

Hopi Nation Federally Recognized Tribe Extension Program Ripple Effects Mapping Findings

The Indian Land Tenure Foundation (ILTF) engaged in a joint collaboration with an evaluation team and the Western Extension Risk Management Education Center to measure the long-term impacts of the Federally Recognized Tribal Extension Program (FRTEP) serving the Hopi Tribe. In order to collect this information, the evaluation team used a tool called Ripple Effects Mapping (REM). REM is a storytelling technique that is used to collect stories and experiences from community members. The results at the completion of a Ripple Effects Mapping included both a visual map and a set of narratives that were subsequently analyzed.

The data from 31 FRTEP programs was summarized into a final report – *“Mapping FRTEP Impacts in Indian Country”* and published in March 2022 for the purpose of demonstrating the collective value of the programs. This report can be found [Measuring FRTEP's success - Tribal Extension](#).

In March 2021, a virtual Ripple Effects Mapping event was held with Hopi Tribal members and others in the community who benefited from FRTEP programs or were aware of the impact of this programming. Those participating in the online event may have included farmers/ranchers, community members including agency and/or Tribal leadership, high school students, 4-H members, and others. Tribal and community members joined either online or by phone.

During the session, participants had the opportunity to tell us stories about how they have benefited from having FRTEP in their community. A facilitator led the conversation, asking each Tribal and/or community member to share their story one at a time. Questions participants were asked to consider included:

1. *Tell us a story about how one of these programs has had an impact on your tribal community.*
2. *Are you or your family doing anything differently as a result of these programs?*
3. *What has been a personal benefit to you or your family because of these programs?*
4. *What has been the most helpful part of these programs for you, your family, or your tribal community?*

As individuals spoke, their stories were both recorded and mapped into digital mapping software in order to visually display the impact. No individual's names are included in this data set or the final report mentioned above. Following the REM, those stories were analyzed using the FRTEP priority program areas to determine the ways in which the FRTEP has impacted the Tribe and surrounding community. Additionally, the data was also analyzed to understand ways in which the COVID-19 pandemic has had an impact on programming.

This report includes all of the stories collected from the Hopi Tribe.

- Page 2 shows examples of ways you can use this information.
- Page 3 summarizes in themes and subthemes the ways in which the FRTEP program and you as the FRTEP educator/agent had impact in your tribal community.
- Pages 4-12 includes these themes and all of the stories collected from your REM event.
- Page 13 is an image of the full REM Map, which is also attached as a PDF for reprinting. Additionally, a laminated poster of your REM MAP is being mailed to you, to share with community members, Tribal leaders and others vested in your programs.

If you would like to have an opportunity to discuss in further detail and/or have questions, we can set up a Zoom meeting with one of the Ripple Effects Mapping team members.

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How you can use your Ripple Effects Mapping data:

Storytelling is a powerful technique that can be used in many different ways. Your stories from REM helped us understand the impacts and value of FRTEP that can be shared with funders, Tribal members and leadership. More than numbers, stories can reveal needs, achievements and emotional real-life impacts. Your story examples can be used multiple ways to elevate the importance of the work that you are doing and to demonstrate the collective impact that it is having in your community

Here are three ways you can use the two edited story examples (below) while also utilizing the report's themes and subthemes to demonstrate the impacts this program is having:

Within the Community

- Stories can be shared or incorporated into community celebrations and/or events.
- Communicated to your Advisory Committee to help build capacity for future programming.

In Reports

- Prepared reports Tribal Council members and other community leaders with story examples, themes and subthemes that show how FRTEP is working to accomplish the priority areas established by the Tribal Advisory Council; and which relay the benefits, impacts and other indicators of success as a result of FRTEP.
- Prepared reports for your 1862 Land Grant University or your 1994 Tribal College or University leadership with story examples embedded and that include the themes and sub themes from each of the program's priority areas. Highlight how the Ripple Effects Mapping session empowered community members to share their stories and the benefits inherent in discovering the successes brought about by the program

In Grant Applications

- Having a solid evaluation plan is critical to writing a successful grant application. Including outcomes from the Ripple Effects Mapping demonstrates the long-lasting impacts of FRTEP and uses a culturally appropriate approach to do so.

In summary, the stories and data that you have collected through the Ripple mapping process can be used many different ways to communicate your successes and to elevate your program not only at the community level – but also to your stakeholder partners, collaborators and other individuals, organizations and entities, for the purpose of strengthening and building the capacity of FRTEP.

Themes and Subthemes

For the Hopi Tribe and community, the impacts, effects, and benefits could all be found within the following five program priority areas and subthemes are listed here. On pages 4-11, you will see the same priority areas, subthemes with individual stories collected directly from the transcript.

1. Indian Community Development Around Economic and Workforce Enhancement

- Poverty Abatement and Financial Literacy
- Professional Development
- Strengthening Communities

2. Indian Farmer and Rancher Productivity and Management

- Support for Ranchers

3. Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction

- Education
- Healthy Food Choices
- Youth Involvement

4. Natural Resource Conservation and Bio-energy Development

- Sustainability Efforts

5. Tribal Youth and 4-H

- Intellectual Engagement
- Social Connections & Community Engagement

Response to COVID

- Adaptation of Programs and Services
- Clarifying Values because of COVID

Overall

- Cultural Understanding and Respect
- Responsive to Community Needs
- Need for Additional Resources for FRTEP

Themes, Subthemes and Stories

Theme	Sub-Theme	Statement
Indian Community Development Around Economic and Workforce Enhancement	Poverty abatement and financial literacy	<p>I think my most successful one is Financial University. I was able to complete baby step number one, saving up emergency funds. I'm on baby step number two, which is the debt snowball I had about six or seven huge debts and I paid off, all of them except I'm working on my student loan right now so basically, I'm almost on the way to becoming debt free. I attended with my boyfriend, he's also on baby step number two and then we eventually got my kids on this plan so now my two sons are on that plan now too. Learning all of these financial skills to help them, so I keep like advocating for it. And then I keep posting it and now more of my family members want to know how they can do it, or how they can learn. And then, my friends, now like through sharing it with social media like more people like I had this post of my last debt I paid off and like 20 people commenting and they all want [the agent] to teach them, so now I have more family and friends who want to take this class too. I know people are going to be getting [COVID relief funds]. Without those skills I would have just blown it I. I had enough patience and stuff like. I had enough sense to put it toward good use. I just didn't blow it. And it's really helping like I know how to stretch \$1 now like even more and I'm sure other people, you know would appreciate how to stretch your dollars.</p>

Theme	Sub-Theme	Statement
<p>Indian Community Development Around Economic and Workforce Enhancement</p>	<p>Professional Development</p>	<p>I'm hoping that we'll use [the agent] as a model [here at the school]. Our teachers, this is two-prong. One is to reach our students to keep them engaged, learn something about gardening, producing their own food. Following the footsteps of their ancestors. But the other part is really providing a good example about content embedded instruction. And that's on the instructional side.</p> <p>So we're I would say hitting two birds with one stone. Because [the agent] is doing, she's presenting. She has the materials. The teachers, what they have to do is they're part of the, they're observing. They're like the kids. And one of the takeaways that I've given then to their teachers is trying to hope that they see what a real STEM based project could be like, and how they could use what she's been doing to bring in the vocabulary. The science embedded vocabulary. The critical thinking skills. The math. The measurement.</p> <p>So I really appreciate what she's doing, and I'm going to use her to try to embed those teaching skills, the pedagogy that you're taught when you go to a university. And then somehow it tends to, with all the state testing, the high stakes testing that we're responsible for, how that then eats away at all of that and then you end up with really a lot of skill based instruction, which can be very dry, especially in a COVID world with Zoom learning. So that's, I think, how our school has been impacted.</p>
<p>Indian Community Development Around Economic and Workforce Enhancement</p>	<p>Strengthening Communities</p>	<p>[With a local youth center that serves] age groups six years old to 18. Families and community. We service all the villages and communities within Hopi Reservation. So our service area is very big. So we've had to learn to strategically figure out a way to continue to stay engaged and provide programming for our students. The impact that the FRTEP has made on our center has been great.</p> <p>First of all, hiring a person that has all the skills, values, and just even the goals and the vision of what FRTEP offers, that it fits. And that's been very very great. So when we do reach out to the FRTEP program, that program is able to assist us with our needs because it matches. And because she is a community member, a tribal member, and lives here, she understands and knows all the, pretty much most of the ins and outs of what we all live with out here. So that's been very very helpful and impactful to the community as a whole. The FRTEP program, along with [a local] Coalition when the pandemic hit, they never allowed that to say we cannot do something.</p>

Theme	Sub-Theme	Statement
Indian Farmer and Rancher Productivity and Management	Support for ranchers	<p>But when the pandemic hit, there were some ranchers here on Hopi that have been doing a certified beef program. It's called Hopi Certified Beef. And we started this a number of years ago, and we've been working with the Hopi Canyon Ranches for a number of years on it. And last year because of the drought and some other factors, there was a way that we had planned that it was going to go, and we were I think two weeks out from bringing the calves in. And we got a call that we couldn't do the program. So, we had to find out how we can make it work for us. And we looked at different options. We weren't really hitting any brick walls or anything like that, but we were having issues of how we were really going to get this thing off the ground. [The agent] stepped in and let us use the Extension Zoom account. We jumped at it. So that was really helpful for us. And helping to get some ideas together the program. Remarkably, we got together and we marketed the animals in about two weeks. And it's just real hard to do that, dealing with all the logistical barriers that you might have within any kind of program like this. But we were able to get the program off and a project that was beneficial to everybody.</p>
Indian Farmer and Rancher Productivity and Management	Support for ranchers	<p>But just going forward with the ranchers, we're strategizing right now on how we're going to approach this year. I just got word that we're not going to be able to again do the program like we did before the pandemic again, so we're going to have to look at options of the Extension programs. Because they're really good resources try to help us to see which direction we want to go.</p>
Indian Farmer and Rancher Productivity and Management	Support for ranchers	<p>Some of the ranchers that we've been involved with have worked through the previous extension agent previously said. And that's how I got to know [other Extension employee] and the program. And I think there's a lot of help that can come through the program. And I'm thinking positively that we'll be able to tap into some of those resources just like [Extension agent has] mentioned. That there's some opportunities that maybe some financial opportunities that can help with our progress or maybe constructing facilities, purchasing equipment and such that maybe we can benefit from and such.</p>

Theme	Sub-Theme	Statement
<p>Indian Farmer and Rancher Productivity and Management</p>	<p>Support for ranchers</p>	<p>I was one of the 20 ranches that participated in that program. And I will say that having to go through that process and doing these meetings through Zoom was very helpful. And we appreciate that [the agent] allowed us to use her Zoom account to have these meetings. Because at the time, we weren't allowed to gather. We couldn't make the decisions that needed to be made in order for our group of cattlemen to get this sale with our cattle, with our product, to market. And that access to that Zoom and allowing us to use it was very, very good. And it allowed us to get that done.</p> <p>We held numerous meetings, just like [other participant] said. And we shared information. We shared ideas. And we had at least 20 people coming. Maybe not at the same meeting, but at various different meetings. Because we had more than one meeting. But we were all able to get together, and then send out that information amongst one another to get this sale. To make it happen.</p> <p>And in the end, it turned out very well. We ended up shipping 180 head of cattle to the market. And we were still able to get that part of the job done. So it was very good that we were able to utilize the extension's Zoom capabilities to get this project completed.</p>
<p>Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction</p>	<p>Education</p>	<p>[She] took a class and learned how to do gardening, and learned how to do lasagna beds, and took that knowledge and implemented in her back yard where she lives. And she created a raised garden bed system in her back yard.</p> <p>Last growing season she had a good crop. An abundance of tomatoes, as a matter of fact. A lot of tomatoes she didn't know what to do with. Too much. She didn't know what to do with them. So that information or knowledge that's being learned in these workshops is helping our community members, and they're actually putting it to good use and growing their own food. It's creating a food network where people are growing their own food, and then they have an abundance. They're able to share. I believe she said she was able to share with her family and maybe even her neighbors. So that kind of knowledge that we're learning through these programs is a benefit to community members. And not only the ones that are doing the work, but by sharing that food source it's going out even further to other people as well.</p>

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Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Education	<p>Because I didn't know anything about anything until I met [the agent], as far as the more agricultural side of farming that she's offered us out here versus dry farming.</p> <p>Also just being able to share with my peers is something that has probably impacted me the most. Because it started with one member in our family, then led to our whole family. And then pre-COVID, before quarantine, when I would have friends over or my sisters would have friends over, there's more than a likely chance that you're going to get a tour to do in the garden.</p> <p>So whether they liked it or not, they were interacting with what we were doing out here. And it's a different form of gardening than a lot of them are used to seeing. I think the biggest impact was them seeing us do the food. From, farm to table. That got a lot of my peers interested. Because we are Hopi. We're known for our dry farming. We should at least grow up with some of our food around.</p>
Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Education	<p>We've just started the gardening project at Second Mesa Day School, where I'm also a staff member. I think it's going to be helpful for my son, because it's a way for him to make practical use of the things that he's being taught in class. Especially when it comes to math. "Why am I learning all of this stuff when I'm never going to use it?" This is the perfect time to say, "Well this is the time where you're going to use it. When you're figuring out how much percent of your garden soil is sand, and silt, and clay. Putting those, three inches of it is this, one inch of it in your jar is sand."</p> <p>And then all the vocabulary that they're going to have to be using. And they're going to be doing some journaling as part of it. So it should really be helpful to them. We've only gone through two classes, and the classes that I get to be part of, they're all excited for when [the agent is] going to be coming in to be part of their class.</p>
Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Healthy Food Choices	<p>Are the families doing anything different as a result of these programs? Yes, definitely. We try to use as much hands on as possible. So we know that students, children, they love pickles. So that was one thing that we talked about. Let's teach them how to make their own pickles. Can their own pickles. Refrigerated pickles is one example.</p> <p>We now have families that are continuing to make their own pickles, which is more healthier as well. They're learning different types of vegetables. So even that world is expanding. It's not just your regular cucumber. They have to learn that there's different types of cucumbers that make a</p>

Theme	Sub-Theme	Statement
		really great pickle. And we have families that for the holidays made pickles and gave them away as gifts to family members.
Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Youth Involvement	[The agent] started talking to Second Mesa Day School to start teaching the kids about soil composition, worm composting, and really just jazzing it up for them. Because a lot of the students I know all over are getting really tired of the Ritual platform. So having something different to the curriculum that involved, like [participant] said, science, math, writing, everything, it's a STEM program. And the students really look forward to it. I also do have some friends who do have their kids going there. I know worms do seem gross, but I think that they find out it's really interesting and cool when they know that their poop can help. Some of them find it funny. It's really cool to see them learning this now, and seeing it in the school now.
Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Youth Involvement	I [work] at Second Mesa Day School. And the reason we ended up reaching the project, we ended up having [the agent], is we were losing the kids' interest. Being in a Zoom platform, on a digital platform. Trying to do school Monday through Friday, eight to 2:30 or so, it's tiring. It's tiring for the kids. It's tiring for the staff. And we had to take a step back, I think sometime after Christmas break. Because we were losing students. Our attendance figures were going down. And I didn't know. I just knew, we have to do something different. We need to keep these kids engaged the best that we can. So I just started looking out for resources. And we found some. I reached out to the [local] Coalition, "Hey, you guys think you could come on and do some type of gardening project with our students?" Anyway, the Coalition set up a meeting with [the agent]. And that's how all of this got started. The kids, I think, are engaged, which is number one. And it really integrates all the content areas. Reading, writing, math, science, critical thinking. Everything. And it's really what to me education should be like. Project oriented, content embedded, relevant, real world skills. Culturally relevant. Makes a personal connection to our students.
Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction	Youth Involvement	I think I see the ripple effect with our students. I mean, when you go in on the Zoom sessions and I visit them, you hear the kids sharing their own stories about gardening, their interest in gardening. They want to build the worm homes. And even parents. We're seeing parents interested. Even our own staff. I've invited the staff to come on and join one of

Theme	Sub-Theme	Statement
		<p>her sessions. And they've expressed a lot of interest in it. So I think there is a ripple effect into the community, and we're just really excited about how this project will evolve.</p>
<p>Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction</p>	<p>Youth Involvement</p>	<p>[I liked] doing community garden in the school. We had to tell how the plant could grow with the soil. And we talked about how the worms could help. Telling them what you can do for your garden. And we saw how much clay we got in our garden, how much soil and sand and silt we got.</p>
<p>Indigenous Food Systems for Food Security, Food Safety and Obesity Reduction</p>	<p>Youth Involvement</p>	<p>We were awarded from the [local] Coalition, and we wrote the program in gardening. And we partnered with the FRTEP program because of what she offers. And we had 30 students last semester that attended. Our attendance rate was almost 98%. We always had parents involved. And I think one of the educators expressed that it was because it was something different. It was more hands on. Even though it did incorporate a lot of the learning parts of it. The math, the soil, environment, and so forth.</p> <p>And of course a lot of it was catered and connected to who we are as people. The grant that we wrote, we wrote in, "where does your food come from?" Because remember when the pandemic hit, there were a lot of families that were experiencing issues of the food and not being able to get food, or the shortage of food in the stores and how meat packing plants were unable to cut the meat up and so forth.</p> <p>And so we wrote the grant around that component, and wrote the program to address that. And that's how we were able to work with ranchers, and gardeners, and build in the ultimate goal was to be sustainable with what we have here. And so we've been very successful. We have about 60 students that have completed the program. We have another program that we're doing this semester. We have 20 students.</p> <p>And our parents and guardians, not all the time will they show themselves on the screen, but you know that they're engaged. Because they'll ask you a question when they were out there. So the pandemic was never an issue. They were available. They made themselves available. And we just always kept in mind the guidelines. So the impact was great.</p>

Theme	Sub-Theme	Statement
Natural Resource Conservation and Bio-energy Development	Sustainability efforts	[The agent] was helping [a family member and his brothers to] actually start a compost bin. So they had that going over the winter and his brothers and him know that's one of their chores now and they remind us to know what goes in the compost bin right away, so it really changed our habits.
Tribal Youth and 4-H	Intellectual Engagement	Another one [participant] shared was really cool, because his son got to participate in the robotics kids camp. And just learning from that, he learned all the skills and knowledge. And he got so good at it that he was asked to become a student teacher. And then so through that program, his son gained a lot of confidence and knowledge
Tribal Youth and 4-H	Social Connections & Community Engagement	For the Coder Z, the 4H Robotics Club, I got to help our community to connect to other people in other 4H clubs and communities all over Arizona, like Maricopa County mainly. [We got] to build up our teamwork, and also I thought it was fun meeting people. And also talking to other people about our program.
	Social Connections & Community Engagement	And with the help of the FRTEP program, we've really partnered. And we are now the hub for Hopi 4-H. We just got the charter approved through the state a few months ago. We now have a Hopi Healthy Living Ambassadors Program that is offered to high school students. We now have the Robotics 101 and the STEM University. So we need to grow that. We need to grow more club leaders... so that we can provide more programming for our children. So we have a path and a vision, and some goals that we are working on to help move the 4-H program forward again, and bring it alive and vibrant.
Response to COVID	Adaptation of programs and services	So as deadly as that virus was, they still provided service, they still provided programming, they still provided opportunities and they never let that get in the way of everyday life because we still have to get through all that. FRTEP program has struggled with the [tribe] being in a little cubbyhole so the positive side, another positive to the epidemic, was it kind of pulled that office out of that little cubbyhole. Everybody else that we've reached out to have always just told us "We're on lockdown we can't do it." you know, but [FRTEP staff members] always make themselves available... So, we're really grateful for that.

Theme	Sub-Theme	Statement
Response to COVID	Clarifying values because of COVID	You know that's just how we communicate these days with now through Zoom and stuff [since the Extension agent helped establish this as a method for meeting]. It doesn't take a whole lot I think we're a little bit more efficient now as far as ranchers, because you know [having a virtual meeting] doesn't take a whole lot of time away from your home you don't have to... spend time driving and getting [to a face-to-face meeting]. I think it helps us to be a little bit more efficient than all the way around. You'll just be able to share documents [through screen sharing].
Overall	Cultural understanding and respect	And because she is a Community Member a tribal Member and lives here, she understands and knows all the pretty much most of the ins and outs of what we all live with out here so that's been very, very helpful and impactful.
Overall	Responsive to Community Needs	The FRTEP program has also done an excellent job of connecting us to the resources that we need.
Overall	Quality of staff	They're the ones that are the driving force behind... what the future looks like.
Overall	Need for additional resources for FRTEP	There's so much need out here and there's only so much that one person can do... she needs to grow more people.
Overall	Need for additional resources for FRTEP	With the pandemic there's been a lot of funding available to farmers, ranchers, producers, gardeners. But we're not tapping into it and I think that's something that maybe we can help the FRTEP program grow. ... working with federal funding is very, very tedious but there's so much opportunity out there.

