

**CHAIRMAN RAÚL M. GRIJALVA**  
**ROB BISHOP, RANKING MEMBER**  
**HOUSE COMMITTEE ON NATURAL RESOURCES**  
**CONGRESS OF THE UNITED STATES, WASHINGTON, DC 20515**

**TESTIMONY OF DR. KELSEY LEONARD**  
**BEFORE THE HOUSE OF REPRESENTATIVES NATURAL RESOURCES**  
**COMMITTEE**

**LEGISLATIVE HEARING ON OCEAN CLIMATE ACTION: SOLUTIONS FOR THE**  
**CLIMATE CRISIS**

**TUESDAY, NOVEMBER 17, 2020**

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Chairman Grijalva, Ranking Member Bishop, and Members of the House Committee on Natural Resources – Thank you for this opportunity to testify on ocean policy solutions for coastal community resiliency and to ensure the conservation and restoration of ocean and coastal habitats.

I am an Assistant Professor in the Faculty of Environment at the University of Waterloo and have served since 2013 in a regional ocean planning capacity as a former Tribal Co-Lead for the Mid-Atlantic Regional Planning Body and now as a member of the steering committee for the Mid-Atlantic Committee on the Ocean.<sup>1</sup> Our regional ocean planning work has received international recognition and was awarded the Peter Benchley Ocean Award for Excellence in Solutions in 2017. I speak before you today not only as a water scientist and legal scholar, but as a Shinnecock woman. Although, I should note that I am not here in an official capacity as a Tribal governmental representative.

However, I am an enrolled citizen of the Shinnecock Indian Nation, our territory is located on the eastern end of Long Island, New York and we are a coastal Algonquian Tribal Nation that has existed on our aboriginal lands and waters for more than 10,000 years. Shinnecock in our language means “People of the Shore”. We are water people. We are fishermen and baymen and harvested the bounty of the sea since time immemorial. But above all we are Ocean protectors.

In 2012 when Superstorm Sandy hit our community and countless other communities along the Atlantic coast, we knew climate change would have irreparable consequences for our territory if we did not take swift action to address the climate crisis. Increasing extreme storm events mean more flooding, saltwater intrusion, infrastructure vulnerabilities, power outages, and potential for

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<sup>1</sup> Mid-Atlantic Committee on the Ocean, “Ocean Planning” (2020) (<https://www.midatlanticocean.org/ocean-planning/mid-atlantic-committee-on-the-ocean/>).

loss of life.<sup>2</sup> Eastern Tribal Nations in New Jersey, Delaware, New York, and Connecticut were severely impacted by Hurricane Sandy. Some reservations went weeks without power after the storm hit.<sup>3</sup> With rising sea levels Tribal Nations are frontline coastal communities with little protection within existing legislation for adaptation and capacity building. This is why we need the Ocean-Based Climate Solutions Act. However, full engagement by Indigenous Peoples is critical to fulfilling the policies described in the Ocean-Based Climate Solutions Act and the operationalization of the bill must honor treaties and support Tribal Sovereignty, the Federal Trust Responsibility, Tribal Self Determination, and the Government-to Government relationship between Tribal Nations and the federal government.

## **I. Establish a national goal of conserving at least 30 percent of the land and ocean of the United States by 2030**

Global studies have found that nearly 80% of the world's land-based biodiversity is located on Indigenous Peoples' territories<sup>4</sup> and if the United States is to set a national goal of conserving at least 30 percent of the land and 30 percent of the ocean within the United States by 2030 that goal should also support Tribal Sovereignty and Indigenous-led conservation. Protection of land and ocean areas should not limit Tribal access to food sovereignty, stewardship practices or maintenance of heritage sites and cultural resources. As Indigenous Peoples and Tribal Nations we have been stewards of these lands and waters for thousands of years and our conservation practices represent an applied science based on dynamic and cumulative observational data. In the establishment of new protected areas there should be established co-governance arrangements with Tribal Nations. There are examples of Indigenous-led protected areas around the world<sup>5</sup> and the Ocean-Based Climate Solutions Act could shape the United States as a world leader not only in conservation but Indigenous rights restoration. It is past time the federal government begins to fulfill its 2010 endorsement of the United Nations Declaration on the Rights of Indigenous Peoples.

## **II. Improve data collection and monitoring of the Great Lakes, oceans, bays, estuaries, and coasts, and for other purposes**

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<sup>2</sup> Jantarasami, L.C., R. Novak, R. Delgado, E. Marino, S. McNeeley, C. Narducci, J. Raymond-Yakoubian, L. Singletary, and K. Powys Whyte, 2018: Tribes and Indigenous Peoples. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 572–603. doi: 10.7930/NCA4.2018.CH15.

<sup>3</sup> ICTMN. (2012). "Hurricane Sandy Passes, Tribes Begin Assessing Damage". Indian Country Today Media Network, Verona, NY.

<sup>4</sup> Schuster, Richard, Ryan R. Germain, Joseph R. Bennett, Nicholas J. Reo, and Peter Arcese. "Vertebrate biodiversity on indigenous-managed lands in Australia, Brazil, and Canada equals that in protected areas." *Environmental Science & Policy* 101 (2019): 1-6.

<sup>5</sup> Ban, Natalie C., and Alejandro Frid. "Indigenous peoples' rights and marine protected areas." *Marine Policy* 87 (2018): 180-185.

As Indigenous Peoples our communities cannot benefit from the ocean-based solutions presented in the bill if we are not counted. Data collection and monitoring of the Great Lakes, oceans, bays, estuaries, and coasts must be done in consultation with Tribal Nations and align with Indigenous data sovereignty principles including free, prior, and informed consent. Within the BLUE GLOBE Act there are areas for enhanced coordination with Tribal Nations and Indigenous Peoples. Through my work with the Mid-Atlantic Regional Ocean Data Portal I have seen the immense benefit ocean data can have when made accessible to Tribal Nations for planning and policymaking. However, our ocean data infrastructure, especially funding streams available for Tribal Nations' data collection and monitoring, is severely underfunded. You have the opportunity with these bills to remedy that and to create tools that will allow for best-available science to include Indigenous science and traditional ecological knowledges to inform sound decision-making for ocean governance.

However, in building these data sources with Indigenous partners additional care is needed. I support portions of the bill that call for Indigenous communities to retain rights of ownership over data provided to Federal agencies and would encourage the adoption of the Global Indigenous Data Alliance C.A.R.E principles for Indigenous data governance<sup>67</sup> which include: Collective benefit; Authority to Control; Responsibility; and Ethics.

- **Collective benefit:** Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data.
  - *C1. For inclusive development and innovation*
  - *C2. For improved governance and citizen engagement*
  - *C3. For equitable outcomes*
- **Authority to Control:** Indigenous Peoples rights and interests in Indigenous data must be recognised and their authority to control such data respected. Indigenous data governance enables Indigenous Peoples and governing bodies to determine how Indigenous Peoples, as well as Indigenous lands, territories, resources, knowledges, and geographical indicators are represented by and identified within data.
  - *A1. Recognizing rights and interests*
  - *A2. Data for governance*
  - *A3. Governance of data*
- **Responsibility:** Those working with Indigenous data have a responsibility to share how that data are used to support Indigenous Peoples' self-determination and collective benefit. Accountability requires meaningful and openly available evidence of these efforts and the benefits accruing to Indigenous Peoples.
  - *R1. For positive relationships*
  - *R2. For expanding capability and capacity*
  - *R3. For Indigenous languages and worldviews*

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<sup>6</sup>Global Indigenous Data Alliance. "CARE principles for Indigenous data governance." *GIDA* <https://www.gida-global.org/care> (2019).

<sup>7</sup>Carroll, Stephanie Russo, Ibrahim Garba, Oscar L. Figueroa-Rodríguez, Jarita Holbrook, Raymond Lovett, Simeon Materechera, Mark Parsons et al. "The CARE Principles for Indigenous Data Governance." *Data Science Journal* 19, no. 1 (2020).

- **Ethics:** Indigenous Peoples’ rights and wellbeing should be the primary concern at all stages of the data life cycle and data ecosystem.
  - *E1. For minimizing harm and maximizing benefit*
  - *E2. For justice*
  - *E3. For future use*

Moreover, data collection on the Blue Economy must include Tribal industries. In this way Tribal-level statistics should be included to measure the contribution of the Great Lakes, oceans, bays, estuaries, and coasts to the overall economy of the United States.

**III. Require research in coastal sustainability and resilience, to ensure that the Federal Government continues to implement and advance coastal resiliency efforts, and for other purposes**

Indigenous Peoples are on the frontlines of climate change. Indigenous communities, like my own, face severe livelihood risks due to increasingly extreme climate events and as such must be equal partners in the development of scalable best practices and solutions to ensure more resilient and sustainable communities. Our role as Tribal Nations is not that of stakeholder but of sovereigns and rights holders in a government to government relationship with the United States. Our research practices must therefore reflect that distinct relationship and the United States must honor the federal fiduciary responsibility to Tribes.

**IV. Designate Regional Ocean Partnerships of the National Oceanic and Atmospheric Administration, and for other purposes**

As former Tribal Co-Lead for the Mid-Atlantic Regional Planning Body I saw firsthand the shift in ocean governance when intergovernmental coordination is mandated, and Tribal Nations are included in governance with equal parity to state and federal representatives. This form of ocean justice in intergovernmental coordination led to the first U.S. National Ocean Policy and regional ocean action plans<sup>8</sup> that were unprecedented in American history. I also saw the development of a regional ocean assessment<sup>9</sup> process that valued Indigenous science and can now serve as a model for integration of Indigenous data and science into the ocean planning process through regional ocean data portals. We need more of that level of coordinated action. The Ocean-Based Climate Solutions Act positions the United States once more to be a leader in ocean governance that prides itself on fairness, equity, and participation of all peoples in ocean decision-making.

However, within the Regional Ocean Partnership Act there is not a pathway for intergovernmental coordination among Tribes. It would be my recommendation that the path set forward to promote intergovernmental coordination among states is provided equally to Tribal

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<sup>8</sup>Mid-Atlantic Regional Planning Body. "Mid-Atlantic regional ocean action plan." (2016). <https://www.boem.gov/environment/mid-atlantic-regional-ocean-action-plan>.

<sup>9</sup> Mid-Atlantic Regional Planning Body. "Mid-Atlantic Regional Ocean Assessment." (2015). <https://roa.midatlanticocean.org/>.

Nations and the funding streams would be equally accessible and operationalized. Unfortunately, coastal Indian Tribes in regions outside of the West Coast are absent from the bill and the replacement of Regional Planning Bodies by Regional Ocean Partnerships for intergovernmental coordination has hindered progress for ocean planning and conservation. Tribes should not be made to compete with State governments for funds to conserve ocean ecosystems and maintain habitats of cultural patrimony.

## **V. Offshore Energy**

I support Title III of the bill limiting oil and gas leasing in the outer continental shelf and would echo the concerns of Tribal leaders across the country who through the National Congress of American Indians in 2009 issued a resolution calling for greater coordination on the impacts of outer continental shelf developments on Tribal rights and sovereignty.<sup>10</sup> Moreover, other offshore energy developments should occur in consultation with Tribal Nations in a government-to-government relationship. Tribal rights extend to ocean related activities and Tribes have reserved rights and inherent sovereignty for purposes of ocean and marine development. Moreover, wealth gained from offshore energy leasing should be shared with Tribal Nations and Indigenous communities who are ocean rightsholders that predate the United States.

## **VI. Establish an Interagency Working Group on Coastal Blue Carbon, and for other purposes**

With regards to the Blue Carbon for Our Planet Act I support the development of Integrated Pilot Programs To Restore Degraded Coastal Blue Carbon Ecosystems among Tribes, ensuring that Indigenous communities are not only included in the program but equitably represented based on disproportional impacts of climate change on our communities.<sup>11</sup> Moreover, the federal government must ensure that data included in the Coastal Carbon Data Clearinghouse includes disaggregated data accessible for Tribal Nations and Indigenous communities.

## **VII. Provide grants supporting research on the conservation, restoration, or management of oysters in estuarine ecosystems, and for other purposes**

Indigenous Peoples throughout the Mid-Atlantic have harvested oysters sustainably for thousands of years. Our own Shinnecock oysters are prized among some of New York City's top

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<sup>10</sup> The National Congress of American Indians, Resolution #PSP-09-024, "Outer-Continental Shelf Protection and Coordination" (2009) ([https://www.ncai.org/attachments/Resolution\\_TOWvMXRiPywSFtMIWInuAkzIOotkWKpxzfTXPvSHIUZCwSTGKZt\\_PSP-09-024\\_final.pdf](https://www.ncai.org/attachments/Resolution_TOWvMXRiPywSFtMIWInuAkzIOotkWKpxzfTXPvSHIUZCwSTGKZt_PSP-09-024_final.pdf)).

<sup>11</sup> Norton-Smith, Kathryn, Kathy Lynn, Karletta Chief, Karen Cozzetto, Jamie Donatuto, Margaret Hiza Redsteer, Linda E. Kruger, Julie Maldonado, Carson Viles, and Kyle P. Whyte. "Climate change and indigenous peoples: a synthesis of current impacts and experiences." *Gen. Tech. Rep. PNW-GTR-944*. Portland, OR: US Department of Agriculture, Forest Service, Pacific Northwest Research Station. 136 p. 944 (2016).

restaurants. Historically, we harvested the meat and with the shells we created vast mounds – known as shell middens – that show an archaeological record of oyster stewardship that can and should inform sustainable practices for oyster habitat restoration today.<sup>12</sup> The portions of the bill that call for increased research on the conservation, restoration, or management of oysters in estuarine ecosystems are needed and we hope that Tribal Nations and Indigenous communities can be listed as eligible entities for receipt of those research grants.

#### **VIII. Grants to further achievement of Tribal coastal zone objectives**

The Ocean-Based Climate Solutions Act fills a needed gap in the Coastal Zone Management Act (CZMA) where previously Tribal Nations were ineligible to access CZMA funding. This type of funding would allow Tribal Nations, such as Shinnecock, to continue our coastal habitat restoration work and build shoreline resiliency through nature-based solutions grounded in our Indigenous knowledge systems.<sup>13</sup>

#### **IX. Strengthening marine mammal conservation**

As Shinnecock People we have a deep cultural connection to whales and the recent Unusual Mortality Events in Mid/North Atlantic have caused grave alarm within our community and other Indigenous communities in the region. I believe the whale is like a miner's canary a foreboding and sacrificing alarm of our current climate crisis and the need to take immediate action not only for their protection but for the planet. Therefore, Title VIII of the Ocean-Based Climate Solutions Act is needed to protect these relations and that the conservation practices implemented would be informed by Indigenous and western science and support Tribal Sovereignty.

#### **X. Bureau of Indian Affairs Tribal Resilience Program**

Title IX of the Act is important to ensure the federal government can meet its fiduciary obligations to Tribes. Tribal Nations are frontline communities and require these grants to be able to build resiliency in our nations and ensure our deteriorating infrastructure can be rebuilt to withstand climatic changes.

#### **XI. Coastal Resiliency and Adaptation**

I want to conclude today by sharing one remaining story from my community, the Shinnecock Nation. Like many coastal communities if sea levels continue to rise half our reservation could

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<sup>12</sup> Jansen, Alex. "Shell middens and human technologies as a historical baseline for the Chesapeake Bay, USA." *North American Archaeologist* 39, no. 1 (2018): 25-50.

<sup>13</sup> Sengupta, Somini and Shola Lawal. (2020, March 05). The Original Long Islanders Fight to Save Their Land From a Rising Sea. Retrieved from <https://www.nytimes.com/2020/03/05/climate/shinnecock-long-island-climate.html>.

be inundated by water by 2050.<sup>14 15</sup> With a growing population and a depleting land base and no existing legislative process for relocation of Tribal Nations to lands of cultural patrimony where we would retain our land status what will become of us? We echo the calls of our Pacific Island brother and sisters “We are not drowning. We are fighting”. And we need the federal government to fight with and for us. The Federal Trust Responsibility is “a legally enforceable fiduciary obligation on the part of the U.S. to protect Tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native Tribal Nations and Villages” as well as to non-federally recognized Indigenous Peoples. Sea Level Rise poses a direct threat to the lands, waters, assets, resources, and ecosystems that are protected by the Federal Trust Responsibility. I support portions of the bill that establish processes for relocation of communities and humbly call for the federal government to do more. Tribal Nations currently confront a significant unmet funding need for relocating or protecting infrastructure threatened by climate impacts. There is not only a need for funding but for legislative guarantees that our land status will transfer with our people as we are forced to relocate due to the climate crisis. The Ocean-Based Climate Solutions Act is the opportunity to create a world where the United States is a leader in ocean justice for the benefit of all peoples.

***Tabutne***. Thank you for your time today.

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<sup>14</sup> Shepard, Christine C., Vera N. Agostini, Ben Gilmer, Tashya Allen, Jeff Stone, William Brooks, and Michael W. Beck. "Assessing future risk: quantifying the effects of sea level rise on storm surge risk for the southern shores of Long Island, New York." *Natural hazards* 60, no. 2 (2012): 727-745.

<sup>15</sup> [NOAA Coastal Services Center. \(2012\). “Sea Level Rise and Coastal Flooding Impacts Viewer”.](http://coast.noaa.gov/digitalcoast/tools/slr)  
<http://coast.noaa.gov/digitalcoast/tools/slr>.