



## **Testimony of Nikki Cooley**

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Advancing Environmental Justice Through Climate Action**

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Chair Kathy Castor, Ranking Member Garret Graves, and members of the Select Committee, thank you for the opportunity to testify before you today to speak on the significant actions of Native American and Alaska Native communities in addressing the climate crisis.

My name is Nikki Cooley and I am Diné (Navajo) and of the Towering House Clan, born for the Reed People Clan, maternal grandfathers are from the Water that Flows Together Clan, and paternal grandfathers are from the Manygoats Clan. I am from Shonto and Blue Gap, Arizona and currently reside in Flagstaff, Arizona where I co-manage the Tribes and Climate Change Program (TCCP) housed under the Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University. ITEP was created in 1992 to provide services and tools for Tribal environmental professionals to assist in strengthening Tribal capacity and sovereignty in caring for their own lands, natural and cultural resources. The TCCP was initiated in 2009 to provide regional and national trainings, national conference, technical assistance and support for Tribes seeking to address climate impacts in their respective communities. This support includes assisting Tribal Nations with developing their climate adaptation and mitigation plans. Since 2009, the TCCP has served and supported over 800 individuals including 600+ Tribal representatives and over 300 Tribal Nations.

I am from the Diné (Navajo) Nation where we have been seeing the drastic impacts of climate change and we are going through a prolonged dry spell. Most of my people have to haul water for themselves and families and their livestock and crops and that is getting harder due to low water levels. Our nation has had to implement water rations forcing families to make the hard decision to decrease or sell their livestock which is devastating to those who depend on them for food and money. Our relatives on the coastlines and in Alaska are experiencing the consequences of coastal erosion and rising sea levels forcing them to plan for relocating their communities. In recent years, wildfires and winter storms have caused power outages impacting those most vulnerable. These are just a few examples of what has and is happening across the country and specifically in Native American and Alaska Natives villages.

A recent effort by ITEP was to convene the development of the inaugural Status of Tribes and Climate Change (STACC) report with an author team of over 40 individuals coming from a variety of

institutions. The report aims to acknowledge and celebrate the efforts of Tribal Nations who continue to find solutions using Traditional Knowledges (TK) and Western knowledge to address the increasing impacts of climate change. Included are the efforts of Tribal communities and their partners who come from Tribal Nations, academic institutions, federal and state agencies, and non-profits. Although the STACC report will not be published until the end of August, it contains 12 chapters that includes key messages and recommendations to assist and support Tribes as they work to protect their communities, non-human relatives and cultures from drastic climate impacts.

## **2021 STACC Report's Key Messages and Recommendations**

### **Chapter 1: History of Indigenous Peoples in National Climate Assessments**

#### **Key Message**

Indigenous peoples have been substantively involved in national and international climate assessments for decades, and this involvement has grown, including more Indigenous engagement and authorship on the third and fourth National Climate Assessments. There is still much work to be done to engage and include Indigenous perspectives, knowledge, and expertise in climate assessments.

#### **Recommendation**

Future reforms to make NCAs more inclusive should acknowledge, learn from, and build on Indigenous peoples involvement throughout the history of the US Global Change Research Program.

### **Chapter 2: Worldviews, Knowledges, & Social Impacts**

#### **Key Messages**

Indigenous peoples have their own systems of governance that have norms of behavior for land use and land care.

A growing dialogue among some Indigenous peoples articulates Indigenous knowledge systems through an understanding that all things are interconnected.

Legacies left by colonialism in economic, social, environmental, and educational systems have altered lifeways, traditions, practices, customs, and values of Indigenous peoples, influencing their understanding of how climate change affects their daily lives and opportunities for adaptation.

#### **Recommendation**

Climate change policy and climate science fields should respect Indigenous self-determination in governance and knowledge exchange. Indigenous peoples should be consulted meaningfully from the earliest stages of policy and research development. Legal, policy, ethical, and cultural best practices and requirements should be followed to make consultation meaningful.

### **Chapter 3: Actionable Science & Collaborative Climate Planning**

#### **Key Messages**

Tribes are investing efforts in adaptation planning and projects to keep their communities, ecosystems, and people healthy. In doing so, they are implementing the most cutting-edge work on climate. Tribal nations are actively creating climate vulnerability assessments, adaptation plans, and hazard mitigation plans. Protecting traditional knowledges is an important part of these processes. Locally relevant and regionally specific information is needed to understand local climate impacts and develop solutions that incorporate local, traditional, and western knowledge for holistic solutions. Actionable science co-produced in partnership with Indigenous peoples can support Tribal resource management decision-making.

## **Recommendation**

Support Tribal sovereignty and self-determination through Tribally-led climate adaptation planning to allow Tribes to prepare for climate uncertainty and associated risks. Management decision making should involve consultation with Tribes early and often, co-production of actionable science, and the incorporation of local knowledge.

## **Chapter 4: Ecosystems & Biodiversity**

### **Key Message**

Indigenous peoples' worldviews are often explicit in their centering of relationality, responsibility, and reciprocity as critical concepts. These concepts may inform Indigenous responses to climate change impacts. Examples of these impacts include increases in destructive wildfires and invasive species, and decreases in ice cover due to warming temperatures. Indigenous actions to address climate change are vast but some specifics include cultural burning, protection of keystone species, and observation and evaluation of invasive species before deciding how to respond.

## **Recommendation**

Indigenous peoples' self-determination as practitioners of biodiversity conservation and ecological protection should be respected and reinforced. This can be accomplished through collaboration across jurisdictions; consultation and consent in the first stages of land and water planning, research, and management processes; increasing support mechanisms for the exercise of Tribal sovereignty; and the removal of barriers to Indigenous peoples' rights to implementing land management practices. Special measures need to be taken to provide access to and management of off-reservation areas to promote the retention of culturally valued species to the maximum extent possible. This helps to ensure the promotion and maintenance of Indigenous economies, traditional knowledge systems, livelihoods, meanings, and identities. Where retention is not feasible, measures are needed to support Tribes in making new relationships with newly arriving living beings.

## **Chapter 4.1: Air**

### **Key Messages**

The federal government must uphold Tribal sovereignty, authority, and co-management rights for air quality management. Impediments to exercising sovereignty could be removed. For example, Tribes should be allowed to perform traditional fire prevention activities on their lands, such as cultural burning of the landscape to prevent wildland fires. Tribes experience disproportionate impacts from poor air quality, including smoke/fine particulates, heat, and humidity, all of which can be connected to climate change. These factors are believed to impact rates of mortality and morbidity from COVID-19.

## **Recommendation**

Fully engage Tribes as co-regulators in the very first stages of air quality regulatory planning, development, implementation, and enforcement. Adequate funding of air quality programs for staffing, monitoring, and emergency response to air quality issues supports Tribal sovereignty, as does addressing underlying causes of environmental, social, and health inequalities and injustices with the full participation of Tribal peoples.

## **Chapter 4.2: Water**

### **Key Messages**

Climate change is negatively impacting water quality, increasing ocean acidification, leading to an increase in the frequency and duration of harmful algae and biotoxin events, increasing drought, negatively impacting water and food security, and increasing both coastal inundation and riverine

flooding. Each of these impacts can threaten local economies, human and non-human health and wellbeing, and Indigenous lifeways. Tribes and Alaska Natives are responding to these threats by drawing on traditional knowledge, monitoring water sources, utilizing new tools, forming partnerships, and creating adaptation and contingency plans.

### **Recommendation**

Emphasis should be on early, meaningful, and sustained engagement and consultation by federal and state regulatory and other agencies on both water quality and availability, and concerning the associated food and water security impacts of contamination, ocean acidification, hazardous algal and biotoxin events, and risks associated with both drought and flooding. Tribes and Alaska Natives should be supported in implementing Tribally-led planning and solutions, partnerships, and cooperative efforts.

### ***Chapter 4.2.1: Drinking Water Infrastructure***

#### **Key Messages**

Tens of thousands of Native Americans do not have access to safe drinking water. Climate change has the potential to exacerbate this lack in access. Operation and maintenance (O&M) of water systems is key to sustainability, cost effectiveness, and most importantly, the ability to supply safe and reliable drinking water. Proper O&M requires adequate funding, staffing, and technical, managerial, and financial training. Proper O&M may become even more critical with climate change as systems need to respond to increasingly extreme climate events and greater uncertainty with respect to water quantity and quality conditions. Water infrastructure deficiencies provide opportunities to install climate resilient infrastructure.

### **Recommendation**

Climate change is making it more urgent to increase resources for Tribal drinking water infrastructure and for operation & maintenance to eliminate disparities in safe drinking water access and increase infrastructure resilience to climate-related disasters and impacts.

### **Chapter 5: Health & Wellbeing**

#### **Key messages**

Indigenous peoples' health and wellbeing (HWB) is founded on mutually beneficial relationships among humans, nonhuman relatives, and the environment, therefore HWB is highly impacted by climate change. Social-emotional health, water security, first foods security (includes foods, medicines, and technologies) are key aspects of Indigenous peoples' health and wellbeing (HWB) that merit more attention at local scales due to Indigenous peoples' unique cultures and worldviews. Indigenous peoples' resilience is strong; supporting community-defined climate strategies and capacity building within Indigenous communities will augment resilience

### **Recommendation**

Accelerate incorporating Tribal Health & Wellbeing evaluations, priorities, and action plans into government policy, laws, and decision-making.

### **Chapter 6: Economic Development: Renewables, Sustainable Economies, & Carbon Offsets**

#### **Key Message**

Indigenous science, knowledges, philosophies, and heritages guide Tribal self-determination in rediscovering economic sovereignty through pursuing, among other sustainable enterprises, renewable energy development, carbon sequestration via carbon markets, water and food security, and subsistence-based enterprises.

## **Recommendations**

Address complex land tenure, fractionation, and checkerboard jurisdictional boundary issues that persist on reservation lands and may constrain Tribal economic sovereignty. Invest in capacity-building that increases in-house legal, technical, vocational, and varied fields of research expertise to strengthen Tribal economic self-determination while mitigating the effects of and adapting to a changing climate.

### ***Chapter 7: Energy & Just Transition***

An Indigenous Just Transition is an Indigenous-led transition to an Indigenous-based, non-extractive, regenerative economy that transforms community planning and ecosystem restoration. Indigenous peoples have been deeply affected by extractive industries such as the fossil fuel and uranium mining industries. Tribal lands have tremendous renewable energy development potential which could help Tribes achieve energy and economic independence, sovereignty, and stability.

#### **Recommendation**

Remove barriers to renewable energy development, while supporting Indigenous people in a Just Transition, to reduce reliance on and negative impacts from fossil fuels and nuclear energy. The most significant barriers to the development of renewable energy on Tribal lands are a lack of financing, infrastructure, training in renewable energy careers, resources to access that training, and inadequately supported Tribal leadership and staff.

### **Chapter 8: Cultural Resources**

#### **Key Messages**

Tribal cultural resources include intangible cultural beliefs, practices, and traditions as well as tangible physical sites, landscapes, plants, and animals. Tribal climate change mitigation strategies should include considerations of both tangible and intangible cultural resources.

#### **Recommendation**

Integrate the tangible and intangible cultural, spiritual, and traditional significance of plants, animals, ecosystems, and landscapes into analyses of the consequences of climate change.

### **Chapter 9: Emergency Management**

#### **Key Messages**

It is estimated that currently less than 25% of all Tribal nations have an Office of Emergency Management, and less than 10% of those have full-time emergency managers. Without a Tribal emergency management program, it is deeply challenging to implement and adhere to a number of federal mandates and policies. Native Americans have a long and varied history of storytelling and culturally unique ways of communicating with one another and with other communities. When seeking to communicate with Tribes, this rich tradition of storytelling and oral histories should be incorporated. Barriers such as a lack of effective leadership at local, state, federal, and Tribal levels of government have prevented Tribal emergency management programs from making greater progress on responding to and mitigating climate-driven hazards.

#### **Recommendation**

Increase resources and support at the state and federal levels to develop Tribal emergency management programs across Tribal nations. Increase coordination with state and federally recognized Tribal nations to respond to and prepare for climate driven hazards.

## ***Chapter 10: Protection-In-Place, Managed Retreat, & Relocation***

### **Key messages**

Many Tribal communities are pursuing protection-in-place, managed retreat, and relocation responses to climate change impacts to infrastructure at increasing rates, which profoundly impacts the well-being and safety of Tribal communities and their lands, territories, and resources. Lack of a comprehensive policy and funding prevents most communities from protecting existing infrastructure.

### **Recommendation**

Create an all-of-government coordination structure to support Tribes in addressing environmental threats and provide adequate funding for proactive adaptation projects that empowers and honors community decision-making, sovereignty, and self-determination, consistent with the federal government's trust and treaty responsibilities.

## **Chapter 11: Solid Waste**

### **Key Messages**

The component of Tribal solid waste systems that is most affected by climate change and has the farthest reaching implications is that of infrastructure. An infrastructure system that continues to be stressed has lasting impacts on the amount of illegal dumping on Tribal lands, the transportation of waste in and out of Tribal communities, and the supply and demand of local recycling markets. The data gaps that exist in the world of Tribal solid waste management are extensive and cause a delay in responding to the demands of new conditions created by climate change.

### **Recommendation**

Allocate funding through a streamlined federal funding process (perhaps an interagency clearing house or memorandums of understandings) to ensure Tribal infrastructure is prepared to withstand changes in climate and extreme weather events and collaborate with Tribes to develop an inventory and evaluation of infrastructure related to solid waste in Tribal communities. This should include roads, facilities, and equipment. Focus on regional coordination to allow for idea sharing around climate change impacts, adaptations, and resources already available to help eliminate data gaps.

## **Chapter 12: Emerging Topics**

### **Key Messages**

Integrating Tribal workforce development and supporting Tribal Colleges and Universities can lead to greater climate resiliency and Tribal sovereignty, and can create opportunities to educate and train future Indigenous generations in climate related fields if administered additional funding and resources.

There are many climate-related cultural cascades including, economic and social, Indigenous relationships with the natural world, and pandemics. Tribal Nations are sovereign and the US Federal government, in meeting its intent to address climate, environmental justice, and racial justice, should work collaboratively to support Tribes to engage in internal diplomatic relations. Other collaborations across jurisdictions and Tribal governments should be considered to enhance climate-planning efforts.

### **Recommendation**

Recognizing that climate related cultural cascades, including economic and social, affect Indigenous relationships with the natural world, Tribes and Tribal partners should support collaborative climate planning efforts across jurisdictions and Tribal governments, including Tribal Colleges and Universities and other workforce development opportunities such as prioritizing Indigenous knowledge and labor. These practices will lead to stronger climate resiliency and sovereignty efforts.

## **Appendix A: Funding Recommendation**

Increase funding mechanisms that are reflective of the unique needs of Tribal nations, including resources for workforce development, overall capacity building, implementation of climate adaptation projects, and zero cost-share grants.

### **Conclusion:**

I am daughter of someone who worked at the Peabody Coal Mine on the Navajo reservation for over 30 years. I know all too well the need for a just transition to a sustainable economy that not only focuses on clean energy such as solar and wind power, but on a building adequate and sustainable infrastructure that will protect the people and environment. **I stress the importance of acknowledging the unique challenges Native American and Alaska Native villages face when it comes to the climate crisis.** Many of our people live in rural and underserved areas where they have little to no access to water, food and emergency services. The lack of infrastructure on most Tribal communities is increasing the stress on the people, natural environment and the costs of maintaining. Additionally, Tribes have a unique relationship with the environment and is often closely intertwined with their languages, ceremonies, medicines and ways of life. For example, if seasonal subsistence practices are disrupted, a chain reaction occurs. People are stressed because the foods they consume and also store until the next season is not available. This may force people to spend even more funds to make trips to the grocery stores and for many rural residents, this means traveling more than 30+ plus miles or giving into high costs of shipping food to their villages. **Climate change impacts are becoming more frequent giving less time for recovery and preparation, and increasing costs.** The STACC report provides the opportunity to learn more in-depth about what Tribal Nations are doing to protect themselves and their communities against the climate crisis. I implore the Committee to include and recognize not only the impacts Tribes face but also their leadership in addressing the climate crisis which is and will always be at their doorstep. As an Elder said recently, what we do today, we do for the next seven generations. Ahxé'héé! Thank you.

