Urbanization and Environment
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Module - 05
First Hand Narratives: Learnings from Research Projects
Lecture - 37
Translocal Learning for Water Justice: Peri-urban Pathways in India, Tanzania and Bolivia

So, now we enter into a fresh module, the a new chunk and this is from the first hand experience that I could gathered as lessons from my very own like research projects. So, this part is like learnings from research projects. So, the first project that I would like to discuss here is a project, it is a trans local project which was funded by I, International Social Science Council, ISSC.

And you this we could finally, you know come up with a report in 2015 and there is also a YouTube video clip, which you know I will encourage you to see once you know I finish discussing the key components of this project and the major findings we could derive it.

So, this project is basically on you know urban water or rather peri urban water injustice and what are what were that what remain the trans local lessons or learnings for water justice you know for us, when we conducted the project in three sites; three cities of India, Tanzania and Bolivia.

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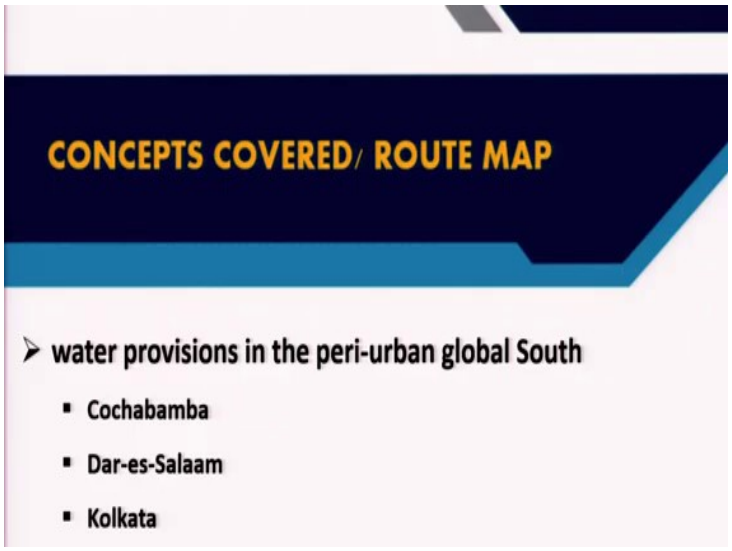

So, to give a brief background or context you know there is something called coproduction which has become quite a significant concept these days. So, coproduction, it entails you know the joint collaboration of different agencies and institutions together. So, for example, different communities, civil society, state, etcetera; to cater to a consolidated purpose and in this particular case, water justice.

So, it remain important for us to kind of map and understand the significance of you know this coproduction partnerships in terms of addressing water needs, you know in water shortage, peri-urban areas or localities encircling the three cities of Cochabamba - Bolivia, Dar-es-Salaam - Tanzania and Kolkata - India.

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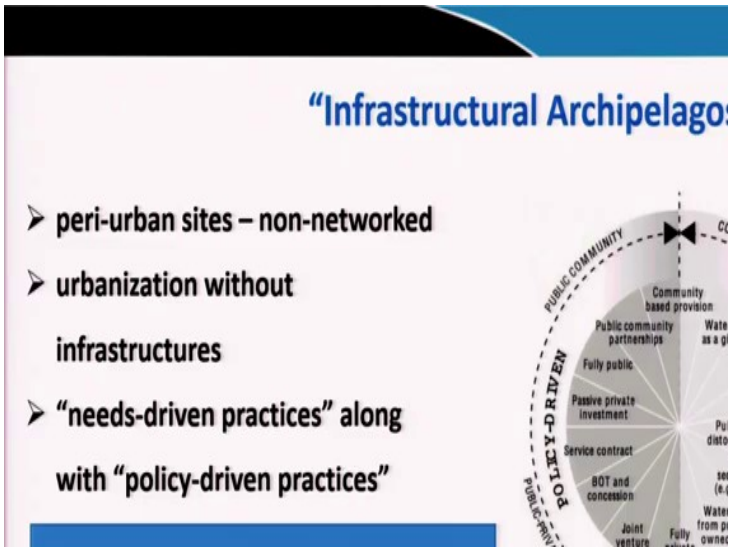

So, again, to discuss a bit of an overview, first I think like as per predictions like 60 percent or even maybe more. So, 60 percent of the new urbanites, who will be actually inhabiting the peri urban or the newly extended urban areas or urban site would actually be lacking connection to basic utilities, water sanitation more specifically. So, the future is actually unfortunately not, I mean the future cannot rely on a networked system. But the future rather lies on if we paraphrase you know Karen Becker arch infrastructural archipelagos.

So, and this infrastructural archipelagos entail and comprise everyday planning, everyday practices, where we find you know how like array of needs driven bottom up you know practices exist apart from and along with policy driven initiatives so far as you know these utilities, access to drinking water and access to sewerage network or sewerage facilities are actually concerned. And if you see this water wheel on the right hand side, which was you know kind of devised by Adrian Allen Davila and Pascal Hoffmann.

So, this actually captures the this different systems, different types of practices that exist from the public to the private and community levels and which sometimes you know and most of the times, they also coexist together in peri urban scapes enabling the peri urbanites to access you know to this basic utilities.

So, this water wheel actually captures you know these wide spectrum of practices that are prevalent and the, that also kind of you know provoke us to map the potentials of this coproduction partnerships or the coproduction alliances and relationship that shape the urban needs.

But also, you know urban water access or urban water needs or urban water access and whether they these really have the potential to craft a more just you know urban water trajectory for the future or not. So, I mean this whole lot of potentials actually in this you know community based projects and practices.

So, for instance, it is estimated that there are over 80,000 community led water systems in Latin America alone; 80,000s right, serving over 40 million people in rural and peri urban areas and with capacity to serve an additional 18 million. So, one can understand with peri urbanization becoming a reality, how these you know bottom up an instrument practices have also kind of emanated and how they are catering to the basic utility needs of you know many people of the multitude in habiting this peri urban scape.

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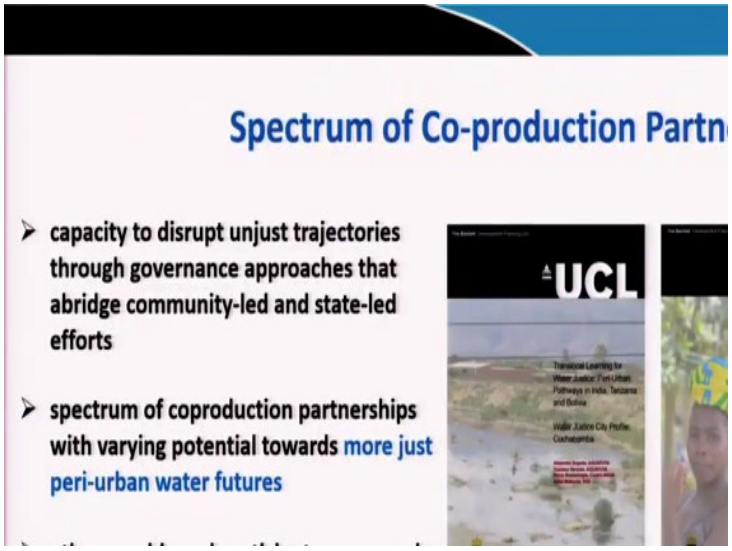

So, with this, we you know so far as this particular project on translocal learning for water justice was concerned, so this was a project which we completed in 2015. So, like our host organization or institute was a Bartlett development planning unit UCL, University College London with Adriana Allen being the principal investigator you know for this particular project.

And I was mainly looking after or I was mainly you know gathering information and doing the field visits for Kolkata and there were other teams so far as the Dar-es-Salaam and Cochabamba cities were concerned.

And then, we also met together a couple of times to discuss you know, to discuss our very own lessons and exchange so that you know, there could be reciprocal learning. So, that you know the framework of analysis which we deployed was not only trans disciplinary or interdisciplinary; but you know it was also like I mean a whole lot of lessons could also be learned from hands on field experience.

So, it was really I mean the essence of this project itself was really really quite translocal and that is why we I mean, I think we could really do a whole lot of justice to the title of this project translocal learning for water justice. So, basically to identify water injustices and also to kind of trace and recognize the potentials of some of the; some of the practices which otherwise are not recognized and misrecognized in order to forge and foster you know water justice in peri urban spaces.

So, we yes, try to kind of identify map, trace and list spectrum of coproduction partnerships available in these three cities. So, we try to unpack the capacity to disrupt, unjust trajectories through governance approaches that abridge community led and state led efforts and the whole idea was to map the spectrum of coproduction partnerships with varying potentials towards more just peri-urban water futures.

And I think the comparative typology was quite an enabler in this particular sense of the term and the methodology that we applied you know definitely, it was like it was qualitative research, so where we applied ethnographic and participatory research methods.

So, I mean various like methods, we implemented in our fields, field areas, field sites from focus group discussions, to key inform inter interviews, to transact works, participatory mapping, etcetera and we also made time and again, all these three country or three cities team members to discuss you know our findings so that we could actually exchange lot through this particular mode or method of reciprocal learning.

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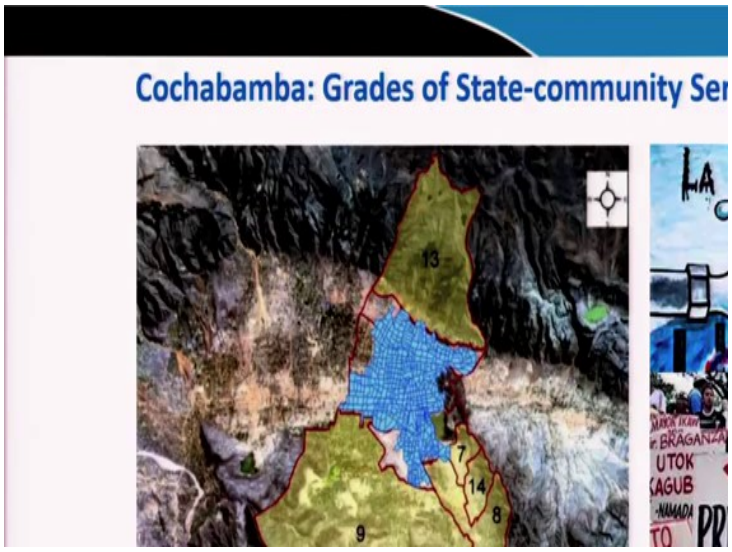

So, coming to the first city of you know Cochabamba. So, Cochabamba is a an interesting city in terms of water justice because its it became famous. So, the city a little less than a million population. So, it is famous, it became famous for its notoriety actually when like irrigators and the communal urban drinking water providers and local citizens, they actually pressurized you know the state and they pressurize against privatization of water provisions.

So, Agua or water so, Agua yes; so, they protested against this privatization initiatives and so, this unrest or this movement itself you know it legitimized the role of the informal water providers to a great extent. And Cochabamba is actually you know the public utility which is actually managed by the municipal corporation, centralized municipal corporation called Semapa, it is not adequate.

Because it only fulfills like 50 percent of water needs of the people in Cochabamba and also, the system faces whole lot of transmission loss due to leakages and also clandestine connections and most importantly, if you see this map here, mainly district 7, 8, 9, 14, parts of 13, this these districts which is the peri urban part of the Cochabamba city that is, this is in the southern part of the city known as Zona Sur. So, this Zona Sur actually lacks whole lot of like connection. I mean it lacks piped drinking water supply.

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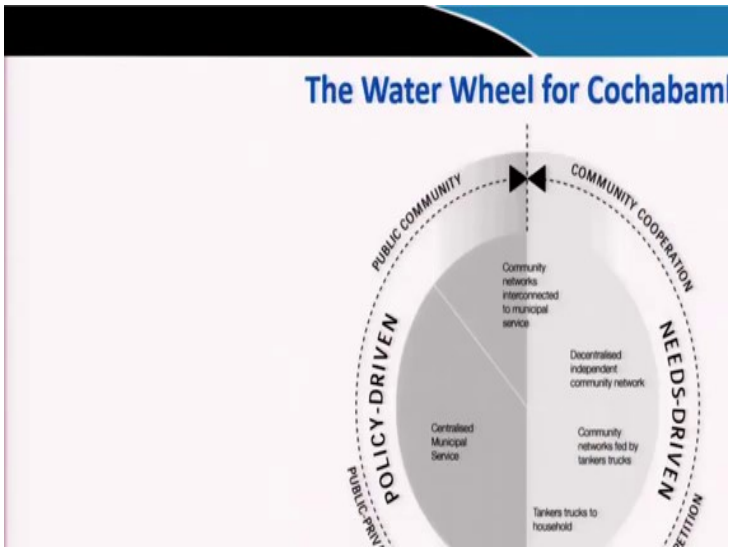

So, when it lacks pipe drinking water supply, so we applied that water wheel, water wheel in each of the cities to find out you know the kind of practices that are available and that also coexist with you know policy driven initiatives. So, that is why we found this water wheel approach to be quite significant for this project along these three cities, three you know cities of the global south; three cities or three peri urban interfaces of the three cities in this in global south.

So, what we found in Cochabamba is that mainly four types of you know, four types of needs driven practices are prevalent including you know community networks, interconnected to municipal service, decentralized independent community network. So, where they themselves you know, they have access to the source of water.

And then, community networks fed by the tanker trucks what happens is that, here the community they purchase or they buy water from tanker trucks and they store that water in the barrel or the storage and from there, there are distribution channels and distribution points through which the community households get access to water.

And also, communities also sometimes they directly buy from tanker trucks. So, tanker trucks directly provide water to the households and what we found out was that you know so this three types of sources were available, where the communities themselves had their own water source; the committees depended on, remain dependent on the

Semapa for their for water. So, the Semapa in this case through their own tankers. So, the public tankers actually provided water from.

So, from public tankers, some communities, they actually bought the water and then, there are communities which actually buy the water from the private tanker trucks and what we found out was that you know this community manage systems are actually running quite well and there is whole lot of debate about the implementation of the Misicuni dam in this area because some people believe that it will to a great extent address the water needs of the people; but you know still a significant section of the cities not absolutely convinced about this whole fact.

But what is quite significant is that you know this community water management systems are running quite well in Zona Sur that is the peri urban interface of the Cochabamba city and it is addressing the water needs of people, otherwise who would have suffered from water shortages because the public utility is not sufficient or inadequate or adequate.

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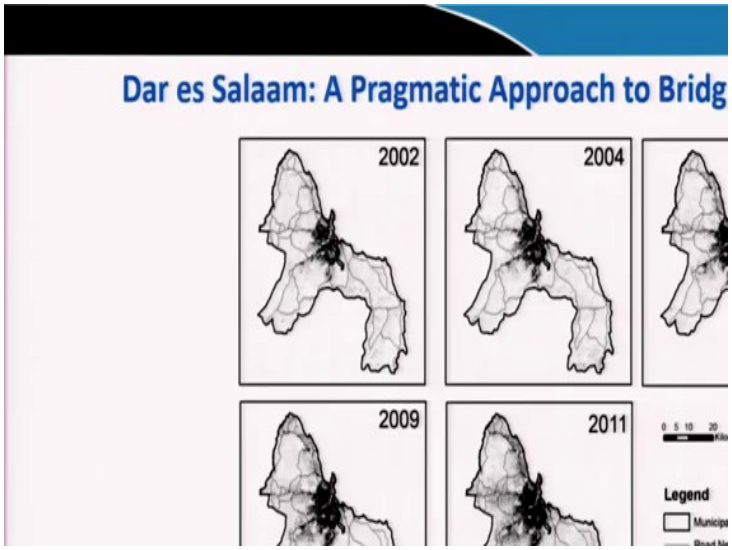

So, Dar-es-Salaam; Dar-es-Salaam again if you see the map, this shows that how urban sprawl actually shaped the city of Dar-es-Salaam in the last few years and how significantly you know this urban sprawl had actually occurred in the outskirts of the Dar-es-Salaam city and of course, you know it implies that , it implies water shortage for the inhabitants of the city, for the citizens.

And of course, like I mean 85 to 85 percent; 80 to 85 percent of the people who live in informal settlements, they lack water, I mean sufficient amount of drinking water to fulfill their basic needs. And this urban sprawl, it is also like putting pressure on the water supply of Dar-es-Salaam because industrial activities, agricultural activities and this urbanization as a whole or in general, it has actually aggravated the water needs of this particular city.

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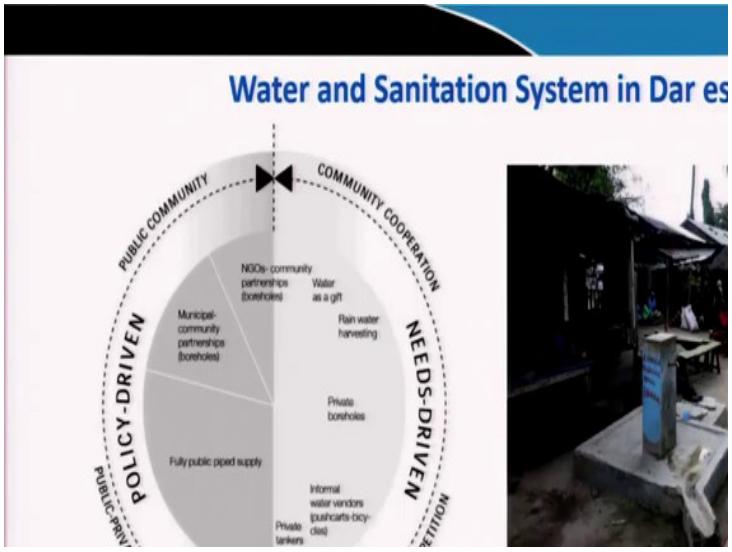

So, what we found out was that you know that two major like public or municipal agencies and organizations that actually take care of water sanitation needs of the city are DAWASA and DAWASCO. So, DAWASA which is Dar-es-Salaam Water and Sanitation Authority is the asset holder and DAWASCO which is a Dar-es-Salaam Water and Sanitation Corporation, it is it takes care of operation and maintenance and it is definitely related or interconnected to the DAWASA.

But again, DAWASA and DAWASCO together, they only cater to the needs of 50 percent of the population and like as I mentioned 80 to 85 percent people living in the peri urban part of Dar-es-Salaam, they lack adequate drinking water supply. So, what we find here is that again if you see the water wheel here, so I mean there are again a wide array of practices that are prevalent and where, NGOs, water user associations, several water committees and the state or the city municipal corporation, they actually work together hand in hand to kind of address this water shortage.

So, but there are definitely whole lot of challenges to the system because you know the state always or the city, sorry; the municipal cooperation does not play always a very active role. You know they try to sometimes fulfill the funding requirements for most of these community based whatever management organizations and give some sort of technical support, but that is it.

So, you know the NGOs, they are playing an important role in and they have kind of fostered you know forming the partnership. So, the NGO community partnerships that play an important role in the maintenance of borehole that provide water to this you know families, peri urban families remaining disconnected from network infrastructure is quite you know can be applauded. So, yes. So, this water wheel, I think to a great extent explains you know what are the different systems that are prevalent.

Here, an another interesting finding which we got from the Dar-es-Salaam is that water is also provided as a gift. So, what does it mean? It means that you know sometimes a community, where the community relies on private boreholes mainly, right or community excavated borehole, so they provide water absolutely free of cost as gift to the most vulnerable you know household in that particular community. So, this is something which was quite interesting in the peri urban stretch of the Dar-es-Salaam.

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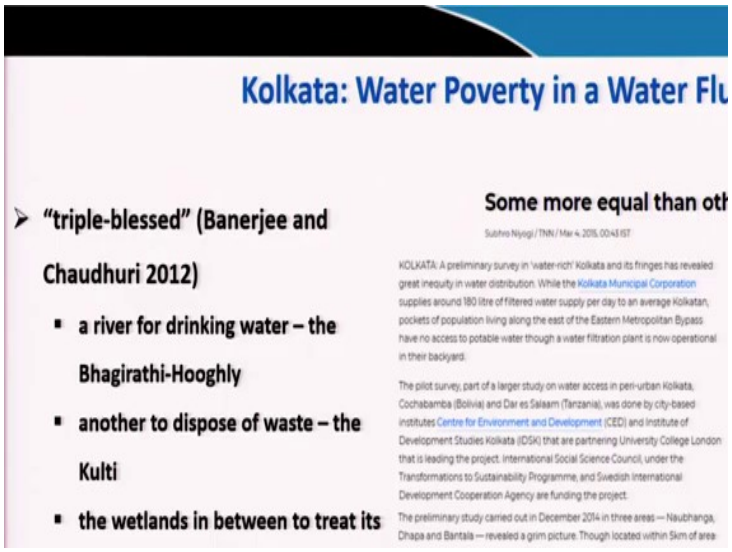

So, then, coming to the third city Kolkata. So, Kolkata we know by now because I had discussed quite a lot on Kolkata and you know sometimes, I often also get criticized by

people that you know your courses are full of, are full of , remain full of Kolkata examples. But you know my honest justification to this is the fact that I belong to this city, I am from this city.

And I have some expertise you know so far as the, I mean so far as this particular city is concerned; the city and her environmental stories are concerned and that is why I mean, I think it is a win-win situation, if I can bring to the table lessons from this particular city, deep lessons, deeper lessons from this particular city.

And which can then may you know become an eye opener through which other cities can also be understood and perceived and of course, generating their own diverse and divergence sets of findings. So, Kolkata is a triple blessed cities. It is not only an ecologically subsidized city, but it is also a triple blessed city because we have a river the Bhagirathi Hooghly river, meeting our drinking water needs.

We have another river which is the initially it was the Bidyadhari river, but now it is a Kulti river, where we dispose our waste water or effluent and we have like the wetlands in between that recycle you know the wastewater of Kolkata and in turn produce fish and food.

But in spite of being water flushed, water poverty is a significant phenomenon for the city of Kolkata because there are significant disparities in terms of you know the distribution mechanism in turn, leading to distributive injustice. So, when we are doing this project actually I and Ashish sir was part of this project, so who was our non-academic or who was my non-academic partner in this particular project and then, like we had whole lot of discussions with Subhro Niyogi, the environmental journalist from Kolkata and a very significant report, he did for the Times of India.

So, this is the report that I had shared here and if you go through this report, you will you know you will be able to understand why you know the disparities in terms of access to drinking water is so significant for this otherwise water flush a city of Kolkata and this is so very unfortunate. So, some more equal than others in water rich Kolkata. So, the this was the title of this report you know which was published in Times of India in 2015.

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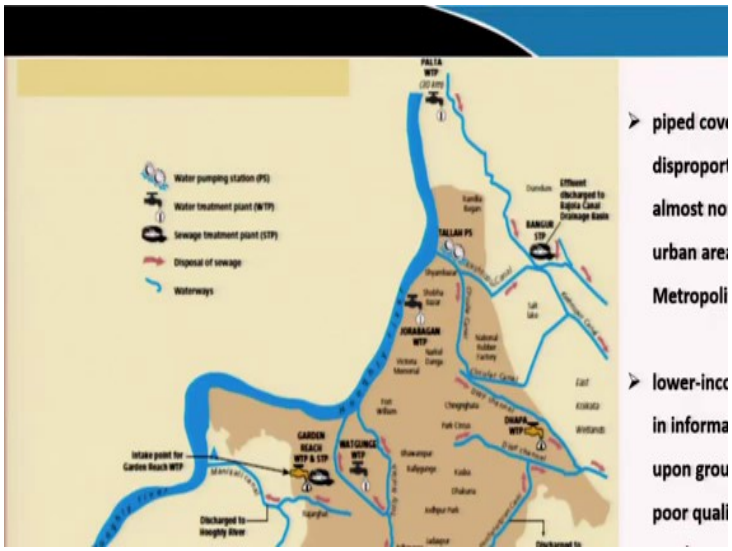

So, yes, piped coverage is disproportionately lower and almost nonexistent in the periurban areas of Kolkata metropolitan area. So, again, so far as this city of Kolkata is concerned, like there are two major agencies or organizations that take care of the drinking water needs and also sanitation to an extent. So, for example, KMC, Kolkata Municipal Corporation takes care of the urban water supply needs of the people residing in the KMC area, so the all the wards are covered under KMC.

And KMWSA, Kolkata Metropolitan Water Sanitation Authority, it is responsible for providing drinking water to the rest of the area, the KMA region, Kolkata Metropolitan Area. So, and of course, as you understand that as you move further from the core of the city, the water shortage actually increases.

So, lower income communities residing in informal neighborhoods rely upon groundwater extraction which is of poor quality or the use of water vendors at the cost of 5 to 20 INR for a jar of 20 liters. So, again, several multiple practices you know that are pursued by low income people, low income communities, who otherwise remain disconnected to network infrastructures.

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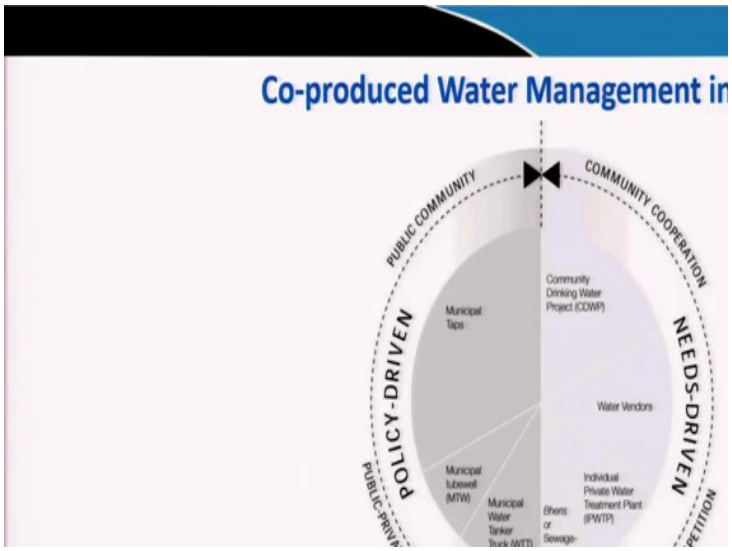

So, we also you know applied we also came up with this water wheel mapping array of needs driven and policy driven practices that coexist in the peri urban fringe of Kolkata and we could see that how here also there are community drinking water projects; but they are very few just you know you can count them, you can count the numbers. But there are also public water vendors, who sorry private water vendors, small scale water vendors of course.

And this is small scale enterprise or initiative where these water vendors mainly, they you know, they fill up their jars from lakes or for, from some connections from the public utility and then, there are individual private water treatment plans this is also few and unfortunately, they also to a great extent depend on the ground water on ground water.

So, this is also scary because Kolkata's ground water level is also going very down and so, you know this (Refer Time: 25:04) so there is there are fears and apprehensions relating to land subsidence because Kolkata is already you know on a tectonic zone. So, these risks, these additional associated risks are also there.

But there are other systems where municipal water tankers also you know, they provide water to some of the households. For example, in some areas of or in some you know varies of east Kolkata Wetlands because there are like around at least 1.5 lakh people who inhabit the narrow strip of land in between these ponds in east Kolkata wetlands.

So, when we went there and we tried to map the realities, we found out that thrice a week, municipal water tankers tanker truck came and provided water to the families, who then stored this water in buckets or jars for the rest of the week ah. So, municipal taps are there and which again depend on ground water and municipal tube wells are also there again depending on ground water.

So, these are the various you know a co-produced water management practices in EKW and more detailed and robust you know discussion and analysis is actually required to understand the different, I mean the to understand the nature of the alliances and relationships among the different actors and networks to kind of you know to see the potentials of these practices you know for this particular stretch and also, their potentials to be, to I mean their potentials to be upgraded at scales.

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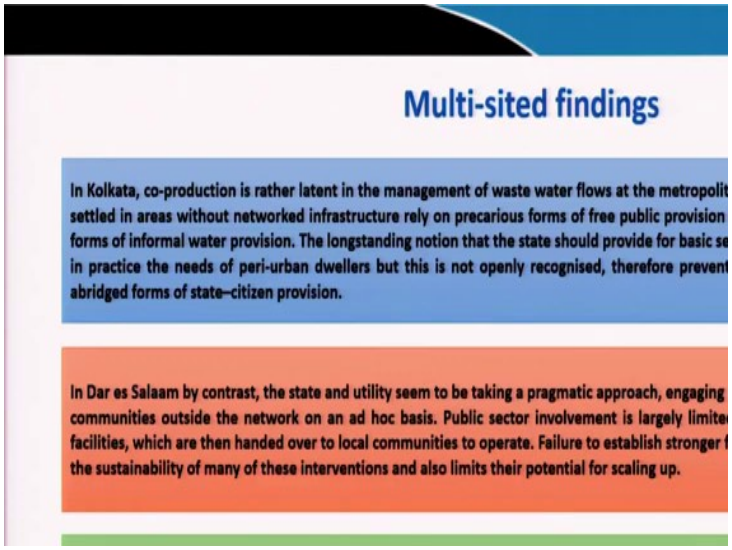

So, what can I draw then from this multi sited findings? So, this is multi sited this is not site multiple right. So, because we studied one single phenomena in three particular sites. So, that is why this is multi sited. This is a multi sited project. So, what we find what we found out from you know this three cities? So, if I now try to draw an analysis, I mean through this comparative methodology or comparative analysis. So, and we see some differences and also some similarities.

So, for example, in Kolkata, we found that coproduction is rather latent in the management of wastewater flows at the metropolitan scale, while at the more local scale

those settle in areas without network infrastructure rely on precarious form of public provision complemented by unstable and expensive forms of informal water provision.

The long standing notion that the state should provide for basic services such as water is not enough to meet in practice the needs of peri urban dwellers, but this is not openly recognized. Therefore, preventing more proactive experimentation with abridged form of state citizen provision you know is the fundamental welding.

On the other hand, we found that in Dar-es-Salaam by contrast, the state and utility seem to be taking a pragmatic approach right. Engaging in some form of cooperation with poor communities outside the network on an ad hoc basis. Public sector involvement is largely limited to initial stages of setting up public facilities which are then handed over to local communities to operate.

So, failure to establish stronger forms of coproduction partnerships affects the sustainability of many of these interventions and also limits their potential for scaling up. But at least the situation seems to be little bit better than you know the city of Kolkata. Finally, in Cochabamba we witness a process towards the institutionalization of state-citizen service co-production. However, this is not without tensions or shortcomings as many peri urban dwellers continue to fall through the net of ongoing initiatives.

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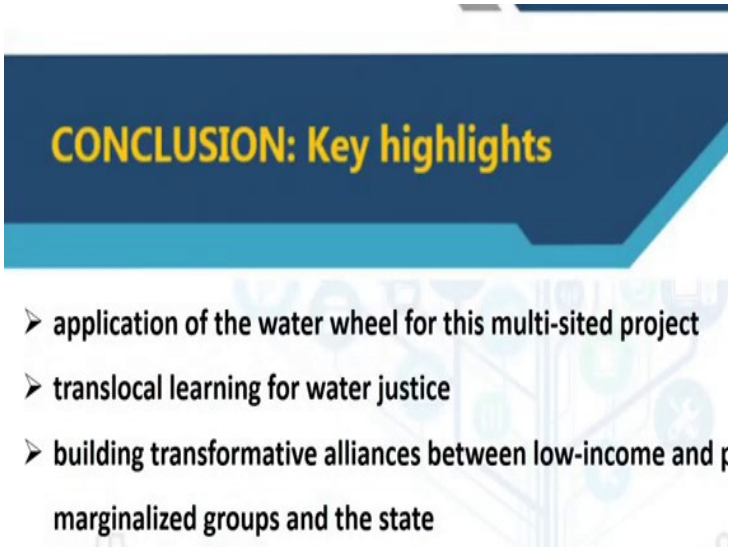

You know my conclusion from this would be, that we found that application of the water wheel for this multi sited project to be quite useful because we could map the array of you know practices that are there in each of these cities and also, you know another important thing from this trans local project was that, as we were like parallelly conducting a field work in these three sites, so we could also immediately understand that the few of the things which were working quite nicely in the Dar-se-Salaam actually had no scope for operation in Kolkata or Cochabamba.

But at the same time, few things which were actually for example you know quite successfully working in Cochabamba had scope to be operational in Kolkata or Dar-se-Salaam. So, we could really you know this reciprocal learning and this reciprocal exchange remained so very useful you know due to this.

So, we it was really a translocal learning experience and definitely, though we could not pursue it further and we did not you know kind of, we definitely came up with the report and also, the video which remain the teaser for several other researcher, researchers and studies.

But we this project did not gave us a direct scope to work in close association with you know, with the policy makers in that sense. But definitely, if you go through this project findings like, it has lot of potentials to then you know activate the policy circle as well. So, we I mean building transformative alliance between low income and politically marginalized group and the state.

So, this project also showed the potential for building those kind of alliances and relationships and it clearly showed the need you know to map the politics, but also potentials of service provision against specific context. So, the larger rationale behind this project and I very much think that we could successfully actually deliver this was that if I mean first of all research on this coproduction partnerships is less; especially, so far as peri urban areas are concerned.

Secondly, there are few studies and these few studies only talk about the you know, the strategic implications of these partnerships and they show these partnerships to be power led and of course and also, they mainly focus on the power hierarchies. But what we try to do, was that we try to map several kinds of alliances and not only conflicts, but also collaborations you know, the collaborative potentials within this coproduction

partnerships and that is why I think you know we could finally, we could finally, demonstrate and establish that why it is important to map the both the politics and potentials of service provision against specific cities or specific peri urban context.

Because this is going to be the burning reality, I mean for the next few years and it is still the burning reality now. So, it is important, it remains important you know for all of us to see the benefits or to extract from the advantages of this otherwise misrecognized practices and how we can really foster this alliance between the state and the community and between the, among the several communities so that we can really craft a more just urban water trajectory.

So, there is a video here and 11 minutes video. So, I would encourage all of you to watch and enjoy this video and draw some lessons from this. So, yes because this video would give you a practical you know vision and a feel of what I discussed throughout this course of this lecture.

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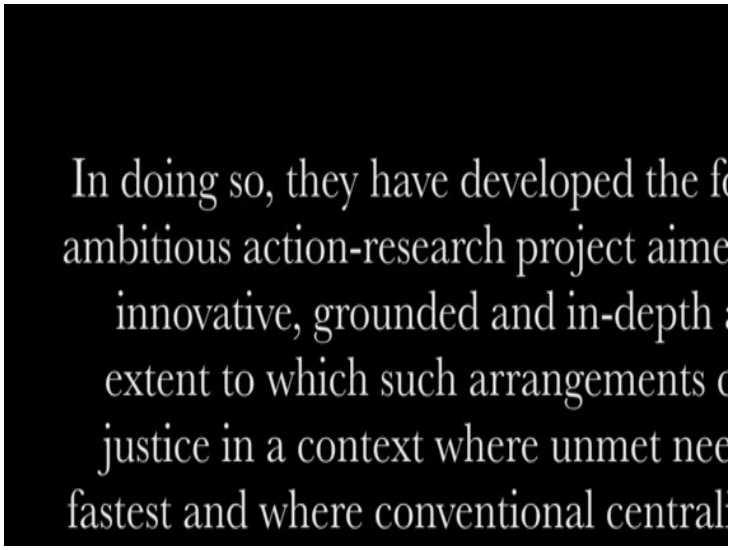

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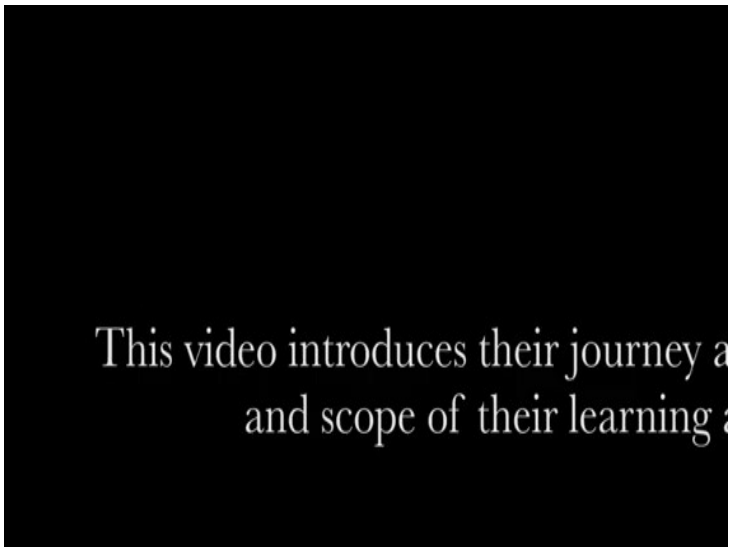

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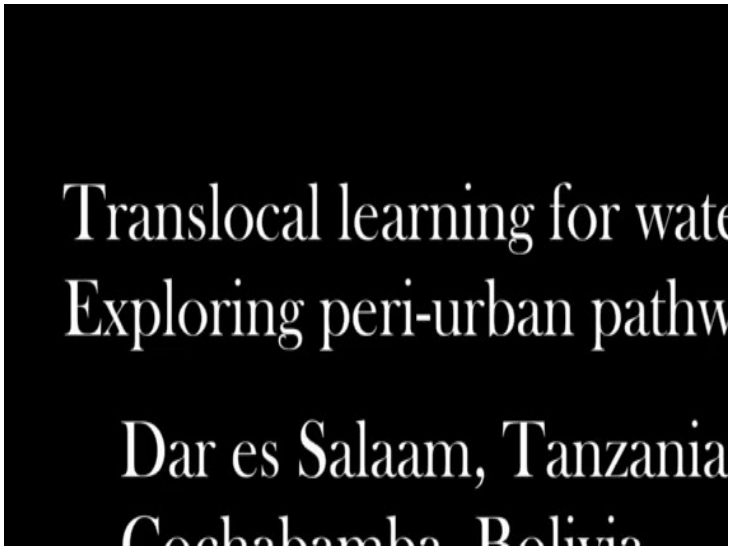

You know in a time in which I think we tend to increasingly talk and recognize climate change as the main challenge, of the you know, of the urban and anthropocene era. We felt that it was very very important to just to bring this you know, this all topic and this all challenge back onto a table, but with a perhaps with a different perspective.

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With the sustainable development course in the process of soon being finalized and implemented. There has been now a shift to universal access. Obviously, trying to find a way to activate people's right to water and sanitation.

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We are witness in a very rich an interesting process of you know of a new targets, new indicators, new goals being set up. And water justice obviously is very important because that comes into play when we are trying to think about ways to provide everyone with adequate access to water and sanitation services.

The gap in urban cities continues to increase and we are underestimating it grossly because we know very little particularly about how water and sanitation is filtering in peri urban areas and I am talking about first urbanizing areas, areas that are not likely are

likely to live without formal infrastructure as we know it. We are focusing on three quite diverse urban settings to be able to then learn from each other in terms of what seems to be working and what does not seem to be working.

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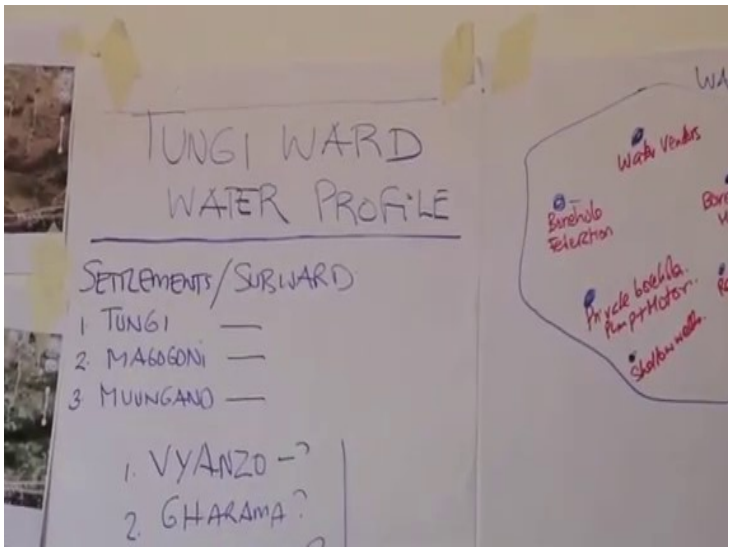

There is quite a lot of water challenges which are affecting the Dar-es-Salaam city; particularly, the people living in formal settlements. Then, most of the peri urban areas, they lack a proper utility network of water supply.

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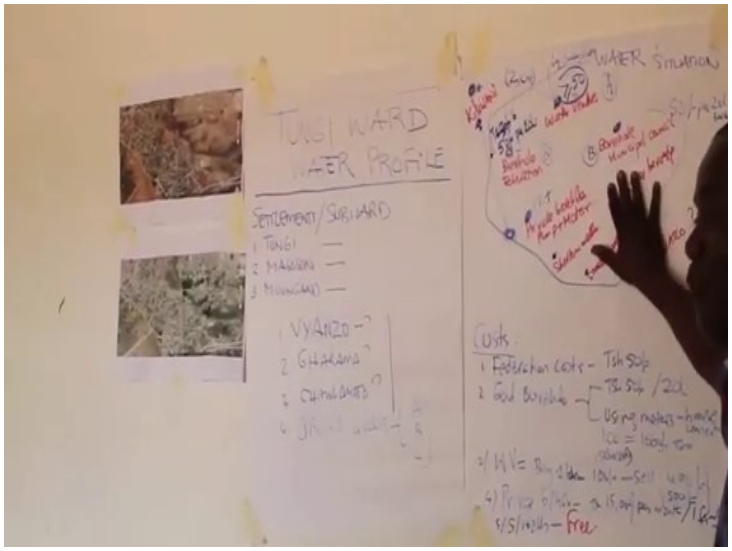

So, that is a very very huge challenge because now they depend very much on our own alternative water services. When we are talking about peri urbanization or peri urban areas, I think what is really important is not to forget about the temporal aspect of it. So, you might have areas that used to be characterized as peri urban; but now, have been incorporated, maybe a little bit more into the urban core of a city.

But still, significantly let behind in terms of service provision. Yeah peri urban area suffer mainly gray area in many ways and that is why options left for these people are largely individual or poor public options.

Cochabamba was very famous back in 2000- 2001 during water wars.

Unfortunately, in sort of 10-15 years that followed the public was utility is made no progress on improving access to water and so, most people who have access the only people that really have access to water in the city live in the center. There is a big difference in coverage in service quality in price also. Right now, the municipal utility is does not relate to the community systems and that creates a lot of difference and an injustice in water provision.

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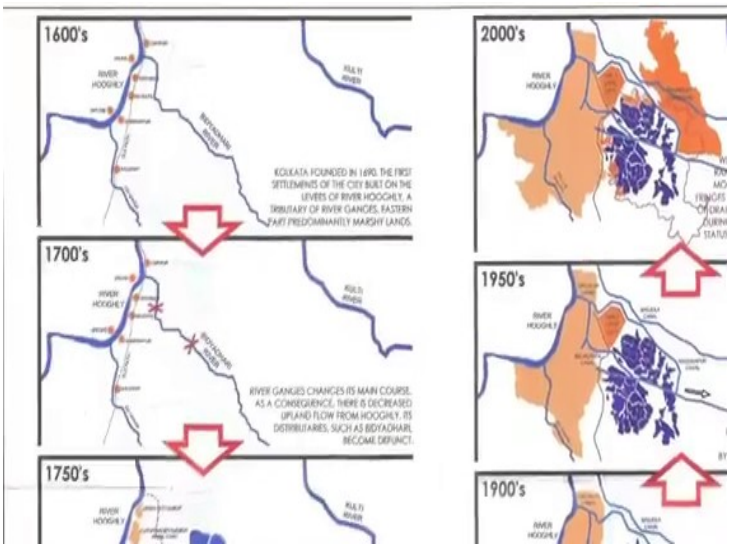

We have water injustice in built in the cities since a long time because and it is the situation is also slightly different from other cities, even other Indian cities because Kolkata is not a water scarce region, it is a water flush region. You will find that the peri

urban interface is lies mostly in the form of wetlands the relationship is mutually interdependent because the PUI depends from the city on waste water and also, the solid waste.

Because otherwise you cannot generate the arable you know the vegetables of cereals and paddy that are produced by the people the community in a collective way and also, the fishes. So, if I use the word access to said drinking water, now I would say it has been denied to the large number of people, who are giving un, I mean unthinkable ecological services to the city. But the most of the people, they do not have that solid municipal supply in that area.

So, they are going for the bore-well and using the ground water to meet the demand. They very often the waste some water fast is just stop at the distributional level and that is problematic and by this we mean that its equally important to understand that water injustice is happen in the first place and mal-distribution happens in the first place because certain groups remains invisible. In other words, it is misrecognized.

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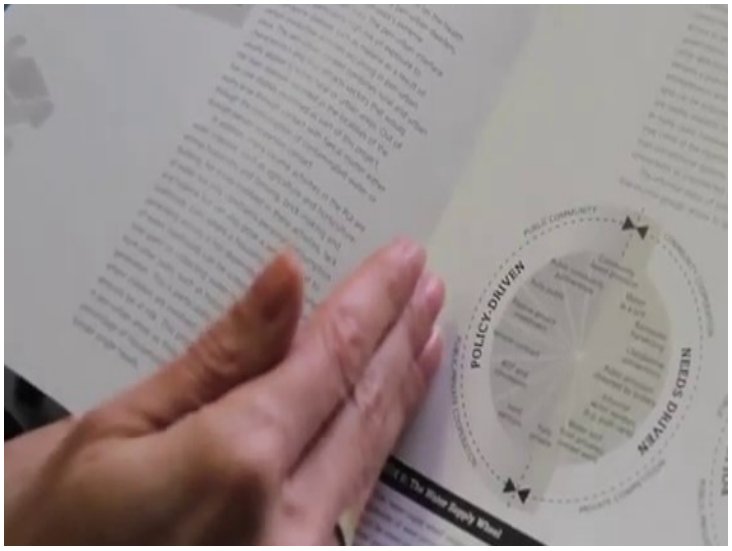

And we developed what we refer to as the water wheel and the sanitation wheel. On the one hand, you have public sorry you have policy driven interventions that are largely driven by the state and then, on the other hand, you have all the needs driven practices. Then, of course, you have a range which we are trying to zoom in with this project which we refer to as coproduced.

For example, the municipal utility can be in charge of bringing and producing the water, treating the water, ensuring water quality and community systems can be in charge of distributing the water everywhere including the poorest areas around the city, where which are not currently served. There has been sort of collaboration between the, that the utilities sinking balls and giving the communist to manage the balls and also, the water vendors can collect water to those water points.

It is not that the government is totally indifferent, but the government is also providing water, very low amount of water, but at least the public tankers are moving in those areas and providing water free of cost in the neighborhoods. I see a lot of options, in the sense that if there are multiple stakeholders engage in different options and opportunities.

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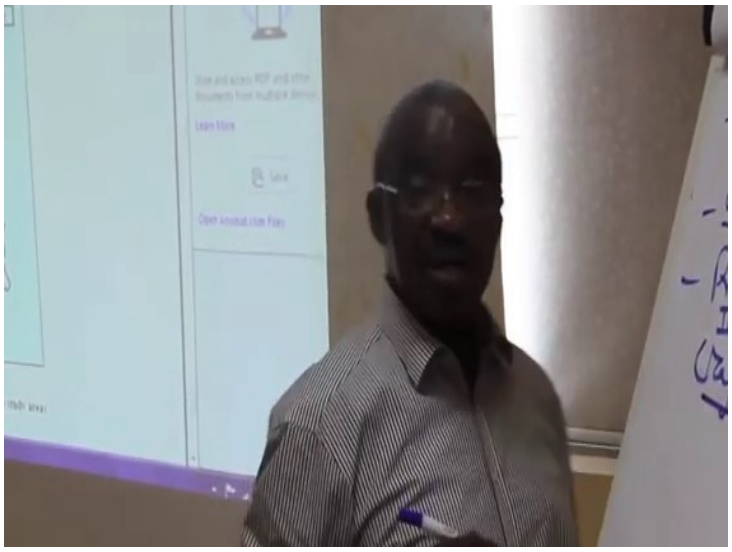

And where they will co-produce and co-supply water and in the base of that one reach different categories of internal social groups that is one of the options which are seen. We are zooming in to an area that is really under explode. The way, we are doing that is by creating what we called is action learning hubs.

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We know that these coproduction platforms exist, but we do not know enough about it. We do not really know the impact that they have and also, how well they serve and are accessible to the people living in those settlements.

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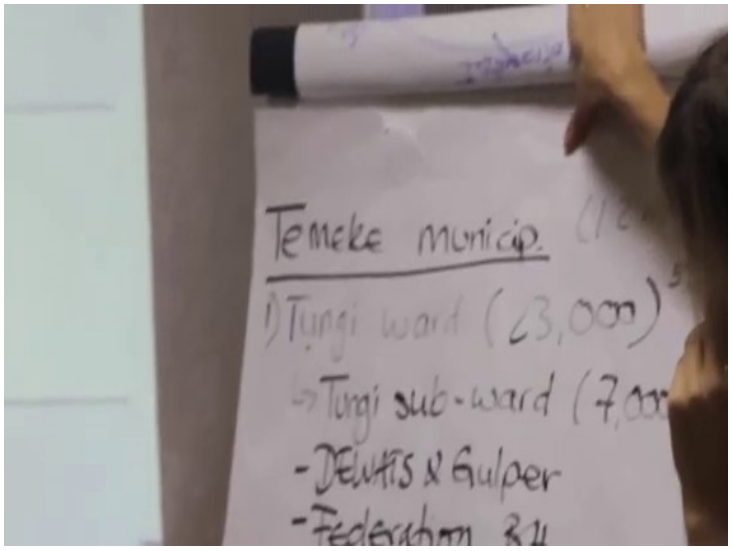

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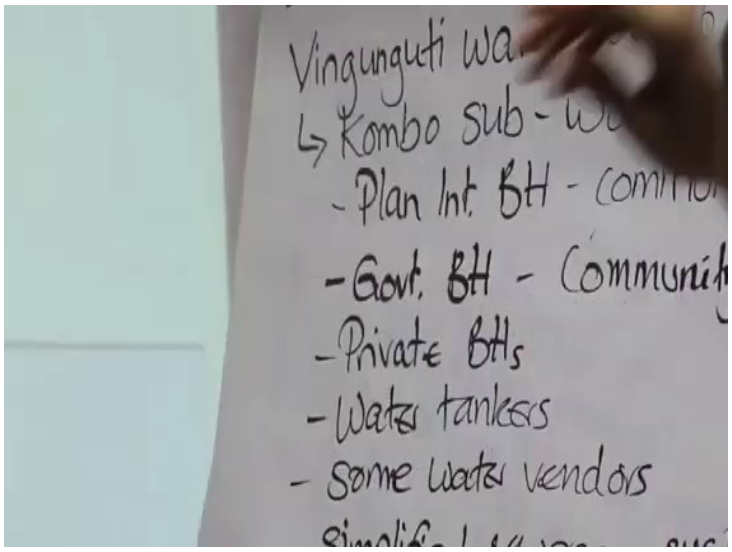

And the idea is that in each city respect that respect you know that the project will not just produce further knowledge; but use a method that will be sustainable and produce a legacy that will live hopefully beyond the life of the project.

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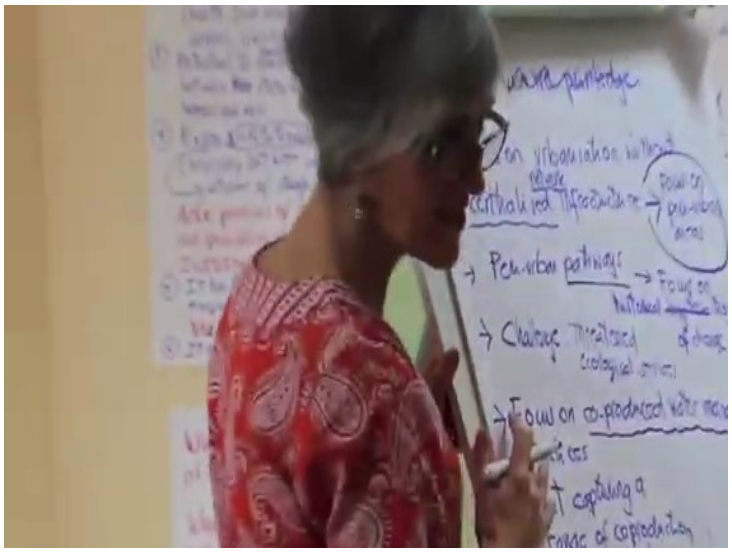

What we see is a very important difference between addressing the practical needs, but the need also to more into more aspirational practice and theory as well that allows us to think not only you know about water and sanitation deficits and how we are going to

meet those deficits. But also, at how by changing the way in which we go about you know meeting water injustices, we can also otherwise what in the general world, it is called you know strategic the strategic needs of those who are typically misrecognized.

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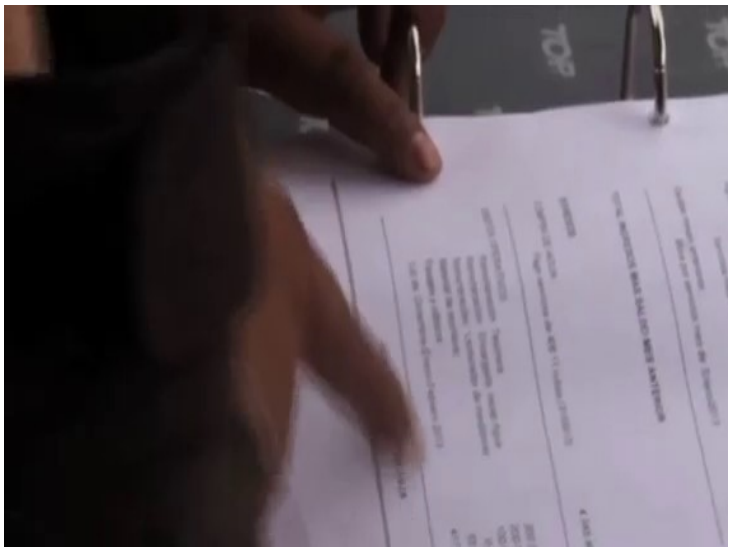

So, as the state has developed an attitude which is one of accepting and recognizing the world committees play, they have also been invited to participates in consultations and meetings around the development of water policy and governance structures in Bolivia. So, if these actors they do not really collaborate and work together, you really end up having those kind of situations like what is happening now. But you have a plan for bigger city, but are the services are not there. So, this is not really good.

I personally feel having learned what I am coming over to very short period though to Tanzania and hearing the experience of my colleagues in Bolivia, can we through an initiative if this project comes up, take up this initiative of mobilizing the local stakeholder, make them understand how the ownership of the entire drinking water system can be taken up by them through an arrangement by which they can share the responsibility distribution.

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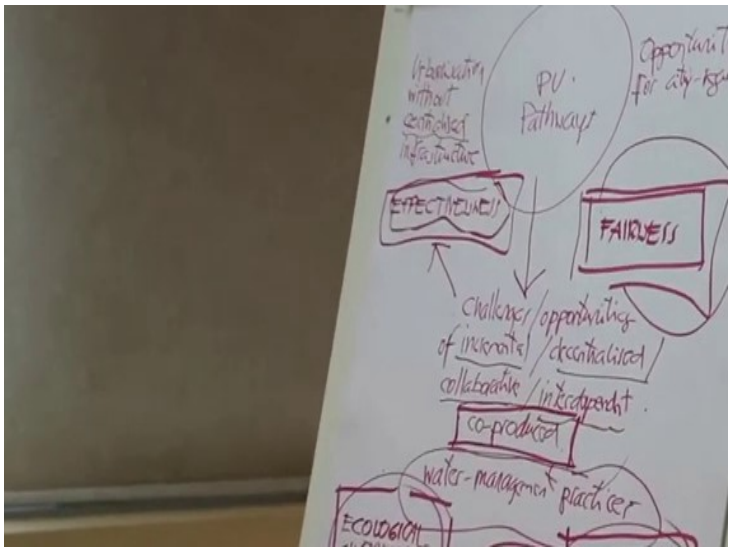

So, there is you know lot of transformative potential which can basically if properly used can really meant a lot not only for the peri urban area, peri urban people, but also for the long term environmental sustainability of the region. And I think that these three perspectives clearly start to talk to a richer understanding of what water justice means.

Thank you.