russo Carroll and Andrew Martinez. 2019. Policy Brief: Indigenous Data Sovereignty in Arizona. Tucson: Native Nations Institute, University of Arizona and Inter Tribal Council of Arizona.