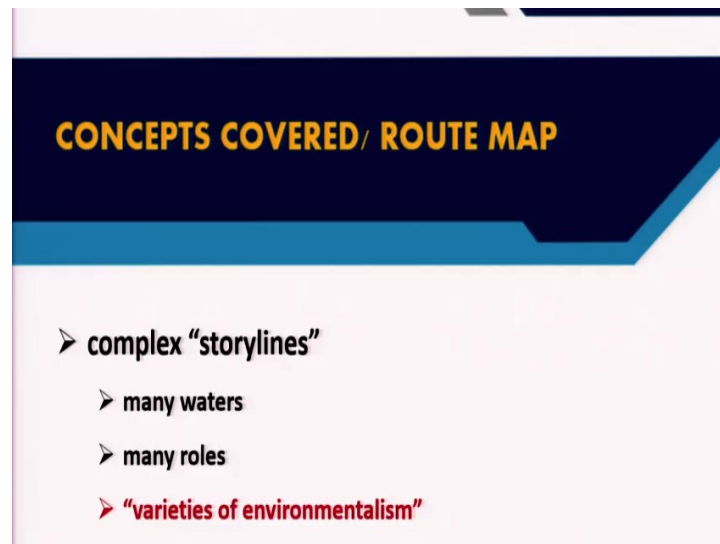


Urbanization and Environment
Prof. Jenia Mukherjee
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Module - 04
Urban environmental social sciences frameworks
Lecture - 35
Urban Environmentalisms: Case Study 1: The Adi Ganga Bachao Andolan

So, now I will be discussing Case Study 1, which is the Adi Ganga Bachao Andolan to kind of complicate urban environmentalism or rather more specifically the bourgeois environmentalism formulation that we had discussed earlier in the last presentation.

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So, this story is all about the Adi Ganga Tolly’s Nullah stretch and I would be covering complex story lines you know surrounding the river and the canal stretch. So, because this is the story of many waters partly excavated, partly natural and a part of which was excavated you know on the paleo channel that is a Moribund river and you know newly excavated part of the canal.

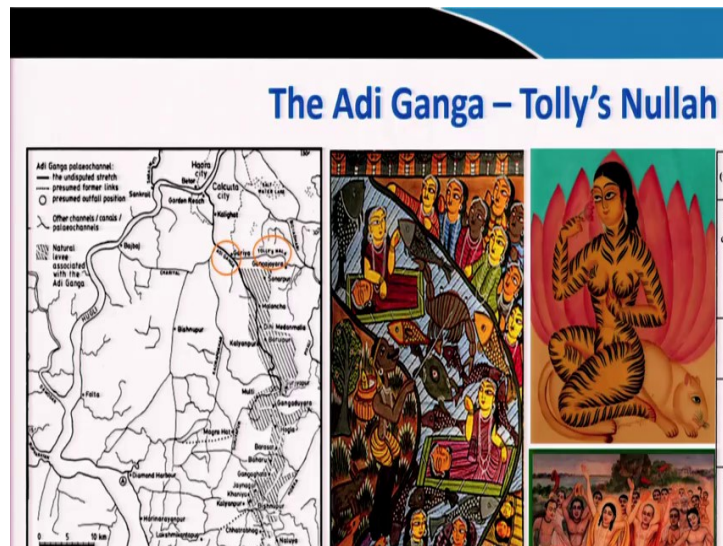
So, it is the story of many waters where the canals which also remain connected to the rivers and also finally, you know some connection with the delta and the wetlands etcetera. Many roles, because like from navigable canal to Nullah and also like the emblem of sacrality, but at the same time you know as the, as a track where like waste

can actually be disposed. So, many roles, multiple roles and varieties of environmentalisms.

So shades, various shades and a plural environmental activism surrounding not only the fate, but also surrounding the protest which actually try to; I mean kind of ensure that survival of the river on one hand, but also the survival of the squatter communities inhabiting the bank of the canal and the protests sometimes they converge. But you know in this case so, far as the Adi Ganga Tolly's Nullah stretch is concerned, I mean the protest groups they definitely also diverged you know so far as their agendas were concerned.

So, this whole story actually for me kind of finally, would finally complicate bourgeois environmentalism and it will absolutely make things clear; make the whole thing clear that no linear you know no linear conclusion can actually be derived so far as this complex saga of Kolkata's urban environmentalism concerning Tolly's Nullah is actually concerned.

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So, a brief history about this particular river. So, initially definitely if you see this map, it was the river and this was an outlet a medieval outlet from the river Bhagirathi Hooghly. So, this was the Adi Ganga, which you can see here from Garden Bridge from Hastings down the line here to Garia and then to the, thus I mean passing through the different parts of South 24 Parganas.

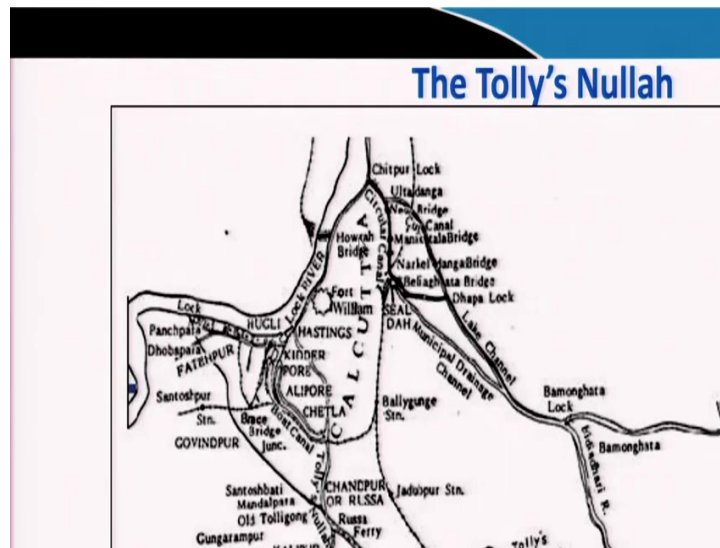
And definitely this river has been mentioned in our medieval Bengali literature. For example, in Manasamangal Kabbo by Bipradas Pipilai, Mukundaram's Chandimangal Kabbo, then Krishnaram Das Raymangal and also in Chaitanya Bhagabat this river actually has been mentioned.

So, it was, it has been mentioned as the sacred river and like in this literature you we also get to know about the different strand line you know communities on the banks of the river, and also we get to know different types of representation. So, there is also you know this representational part of this.

And what is also quite important is that you know later when the, in different colonial accounts for example, in the account of Hunter we get to know about the Adi Ganga. And how so, Hunter writes that the people still worships you know the river, the Moribund river actually and also they cremate the dead bodies near the tanks that have been dug by using the water of the river which has become a paleo channel and a Moribund river you know during the recent times. So, this is what we get from the colonial historical sources.

Now, you this map is very important because I may be, I will again show the this map to you to so that you can have a better understanding of this Tolly's Nullah and Adi Ganga stretch because often there is some confusion about you know what which part is the Adi Ganga which part is the Tolly's canal etcetera. So, it is important for us to you know be clear about this geographical details.

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So, Tolly's Nullah. So, this is the Tolly's Nullah you can see it here from Hastings to Garia and then finally, meeting the Bidyadhari river right and you see this map here. So, what happened is that in 1775 William Tolly, he actually asked for permission from the authorities.

So, he wanted to excavate a channel which would actually link serve as the connection between the Bhagirathi Hooghly river and the Bidyadhari river. And the idea was that you know he wanted so, he wanted I mean approval in terms of land and the whole idea was that he wanted to excavate the canal at his own expense.

And in the contract the idea was that he would levy one percent. So, he would levy tolls at the rate of one percent on the price of goods or commodities which would be carried by country boats passing through this route. So, he wanted to kind of excavate a 17 kilometer long canal from the Hastings to you know to the; I mean from Hastings to Garia and then you know finally, connecting to the Bidyadhari river you can see it here on the eastern part right.

And so, what he did was that he excavated part of this paleo channel. So this is I think roughly like 9 kilometers so or maybe 8 kilometers from Hastings to Garia. So this, so, he followed the same old route of the Adi Ganga. So, which he further re-excavated and this is the new excavation which was done. So, from Garia to finally, you know the I mean the entire part where finally, the river or the canal met the Bidyadhari river.

So, this 17 long, 17 kilometers long canal which was re-excavated by Tolly's Nullah, but the re-excavation was only done from the Hastings to the Garia stretch and the other part was excavated by William Tolly. So yes, so, this is the technical design which I also showed you when we discussed you know HUPE.

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Years	Boats passing through Circular Canal	Boats passing through Tolly's Nala	Total	Articles	Name of Chowkey	Number of Boats	Mundage by Canal Measurement	*Mundag of Cargo by Estimatu
1855-56	87,780	84,215	171,995	Coal	Samookpota	.....	.....	.....
1856-57	92,475	73,776	166,251		Russah	.....	.....	.....
1857-58	97,095	77,139	174,234		Kidderpore	203	2,12,000	1,23,550
1858-59	106,200	72,063	178,263	Imported Fabrics	Do	.....	.....	.....
1859-60	91,133	96,579	187,712	Rice	Do	4	900	300
1860-61	135,410	8,365	143,775		Do	4,361	13,63,300	8,40,975
1861-62	141,953	93,794	235,747		Do	3,623	1,02,275	75,725
1862-63	145,727	68,737	214,464	Jute	Do	132	56,225	29,250
1863-64	145,778	87,274	233,052		Do	14	3,3,050	15,700
				Indigo	Do	.....	.....	.....
					Do	5	1,150	1023

And definitely it was a very significant canal because it also I mean it connected Kolkata with its larger hinterlands and several commodities and articles and of course, country boats pass through this particular canal. So, if you go through the archival reports and colonial documents you will see the that how you know navigable this canal was.

And not only that this canal was aggressively you know maintained and restored by the colonial officials because of course, it generated profits. It provided revenue earnings to the colonial exchequer right.

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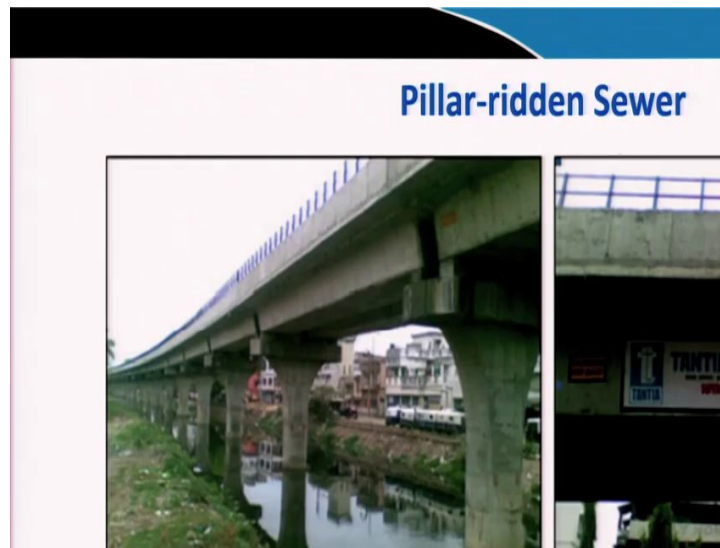
From Navigable Canal to Nullah		
Boat traffic in Circular and Eastern Canals system and Tolly's Nullah		
Canal route	1888-1889	1898-1899
Calcutta and Circular Canal	90,090	65,030
Tolly's Nullah	78,219	48,356
Source Bandopadhyay (2018, p. 65)		
Tollage in Circular and Eastern Canal System and Tolly's Nullah		
Canal route	1888-1889 (in rupees)	1898-1899 (in rupees)
Calcutta and Circular Canal	4,22,869	2,82,636
Tolly's Nullah	1,32,292	71,785
Source Bandopadhyay (2018, p. 65)		
Major drainage basins and canal networks within KMC		
Major drainage basins	Canals and branch channels	Boroughs covered
Manicktala basin	Circular channel Belegata channel New cut channel Kestopur canal Eastern drainage channel	III
Calcutta basin	Dry weather flow channel Storm water flow channel Central lake channel	II, IV, V, VI, VII, VIII, and (part)
Hooghly basin	Hooghly river	I (part) and XV (part)
Tollygunge Panchnagnam basin	Tollygunge Panchnagnam Main canal Intercepting channel Leak channels Guniagachi branch channel Suti canal	XI (part) and XII (part)
Tolly's Nullah basin	Tolly's Nullah Boat canal Koorapukur canal Western channel Renua canal	IX (part), X, XI (part), and (part)
Manikhal basin	Manikhal canal	IX (part), XIV (part), and X

So, and, but unfortunately after a particular point of time the canal started losing its prominence and it started getting converted from navigable canals to Nullah. Now, there are several reasons you know which actually led to this transformation and we do not really need to go into these details in this particular lecture focusing on urban environmentalism.

But yes, definitely I would like to mention that; I mean this degradation needs to be contextualized within the larger political economic and historical imperatives of the statecraft, but yes after a particular point of time you can see how the boat traffic started deteriorating. And most of these canals they then only I mean they; I mean they got converted from arteries of trade and communication to I mean channels just kind of carrying waste or waste water.

So, we can see the major drainage basins of Kolkata and you can see that Tolly's Nullah basin is actually one of them.

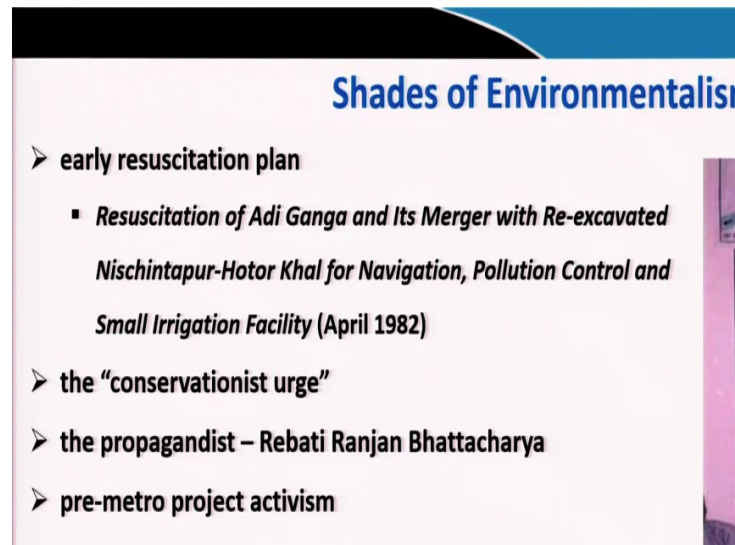
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So, the, I mean the condition of a canal it started deteriorating from the early; I mean from the early decades of the 20th century itself, but still it was functioning well in terms of its carrying capacity so far as drainage sewerage needs of the city were concerned. But you know recently during the contemporary times in 2001-2002 when the metro railway project you know it was approved on the Tolly's canal, so the three; so 300 pillars it kind of I mean were constructed on the Tolly's Nullah the river I mean almost died, its official death.

So, the canal got chalked choked and almost slaughter. So, this is the story of almost you know the demise of the canal, but it is still functioning. So, that is another part of the story, but for now we will see you know the kind of protest the kind of environmental activism or the waves of environmental activism that the city of Kolkata visualize so far as the preservation of the Tolly's Nullah is concerned.

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Shades of environmentalism. Now, much before actually the sanction of the metro plan or even nobody knew about this metro plan during the early part of the 1990s, during that time only Rebati Ranjan Bhattacharya, he is actually he is considered as the propagandist. You know the propagandist who almost led the battle alone right. He was actually leading this battle alone during the 1990s and later he was joined by the, by other intellectuals and civil society groups.

So, he filed a writ petition where he ask the, for cleaner and a restored you know Adi Ganga Tolly's Nullah stretch. But before you know Rebati Ranjan Bhattacharya filed this writ petition Tollygunge Development Council another NGO of Kolkata.

So, I actually, I was lucky to access some of this documents, unpublished documents of course, from the private collection the private library of you know another environmental scientist who of course, played a very important part in this Adi Ganga Bachao Andolan. So, we will discuss him later Mohit Ray.

So, from his private collection I came across you know the; I mean two three plans by this Tollygunge Development Council. So, the first plan was I mean the, it was written in 1981 and it was also submitted to KMDA, Kolkata Metropolitan Development Authority. But in 1982 April they wrote and submitted another more comprehensive plan which is known as Resuscitation of Adi Ganga and its Merger with Re-excavated Nischintapur Hotor Khal for Navigation, Pollution Control and Small Irrigation Facility.

So, there they provided whole lot of recommendations and where they justified that why Tolly's Nullah need to be you know restored. So, and like the government, so the authorities said that a task force will be, I mean will be formed and commissioned to accomplish this particular cause. But unfortunately plans after plans were submitted, but I mean the plans unfortunately did not visualize any execution.

But after that in 1990s, Rebati Ranjan Bhattacharya became very active you know to promote to this particular cause of saving the river. And this period I would like to kind of categorize as pre-metro project activism. And during this time we will not find many people I mean participating in this particular activity, but definitely TDC or Tollygunge Development Council was there and Rebati Ranjan Bhattacharya he was there.

And so, he filed a writ petition in 1996. And in 1997 so, a committee was actually formed comprising the Commissioner of KMC; Kolkata Municipal Corporations then the Chief Engineer of KMDA; Kolkata Metropolitan Development Authority and the Chief Secretary of Irrigation one of its department. And so, the whole idea was to do really to do an assessment on the e flow and drainage capacity you know of the Tolly's canal.

And what happened is that after some time in 1997; so, in 1997 only you know they did this assessment and they came up with I mean, they came up with the finding that at least like rupees 40 crores needed to get sanctioned if Tolly's Nullah needed to be you know kind of cleaned and restored properly.

So, R. P Sharma who was the then Chief the Financial Advisor of the National River Conservation Directorate, NRCD, he came and he you know he saw the situation and he pointed out and he said and you know ask the committee to actually submit another fresh report, but there were some there were some delays. And when the new; I mean when the report was finally submitted then NRCD they sanctioned only 29 crores and 50 lakhs for the restoration of the Tolly's canal.

But the idea was that of course, so due to I mean as this beautification initiative and conservation efforts would be implemented. So, the squatters inhabiting the canal stretch of the both side of the canals this squatters need to be cleaned, this squatters need to be cleared actually sorry, the squatters need to be clear. So, along with the cleaning up of the Tolly's canal, which was considered to be part of the Ganga and that is why the heritage argument was so much there.

So, along with the cleaning of the river the squatters needed to be cleared. So, displacement and eviction had to be done. But during that time there were protests by the shanty dwellers who were mobilized and backed up by grassroots organizations, who demanded for you know for rehabilitation plan and efforts, but neither the Ganga was clean nor the squatters were evicted nor any rehabilitation plan was actually formulated. So, I mean nothing was done actually in that sense.

In the meantime in 1997 CEMSAP which is Calcutta Environment Management Strategy Action Plan they came up with a detailed plan called Management of East Calcutta Wetland and Canal System where they pointed out that you know in the East Kolkata Wetlands and the Functioning of the Canals of Kolkata should be taken up as an integrated project.

And they and in this plan, this plan clearly mentioned and fleshed out why restoration of the Adi Ganga or Tolly's Nullah stretch was important because you know and I mean why it was important to connect you know the Tolly's Nullah with the Moribund Bidyadhari southern, south; southern part of the Bidyadhari river and also the defunct Piyali river. And how like the larger eco tourist needs and economic interest can be taken into consideration together if the management plan can be executed successfully. But again nothing was done you know as such.

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AN APPEAL

To
Honourable Minister of Railways,
Government of India
Honourable Minister of Environment
Government of West Bengal

5 June, 2000

You must be aware that Tolly's Nullah, the original course of the Ganga (Adi Ganga), is in a sordid state. This heritage river is now polluted and nearly a dead one. Though there are a number of schemes to clean it, nothing much is taking place. We are happy to know about the recent plan to extend Metro Rail from Tollygunge to Garia. However this railway will be laid on pillars constructed on the bed of Adi Ganga. This will exterminate the navigability of this river for good. There will be impact on environment. We appeal to you to hasten the cleaning of Adi Ganga and review the Metro expansion plan and to enquire alternative so that this heritage river is not lost forever.

(Translated from Bengali)

Sankha Ghosh (Poet),
Ashish Ghosh (Ex Director Zoological Survey of India),
Prof. S.C. Santra (Head, Environmental Sciences Dept. Kalyani University),
Shirshendu Mukhopadhyay (Novelist),
Prof. Partha Chattopadhyay (Director, Centre for Studies in Social Sciences Calcutta),
Shamoli Mitra (Actress and Playwright),
Bhola Nath Aich (Former Chief Engineer, Irrigation & waterways, Govt. of West Bengal),
Rehatai Ranjan Bhattacharya (Environmental Activist),
Anil Dutta (EX MP Bar-at-law),

5 June 2000

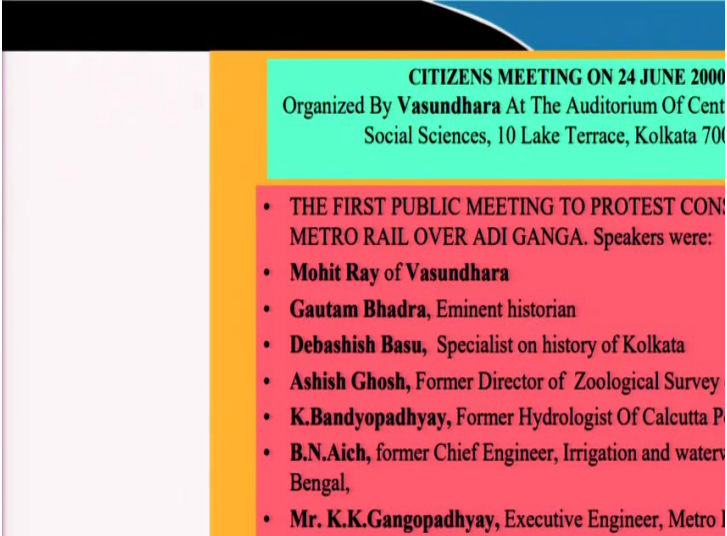
The assurance a
surfaced that the
300 pillars over To
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The river was sh

So, and in the meantime there I mean it was getting clear by 1999 that metro railway extension project was planned at the cost of the river the Adi Ganga Tolly's Nullah stretch. And immediately an appeal was submitted by the leading intellectuals of the city to the Honorable Minister of Railways, but the minister assured that you know that yeah after lot of brainstorming and after consultation with several other authorities and other stakeholders only the plan will be finally implemented.

But unfortunately you know this assurance appeared to be false when it gradually surfaced that the project would proceed by constructing 300 pillars over Tolly's Nullah dissecting the water body with 2 meter diameter reinforced concrete columns at 2 meter intervals with 5 headroom over the decks of the existing bridges in the reach. So, the river was already polluted, choked and degraded the metro project ensured its ignominious death.

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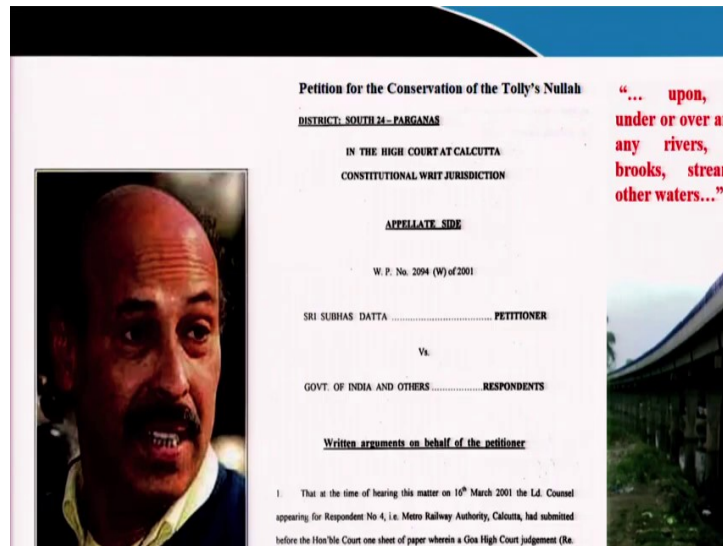
CITIZENS MEETING ON 24 JUNE 2000
Organized By **Vasundhara** At The Auditorium Of Centre for Social Sciences, 10 Lake Terrace, Kolkata 700

- THE FIRST PUBLIC MEETING TO PROTEST CONSTRUCTION OF METRO RAIL OVER ADI GANGA. Speakers were:
- **Mohit Ray** of Vasundhara
- **Gautam Bhadra**, Eminent historian
- **Debashish Basu**, Specialist on history of Kolkata
- **Ashish Ghosh**, Former Director of Zoological Survey
- **K.Bandyopadhyay**, Former Hydrologist Of Calcutta P
- **B.N.Aich**, former Chief Engineer, Irrigation and water
- **Mr. K.K.Gangopadhyay**, Executive Engineer, Metro

And this particular, or this particular you know action it immediately led to massive protest. And, but protest in the form of I mean this can be considered to an extent as elitist environmentalism or environmental activism because this was only through this was only through meetings and campaigns. And where the leading intellectuals of the city they met and they kind of discussed the, they appealed before state authorities. So, it was if not prayer and petition, but at least the petition mode.

So, you can see the name of this leading intellectuals from they were I mean people with different kinds of affiliations and with different you know capacities, roles and expertise, but at the same time all of them definitely had a conservationist arch in them. They wanted to, I mean definitely they were against the metro railway extension scheme on or through the Adi Ganga route.

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And along with meetings and campaigns judicial activism also followed. So, this is the ecological crusader of the city, who is Subhas Datta. I had an personal interview with him. So, I will discuss this right away yeah. So, he filed a petition for the conservation of the Tolly's Nullah in 2001 and unfortunately he lost the battle because. And why did he lose the battle? Because the archaic Section 11 of the 1989 Railways Act which is you know kind of part of the leftover of the colonial revised version of the Railway Act of 1890. It says that the railways it has the power and the authority to construct upon, across, under or over any land, any rivers, canals, brooks, streams or other waters; and that is why he lost the battle.

So, in the personal interview he told me that you know I fought like hundred cases in the green bench of the Calcutta High Court and I emerged victorious on 99 cases, and I only lost 1 case and this was you know this particular case of intervention of that Tolly's Nullah due to that metro railway scheme. So, it is quite pathetic.

And, but the activism continued, it remain undaunted. And people like Mohit Ray, so, environmental engineer sorry environmental scientist. So, Mohit Ray and several other like other intellectuals also joined him the scientists and civil society. So, and several NGOs like Tollygunge Development Council and people from Vasundhara Foundation, people from ENDEV; Environment and Development Society.

So, everyone I mean they join hands to point out that you know that this particular development project it he was not only unscientific, but it also, it was illegal because it violated EPA; Environmental Protection Act of 1986, which enacted a commitment to the United Nations you know Stockholm Conference of 1972.

So, they wanted preference of EPA over Railways Act, but you know I mean their argument or their petition I mean, it unfortunately it did not; it could not emerge as victorious. So, they lost the battle.

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Grassroots Environmentalism

- beyond “heritage” towards “survival”
- mobilization and leadership by grassroots organization
 - Uched Bachao Jukta Mancha
 - Association for the Protection of Democratic Rights
- role played by feminist organizations
 - Nari Nirjatan Pratirodh Mancha
 - Sanlap
 - All India Democratic Women's Association

Stretch
Hastings to Tollygunge to Garia to Sam...
Boat Canal to Nullah
Source CEMS

So, this is again. So, I when I started this presentation I talked about the shades of environmentalism. Same issue same cause, but different types different varieties of environmentalism in the city of Kolkata on the same issue, but the protesters having different agendas. So, this complicates you know then the notion of bourgeois environmentalism.

So, on one hand when people like Rebati Ranjan Bhattacharya, Mohith Ray and Ashish Ghosh and you know several other people they were I mean they were continuing the protest to ensure the survival of the river canal stretch. So, and definitely they also had a heritage argument in their deliberations.

On the other hand the grassroots organizations they were not at all concerned; I mean they were not that much concerned with the river, but they were concerned with the lives and livelihoods, the survival and sustenance of the squatter people, the squatter communities inhabiting the banks of the Tolly's canal.

So, because the idea was that you know the when the metro rail was implemented the pillars were constructed at least you know I mean displacement occurred at least for a stretch of like almost I mean more than 5 to 6 kilometers on both sides of the canal banks. So, I mean people that their homes their shanties were demolished right and they were displaced and evicted; they were displaced and evicted without any prior notification because they were squatters right.

So, Uched Bachao Jukta; Mancha UBJM, Associations for the Production of Democratic Rights; APDR these grassroots organizations they mobilized and they provided leadership to the people who started protesting you know against this ruthless and cruel displacements and evictions. Some feminist organizations also played very important part.

So, organizations like Nari Nirjatan Pratirodh Mancha, Sanlap, All India Progressive Women's Association and Maitree; where you know these feminist leaders they talked about the additional vulnerabilities you know and challenges of the women. Because along with losing shelter and livelihoods, the women were also losing their privacy and security and safety of course.

But, unfortunately you know the state, the city did not listen to the voices of this voiceless. And RAF was launched Rapid Action Force and elderly women, children they were, I mean they got injured, bruised they were beaten up. So, it is a very I mean ruthless and cruel saga of what happened in Kolkata unfortunately.

And you know I came across a report published by the Human Rights Law Network, HRLN. So, and they kind of compared you know the different kinds of evictions and

displacement that happened in 8 cities in India during the first decade of the twentieth century, and unfortunately Kolkata was part of I mean Kolkata was ruled by the left front government during that time.

But even after that unfortunately and I have to say this and confess that Human Rights Law Network report shows and validates how the displacement in Kolkata was the most severe and the most ruthless, so far as several other displacements that occurred against this development projects and beautification schemes in the different cities of India. And this is so, very unfortunate, this ruthless story of administrative brutality.

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So, yes I would do a more detailed analysis of this of case study 1 and case study 2 that I would discuss in the next presentation. So, again environmentalism or environmental activism that the city saw so far as the protection of the East Kolkata wetlands is concerned. And then I would you know after I finish the two case studies, study 1 case study 2, I would basically briefly you know provide my own interpretations and analysis about urban environmentalism.

And definitely you know why no linear conclusion is possible so far as urban environmentalism is concerned because it is urban environmentalisms. So, there are its in plural and every city has its own narrative even within a single narrative there are multiple narratives.

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So yes, I had familiarized you with the river canal stretch. I have talked about labor of history about this canal, how it was the navigable canal during the colonial times and then how it became I mean from artery of trade to a disposal channel. And then I talked I mean the I brought to the forth the context behind environmental activism.

And then I discuss the varieties or various shades of environmental activism or environmentalism comprising story lines surrounding clashes, convergences and multiple outcomes so far as the Adi Ganga Bachao Andolan is concerned.

Thank you.