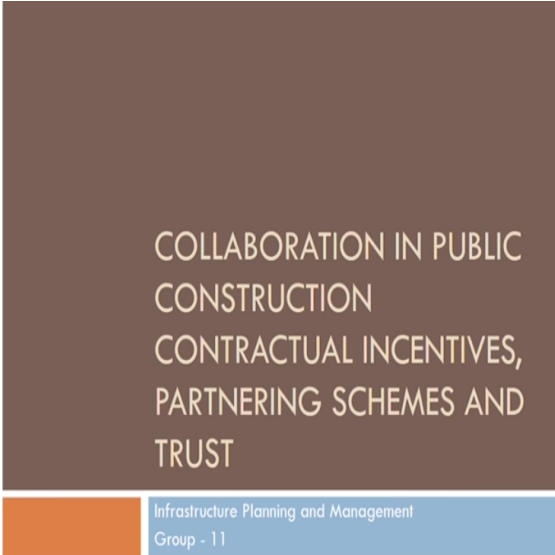



Infrastructure Planning and Management Fair Process and Negotiation Part-2

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COLLABORATION IN PUBLIC
CONSTRUCTION
CONTRACTUAL INCENTIVES,
PARTNERING SCHEMES AND
TRUST

Infrastructure Planning and Management
Group - 11



Formal Contracts- Need for Collaboration

- Contracts are designed by client and pre-contractual communication is restricted
- Possibilities to select the contractor on subjective criteria is limited
- Traditional contracts often lead to conflicts between parties
- Establishing and maintaining collaboration is too complex
- The relationship between trust collaboration and contract is ambiguous and contradictory
- Contract serves to increase the mutual understanding of the terms of exchange, also provides opportunities for building relationships



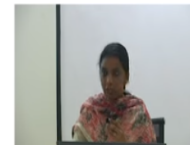
Good afternoon everyone I am Pavnya I am here to discuss the topic title collaboration in public construction contractor incentives sparkling streams and trust the contract is actually the formal written agreement between the parties to perform of a certain task within the specification and the time and budget constraint and which can enforceable by law, so this contracts are usually designed by the client and pre contractual communication is usually restricted and the opportunities for negotiation and possibilities to select the contractor on subjective criteria is always limited in public setting.

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Formal Contracts- Need for Collaboration



- Initiatives to improve cooperation with contractors – Partnering, financial incentives (GMP, cost plus)
- Financial incentives in partnering:
 - Alliance contract – risk sharing between parties
 - Partnering
 - Tie between performance to compensation
- Aim is to relate contract and trust
 - Possibilities for parties to signal trust worthiness
 - Opportunities for joint learning



So there are several type of contract are present usually lump sum contracts are considered as the traditional contracts in traditional contracts in this lump sum contracts the total cost of performing the activity is always fixed, so this often leads to conflicts between the parties due to distress and the presence of uncertainties, so there is it is always complex to establish and maintain collaboration between the parties, so there is one analogy that the contract is always required is only needed when there is lack of trust relationship between trust collaboration and contract is ambiguous and contradicted.

So there is one aspect of a building contract is this contract serves to increase the mutual understanding of the terms of exchange also provides opportunities for building interpersonal relationships the extreme expensive contracts will improve the joint learning process rather than distrust, so there are several initiatives have been taken by the client improve the cooperation with the contract as one of the major thing is promoting partnering so in partnering it is nothing but a relational contracting, so in which there are several specific tools are there like selection processes can they can opt for continuous improvement programs they can include and financial incentives they can incorporate in the contracting system.

So here the three major financial incentives that are in incorporated in partnering are discussed here one is the aliens contract seen aliens contract the it encompasses joint budgeting between joint budgeting and the commitment to cost and budget targets and this risk sharing between the

parties and bonus system in partnering it the cost incentives are in the form of target cost contracts the tie between performance to compensation, so this cannot be done when there is a difference in establishing the fair process targets the major aim of this partnering is to relate contract and trust so that the parties can be you can signal to trust worthiness and opportunity there is they will get the opportunities to improve their joint learning.

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Case studies

	A	B	C
Type of project	Rail project	Road maintenance	Hospital construction
Contract	Alliance	Quality and price based	Target cost and quality bonus system
Reasons for adaption	High risks	Pilot study for new contract form	Flexible adaption to changing user needs
Formal contract arrangements	Alliance funding- risk sharing	Contractor-routine maintenance Client- variable maintenance SOCM	Separate contract for each party
Collaborative arrangements	Informal, co-location, shared administrative systems	Partnering agreements, meetings, workshops	Workshops, review meetings, feedback system
Relational development	Well coordinated	Distrust	trust worthiness
Reasons for (un)successful collaboration	Shared risk	Financial risk, lack of communication, unclear expectations	Unclear responsibilities Bonus system



So these are been studied with three case studied the first case study is the construction of rail project the second case study is the road maintenance project in the land the third case study is there comes a hospital construction in Sweden for the first case study first they have opted for a design build contract but they have identified that this project is associated with high risk, so then they have converted they have opted for aliens contract than the DB contract in which in aliens contract the major modification from the DB contract is here they opt for risk sharing scene risk sharing they have a the both client and contract that have a separated out some amount called aliens fund.

So from that amount they will be sending a spending that aliens fund for risks when are they occurred risks and design and management and in the second case study they wanted to have innovative contract method in which they have given sixty percent weight is to the quality report that has been submitted by the business and forty percent weight is to the price that is quoted by

the bitter and they have chosen the best and the contractor for that particular project based on these suitable based on the criteria mentioned above.

And for the third case study so see for hospital construction there will be for any project there will be several parties involved in the project like architect design contractor will be there structural engineering will be the electrical contractor and building contractor HVSS supplier and all, so they have entered into a separate contract with each and every party and they have set it target cost for each and every party and they mentioned gain they say they will share the gains and pains equally among the client and both contractor depending upon the target cost.

So this is also a type of a modified version of aliens contract, so for analyzing the effectiveness of partnering, so the framework has three dimensions one is formal contract arrangements collaborative arrangements and relational development if you see the formal contract arrangements of KACA they have formulated aliens fund, so that both contractor and client both will share the risk equally and in the case second case study so they have mentioned in the contract documents that the contractor will only take up the routine maintenance part and the client will be responsible for variable maintenance and they have also developed a system oriented contract management.

So that which will monitor the contract performance according to the client the quality improvement now according to the quality that is managed by the client in performing the work and in the third case study they have a separate contract for each party and they have set the target for each and every party and for collaborative arrangements in the case EA, so they have not performed any meetings or reviews to improve the collaboration between the client and contractor but they have set up their workplaces at a single location.

So that they will be meeting as and when required and in the case be they have performed they have signed a partnering agreement they performed some meeting workshop to improve the collaboration between client and contractor but they has not achieved for the third case study they have conducted workshops review meetings and feedback system to improve the collaboration between client and contractor for the relational development since the both parties in case study are located in a single place it was well co-ordinated if they have if the contractor has any issues with the client he is easily can able to meet and resolve that issue there itself but

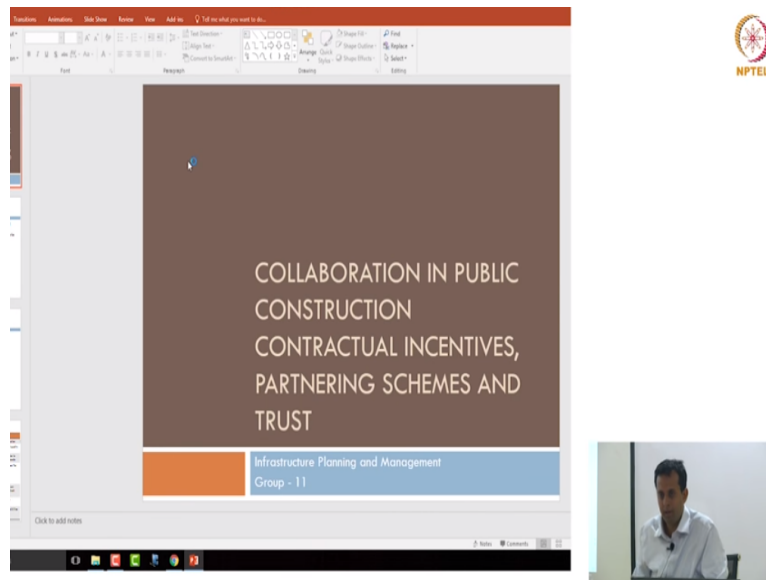
whereas in the second case in the case study be the there was a miscommunication has usually happened between contractor and client.

So which leads to distress and for third case there was a since the each contractor has a target fixed by them and gains and pains are shared, so they were working they have achieved trust worthiness, so if we are analyzed these three case studies the first case study is a successful collaboration the second case study is unsuccessful one because there was lack of understanding between the client and contractor because of the contractor and client were unable to understand what routine maintenance and what variant variable maintenance means and for the third one though it is successful it has some limitation that there were some responsibilities were unclear between the client and contractor.

Due to if there is any price variation occurred for performance some particular work the client the contractor though the client will modified the agreement but the client has not taken any measures but still the contractor has performed their work according to the target that is set by the client thank you.

Okay thanks for the elaborate presentation I am going to touch upon a few highlights because we have got 15 more out minutes first of all I think the normally I give about two or three readings per class but hit week was five because negotiation is one of those topics there is just, so much to read about that it is sort of very difficult to compress it into a few sort of reading I took a class on or actually I was peeing a class on negotiation at Stanford which there is a professor called Stan Christensen who was a professional negotiator took and a lot of what I learned from about negotiation came from sitting in on that class and I have tried to distill some of this into the reading that.

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I gave you maybe I will just sort of start very quickly with the one that Pavani presented and because I just want to address one or two points here and then move on to the other one we talked.

I think in the last class of the class before that there are two kinds of stakeholders right so there are people who are and Johan uses this external versus internal classification there are people like you customers or people whose houses are going to you know people who are going to be displaced and resettled environmental groups all of these are stakeholders who are somewhat peripheral to the project and then there are these internal stakeholder while your contractor who are your designers etcetera right, so other your direct customers and so on you have people who are actually playing a very key role in developing that project versus the number of people who are also affected on that project.

So the idea behind this reading is that we actually start talking also about and when we say stakeholder normally the first thing that comes to a lot of people's minds is the NGO's the population the residents who are being displaced the government agencies and we often do not think of people within the project as now stakeholder but they also need to be you know managed right because everyone's success is tied together in this case before the internal stakeholders there is actually a relationship in the form of a contract right, so you have a contract

that you write which determines behavior and that contract the point is that things can change all the time.

So you know examples you are building a metro rail you have a lot of steel that you are going to put in you submit an estimate for your project it is 500 Crores and you have certain budgets for steel but because of no fault of your own steel prices rise up okay, so what happens in that case because if you if the client continues to pay you 500 Crores steel prices have gone up right you are going to not make money right, so very often in an adversarial regime the client will say that is your risk right you should have figured that out right or you should have put in a buffer whatever that is your.

It is very often contracts have something called a price escalation clause which allows for a little bit of escalation but that is often within a narrow band sometime because of global you know perturbations the prices might increase far beyond that steel in the Delhi Metro by the way is exactly one such example, so in an adversarial regime you will say it is your problem, so the contractor then has to deal with their problem, so one of their ways of dealing with it might be as say look I am going to make a loss on this project anyway right because I am bound by the contract the court will uphold whatever these guys say.

So I am just going to put my the worst quality people I have in my organization on this project because I am not going to make a profit anyway and take the best people that I need right that I have and put them on other projects where I might be profitable right, so this could be one kind of response the contract brings to the table what that does is you know you as a client you stuck to your guns and said I will only pay five Crores not a penny more not a penny less but it might adversely affect your project because of that decision you actually get poor quality people and the work drags out and you know all of that there are other hidden costs there is bad PR in the press etcetera right.

So it becomes important that when these kinds of things happen you negotiate right, so obviously you cannot just be you may not be able to pick up the entire tab but essentially you need to negotiate and in order to negotiate you have to have a contractual framework that allows you to negotiate because if we say fixed price contract and we sign the contract then where is the negotiation we have already agreed that these terms are fixed right, so there are a whole

variety of contracts which we call you know broadly relational contract or alliance contracts that allow people to negotiate the very common you know function between them is they have what they call pain share versus gain share clauses.

Where they say look if the project is successful we all benefit if the project is not successful we all lose and therefore if I am personally going to make a loss because the prices of steel is going up right and the project is actually go over budget then according to this kind of contract everyone gets affected right everyone shares that penalty right, so what kind of response can you expect in this case right one response that you might expect is the designer might come in and say you know what we can redesign, so that we have lesser steel in this project right can put in more reinforced concrete right not bring in other kinds of building material right so that the costs do not overshoot.

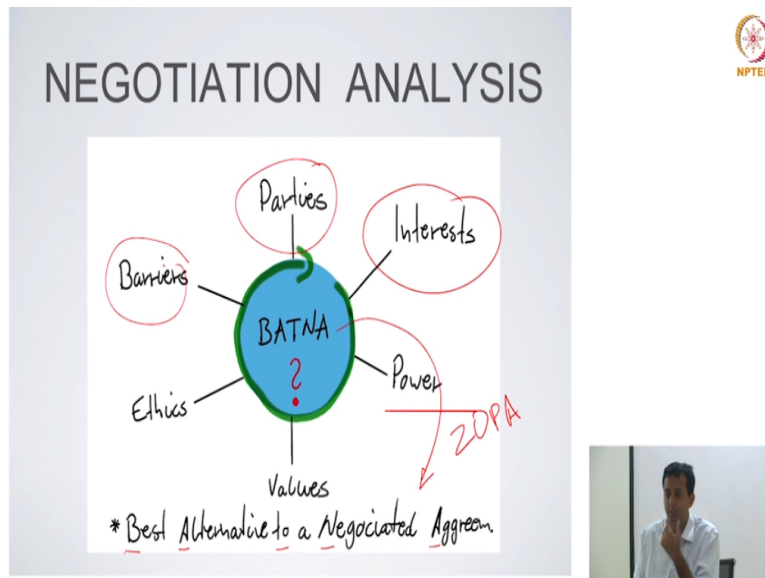
So now you actually have innovative solution coming up because you are allowed to negotiate right, so I think it is important to also understand that negotiation can happen within the project organization contracts are very important because they set the parameters on which negotiation can happen and there are these kinds of contract relational contracts and the examples that Pavani gave there are a couple of example where people use the relationality to have a discussion right and say you know can we change something, so on a good example just outside in our IIT madras campus is this research park behind to search park is something called Ramanuja (()) (14:29) right literally the building next to research park was built by or owned by an organization called Tata realty and Tata realty used a contractor called Leighton from Australia right and gave them a relational contract.

What that meant was that Leighton was able to say look this is to the architect this is very nice but this is going to be a pain to construct because you have it is nice architectural façade but when you try to engineer it is going to cost a lot of time and a lot of money, so how about redesigning it so that I mean you do not have to make it a box you can still make it somewhat iconic but redesigning with constructability in mind.

So in this case so there is a tradeoff just like the chicken gunya can exercise look I as an architect I want an iconic building I want people to come back and say have you seen that building and so and that is sort of what increases my value right as a contractor I want something that is very

easy to construct both of these are often opposites right but if you have a contract that allows people to discuss perhaps you can find a middle ground as they did, so I think that is the purpose of that article.

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So negotiation is important even internal let us go back to Alex's article because I think it has two very important where is this here we go, so you drew these yourselves fantastic thanks I like that creativity, all right, so this is one of the key sort of building block of negotiation, so the point is when you go into a negotiation internal eternal etcetera right, so you want your gunya chicken egg you want a design that needs to be more constructible, so you want whatever you are going into a negotiation you want environmentalist to agree that you should that you can lay a road through this forest or dig a well or whatever it is you have got to do a little bit of preparation, you just do not go into a negotiation and start shouting hoping that you will out shout the other person.

What is the kind of preparation that you do these thing here right in this diagram are essentially the points that you do your homework on, so the center is BATNA right which is this here, best alternative to a negotiated agreement that is where that is where BTAN comes from best alternative to negotiated agreement, what does BATNA mean in simple terms what is BATNA but can someone sort of give me a lay person definition of what BATNA is exactly it is sort of

your opportunity cost rate what is your alternative what is out there, so it could be I mean if I go by a television set, if I am looking at if I do not by this then what I my alternative.

So if we do not build this you know dam what is the alternative, so if I do not get the chicken gunya egg what is the alternative and so it is very important to go and understand what the other person alternative is, so that you can understand where so from BATNA you get another sort of acronym which people call the zone of possible agreement or the Zopa which is where is what is the scope for you guys to agree on something, so you know let us say you are a contractor trying to negotiate price with me right, so you feel you are really good contractor and so you want to build something at 150 Crores and you want me to pay it 150 Crores.

Now if I have a contractor who is perhaps I mean may not be the number one contractor like you but it is actually pretty decent well renown you know definitely has done lot of good work who is actually giving me a project for something like 125 Crores giving me the same project 125 Crore the that is my alternative right and it is something that you guys need to understand before you walk into negotiate with me you have got to understand that I have an alternative to go in with someone at 125 Crores, so that data point that becomes very useful because one it tells you that is your prices is anywhere close to or below 125 Crore you are the winner.

It also perhaps gives you a little bit an idea what you can charge for your premium so let us say normally your brand fetches you about 10 Crores because you are branded you are the top construction firm in India I am willing to pay you another 10 Crores because I know you will do on time on quality work if you know that my BATNA is 125 Crores then you know that you can probably go up to 135 and still strike a deal with me and you know that if you ask for 150 that might be a bit too much because nobody will value a brand at 25 crore in this market, so the first thing you have got to understand is what are people's alternate eight is there something if I do not build this dam what the alternative if I do not go in with this construction company what is the alternative.

So first step you do is figure out what are the alternatives then you start looking at who are the real parties to the negotiation so very often you have parties that are affected and parties that are brokering and these are two very-very different constituencies, if for instance you go back to the Conoco case there are NGO's representing people on the ground like local NGO's are actually

affected then you have these international NGO's that in some ways are trying to broker a deal right NSRD or NDRC or whatever that acronym was we are trying to get these NGO's together go to deal with them fundamentally differently and very often it is the affected parties that you want to spend you know a lot of it of people who actually are able to make decision that you want to actually spend time on rather people who are just conveying information back and forth but are a party to the negotiation.

So one example here for instance is when I was trying to get licenses for this software called Primavera, all of you are aware of Primavera we use it for project planning we do not have we did not have Primavera installed in our departmental computer facility so I was talking to this person, so Primavera is an American company they had this licensed reseller here who was there sort of person that would was licensed to sell this in India.

So we had these discussion with this person and it you know the price that they were charging was very higher than what I thought we should pay fat my argument was we should pay nothing you should give it to us for free because if I train all of my civil engineers there are 100 B techs and I do not know whatever 30 40 50 odd M techs, if I can train 150 people every year some of whom are going to the workforce knowing Primavera they are going to pressure on their managers to get them Primavera on your scale sales will skyrocket.

So it is your incentive to give me the software for free in order for your business to boom him what is the point of giving me some educational license and possibly losing the deal where you could give this for free and by the way many people do it that is the reason auto desk gives software for free and then most of the other service providers are following suit at least in the BIM world the idea is lets catch you guys now and hook you want to say Revit, so when you go into the workforce and your employer say look I need someone to build the model you will say I can do it you need to buy me Revit and all of a sudden auto desk might get a you know a corporate license which would be far more valuable then you know selling it to universe.

So this is my pitch but these guys were having none of it the said no this is the minimum that we can sell for and then it struck me that I am negotiating with the wrong party these guys are probably getting there you know paying a license fee to Primavera based on which they are trying to retail it and make maybe a marginal profit, so for them to give it to me for free means

that they are making a loss, who should I be talking to I need to be talking to Primavera I need to be talking to those guys saying look you are the guys going to benefit.

So let us cut out the middle person here why do not you strike an academic deal with me just way you strike a deal with possibly most of the other academic institute's it is understanding who you are negotiating it and what their incentives are right it is important you know I have all of this understanding of theory and I could just not get passed this resell despite all using all the negotiation tactics in the book until I realized that boss I am negotiating with the wrong person, so parties what are their interest, so all of these are very important question that you really it is like a systematic it is like an assignment you so and say this is the party what does their BATNA can I do some research and write a paragraph on that parties interests etcetera.

What kinds of barrier are there for instance you know cultural barrier here that are preventing this kind of negotiation for happening do not know for instance if you look at we are running out water, I need to treat water and Singapore and other places have shown us that you can treat water and drink it, so I need to be able to negotiate with you and convince you to pay for wastewater and you are looking at me saying pay for wastewater I mean you must pay me for consuming this wastewater. I will pay you if you give me fresh water, so this is sort of a you know very caricature is version of this debate or water you know that is going on.

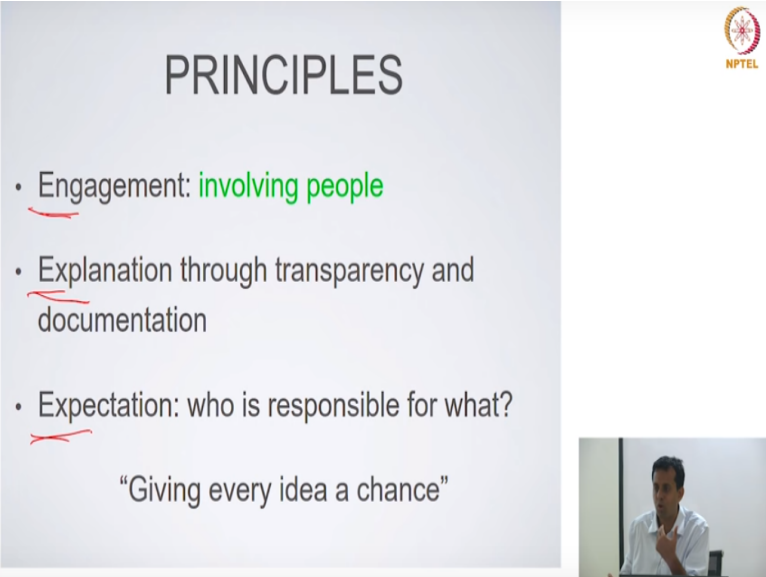
So how do you actually so here the barrier in some senses is also cultural right in the sense nobody really particularly in the Indian context you know kind you really think about drinking recycled water it is like you know drinking refuse waste you know all kinds of thing are in the water how could you possibly drink it despite the fact that from a technical perspective BOD, COD, TDS all your you know environmental parameter are being met, so it is important to understand so there is no point saying BATNA there is no BATNA we are running out of water these are exactly the people who we needed because these are exactly the people we need to negotiate with they are running out with or out of water it is easy.

So you guys do not have water I am giving you water pay me for it but there are sort of ethical barriers your people might actually be willing the BATNA might be hidden you are supplying water for ten rupees or kiloliter people might be willing to pay 20 30 40 50 rupees a kiloliter to get water from a lake or a river that is far-far way just because of that psychological barrier, so

you are comparing oh the badness fifty rupees a kiloliter I am giving it to at ten rupees a kiloliter it is a winner but you haven't factored in the ethics or the sorry the cultural barrier of the negotiation.

So this to me is a very-very critical part of negotiation as you go in so if you understand all of this then it is very possible that you can actually arrive at a solution, so if you had instance really understood this for the game that we played you would more or less have understood that person wanted the white of the egg or the yolk of the egg, if you had done a systematic analysis in this sort of manner in which case the negotiation would have concluded very quickly, so this is one thing that sort of extremely you know important for the for negotiation.

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PRINCIPLES

- Engagement: involving people
- Explanation through transparency and documentation
- Expectation: who is responsible for what?

“Giving every idea a chance”

This is the three ease are also I think need to spend a minute talking about this because the thing about negotiation is that process matter it is not the outcome for those of you did the reading you will remember this nice story about this lady who gets caught and needs to go and gets a ticket and needs to go to court to contest the ticket, so she has elaborate defense that she prepares she goes to court and then judge more or less says or you know fine you do not have to pay your fine, so she gets the outcome she wanted right she did not want to pay that pay for the ticket she wanted to go to court and contest it and even before she opened her mouth the judge awarded in her favor and yet that person is unhappy why is that person is unhappy the person is unhappy because why is she unhappy well not so much that she had to go through this much trouble.

So she did all this preparation she wanted to sort of win the case, she wanted to sort or argue it and win it not just be handed it on a platter which now sort of seems like a false kind of victory dress it is not about the outcome at all right it is about the process, so the lesson is sometime the right outcome with the wrong process as in this case does not feel good the wrong outcome with the right process sometimes does not feel bad, how many of you voted in an election recently state or national last how many of you voted some I thought you guys were all you guys are I get not old enough to vote I guess all right for those of you who voted.

How many of you in your constituency or whichever you what it for how many of you voted for the winning person, so how many of you voted totally raise your hands, how many of you voted for the winning person know your person you voted for one, so far those of you who voted for the person you lost are you upset, so election are a good way of saying look personally I did not vote for the person who stood in my constituent I mean who won in my constituency, so the outcome was wrong for me but I am not upset because I sort of believe in the democratic principle everyone voted and more people voted for this other person who won, I sort of accept that choice.

So because there is a process right where everyone cast the revote and you know I had like to believe that it was a transparent process and there was no electoral voting machine rigging and all of that even though the outcome was something that was probably not favorable to me I am happy to accept it because of the process, so the lesson here is that the process matters and therefore it is not about sort of saying I want my way or I want to give them what they want it is about saying is there a is that a democratic process again if you go back to the Conoco example the moment Conoco did that meeting in that floating hotel where they came in and said here is the environmental management plan what are your thought people felt there is no process here you guys just came up with something how in the world to go though I do not know three thousand five hundred pages document write here and you know give you any feedback.

So this is just an eyewash, essentially you are just going to sort of say check the box on public consultation and go ahead whereas the opposite case is where you take a black sheet of paper and you say okay what are the things that you would like and very often you find that when you start with that kind of an approach not everything that is suggested may get implemented but people often tend to feel that they had a chance to give their selection there was some process through

which you know idea were selected and you know may be their idea was not part of it at least it went through a process and therefore I am happy with the outcome.


So process becomes extremely important which means you have got to engage people you have got to explain clearly what is going on and you have got to give clear expectations right on what is going to happen, so the more that you engage it should we look at the project that did not do so well if you look at Cochabamba it you look at you know Enron and DAABOR, if you look at some of these are the BUJAGALI etcetera you will find that the engagement was either non-existent or somewhat superficial on the other hand if you look to some extent at (())(28:39) to a larger extent at ALANDOR etcetera you see that the engagement was much higher right engagement with people better explanation and expectation clarity and therefore while there may be other problems stakeholder management is not one of those right and maybe the last quick thing and I will just spend a second on this slide that Varun put up.


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Lisa's Efforts

Associate Director of the Center for Collaborative Policy at California

<p>Making Participation Work after Years of Contentiousness</p> <ul style="list-style-type: none"> ❖ They didn't know what the agreements would be. ❖ Stakeholders had no idea what could even be negotiated. 	<p>Reframing: Acknowledging Mutual Vulnerability and Defining Common Challenges</p> <ul style="list-style-type: none"> ❖ "classic reframing," moving from an initial problem solving focus to a shared agreement that ❖ This reframing shifted stakeholders' attention not only from personal antagonisms to substantive issues, but also from past failures to future possibilities. 	<p>Moving toward Joint Education</p> <ul style="list-style-type: none"> ❖ helped stakeholders to talk together in a less adversarial way as they begin to explore disputed issues ❖ "mind-mapping" exercise was to focus the energy in the room not at each other, but at the wall, and on the substantive issues and priorities that the group together needed to address.
<p>Listening for More than Words: Analyzing Underlying Interests</p> <ul style="list-style-type: none"> ❖ they explain why it is that they think that this is the optimum solution. ❖ it's their reasoning that provides what their interest is, ❖ such listening for underlying interests "the classic mediator's response." 	<p>Mediating Participation Rather than Moderating Debate</p> <ul style="list-style-type: none"> ❖ Moderating <ul style="list-style-type: none"> ❖ turns argument toward counter-argument, and so it encourages, and risks escalating, debate; ❖ Mediating <ul style="list-style-type: none"> ❖ turns parties toward their multiple and diverse interests, and so it encourages practical proposals to negotiate. 	<p>Working with Anger: Harnessing the Energy in Acrimony</p> <ul style="list-style-type: none"> ❖ Conflict means energy to work on something. ❖ She told "reality of today is that this situation isn't working for you, period, for all of you." ❖ Am I willing to take the risk to be in a conversation?





Which essence you saw, so I think when you approach a negotiation the first thing is to do is to approach a negotiation saying there is possibly a win-win then before you approach the negotiation you sit down and you strategize right you figure out your BANTA's your ZOPA's your parties you go in with a strategy and the strategy is not, so much for you to win right the strategy is to try to see if you can get that win-win right that is where you get the best negotiation outcomes the moment you try to say you know I need to win and so therefore let me find a

strategy by which I can hoodwink other into letting me win you will probably might get a short term agreement but in the long term it will probably unravel right.

So the idea is to go in with do your research going with a plan to actually have a win-win you know situation which then mean that you have to follow a process of negotiation right you will have to bring in people on board and this is there is actually a strategy of action which is in this case this is the strategy that Lisa used but if you look at a strategy you will find that she is understood the people she is done some preparation she started joint education.

So there is clearly all of these aspects of explanation engagement you know all of that expectation clarity you will find come out through this, so there is you know clearly so joint education serious is certainly looking at better engagement you know both reframing and analyzing, so these are the kinds of preparation that she is doing looking at underlying interests you know all of that, so it may not necessarily map one tot one but essentially what she is trying to do is to follow a process where she bring everybody along to the resolution rather than say here is the solution guys takes it or leave it right or let us vote and the maximum hands that go up you know get the Pie or whatever.

So I think this is essentially the theory behind negotiation so again the thing is prepare always think win-win and if you can actually bring people along in a process then maybe that outcome is not favorable to everybody but everyone's likely to accept it and you can actually move along with the project whether it is land acquisition whether it is sort of compensation resettlement I think these are important you need to impress upon people that you are displacing the value of the project and why they are being sort of displaced and almost get them to sort of feel that you know they are being displaced in a larger societal or national interest.

At the same time when you work out compensation packages you need to understand what it is that you are compensating people for and try to offer them a fair compensation you know package that affects all of that which means not only understanding the back ground but also and then sort of convince people that you have gone through a process so that maybe you are not giving as much as I wanted for my land but you have gone through a fair process of establishing that land value that I will agree to it I mean I always would like more than what you would give but at least I am agreeing to it right so I think that process becomes very important.

I had another game I wanted to play but we are out of time so we will stop here so essentially what we have done is thought a little bit about negotiation will have another exercise it is called the MENEHUNE BAY negotiation where we will actually do much more of a real negotiation many one name is a development in Hawaii each of you will have a role to play one of you will be the developer one of you will be a part of the government couple of you will be NGO's looking at the environment looking at aquatic life there is that and the other and you guys will have to negotiate to reach a settlement.

So it will be a much more real negotiation we will do that little bit later that will require more than 75 minute good, so we will stop here I will see you again tomorrow we will talk about something else we will talk about design thinking.