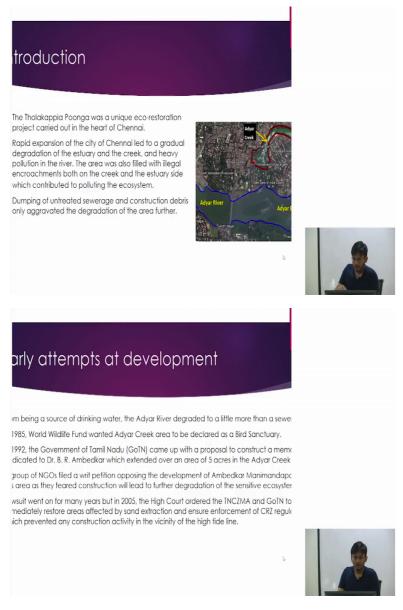
Infrastructure Planning and Management Actor Mapping and Social Network Analysis Part 2

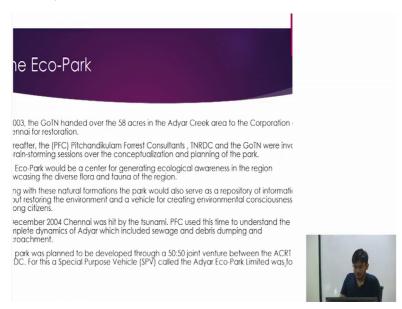
(Refer Slide Time: 0:15)



This is the Adyar Poonga gas, basically the plan good develop and eco-park in between the city of Chennai, so the park where you can see the Adyar creek that will the phase 1 of the project and Adyar estuary will be the phase 2 of the project and, so these areas were initially very clean and the River which flows was of drinking potential but due to dumping and encroachment and other illegal activities in degraded and became just like a sewer drain, so in 1985, the world wildlife fund ask the Adyar creek to be developed as bird sanctuary, then later on in 1992 government of Tamil Nadu came up with a proposal to construct a memorial of Dr BR Ambedkar.

But the NGOs over there assume that this was an activity to develop other buildings and which will, in fact, degrade the Adyar creek even more, so is NGOs filed a lawsuit and a case went on for many years but in 2005 High Court ordered Tamil Nadu TNCZMA and government of Tamil Nadu will immediately restore areas affected by sand extraction and ensure enforcement of coastal regions, regulations, which prevented any construction activity, so during this time NGOs said that you cannot develop these because of some rules and then government said that is rules are not valid because of some other reasons, so there was lot of fighting in the court.

(Refer Slide Time: 2:40)



But eventually government of Tamil Nadu, handed the 58 acres of Adyar creek to Corporation of Chennai or developing this project, the PFC consultants were selected to go ahead with it, this eco-park was also to be the centre for generating awareness of the ecology and protecting the nature, so in December 2004 Chennai was hit by the tsunami and all the progress were stopped and eventually was delayed during that time PFC consultants did some other survey about what exactly in situation in Adyar was.

So they found out that it debris and illegal dumping, which used to happen and how to deal with it, they came up with a plan, so after this are special-purpose vehicle was set up between ACRT and Tamil Nadu road Development Company for specially developing this Adyar ecopark.

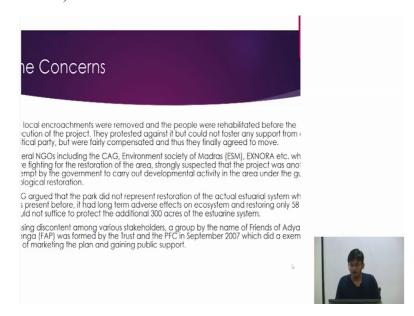
(Refer Slide Time: 4:03)



This was in 2004, end of 2004, in 2006 because of the election, the government changed and rework, they were not particularly supportive of this project, but due to pressures from civil society and insistence of PFC and other administrative officials, they decided to took up this project, so than 100 crores was also set aside for developing this, it entrusted their responsibilities to Tamil Nadu urban infrastructure finance service Ltd.

So they also created this new Adyar Poonga trust, it comprised of all the relevant government agencies and departments like Corporation of Chennai, Chennai Metro development authority and Chennai water supply, so because of having all of these relevant government bodies on its board, they were able to manage other issues like dumping of sewage into that creek very effectively in later stage.

(Refer Slide Time: 5:30)

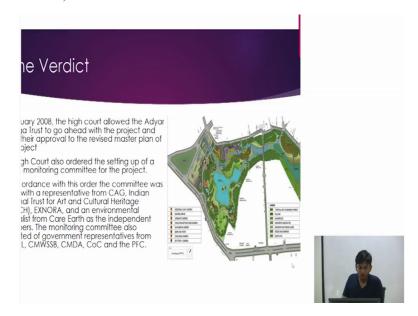


So still there was a lot of concerns like the local people which were around that area, they needed to be resettled what then they protested that we do not want to go away from here, but they did not actually achieve any political support and finally they had to move, NGOs also, so now earlier in the High Court ruled they were, so there was some rules that are ever in future if this will be developed, Adyar creek park will be developed then all the stakeholders need to be told about it well in future.

But NGOs were not told this time and so they approach government, basically. Their argument was that park did not represent the restoration, but it was actually carry practiced by government to develop other construction, they also argued that only developing 58 acres of the creek would not suffice and the whole 300 acres need to be developed which they had actually planned in phase 2.

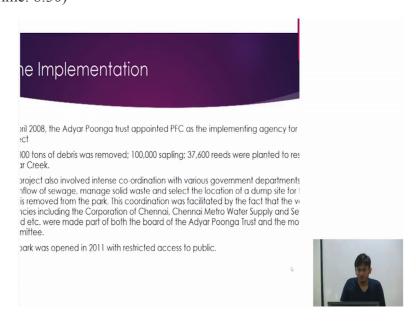
So, sensing discontent among various stakeholders, by the name of friends of Adyar Poonga was formed and they did a very good work in marketing this project so that they got the public support, so basically they ask the school students to visit over there, there were field trips around 50 schools visited, they also set up some competitions which was heavily publicised, so people want to know about it around 50,000 people attended the same eco-park and they were quite happy with it.

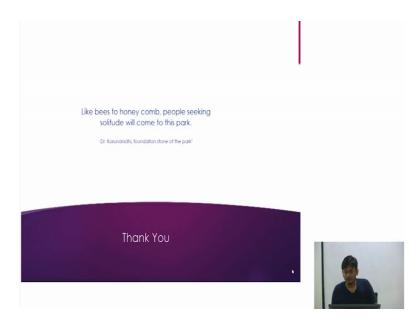
(Refer Slide Time: 7:34)



So finally the verdict was High Court Adyar Poonga trust to go ahead with the project and give their approval to the revised master plan and is which uses the revised master plan, so it has a lot of flora, fauna, unique migratory birds travel over here, yes, so basically the High Court also ordered the setting up of a citizen monitoring committee for this project and all the relevant stakeholders like CAG, which was the NGO, Indian national trust for Art and cultural heritage EXNORA another again NGO all of these stakeholders were included in that committee.

(Refer Slide Time: 8:30)



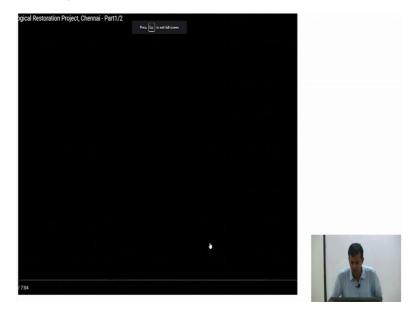


So now, finally, during the implementation PFC was again appointed as the official body for implementing this 150,000 tons of debris was removed, 100,000 sapling, 36,000 these are just the numbers, but they did very good work, so the project also involved intense coordination with various government departments to arise the influence of sewage, manage solid waste and select the location of dump site from debris removal for the park, so this coordination was facilitated because of support of various stakeholders.

So they felt like they were actually included in the decision-making part and not just for the sake of inclusion. That is why all the approvals, guiding approvals were quite easy and it was, I think completed within 2.5 years, so finally it was opened in 2011 with restricted access to public because they fear that public would again deteriorate it, but within 3 years it was opened fully to the public.

So the next part phase 2 shall be continued, but there are various other problems with it like the rehabilitation of the people who were there is not as easy as it was in the previous case because, they are already rehabilitate from certain part of the Chennai and now again, they were also affected by tsunami the most, so everyone has empathy with them, so let us see how it happens.

(Refer Slide Time: 10:27)



So few things I want to sort of highlight, hopefully everyone has a sense of the number of stakeholders right, that had a stake in this project right, so you call has somebody has a stake, the number of organization that are listed a large, how many of you know where the Adyar Poonga is? How many of you know where the Adyar Poonga? Actually pretty close to IIT, if you actually go from here to Marine Beach you will pass it, but now I think it is open for visitors only before 6 o'clock or something like I think I am not sure if that still holds in the morning, so I am to go there very early or I think you can requisition and that can be some guided or at least used to be in that case that you know school could take a bunch of students. I am not sure if it is that case.

Now okay, so what I wanted to do is yes, I mean I do not have time to play the video because we do not have enough time at about 15 minutes, but maybe I play the 1st few minutes and just see what it looks like and then go on a little bit of analysis.

(Playing video: From 11:26 to 14:54)

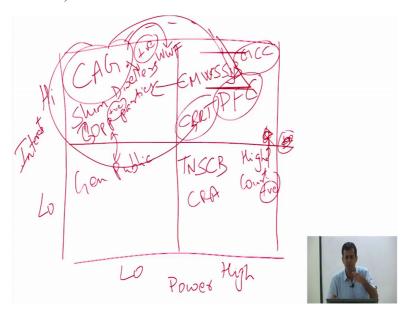
Man is a fundamental part of nature, interconnected and interdependent with all that we see as life on Earth, but unplanned urban development has in its cause created an artificial world which has disconnected man from his and environment, the Adyar river runs to the south of the city Chennai, curving gracefully into a creek for meeting a Bay of Bengal at the estuary, increase in population, encroachments and disregard for the sacred of the river system has resulted in the water is being used as a garbage dump and an F lout and Suoj outlet for the city's population.

This has resulted in severe health and pollution problems that decay affected residents of the city. A new global consciousness is now emerging for an environmentalist, sustainable cities, this consciousness is being reflected in a plan to restore biodiversity of the Adyar river estuary and creek regions, in a unique government led initiative several agencies have together and plot there ecologists to create a sustainable design for the Adyar Poonga ecological restoration project.

The vision of a project is to recreate with as much fertility as possible, the estuary eco-system or the Adyar river and creek area in a way where people can experience and understand the dynamics of rejuvenating the environment and thereby develop a health respect for it, the Adyar Poonga trust has been formed to execute the Adyar Poonga eco-restoration project in two stages, 1st to restore the creek area at 58 acres with Public participation and 2nd to secure creek and protect the entire estuary system of 358 acres.

A draft master plan has been prepared for the 58 acres, the creek act as the retention area for storm water, controlling floods and replenishing the groundwater, idle water from the estuary enters the creek every day, creating the unique blackish water ecosystem as reservoir of biodiversity, a pollution comes from both the urban run-off and river.

(Refer Slide Time: 14:56)



Anyway, so you guys can seem more of it, just wanted to give you a sense, but clearly there is two-parts to this, one is cleanup the existing ecosystem and seconds to create a much more ecologically, friendly, you know, ecosystem, so what I wanted to do. Okay, so phase 1 is done right, as they said in a video and as Parthik was presenting 58 acres has been done, now there

are another 350 odd acres had to do right, somewhat similar again ecological restoration etc right.

So if you are going to do this now let start looking, last draw metrics. Okay, this is maybe power, this is low, this is high and this is interest and this is low and this is high. Okay, who do you think are the stakeholders involved in phase 2 and where should we put them? Let us sort of do that exercise right now on phase 2, yes, government of Tamil Nadu, but should I put in government of Tamil Nadu as one monolithic actor, what is government of Tamil Nadu? Yes.

So give me, so government of Tamil Nadu is an umbrella right, there are several agencies within the government of Tamil, so 1st thing is sort of to understand what is the unit of analysis? Right, absolutely government of Tamil Nadu is the stakeholder right but government of Tamil Nadu in some way is a concept the way it works is through a number of departments right, so who are the specific stakeholders Harsh? Corporation of Chennai. Okay, Corporation of Chennai, now it is called a greater Chennai Corporations, so we will use GCC instead of COC, where should I put them?

High-power, higher interest, there are okay. All right, I am just going to democratically do whatever you guys want and then we will sort of yes, slum clearance board, the Tamil Nadu slum clearance board. Okay, where are they? Very important player because there are slums to be cleared and resettled okay, in this high-power, high interest, high-power low interest okay, what you like high-power, low interest or high-power, high interest, what do you guys want to do?

Low-power, high interest okay, both of you seems to see high power, low interest see, but this is interesting right, we cannot really make up our mind is it not so clear right, they have high-power do they not, they have high interest, I mean how interested are they in this, they have got so much of slum resettlement to do, how interested are they in this? Right and how much power do they really have? Maybe it is high, maybe it is low okay, so let us just say Tamil Nadu slum clearance board okay, so again, it is a point this is not a very easy exercise right, it involves paper sitting, discussing, sharing points of view yes, okay, who else?

The Chennai Metro waters sewage and drains sanitation board right, Chennai Metro water. Okay, where would they come in high-power, low interest, high-power, high interest right, so high-power high interest okay, so again, remembering interest can be positive or negative

right, when I say interest in the project, so Chennai Metro water, it is becomes easier, the problem with the pollution seems to be that sewage is being led into that creek and sewage is

being led into by Chennai Metro water ride.

So they certainly are stakeholder right, so how much power do they have to influence a

project, not quite sure right, but clearly if you asked them to clean up their act, then they may

or may not necessarily be very interested in the process, you certainly, the interest would

certainly be high, power not quite sure right, could even put them, in fact, what I will do is I

put the GCC or I think I can even, let us put the GCC, I think the relative position is also

important right, so GCC is on the far right, so it is a really high-power, really high interest.

Chennai Metro water certainly high-power by somewhat lesser interest is what we sort of let

say, I am sorry higher interest lesser power right, who else? Okay one by one, PFC right, so

those are the guys who were developing the project right, so where do we put them? They are

definitely high-power, high interest because they have calling the shots for the project and of

course there are highly interested alright, they may not be powerful because the people but

the influence the design of the project. Okay, so again, but these are good questions right,

these are the debates that we should have.

We know are they powerful enough to influence people, maybe not are they powerful enough

to influence the design absolutely, so where should we place them? Right, so they are

powerful, but where do I place them in the network, yes, NGOs like CAG, consumer action

group okay, where do you put them? Low-power, high interest, where is that? Here, this one

right, no, no low-power, high interest sorry, so NGOs like the consumer action group, high

interest, but again, how much power do they have? Again, that is debatable, some people will

say look CAG has an entrance reputation, courts will take what they say very seriously,

others might say yes they are just troublemakers, so yes, good point Varun.

Varun: (()) (20:19)

Prof: So people living, so remember what were the slums that were there earlier? Srinivas

Puram and Raja Gramin Totem right, so of course those are gone, but there are other slum

dwellers okay, so let us just say the slum dwellers where do we put them?

Student: Low-power high interest.

Prof: Low-power high interest okay, now and negative interest right, so interest can be its high positive or high negative right, so we are looking at the modular interest in some ways, but again, this is interesting right, because this is certainly the case in phase 1 right, so these guys really did not have much amount of voice and they got pushed out pretty easily right, there was not as much, but that is probably because it was 58 acres and these were just tiny slivers of slums that had to be resettled.

I am not sure about the data, but if there are a whole lot more than just collectively because there are a lot of people, they might actually start shifting towards the right, we know that they have high interest right, they may also start having high-power right, if there are large enough number of people that can actually influence for instance and electoral campaign in that constituency. Okay, they may have high interest right, so again things to think about. Okay, who else? Urban infrastructure, so two-faced sale right, which is also, I do not know how clear it is in that case.

There is a Tamil Nadu urban infrastructure financial services Ltd, which is a cause a government organization, what the Adyar Poonga trust and what is now the Chennai rivers Restoration trust, the same thing, it has been renamed, is actually a part of that, so Chennai River Restoration trust, let us call them that, because I think it is much more relevant, where does Chennai rivers Restoration trust fit in? Adyar Poonga trust whatever, same thing as these guys are developing the project. Okay, other stakeholders maybe okay, so then, so let us just list out few other stakeholders, it takes too much time to map everyone on, who are some other stakeholders?

Student: The general public.

Prof: The general public. Okay, very good. Let us put general public, where do I put them? Okay, so maybe general public goes here because general public, right, there are residents, so obviously they have high interest, general public like me as a citizen when Adyar Poonga phase 1 was going on and I lived in Chennai, et cetera, I was somewhat interested in the project, but did not take really a keen interest, I have virtually no power to influence anything right, so general public might sort of fall in their great yes, Harsh.

Harsh: (()) (22:43)

Prof: Absolutely and by the way, this is a very dynamic graph, I cannot just draw it today and sort of just laminated and say this is the graph or the project, 6 months later, things might

change, organization may no longer exists, Chennai River Restoration trust is an organization something else might happen to it right, so government departments might merge right, new NGOs might come in, international NGOs might come in right, so this is highly dynamic okay, so at any given point of time, and that is why we need to start revisiting this yes.

Student: (()) (23:12)

Prof: Absolutely, where would you put an opposition party? So opposition party may not have high-power, they might have low-power, they might have high interest right, so where are we here, low-power, high interest opposition parties I mean kinds of dependence of how or what the government is looking right, okay. Today's political situation in Tamil Nadu you might have a certain interpretation of a where they need to be okay, so that are tons of other government organizations, this Chennai Metropolitan development authority right, so etc, so we can put in more government actors that is one major actor we have not put here.

Well, world wildlife fund fine but, I would assume it would be somewhere with the CAG etc, maybe a little more powerful because their international so maybe I want to put WWF here, while CAG may argue we are actually local, we are actually more powerful, we know more people here, so that is debatable, one very critical actor we are missing.

Coastal regulation authority fine that is also important actor that is not here, where we put them Coastal recreation authority, low interest high-power right interesting, so they have high-power because they can set the regulation, there are coastal regulation authority, they are not really concerned about this project a low, so where are? So that is high-power, low interest coastal regulation authority.

The judiciary, the High Court extremely important it actor because we can see how many of these disputes are actually ending up in court right, I want to build an Ambedkar Mani Mandapam, you know people say yes, people say no, it ends up in court right, where is the court here, High Court?

Student: (()) (24:54)

Prof: High-power high interest, high-power low interest, high-power low interest, I go with you right, the High Court right, they have a lot of power obviously what they say has to stand right, but they do not have an interest directly in this project necessary right, their function is to uphold the Constitution and you know pass equitable judgement on cases that are put in

front of them etc and not necessarily to either help or hinder the progress of the Adyar Poonga, so this is an again, this is an exercise that we can carry out in much larger detail right, but now it actually gives us, 1st of all, it gives us a sense, who are the stakeholders on the project? 2nd, it is gives a sense of you know, if one I write system citizen writes a letter should I deal with it or not.

If PFC comes in with you know some complain about the project should I take it seriously or not or if the Greater Chennai Corporation has issues with storm water, so the Greater Chennai Corporation says I am going to let out all of my storm water from the storm water drains into Adyar estuary and from there is going to go into the project, into the sea, that may or may not be good from PFC is prospectives because you also want to control the water flow going through the creek right.

So now these are stakeholders that have to be very actively managed because they have high interest and high-power or this kinds of projects. Okay, you want to try to convince the CAG to start looking little bit positively at the project right, similarly you want to start trying to save these stakeholders can sort of move positively up here, these stakeholders can move positively well or you know not necessary move positively up, but can they be positive with regards to the project right.

What are you going to do with the slum dwellers? Okay, so it depends, so each of them have a stake in the project and sort of mapping it out at least tells you who are the critical once, right, who is demands we absolutely we need to keep in mind, so PFC comes up with some ideas that is very, very difficult to implement, then we really need to invest a lot of time and resources in understanding what they have to say right, slum dwellers yes we do. But they may not have as much power so we need to find other ways to convert it positively, maybe we offer them a really good resettlement package elsewhere right.

So this is step 1, but step 2 is also these people are all connected right, so these people are not acting in isolation, so maybe CAG has some connection with PFC, I mean they all are in some sense environmental and non-profit groups in some sense, maybe the slum dwellers have some connection with, slum dwellers and the opposition parties are connected. Okay and in turn the opposition parties are connected to the general public. Okay, etc right, so maybe there is no connection between Chennai Metro water and the greater Chennai Corporation right, maybe there is a structural hole that, so these guys are not talking to each

other and therefore it becomes very difficult for the Chennai Corporation to do something and prevent sewage from flowing into the Adyar estuary right.

Maybe the Finance Department is an important player here because they will have to come out with the money right, so I think this is the 1st step in, if you do not manage the stakeholders sooner or later CAG will go to court, they will get or somebody will go to court against the project, you will be in a big dogfight, maybe it will go into your favor or maybe it want, what we can guarantee is the project will be delayed, large amount of resources will be consumed, when the decision comes even if it is in your favor the project cannot tours itself, might have changed, the creek might be in a completely different situation than when it was earlier, you might have to do your studies again, all kinds of complications.

So therefore not managing stakeholders is not an option right, how do I manage stakeholders? Let me 1st list them out, let me 1st taken out who are the once can really influence the project, who are the ones that are? So the 2nd level of influences, then let me try to see who is linked to each other and how can I build the most effective coalition right, so if CAG really has a really good repo with the slum dwellers right, really good repo with WWF right, CAG actually has with PFC, with CRRT because you know remember that last slide that Parthik presented intact and CAG anothers were also on this monitoring committees right, for the project.

So maybe if that is the case, CAG becomes a very central actor right or they may be very important broker, bringing together other activists, the general public, you know some of the government organizations etc because they are this platform, in some cases IIT Madras, sometimes become that platform right, because we are sort of neutral, we are able to sort of bringing people from government, we are able to bringing people from private industry and have roundtables on campus where we can actually trade this kinds of views, we become the brokers in the social network right.

Otherwise, there is a big distrust between the environmental groups and government right, but environmental groups might trust IIT because we are neutral, we are academic, government might trust we are also Central government Institute and therefore we could actually be the broker, the boundary spanner that fills that structural hole, so maybe the situations, the ideas to get IIT Madras in here and say there is too many stakeholders we are not able to manage them, can you bring them together right, can we influence you and can you then influence both parts of this network right.

So that is the way in which we need to start thinking to manage stakeholders and that will in turn minimize all of these court cases this, that etc alright, okay, couple of hands went up, maybe couple of last comments if anyone has any.

They could but in this particular case that is an important point and you have to, so the Parthik point is PFC might have no power and Harsh was making a similar argument or Nandish one of you making a similar argument earlier right, now, and that is where it is important not to look at the surface right, to go down, PFC right is an organization from Pondicherry right, that has very deep knowledge on ecosystem rejuvenation, restoration, it is not a skill that I can very easily replace right, it is not something that a large contract Larson and Turbo can easily do right, it is not something that an Ernst and Young or a Pricewaterhousecooper or consultant can easily do this.

So therefore the ability to replace PFC right, may not necessarily be very high, but I agree with you in a traditional slum development project where I get a general contractor who is pouring concrete right, they may have very little power right, that is a skill that might be easily replaceable, one rates are fixed I can replace you bring someone else right, so we need to start getting deeper to form this matrices and as you can see it is not easy, we all do not agree right, but unless we come to some kind of agreement through collaborative discussion and etc only then can we start figuring out how to manage.

We have not got it how to manage people, yet right and these guys did a bunch of things, you know they did painting competitions in schools, so that schoolchildren would feel a sense of ownership through that their parents would sense of ownership certainly there are many things right to bring, they created this Adyar Restoration trust, they brought in CAG and intact to monitor to give them a slice of the pie.

But we are not talking about a strategies here which is saying step 1, if you want to do projects better, realise the stakeholders can affect projects, start systematically looking at ways in which you can list and map and figure out what your stakeholders landscape looks like right, then you figure out what an appropriate strategies, is should I hold a painting competition, should I do advertising campaign, should I give this peoples some responsibility, should I give this person some equity in the project or what do I do right, there are tons of strategies will discuss a few more of them as we go forward in the class right, with this is just a we start, so tool number 1 in your toolkit on, set of tools number 1 in your toolkit if you like or how do I build projects better yes, good, so we stop here.