TRANSCRIPT FROM THE SYMPOSIUM ON IMPROVING COOPERATION FOR A SUSTAINABLE GULF OF MEXICO AFTER THE 2014 MEXICAN ENERGY REFORM

FEBRUARY 25, 2016- GALVESTON, TEXAS

WELCOME REMARKS

Stephen Zamora, Executive Director, Center for U.S. and Mexican Law-- I am very pleased to see you here and I am going to introduce a couple of people, then get off and leave the podium to the substantive people. The Center for US and Mexican Law is something that I helped create two years before I decided to retire from teaching. I am now a Professor Emeritus, and the Director of the Center for US and Mexican Law. Word of advice—two years before you retire, don't start a research center.

This is a very exclusive group of people, people who are interested in United States and Mexico cooperation. It would take a very small shelf in your office to put the books that have described U.S./Mexican cooperation. Our relations have been punctuated by events that happen and which are sometimes very unsettling, but eventually get settled. However, it is my very strong belief that it would be better if we worked ahead of time to try to avoid events from happening by working together. This is especially true at governmental levels, and that is one of the things we are going to be talking about today. We have representatives from U.S. agencies and Mexican agencies here. This particular product is an outgrowth of the very first research project that we have conducted with researchers on U.S. and Mexican law. The directors of that project are Richard McLaughlin with the Harte Research Institute for Gulf of Mexico Studies at Texas A&M University Corpus Christi, and Guillermo Garcia Sanchez, a Mexican lawyer. Our studies are mainly bi-national; they are not, ok, this is the United States idea or this is the Mexican idea—take it or leave it. That is not the approach we take. This is a perfect outgrowth of our efforts. We look forward to having an opportunity for you to comment and add to the discussion and to listen. The first study by the Center was the article by Richard McLaughlin and Guillermo Garcia Sanchez on

transboundary issues in the Gulf of Mexico and the Gulf of Mexico Region that was published just recently in the Houston Journal of International Law.[1]

Dr. Larry McKinney, Executive Director of the Harte Research Institute for Gulf of Mexico Studies--Welcome everyone to Galveston and this meeting. I commend Dr. Zamora for all the work he and the Center for U.S. and Mexican Law have done. I also want to thank Dr. McLaughlin and Mr. Garcia Sanchez for their good work.

Issues in both Mexico and Cuba are integral to the Harte Research Institute. Ed Harte, our founder, was an internationalist and loved Mexico and that is part of our mission. We are a pretty small institute, but all six of our endowed chairs are engaged in some way with Gulf of Mexico projects. We recognize that the Gulf of Mexico is an international body of water and it is going to take all of us working together to be successful. In that regard, Shell Oil Company recently supported a publication produced by our researchers, entitled *Gulf 360*, that contains a range of geographic and demographic information showing the linkages and connections between the U.S., Mexico, and Cuba in the Gulf of Mexico Region. One of our focuses for the Institute is to bring all of us together. We are working on a biodiversity project now in the Campeche Banks in the Gulf of Mexico. This is an area where very little is known compared to the rest of the Gulf and so our support foundation and the Institute are putting together more than $1 million to improve our level of understanding of that body of water.

Catherine Janasie, J.D., LL.M., Research Counsel, National Sea Grant Law Center-- The impetus for this symposium came from the National Sea Grant Law Center at the University of Mississippi School of Law. The Law Center publishes the *Sea Grant Law & Policy Journal*, of which I am the Editor. Through the Journal we conduct an annual symposium competition. Dr. McLaughlin and Mr. Garcia Sanchez had the idea for this symposium and submitted a proposal. The symposium was one of the winners of this year's competition and thus, received financial support to host the symposium. The symposium will also result in a special issue of the *Sea Grant Law & Policy Journal*. The National Sea Grant Law Center is delighted to be a part of this effort to put on this symposium.

[1] Guillermo J. Garcia Sanchez & Richard J. McLaughlin, The 2012 Agreement on the Exploitation of Transboundary Hydrocarbon Resources in the Gulf of Mexico: Confirmation of the Rule or Emergence of a New Practice?, 37 HOUS. J. INT'L L. 681 (2015).

Dr. Richard McLaughlin, Harte Endowed Chair and Doctor of Marine Policy and Law-- One of the purposes of this meeting is to put together a symposium issue and to collect not only formal legal articles, but also summaries of the presentations today. These sessions will be audio-recorded, but rest assured, they will only be used by us to more accurately reflect and scribe what is being said today. The presenters will have the opportunity to have their summaries sent to them so they can review them. If they approve of those summaries, they can send them back. If they don't approve of them, they will not be put into the final publication. They can be added to and revised in any way. As far as audience questions, there will be no attribution whatsoever in the sessions in this room. So, you are free to ask any questions. We will possibly summarize that discussion but no attribution will be given to any particular person so the point is, we want a free and open discussion. We will provide all of the presenters and, in fact, everyone that attended this symposium all of the information that we ultimately put together. With that, if you are concerned about the recording, just listen, you don't need to say anything. We just want to make it very clear, how we will proceed today. With that, if you have any concerns or comments, please let me know at the break.

SYMPOSIUM OVERVIEW

Dr. Guillermo Garcia Sanchez, Affiliate Scholar, Center for U.S. and Mexican Law-- Welcome everyone and thank you Dr. McLaughlin for inviting me to help put the symposium together. The key point that we would like you to remember is that nature knows no legal boundaries, resources cannot be stopped by walls, no matter how high some people want to build them because borderlines expand on their own logic, they belong to many nations and they are there for the responsible exploitation of their communities. The Gulf of Mexico is not sectioned. An indication of this is that in order for the development of the Gulf of Mexico to be efficient and safe, it will require not only the cooperation of government agencies but the inclusion of other actors such as scientific institutions, industry experts, and the communities affected by the Gulf. The work that will be presented today is just one step towards achieving our goal, but by no means should it be seen as a one-time event. We want it to be an on-going conversation. My purpose today is to introduce what we will be hearing from each other. How this reflects academia and government working together for the benefit of the Gulf of Mexico. As we will hear from our first panel, our current situation is one where agencies are working together to coordinate efforts. Treaties have been adopted by bi-national commissions, and intergovernmental dialogue has been encouraged. Agencies have been able to adapt some of their protocols to enhance cooperation, and yet,

in both panels there is a consensus that a number of issues are still pending resolution. These include establishing joint review efforts for provisional appeals, the disparities for regulatory framework applicable to areas near the border, within the border, and beyond the border. The application of different standards based solely on the proximity to the border not only generates uncertainty from an industry point of view, but leaves the reefs under different levels of protection complicating their protection.

Another important set of questions arise out of the presentations. One is the ability of an organization to adapt and incorporate organizational change. Each time there is a development creating new standards for new actors on both sides of the border due to political changes, agencies and organizations have to face the challenge of adapting their standards, culture, structure, and routine. This becomes even more difficult when there are a large number of agencies working together to regulate one industry. This becomes a monumental challenge when it has to be done bi-nationally. The burden of emergency response is only one example of this. Federal agencies such as the Bureau of Ocean Energy Management ("BOEM") and the Bureau of Safety and Environmental Enforcement (BSEE) on the U.S. side, and the National Agency for Safety, Energy and Environment of Mexico (ASEA) and others on the Mexican side have to cooperate with each other in terms of monetary compliance, responding to emergencies, and taking steps to prevent further damage. All of this along with the help of local authorities, especially local state governments, and the communities along the coastline.

A third important issue is one involving the remaining facilities of PEMEX, the state-owned petroleum company of Mexico, in the Gulf. Several questions remain about whether rewriting regulations will allow the use of these facilities on the borderline without losing sight of the expectation of more efficient operation in a safe way for the benefit of all nations. Finally, we will also hear about the value of social indicators and of social consultations with coastal communities to assist in the decision-making of regulatory agencies. It is important to know how taking the social indicators and consultations into consideration can help evaluate potential and actual effects of policies, programs, projects, and management actions. We will also hear the difficulties faced in Mexico regarding the consultation process within the indigenous communities affected by development.

Our plan as an organized group of institutions is to develop a platform to provide collaboration between society and governments to address some of the issues that may emerge as Mexico's energy reforms are implemented in the future. The

publication of the papers and presentations given here today is just one of the mechanisms for change, but we are hoping to learn from you as to ways we can help ease the complex relationship between the United States and Mexico to achieve safe and efficient exploitation of hydrocarbons in the Gulf. Who knows, maybe in the near future we can also invite Cuba to participate. Most of the issues addressed today will be present in Cuba as well.

BACKGROUND DISCUSSION OF THE GULF OF MEXICO AS ONE LARGE MARINE ECOSYSTEM

William Kiene, Science and Policy Analyst, Southeast Gulf of Mexico and Caribbean Region, NOAA's National Marine Sanctuaries-- The Gulf of Mexico is a vast and diverse region that really has few boundaries. The Gulf has many places that are interconnected. It is an encyclopedia of life -- a rich ocean environment that has given us a lot. What does it say if we fail to work together to protect this rich biological environment? For example, the Deepwater Horizon tragedy showed us that lives, communities, and ecosystems will be harmed if we fail to adequately care for our coastal environment. It showed that it is important to maintain the structure of the Gulf ecosystem and strengthen the connections that bind us together. At a workshop held at the Harte Research Institute shortly after the oil spill, participating scientists, as well as a diverse number of stakeholders, agreed that we need to protect sustainable uses of the Gulf as well as its environmental health. The outcome said our science is good but it does not have all the answers. However, we cannot let uncertainties stop us from being proactive to ensure adequate ecosystem protection. The conclusion was that these actions are creating opportunities for our society rather than limiting them. Unfortunately, the rich spectacular ocean life in the Gulf is largely unknown by the public. The oil spills, hurricanes, and environmental challenges are what people really know. We need to work harder to show everyone just what this ocean environment has and what it would mean to lose it. There is no better place to do that than the Flower Garden Banks National Marine Sanctuary, which is 100 miles south of here. There are coral reefs that have formed on the sea floor of the Shelf on which have grown some of the healthiest coral reefs in the Western Hemisphere. It is home to diverse invertebrates and fish life, and they manage to focus their science programs to monitor the conditions of the reef.

This graph shows a comparison of the conditions of the reefs in the wider Caribbean from research published in 2003, and it shows that the coral cover at the Flower Garden Banks exceeds most of the other coral reefs in the region. This high coral cover has consistently been measured since monitoring began in 1970,

thanks to the work of the Sanctuary. However, to ensure that these reefs stay healthy, it is important that we look beyond the borders of the Sanctuary to ensure that ecological conditions in the region also stay healthy. This unique place in the Gulf is surrounded by one of the most industrial areas of the world. The fact that it is in such good condition is a credit to the Sanctuary working together with the oil and gas industry, scientific colleagues, as well as our colleagues at the Bureau of Ocean Energy Management. We need to ensure that all stays in good condition.

At the moment, the Flower Garden Banks National Marine Sanctuary is undergoing a process to consider bringing protections to some of the other banks in the Region. In doing so, it has used a long stakeholder engagement process that is still ongoing. Protecting these areas will be a balance of allowing use and ensuring that the areas maintain their ecological function. Something that will sit very well with the goals of this meeting. Many of these banks have shallow coral reef communities that are linked ecologically to the Flower Garden Banks as well as deep water communities, which occur around habitats that are linked to the banks and to one another. The overlaying on these habitats is a complex regulatory environment that has many jurisdictions that overlap one another. There are habitats of particular concern, no activity zones, lease blocks, shipping fairways, as well as sanctuaries, all covered by different laws. All of these regulatory jurisdictions need to be coordinated on environmental protections. They all need to recognize that areas outside of the Sanctuary boundaries are important to the ecosystem within the sanctuary. As a result, managers of the uses of the larger Gulf environment and ecosystem also need to "look outside the box" for innovative solutions to these multi-jurisdictional problems.

The Harte Research Institute, partnering with the Ocean Foundation and Mote Marine Lab, has recognized the need to look beyond national boundaries and has led the tri-national initiative to build scientific and conservation strategies among the three nations around the Gulf. This initiative has really been fundamental to our program in the Gulf.

Ecological connections are shown by the recent recruitment of *Acropora palmate*, the Elkhorn coral, at the Flower Garden Banks after it has been absent for centuries. The larvae of these corals had to originate in the southern Gulf on the reefs of Mexico and/or Cuba. Like the larvae of the invertebrates, a number of large species including whale sharks throughout the Gulf periodically come together in large feeding aggregations. These maps are the result of a Bob Hueter's work at Mote Marine Lab who tracks sharks through the region and has identified whale sharks that migrate from the Yucatan to the northern Gulf. The

same is true for whales. Here is the track of a sperm whale who was tracked for days by Bruce Mate, Oregon State University. It shows feeding sites in red and the whales travelling among them.

These connections between the wider region not only bring positive connections, but can have negative consequences as well. This is shown by the lionfish invasion. Other invasive species and diseases of organisms have been propagated on the ecological links that the Gulf has with the wider Caribbean.

Threats from land are also impactful as shown by this view of turbid water coming into the Gulf from a river in Veracruz. To illustrate best how the entire Gulf is connected is this animation of sea surface salinity that is done by the Naval Research Lab for this month. It shows the currents that flow to the Gulf, which transport the offspring of invertebrates and fish and nourish the Gulf's biological communities. This illustrates that nowhere in the Gulf is isolated from contaminants or alien species that may be introduced anywhere in the region. These examples of connection in the Gulf mean that places do not function in ecological isolation. If we are to successfully manage a special place like any of the sites around the Gulf, we must also be concerned with the conditions throughout the region. Like some of the deep-water coral communities, their existence can be quite special and we do not fully understand the factors that determine their location or how they get there. However, their concentrations in key places surrounded by great distances of deep water, which are somewhat like biological deserts, show that even at great depths, organisms are able to move and be transported to the special places they need and are connected to other deep water habitats. This is also true for chemosynthetic communities that are found associated with hydrocarbon seeps and brine flows on the deep-sea floor of the Gulf. This includes some very unique habitats, like this extrusion of tar on the sea floor, which forms a large lily-like flower of both hard substrate and chemosynthetic compounds for species like tube worms, mussels, as well as coral.

So what does it say about how we need to manage the Gulf ecosystem? One approach is to develop a sister sanctuary network, which is an alliance of Marine Protected Areas management of Mexico, Cuba, and the United States. Each of the network sites contains unique species and important contributions to the understandings and management of the Gulf's ecosystem. Each site is vested in the conservation of the others, strengthening all the sites, and also the connections between them. In order to move this proposal forward, NOAA sanctuaries and Mexico Protected Areas managers met in June 2015 and created a work plan for linking the Flower Garden Banks National Marine Sanctuary, the Florida Keys

National Marine Sanctuary and seven sister sanctuary sites in Mexico. This successful meeting established areas of mutual interest and need, but most importantly it helped to develop a personal relationship between U.S. sanctuary managers and managers of some of the most significant Mexico sites within the Gulf of Mexico.

At the same time, thanks to our engagement with the tri-national effort and work in Mexico, when the United States opened the door to official engagement with Cuba, we had a vision for cooperation with our Cuban counterparts already in place through our Marine Protected Areas. This was the basis for meetings between the United States and Cuba where we discussed MPA collaborations. Then NOAA, the National Park Service, and Cuba's Ministry of Science and Environment came together last November in the formal setting of the foreign ministry in Havana, where Kathleen Sullivan, the head of NOAA, signed a Memorandum of Understanding ("MOU") on MPA Gulf Cooperation. We are hoping to have something similar with Mexico. This renewal of relations with Cuba is somewhat ironic because 50 years of separation is overshadowed by the 100 years of history that has connected us to Cuba, as well as Mexico. This map shows the vessel traffic corridors in the Gulf and our proposed sanctuary sites. This human commerce connection has existed for centuries.

An example of this is the exciting discovery made near the Flower Garden Banks. An early 19th century shipwreck was found that was full of artifacts that show how the Gulf has been a conduit of our culture and economy for a long time. Working closely with archeologists, we have documented how the Gulf's biology has interacted with the shipwreck. On the ship were artifacts that could be traced directly to Mexico. To be specific, Sisal on the NW Yucatan coast. The ship is believed to be a privateer and there were other shipwrecks also nearby, which are thought to be its captures. My point here is the joint study of the Gulf can tell us much about the history of the relationship between the two countries and maybe how to design our relationship for the future. That human relationship to the Gulf Coast goes back even farther though. This is a Mayan painting that shows how the early people in the Yucatan lived with the marine life of the Gulf. This may surprise you, but on the top, here is an ancient city in the Yucatan and on the bottom is an archeological site on the banks of the Mississippi River near present-day St. Louis, and what it looked like nearly 1,000 years ago. There is much speculation about the real connection of the two countries that the Gulf has produced. The presence of Gulf sea shells and distinctive art works found at the site near St. Louis suggest that the Gulf of Mexico had a role in connecting North American communities to those on the other side of the Gulf. You can imagine

what would happen if a Mayan boat left Yucatan—it would be swept to the Mississippi Gulf Coast. The point I want to make is that the Gulf unites us rather than divides us, and has done so for centuries. So, I will leave you with this—our protected areas of the Gulf can be considered the bookends that support the encyclopedia that is the Gulf ecosystem, and that tell us how we are all connected. We need to bridge the artificial boundaries we have created or may erect between us, and work together to understand and preserve all of the Gulf.

Question and Answer

It seems like with the opening of trade and tourism between the United States and Cuba, we are closer than ever to having Gulf wide protected areas. Is that a possibility or are there still political, legal, and/or other obstacles that will prevent us from achieving a truly integrated network of Marine Protected Areas throughout the Gulf of Mexico?

We have worked very hard to build this bridge to Cuba and Cuba is very much interested in fostering this relationship with us. Cuba has offered their Guanahacabibes and Banco de San Antonio sanctuaries as a sister sanctuary to the Flower Garden Banks, but before that we have been working to fine-tune this budding relationship with Mexico. The same basic migrations and coral connections are all obvious reasons for us to work together with our Mexican sites. The managers and our colleagues at those sites are very keen to make this happen. We are working with the Mexican National Commission of Protected Natural Areas ("CONANP") to make this all come together and signing a civil order declaration of this network. There is a Large Marine Ecosystem program that NOAA is engaged with Mexico to coordinate, and this LME program will undertake a number of projects to bring the sister sites together. This effort may lead to the signing of an agreement between Mexico, Cuba and the US to work together on conservation issues in our marine protected areas.

What is CONANP?

It is a Mexico's center for protected areas. It is an equivalent of the Office of National Marine Sanctuaries in the United States.

PANEL 1—US/MEXICO OFFSHORE LEASING AND TRANSBOUNDARY REGULATORY ISSUES: MONITORING CONTRACTUAL COMPLIANCE AND IMPLEMENTING ENVIRONMENTAL AND SAFETY STANDARDS

Presentation #1: *Perspectives from the Mexican National Agency for Industrial Safety and Environmental Protection of the Hydrocarbons Sector ("ASEA"), Alejandro Carabias Icaza, Deputy Director for Normativity and Regulation, ASEA*-- ASEA is a Federal Agency and regulatory body deconcentrated from the ministry of the Environment SEMARNAT. Our mandate is to regulate and supervise in terms of industrial safety and environmental protection of all activities and facilities within the hydrocarbon sector. Those activities and facilities follow along the hydrocarbon chain of value from inland activities, offshore activities, upstream activities, all the way down to retail. In terms of upstream activities in the Gulf of Mexico, we have about 250 facilities operating right now with PEMEX, and we expect in the near future that number will increase. We have created a regulation and supervision model that is designed so that all operators can achieve effective risk management for their activities. Basically, our model depends on six elements.

The first element is SEMS—Safety and Environmental Management Systems. Anyone who wishes to operate in Mexico in the hydrocarbon sector must operate under SEMS.

The next element is sufficient financial responsibility. In terms of insurance, we must make sure that in the event of an accident there is enough coverage for any liability that may arise, so operating under the mandate of insurance will be mandatory. Right now the rules are in the process of public consultation, and we expect to publish them quite soon. We have several technical regulations, prescriptive restrictive regulations, and performance-based regulations. Most of the drafts we are developing right now refer to performance-based regulations.

Corrective Enforcement—the policy of the agency is to favor correction of non-compliance of standards and regulations before enforcing any fines. We believe we need to help managers to manage their risk, more so than establish large fines.

Risk-based inspections are supported by independent third parties. We will authorize and approve these third parties to help us with inspection and other areas of safety. We will strategically use our inspectors because they are a very limited resource that we have. The use of inspectors will be based on information generated by SEMS reports and SEMS audits and all kinds of reports from the independent auditors. We will also rely on the insurance company and third party inspections. That is basically our proposed model for ASEA.

In terms of cooperation in the Gulf of Mexico, it is important to point out what ASEA's role is in emergency preparedness and response. ASEA is governed by an Act. Our role is to define technical elements for emergency response projects. Our National Offshore Energy Response Protocol is called Plan Nacional de Emergencias. It is basically a regional contingency plan to regulate hydrocarbon spills and other possible substances. The Mexican Navy oversees that plan. They integrate any technical element for emergency response that we can provide, and we work closely with the Navy. ASEA's role in an emergency is to monitor and supervise protocol execution, and then after the emergency has passed, then it is up to ASEA to carry out the review of the root cause analysis of the accident. So, within the MEXUS plan (a joint plan between the US and Mexico regarding pollution of the Gulf of Mexico marine environment by discharges of hydrocarbons or other hazardous substances), we will be coordinated by the Navy, and we will participate in the design and provide comments to all the safety and environmental measures to be adopted through the agreement and the MEXUS plan. We will participate in any transboundary agreement oil and gas activities and do an inspection to ensure compliance but, of course, we will do it in coordination with the Ministry of the Navy. We strongly believe in harmonizing regulations especially in the Gulf of Mexico, and we support cooperation in terms of the environment and safety program. It is key if we want to maintain a sustainable Gulf of Mexico, especially since we expect that operations will grow in the next year in Mexico. We think it should apply to the entire Gulf of Mexico. For ASEA it will be easier to draft regulations that cover the whole Gulf of Mexico that are in harmony with US GOM Regulation. So, in this first effort to harmonize regulations, ASEA decided to establish a conversation with BSEE. BSEE has reviewed and provided input to our draft and hosted a workshop for ASEA in Washington, D. C. ASEA´s delegation learned much about BSEE´s SEMS, and they got a chance to see the challenges and where BSEE was going with its next SEMS rules. We are pleased to say that our elements of SEMS requirements are quite compatible with BSEE's SEMS. This is a first example of successful cooperation in trying to harmonize a very important piece of regulation. The next step is to harmonize the procedures of the SEMS.

We worked with BSEE because both parties were willing, but there is no formal agreement to continue this effort. We do not have a permanent framework or agenda, nor a pilot group, to work to determine what regulations should be harmonized, and so we have an opportunity to get this in place and that would lead us to be successful. It is important that we adopt and have mandatory compliance of national and international standards as well as the adoption of industry's best practices. The challenge now is to determine which are those best

practices and what international standards would work best. The only way to do that is to establish a framework to cover all of this.

Presentation #2: *Implementation of Environmental and Safety Protection Measures: Collaborative Efforts with ASEA, Allyson Anderson Book, Associate Director for Strategic Engagements (BSEE)*-- BSEE is basically an energy environmental regulator and oversees the operations that occur on the Outer Continental Shelf. What we do not do is handle leasing or revenue, nor look at development or exploration plans. We generally do not look at seismic readings. Mike Celata with BOEM will discuss those. BSEE focuses on a whole range of activities. The core of that is the SEMS plan that has just been added in the last three or four years, and we are still working on them, so the issue was ripe for discussion when ASEA started working on theirs. BSEE was established three or four years ago, and it involved a split among three agencies. Part of our challenge has been how to work with the other involved US agencies. They had no problems working with ASEA because both organizations are in similar situations. Internationally, BSEE has a goal to foster a collaborative dialogue with all of the international regulators around the world. This specifically applies to the offshore. We have a relationship with some on-shore regulators such as in Colombia, where they worked a lot on-shore for a while and were just getting into offshore. For quite some time before the split of the agencies, the international portfolio was somewhat ad hoc. No specific strategy was in place. The Vice President of the United States and Secretary of Interior just met with a delegation from Mexico and we have a broader agreement that has just been put in place. We have other similar agreements. BSEE's priorities are on the Americas, so that means Canada, Mexico, and soon Cuba. We also look at the Caribbean and mid and South America. We stage meetings annually with all of the regulators that want to get together. There is a social component to the meetings that helps identify who our counterparts are and allows for meaningful dialogue as we get to know each other better. This kind of dialogue is as important as a formal Letter of Intent. We also get everyone together each year at the Offshore Technology Conference, as there are a lot of different countries represented there.

The second tier of priorities for BSEE is the Arctic. We had some work going on there last year in Alaska with Shell. That was a big lesson learned on their end as an operator and our end as a regulator. The United States is a part of the Artic Council. They like to foster dialogue with people all around the Arctic, and they do that through the Arctic Offshore Regulators Forum.

A third priority for BSEE is everybody else. We look strategically down the road for who we can work with and people from nations that are starting their own offshore regulations. We frequently get requests for help in showing what BSEE has done, but also we want to learn from those groups as well. With the dialogue we have been having with ASEA, BSEE has taken a lot of lessons learned from them and particularly in taking another hard look at how to implement SEMS, so that dialogue was very important.

International Forums—International Regulators Forum (IRF) has been around for a little bit and it is a group of international offshore regulators who get together to have a conversation twice a year. It used to be just annually, but when you only meet once a year it is really hard to play catch-up. You spend all of your time with every country giving a presentation, and there isn't much opportunity for dialogue. So, they decided to meet more frequently. They have just agreed that they will have a three-year chairmanship with BSEE as chairman. It is comprised of 10 members. Mark Fleming is BSEE's international point person and is the point of contact at the bureau for anything international. The group meets each year at the Offshore Technology Conference and then in the fall it rotates among the various involved countries. Mexico hosted one of the meetings in 2014, and it was a great meeting. The comments that came out of that meeting were that the IRF is staging a comeback and becoming more relevant. They had the annual conference last year and invited key people from around the world and they looked at risks. After that, they had a three-day meeting in Washington, D. C. They will continue to build collaborations through IRF and look at some prioritization of regulations. If anyone is interested, there is more information on the BSEE website.

Areas of Collaboration—this is so important. When we look at SEMS here in the United States we are looking holistically at the company and their safety performance. It is not enough that on certain facilities that employees know where the stop button is or "I know I can stop work at any time if I see something wrong." That is not exactly what SEMS is. It is looking at the entire organization. Shell was referenced again relative to its program in the Arctic. They had a very specific Arctic SEMS program, but it was all a part of what the company is doing. The idea down the road is if people have a robust culture of safety in their company, we are going to see it at all levels of their corporation. That is really what we are trying to do to drive safety performance down the road.

Some other areas that we are working on will be coming out soon. We are finalizing their well control and blowout preventer role. BSEE cannot share

regulations until it is through the interagency process and we hope to be through that next month and hopefully get it out to final publication. At that point, BSEE has discussed trying to translate that rule into Spanish to make the dialogue easier. It is a highly technical rule and not all of the jargon meshes very well for translation, but that is something that we will be working on.

Joint Inspections—SEMS looks at how we can enforce safety culture. We want to collaborate with Mexico to determine how we can ensure that we send the same kind of message for everyone that operates in the Transboundary area. Next week there will be a delegation going to Mexico and enforcement is one of the topics that they will touch on. If we get into the joint inspection program it is worth noting that we won't do joint inspections until we get to the point where the Transboundary area has been unitized and we are working in a place where we have operators on each side. When that happens, we will really be thinking about how the two nations' regulatory bodies are going to do inspections together.

Presentation #3- *Perspectives from the U.S., Mike Celata, Gulf of Mexico Regional Director, U.S. Bureau of Ocean Energy Management (BOEM)*-- BOEM is 4 ½ years old. We focus on the Gulf of Mexico primarily in conventional energies under the Outer Continental Shelf Lands Act. In that act, it talks of orderly and expeditious development of offshore energy. We use a tiered process. We start with a five-year program on offshore activity under BOEM and then lease out the property and manage the leasing program that BOEM administers. Currently, we are also responsible for exploration and production plans. A critical component of how the agencies were divided is that BOEM is responsible for national environmental policy at every one of the stages. BSEE focuses on safety and enforcement, and BOEM is responsible for everything up to that time. BOEM's responsibility is financial assurance so it is interesting in these types of meetings to see how different governments divide up the different responsibilities.

The transboundary hydrocarbon sector has an on-going notification process that is in place. In the transboundary lease area, at the moment we have a total of 208 lease blocks, so a lot of them are small—three miles by three miles, roughly. The western planning area is the Perdido area with about 180 of those blocks, and that is where 27 leases were awarded. We do have 9 pre-agreement leases as well. Since the agreement, we have had two exploration plans that we have provided notification to Mexico about. This is a map of the western planning area showing the transboundary area, and you can see the central planning area, and presently there are no leases on the transboundary area.

We have an established process for notification. Essentially our Office of Leasing and Plans generates a letter and if there is an exploration plan, our Office of Resource Evaluation will also generate a letter. If affirmed and signed by the Secretary of Interior, the letter will be sent to Mexico's Ministry of Energy and copied to the Under Secretary of Hydrocarbons and to the President of the National Hydrocarbons Commission. One of the things I see us moving forward on is that we do not just want to talk about the transboundary area, we want to talk about the whole Gulf of Mexico as an ecosystem. BOEM has had an environmental studies program in which we invest about $20 million a year in studies of the Gulf of Mexico. That is a good place for us to move forward in terms of cooperation. Historically, we have done a number of joint studies. Our scientists are very good at collaborating, and we often work with NOAA and we receive awards for collaborative scientific programs. We would like to increase those collaborations. There have been a number of physical oceanography studies on deep-water currents in the Gulf of Mexico with Mexico. Recently, in June, a joint conference was held on Historical Archeology. We have a history of engagement with Mexico. We need to continue that relationship. One of the new programs being proposed is called GoMMAPPS (Gulf of Mexico Marine Assessment Program for Protected Species, an environmental study to capture marine mammal populations in the Gulf of Mexico) and it is a marine assessment program for marine mammals. It is something being conducted in the Atlantic, and they are moving into the Gulf of Mexico. Essentially, we would be running line transects through the Gulf of Mexico. They will be trying to do broad-scale surveys looking at habitats and some of the species that are there and that have substantial populations in the Gulf. This is a good area for future collaborative research.

Presentation #4- *Monitoring Compliance with Contracts in the Border, Nora Katia Cañipa Morales, Deputy Director, Exploration at the National Hydrocarbons Commission of Mexico (CNH)*-- CNH was created in 2008 to regulate and evaluate all of Mexico's hydrocarbon exploration and extraction activities. At that time the only company who performed such activities was by PEMEX. Then in 2013, the legislation was amended and Articles 25, 27, and 28 provided a framework to create and develop a new regulatory model. In 2014, the secondary laws were published. As a result of that, CNH changed its strategy according to the additional responsibility. CNH developed a set of regulations related to the main aspects of upstream industry which includes planning, exploration and production, transport and storage, use of associated natural gas, infrastructure, and measurement, etc.

As a result of the first two bidding phases of Round One relating to the Gulf of Mexico, CNH awarded to private companies two contracts for exploration and three contracts for the extraction of hydrocarbons in blocks and fields located in shallow water of the Southeast Basins.

The first two exploration contracts in shallow water of Southeast Basin were signed by CNH and the consortium formed by Sierra Oil & Gas in association of Talos Energy last September, the process continues with the exploration plans evaluation and, if applies, the approval by CNH which must be defined next summer.

Last December, the Ministry of Energy announced the fourth phase of the round one consisting of 10 blocks for exploration in deep and ultra-deep water of the Gulf of Mexico. Six blocks are located in the Salt Basin in the Southern part of the Gulf of Mexico and four blocks are located in the Perdido Foldbelt, close to the border between Mexico and United States.

Undoubtedly, the Guidelines for technical bidding process as well as the Guidelines for the Administration and technical monitoring of assignments and contracts, among others which were developed by Constitutional Mandate, will form the regulatory framework to give legal certainty to operators that carry out activities of exploration and extraction of hydrocarbons in deep and ultra-deep water in the Gulf of Mexico.

Presentation #5- *Use of Existing Facilities and Pipelines in Mexico, Ramón Massieu, Chief of Staff, Energy Regulatory Commission of Mexico (CRE)*-- CRE is at the stage of issuing several regulations regarding the activities under our scope. One of the most important things about the Energy Reforms is the distribution of powers among several agencies instead of concentrating said activities in the ministru –as it happened before-, and delegating a reduced number of powers to the regulatory agencies, such as CRE.

Regarding the activity of exploration and extraction of oil, SENER –along with the technical assistance of the National Commission of Hydrocarbons (CHN)- chooses the fields that will be part of the portafolio to be offered through tenders; CNH awards the contracts to exploit said fields, and regulates them, while the Ministry of Treasury regulates the monetary terms of the contract. CRE activities comprises the granting of the permits for the transport of hydrocarbon from the field to the refineries, using facilities (currently owned by Pemex), (permits for oil refining and oil and gas processing are granted by the Ministry of Energy).

Some of these permits have already been granted, and the entail the right to carry out the activity in existing facilities. Since 2015, CRE has been granting different permits, for activities that, prior to the reform, were reserved to the State, such as permits for the transport of hydrocarbons. Previously, PEMEX was the only company that was allowed to carry out these activities, without the necessity of securing a permit before any authority. Since the enactment of the Energy Reform, any private company can secure a permit for said activities, but currently, due to the monopolistic presence of Pemex, the facilities are owned by them, and in order for the private companies to carry out the transport of the products that were extracted from the oil fields, they will have to use Pemex's facilities, at least in the short run (5-7 years, since the construction of new transport facilities is not foreseeable).

If a contractor is approved to operate, then open access should be granted to the contractors, and that is a responsibility that was allocated to CRE, by means of the Law of Hydrocarbons. In terms of regulating E&P activities, CRE is basically in charge of three things—grant third-party open access in a non-discriminatory basis, grant permits for the provision of services through those facilities, and set tariffs that the owners of the infrastructure can charge to the users of the transport service. With regard to open access, CRE issued general rules for the transport and storage of hydrocarbons. in November, 2015.

Regarding the tariff, CRE calculated an indicative tariff (using different international benchmarks) requested by the Ministry of Finance, since it was of the utmost importance in order to properly calculate the model for considerations that will be paid to contractors; in this vein, the contractors were able to "run" their own models, and file offers with better and more complete information. The tariff was not published as the rest of the tariffs for regulated activities are published, but they were comprised in the methodology that the Ministry of Finance included in the contracts.

This new model does not just mean the end of monopolies in operations, it also means the end of monopolies in information. Now companies will have enough information to take more informed investing decisions. It is also important to note where the work of CRE starts and where CNH comes in (there is an intense debate on how to determine the point where gathering ends, and transport begins, which is relevant due to the fact that those activities are regulated by two different agencies). The two agencies must determine how to divide work, and it will be determined on a case-by-case basis.

With regard to the transboundary agreement, it contains a provision on joint uses of the facilities, which is in Article 12. This is important because it was written in 2009, which is several years before the new national legislation, and was able to foresee the upcoming problems that would arise when E&P activities were open to the private sector, with a scenario of scarcity of logistic facilities.

Said provision states that, whenever a party wants to use the facilities of another party, the other party will make the effort to facilitate the use of those facilities. As mentioned before, CRE is in charge of granting open access to regulated facilities, so whenever there is an issue regarding the need of using third-party facilities, CRE will detail how it should be resolved (as long as the facilities are located in national waters, and said facilities are regulated by a CRE permit); in the case that the facilities are in different countries, parties must attain to the agreement. The problem is that to date, the number of facilities that are located in the Mexican side of the Gulf are minimal, therefore, extracting activities are rare.

Presentation #6- *The Necessary Qualities of Regulators, Jorge Piñon, Director, Latin American and Caribbean Energy Program, Jackson School of Geosciences, University of Texas at Austin*- I will be talking about culture, and also about HSSE: health, safety, security, and environment. Much of my work has been in transitional markets. A transitional market is one that is moving from one governmental model to another, and it is extremely difficult from the cultural point of view to really manage its markets. For example, I went to Indian areas way up in the mountains in Latin America. They had a big red book of environmental rules and regulations on a shelf. I read it and thought, "Wow, these are the best environmental rules and regulations that I have ever seen." But they were totally worthless. They were totally worthless because there was no enforcement of those regulations. It was important because there was no culture of implementation of the goals and objectives of environmental regulations. It basically mentioned no accidents, no harm to people, no harm to the environment, but the culture of safety was not there.

I remember an operator that was asked about the prospect of hiring contractors who would hire from the indigenous community to work on the project. When I went to the site, there were indigenous people working in sandals, and not using hard hats. They did not have any knowledge of safety on the worksite. The instructions were there, but enforcement was not there. So, you attorneys and those that draft rules and regulations, your help is needed. That roadmap that you will be putting before us is extremely important, but so is the culture of the

regulator in the field that has to enforce the regulations. That is where the gap is because that is the individual who is going to identify a problem before the incident happens.

Mexico has a challenge ahead of them because for the last 75 years there was a monopoly. That monopoly was having one integrated oil company and their money for many years, and that company was the regulator. That was how the business was managed.

It is not that the technical know-how in Mexico is not there. It is not the fact that there are no good engineers or economists or geologists. It is that the culture of the monopoly did not allow the freedom that today is required by the regulators out in the field. The challenge for ASEA is huge. ASEA is responsible for not only a 10,000 foot well in the middle of the Gulf of Mexico, it also responsible for gasoline stations. They handle hydrocarbons, chemicals, refineries, etc. One national Federal agency has the huge challenge of managing safety and regulatory issues all the way to service stations.

At the University of Texas, there is a course offered called Management Change. In one part, it shows the change of course from a monopolistic system to a free-market system. That is essentially a transitional market. Change is profoundly difficult because the structure, culture, and existing organizations often reflect a persistent, consistent, and difficult to remove imprint of past periods which are resistant to radical change. The key objectives are profits in the public sector. Health, safety, security, and environmental policies and regulations of no accidents, no harm to people, and no harm to the environment, depend not only on clear environmental standards and regulations, but most importantly on the skills, experiences, and capabilities of the field enforcement officers. They should be familiar with a variety of the practices and procedures of the industry in which they will be regulating. They will be relying on their experience and judgment in order to enable a safe, secure, healthy, and environmentally sound industry performance.

I will finish with five pillars to consider.

Leadership—all the way from the bottom to the top. The community of stakeholders needs to be well informed and committed to a safe working environment.

Contractors—I have heard that some of the regulations are going to be outsourced to a third party. That means that you have to vet the external contractors. There will be a lot of new operators. I have a list of companies that have registered to be able to operate in Mexico and there are 87 of them. Of those, 26 are Mexican companies. What was the goal of energy reform? The Mexican Energy Reform was done to create a highway of national oil companies that will eventually be the backbone of Mexico's energy industry. Of the 26 interested Mexican companies, most of them are service companies, and now they want to become operators. There are 70 companies from the US. 4 from Australia. 3 from the UK. And there are companies from Spain, Portugal, France, India, Japan, and others that are interested in operating oil and gas facilities in Mexico. 12 of those are integrated oil companies. 28 are independent companies. There are a lot of different learning methods and applications. The Gulf of Mexico is becoming very complex. It is becoming complex not just because of its size or geology, it is becoming very complex because of the different players that are going to be implementing what the Gulf of Mexico is going to be like.

With regard to the three remaining pillars, one involves design, construction, operations and maintenance. We need to be able to secure safety, health, and the environment. The effort is huge. New facilities being built, existing facilities utilization, building of pipelines, permitting, etc.

The fourth pillar is risk assessment—that is the process that we use to try to reduce the impact of accidents and incidents.

The final pillar is transparency. The Mexican Government has bent over backwards to ensure that businesses are transparent. Everyone in this room has time to talk with the public about the changes and the things that we are trying to work out. We have to be sure that the culture of safety is there.

Cost-cutting Themes and Discussion with Audience

What are the most difficult regulations that you see being developed in the next few months? What are the most challenging areas to address—such as safety management, marine habitats, offshore discharges?

Perhaps one of the big challenges is going to be the regulating philosophy because at ASEA they would like to move towards performance-based regulations and move away from prescriptive regulations, and as they understand United States regulations right now, it is focused on the prescriptive specifications. To start

identifying what the best practices and standards could be, we need to start building a culture of safety and an environmental program. In terms of United States regulatory challenges, issues are more on the implementation side. When you go through a rule-making process in the United States, it really takes a long time, but that is only the beginning. As we learned from implementation of SEMS. The US has a fairly prescriptive operations regime in terms of regulations. The United States is in lock-step with ASEA and are shifting more to performance based operations so it will be more of a hybrid down the road. It is hard for both the regulatory community and the regulators to wrap their brains around that after having been prescriptive for so long, that a more performance based model may be more appropriate.

Why is it so prescriptive?

The United States can be a very litigious society, so it is better to have the details in terms of how we proceed through the courts and appeals. There will be challenges down the road as people could encounter various regulatory requirements when they are performance based. Hopefully, the community will establish these new rules. One new rule for the United States is the well control rule that will be coming out. It is very much a shift to performance-based regulations, as well as the Arctic rule that we are also putting in place. It may be less relevant to Mexican discussions but it is very much performance focused in trying to get people to think more holistically. Implementation will be the hardest.

The Mexican Congress did a tremendous job on the legislative reforms. It is amazing how in a short period of time they completely restructured the energy sector. More difficult has been establishing the apparatus to enforce the law.

How many employees does ASEA have, is the number sufficient, and is the training of employees adequate? (The questioner clarified that they are not sure that the Mexican Congress realizes that you have to back up energy reform with investment and capital to carry it out.)

Currently ASEA has about 280 employees. Of those 280, almost 90 are inspectors. We have not yet had a year of activities, and we have already had to cut back some on our budget. They will be trying to rely on third parties. Eighty inspectors are not enough for all of our activities so we are building a model whereby we try through third parties to do a risk-based inspection where we won't do an inspection unless there has been positive information from third parties working that there might be something worth looking at. We will be

relying a lot on reports from the performance of the system of SEMS to try to figure out where a problem may be arising. Then we can more effectively utilize our 80-something employees. We have a quite ambitious plan for training. It is an on-going process. Most of the training is being focused on our inspection force, and they were very carefully selected. They are highly qualified and we also make sure that they earn a bit more than a typical inspector. We are trying to have a better-prepared force of inspectors and trying to fight any corruption issues that may arise.

Regarding CRE, during the last two years, we have increased in size from around 200 to 400, which is not a lot. We have a huge load of work. Aside from the activities which we discussed earlier, we also have several ancillary activities which include the retail sales of gasoline, the regulation of the electric system, the generation of electricity, the supply of electricity, and many more activities. It is very hard to get it all done with 400 people. We are planning to have some regional offices, but we do not have any regional representation and we will need to have that – especially for the gasoline stations. We are facing budget cuts. Something that was good in the reform is that they have allowed us to have regulatory fees. That means we can use the money that is collected from what the permit-holders pay. That will pretty much give us two times the budget we had before.

With respect to the existing infrastructure and open access, is there sufficient opportunity for the expected activities? Is pipeline capacity enough?

Fields that are closer to shore have enough capacity. It is very efficient in shallow water and we will be able to comply with that challenge. When we talk about deep water, that is where the problem comes because PEMEX by itself was not able to work in deep water because of the lack of technology and investment, and that is what the energy reform was for—to overcome that problem. It will be necessary to have enforcement in those regions that are close to the transboundary zone and having the regulatory structure there is beneficial because that gives a very strong signal to investors. We need investors to trust the regulations, trust the changes we are making, and we are sure the investments will follow when we have the necessary facilities to operate and to implement all these legal mandates that we have such as open access.

With regard to legal issues, one of the challenges is regarding joint ventures. One of the key issues of a deal has always been who was going to operate the facility. In fact, many times deals have been negotiated in which we would give up 51

percent of the joint venture because the operator was good and we knew that the outcome would be good. So, the key challenge that Mexico has today if PEMEX moves forward with farm-outs and Mexico moves forward with looking for joint ventures is what oil companies are going to joint venture with PEMEX and let PEMEX be the operator? The key is that Mexico is trying now to bring joint ventures into the system—pipelines, offshore projects, etc. Is the trust there? If the major oil company is going to joint venture with PEMEX, will they want PEMEX to operate it? That is going to be another challenging area for us as the energy reforms move forward.

We see many different methods and applications between the United States and Mexico. The question is whether there are any initiatives to work together to have some homogeneity of those regulations to provide full integration of the two countries? There is a team confirmed by both the United States and Mexico. The Ministry of Energy heads it up and they are making some changes about geology and geophysics, and that is not the only time they are doing that because previously when the transboundary agreement was in force, we had some information provided by PEMEX as the only operator at that time. Now that it is expected to do work with private companies, PEMEX had to provide some information to the Department of the Interior in the United States. With the new reform, it was made very clear that after the agreement gets implemented that both countries have to announce the exploration on the sales very close to the border. For now, we are only making the exchange of notifications from the United States because that side has activities with many companies and on the Mexican side it is only PEMEX at this time. In December of this year, they will open it to private companies and they will be announced. In Mexico, the agencies are working with PEMEX to get the necessary information. The resiliency they found outside is not a challenge compared to the resiliency of PEMEX. Once they get the information from PEMEX and once the other companies are empowered to operate, we will be publishing the information, and we want to because it is a clear signal of certainty and we want to publish as soon as possible.

How can investors guarantee their investment? Is that part of the challenges of rules about large-scale companies coming together to form a consortium to guarantee the investment? Is that being considered?

PEMEX is one of the companies that can participate in the next round, so the development of the information will be supported with a very experienced company. That is what we are looking at in the next bidding process so that the major companies are participating. The characteristics that we are focusing on

within the companies are experience as well as financial quality. How far up the chain is required for this guarantee in order to participate? The website of CNH will publish the amounts and the basis for them.

Sometime in 2017, we will begin the deep-water stage. It was delayed because of the global situation regarding the price of oil. By the time these are being developed, the facilities will be needed, and then we will have to come up with a plan to build those facilities.

Since you cannot determine your tariff with any sort of certainty, will that affect bidder's willingness to bid?

Yes, it will and that is why we needed to come up with at least a preliminary figure and that is what we did. They are working hard on the final tariff. They are trying to have as much information as they can get, but that information comes just from one place—PEMEX. We want to come up with that tariff as soon as possible because that gives synergy to investors. We will have a final tariff soon before the activities start even for the contract we have already awarded, and by the time the companies start operating, they will have full information. One way or another the companies will know what they are going to face because it was in the terms of the contract. It may be several years from now.

University of Texas is going to roll out a Master's of Science program and offer a two-year Master's program that will prepare those wanting to come into the energy sector. Those employees from PEMEX, for example, might not be hired by ASEA but could be hired by the contractors. The main issue is the culture of the regulator not whether or not he is a good engineer but the culture of an individual who has been working for one company his/her whole career. Does he/she have the culture to be a truly independent engineer?

In the United States, in terms of hiring contractors, it is very hard to have a safety culture with the industry when they are investing huge amounts in new technologies and approaches. People have thought that the industry has remained static, but that is not true in terms of deep water, it is not true with high pressure, high temperature. So, with that in mind, we really commend the Mexican agencies for the amount of staffing they have done in a year. It is really phenomenal. To give a reference point, does anyone have an idea of how big BSEE is? That agency currently has 831 people, and they regulate offshore in the Gulf of Mexico, the Atlantic, Arctic, etc. They normally have 80-90 inspectors. Mexico currently has about 120. They have a much broader reach but at the same

time the United States is also moving to risk based inspections so they hire third party contractors in order to remain current. It is very important that we do not think about just building our own internal capacity, but we need to work with our communities and stakeholders so they can build theirs with ours.

Last year at the Baker Institute, a now unemployed former oil company executive gave an excellent speech. He has now been replaced as the head of PEMEX, but we asked him if Mexico is institutionally prepared to be able to train the employees they need both in industry and regulation. Our Center for the United States and Mexico Law has for the last two years conducted training courses for government officials along with universities, so we have had five people from ASEA and we bring in people from Houston and Mexico. They have agreements with PEMEX and others to continue this, but a lot more is needed. There is one university in Mexico that we know of now that has a Master's Degree in energy law. There needs to be a lot more of them.

There is a problem with the way the ASEA act was written. We were to have consensus on these changes not only for national bodies of water, but the fact is that CONAUGA, the Mexico National Commission on Water, also regulates on national bodies of water, and the Navy has authority to regulate changes from platforms and shipping. We have been having meetings to try to establish where the boundaries are. We also have the same problem with CNH because it is sometimes very difficult to differentiate between where a technical regulation stops and where a safety regulation starts. On the standards relating to well integrity there is a very strong safety component. We have started a dialogue with CNH to see if safety is getting into technical grounds and if technical issues are getting into safety and environmental regulations. So, we do not have a definitive answer for that because we are still working things out. We have set up a task force with CONAUGA because we are drafting new environmental regulations and they basically will have to provide how to treat the flowbacks, etc. There will be a clearer definition of who will do what.

When you look at the environmental assessments that the EPA (U.S. Environmental Protection Agency) proposed for the exploration and production plans, how are you getting to that baseline? There are a lot of recommendations on environmental issues and science so how are the agency regulations being developed? Are you working with the United States on the transboundary issues where there are recommendations on marine sound, benthics, biodiversity and such? How will that cross over into the Gulf of Mexico?

In terms of the environmental regulations, they have inserted a slate of rules that were in place before ASEA came into being. They were handled by the Ministry of the Environment and they are now part of that Ministry of the Environment. It is the same set of regulations since 1992 so they are developed and quite proven. We need information on the environmental impact assessment zone that is available and we are also having a tough time getting that transferred to ASEA from PEMEX. What has been happening now is that any environmental assessment event that the companies have to carry out is on-going. To generate most of the information needed for the assessment is quite a task. We will eventually get a database of information related to the Gulf of Mexico that PEMEX has been generating over the years. In the case of the environmental baseline, which is a requirement in the contracts that CNH is awarding, they are having to guide that and it is kind of similar to what the environmental assessment requires in terms of characterization of the environment. So, the good news is that all of the information that got generated in the environmental baseline study could be and should be used when it comes time for those companies to present their environmental impact assessment. One thing that has not been discussed here a lot is that not only do you have to comply with what the requirements of what the contract says, but you also have to comply with our environmental laws, instruments, permits, and authorizations.

Mexico is in a period of a stabilization process. It is a phase where we have to live with the regulations and instruments that were in place before, and it does not necessarily mean that they will work well in what our future model is going to be. We would like for the operators to come and get an authorization for the system, and then later come and get an authorization for their regional assessments. We would like to do all of that in just one place so that you just get one permit and that covers everything including your SEMS authorization. They are unable to do that right now. BOEM has a workshop in Mexico with ASEA and CNH to discuss coordinating environmental studies and environmental law, so next week is a step in the right direction. It is a long-term project that we will need to continue.

PANEL 2—RISK MANAGEMENT, EMERGENCY RESPONSE, AND SOCIO-ECONOMIC ISSUES IN THE HYDROCARBONS SECTOR – COLLABORATIVE OPPORTUNITIES

Presentation #1- *International Legal Considerations of Collaborative Energy Development in the Gulf of Mexico, Richard McLaughlin, Endowed Chair for Coastal and Marine Policy and Law, Harte Research Institute*-- I will provide the context for the discussions we have today and some of the international legal questions both nations have to be concerned about as they move forward with these collaborative activities in the Gulf of Mexico. There are three areas that I will focus on. One is energy development adjacent to the Maritime Boundary itself. The second will be to talk about some of the legal issues associated with areas that are beyond national jurisdiction. I am talking about the Western Gap, or sometimes called the Western Polygon and the Eastern Gap, or Eastern Polygon. Finally, I will discuss some of the reforms that are taking place in how the two nations engage in transboundary spill responses.

I believe that the most important international treaty ever negotiated is the United Nations Convention on the Law of the Sea (UNCLOS). Mexico was one of the first parties to ratify, but the United States still has not become a party to UNCLOS. Despite not being a party, the United States is bound by the Convention because most has been accepted as customary international law. Consequently, what I will be talking about this afternoon is both relevant and binding on the United States and Mexico. Under UNCLOS, coastal nations have been granted more legal authority closer to their shores, and as you move further out into the ocean the international community begins to apply more and more authority. The two zones that are relevant to our discussions today are the 200-mile Exclusive Economic Zone (EEZ) and the Extended Continental Shelf. The 200-mile EEZ is the reason the United States and Mexico have the sovereign right to exclusively explore and exploit the natural resources within their waters. Hydrocarbon leasing, environmental and safety regulations, etc., all come about through the international rights provided by the Law of the Sea Convention and the 200 Mile Exclusive Economic Zone.

Additionally, the Convention's legal regime relating to Extended Continental Shelf areas is also applicable to the Gulf of Mexico because the United States and Mexico have claims that allow for the development of resources even beyond the 200-mile limit. Dividing the two nations' extensive 200 mile EEZs is a long maritime boundary. The precise location of this maritime boundary was decided in 1978. However, the portion within the area beyond national jurisdiction known

as the Western Gap was not determined until the year 2000 when the United States and Mexico completed an agreement to divide that area. The Eastern Gap is still not delineated. Maritime boundaries do not exist in that zone because it involves the United States and Cuba, and until very recently those two nations did not have diplomatic relations. There are indications that the Obama Administration is placing this high on their agenda and has plans to negotiate with Mexico and Cuba on the Eastern Gap in the near future.

In the area of the maritime boundary that the United States controls, nothing much is going on in the Texas section. Texas controls nine nautical miles, and it has shown little inclination to work with Mexico on transboundary maritime issues currently. Seaward of Texas waters, there are important commercial hydrocarbon activities occurring on the United States side of the boundary in several places. In Mexico, they have done some exploratory work that shows clearly there are commercially valuable hydrocarbon deposits in Mexico's EEZ as well. The only place where there is activity right next to the boundary which could trigger the 2012 transboundary agreement is an area known as the Perdido Foldbelt/Alaminos Canyon area that is basically half way between the Western Gap, the shorelines of Texas, and Tamaulipas. This is the map of the Perdido Fold Belt area. There are some exploratory wells on the Mexican side, as well as a lot of production that is occurring right now on the U.S. side with a regional hub facility that Shell operates. The field to focus attention on right now is Tiaras One, a PEMEX field that has commercial quantities of hydrocarbons. On the United States side, there is a lease block that is owned by Stone Energy and that could potentially be part of a transboundary reservoir, and so if that is the case, it might trigger the unitization requirements of the 2012 Transboundary Hydrocarbon Agreement for the first time.

Given the likelihood that transboundary deposits exist and will be developed in the future, it is important to understand what is required under international law when you develop a transboundary reservoir. This is not the first time that two nations have tried to exploit a transboundary reservoir. It has happened many times in other parts of the world and there are well-established international customary norms associated with these trans-boundary reservoirs. This is generally the longstanding rule associated with such reservoirs: First, nations have to cooperate on reaching agreement on the exploration of the transboundary reservoir. In the absence of such an agreement, neither party may unilaterally take the resources to the detriment of the other party. That does not mean that a party can't unilaterally explore on its side, but it cannot do so if it damages the reservoir

on the other side. This is called the mutual restraint doctrine, and it is very well established.

A reprint of a recent article in the Houston Journal of International Law that I wrote with Guillermo Garcia Sanchez can be found in your symposium packet. One of the things that we looked at in our research was whether or not the 2012 Transboundary Hydrocarbon Agreement complies with the mutual restraint doctrine. Ultimately, we determined that if Mexico and the U.S. properly and completely implement the agreement, then it complies in the sense that there are countless provisions to try to encourage unitization and avoid unilateral exploitation. Based on international practice, it is unusual that if two nations cannot agree on a unitization agreement, they are allowed to engage in unilateral production as is provided by 2012 Transboundary Agreement. However, the Agreement requires that they do so subject to a joint management plan that has been approved by both parties, and have to exchange production data on a monthly basis, which is a way for both nations to understand what is going on and get compensation if they need to. Our view is if properly implemented, this meets international legal requirements.

In regard to the two areas that are beyond national jurisdiction in the Gulf, the question is how can a nation claim the resources of that zone? UNCLOS allows nations to claim resources in areas such as the Western and Eastern Gaps by proving that there is a natural prolongation and that they meet certain geological criteria that are included in Article 76 of the Convention. If you do meet these criteria, and Mexico has already submitted a claim and has met that criteria, then coastal states have jurisdiction over the nonliving sea bed resources and living sedentary sea bed resources. They do not have any authority over the water column above, and as a consequence you have this hybrid situation where the nation controls what happens on the sea bed but does not control what happens above the sea bed, which creates some very difficult management issues. Having said that, the international community did not want to take the nations' words for their ability to prove that they meet these requirements in Article 76. They created instead a body known as the Commission on the Limits of the Continental Shelf, which examines the claims made by these nations to try to prove whether or not they are legitimate. This is a group of technical experts that determine whether or not it matches the requirements of the Convention. In the case of Mexico, they have met that standard. The problem comes because the United States is not a party to UNCLOS, and cannot submit a claim. If you are going to invest a substantial amount of money, sometimes a billion dollars or more, into a hydrocarbon development project, you want to know that you have clear and

unambiguous title, and right now one cannot make that claim in the Western Gap. Other nations can challenge a claim, for example, we have challenged claims by nations such as Russia in the Arctic. There is nothing that says that Russia or other nations will not challenge our claim in the Western Gap, so the point is that there are implications to the United States not being a party to the Convention.

Finally, I will talk briefly about oil spill response. This map shows the impacts of Deepwater Horizon as well as the Ixtoc Spill in 1979. Clearly, the Ixtoc spill was a transboundary problem. It moved into Texas and United States waters and eventually contaminated Texas beaches, which was a classic transboundary spill event. As a consequence, the two nations got together and implemented the MEXUS Plan. What that plan did was create a joint spill command, an expedited communication protocol, and a system of regular exercises and meetings that take place every year. I attended one in Corpus Christi where they went out in the bay and laid boom and conducted other cooperative training exercises. Finally, the plan also created annexes that provided expedited Customs and Immigration procedures for equipment, vessels, and personnel. That was the goal of the MEXUS Plan. The problem with that right now is that it is being renegotiated. I have spoken to some Coast Guard officials who indicated that the previous framework was called a joint response framework, which is where the two nations physically move into each other's water in responding to spills. What they would like to do instead is to change this to a joint coordination approach which basically mandates that Mexico cleans up its spill on its side and the United States cleans up on its side. They would coordinate, cooperate, and communicate, but they would not physically move into each other's waters. The reason for this change is because they were having problems on the United States side meeting funding requirements from the Oil Pollution Act of 1990 because the Oil Spill Contingency Fund only allowed it to be used in US waters with very narrow exceptions. They also pointed out language problems, as well as problems stemming from the expedited Customs and Immigration procedure not working as well as they all had wanted. For example, during exercises they were experiencing slowdowns in the arrival of equipment and other necessities. So, for those reasons, there is clearly a major paradigm shift about to take place relating to the MEXUS agreement.

In closing, this shift in MEXUS may be symbolic. It is disappointing as it seems to be a step back in our bilateral efforts to cooperate. It is clearly more efficient to pool your resources and collaborate rather than duplicate efforts. Under the new approach the two nations need to autonomously take care of the spill response needs on their respective sides of the boundary. I see this as a classic example of a

gap in collaborative management. They looked at the old plan, said there were some problems, and decided to adapt and change. I suppose that is a good example of adaptive management. However, it is also a bit disheartening because it is likely to be the norm in future collaborative efforts between the United States and Mexico—two steps forward, one step back. Despite occasional setbacks, 10 years ago when I first joined the Harte Research Institute I could not have imagined that we would be talking about implementing a transboundary hydrocarbon agreement and working so closely together on sustainably managing the Gulf.

Presentation #2- *Health Preparedness—Lessons Learned from Deepwater Horizon Accident, Allison Winnike, Director of Research and Research Professor, University of Houston Law Center*-- I have a background in public health law and emergency preparedness law. My goal is to bring another perspective to all of our great energy plans that we have heard about today. I will talk about things to prepare you for developing your emergency response plans and what type of human outcomes you really need to account for when you are developing them. With the Deepwater Horizon Spill, we know that there were 11 fatalities. Another 17 people were air-lifted to trauma centers, but it went so much further than that. There were hundreds if not thousands of people who went to the emergency room or their primary care provider with varying effects from the experience of that particular disaster. I decided to come up with a framework that policymakers and energy people can use to help them as they try to develop their own response plans. I have a health impact spectrum where I can divide up the different types of patients you need to account for and it is also on a timeline. This framework can apply not only in offshore oil disasters, but it could also apply to oil refineries, explosions, and other disasters.

The first category of the framework deals with the immediate reaction after a disaster. Clearly the individuals who will be impacted are the workers right there and also any bystanders. This can apply to offshore or land-based facilities. These range from very minor cuts and scrapes to major debilitating burns, loss of limbs, all the way to fatalities. This is also where you need to think about a possible mass fatality incident or a mass casualty incident. You need to be thinking about the number of people you may be dealing with in the immediate impact period.

The second category of the framework is for first responders. First responders are going to be there immediately. We are talking EMS, firefighters, etc., but it can also be good citizens either as part of the industry or community that come in to respond to the disaster. Now we are looking at them in a rescue context. Think

about what kind of personal protective equipment is going to be needed. What are the different types of personal protective equipment you need to have available, and training is essential as well, if possible. You are now looking at responders who will help remove some of the first victims, and you are also looking at some transportation issues. If you are in a remote location, you will be looking at serious transportation issues.

The third category is community help so these are going to be folks working or living in the community that want to get involved. Your community impact zone will be dependent on the type of disaster, such as an explosion or a chemical release. In the community help category, we are still talking about things happening immediately after the incident. Again, in that broader scope, you could have another mass fatality or mass casualty incident to deal with.

The next category in the framework is recovery response. We have had the emergency, we have had the first responders coming in, maybe a little time has passed and now we have a whole new set of folks coming in to the impact zone. They have a whole different set of issues that may require your help. This is where a lot of issues showed up after the immediate issues from Deepwater Horizon presented themselves, they came from the recovery response period. Again, you have industrial workers that work there, and they are trying to clean up and remediate whatever happened. You will have all the governmental employees involved with response groups trying to come in and help, and you also are going to have volunteers. You have to be sure that you can anticipate the kind of needs they are going to have. Again, personal protective equipment (PPE) is very important. Depending upon your health emergency issue, you are going to have to be prepared and know about the kind of PPE that is going to be needed. You have to know where you can get the necessary PPE that is required right away. One of the biggest issues in the Deepwater Horizon Incident was heat-related issues. The responders have on all this PPE and they are working extremely hard under stressful conditions, and they are doing the best job they can to get everything cleaned and back to normal, and that is where many suffered from heat stroke. Dependent on conditions, you may need to have a 15-minute work period followed by a 45-minute rest break. You cannot put your recovery workers out there and put them in a worse health situation. Another related issue is dehydration. Other issues that may be a little more difficult to plan for include exposure to oil, exposure to chemicals, etc. Also, when purchasing PPE, think about things like hearing protection for volunteers and other workers. Other big issues are over-straining, back issues, and inhaling dangerous chemicals. Again,

always think about PPE. Not every situation calls for a respirator, but you need to know where to call to get them if you need them.

The last category of the framework is at the end of the cleanup. We do not necessarily know all the impacts that take time to show up—like cancer, for example. The issue is long-term stabilization. Some people are not going to be able to recover from whatever the illness is. Also, there is a huge mental health issue. Sometimes this gets neglected because we are focused on the physical health issues. We really need to have resources to take care of the mental health issues that arise from our emergency response. We all know about Post Traumatic Stress Disorder, but we need to be aware of all the other mental health issues that could manifest themselves or be brought to the surface by stress. You may need to think about bringing in some counsellors for the impacted community or neighborhood, or other mental health professional to help deal with this issue. These are your employees, these are your neighbors, these are your community members.

Presentation #3- *Monitoring Offshore Development Impacts in the Gulf of Mexico Communities: The Value of Social Indicators, Victoria C. Ramenzoni, Assistant Research Scientist and Patricia Arceo, Research Scientist, Harte Research Institute*-- Oil and gas extraction activities bring benefits to national, regional, and local communities, so how do we measure the beneficial impacts on communities? Oil found in the water in the Gulf of Mexico is said to be 46% from natural seeps. Much of it also comes from transportation-related issues. There are challenges related to climate change and a climate event, as well as the intensity and frequency of storms. We are going to be seeing more activity as we move forward on exploration and production on the Outer Continental Shelf. We need to have information on how many and what communities are being affected by either having new oil and gas activities or a loss of that activity. First, we will talk about the situation in Mexico and then we will talk about the situation in the United States.

Dr. Arceo began with a discussion of oil extraction in Mexico-- PEMEX has been the main operator in Mexico. It has more than 100,000 workers and 80 percent belong to the very powerful Union. Now they are downsizing and laying off workers. That is going to be difficult. Income from PEMEX contributes to the public finances. The most important oil spill in Mexican history was the Ixtoc spill in 1979. It took a lot of time to control that spill—around 9 months. Some of the oil evaporated, some of the oil fell to the bottom of the Gulf, and some of it ended up on beaches. The environmental effects were difficult to measure because

there was no baseline of studies to compare the results. It affected the fisheries at Campeche, which is one of the most valuable fisheries in Mexico, and it was a very stressful time for fishermen. In the long run, this may cause some environmental problems today, especially in the fisheries areas where high levels of oil are found. It is important to consider the social implications of all of these activities. There is a lot of talk about the environmental impact and that can be measured, but there is very little data to measure the effect on the community. After the 2010 census as included on the map, the colors show the marginal communities and the darker colors show communities with higher marginalization, and it seems to be an effect of the oil and gas industry. So, there is an economic impact in some areas. Those are the kinds of things we can start to relate to. PEMEX has begun to publish some reports, and they decided recently to include some data relating to social issues. However, PEMEX is using its own employees for the data on social impacts, such as working conditions. It is currently unclear whether these studies reflect what the community really feels.

Dr. Ramenzoni discussed the US side and reviewed the history starting at the beginning of the 20th Century, including some of the legislation and the fact that the Obama Administration has put out a number of Executive Orders-- One of the most important pieces of legislation that we have in the United States is the National Environmental Policy Act of 1969 (NEPA), and it creates a mandate for how to regulate and evaluate what the impacts of oil and gas activities are. Not only environmental impacts, but also social impacts. Other pieces of legislation that require full impact consideration are the Magnuson-Stevens Fishery Conservation and Management Act, which set a clear mandate for evaluating how the policies will affect local communities. We also have the Oil Pollution Act. So, there are a number of places in the United States' legislative framework that call for social impact evaluations.

We see that the Environmental Assessments and Environmental Impact Statements (EIS) that are required by the Department of the Interior fail to provide a precise definition of social impact. EISs are usually required for sales of leases. The way the Department of the Interior regulates, the leasing program is set every five years and they are required to produce an EIS. The EIS is usually comprised of different elements, such as a description of the environment, a prospectus of benefits that are going to be generated, and potential consequences on different policies involving social impacts. But there is no provision for what social impact means, so there is no clear definition of the term. This timeline shows the steady movement on the issue of social impact. I started with NEPA in 1969, and then in 1973 we had the first use of social impact coming out in the

Minerals Management Service whenever that agency was doing a study on the Trans-Alaska Pipeline. That is the first time that the term social impact was used. In 1980, because there were no particular provisions describing what social impacts were, a group of social scientists tried defining the term. They came up with different definitions, so we see around 1994-1996 that there are different frameworks that are being developed, for example, for the Foreign Service or other different agencies. So, it has been a very interesting process.

In 2010, we have the BP incident. We had a lot of dialogue coming out of that. We started seeing a lot of interest in trying to measure what was happening to society then. The lack of social measurements is a problem. Over the last 10 years, we have seen improvement toward more social involvement. On the other hand, with storms and weather events like Hurricane Sandy, there was a huge need for measuring impacts on communities. Social indicators have been around for a long time. We work under the idea of one law. Over the next few months we will be working to develop a framework of social services that can be used to develop information on social impact issues.

Social indicators are becoming more important in the Gulf of Mexico with oil and gas activities. Now we have an interesting opportunity with Mexico's energy reforms and this transboundary agreement between the two nations.

Presentation #4- *Summary of Mexico's Public Hearing Process to Consult with Indigenous Communities, Raul Mejia, Supreme Court of Justice of Mexico*-- The first question I get about dealing with Indigenous people in Mexico is why the communities have been so residual in Mexico, and why their wishes and goals have not been taken into account. They are poor communities and they have always been pushed back. They have not been able to acquire property. There is no treaty with the Indigenous community in Mexico. In other countries like Canada, you may have to negotiate to go through their lands, but in Mexico you do not have to do that because they do not have any land. That is the consequence of a decision in 1880 – 1882 that denied the Indigenous community political access through the church. Basically, from the late 1800's until the Indigenous reform in 2001 it stayed that way. Some Indigenous communities are integrated into the broader community but some are not. This is a question of existence of the Indigenous communities. We cannot give them access to the actual government of Mexico. The problem is that there are several States that have recognized them and they are part of their own election system. The Supreme Court has been resistant about incorporating Article 2 with Article 115. That is the article in the Mexican Constitution that lays out what structure our municipalities

have vis-à-vis the States. So if you put Article 115 against Article 2 of the Constitution that can create a controversy. In Mexico you have the normal legislative process and you have constitutional reform which needs 50 percent of the States to comply. But there are problems with the legal process to make changes. For example, with the construction of an aqueduct in Sonora on the lands of the Yaqui Indigenous peoples, when it was finished and working, the Indigenous people came to the Supreme Court arguing that the government's authorization did not consult them.

One of the latest authorization problems has come up in the Bay of Campeche. The Mayan people have fought against an authorization for Monsanto to grow transgenic soy seeds. The Mayan people are beekeepers and what happens with the process is that Monsanto coming in to grow genetically modified plants affects the status of the plants and then the honey cannot be certified as organic. The Mayan peoples in the Bay of Campeche were a large provider of honey on the market. The Judge gave an injunction to the Mayan people so they could stop the authorization. It was said there had to be a consultation. We are not sure what will come of that. So this is really entrenched with the problem of environment. The Ministry of Energy has to do the presentation, not the Ministry of the Environment. Basically, you have the authorities of environmental impact on one side and you have Indigenous community consultation on the other. You cannot have things going on two tracks and have results that might be beneficial. Article 2 of the Constitution of Mexico says not only Indigenous communities have access to the rights established there, but any other similar communities, so it opens the possibility of consultations with other communities. On the other side if we take into account that we have new procedures in Mexico law like collective action or environmental actions, and collective action gives damages but environmental actions do not collect damages, the monies actually go into a fund as a form of protective action.

Consultations with Indigenous and other communities must lead us to develop authorizations that are robust enough that it is not going to be later tested at trial. Eventually Mexico is going to find itself in conflict with the doctrine of the Latin-American Court of Human Rights because we have been using consultation just to formally stop authorizations. It actually has not been a process to solve the existing problems. We are going to have to actually make effective the consultation process in Mexico.

Cross-cutting issues and Discussion with Audience:

We have heard this morning the challenges that we as nations have to face. The companies have their own safeguards and ways of dealing with communities beforehand and they go for International Standards, because they work in under-developed countries that may have substandard regulations so it is better to go the proven route. We need some way of actually identifying who the legitimate authority is in a community. Often, they do not want to register, but we need a way to know who the right authority is for a community. There are a lot of challenges to making things work. One problem is that this is going to be accumulating and eventually it will be very difficult to sort out if we do not do it correctly in the beginning. The consultation process has to lead to a good result. It is more than a process of negotiation or arbitration before the consultation. Maybe not everyone is in agreement, but we have to reach a middle point with this.

We have not managed to develop a real cross-boundary situation. This might be because we need to be clear on what our objectives of integration are. Without that we cannot proceed with regulation, which is the second step.

One of the elements of legislative review is the possibility of suspending the acts. One of the new laws that was enacted with the Energy Reform provides that the Energy Act cannot be suspended except in certain instances. That is in conflict with another set of laws. What do you think will happen if you have suspensions on such human rights issues on this boundary?

It will be difficult to integrate Mexican and United States safety and environmental regulations, although there has been talk this afternoon about performance-based standards and other kinds of changes. Unless there is political will, not only from BSEE and the Mexican agencies, but all of the agencies and interest groups in the United States, including the industry, those kinds of changes are going to be very difficult to implement. We may be able to begin this process of creating this common set of standards based on requirements in the Transboundary Agreement. It is going to take political will not only from BSEE and ASEA, but from lots of other agencies like BOEM and EPA and other industry groups. How the two nations deal with conflicts over possible human rights issues remains to be seen. However, the more immediate issue is developing compatible environmental and safety standards that don't disrupt or distort management decisions in the maritime boundary region.

There were concerns expressed about the consultation process. This has to be incorporated into the environmental protection and environmental impact authorization as it covers several issues including religious and environmental concerns. If you only see the environmental authorization as the only natural regulation, then you are missing the multi-lateral application. Mexico has already authorized damages and we are starting to develop doctrine about the damages issue. There are two very strong problems with things that are in the laws, or not in the laws, or in the transitory articles of the Energy Reform. One is the suspension issue. That is not backed up in the Mexican Constitution. The second problem is land use. Every concession in mining law has preference over any other use of the land. Now with the new laws, in Article 14, it says it has preference over every other land use, but legally it is a question. It would need to be put in the Constitution and not the transitory articles. Where are the strengths when a problem explodes? On the other side, you have the problem with occupation and civil servitude. You are conceding the legal servitudes to the companies that have to occupy the lands. The process does not have any other way of ending but of establishing the servitude or establishing the occupation or by a negotiation.

By creating a bi-national commission that has the power to come up with common safety and environmental standards for the border, you technically do not have to go through a political process, but if the agencies get politicized then that is the end of the story. This seems like a great opportunity under BSEE, BOEM ASEA, and others to come up with those things that they want to get accomplished. We are under the law, but how we apply them is important. They would have the power to do that. The rest of the Gulf coverage would need the political support.

What is the difference between consultation with Aboriginal people in Canada and Mexico?

Companies are required to consult with the Aboriginal people in Canada. These are fairly straightforward where Canadian Treaty laws are established. But there are actually some lands in Canada where there are no treaty rights, but if the Indigenous people can demonstrate traditional land use, and that is where companies have had problems in the past, where the Indigenous communities see those as opportunities as a way to leverage the government for Constitutional amendments or traditional land-use rights. Some pipeline permits have been held up for years until the companies actually cancelled their project.

Hypothetically, is that a possible risk for companies wanting to operate in Mexico, and also, we were speaking of land-based issues in Mexico which are relatively straightforward. We have been talking about a deep-water round in 2016 and do you see an extension of this potential complication to the offshore?

Mexican Judges have been very resistant on giving injunctions in practice because what happens is that the public interest standing has been evaluated pro-companies and not pro-individuals, at least until now. I have not seen the possibility of stopping big projects or big works by smaller commodities or by communities that are in the middle. In oil law for oil or gas pipelines or transfer of water, for example, we have not seen any stopping of the actual project. In the end, it has been more of a cosmetic thing rather than an effective weapon. We have the NGOs (non-governmental organizations) trying and going after it, but it is the only way right now for going against the projects. That has not been really effective.

The question of offshore is a question of damages and standings. It depends on how we treat standing. That depends on the law to use. Communities should be taken into account going through the whole process. We have to be creative in ways to solve this problem with Indigenous communities. The environmental impact assessment authorization will be contingent upon the consultation outcome. The communities must be included in the process but that is not easy. The first thing you need to know is what they want. If there are NGO's behind them that may be clear. You have to know what the real deal is in order to proceed.

Next Steps

Dr. Zamora and Dr. McLaughlin-- There have been some next steps raised already such as having additional forums on different topics, a themed workshop so that a group like this could address one particular topic.

This is what we are looking for in next steps. The absolute first next step from this workshop is to assemble the proceedings and to distribute those proceedings so that everyone has an opportunity to look at them and comment on them. Then we will have them published in the *Sea Grant Law & Policy Journal*. We would like to know, and you need to tell us, what you liked about this, what you didn't like, and how we could do something in the future that would benefit you more than what you received today.

There will be something sent out requesting your comments. Obviously, an Indigenous community consultation in Mexico is a very important topic in Mexico, and something many on the U.S. side were not aware of. Perhaps that is the direction we should go in planning for future workshops, of course connected with offshore energy development. In any event, that is the kind of information we need to ascertain the best way to serve your needs the next time we do something like this. One interest mentioned was the environmental science offshore and how the two nations can cooperate in acquiring and using that information to make management decisions. We also heard today regarding the issue with PEMEX data and the new studies that are going on, how will that be adaptively brought into the process of the regulations moving forward? It would be helpful to provide some opportunity for sharing information on best practices.

In reference to Allison Winnike's presentation earlier, she is working on a publication that will be very useful. The 2016 version of the Texas Bench Book for control measures and public health awareness will be available soon. You can go to the Health Law link on www.law.uh.edu to find it.

The idea behind the Center for US and Mexican Law was to provide a neutral zone to promote U.S. and Mexico cooperation. We will communicate by email and send a questionnaire to find out your comments and suggestions about ways we can provide service to the companies or agencies. Our idea is to bring smart people together to exchange ideas.

We would like to thank Allison Knight from the Harte Research Institute and Brisa Gossett from the Center for U.S. and Mexican Law for their efforts in the coordinating the symposium.

Thank you everyone for coming.

MEETING ADJOURNED