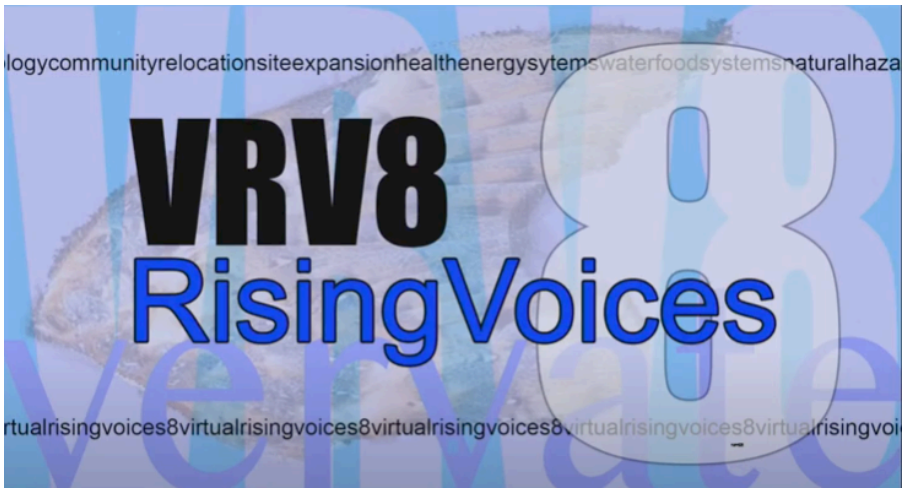
The Rising Voices Center
for Indigenous and Earth Sciences

Virtual Rising Voices 8 (VRV8) Workshop

Food Systems Sessions

September 2020



BACKGROUND AND INTRODUCTION

The Virtual Rising Voices 8 Workshop Series (VRV8) Food Systems Sessions took place in September 2020. These virtual sessions offer the opportunity for everyone to speak, engage, and ask questions in smaller group settings similar to what would occur in person at the Rising Voices annual workshops. VRV8 is possible due to the technological broadcast network capacity developed by Lomikai Media and the Olohana Foundation, who had the foresight to develop this capacity over the last few years to prepare for the very situation we find ourselves in with the novel coronavirus and COVID-19. This type of disaster preparedness has enabled our ability to be socially connected while at a physical distance.

The Rising Voices Center for Indigenous and Earth Sciences (RV) facilitates intercultural, relational-based approaches for understanding and adapting to extreme weather and climate events, climate variability, and climate change. RV supports a growing network of Indigenous, tribal, and community leaders, atmospheric, social, biological, and ecological scientists, students, educators, and other experts from across the United States, including Alaska, Hawai'i, and the Pacific and Caribbean Islands, and around the world. It functions as a boundary network among diverse individuals and knowledge systems, and fosters relationship building based upon mutual trust and respect. It acknowledges the inherent value of Indigenous knowledge systems and Indigenous science, including but not limited to traditional ecological knowledge and adaptive practices and processes, honoring them equally with Earth science.

RV's mission is to center Indigenous knowledge systems in the Earth sciences for more innovative responses to extreme weather and climate change. The vision is more diverse and inclusive Earth sciences to drive a climate-resilient and just world. This includes envisioning collaborative research that brings together Indigenous knowledges and science with Earth sciences in a respectful and inclusive manner to achieve culturally relevant and scientifically robust climate and weather solutions. In doing so, RV seeks to advance science; remove the boundaries between science and society; and create innovative partnerships among collaborators with diverse disciplinary and cultural backgrounds to support adaptive and resilient communities. RV's core objectives include: assess critical community needs in relation to the impact of climate and weather extremes; encourage Indigenous and other youth to pursue a career at the science-Indigenous knowledge interface; and pursue joint research aimed at developing culturally, socially, and economically optimal plans for community action towards sustainability. RV is co-administered by the University Corporation for Atmospheric Research/National Center for Atmospheric Research (UCAR|NCAR) and the Livelihoods Knowledge Exchange Network (LiKEN) in partnership with Haskell Indian Nations University, the Indigenous Peoples' Climate Change Working Group, and the National Oceanic and Atmospheric Administration's (NOAA) Office for Coastal Management.

The fifth VRV8 installment of thematic-focused months was on food systems. While food systems have always been a large part of the RV working group conversations, this was the first RV session with a specific, standalone focus on critical food systems. Throughout the panel and working group sessions, the main goals were in thinking about the importance of the changes

occurring in food systems today, how science and sovereignty are responding to these changes, and lastly, asking what is the vision for collaborations and partnerships that are needed, especially thinking about how RV as a boundary organization can support such collaborations, and weave together the often-separated policy, science, and practice strands to support food systems.

VRV8 FOOD SYSTEMS PANEL SESSION

The VRV8 Food Systems Panel Session took place on September 3, 2020. The recording of the session can be found here. The session's focus was on answering the following questions:

1. What changes are occurring in the food system and how are these changes important to you, your work and your community?
2. How does science and sovereignty respond to these changes?
3. What are the collaborations and partnerships needed to weave together the separate policy, science and practice strands to support our food systems?

Hank Fergerstrom (Na Kupuna Moku O Keawe) opened the session by sharing a chant, which he explained was a "calling of our ancestors from the very deep past and it calls for that knowledge that they have been holding for us until we are ready for it, and I guess we are ready for it now."

The panel session was co-facilitated by Ms. Althea Walker (Southwest Climate Adaption Science Center) and Ms. Mary Beth Jäger (Native Nations Institute- University of Arizona). Althea Walker, descendant of the Nez Perce, Hopi, and Gila River people and an enrolled member of the Gila River Indian Community, is the Tribal Climate Adaptation Science Liaison for the American Indian Higher Education Consortium at the Southwest Climate Adaptation Science Center. Mary Beth Jäger, Citizen Potawatomi and Chicana, is a research analyst for the Native Nations Institute (NNI) at the Udall Center for Studies in Public Policy at the University of Arizona. Panel participants included Dr. Michael Johnson (Native American Agriculture Fund), Dr. Becky Webster (University of Minnesota), Kaya DeerInWater (Bodewadmi Widoktadwen Getgan Potawatomi Community Garden Manager, Citizen Potawatami Nation), and Chief Shirell Parfait-Dardar (Traditional Chief of the Grand Caillou/ Dulac Band of Biloxi-Chitimacha-Choctaw).

PANEL SESSION

Dr. Heather Lazrus (NCAR) welcomed everyone and reflected on how this session's conversation would continue to build from the previous Virtual Rising Voices 8 discussions, and continue to think about the nexus between all of the working group themes. Althea followed by introducing the questions for the panel session, and giving a short biography of each panel participant.

Dr. Michael Johnson is a research associate at the Native American Agriculture Fund, a Hopi Tribal member, and traditional dry land farmer. He received his Ph.D. in Natural Resources at the University of Arizona and has a Masters of Public Policy Degree from Pepperdine University, and a Bachelor of Science Degree in Agriculture from Cornell University. **Rebecca (Becky) Webster**, a Citizen of the Oneida Nation of Wisconsin, is an Assistant Professor at the University of Minnesota, Duluth, and a founding member of Ohe·láku, which translates to, "among the corn stalks." Ohe·láku is a cooperative of ten Oneida families growing roughly six acres of traditional heirloom corn together. Becky and her husband run a ten-acre farm called Ukwakhwa: Tsinu Niyukwayay^thoslu, which translates in English to "Our foods where we plant things." Their focus is on growing varieties of corn, beans, squash, sunflowers, and tobacco. They document their planting, harvesting, cooking and preserving methods on their YouTube channel Ukwakhwa (Our Foods). **Mr. Kaya DeerInWater** is from the Citizen Potawatomi Nation of Oklahoma and lives in Shawnee, Oklahoma with his wife and three boys. He has worked for his Tribe as the community garden manager for the last three years, and is currently pursuing a Master's Degree in Biocultural Restoration at SUNY-ESF in Syracuse, New York. He received his undergraduate degree from the University of California, Davis in California in Ecological Restoration and Management. **Chief Shirell Parfait-Dardar** is the Traditional Chief of the Grand Caillou/Dulac Band of Biloxi Chitimacha-Choctaw in Louisiana. Chief Parfait-Dardar is also the Secretary of the First People's Conservation Council of Louisiana, the Chairwoman of the Louisiana Governor's Office Department of Indian Affairs-Native American Commission, and the Vice Chair of the Terrebonne Parish Diversity and Inclusion Task Force.

Dr. Michael Johnson opened the conversation by introducing participants to his home in Hopi, which he has been building for the last fifteen years out of sandstone. The house is built the traditional way "and in a way it's kind of like our food system." He shared about some of the changes he has observed on the reservation particularly during the novel coronavirus and COVID-19 pandemic, specifically on the food system and supply chain breakdowns recently. He explained that every week there is a truckload of food that is brought to the reservation but due to lack of storage space available, it ends up having to be returned. This is not an isolated case as he has found that many other reservations are also lacking the storage space to house these external shipments of food. Working for the Native American Agricultural Fund (NAAF), which currently has over 200 grantees, they have been able to observe what is needed and what is occurring during the pandemic, and what they have noted is that a lot of issues stem from the food and supply chain breakdown. While they are hoping that tribes will be able to use the CARES Act money to start building those storage facilities, it's important to acknowledge these communities have always had a history of good food distribution systems before Western concepts came and dissolved that. They have always had a way to distribute their products and most, if not all, of that was done by the women of their society.

> "[S]o my hat's off to the women of our society because they play a vital role in our agricultural system and they're the ones who go out. When the seeds come in, they go out and after we bring the harvest in - the men bring the harvest in - they go out there and they look for some of the certain characteristics on the plants and they distribute that

> and it goes down, clan-wise, to relatives and so forth."

So, the distribution system is set but because of the problems of modernity, they are having trouble returning to their traditional systems. A problem they have encountered lies in that there are not as many people farming the way they used to; they are trying to get more tractors and form co-ops to support with their farming. Another issue is getting the recognition they deserve knowing that their knowledge is centuries old; Michael is a 250th generation farmer, but still faces having to prove that knowledge, "It's all place-based agriculture. We've got techniques that would blow your mind as far as what Hopi farmers can do because I am one; I am a Hopi farmer." They do everything that the Natural Resource Conservation Service (NRCS) does as far as techniques that they offer, and yet, they are being told they have to scientifically validate it for it to be acknowledged. Even as he continuously tells them that they have 2,000 years of replication – vastly more than Western science – and wonders why they should have to scientifically validate that; though there are new laws that could help, such as the Alternative Funding Arrangements (AFA), these new laws have not been acted upon. Another law that could help is the American Indian Agricultural Resource Management Act, founded in 1993, but which, like most Indian legislation, has never been funded.

In response, NAAF is talking to the supply chain companies such as Cargill, and trying to increase the capacity on reservations for Indian Tribes and Indigenous People to be able to sell their products and have value-added products on the reservation. Most of the time in Indian country, Dr. Johnson explained, a lot of their land is leased to non-Indians so they benefit from it more than the Indigenous communities do. As a scientist and a scholar, Dr. Johnson is trying to revitalize their agricultural system:

> "What our organization is trying to do is bring everything back home and keep it local. We should not have to go through bringing in truckloads. We should be raising our own food if we're able, or we should be partnering with people who can help us to do that. [W]hat we're doing is very vital…for the most part our food system is still intact but we just need a little bit more help to keep it more sustainable like it has been for the past years."

Becky Webster spoke next, beginning with a short introduction of herself. Her name is kany^teklu , which means "snow scattered here and there trying to protect the land"; she is Wolf Clan, Oneida, and grew up near Duck Creek in Oneida. Like Dr. Johnson, she is a farmer and an academic. However, she is a newer farmer because farming was disrupted in her family because of the impacts of colonization and removal, and many people in their community are just now getting reconnected with their agricultural roots. Considering the current context with COVID-19, people are seeing the fragility in their food systems and how unnecessary some things are. People are asking questions such as: "Why are we getting food from so far away? What's happening locally? What's going on with our traditional foods?" Food has become an amazing way to reconnect with their culture and roots.

Now, especially with the pandemic, people are becoming scared of what could happen. In

response, they worked with their community to package seeds they grew on their farm last year and handed out dozens of packets of their traditional corn, beans, squash, and sunflowers seeds. Over 20 families came to their porch to do social distance porch trades; most of the people that came had never grown their own food, but they were able to give them access to that. Throughout the summer, they received pictures and videos from these people and saw how their plants were doing, and in doing so, were able “to reestablish our relationship with those seeds, that relationship that had been severed, again, because of colonialism and removal.” With climate change, one of the things they have noticed in the Midwest is that their springs are wetter and the seasons are shifting. They have found that a way to mitigate these changes is by returning to their original instructions on how to farm, and returning to their three sisters mound systems which consists of planting their corn, beans and squash together in mounds – and they have had great success as “the plants are a lot happier when they're planted that way.”

Next, Becky discussed the question regarding science and sovereignty and echoed Michael’s thoughts on how people often think of science as “new and cutting edge and these great breakthroughs, but science is often reaffirming our traditional teachings, things that have been passed down from generation to generation. That’s where our instructions lie and I think it’s what’s going to take us through these changing times.” Thinking of sovereignty, at its core, for her it means being able to make your own rules and be governed by them and to do so without interference, and being able to carry out those efforts without somebody coming in and telling them how to do it. This brings up several issues having to do with herbicides, pesticides and GMO (genetically modified organism) foods that grow in and around their reservations and oftentimes on their own land; this in a sense is others coming in to tell them how they should be farming. But, “how do we do that in a systematic way that makes sense and is culturally responsible?” This question in turn brings up the issue of non-Indigenous people trying to patent their seed relatives; it is “absolutely terrifying to see what’s happening to those relatives and how they're being manipulated” because that is not something that is part of their traditional systems.

Thinking of the collaborations and partnerships that are needed, Becky spoke of needing more individuals and co-ops getting together and growing their foods, and in doing so, taking the burden off of Tribal governments. She expressed that oftentimes everyone turns to Tribal governments to provide food for them and to answer all their problems, but what we forget is that, “as a community and as individuals we have a responsibility to that. [W]e need to re-establish our relationships with our foods and we need to start growing them more.” However, there still needs to be collaborations between Tribal governments and people. Tribal governments hold a lot of expertise and have people that have gone to school, who know about science, and who can help weave modern science into their traditional teachings; expertise which can be shared to support in continuing these efforts. But, there is also the issue of land. Similar to the issues raised by Dr. Johnson, there are a lot of Tribes who have a lot of agricultural or ranch land, but with non-Tribal members using that land so there is a need to find out ways to make that land available and accessible to Tribal members.

An example of one such collaboration is Becky's co-op in Oneida – Ohe·láku; they received support from the Tribe to experiment with different cover cropping and interceding methods. The Tribe also helped them have access to land to farm by being able to lease that land for free. As Becky expressed, "more opportunities like that should be made available to different community groups." Lastly, she also suggested that grants for infrastructure are something else that can support these efforts. Though there are a lot of grants out there, these are often only available to Tribes or 501c3 non-profit organizations, when perhaps they should instead focus on individual Tribal member farmers or informal co-ops, and grant "actual tangible things like infrastructure." Yet, one of the issues they face is that often when they ask for support from the federal government the answer they receive will be, "'Well, we can give you loans,' but that's not always the answer because a lot of us aren't growing our foods to make a profit." For example, on their farm they do not sell any of their food and instead either trade, or barter it and gift it to people because that is their philosophy and how they have handled things. Therefore, "if we were to get a loan out for something, we don't have the means to be able to repay that the way we would if we were a commercial farmer."

Kaya DeerInWater (Citizen Potawatomi), whose Indian name means Southern Wind and is Bear Clan, followed after Becky, and began by sharing similar experiences being seen in his community. He has observed that there has been an increase in the interest of growing their traditional crops and rekindling their relationships with ancestral foods, and shared that they have a few online forums where daily posts about reconnecting to food and seeds, and growing food and harvesting food, are shared. He has also completed preliminary research from community surveys which show that "people are hungry for this knowledge; they're eager to learn to relearn these ways that have been severed because of colonialism." For example, right now in their nation they have a community garden where they have been trying to grow all of their heritage crops. However, they must first go through a multi-year acclimation process for their ancestral seeds because although Oklahoma is their homeland now, "it's not our original homeland, [and] all of our ancestral seeds came from the Great Lakes Region." As such, they are working towards acclimating these seed relatives to Oklahoma's environment and finding out what works and what does not. They also offer cooking classes and herbal tea demonstrations to "get some of that knowledge and hunger for that knowledge out there, and to put it out in in the community."

They are also starting a seed library where they will hopefully be able to have all of their heritage crops made available to their Tribal citizens. The way that the seed libraries work is that at the end of the growing season you return some of those seeds so that that library can keep going and thus, sustain itself. Mr. DeerInWater emphasized that all of these are really important first steps and "like Becky said, we're also at the beginning of our journey in reconnecting [and] rekindling these food systems and food knowledge." He also reiterated how growing food from an Indigenous perspective is science and that they do not need validation from western scientists or from western ways of knowing to know that because "like Michael said, we have generations of replications." He ended by saying that what could be useful is for as many people as possible to come together in a co-op style situation and together rent land to be used for growing food. Speaking from experience and because right now he is the only

person employed to do this kind of work within the Tribe, he knows it will take outside resources and collaborations with other organizations in the Great Lakes, or organizations here in Oklahoma, to continue this work.

Chief Shirell Parfait-Dardar (Grand Caillou/Dulac Band of Biloxi-Chitimacha-Choctaw) began by remarking that though everything is all connected, “it’s a little different depending on where you live.” She explained how in their area in southern Louisiana, they are subsistence people and they “live off of the land and the water, and we care for and we protect our environment to the best of our abilities. It’s an exchange, a respect.” Nonetheless, a lot of what they are currently experiencing is pollution, harmful pesticide use, GMOs, and the abuse of animals on our planet to feed the people:

> “The food system is broken and failing because the people have made it that way and we need to return to a more compassionate food system. At one time my people had community gardens; they kept small livestock like chickens and goats. They shrimped, they fished, [but] due to land loss and erosion, due to the cutting of the canals for oil and gas exploration and extraction, and the impacts of climate change...thanks to the lack of planet and human rights-based policy, our traditional practices are becoming harder and harder to do and our traditional harvesters that work the waters are becoming extinct. [M]y community has been slowly dying since about the 1940s and it’s from a loss of economic opportunities, failing health, and due to the lack of responsibility and accountability on the part of those in power. We’re quickly losing our traditional foods. The livelihoods of our people are disappearing and, with it, our culture and ultimately our identity and we’re not alone in this. It just so happens that we’re one of the communities that are along the front lines of what's happening.”

Having addressed the main questions posed to the panelists, Mary Beth facilitated a question and response session between the panelists and the audience.

Q&A SESSION

How do we reconnect, or how do we reconnect people back to the lands and could you provide further examples that people have seen or which your communities have done to bring people back to that connection? Or, if there are things such as the decay that Chief Dardar spoke of, have there been ways that you have seen that people have stepped up to help stop that?

Ms. Paulette Blanchard (Absentee Shawnee/Si-Wi-Nwi) who lives in Oklahoma, shared that growing food there is always a challenge due to weather extremes they have been experiencing. For example, there has been an extreme amount of rainfall within a matter of hours, there is hail, and on top of that, they have had extreme heat, and much more, which makes growing their foods a challenge. To help with this, her family built a subterranean greenhouse “to not only try to accommodate the weather extremes and try to somehow mitigate

it but also to be able to grow throughout the winter, and that's just one challenge that we've tried to address here."

Dr. Michael Johnson shared how his community in Hopi is very fortunate that they were not relocated anywhere, and that they have a good number of farmers. However, one of the issues is the decrease in supplies. Traditionally they used to keep enough seeds on hand to last three to five years because if you look at the El Niño and La Niña weather patterns, they follow a three-to-five-year pattern, so this is what the people followed. However, that may not be followed as much anymore so one of their main goals is to increase their supplies. They are also seeing how organizations like the Hopi permaculture are hiring and working with Americorps VISTA and employing their own people, including getting youth involved. Dr. Johnson also reiterated the importance on focusing on policies and legislation, such as the Farm Bill, and focus more on aggregate data to get those issues across; to do so, forming partnerships is vital.

Other issues that place challenges on reconnecting to the land include the lack of understanding of their traditional ways of growing food, as well as financial stressors, and data collection. For example, Hopi are able to raise their crops with only six to ten inches of rainfall a year. Yet, during his time at Cornell, they kept on telling him that they needed 33-inches of rain, an amount which Dr. Johnson thought was incredulous because he knew this was due to these types of strands of food being weaker as a result of the way in which conventional farming eliminates the variables found in traditional farming. Conventional farming gets rid of variables by using pesticides and herbicides, but by doing this they also get rid of the environment and bring great harm to it. For the Hopi, while they might not get a crop every year through traditional methods, they are still able to grow food without harming the environment.

> "I think the thing that stands out the most and what makes Hopi Hopi is that our faith in our ceremonies are directly tied to what we do as farmers. That's what makes us so resilient because without our faith, we would not be able to raise the crops nor would we want to raise the crops. We don't look at crops as a commodity but we look at them as our relatives and so we're able to try to bridge that gap."

Other challenges that have surfaced are linked to economic needs and the lack of acknowledgement of Indigenous Peoples and their knowledge. Before, the Hopi population was bigger and relatives would come to the field to help put in crops. However, there is not as much interest in doing so anymore – even though their fields are relatively small – and one of the main reasons for this is due to people wanting to receive monetary compensation for their work. One of the options to mitigate this is to form a bigger farmer co-op, and get tractors to support with farming. Considering the lack of recognition of their people, they continue to fight against the incorrect data from agencies that fail to recognize them. Though there are organizations collecting aggregate data, this data is only "big data" which does not consider their culture and people. As such, they are having to correct data and collect disaggregate data that would allow for them to "have our stories, our problems out more, and be more visible." Even then, Dr. Johnson says, "I get pushback when I say that because 'you said you're only one percent of the

population' but yes we're one percent of the population but Indigenous people sit on 80-percent of this world's biodiversity for pete's sake." Dr. Johnson reiterated the importance of keeping intact and upholding Indigenous techniques, practices, and food systems and rendering them visible "because we all have the same goal and our goal, for most Indigenous people, is about survival. It's not about economics even though economics is part of that but it's generally about survival."

Is there a concentrated effort to think about climate change and how that might affect traditional farming practices and/or seed varieties?

Becky Webster explained how her community is working on growing a variety of their traditional corn, the Oneida white flower corn, instead of the other corn they have grown in the past, the Tuscarora white corn. The main difference between these two corns is that the Oneida is about a 95-day corn, while the Tuscarora is a 110-day corn, and that 15-day difference in growing makes all the difference to them. This is because in order to be able to grow the Tuscarora corn, they would have to make sure to get it into the ground right after the frost if they want to be able to harvest it before it begins to frost again. So, they are working on bringing back the seeds that are more compatible to their former home where they were removed from in what is now known as the state of New York. They were however moved to a location that has a very similar climate; or at least, it used to be a similar climate. Due to changes in climate, something else they are doing is returning to traditional growing methods of using mounds to protect their foods from getting too wet because climate change predictions show the Midwest becoming a giant swamp. In addition to using these methods to combat climate change, they also know that any of the seeds that survived, especially last year when the weather was extremely crazy, are the survivors and that those seeds are the ones that will make it through and "be able to bring us through this climate change so we need to take extra care to protect those seeds and keep them going."

Dr. Johnson followed by first speaking about the United Nation's Declaration on the Rights of Indigenous Peoples, and the Doctrine of Discovery, which "gave Indian people the right to occupancy but not the right to title." So, in looking at efforts to combat climate change, these are some of the things to keep an eye on, and especially look back at that original legislation that established many of the injustices being experienced to this day. Dr. Johnson proceeded to speak on the importance of making seeds available and continuously using them, and of understanding that for Indigenous people, many of their food systems are place-based so there are foods that can only grow in certain places. Speaking on seed availability, he expressed that he does not think storing seeds in warehouses, as some organizations do, is the best approach because he believes that when it comes time to take those seeds out and plant them in a different climate, those seeds could suffocate. Seeds should be let out and used and be acclimated to where they will be grown. Michael also touched on the idea of selling seeds, which he thinks is up to the Tribe to do that if they wish to though he is **"**not a big fan of that only because there [are] no rules to protect what we give away. If we could come up with better rules, maybe tack it onto the Farm Bill that would protect what we are giving away so that nobody like Monsanto or Bayer can come in and exploit that." It's challenging because most

legislation is geared towards protecting corporations rather than protecting the small farm. He ended by expressing that what is needed is to get out there and have a public policy campaign to be able to do all of this and bring visibility to Indigenous people.

Chief Shirell continued speaking on policy by voicing that what we really need is for those in power who determine what is acceptable for human consumption to work together, period:

> "It's not that complicated to create a system of health-based food systems that maintain the highest level of responsibility to the planet and the people, the science proves what is and isn't healthy for human consumption and it's up to our elected officials to create policies based on scientific knowledge that promotes a healthy planet and people, economic development, good faith practices. There's no good reason why our planet and people should be in the predicament that we're in today with our current food system. What's gotten us here is recklessness, ignorance, and greed, period."

Currently, the Grand Caillou/Dulac Band of Biloxi-Chitimacha-Choctaw is part of a team working with scientists, because they know they need scientific validation, and working with agencies and organizations to promote a healthy planet and a return to a more responsible and compassionate way of food gathering and harvesting. To see some of their current projects, you can look to the First People's Conservation Council of Louisiana, an association that provides a forum for Native American tribes in coastal Louisiana to identify and solve natural resource issues on their tribal lands. Together with partners such as the Lowlander Center, which supports lowland communities for the benefit of the people and the environment, they are learning to create more positive progress every day, "so there's hope for my people and all the people. We have to have faith."

Mr. Kaya DeerInWater addressed the question by speaking to how in Potawatomi communities there are conversations around climate change. Last summer at the gathering of Potawatomi nation where all nine bands get together, they held a discussion with the elders and community members about plant knowledge, food, and how they plan to address climate change. Some of the key takeaways were that there are many people who have knowledge but are too isolated from everyone else, that there needs to be some kind way to connect those dots, and that they cannot expect for things to "magically start growing in terms of community efforts towards climate change" when they only meet once a year to discuss these issues. They also know of communities north of them who have southern plant medicine so they know that people must have moved these plants, and that they are adaptable to different climates.

How do we increase sharing while retaining tribes' intellectual ownership?

Dr. Johnson shared that that was a question he struggled with when he was working on his Ph.D., and which he still struggles with in thinking about how much of their knowledge is available. Working with Western scientists and knowing his traditions, and trying to figure out how to "bring those two together, to bridge that gap that exists, that communication gap" is something that has been hard to do. Having a science background, he is cognizant of what

people are looking for, and what science is looking for, so rather than going into the ceremonial aspect of things or his traditions, he instead just talks strictly science when in those situations. Though he knows that we need to figure out ways to bridge that knowledge, he also thinks that it is up to the individual on how they feel, but expressed that it is a very hard path to navigate, "[W]hen it comes to that…it's kind of an individual choice…I got a few people who don't like some stuff I do because they feel like I'm doing all things on my own but that's just Hopi, always about trying to bring you back into the community in some aspect…and I don't mind getting my head chopped off once in a while because I'm looking at the greater good and so as long as I continue to do that my heart will remain humble."

Dr. Webster responded that, "as a recovering attorney, I'm putting my hat on about our intellectual property rights. I think sometimes we just need to get over ourselves and we need to be able to release some information to each other." Sometimes because Indigenous communities are so worried about somebody else getting a hold of this information, or doing something terrible with it, they end up not sharing that knowledge with each other. As such, more alliances within their communities need to be formed as well as recognize and trust that other communities are going to hold that information safe, "We're in this together, we need to be able to figure out how to handle this together and be, when we share that information, be cognizant that it might get out there." And if it does end up getting out there, then also be aware that the non-Indian community are in this too and that they are beginning to look at them "for how are we solving these problems, what are we doing, what do your teachings say about that?" She wishes more communities would be open about sharing their information but being able to draw a line between what is ceremonial and what is not culturally appropriate to share with anybody, but also being able to "know that distinction within ourselves and not being so afraid to share information that we should be sharing with people."

How do urban Indians support and stay connected to our food systems? Any advice, insight, personal experiences?

Dr. Johnson expressed that for him the short and simple answer is to go home more because we all come from a place so we must return and recall those memories of home. He remembers "as a young child my dad dropping me off out here to learn how to farm with my grandfather, so I spent a lot of summers out here and so to me it's about going home." He also shared how he is one of the lucky ones whose community is still there and "was there way beyond Columbus and everybody else who so-called discovered America…so come on home."

Ms. Blanchard shared that one of the challenges is that we cannot simply assume that all Indian peoples, especially urban Indians, were relocated because some of them are still on their homelands, and they are in the middle of cities nowadays. "I think it's important that some of us that do have the privilege in some ways of being on either our allotments, our reservations, or in our homelands, be willing to reach out and that the exchange that Becky spoke about – that cultural exchange – that is traditional" happens. Different Tribes from different regions used to have summer gatherings where they would all come together to trade, exchange, share, and learn from each other and those types of events are still relevant today. There's a great need to

reach out to the urban Indian youth and “help them establish an identity beyond the urban Indian gangster stereotype.” Paulette expressed that many shifts are already occurring towards extremes of food insecurities, as the pandemic has shown, and with climate change it could get worse, but making sure that “urban Indian youth are equipped and empowered with food sovereignty and food knowledge, and the capacity and capabilities to turn lawns into gardens as opposed to becoming the gangster to try to fight for food…is something that we should think more about, and get more engaged and involved in.”

Chief Parfait-Dardar explained that as a Bayou Indian they are in a very strange situation because they have their tribal citizens that are technically still on their homelands, but within urban areas, and then there are the bayous, which are quickly eroding. So, while they can still come home, they are also starting to bring home to them because the areas where they used to do community gardens and raise small livestock, and things like that, are no longer able to support those due to flooding events, “Our teachings have always been that you suffered nothing so you’re not going to keep small livestock in an area that’s prone to flooding, and suffer the animals. You’re not going to attempt to grow gardens directly into the ground knowing that you’re going to kill your plants off with the salt water that’s coming in.” They are an adapting people and have been adapting for many generations because of where they live. Knowing this, they have begun work with different agencies and organizations to figure out what they can do to save those traditional practices which they are quickly losing, how they can adapt to these changes, and if they cannot stay where they are, how they can bring it to them. One of the responses they are implementing is having small gardens in urban areas where they can plant small crops, medicinal plant gardens, and then share these with the elders and the community. They are rebuilding what has been lost and want to share that knowledge in what works because they know that they have had to be an adaptive tribe, and that they are not the only ones facing this so every opportunity that they get, they like to share their achievements.

Mr. Kaya DeerInWater shared next and spoke of how, for him, in a way we are all urban Indians. For example, he shared, we are all currently meeting on platforms like Zoom from different countries, or states, and how there is not really a corner of this continent that is not affected in some way by technology and colonialism. He expressed that we are all in this together and though we are all working from slightly different angles, we are still working towards the same goal. He ended by sharing that sometimes we just have to explore and dig a little deeper to find those places from home that are still there, even though it may take some time. Perhaps when talking about specific cultural food systems, that may be harder to do, “but I think you can connect to a higher place without being in your ancestral homelands if you're currently living somewhere in an urban area.” Mary Beth Jäger added that Kaya has created a Citizen Potawatomi Nation Garden Facebook group, and how for her it has been great to see reminders of where they are in season and the plants they are growing.

Have there been any efforts to develop trade between Indigenous communities – food, not seed – and are there ways that trade is used to adapt and build resilience to climate and weather impacts?

Becky shared that one of the goals of their co-op, which was established about five years ago, is to reestablish their traditional trade routes, such as going to the Southwest to trade some of their corn, as well as going to Ecuador to visit Indigenous corn growers for cultural exchanges. For example, at one of the stops where they brought their corn, they were sharing with the local Indigenous community how they cooked it, and an elderly woman told them that they also cooked their corn the same way. They realized that it made sense for those similarities to be there because they have such a rich history and elaborate trade routes that were throughout North and South America, but which were disrupted. They have been successful in trading their corn with the Ojibwe in upper Minnesota and Wisconsin for their wild rice. They have also traded for salmon, bear meat, and even for labor such as singing lessons and haircuts so they are also trying to take the monetary value out of their foods. Often when people come to them looking for their foods and asking how much they are, they will let them know they do not sell it to which they reply that they do not have anything to offer, but they then explain that of course they do and help them think of different things that they can contribute:

> "[S]o many times people think that their only worth is how much their salary is, or how much money they make, but we have to change that mindset so people can understand that these are our food relatives. They have a huge responsibility to us, but we also have a responsibility to them, and by sharing and trading with other people we recognize their strengths and their importance as community members, and we then recognize the importance and responsibilities of growing and sharing that food, so I think it really gets the value going without having to worry about that in monetary terms."

Paulette followed by sharing that one of the things that she admires most in Indian country is "how Dan Cornelius with the Intertribal Agricultural Council has worked really interactively with different tribes and created opportunities for people to buy food, not just the seed exchange but the actual food products, from each other." She also wanted to recognize the Oneida's work because they have done a lot of work in incorporating their food systems into their schools, and into all kinds of different programs.

How are folks protecting and enhancing their fishing practices?

Chief Shirell began by first sharing that they are a subsistence community, and one of the main things is that they are a predominantly seafood and vegetable community. The situation in Louisiana is also a bit tricky because the coastal tribes there lack federal acknowledgement so they do not have some of the protections that some of the federally acknowledged tribes have. Nonetheless, they work very closely with the USDA and the Natural Resources Conservation Service, and extremely closely with the Lowlander Center to look at the different policies and legislation that are in place that impact not just their people but all people in their coastal communities around seafood and harvesting. During these times she has been continuously contacting government offices and staying in their ears "because at the end of the day it really is up to each of us to do our part to protect our traditional practices…and while it's been an extreme challenge it hasn't stopped us, and it's not going to stop us."

What is one key message, or takeaway, that you would like to share with everybody to take away from this session?

Dr. Johnson shared that his message is, “You gotta just grow it. [Y]ou gotta do it yourself, you gotta go out there and be the initiator…just don’t sit back and wait upon the government. [L]ike some people were saying, take action.” He expressed that you just need to go to the store and buy some seeds, plant them, and experiment because at the end of the day, farming is about experimentation, “Go out there and do it and worry about the rest later because it’s important to find out who you are and I think by planting, and by fishing, and everything else gives you time to think [and] to realize who you are.”

Dr. Webster’s takeaway message is to “remember that we’re in this together and that we are the product of generations of colonization so it’s okay if we don't know, and it’s okay if we’ve lost that connection. Just don’t be afraid to reach out to other people because there are people that have held on to that knowledge and they’ve held onto it for generations, and they’re there so that they can share it with us so that we can reform those connections.”

Chief Parfait-Dardar asked, “Please keep everyone here in Louisiana and Texas that have been impacted by Hurricane Laura in prayer. Our coastal tribal communities are very familiar with the challenges faced during storms and you know these impacted communities are experiencing not only intersecting risk of extreme toxic pollution, food loss, intensified food insecurity, especially with communities of color who are the most affected being further marginalized – basically squeezed out [and] erased – through the official recovery response, and along with the lack of support for small scale and subsistence fishers deeply impacted by the economic downturn during [COVID-19] so please just keep everybody in these areas in your prayers, thank you.”

Mr. DeerInWater concluded with, “we’re all friends and relatives now, so we should all stay in contact with each other and continue to build these relationships because we’re all in it together, thank you.”

Lastly, Mary Beth Jäger reflected on what she heard through the discussion**,** “the importance of relational accountability not just to each other as people, but also to all our non-human kin, to the land, to the spiritual beliefs that we have as people, and that’s something really important to keep considering as that relational accountability that you all are talking about.”

RECIPES

As part of the food systems panel, panelists were asked if they would like to share one of their favorite recipes. The following is a list of the recipes shared.

Rebecca Webster: Maple Berry Turtle Cornbread. It is made with their traditional berries, which they harvest, their maple syrup during a maple sugar time, and lastly their corn. They have added a little modern take on it by pushing the cakes into a miniature cake turtle so that when

you take it out, it looks like a turtle. To view a recording on how to make this dish, you may visit this link.

Michael Johnson: Corn “tamales.” This is one of his favorite dishes. You may get any type of corn and start first by taking the kernels off, and always saving the husk. Then, take the kernels off and blend it. You do not need add anything to it, such as sugar, and simply blend it. You will then get that corn mixture and put that in the corn husk that you saved. Wrap it up, and then you roast it in the oven at about 450 degrees until you can stick a fork in it and check that it has soft consistency inside. This is one of their delicacies, and they only do it during this time of year when their corn is coming in, so it is kind of like a tamale but without the meat.

Chief Shirell Parfait-Dardar: Shrimp Boulettes**.** First take your shrimp nice and fresh peeled and grind it together with all of the following until it is a “nice mush”: onions, celery, green peppers, salt, pepper, and maybe some Tony Chachere’s for flavor. After grinding it all together, begin to scoop them in teaspoon size amounts into your grease to deep fry them. For a healthier option, you could also use an Air Fryer. “It's my favorite meal and naturally you're going to want to have that with some white beans and rice. That's the best meal ever.”

Mr. Kaya DeerInWater: Manoomin Stew, or Wild Rice Stew. It is a stew that consists of first putting some vegetables, an onion, a couple carrots, and celery stalks into the bottom of a pot to sauté them. Then, you put your stock in the pot while you cook your turkey breast, chicken, or whatever you’d like to use, in the oven. Make sure to put your pot on the oven to cook as well, cube some butternut squash to throw it in there as well as the wild rice. About the time the turkey is done in about an hour and a half to two hours later, your manoomin stew is ready and all you have to do is shred in your turkey and throw it in there. “A pot of that will last a few days in my house so we can eat off of it and it’s nice, healthy, and nutritious food.”

CLOSING REMARKS

Dr. Julie Maldonado (LiKEN) thanked everybody for sharing their recipes as well as Althea and Mary Beth for co-facilitating the session, “[T]hank you hugely to everyone for being on today, for your time, your energy, and everything that you put into your work with so much passion and much gratitude for this family gathered here.” Hank Fergerstrom proceeded to close the session by reflecting on all of the current events happening throughout, from storms, fires, and the pandemic and the anxiety that gets built up in us. It is important that we learn how to release that, and as such, he led us in a Hawaiian chant which essentially says, “please just remove these things that make it so I can sleep better, I can eat better, and I can drink better and then we’re going to set not only yourself free but we’ll set the rest of the world free too.”

VRV8 FOOD SYSTEMS WORKING GROUP SESSION

Building from the Food Systems Panel Session, the VRV8 Food Systems Working Group Session (part 1, part 2) on September 25, 2020 was designed to continue the conversation from the panel session, which focused on answering the following questions:

1. What changes are occurring in the food system and how are these changes important to you, your work and your community?
2. How does science and sovereignty respond to these changes?
3. What are the collaborations and partnerships needed to weave together the separate policy, science and practice strands to support our food systems?

Dr. Heather Lazrus (NCAR) opened the session by welcoming everyone for this next installment of VRV8 focusing on food systems, and provided a brief background about Rising Voices for anyone who may be new in this space. She also reminded us to keep in mind that we want these conversations to be happening in conversation with other topics from Rising Voices, and with the experiences and topics that are salient in all of our lives at the moment. Dr. Julie Maldonado (LiKEN) proceeded to introduce the topic of food systems and remind us of the goals to keep in mind for the session, especially in continuing to build from what has emerged from the previous working group discussions in looking at phenology, community relocation and/or site expansion, energy systems, and water systems. She then introduced this session's co-facilitators, Althea Walker and Mary Beth Jäger who provided a brief summary of the panel session.

Althea Walker thanked the panelists, Dr. Michael Johnson, Dr. Becky Webster, Mr. Kaya DeerInWater, and Chief Shirell Parfait-Dardar, for their time and shared how we had the privilege of sitting down with them and learning a lot from them during the panel session.

Mary Beth Jäger provided a brief overview of the discussion topic from the panel session, which included what kind of trades are happening, science and tribal intellectual rights, urban conversation around being urban Indian, and what it means to be connected back to the land, as well as some delicious recipes shared at the end. A main theme that emerged was the importance of relational accountability to each other, to our non-human kin, to the land, and also to our spiritual connections. Lastly, Mary Beth shared with a summary of the takeaways each panelist took from the panel session (see above) before sending everyone into the breakout room for this working group session on food systems.

BREAKOUT GROUP SESSION

What changes are occurring in the food system and how are these changes important to you, your work, and your community?

Several participants shared about the impacts of recent hurricanes and storms on their communities, including the resulting contamination of waterways and food systems, decimating crops and gardens. The impacts have not only been felt on the coast, but inland as well; see the connections between places when follow the water and food systems. The ongoing COVID-19 pandemic has reminded us how delicate the food chain is, and how dependent we are on outsourced food. The public health pandemic is layered on top of already existing climate-related impacts and poor soils, making it more challenging to produce their own food.

There are also challenges in having to travel far to get good, healthy food that is not easily and closely accessible and when it is, the prices are very high, and Indigenous communities are experiencing high rates of food insecurity. Further, growing seasons are not sustainable and that pollinators are not as present anymore. Several participants shared the recent experiences in their communities of corn dying due to weather events, including the difficulties of losing ceremonial corn and now having low seed stocks. The suffering of crops has been noticeable, as well as pollination timing being missed because of the changes happening in weather conditions.

How does science and sovereignty respond to these changes?

One distinct issue is that perspectives of Western science have dominated information accessibility, and the sharing of Indigenous knowledge, which is generally place-based and localized. As such, this poses challenges on being able to even have access to information that may be useful in communities and for local food systems. What may be needed is looking back into old trading methods, seed sharing, and seed saving to be able to look at which crops are more resilient, and which have shorter growing seasons. Western science can support in these efforts, while also taking into consideration that communities must still have sovereignty over the decisions made when it comes to their food systems. Some ideas shared were to teach people about foods of place and promote local investment; consumers should be engaged in the whole process of their foods, not just the purchasing and cooking of it.

What are the collaborations and partnerships needed – and how can Rising Voices as a boundary organization support such collaborations – to weave together the separate policy, science, and practice strands to support food systems?

The majority of the working group session centered around this question. Many shared similar sentiments as those in past working groups on one of the main challenges being that of Western science not recognizing Indigenous Knowledges. It was raised how to use the tools of Western science but incorporate Indigenous science, which would produce different results. One way to start is by helping the Western institutions understand the need to frame food questions in the context of how do we build relationships and collaborations to respond more effectively, and working with people on the ground to center community input and collaborations. It's important to keep in mind that before the 1700s, food was also considered medicine but then the separation of art and science came into place. Therefore, we must look

for how we can bring the past into the future, and what can be done to promote traditional farming methods and values.

In regards to collaborations, it is important to support each other within the community, building relationships with farmers, and connecting people with gardening experts as well as Indigenous and local knowledges. One way to do this is through working with Community Supported Agriculture (CSA). The impacts of COVID-19 on food systems has revealed the need to connect back to the land and ancestral foods; perhaps the pandemic could inspire more food sovereignty, and food resilience, in preparation for climate change.

BREAKOUT GROUP REPORT BACK

After returning from the breakout group session, Mary Beth shared some key takeaways from their conversation. Gardening continued to come up, especially because it seems that due to COVID-19, many people have gotten into gardening with varying levels of knowledge going into it. There have also been questions about how weather and climate have been affecting gardening and plants, and how people have seen major changes happening. She also touched on CSAs (Community Supported Agriculture), which support local farmers and connect them to local consumers.

There was also discussion about people who work on the front lines in Tribal communities who have a lot of knowledge, and how to keep having conversations with them and how to best support them. They talked about the importance of seeing art in science, like poetry in science, understanding that it is so much more than a sterile environment. Going beyond the clinical words that get used, seeing how it wraps into Indigenous knowledges that are held. Another major subject that came up was Tribes collecting data, and how they are seeing that sometimes the data that they collect counters what is coming from other agencies on various levels all the way up to the federal government. Together with this, issues with Indigenous data sovereignty and governance are critical. On collaborations and partnerships needed, they spoke of talking to bigger organizations, and how they have the ability to help us advocate – particularly on the higher policy levels – because they have those resources already available to them. Lastly, on what Rising Voices can do and what kind of statements they can make in the future to support this work, it was decided that food systems should continue to be an ongoing conversation, and that it should be a part of Rising Voices 9.

CLOSING REMARKS

To end this session, Dr. Julie Maldonado (LiKEN) thanked Mary Beth and Althea for their leadership in the first food systems sessions for Rising Voices. Though food has always been a central and integral part of this work, this was the first time it was specifically focused on.

Rev. M. Kalani Souza (Olohana Foundation/Indigenous Phenology Network) shared some words of wisdom. “The first rule in our community is feed the children. Are the children fed? This discussion on food could not be more appropriate. We want to thank you from the Island Nations in the Pacific for taking this time to reinforce our Indigenous food paths, our food ways.

Mahalo; thank you yet again. Remember the best time to plant a tree is 10 years ago. The next best time is today."

Hank Fergerstrom proceeded to close out this session and shared, "in closing I'd like to close the way we would open at the same time because it's all cyclical." Hank shared the chant of the Gods as they know them, and shared that it is the story of the rain being able to reach the water, "Oh God, please release the waters of the heavens that they may land on the mountain tops, and as the water finds its way back down to the ocean it feeds all those things that are put in the ground to sustain life. Where is the water of life? Here, here is the water of life. Thank you, everyone. Mahalo."