
(Music)

Female voice:

I'd like to take this opportunity to thank each and every one of you for allowing me to come and speak on traditional knowledge and practices and how we've used that in our natural resource management back in Fiji. Fiji, as you can see, is located right in the center of the Melanesian and the Polynesian countries. There are 306 islands altogether in total. We have two main islands and our population is around 800,000. This was taken in the 2007 census.

Fiji encompasses about 57 percent indigenous Fijians. 37 percent (?) Fijians, and the others making the rest of the 4 percent. In any Fijian community this here, you can see, is the traditional culture of governing and decision making process that's mostly associated with the use of our natural resources from national level right down to community level. We think the community itself, the chief is the final decision making person, but however, there are always consultation process between him and the different social groups within a community that is the spokesman, the priest, the warriors, carpenters, and the fishermen. This is the structure that has been built traditionally and has been passed on over generations and it is something that we use very strongly as a tool toward the way we manage and make decisions on our natural resources.

In Fiji, the ownership of our natural resources varies both for the terrestrial and for the marine environment. The marine environment is actually owned by the government, but it's managed by the local communities through their customary ownership right. This custom ownership allows communal use of the marine resources from district to individual communities. It means anyone can use an existing marine environment for recreational, subsistence, and commercial purposes, but there are limitations and restrictions.

To use the marine environment for any commercial purposes of development will require a community's approval and endorsement. Therefore, the decision is mostly made by the chief in consultations with the community. Our traditional knowledge and practices in terms of how we use resource management, Fiji, like many other Pacific Islanders are known to have extensive knowledge and experiences about the environment. This is built in the culture, in the traditions, and in the beliefs and you would see a lot of these still existing today in many communities. Traditional knowledge and practices are practical and learned through experiences.

The way we use our resources back home is something that has been passed on to us as knowledge from our forefathers and this is something that we try and pass on to the younger generations. We have used traditional knowledge and practices to help identify food sources in terms of knowing what particular plant isn't in season, comparing it to a fish that is actually spawning within that period. We've used the traditional knowledge to conduct various farming activities in terms of determining soil type, what type of crop to plant, and the various seasons in the year. We've also used traditional knowledge in terms of identifying the types of medicinal plants and its uses and more importantly, the social and cultural links between communities.

Traditional knowledge over the years has helped us to understand environmental changes happening around us and this is something that has been very important in order for us to know the changes that's happening around us. Most importantly, with climate change. To date, we have used traditional knowledge to be able to help us establish marine protected areas and right now, I could say there are about 300, almost close to 300 marine protected areas that are either traditionally set up or they have a traditionally set up meaning they would close it for at least a year, maybe two years or so or some that have been set up permanently.

The work that we're doing has been through the Fiji locally marine managed area. This is an organization, not really an organization, but a network that was established in 2001 through the need of the communities that were beginning to notice the decline in their resources. The Fiji locally marine managed area, which is called Flema, is working with communities, NGOs, and institutes that are assisting local communities in locally marine managed areas and also government ministries. We have as members to this network, the communities themselves that have set up marine protected areas, the NGOs, and institutes that are assisting the local communities within the Flema network, we have a Flema adaptive management approach in which when a community wants to set up a marine protected area, they always send us a request where we go in and assess the interest and try and raise awareness to the community and we help the community to try and identify issues that they feel is affecting their natural resources and help them develop with their management action plans and allow them to do monitoring and also try and implement action plans and be able to monitor the areas, collect the data of whatever changes that they see within their environment and try and use the results to be able to identify a better process for management.

The loop area is where try and incorporate traditional knowledge and practices to be able to help communities understand the threats that they're facing and more importantly, to try and identify management approaches that would be effective and usable for them in the long run. The use of traditional knowledge in resource management has been through, as I have mentioned earlier, allowing the communities to be able to identify spawning periods, what particular fish they can't find in different areas, and also, for them to be able to map their resources in terms of the changes over time and with those kind of information gathered from communities we try and help them to develop their own management plans.

Working through FLEMA and also with the work that we're doing in terms of marine protected areas in Fiji, there are a few lessons that we have learned. The traditional knowledge we've seen is eroding in many communities, particularly as a result of the younger generations living outside the communities or due to those western education that has taken away the younger generations from the local areas and their elders are the ones that have the sources of that knowledge. Also, traditional knowledge, we believe, is crucial, but it's not enough for resource management because we also need to have good science in order to identify effective management approaches.

Conservation International Marine Managed Area was able to conduct a few research back home in terms of trying to identify how effective the existing locally managed areas are back in Fiji and one of our first studies actually encompass the cultural roles in terms of identifying how cultural roles are useful in terms of identifying effective management approaches and some of the lessons that we've learned in that project or in that research was that cultural roles in communities is crucial to the declaration of marine managed areas and can support marine managed areas but we seem to see that this is not working out effectively in the contemporary context.

Again, it is not able to sustain marine managed areas because of outside driving pressure to fish marine managed areas by traders and poachers and this is something that has been a problem across a lot of Pacific island countries and finally, their traditional protocols of how to deal with lawbreakers inside a community, but this is not well-recognized in different government institutional framework. So, in a lot of cases, it really is a lot of communities hopeless are thinking that their cultural structure within a

community will not help sustain a marine protected areas or marine managed areas in the long run.

Thank you.

(Applause)

Male voice:

It's an honor to be here today and thank you for having me. We have a wonderful panel and an exciting discussion called "Bridging the traditions in a time of change" and what we're going to do is have a few case studies looking at how traditional knowledge can be used in the management of resources. Traditional knowledge is a powerful tool that can be used in this time to see how through education and through management to make sure that the resources follow along in what we heard in the wonderful panel this morning. So, Lana Valatutu is coming from us a project to lead for the community fisheries management. I apologize...I see them laughing over there. From the Department of Marine and Wildlife Affairs will be our first speaker. She works with the local villages and the management of marine resources. Next up we have Carol Bernthal who is the superintendent of Olympic Coast National Marine Sanctuary and she is a true sancturian. She has dedicated her life to the protection of the oceans and I've had the honor of working with her and she's really a true environmental steward.

So, we look forward to hearing from Carol.

Female Voice:

I'd like to thank you for that lovely introduction. I've never heard my last name pronounced as correctly as Jeff did this morning, but before I start I'd like to first thank the orator for recognizing the importance of marine studies in his keynote address this morning. Marine studies slash fishery biology is an area that's least explored by the young folks on the island and I think that that's probably recognizing how important it is in developing some kind of scholarship fund with the department of education as a stepping stone to trying to get our local young students to realize that this is our home and that's an area of study that they should get into.

I have a background in fishery biology. Also, at the beginning of the workshop, we heard the MC inform us on the purpose of this workshop, the people recognizing people and special places. Well, this is my special place and in the next five hours I will try and share the information on one of the programs that we're working on in the department of marine and wildlife resources in trying to work with our local communities to implement marine resource management. The name of the program is community based

fisheries management program and throughout the presentation, I will not be using that long name because it's going to mess up my tongue, but I'll be referring to it as CFMP.

The program is basically to work with village communities to protect, conserve, and sustainably manage the marine resources of American Samoa. Ultimately, this is what the goal of the program is. This is what we're aiming to do when we're taking the program out to the village communities and working with the villagers. As we heard in the keynote address about the roles of the chiefs and the orators in the Samoan community, naturally, we're conservatives. So, I brought a picture of what a traditional Samoan *fala* is to kind of show you what a traditional village community setting is like.

Pillars represent in a village setting, there's a village council. Village council is the backbone of village decision making, village responsibilities to ensure the protection of its villagers and the protection of other resources for its villagers. Now, without...the pillars are representative of the chiefs. Without the support of the chiefs within a village council, there is no village council, but with the support, with the backbone support of these chiefs and these orators in the decision making that they're able to do, there is a strong voice in the village setting and that's the special aspect of Samoan culture that we take advantage of in this kind of setting. We work with these village communities to set up what we call the village marine protected areas.

We've been able to get some legal support. Village marine protected area just means it's a marine area that's protected by a certain village. It's a cool management effort between the government and village communities. So, it's not just the communities, it's not just the government that's trying to protect a set of resources or an area. It's a collaboration or a partnership between the village communities and the government represented by the department of marine and wildlife resources. This pretty much paints a bottom up approach. So, instead of the government coming into a certain area, setting it aside, developing regulations for a certain area, it's a bottom up approach where there is a need and there is an interest instigated by certain communities.

Since the beginning of the program from 2001 there were no set of regulations. So, we were going through lots of challenges and enforcement was a major challenge, meaning when we set these areas aside there wasn't legal support for how it was going to be managed. There wasn't support by the legal system to support the

village and the program that set aside this area. However, in 2007, we finally got some rules and regs in place and under these rules it authorized DMWR, which is our agency, to work with villages to implement these areas that we call village marine protected areas. Also, under the law, it authorized the village communities to develop what we call village bylaws to manage this designated area.

In addition to that, it also authorized DMWR as an enforcement agency and to village individuals in trying to enforce what the laws that have been developed by the village and the government. Now, what is the process? Well, first there is a contact. Contact needs to be made with a certain village on when they would be available to meet so we can explain the program. Once the contact is made there's a meeting and this is where there is exchange of information about the program. What is the program about? What are some of the benefits? And if there are any questions, this is the phase that you ask for answers.

After the meeting, the village council will decide whether or not they see the program as something beneficial in the long run for their community. If it is, then we continue to the next step which is meeting in order to plan. How are we going to set this area? What are some of the laws that need to be put in place to govern the use of this area? If a community does not see the need for the program to go forward in their particular village, we'll just pull out, but in this case, we're foreseeing that there is a need and they do see the interest.

After the plan is set in place, it will have to be presented back to the village council for approval and if it is approved we'll move forward to implementing the activities in the plan and then enforcement of these activities. Activities within the program include conducting these meetings. We've all heard about the importance of traditional knowledge. There is a wealth of traditional knowledge. Whether it's traditional or non-traditional in these communities and from these information we are able to build and propose certain activities for the management of this certain area. We also conduct church youth outreach activities. When we set areas aside, a lot of the times the community at large aren't really aware why is this area set aside? What is the importance of coral reefs? What is an importance of an area that could be protected and what are some of the benefits that we can get from these areas? We conduct workshops and training.

What are some of the laws that have been in place? Who is enforcing it and how are we going to enforce it? Since the establishment of these areas, how do we know these areas are working? So, we need to monitor. Is there an improvement? Is it still staying the same or there is no improvement. What are some of the responsibilities between the government and the village. Well, the government is responsible for coordinating and conducting these workshops. We have the technical expertise, fisheries expertise in the office we can choose to train these individuals, train these community members. We also provide technical assistance to village communities. A lot of the times issues are identified as threats.

There is a poor land management issue going on. This is where we step in with and provide some technical information to try and resolve the issue. The government is also responsible for enforcing the regulations that have been drafted in the plan for that particular area. As far as the community, they're the ones that are going to develop this plan. We encourage environmental stewardship of the water, of the land. So, it's their plan. They also come up with the regulations. They coordinate and collaborate with us as far as enforcement activities and participate in the activities that are going to be conducting.

This is a way of us integrating science and culture dynamics. Like it was mentioned in the keynote address, I know what happened, but I wasn't there. I know the science and I can tell you and we can find the common grounds between that in order to propose activities for management. Recognition of village management by law. In 2007, was a major stepping stone for us. We managed to approve a set of regulations that will allow the government to recognize village laws that will govern these areas and it increases their awareness of what's going on in the marine environment, importance of coral reefs, importance of sustainable use of other resources, importance of resource management. When you're setting up these areas, it makes change: change in people's lives, change in their daily activities. It means a great impact.

Now, from these impacts, we've got demands, demands from tsunami jobs to money to boats to snorkels and fins to guard houses. We've got all kinds of demands from these village communities that we're not able to address and that can be a problem. There's also a problem of creating a village, a network among these sites and then providing them with the appropriate technical advice can be a challenge a lot of the times. With our agency, we only have the fisheries background. We lack water

quality background, wetlands background. We don't have agricultural background, but we can tap into those kinds of expertise and refer them to these villages and also, enforcement is still a major challenge for us. We've got this rules set in place, but we thought that that was going to handle the problems and going to solve our problems, but it still is a challenge.

And that's it. Thank you.

(Applause)

Carol Bernthal:

Well, good morning. Tolofa. My name is Carol Bernthal and I'm the sanctuary superintendent for Olympic Coast National Marine Sanctuary and what I'd like to do today is to share some of my perspectives and experiences in the 11 years of having the honor to manage this area and I am proud to be a sanctuarian. Thank you very much for coming up with that term this morning and I'd like to talk about my sacred place and I really like that term of considering it a sacred place because I consider that to be very true to the work that we do there. Just as we have to understand the ecology of the places we work. We have to understand the cultural context and if we don't, we will not be successful and there are some huge challenges facing all of us around marine conservation these days and we really need to think about new ways of moving forward and while I would suggest we need to think about new ways of moving forward, a lot of times, we actually need to look to the past to help bridge into the future and so, some of the concepts we are now talking about in marine conservation are actually very old concepts that we put new terms around. So, part of our work is to figure out, how do we use the past to inform the future?

So, this is my home. This is the Olympic Peninsula. I kind of considered a cooler version of American Samoa. Very steep peninsula, very isolate and in the core of it is the Olympic mountains and fringing that are some amazing old growth forests that bridge out to the open ocean and this is far, far away from Puget Sound and the many, many people that live there. So, we have a very different cultural context in which we work. The red outline is what the Olympic Coast's boundaries are. It is a 3,300 square mile marine protected area. To the north is Canada. So, we're actually on an international border between the United States and Canada.

As I mentioned, we started out in the core of the mountains, way up high on glaciers that span up to about six or 7000 feet and these glaciers are extremely important because they're the water source

for our rivers that form the bloodline to the ocean. On the shores when you go down are old growth forests made of cedar trees and many other large trees, which form the basis for tribal cultures along the coast. The cedar tree is actually very sacred. It is what they used to form canoes. It was used as a food source and it was used to build structures and it also formed the river valleys which were very important. This is the Olympic Coast National Marine Sanctuary.

When you look at this, this is a very unusual coastline in the lower 48 because what you don't see is a lot of highways development, shoreline development along it. It is essentially a wilderness coastline and we are very fortunate to have this as the area that we are partly managing. It is a place that is very dramatic. It's where the land meets the sea and a very strong interface and we have amazing storms throughout the winter and summer is a relative term for us. It's actually cool, maritime climate, but it's a place that we call home and that we love. Up and down the coastline are very productive inter-tidal areas and the tribes have a saying, when the tide is out, the table is set, and that means that they use many of the resources in the inter-tidal area for food and if you know what to do, you can get a very good meal out of an inter-tidal area.

The sanctuary program is the newcomer on the block and it is a very vibrant culture that continues today. It is a canoe culture and this is a shot recently that was re-enacted in Macaw, which is one of the four outer coastal tribes that just hosted a tribal journey where they had 86 canoes come from all the Puget Sound and Vancouver Island to come to Macaw and visit for over a week in a really wonderful ceremony that they do each year where one of the tribes hosts and brings together all the other tribes and it's a culture that they're passing on actively to their next generation. When you go to an event, you often see dancing and it's wonderful because it's inter-generational.

You see the young children learning from the elder folks and its actively practiced. So, I mentioned Olympic Coast National Marine Sanctuary. We were designated in 1994. It is an area that includes the Macaw nation, the Quelute tribe, the Houh tribe, and the Quenal nation and it forms a very important basis of the work that we do along the coast. Like many sanctuaries we have an advisory council which is made up of a number of stakeholders, the tribes, the federal agencies, and local interest groups, but one of the things the tribes came and said to us is that, "We don't really feel that this is the correct forum for us to have some of these discussions and what we would like to do is form an inter-

governmental policy council, which will consist of the four coastal tribes, the state of Washington as the co-managers, and NOAA, the Olympic Coast National Marine Sanctuary."

And we said, "Well, that's an interesting idea. We've never done one of these. What would that look like?" So, we spent a lot of time talking about what would be the intent of this organization and how would we function. And so, we created a charter and a memorandum of agreement that outlines what the purpose of the organization is and its really for us to come together as co-managers and managers of these areas to talk about issues that are effecting the outer coast and the other thing is it really recognizes the tribes as co-managers in a way that it was an appropriate forum for them. So, it's an example of how you have to be flexible in creating this kind of bridge in the management of these areas.

So, some of the work that we focused on you mentioned earlier: climate change. That is a very important issue to us and what we're starting to see is shifts in species and distributions of things along the coast and that's very useful to have the tribes be able to tell us historically what occurred in these area and the changes that they're seeing now. Recently, we just launched a mooring system that will help us characterize what's going on for the outer coast and the thing I like about this project is it was a goal of the IPC and others to put this type of monitoring information in place and what it does is it will help us get modern information about what's going on in the ocean and the changes that we're seeing.

One of our other goals is to be able to map the seafloor because like you need a map of a city street in order to manage an area, you need to know what the seafloor looks like. We also are going through our management plan review right now that you heard a little bit about earlier and that was a process by which we sat down very early with the inter-governmental policy council and said, "How do you want to be involved with this?" And we've been working through that process together.

We also have done work to train the next generation of archaeologists to look at historically, where we're seeing sea level rise in the area. So, in closing, that's just a very quick overview of some of the work that we do. I think it's really important that we work with communities from day one to be successful, that we have transparent processes that we use for developing this work and that we work together. It's kind of like a marriage. You have to have a long-term commitment to success and give each other a little room to make mistakes but give room to grow together in

order to be successful. So, I thank you for the opportunity to speak to you and I'd be happy to answer any questions later. Thank you.

(Applause)

Male voice:

Just a couple observations. Some words that I heard throughout all the presentations were engagement, communication, participatory, respect, understanding, sharing, consensus, and trust and it really seemed to have a theme throughout every single one of these presentations. So, I'd like to thank the panelists for excellent presentations and please follow up with them at our break.

(Applause)

(Music)

Jennifer Stock:

You've been listening to sessions recorded in American Samoa in July, 2010 at a workshop highlighting how indigenous cultures are involved in the conservation of ocean resources. Ocean Currents is broadcast the first Monday of every month right here on KWMR. You can catch old episodes at cordellbank.noaa.gov and subscribe to a podcast. Thanks for listening to Ocean Currents.