

Rising Voices: Collaborative Science with Indigenous Knowledge for Climate Solutions



Rising Voices 4: Storytelling for Solutions

Workshop Report



**July 6-8, 2016
Hawai'i Island**



Rising Voices 4: Storytelling for Solutions

A different set of eyes lost in translation,
divides an ocean.

But we are the same, there's no shame in embracing.

I am more, I am less, I am human.

And I can see through my children's eyes a desolate wasteland where no mountain lies.

Please hear me....

Ancestors let my energy flow, protect me, enlighten.

There is so much to know.

This is my plea - please hold on....

I know it appears we are too far gone and maybe, just maybe we can thrive.

Correct our mistakes, kill our pride.

We gather today from around the globe and we wanted to let you know -

We are here. We will stand. We know you are more than just land.

So ancestors let my energy flow, protect me, enlighten, there is so much to know.

I promise together,
We have hope.

Lea Kekuewa, Age 15
July 8, 2016
Rising Voices

EXECUTIVE SUMMARY

Rising Voices: Collaborative Science with Indigenous Knowledge for Climate Solutions program (Rising Voices) aims to promote and facilitate more culturally diverse science and cross-cultural approaches for adaptation solutions to high impact weather and climate events, climate variability, and climate change.

Rising Voices is now a primary initiative in the United States responding to recent national and international calls for meaningful engagement with Indigenous communities and knowledge systems. Broad public participation is welcomed through an annual workshop. The first three annual workshops were held at the National Center for Atmospheric Research in Boulder, Colorado.

The Rising Voices 4 workshop, in partnership with the PRiMO IKE Hui, was held on Hawai'i Island (Big Island) from July 6-8, 2016. Approximately 70 people came together for Rising Voices 4 from every region across the U.S. to focus on collaborative science for climate solutions, with the specific theme of Storytelling for Solutions. Through group discussions and local field trips, we explored storytelling as a powerful conduit of knowledge between Indigenous and other scientific arenas, and across generations. The location of the gathering on Hawai'i Island was significant, as it plays a central role in atmospheric science, from measurements generated at several sites, and is home to local communities using place based knowledge and traditional practice to create modern day solutions to issues related to climate change. The workshop aimed to address the following questions:

- What are the shared elements of communication of science and traditional narratives, and what can they learn from each other?
- How does sharing stories (whether scientific or Indigenous) help illustrate the differences and similarities among diverse knowledge systems?
- How can storytelling foster collaborations for climate solutions among people with various technical and traditional perspectives, approaches, and objectives?

Some of the action recommendations proposed during Rising Voices 4 include:

- Develop food coalitions
- Have more place-based gatherings
- Create cultural exchange programs
- Develop week-long programs for youth within their communities
- Connect the adaptation work being done with the national and international level
- Fill in the gap between adaptation planning and implementation
- Work on communal, not only individual, laws and policies
- Find common languages to communicate across knowledge systems
- Continue to develop the Rising Voices Youth Initiative
- Develop internships for youth to shadow, train, and engage with mentors
- Write collectively about participants' adaptation efforts and work to share experiences and translate this information back to scientists
- Need localized data on sea level rise
- Tell the stories arising from our dialogue through radio, television, and digital media
- Develop and disseminate best practices of community-based efforts, partnerships with agencies and collaborations with indigenous peoples

FULL WORKSHOP REPORT

Aims and Objectives

Rising Voices: Collaborative Science with Indigenous Knowledge for Climate Solutions program (Rising Voices) aims to promote and facilitate more culturally diverse science and cross-cultural approaches for adaptation solutions to high impact weather and climate events, climate variability and climate change.

The Rising Voices program was initiated to increase engagement between Indigenous communities and Indigenous and non-Indigenous scientists to address the challenges of understanding and responding to a changing and variable climate, extreme weather events, and research and policy needs. Rising Voices is a community of engaged Indigenous leaders, Indigenous and non-Indigenous environmental experts, students, scientific professionals, and citizens across the United States, including representatives from tribal, local, state, and federal resource management agencies, academia, tribal colleges, and non-governmental, research, and community-based organizations. It is a platform to amplify the voices of Indigenous peoples that need to be heard and recognized. The program brings together efforts for integrating diverse ways of knowing and helps to establish protocols for engaging culturally varied and distinct communities.

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Previous Workshops

NCAR hosted three previous Rising Voices workshops, which aim to provide a space for participating individuals to convene and exchange scientific results, challenges, and solutions for long-term capacity building and increased resilience within a changing and variable climate. Though neither hosted nor organized by any particular Tribe, the meetings transform how communication occurs within western scientific institutions. The workshops begin and end with traditional ceremonial protocol, and the agenda includes topical breakout groups, presentations by student and early career Indigenous scientists and others sharing relevant activities, discussion panels, informal evening gatherings, and time built in for unstructured conversation over food. Working to bring together people from diverse backgrounds, the aim is to shift from a conventional western-style meeting format to a more engaged conversation that includes traditional protocol that nonetheless respects the cultural diversity of the participants.

Across the first three Rising Voices workshops (2013-2015), the number of attendees increased almost three-fold (from 45 to 119 people). Striving for an intimate, collective conversation, the first Rising Voices workshop (2013) issued invitations primarily through the Indigenous Peoples' Climate Change Working Group and the people involved with tribal input into the Third U.S. National Climate Assessment. It has evolved organically through participants reaching out to their extended networks. By the third workshop, there was increased involvement of youth, tribal representatives, scholars from diverse

disciplines and government agencies, and engaged citizens from nearly every United States region.

Rising Voices 4: Storytelling for Solutions

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It is important for the people to be able to tell their own stories. Reclaiming the stories and preserving place names helps to prevent a break in cosmology and view of the world. Story-boxes are included throughout this workshop report, which include student reflections organized by Rachel Bagby from the Hāmākua Community Phenology Sites, and stories shared during and after Rising Voices 4. Kristin Wegner organized a storymap of Rising Voices 4, which can be viewed at <http://www.smartbasins.com/RV4/>

Cultural protocol

Each day of Rising Voices 4 began with a sunrise opening ceremony in the ocean. Everyone was called together by the *oli e ala e* (chant for morning prayers).¹ Once we arrived at a new place each day, following cultural protocol, we would do an *oli kāhea* to ask permission to enter, to which our hosts would do an *oli komo*, welcoming us in. We did a closing *oli* at the end of each day, to show respect and thanks for the place and our hosts.

Place-based learning and sharing

We learned from the intersection of being together in places of cultural, scientific, and educational significance. Following the morning sunrise ceremony on the first day, we gathered together at Pu'uhuluhulu, the base of Mauna Kea. Mauna Kea is the proposed site to construct the Thirty Meter Telescope, the world's most powerful on-land space observatory. Pua Case stood to greet us upon arrival. After learning about the construction of the telescope from her daughter, Pua had spent the last years advocating, testifying, and

¹ To learn the *oli e ala e*, <https://www.youtube.com/watch?v=mJeJodoZgew>

I work with animals, mainly bison (buffalo) and when Pua Case called to her mountains, I was absolutely touched by her chant. Her chant is nearly identical to the chant I use when I enter a buffalo herd. The cultural connections sent a wave of hope and praise as I listened to her calling to the mountains. How similar our cultures are in language also. Such as Lakota (Rosebud, SD) say “Wakujan” for thunder beings/spirits, same as Hawaiian. – Lisa Colombe

activating on behalf of the spiritual rights of Mauna Kea, a sacred site that is home to many Hawaiian deities, including Wakea (Father Sky) and burial site of sacred ancestors. She spoke to us about the fight being waged between different forms of science and knowledge systems, and how her aim was not to be *against* something, as much as it was *for*, to protect, what she called, her people’s *Mauna*.

After leaving offerings brought from our home places and taking a moment to all be together, in place, we split into three groups to go on different field trips, which included the following options:

- ❖ Mauna Loa Observatories: Tour the 11,400-foot NOAA Mauna Loa Observatory and NCAR Solar Observatory. Learn about the scientific work that is done there, including climate observations.
- ❖ Hāmākua Community Phenology Study Sites: Visit community phenology study sites on Hawai‘i Island and participate in facilitated discussions
- ❖ National Park Service Ala Kahakai National Historic Trail Tour: The Ala Kahakai National Historic Trail is a 175-mile corridor and trail network of cultural and historical significance. It traverses through hundreds of ancient Hawaiian settlement sites and over 200 ahupua‘a (traditional land divisions). Walk on a short segment of the tour. Learn about the history of the trail, cultural sites, and the work that they do with communities.

Story of the Day

We came back together in the early evening in a quiet space on the beach at Anaeho‘omalu Bay. Sitting around a circle, Ramsay Taum guided us in a “Story of the Day” debrief, where we shared our experiences from the day with each other. Several people echoed the need to engage youth first and foremost in the work we are doing, that we need to guide them in getting their hands dirty and going deep. The youth participants shared Dekaaaz poems with everyone they worked on with Rachel Bagby during the phenology tour. People talked about how the stories they heard throughout the day resonated with what is happening in their own communities, such as Queen Quet singing a prayer from her Gullah tradition and reflecting on the parallels in what she heard with what was happening to her own community.

*Open
We are far
Stronger together
– Stefan Petrovic*

There was a shared sentiment of a uniting strain that ties us together everywhere we go, and that the sense of place is crucial to how we unite and build relationships. We need to know the old ways but adapt to new ways of communicating. When we talk about climate change, we have to make it personal. The relationships between species and the timing of life cycles, it is all intertwined.

We live in a cycle, and that cycle is being broken with climate change. In modern science, it is disconnected. We need to explore how to bring the inter-relationship and sense of caring for family into the climate change conversation. By igniting your spirit and actions, you can

make change. The question is how to feel the vibrant strength of our *mana*, and encourage and bring in others who have never heard the word *mana*, but are living it? It is coming together and exchanging knowledge as a family. It is a relationship, not a transaction. The example was raised of the local anchialine pools and fishponds that are significant to Native Hawaiians, but now belong to corporations, so are no longer available to Natives for fishing. With lost access to critical resources, there is now an imbalance. We need to shift from the paradigm of managing our resources to one focused on managing our behavior.

*Fish ponds
Restricted?
What path are
we on?
– Rachel Bagby*

Sharing experiences of walking along the Ala Kahakai National Historic Trail, some experienced realizing how much we can lose sight of what is sacred very quickly when there are other things to distract us. When we chanted on the *hua ka'i* you gain that feeling of sacredness back. There is sacredness all around us. If you recognize it, you can respect it, and you will *malama* (take care) it. One person reflected on the metaphor of the trail and posed the question of how old something has to be to earn respect and use it. These trails are paths to food. What path are we on? Will it lead us to an empty refrigerator?

Those who visited Mauna Loa reflected on the morning's reminder of our connection to Mother Earth and our impact on the natural environment, on the dualities of male and female, the duality of indigenous perspective and western approach. As we prepared to be *pau* (finished) and transitioned to the evening to take time to reconnect with old friends and meet new ones, we set the tone for the coming day to be about context, framing, and respect. We have to turn a big ship as quickly as possible. It is how we tell the story. How do we now arm ourselves to tell the story effectively?

Climate change from Pacific perspective

Following the sunrise ceremony on Day 2, participants gathered to travel together to the Ka'ūpūlehu Interpretive Center, which serves as a dynamic and engaging resource to share information about the cultural and historical significance of the area and to educate visitors about native Hawaiian traditions and customs. Aunty Lei, who heads the Center, greeted us and honored us by her words about gathering together in this space as one heart, one mind, and one love for a deep appreciation of the local culture, the local climate change issues from Pacific perspectives, and the importance of interaction between the kumu (teacher) and haumāna (student).

Building our 'Ohana

To learn more about and from each other, we spent most of the morning doing extensive introductions. People were asked to come to Rising Voices as themselves, with their professional affiliations and job titles left behind when they entered the ocean on the first morning. In turn, each person came to the front and introduced themselves to the group by saying a few words about their home community, what place means to them, and the ancestor or person they bring with them to this place, the one that inspires them to do what they do, but more so, be who they are. Taking the time together to not learn about *what* each other does, but more about *how* they carry themselves through the world and what is important to them helped to build our 'ohana.

*Vibrant
The new fire
Being created
– Anonymous*

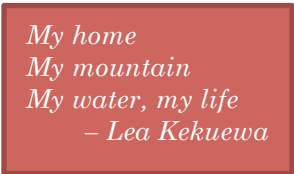
Climate change themes

Continuing on the Rising Voices approach of organizing small group conversations by themes, we broke out into four thematic groups: 1) Water, 2) Health, livelihood and food security, 3) Phenology, and 4) Relocation. The groups focused on the following discussion questions:

- 1) What are the key climate-related issues for your topic that would benefit from collaborative research? Please describe some specific examples including the places and communities involved.
- 2) For each of these issues or research areas, what are the moral, ethical, and Indigenous knowledge considerations that are important for these issues or research questions?
- 3) For each of these issues or research areas, who are the collaborators that should be involved? E.g., specific communities, organizations, institutions, agencies, or scientific/scholarly disciplines? Specific people or types of expertise within those entities?
- 4) Referring back to the 2015 Rising Voices 3 recommendations to the United Nations Framework Convention on Climate Change, 21st Conference of Parties,² are there changes or additions to any recommendations related to the breakout group topic? What are the specific activities, institutions or people/types of expertise needed to accomplish the new recommendations?

Water

Participants in the Water breakout group agreed that the proactive collaboration with and the placement of Indigenous leaders into decision-making positions is crucial to the development of holistic, just solutions to climate change. Members called into question the moral and ethical knowledge used to create solutions to the effects of climate change. It is important to think about the sustainability of each solution, and to consider equity as part of the economics of climate change. Cultural awareness, public outreach, community engagement and inclusivity are key factors to creating sustainable resolutions. Timelines created by indigenous elders frame how older generations discuss climate change and propose solutions for it.



*My home
My mountain
My water, my life
– Lea Kekuewa*

The water relocation group is planning on conducting more research about and disseminating knowledge of the best practices of community-based efforts, partnership with agencies and collaboration with indigenous people. We would like to increase and strengthen the voice and power of indigenous people at national forms, such as the National Adaptation Forum. Current climate adaptation plans should diverge away from colonial models and instead follow the adaptation plans of indigenous groups. This aims towards exchanging knowledge between tribal liaisons to help build the capacity of tribes through training tribal colleges and tribal planners.

²<https://risingvoices.ucar.edu/sites/default/files/Rising%20Voices%20Recommendations%20to%20COP21.pdf>

Health, livelihood and food security

The definition of food security is different for each community, so it is important to monitor food health and safety at the local level. Climate change adaptation plans must look into how food security can be insured by vulnerable groups. A case study that this breakout group examined was the transplant of the breadfruit tree into higher altitudes. Adaptation plans must also consider who determines what food gets provided and how much. The best responses to these questions will preserve the sovereignty and identity of a tribe's culture via their food resources.

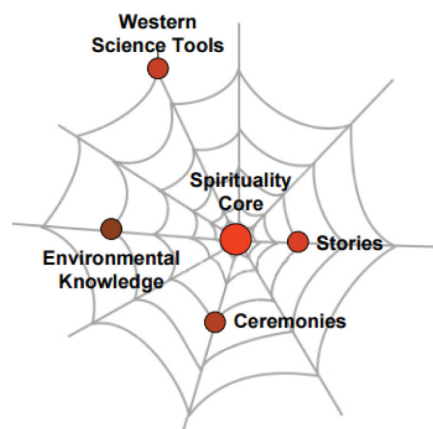
*Oceans
Are gardens
We belong to
them
– Rachel Bagby*

Phenology

We are already seeing the effects of shifting seasons, timing of life cycle events, and relationship between species. The key is finding a shared language that is not talking past each other, but bringing groups together and translating between groups who have knowledge that could support each other.

The focus of this breakout group discussion helped to inform and build upon the ideas of the Indigenous Phenology Working Group, which grew out of discussions about phenology (the study of the timing of plant and animal life-history events) at the first three Rising Voices workshops and was catalyzed by a phenology breakout group session at Rising Voices 3 (2015). The goal of this group is to bring stories, data, and communities together to achieve a more complete understanding of phenology and its relationship to climate.

The working group encourages respect for traditional ecological knowledge (TEK) and following guidelines for collecting and sharing TEK (such as those by the Climate and Traditional Knowledges Workgroup)³, and engaging with tribal college students. Several members of the group are participating in projects related to indigenous phenology, including the NASA-funded Arctic and Earth SIGNs lead by Elena Sparrow (University of Alaska Fairbanks), the Tribal Lands Collaboratory, and the USA National Phenology Network. This working group consists of those interested in phenology observations either on tribal lands and/or on species of cultural importance. The group is open to anyone interested and is currently organized through monthly calls and a listserv.



Conceptualization of TEK within an indigenous knowledge web (modified from Food and Agriculture Organization)

Relocation

It is important to learn from the past to inform the future, such as the examples shared by Lesley Iaukea about her work in interviewing Pacific islanders who migrated decades ago to find out what questions they did not ask then that they should have. The community of Shishmaref faces tremendous culture loss upon relocation from their island home to a mainland area. The island life is an integral part of their way of life—so no matter what is

³ climatetkw.wordpress.com/guidelines

done to help mitigate the relocation and no matter how close they are to their original settlement, they will be losing the literal foundation of their homeland and their culture. In the community's vision statement, they do not focus on relocation, but rather on being a "viable community."

Relocation models must be framed through the lens of human rights, focused on migrating with dignity, empowering people and creating viable communities rather than victimizing them. Successful relocation requires more than physical movement, it enables people to maintain their cultures and livelihoods and restore their well-being. Relocation cannot be defined by housing alone, it needs to be about place and connections to land, waterways, reestablishing networks, cultural lifeways, and connected to spirituality, which is often left out. Framing relocation as merely a housing project continues the march of forced assimilation and colonization. It is important for the resettled community to maintain and sustain its culture in its new location. Sustaining a sense of normalcy and being in a place while in a new location prevents degradation to the people's quality of life, and prevents harmful life choices.

*Whole soul
There is no
One mountain
or sea
– Lea Kekuewa*

Decision-makers must work to prevent further marginalization that makes adapting even more difficult, such as price gauging on land and gentrification. Policymakers must honor cultural identity and sovereignty and incorporate community rights. We are conceptualizing an online gathering space for communities that have faced or are currently facing relocation as a direct result of climate change. A moderated comment platform open to members of these communities is our proposal for such a space.

Presentations

*Be one
Being clean
Move as one
machine
– Shiloh Bennett*

Social Network Analysis

A social network survey was collected at Rising Voices 4 to get a closer look at the collaborations taking place within Rising Voices. The survey asked how long workshop participants have known each other and about partnerships in climate adaptation that are taking place. The survey hopes to inform efforts to build community capacity in climate adaptation and to use multiple knowledge systems in climate change response. The results of the survey will be reported in a summarized format at a later date. The survey is part of the doctoral dissertation of Rising Voices participant Carla Dhillon (University of Michigan), with guidance from faculty member Kyle Powys Whyte (Michigan State University).

Input for the 4th U.S. National Climate Assessment

Marie Schaefer updated the group about the collection of technical input for the Indigenous Peoples chapter of the 4th U.S. National Climate Assessment (NCA4). Through BIA support, the College of Menominee Nation Sustainable Development Institute has been working to solicit technical input throughout the tribal college and university system. The final date to submit technical inputs to be considered for NCA4 is January 15, 2017. For more information on NCA4,

<http://www.globalchange.gov/nca4>

Global Breadfruit Heritage Council Initiative (GBHCI)

In 2016 at the Pacific Risk Management ‘Ohana (PRiMO) annual conference, Olohana launched the Global Breadfruit Heritage Council (GBHC). The purpose of GBHC is to protect the genetic, cultural, environmental, and product integrity of breadfruit and its cultivation; to promote this gluten-free food on the world market; and create economic opportunities for and offer technical support to farmers and communities in Hawai‘i. GBHC has three programmatic areas: advisory, technical, youth and education.

Doc Tusi updated the group on the activities of GBHCI, a new organization formed based on years of working with farmers, particularly women, and the understanding of people’s multi-millennial relationship with breadfruit. GBHCI works on the model of we should have the right to grow our own food and access land to do so. It considers what we have in our own community to grow and models this for other communities. GBHCI is now conducting research on community-based development for breadfruit initiatives to revitalize the cultural, social and environmental, as well as economic components of breadfruit. Following Rising Voices, the GBHCI will be holding a Breadfruit Summit in August 2016. For more information on GBHCI, <http://olohana.org/index.php/global-breadfruit-heritage-council/>

Storytelling through digital media

Reynaldo Morales shared his background with the group of using digital media for communication. He works with tribes in Wisconsin and Minnesota through the POSOH (“hello” in Menominee) Project at the College of Menominee Nation. For more information on the POSOH Project, <http://posohproject.org/>

Ojibwe Tribal Communities, WI
“SLC News” - The First Tribal Youth Television Program in Wisconsin [video](#), produced entirely by high school students from Menominee Nation, Oneida Nation and Stockbridge Munsee Band of Mohican Indians Tribes in Northeast Wisconsin. – Reynaldo Morales

Reynaldo shared insight on how modern communication has become important for social transformation. We must take advantage of the current state of communication to help achieve our goals. Though we must proceed with caution, video has become the main way of communicating, but we are losing a sense of what our goals are.

Reynaldo discussed how he is working with high school students, who are writing their own stories and having community members as the actors. He works with them to figure out how we can create formats that protest the short ad way of consuming information and find alternative modes of communication so your message reaches different people and audiences. An overarching question to his work is how are messages about climate change helping global action?

Learning ‘Ohana

For the third and final day of Rising Voices 4, we gathered at Kanu o ka ‘Āina, a public charter school working towards sustainable Hawaiian communities through education with Aloha. Teachers welcomed us in to the school’s LEED Platinum building, which also serves as a community center. We learned about the place-based education and the programs the

school offers for students from different islands to get together each year and teach each other, across cultures and languages.

Storytelling/Science Communication

Participating high school students led an opening plenary discussion, where they each talked about storytelling and science communication. Lea Kekuewa played her ukulele and sang a song she wrote the previous evening based on her haiku (lyrics at beginning). Sage Nishida reflected on his time during the field trip working on the garden project and writing haikus together, and Luca Sanchez on the time spent at the seaside the previous evening, eating mussels, and thankful for learning from our hosts and being invited to this place. Shiloh Bennett commented about the time to hear everyone tell their stories the previous morning, how when we share our homes and families, it helps us to bond. Stefan Petrovic framed his experience based on context and community, reiterating what Kalani Sauza taught him about how we are so used to looking with our eyes and not our hearts. We seek to manage systems instead of working alongside what is already there. We need instead to immerse ourselves in systems that have been around for millennia, educate others, and improve our relationships and community.

*Listen
With your eyes
Give voice with
your heart
– Rachel Bagby*

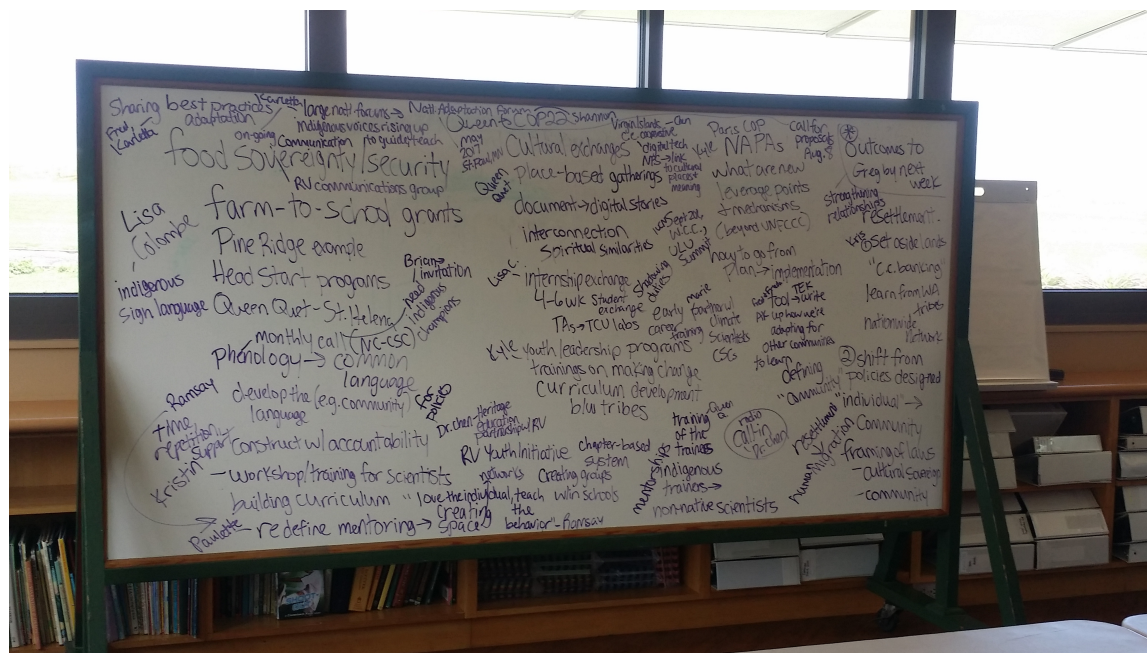
Opening the conversation to the full group, Heather Lazrus reflected on the importance of learning across generations, as we sat there learning from the youth, and reflected on community and family and our time spent the first day at Mauna Loa, and what this means in the context of bringing passion for place back into science. Queen Quet challenged the group to be scientists who help keep cultures alive, to keep the strength of this circle going, and to continue to support each other. Doreen Simmonds shared a story from Alaska, when European settlers raided Athabascan villages and stole the women, and how there was a young girl who walked 200 miles over the mountains to come back to her own people and homeland; that girl was her great-grandmother. The lessons and tools she learned from her are the same ones for us to be learning and sharing today.

Ramsay Taum read a letter by Dan Wildcat, who unfortunately could not attend in person. Dan's words charged us with the challenge of showing, not just telling, to consider all our relations in all we do. It is not just what we do but *how* we do it that is important and where we need to build our strength.

From Science to Action

The final plenary discussion asked everyone to brainstorm, imagine, and leverage from the network to share what the needs are and how we can support each other. Acknowledging that no one person can tackle these issues alone, we were called together to share how we can work together to find collaborative pathways to climate adaptation and mitigation.

Rising Voices 4: Storytelling for Solutions



Lisa Colombe put forward ideas she has been working on for **food coalitions** and **farm-to-school grants**, putting together a model for buffalo, focusing on what we can grow, sell, and train youth. Queen Quet called for **more place-based gatherings** and to have **cultural exchange programs** among those participating here and in our extended circles, which Lisa suggested could be done through an intern exchange program with 4-6 week exchanges, shared funding, and to shadow/assist in host locales in specific duties. This could be an important step to building science programs and support for tribal students and tribal colleges. Building on the cultural exchange idea, Kyle Powys Whyte suggested **developing week-long programs for youth within their tribal communities** where they engage elders, train in climate adaptation programming in their community.

Kyle also discussed how many tribes are already doing a lot with climate adaptation, but not a lot of people or even other tribes know about it. A key action the Rising Voices group could work in is how to **connect the work already being undertaken – successes and failures – with what is happening at the national and international level**. Julie Maldonado put forward that a major gap in tribe's working on climate adaptation is moving from planning to implementation. Another aspect of climate adaptation the group could work on is helping to **fill in the gap between planning and implementation**.

Kristina Peterson noted the need to **work on communal, not only individual, laws and policies**, particularly when it comes to relocation and the need for land and community-wide support. Ramsay posed to the group, "What does community mean?" Here, it means relationships. We need to develop a language and terms that do not truncate meanings. Construct our focus on accountability, not accounting. Our own meanings, metaphors, and obstacles can be different. Some talking about structures, other relationships. Where do we **find common languages**?

Paulette Blanchard reminded the group that we do not always choose leaders, they choose us. She suggested the idea to create Rising Voices Junior, which report to the full Rising

Voices group. Stefan and Shiloh shared their efforts in working to create the **Rising Voices Youth Initiative**, but how it has been challenging because issues for students are more localized and there are funding constraints to coming together. Shiloh shared the idea of **creating clubs at schools to communicate across native and non-native students**. Heather raised the idea of connecting more youth through internship programs at NCAR and other institutions and tribal colleges, which Marie Shaefer built upon the importance of **internships for shadowing, training, and mentoring**. Another idea is to **involve more youth in the Indigenous Phenology Working Group**, to get them to participate on the monthly call.

Several participants voiced how they are already adapting. We should consider **writing something collectively about how we are adapting to share experiences, and to translate this information back to scientists** for them to listen and engage. There is also information needed to collaborate with scientists. Fred Eningowuk talked about how they are seeing unusual low tides, and also high water without storms in Shishmaref, AK, and how they **need localized data on sea level rise**.

Dr. Chenzira raised the need for a fusion of leadership and culture. She shared the work she is involved with in the Caribbean where college students are working with high school students to tell stories of lands that are about to be under water, and how they are **telling these stories through radio, television, and digital media**.

Karletta Chief proposed thinking about models of cultural protocols and how we can relate through these models. To put together and disseminate **best practices of community-based efforts, partnerships with agencies and collaborations with indigenous peoples**, which could be used to train scientists. Shannon McNeeley called for people to **submit proposals for indigenous-focused sessions at the forthcoming 2017 National Adaptation Forum**. Greg Holland spoke about inspiring early career professionals to take the lead on integrative research, and the benefits of infusing Rising Voices participants and perspectives into research and activates happening across NCAR. Some participants will be convening together soon at the September 2016 World Conservation Conference, also being held in Hawai'i. Everyone was reminded to stay connected through the *Rising Voices in Action* Facebook page. Rising Voices 4 came to a close with an *oli* to *mahalo* (thank) everyone.⁴

*Rising
Voices 4
Indigerati!
– Ala Gordon Fuller*

⁴ To view a video of Rising Voices 4,
<https://www.youtube.com/watch?v=UmVBciMXJhI&feature=youtu.be>

[To view a selection of Rising Voices 4 Dakaaz poems and stories,](http://www.smartbasins.com/RV4/)
<http://www.smartbasins.com/RV4/>

Rising Voices 4: Storytelling for Solutions

I visited the Mauna Loa Observatory today. I have a background in Air Quality monitoring, so having the first segment of my tour show the first ever Ozone Monitor was a great way to start. It felt like being at the birthplace of Western Science, knowing that this is where the CO2 monitoring all started.

The drive up provided time for much reflecting after having Protocol with Pua. This ceremony reached me in a place that ignited a fire in me. Looking around at all of the participants, all the diversity in homelands, culture, age, ethnicity and backgrounds and hearing Pua share with us what a sacred place we were standing on, was so deep that I have a hard time finding the words to describe it. It reached me at a primal level maybe. Undoubtedly I was in awe of the science at the observatory and the significance in the link between the data collected and climate science. However, the personal relationships built over the next few days with this group gave much more cause to why we do what we do. It became a personal mission in life for me. It became bigger than a job, bigger than being a tribal liaison. It became a mission for all my relations. That is not to say that I didn't already feel that way prior to this, but now all my relations are spread across this continent. I felt the connection with the Mauna. I found my Mauna.

My spirit received a purpose, an energy and an overflowing love. I get emotional just typing this right now. I don't know what plan will be revealed for me to continue on this path, but I KNOW there is one. I was asked last night by a new friend: Where do you find your passion? As I type this I know the answer, the passion came from within. When we went in to the ocean on this first morning for ceremony, every experience in my life connected. Kalani's video prior to the trip was priceless. I knew what to expect logistically. I had even fully expected it to be a beautiful spiritual experience. However, I didn't know that my Indigenous Spirit was just waiting for this opportunity to awaken me. I went into the seawater, the mother of all life, and I came out empowered to unite with all my relations.

We all have different strengths. This group, this new family to me, has the ability to carry loud and impactful Rising Voices and to do it in a way that can be heard by anyone. Thank you for inviting me to be a part of this.

Yakoke (Choctaw for Thank you) and Chi Hollo li (Love for you all)

– Kim Merryman

