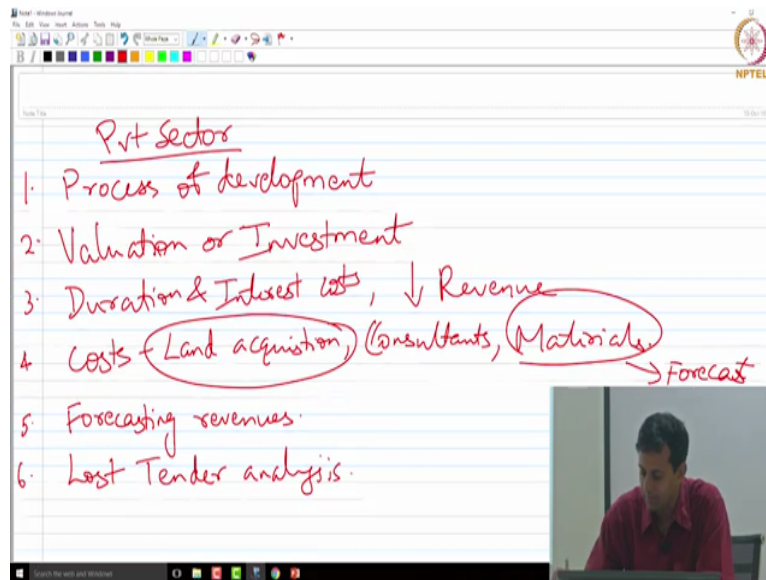


## Infrastructure Planning and Management Public Sector Governance - Part 1

Ok, so let us start with Venkatesh of the private sector what were the highlights of what he said.

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Alright I am just going to say private sector ok, so he talks about ok the process of development which I assume was something that you guys are able to follow quite easily because we have talked about the process right, so specifically what are the kinds of challenges that he highlighted ok. One by so Pawan, ok what about investment?

Student is answering: (00:45).

Ok, so challenges are, ok project valuation and investment right, so how do I find money for the project, is it the right amount?

Student is answering: (00:59).

Ok, what about duration, why? So we are talking specifically about challenges right, so valuation is a challenge, investment is challenge what is the challenge regarding duration?

Student is answering: (01:11).

Ok, so duration and interests, so projects are often delayed and therefore there are interest costs that need to be born, ok Jai Kishan.

Student is answering: (01:27).

Ok, and interest costs there is a decrease in possible revenue because the duration of the project is now I mean the duration of construction has increased, so your concession duration is lower and as a result of which you make less of money than expected because you collect lesser revenue ok fantastic all right yeah, Varun.

Varun: He told he will talk about the total project cost of the (01:53).

Right, so how do you determine project value at what drives project value and project revenue?

Varun: Project cost is like a determine the various component like overhead cost the cost for the land acquisition in the building and the then project consultant is project management cost.

Right, yeah so there is land acquisition, consultants and then there is the actual materials all of that, ok so what are some risks here?

Student is answering: (02:33).

Yeah correct, so finding what the land acquisition cost is itself is very time consuming it is disagreeable, people disagree if I own the land I always think it is worth more if you want to buy the land it is worth less it becomes very difficult then it is a drawn out process, if it is a drawn out process then the construction time increases which means the amount of time I have left with me in a PPP to collect revenues decreases, so overall my project economics suffers right, so these are some of the key risks with regards to costs, ok.

What are the other challenges he spoke about in infrastructure?

Student is answering: (03:10).

Cost estimation and forecasting costs or revenues?

Student is answering: Cost of exact numbers (03:17).

Ok, alright so cost of materials how do you forecast?

Student is answering: Material divide by (03:24) how to what are the various methods we can do but still it is a not the exact numbers.

Ok, correct so how do you forecast revenues because revenues very often is at risk you know so it based on the amount of traffic on the road and traffic on the road can change for a

variety of reasons sometimes people do so for instance right now traffic on the road is expected to be quite high because this period of time in India between Dussehra and Diwali right and plus or minus some days on either side is essentially a holiday time, so a lot of people travel there is also a lot of movement of goods because lots of people are ordering you know many things right.

So if you want to buy clothes for Diwali then clearly somebody is supplying them, so if I start looking at traffic today and I take this as indicative of what my traffic is likely to be then I might be very unpleasantly surprised because in April or May the traffic might be far lesser right and therefore it becomes very difficult to understand how to evaluate traffic there are seasonal variations, there are annually variations, yes there is some growth but traffic is also sensitive to many other things maybe there might be a competing route that is opened because of which people might go that.

So we saw in the Vadodara halol toll road case it could be competing route it could be you know their check post is much more lenient with regards to overloaded at trucks, so let me go there you know all kinds of you know things that affect traffic revenues. So forecasting these is very difficult right it is just you know it is very difficult to get a good quantitative model to really accurately forecast, is of course if it is a small 1 percent, 2 percent deviation here or there nobody is really bothered but sometimes these deviations can be very large.

They can be trucker strikes recently about you know a couple of years ago we had this Demonetization or about a year ago we had this old (Demon) Demonetization incident and the problem one of the things which happen with the monetization is there was a notice that came out that said therefore people need to be able to pass through the toll plazas for free right for a period of time because how are they going to pay there is no money, there is no cash in the system right.

In return the private operator will probably be given a extra extension to their contractual period right, so whether it where as it should have finished on March 31st of 2026 right, you might now be asked to go until April 7th or April 10th or you know whatever but you know is are the revenues that I lost now necessarily going to be compensated by an extra week of revenue seven years down the line or eight years down the line I do not know right, so all kinds of issues with forecasting and revenues all right. What else?

Student is answering: (06:03).

So those are yeah so other costs that are in right yeah, Partik.

Student is answering: (06:09) Talk about the lost tender analysis.

Is lost tender analysis, tell them tell me what loss tender analysis is?

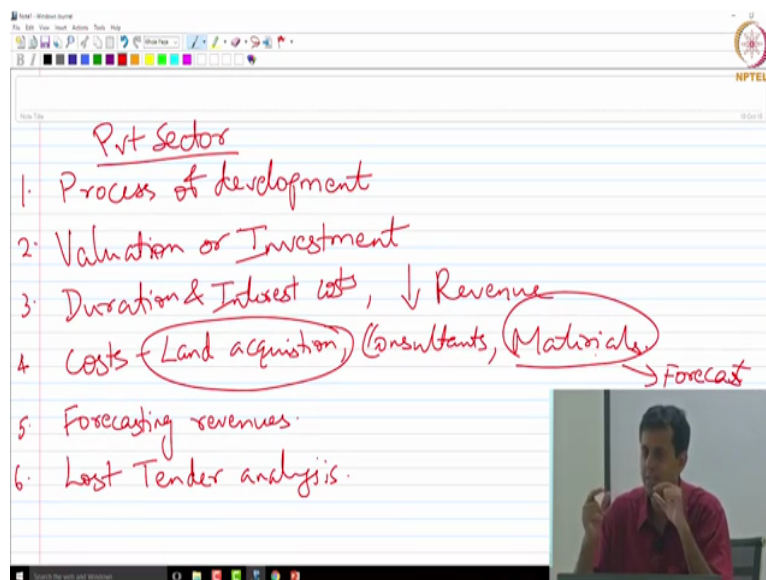
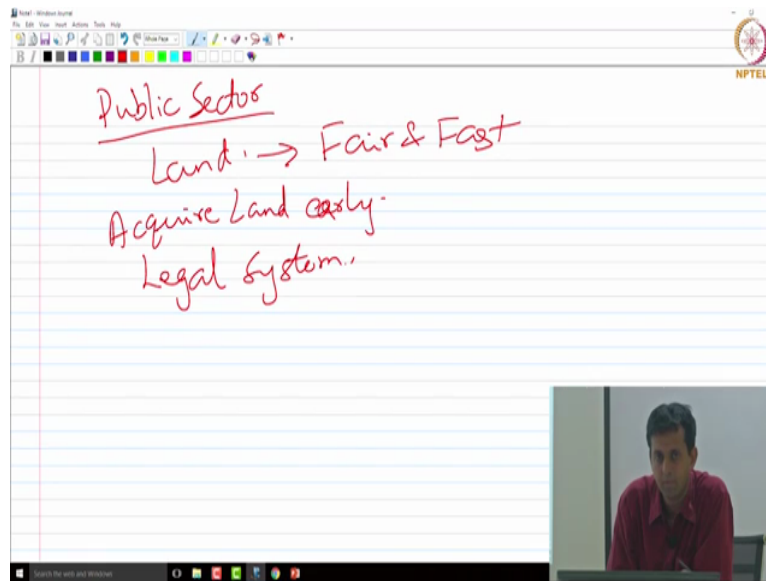
Student is answering: (06:18).

Yeah, so this is a very important issue right, so what do I bid and how much do I bid and you know I want to bid an amount that makes me profitable but also makes me better than everyone else and sometimes these two are trade-offs right, if I want to be profitable sometimes the amount I bid is much higher right and therefore I become non-competitive if I become competitive then the amount that I make might become lower right.

So how do I and particularly people are gaming the system right if people are trying to for whatever reason artificially bid low there how do I actually work through these through these systems so this is again a big risk and what happens is sometimes you have people deciding that they will not bid on projects which is the loss to the project developer right because if I were the government of you know Odisha and I want to build a road, I would rather have the Punj Lloyd is, the L and T is and you know the who is who come in and compete to build the road right I do not want them going away on some pretext because the competition is too rough or not fair enough etcetera rather than me being stuck with some person who might I mean I want the contractor but do a low-quality job right, so this also then affects quality ok so good.

So he is talked about a bunch of you know risks that the private sector faces when developing infrastructure ok. Now let us go back one more class ok.

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And then talk about the public sectors views ok, what is the public sector doing right to help the private sector here, develop these kinds of projects should the public sector be doing anything to help the private sector is itself a question right because the private sector is making a profit at the end of the day if you want to make a profit you take some amount of risk, so you take these risks and build right.

So the first question is should the private sector step in at all? Right and if so what should it do what should it do is somewhat clear? Right so what should it do is clear from all of this right so what should it do is in terms of can I help with land acquisition, can I somehow regulate the cost of materials can I ensure that you know tender competition is fair and people are not you know unfairly undercutting one another, so I have a good quality of competition.

So we have from this list we can infer things that private sector should be doing with regards to land, with regards to materials with regards to corn with regards to procurement right but what did we hear from the public sector? What is it that they are thinking about?

Student is answering:

(( ))(08:56).

Ok, so they also are aware of the land acquisition issues right and it is certainly something that they are trying to work on right how do I get a fast and fair land acquisition projects for public for land acquisition for infrastructure project, so it fast fare and fast ok, so that is something that they are also aware of.

Student is answering:

(( ))(09:26).

Ok. so acquire land early is something that they should be doing ok and again this is a this is logical right I mean if I acquire land ahead of time and I already have my land acquired the project can proceed smoothly but acquiring land is also you know politically difficult process I do not want to acquire it in such a way that I lose the next elections and therefore in some ways it would be better for me if the private sector is the one that acquired the land, so the responsibility less on the private sector and not on me and so there are some dynamics surrounding that but this is obviously a very illogical and something that people in infrastructure would really like to see ok fantastic, ok.

What else is the government doing?

Student is answering:

(( ))(10:18).

Yeah, so correct so it is first you want again a fair and fast judicial system ok I am not sure that the experience so the thing with China is there is pros and cons right, to the way we think about China so I have visited China just before the Beijing Olympics and yes it is just amazing what they have been able to construct in the amount of time and it is because of exactly as you said if the government decides to construct then there is no way you can oppose them right so you take whatever compensation you get if at all and you just move

okay, which obviously tends to a favour fast infrastructure development that is why they have been able to build the cities, they have built in the highways, they built.

Question is what is the social cost of doing this? Right how fair is it how democratic is it the other side of the culture so those of those who enjoy that infrastructure are obviously very happy with it right, so those who fly into China see the wonderful airports take the wonderful roads to the hotels etcetera but of course there were millions of people who have been displaced whether it is the three gorges dam or you know whatever development who probably have a very different story to tell right many of their livelihoods were lost who knows whether they have been able to come up come back to that level of you know economic development again after being displaced.

So I think that is sort of the model but again the point is can we have a fair and fast judicial sort of system and again the government is working on these kinds of things for instance there is a new arbitration act so very often what happens is you do not go to the courts first right so you go to first you might have a little bit of a mediation right you try to resolve it right then and there otherwise you go to arbitration, arbitration is sort of a it is like the judicial process but it is not the court it is an arbitration panel of experts that we all select and we agree that whatever these guys have said will be will be something that we will accept right.

So essentially we are saying the problem with the courts is we have so few courts in the country that of all of us take our problems to the court the court will be overloaded right if you if your case is filed today it might take months before it comes up because everyone in the country is going to those same courts, so why cannot we set up a parallel system of arbitration let us get qualified people in many cases experienced people from the industry who have retired people like mr. Venkatesh himself or (exper) or experienced retired judges whatever put them on this tribunal let them listen to the arguments and let them rule ok and let us assume that those rules will be binding, so I do not have to trouble the court unless there are exceptional circumstances where I sort of say I need to appeal, ok.

So but the Indian arbitration act at one point was a very long winded act right it took a long time for arbitration to happen for appeals to come in you know for you know a resolution to come in and then people would then take it to the courts etcetera and be never ending right, so there are been amendments to the arbitration act and I cannot remember them off the top of

my head but I think now it says something like you have got to close the process within 18 months of starting it right.

So the but I will start sort of fighting a claim against you, you have got to close it within about 18 months if the arbitration panel rules in your favour right then while the other person can still appeal against what is called a bank guarantee you can actually get 75 percent of the money that you are asked for right, so let us say you know you and I are disputing I am saying you need to pay me a 100 crores right because you made some changes in the scope of work or whatever it is and I had to bear that extra cost and you are saying no whatever, we go to arbitration and arbitration says no I am right, I did do 100 crores of work ok but you say look I am not going to stop here I want to appeal this to the court right because I do not think this was this was fair.

So now under the current arbitration provisions right what happens is fine you go ahead and appeal but 75 percent of the money is given to me if later on it turns out that I was actually wrong right and I bribe the arbitration panel or whatever and the courts actually rule against you I will pay you that money back right but at least I have that money now and I do not have to wait right in most cases the arbitration panel if you select them properly I am going to give you a fair ruling right.

So instead of me having to wait years more for that money to come by I can now bring that money back in into the system quickly, start working let this project take it is course right if it takes 3 more years for the High Court to give a decision that is fine because 75 percent of the money I already have I have already reinvested it. So again the judicial process is undergoing a lot of improvement ok of course I think we have a long way to go but these things are happening right.

So I think what came out of mr. Krishnan is discussion the other day was that the public sector is not unaware of all of us right the public sector is aware of a lot of these things and they have been trying to take measures against it there are constraints that they have in terms of the number of people they have the rules that they need to follow etcetera. So on the face of it looks like there is right it looks like there is some amount of consonance between these two right the private sector has some constraints you are not acquiring land right, you know the revenue forecasts are you know very difficult to predict, material forecasts are very difficult, prices keep changing etcetera.



And the public sector says we are working on some of those, we are working on better land acquisition, we are working on a better judicial process right etcetera right but the fact of the matter is today right it is the things still are not very smooth from a public sector perspective it still takes a long time from private sector perspective, still it takes a long time to get approvals projects take a long time to get off the ground, there are time overruns, there are cost overruns right.

If you take you know metros for instance there are 20, 30 percent extra costs that are incurred for a variety of reason, it took too long to acquire land you know new things came up in the middle of the project that I had to do and therefore while at budgeted  $x$  the actual amount was  $x$  plus something else but I had only taken a loan for  $x$  and therefore I have to scramble and find money elsewhere.

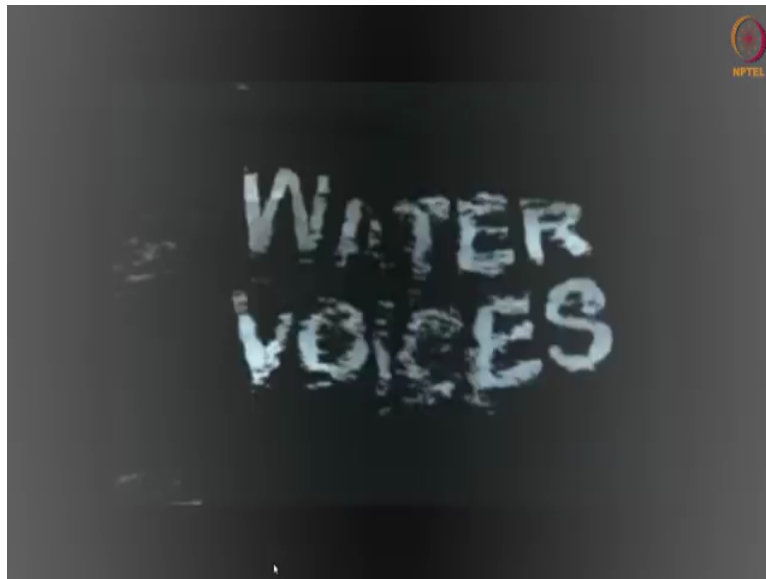
So while it seems of the public and private sector are theoretically on the same page practically what the private sector needs is not necessarily being met at the moment ok, so the question is, is this destined to continue to remain in dialogue where the public sector continues to say yes I will keep improving myself but you never ever meet the goal or can the public sector actually become dynamic enough to very quickly turn around and match the requirements of the private sector, so that the infrastructure project can actually come far you know be done faster.

So this is these are this is the big basic question right is this just one of those things where you know government whichever way you look at it is going to slow things down right or can government actually transform itself right, so this is where I want to play you the video will watch this video right we will talk about it ok, this is a video this was produced by the Asian Development Bank a series of videos and a DVD, the DVD unfortunately she seems to have been demagnetized, it is not running anymore but luckily it is on YouTube.

So we watch the same version on YouTube and it is about water connection in a city called you know water supply provision in a city called Phnom Penh, which is in Cambodia right, so alright, so let us just watch the video then we talk about it, so about 20 minutes.

Video Starts here:

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Person 1:

In every Job (17:23) We like to tell you some stories, stories about (17:34).

Ek Sonn Chan:

Phnom Penh city grow really very fast and many roads and drainage system was really improved over the last few years.

(Refer Slide Time: 18:25)





Person 1:

When Ek Sonn Chan was appointed director of the Phnom Penh water supply Authority in 1993 he faced a seemingly impossible task provide clean water to a city still recovering from long years of war and civil strife like much of the city the water supply system was in ruins tens of thousands of people banished to the countryside by the Khmer Rouge flooded back to the city felling derelict buildings and squatting on any available land.

(Refer Slide Time: 18:57)





Ek Sonn Chan:

Before 1970 they have not many people outside the city just about half a million people but right now I think that that we have around 1 million people that is why the infrastructure of the city is really challenging the city hall. We came back to Phnom Penh after the Khmer Rouge regime by the year of 1979 and after that we knew that everything was destroyed. Phnom Penh water supply at the time was operated by the authority of the Khmer Rouge to supply half of the city of Phnom Penh but not the whole city.

The treatment plant only operated no maintenance, the distribution was completely abandoned we have no technicians, all the engineer were killed that was the station we had to run the waters supply at the time, over 70 percent of water was lost because the distribution was too old many leaks what they call the physical loss but then in the meantime the people just made illegal collation many of illegal connection like that.

(Refer Slide Time: 20:18)



Ek Sonn Chan:

From the empty City to the 700,000 people city took only around 3 months, the most important thing is that the pipes were laid under the ground, we needed the document, we needed all the designs the drawing and everything but they were completely destroyed we had nothing but the human resource.

(Refer Slide Time: 20:40)



Person 1:

The core management team gathered by Ek Sonn Chan in 1993 remains him to this day and they have almost completely restored Phnom Penh central city water services, making it one of Asia is most effective water utilities.

Ek Sonn Chan:

My first reform here in terms of human resource, I think you have to try to bring the qualified young staff and who really want to work something I want them to do like this, they say no. it cannot be like that done like that, cannot, could not be done like that so we are really very frank together we work together as a family, as a team. You can say we have really a strong teamwork.

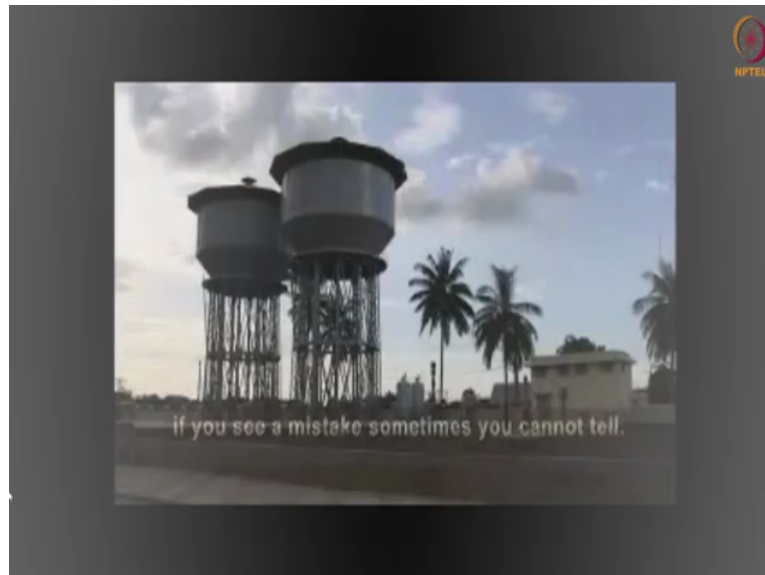
Person 1:

Technical director Long Naro was trained in the former East Germany and played a key role in restoring that Phnom Penh water supply, he frequently supervises several large scale projects at the same time, this is the renovated water treatment plant at (( ))(21:48) on the banks of the Mekong River.

Long Naro:

My boss know what I should do, if a mistake he calls me in Western countries if you see a mistake you will call the guy to say this is mistake but in Cambodia Sometimes no, if you see a mistake sometimes you cannot tell.

(Refer Slide Time: 22:08)



Person1:

(( ))(22:08) was Phnom Penh first water treatment plant built by the French in 1895 it was decommissioned in 1983 in a state of disrepair based on the original architecture it is been restored to its former glory making it a showpiece for the utility, bringing the plant back online will greatly improve water services to the whole community, (( ))(22:38) was a university lecturer and has been on Ek Sonn Chan team from the beginning responsible for

seeking new customers he works with poor communities to find affordable ways they can connect to the network.

(Refer Slide Time: 22:53)



Person 1:

Squatters have occupied this former Buddhist complex for the past 10 years.

(Refer Slide Time: 23:03)



Sim Kheng Lin:

I believe the poor people around this area are very happy that they are able to connect to the network because the water authority have a policy of paying in instalments.



Person 1:

After consultations the community agrees to pay by instalments to connect to the city supply for Ek Sonn Chan reaching these communities has been his goal from the beginning, a decade ago the utility is customers were mostly the rich.

Ek Sonn Chan:

Around 20 percent of the people already got water at low cost from our system but then the other 80 percent who are the poor people they still do not get any water from the water supply. They have to buy the water from different sources, where the price is very high.

(Refer Slide Time: 23:59)



Person 1:

Village 21 lies on the far edge of Boeung kak lake directly opposite Ek Sonn Chan is office previously a water park of Phnom Penh colonial days, it is now home to an extensive squatter community.

Person 2:

The rich can have their own water supply because they have money, we are poor, we have to buy from others. It depends on what can we afford. We do not have any problem, it is just the usual. Every day we make just enough money for one day is living. 1500 riels of water lasts two days. Over here, one jar costs 1500 riels.

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Person 1:

Village 21 has been negotiating with the water supply Authority for a legal connection another job for Sim Kheng Lin, the problem here is in the location escalating delay pipes through danger railway track.

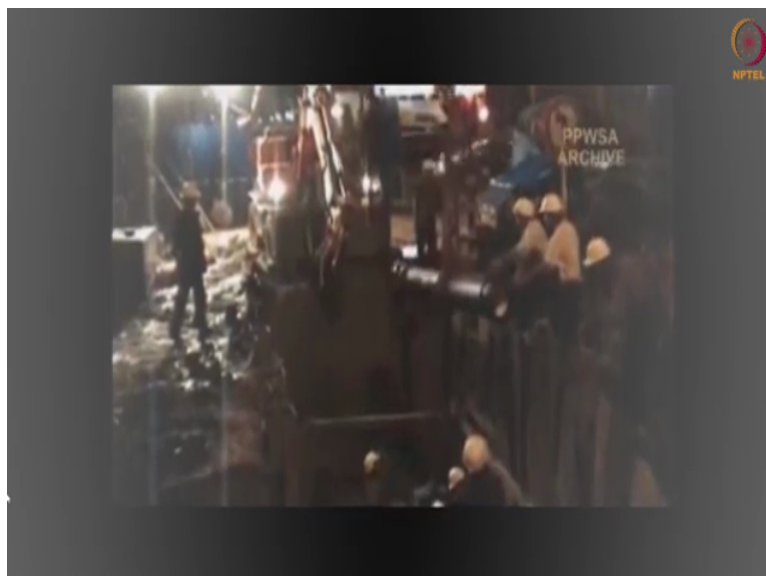
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Lim Song Kry:

We are not able to install the network around the railway track because of the foundation and the fact that it is used 4, 5 times a day and also because the railway cars are quite heavy, 30 tonnes. This can damage foundation. Now the community has agreed that the network can be installed over there.

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Person 1:

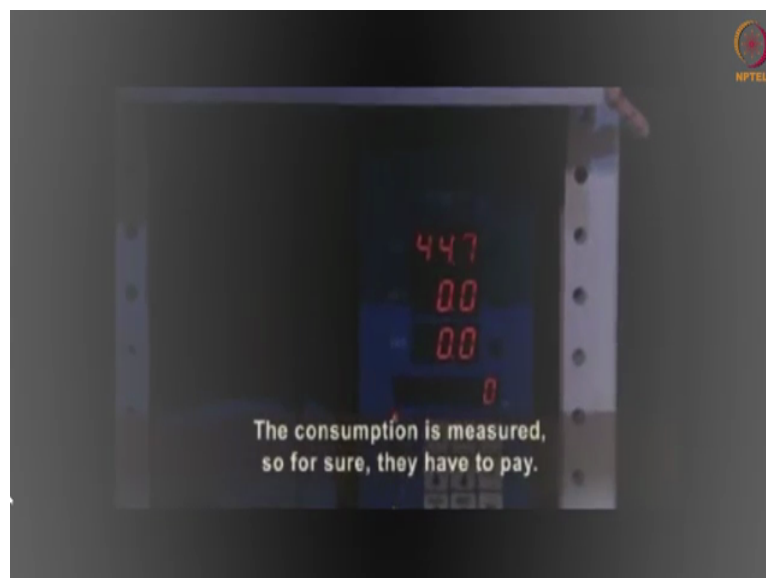
In the circumstances connecting individual households and village 21 is not possible but a nearby water point will be installed to provide clean water for the community, Phnom Penh

water supply continues to renew pipes switch often date back to colonial times when they began they had no real idea of who their customers were.

Sim Kheng Lin:

We tried to see the real situation of the water supply at a time, we had 24,000 customers.

(Refer Slide Time: 26:37)



Ek Sonn Chan:

Only around 40 percent of those customers paid the water bill. We had to make a customer survey because we knew many people they had the connections, they got the water, but they never have had any bill from the water supply. In the meantime we also had many people that never got water but still received a bill from the water supply.

Sim Kheng Lin:

See the water, the colour of the water. It is very bad. Most of these old pipes have plenty of illegal connections. The water tariffs at the time were also very low.

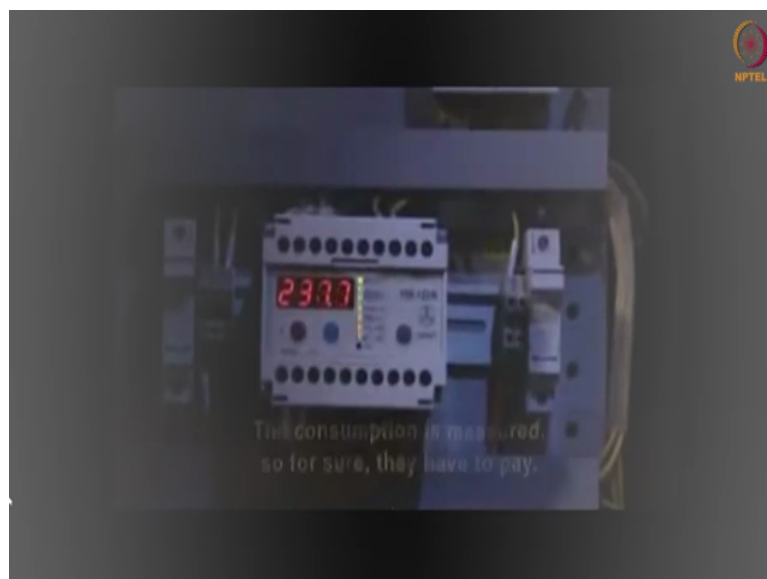
Ek Sonn Chan:

The income of the water supply at the time just enough to cover 50 percent of the operation cost. We finished house by house, one year. Finally we found that we had around 30,000 customers instead of 24,000 and then 30,000 customers were completely real customers. How to force them to pay? We had to send our people to have discussions, negotiations with our customers to know that the water cannot be free.

In any society they have some people who are not really willing to pay, some of the rich people because they are used to having strong power. They are used to being something higher than the other people just do not want to pay. The other people will complain to me why do I need to pay you and in the meantime the VIP people never pay? I go around from house to house, I knock on their door, I tell them the water cannot be free. You use more you have to pay.

When you install the water meter, it will affect the customers mind. The consumption is measured, so for sure they have to pay.

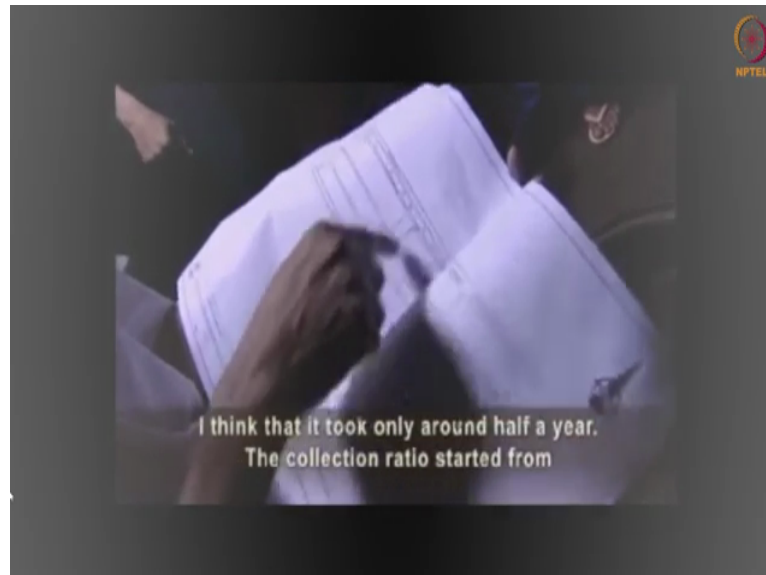
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Sim Kheng Lin:

We have a benchmark, for example 10 percent, so if next period we found that this meter compared to the domestic meter is higher than 10 percent it means something wrong inside the system.

(Refer Slide Time: 28:35)



Ek Sonn Chan:

The second group is quite difficult. The soldiers, military and you may know that in 1993, 94, 95 the city was still not secure. Every people had the gun, it is also very difficult. They do not want to pay, ok. We bring our forces and then disconnect them. I think that it took take only around half a year. The collection ratio started from 70, 80, 90 and right now we can say 99 percent we collected the bill.

After three years we were able to generate the revenue and then able to run the facilities.

(Refer Slide Time: 29:21)



Person 1:

The authority now operates on the basis of full cost recovery that means covering not only operation and maintenance costs but also investments to improve and expand the network and bring affordable water to everyone especially the poor. The scale of this task is shown clearly here in a rundown tenement complex known simply as the building. Once a modern feature of the city it is now little more than a vertically slum.

Recently the building was connected to the city water supply now it has become the center of an informal network of water vendors who resell city water at higher prices to the squatter community which has grown up behind it, the water utility cannot access this crowded maze at makeshift dwellings to provide service.

Person 3:

I measure the water with this container, each one costs 1000 riels. We connect to five or six houses and some others too.

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Lim Song Kry:

This is where the water is stored before selling. They connect to the government network and use a pump to fill the tank. Then they redistribute the water to the people living around the building.

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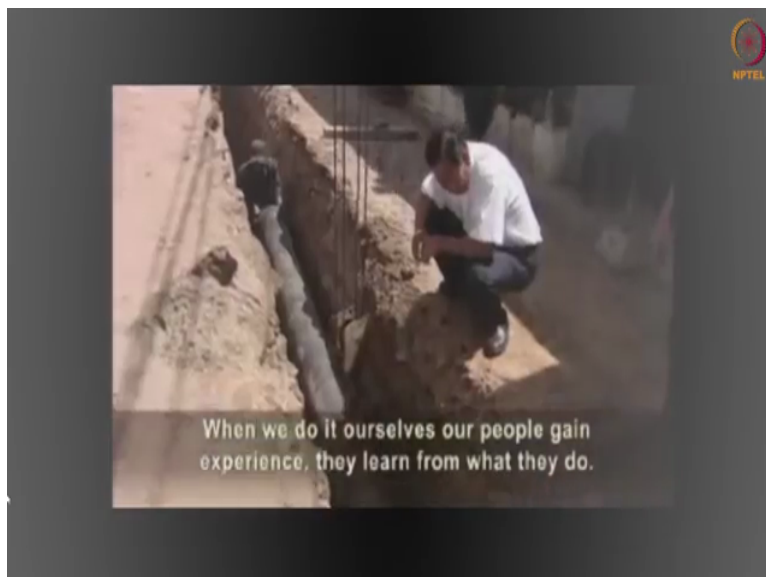




Person 1:

Phnom Penh water supply have reached a milestone 70 percent of the city is being connected with 24-hour water supply and now service is being expanded to the suburbs in 1993 the utility was losing 70 percent of it is water due to leaking pipes and illegal connections, losses have been reduced to a mere 22 percent a figure matched by few utilities in the region.

(Refer Slide Time: 31:27)



Person 4:

We have mostly completed this area here.

Ek Sonn Chan:

Now we supply the water to the other area. Since 1973 they have no water on the other side. The sellers, they pump the water untreated and sell to the people over there five times higher than our treated water.

Sim Kheng Lin:

WE do not have drawings related to the underground systems, so we cannot bring the machinery to lay the pipe in this location. We need to dig by hand. But after we cross the bridge we can lay the pipe by machinery.

Ek Sonn Chan:

I think that in Cambodia no organization would try to do this kind of job themselves. We had to look for an overseas company to do it. So I say, ok you have confidence to do it yourself or not? So he said, ok we will try to do it ourselves. I think an outside contractor will cost at least around half a million US but he just said we need less than 50,000 dollars. When we do it ourselves our people gains experience, they learn from what they do.

(Refer Slide Time: 32:53)



Person 1:

Every year the Phnom Penh population swells to more than twice its size, as Cambodians flocked to the moon and water festo at the tom sap lake, the festival marks a unique event the reversing the direction of the river current due to backflow from the Mekong river late in the rainy season.

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They come really very far from the countryside and then enjoy for four or five days.

Person 1:

The utility supplies water to boat crews (33:22) river and utility staff also sponsor to boat teams and competition.

Ek Sonn Chan:

This boat they are far away from the city, around 150 kilometers, so you have to rent a bit boat to carry your boat from your countryside to this place.

Sim Kheng Lin:

Last year we need to transport the water by car, by truck but this year after the completion of the network we are able to supply water directly to the boat teams.

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Person 1:

At the temple community it is a big day for other reasons negotiations are complete and today is connection day.

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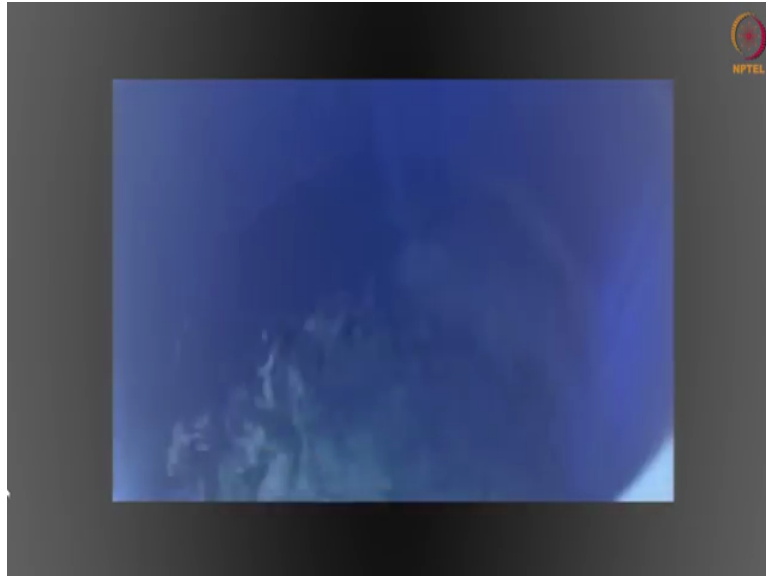


Person 4:

We tried to buy smarter for two years more than two years, it is long time. Everybody every different house saved money, my house saved money, my neighbour is saved money little bit every day. We buy the government water at only 350 riels. If you buy from private company

it 3000 riels, very expensive for people living in this area because we are all poor people. Now we can have this water we are very happy.

(Refer Slide Time: 34:54)



Person 5:

I am satisfied. It is not expensive compared to the price in the past. At this price it is very cheap. The quality is better and cleaner. IT is more hygienic.

(Refer Slide Time: 35:14)





Person 1:

There are also reasons to celebrate in the Phnom Penh water supply camp, the team have reached a milestone in their effort to supply water across the river one month ahead of schedule.

Ek Sonn Chan:

I think that they are also very proud because we are working for the country. We suffered too much from the Khmer Rouge regime. We came back to the city, really were poor together. The city looked like you might say the killing field, right really nothing. I think our people really try to work hard for the country because they remember the past time, maybe the past bring them some of the courage, some effort to work for the country.

But I do not want to see the past repeated again, maybe we are the lucky. Sometimes personally I think we all are lucky all our friends, all our colleague here they work really friendly and very frankly together. The Phnom Penh water supply Authority we are now facing now two challenges and sanitation will be the future challenge of the Phnom Penh water supply.

Five years ago, we went to tell them, we convinced them, they have to pay for the water they use. But the new challenge is that we have to go to tell them again, you have to pay for what you waste. I think that really we face a big challenge with sanitation. The second challenge is to have 100 percent coverage of the whole city including the suburbs, by the year 2005. We have some comments that only the private sector can run the authority efficiently.

The public cannot do that. For me, I think that it is not a matter of public or private. That is only the matter of process, the matter of leadership, the matter of policy. We are the autonomous, that is the policy of the government but if we are public, like that water supply of Phnom Penh the profit made by us will be the profit of the country. We want to work for nation, we want to work for our country, we are proud to do that.

And the last day they tried to win again that I can be the number one.

Video ends here.

Professor:

All right, so what did you guys think? Is that an example of successful infrastructure project implementation or unsuccessful project implementation? Ok, so Phnom Penh water supply is successful and was implemented by a public authority, government authority? Right from Phnom Penh water supply all right. So what are they able to do or how are they able to do what are they able to do? What are sort of in your ways key characteristics that define Ek Sonn Chan is team in the Phnom Penh water supply?

(Refer Slide Time: 39:04)

The image shows a digital whiteboard with handwritten notes in red ink. The title is 'Phnom Penh'. The notes are as follows:

- (1) Stop illegal connections.  
↳ Metering ⇒ Political Will  
+ Billing
- (2) Interaction of Public. Door to door.
- (3) Leadership (circled) (X)
- (4) Autonomy (circled) (X)

In the bottom right corner, there is a small video inset showing a man in a red shirt speaking.

So they stopped illegal connections fine ok, how did they stop illegal corrections we all want to stop illegal collections right by.

Student is answering: (( ))(39:18).

Professor: Ok, so they stopped illegal connections how do they do they started metering, ok. Why are they able to do metering? We can do the same thing right meters are not new, ok.

Student is answering: (())(39:33).

Professor: So one is ok, so then there is good interaction with the public is key, interaction with the public is key ok so they have good interaction with the public they.

Student is answering: (())(39:51).

Professor: Yeah, so door to door all of that right, where have we seen that before?

Student is answering: Alandur.

Professor: Alandur, right so yeah so it seems to sort of work right if you actually go and meet people than they were willing to sort of have a dialogue with you and come to a solution on ok, I have got my train tracks here you cannot put up the water supply, you know can you find me some other place to put water supply, can we have a public connection private connection right, so that is great so they really in the you know seem to have spent some effort in you know that consultation and they had that university professor person who I do not think was an engineer at all right but they had people who are really strong at working with communities on their team.

So it is not just I mean it is an engineering service but it is not just engineers right, it is people who understand society all right, ok. This is fine but I want to go back and I want to sort of talk about yeah metering was good they stopped illegal connections, they metered all of that why what why have not we been able to meet her right what is how are they able to meet her? It is that simple we should all meet her yeah.

Student is answering: (())(40:54).

Professor: Ok, good so somewhere here and it is related to it and so there is this issue of leadership right and he mentions it also right at the end ok, so I think leadership is obviously very important so this person clearly Ek Sonn Chan comes across as a strong leader, he is articulate he seems to have a presence you know people seem to be happy to work with him, he also has very interesting leadership traits clearly he is not a very autocratic leader you know he has he explains people are allowed to disagree, people are allowed to tell him that it cannot be done the way he wants it to be done etcetera.



So certainly certain leadership traits that are very important to this organization right, so I think that is I think a very important characteristic ok, yeah.

Student is answering: (( ))(41:42).

Professor: Which is again very important right, so that was again very (imp), so and this is probably you know equally or if not more important, so there is this notion of see ultimately metering all of that comes down to political willingness right, it is not technologically difficult at all I mean meters can be bought, meters can be put in etcetera but you know when you come up with metering there is no point just measuring what people are going to consume, right the whole point of metering use measure and you charge right and very often what will happen is one side charge right your water bills are more likely to go up, now because you do not care about how much you consume you consume quite a bit of water right.

The moment I start measuring your water bills are likely to go up right and so it needs some political willingness to meter and bill right which are what metering plus billing ok, a lot of people may not be able to do that because you are right you might not have the political willingness to risk incurring the displeasure of people but here you have strong leadership coupled with autonomy right essentially the government sort of says look you guys are autonomous, you guys need to pay for yourselves ok and if you want to take certain decisions to do that as long as they are within some framework of the law go ahead right.

So clearly every society has a framework when there are water tariffs ok, now the water tariffs might be very low, they might be fixed etcetera but here the idea was say look if you want to charge tariffs according to you know whatever the quantum of water used etcetera if you want to charge a certain rate because that is what helps you recover costs go ahead and do that right.

So autonomy I think is a critical point coupled with leadership right, are two you know very important points in terms of why this authority was able to accomplish what it was able to accomplish which seems to have been it and you know Phnom Penh is and when they started as a far more difficult place to work in than any city in India for instance at the moment, right.

So the Khmer Rouge is essentially at the indulged in large scale genocide, large portion of the population the educated population right, the engineers, the doctors etcetera where dead ok

and you had an even things like they did even planted mines all over the place, you could not even walk on the street safely right without you know fear of being blown up. So the very difficult environment there is no economy, no industry really right, so the paying capacity is low, so the starting conditions are terrible right.

So that environment you have a group of obviously self-motivated people who are given the autonomy and are told look do not worry about you know what people will pay etcetera your job is to run a water utility, connect water, connect poor people, figure out a way to recover costs right and you have a strong leader right who can actually take you around that part and so with some of these relatively simple conditions right.

You see that there is actually a very successful story of infrastructure development right, quantity of water, quality of water the kinds of demographic groups that get water right all of that, so this is started off with you know customers randomly getting bills etcetera to actually getting to a point where they were doing 100 percent cost recovery and being able to pay for capital expansion right I want to sort of build a bridge I mean build a pipeline across the river to the other side I do not need to go borrow money from anybody right.

The leadership is also you know interesting in terms of saying look let us build it ourselves rather than getting other people to do it, yeah.

Student is answering: (())(45:03).

Professor: I am you know good question, I believe they did from what I have heard anecdotally that they were able to sort of develop the system themselves right and again I mean there is some interesting anecdotes that Ek Sonn Chan has shared in other forums not there in this video but he talks about the military and he makes it look very simple and he sort of says we cut the connection they came back right but the actual story I believe was you know he goes in and he opens and the military of course are proud because they feel they are the ones who have delivered Cambodia from the Khmer Rouge, right you should be eternally grateful to them everything should come for free kind of an attitude right, so he goes he opens the door there is you know military I do not know major, general whatever with a gun right pointing straight at him ok, what would you do here a gun that was pointed straight at you?

Student is answering: Step back.

Professor: Step back, turn around run etcetera, so he did all of those things and then he came back and he knocked on the same door ok the fellow opens it with the same gun but this time behind Ek Sonn Chan is every single news channel right taking a video of this fellow entitled rich fellow with a gun threatening the head of the water utility that he will not pay a bill of I do not know you know 500 riels or 350 riels or whatever which is a trivial amount for someone of that stature right.

So if you suddenly find all the TV cameras in the world and you are I assume some sort of public person right, so people probably recognize you if they saw your photograph in the newspaper right what are you going to do? Right you pretend that this is not a real gun in the first place there is a no sorry yeah come in and have tea right, how much money do you want? I will pay six months in advance ok.

So but this is I mean think about it is it requires some amount of bravery, leadership etcetera to do this right, so this is putting yourself in front not sort of saying ok why do not you guys go, right get collect money and come right. So I think there are interesting so any other traits that you guys saw in Phnom Penh utility? Any other key observations that you wanted to make? Ok.

So if not we will stop that there, so clearly it is possible for the public sector provided you have good leadership and autonomy and etcetera to deliver good quality services, so it is not as if the public sector cannot deliver services right or cannot enable the private sector to deliver services, the public sector is trying but there is also a way in which the public sector can achieve their goal right and one way in which the private sector can do this is to possibly think about a series of ideas that come under this broad umbrella of new public management right.

So which is the group that is going to present your public management? Ok. So Jai Kishan why do not you come and talk to us about new public management and then in that context we will sort of wrap up and talk about how new public management might help us, help the public sector deliver infrastructure projects well.