Urbanization and Environment
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Module - 01
The urban and the Environment during the Era of the "Overlapping Cenes"
Lecture - 01
Setting the Cointext

So, hello everyone I welcome you once again to this course on Urbanization and Environment.

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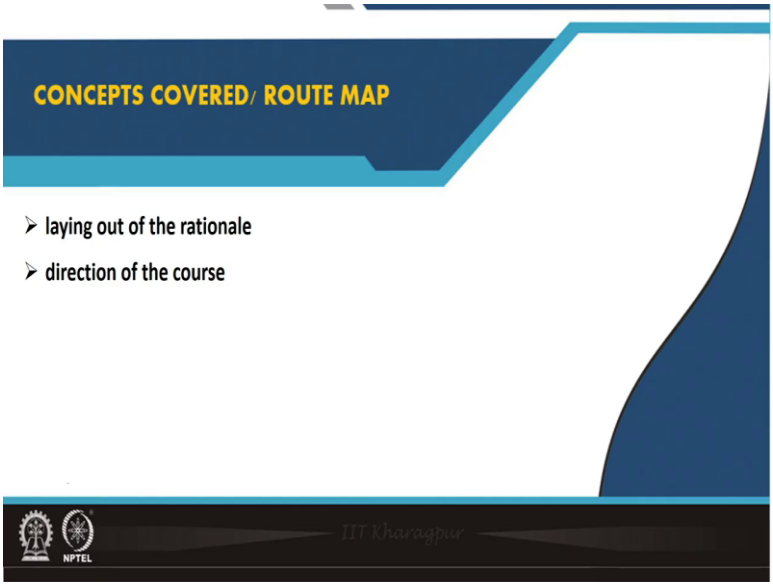

And this is the 1st lecture where I would be setting the context that is I will be laying out the rationale of the course discussing like what provoke me to design this course and offer this before you and I think after this 1st lecture you will also get an idea about the direction of this course itself this course on urbanization and environment.

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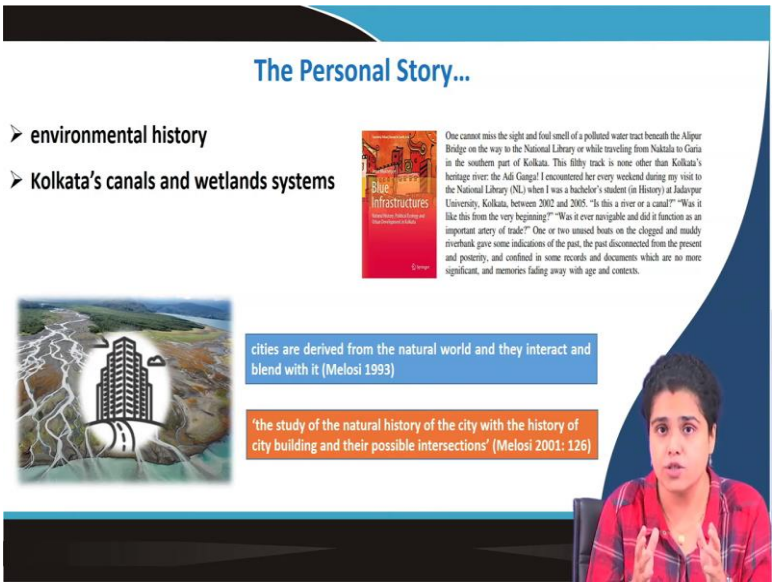

So, a bit of the personal story so, I was actually trained in Environmental History and since my university days. So, Jadavpur was like one of the like I think it was one of the very few universities in India and I think it was the only university in Bengal during that time. So, this is like a bit oldest story of the first decade of the 21st century where like Jadavpur offered Environmental History as a subject.

So, we also had like specialists and mentors and teachers people like Richard Grove, Mahesh Rangarajan, Paul Greenough who used to come to the history department and also Christof Mauch of course, who used to come to a department and train us give lectures and we got lot of scope to you know engage with exciting exchanges you know with this mentors and scholars across the globe.

So, I got extremely motivated you know to this field and I started deciding that maybe this will be my long term interest so far as my research or historical research is concerned. So, this was one and on the other hand being a Kolkatan myself extremely again interested or more importantly inquisitive I was inquisitive about Kolkata canals and wetlands system and like I had lot of questions when I used to see these canals of course, lying in defunct state in I mean in most of their stretches.

And I had also narrated this personal story in my book which finally, came out last year Blue Infrastructures and if you go through the preface section of this book you will get to know about this personal story that when I visited the National Library from Jadavpur

every week and when I encountered you know these Adi Ganga Tolly's nullah or Tolly's canal stretch how whole lot of questions you know surfaced on my cognitive domain or my cognitive space and I definitely did not have answers to those questions.

So, if you see this preface section I just raised these questions and these questions used to come to my mind used to haunt them to a great extent that you know where these canals in this deplorable state from the very beginning. So, what is the history? I mean are they like a natural watercourses? Or like where they excavated during historical times? Then I mean who excavated these canals? Who are these actors? Who were involved? You know in this story.

So, all this question kind of you know clogged my mind and I did not have any answers to those. So, for example, I write here that one or two unused boats on the clogged and muddy river bank gave some indications of the past. The past disconnected from the present and posterity and confined in some records and documents which are no more significant and memories fading away with age and contexts.

So, I was interested to explore the history, but I was not sure about the methodology that you know which would have been applied to do this or to pursue this result. Why? Because a though I was exposed to environmental history, but environmental history you have to remember in those times it was still restricted to the history of forest, water, pasture land so mainly to the rural context. So, the urban was not yet or the urban was yet to be incorporated within the larger domain or purview of environmental history.

But gradually we started getting exposed to literature by you know urban environmental historians from North America people like Melosi and Joel Tarr and for the first time we started understanding that cities are, but part and parcel of their wider environment. So, Martin Melosi wrote that cities are derived from the natural world and they interact and blend with it and Melosi also wrote in another piece 2001 he said that what is urban he tried to describe like what is urban environmental history.

So, he explained urban environmental history in terms of the study of the natural history of the city with a history of their of a with the history of city building and their possible intersections. So, this you know this kind of framework or this approach provided me and provided us with the edge to then carry on you know urban environmental history

through then carry on the history of the canals and wetland system for the city of Kolkata.

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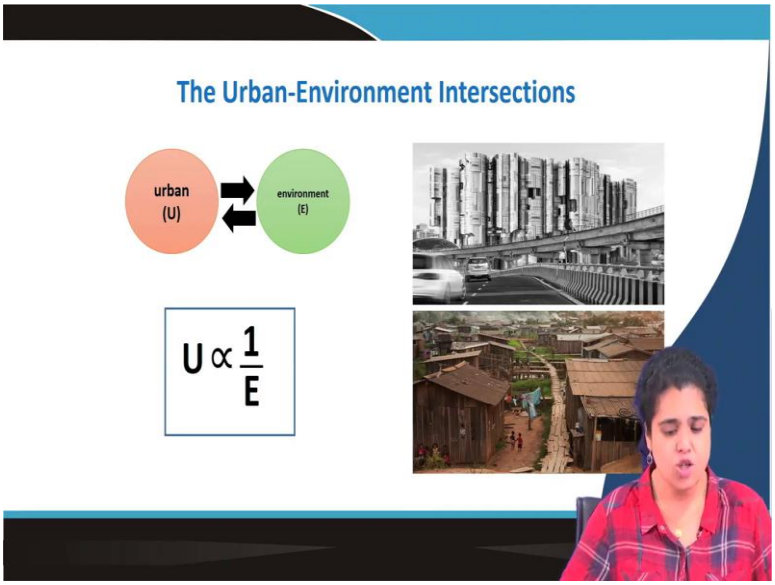

So, the previous story was actually about the first decade of the 21st century. So, now, I will be drawing your attention to the second decade of the 21st centuries like the disclaimer is these like decades they are not like sacrosanct chronological categorizations. But you know just to gave just to give you a fair idea about what was actually going on.

So, the second decade of the 21st century roughly if you consider the time period between 2010 and 2020 and of course, like not exactly 2010, but also little I mean the years preceding 2010 as well. So, what was happening was that scientific literature and also policy prescriptions addressing the urban environment intersections started flooding the scene. And you know for the first time the there were whole lot of discussions about this relationship between the urban and the environment.

And I very much think that you know the context of extended urbanization or planetary urbanization or urbanoscene whatever. So, you know this particular context that when the world started having more urban population than rural population with the urban population surpassed the rural population first time in 2007 and when this was made clear in the world urbanization prospect 2008.

Then of course, there were whole lot of hue and cry about the knowing this relationship understanding this relationship between urban and environment. So, how was the relationship between urban and environment understood and perceived in this scientific literature and policy prescriptions?

Unfortunately, you know this relationship was still perceived from the antithetical point of view where urban and environment you know if you go through these reports they appear to be contradictory more specifically you know the relationship seemed to be explained in terms of inversely proportional relationship or inversely proportional correlation.

So, definitely then the you know urban at the cost of the environment. So, cities contemporary cities were portrayed, perceived and projected as consumption cities or consumerist cities and also you know this kind of projection is not erroneous, because like if you go through recent data sets we will see that for example, the global urban footprint is now up between 2015 and 2050 by like 1.3 million square kilometers so, which is 1 point 171 percent which is 171 percent increase from the period prior to 2050.

Again for example, if you see the human energy expenditure from 1950 to the present times. So, this human energy expenditure related to mainly like a fossil fuel from 1950 to the current times is more than the entire span of the Holocene which is actually 11700 years.

So, one can understand you know the major challenge of our times is the urban sprawl or urban expansion at the cost of cities on one hand and also definitely these cities are at the densely packed cities. They are like they are biggest emitters; you know they are biggest emitters of toxic gases. But then the question is you know, does this convey the entire truth the entire reality?

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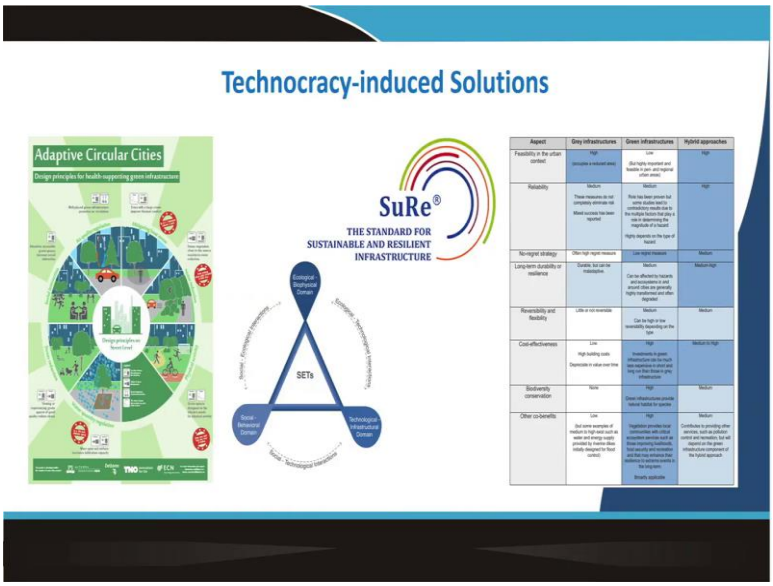

So, we will come to this, but before that I think I should I would also like to mention that when this apprehensions you know when this apprehensions about this inversely proportional relationship between urban and environment was you know kind of a was flooding the scene and was becoming consolidated, Then the technocrats and the engineers and the bureaucrats and the urban planners, practitioners and people looking into this urban invert or addressing this urban environment intersections they also started innovating solutions.

So, solutions to cater to the larger agenda and goal of urban sustainability, because it was understood by then that urbanization is an irreversible trend so, you have to deal with it. So, how would you deal with it? So, that seemed to be the major question and the kind of reports which were published, the indices which were designed you will see you know it talked about integrating resilience and sustainability to or for infrastructural development and upgradation.

So, for example, a lot of reports about blue infrastructures, about green infrastructures or GBI, green blue infrastructures, as part of The Standard Sustainable and Resilient Infrastructure in tune to the SCT which is the socio, socio ecological, technological systems and evaluative or you know evaluation frameworks and assessment mechanisms were designed and implemented to do a comparison across you know these infrastructures like or infrastructure designs like green infrastructure hybrid

infrastructure in terms of their reliability, in terms of their cost effectiveness and also benefits you know that the urban could accrue from this.

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And in tune to this several programs or several initiatives and plans like a smart city, high density city, u eco city, eco-friendly cities, green cities, zero carbon cities were talked upon and implemented.

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And finally, in 2012 UN Habitat it published a report on sustainable urbanization where sustainable urbanization was depicted as the post 2015 development agenda of the

United Nations. And of course, you know it embrace cities and it was very appreciative of cities where cities were kind of projected as engines of growth and locus of development so, this is from this report page 7. So, you can understand how you know UN Habitat was hopeful about cities and why it pointed out that this urban development actually has to be promoted, but in a sustainable fashion.

So, I am I have quoted from UN Habitat you know report. So, where UN Habitat says that "cities make countries more prosperous. Countries that are highly urbanized have higher incomes more stable economies, stronger institutions and are better able to withstand the volatility of the global economy than those with less urbanized populations. So, cities around the world are playing an ever increasing role in creating wealth, enhancing social development, attracting investment and harnessing both human and technical resources for achieving unprecedented gains in productivity and competitiveness."

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And in tune to the gospel of sustainable urbanization you know India also launched our smart city programs. So, the Indian government, but declared in 2013 that the creation of 100 smart cities all over the subcontinent is one of the flagship projects or program of the government.

And with this end like 480 crore like billion INR was dispersed to the different ULBs. The Urban Local Bodies for a time period between 2015 and 2020 the first phase of the

implementation of the smart city design through the smart city mission. So, like how what had been or what has been the performance of our country in terms of the smart city initiative. This is also something which we will be also taking up in this particular course.

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So, my point of view you know so far as these urban sustainability solutions are concerned is that what I have already shared that I feel that they are technocracy induced solutions and unfortunately here environment or environmental incentives are just doled out in capsules or capsulated and microforms.

And unfortunately in these kind of discourses or these kind of designs environment or nature is commodified to the penultimate extent and they are definitely you know of course, these like plans remain conflict ridden, power leaden and craft more uneven geographies, unequal political and unjust environmental trajectories.

And like I mean this is evident from what is going on in our metropolitan cities and also in small towns and smaller cities of our country and also several other countries of the globe. So, this is you know these are like pictures from big development initiatives as part of Greenfield development and also like if you see the advertisements will be mesmerized you know to see that how environment is actually commodified. And unfortunately we think that we have kind of superimposed you know the environment on our concrete built infrastructures.

So, this picture on my left hand side this is from Atmosphere so and if you see the ads so, this is from Kolkata. So, this is in bypass eastern part of Kolkata is one of the mega projects two twin towers and a bridge connecting the two in the middle of the wetlands and if you see the advertisement. So, it says that the global residential sky sculpture in the middle of the clouds and you will be amazed to see this building this is Mumbai and they say that address The Same Address as God.

So, 'the higher you go, the cooler you get' and I have actually taken this picture from an article by Stephen Graham and this is a fascinating article and I have this reading for you in the list of references. So, please go through that please go through this article which is called Life Support and this is on the politics of air how air is actually manufactured and manipulated and across lines of inequity and injustice.

And this article was published in 2015, but you know if you go through this article now it kind of gains additional insights and you know additional you know it kind of provokes our thought processes. When we are currently facing this testing times where like air, oxygen, ventilation, these are the these have kind of occupied preoccupied our cognitive space and occupied our vocabulary.

So, yes, so they are like I would argue throughout this course and try to demonstrate, validate, confirm and attest that the way environmental incentives are doled out in these kind of urban sustainability packages at best they cater to what can be perceived as Ecology "in" Cities. So, I will explain it in my subsequent slides.

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So, I was talking about or I was discussing the second decade of the 21st century and by the time the second decade of the 21st century was supposed to come to the end. So, by the end of the second decade of the 21st century that is 2020 we already you know encountered the pandemic.

And so, this is a "pandemocene" and how do we explain this pandemic? How can we explain the pandemic in the best possible manner? So, can it be explained as a zoonotic disease? A virus where the virus can actually be kind of the virus can be tackle with vaccine. So, is it a zoonosis disease where which entails the story between a virus between virus and vaccine or is it something more than this?

So, you know definitely I would like to argue that this virus vaccine story is as a small it is a miniscule, it is just a bit of the larger story. So, like in 2005 long back actually Wilcox and Gubler when they discussed about these infected diseases. The emergence of infections the emergence of infectious disease you know more frequent outbreaks leading to more frequent outbreaks of epidemics in the world again in the 21st century.

So, for example, so in 2009, 2013 there were series of outbreak in the form of like SARS CoV, MERS which is Middle Eastern Respiratory Syndrome, then H1N1. So, multiple like infectious diseases were breaking out leading to the outbreaks of epidemics and Wilcox and Gubler they pointed out that it is important to basically explore, the social and ecological factors affecting you know infectious disease emergence.

And last year Wallace pointed out that COVID is actually a “neoliberal disease.” So, we really need to look into larger processes of deforestation at the edge of cities and this rise of infections. So, the rise of infectious diseases and these epidemics need to be understood as paradigmatic components of contemporary urbanization and globalization processes.

So, I would very much I am keen to kind of a explain this in terms of my recently formulated framework of what I call the anthropocene or a capitalocene and urbanocene together. So, this framework of the inter integrative and interactive and iterative era of the overlapping scenes.

So, where you know I mean the anthropocene, capitalocene and the urbanocene. They have like cross cutting existing relationship among them. And I think that this can be a useful framework to understand the current challenges of the world in terms of urbanization, in terms of environment and in terms of the larger relationship between the two.

So, far as our present times is concerned the contemporary time, but also historic because this is like earth shattering, this is epoch making remarkable you know temporal conjuncture.

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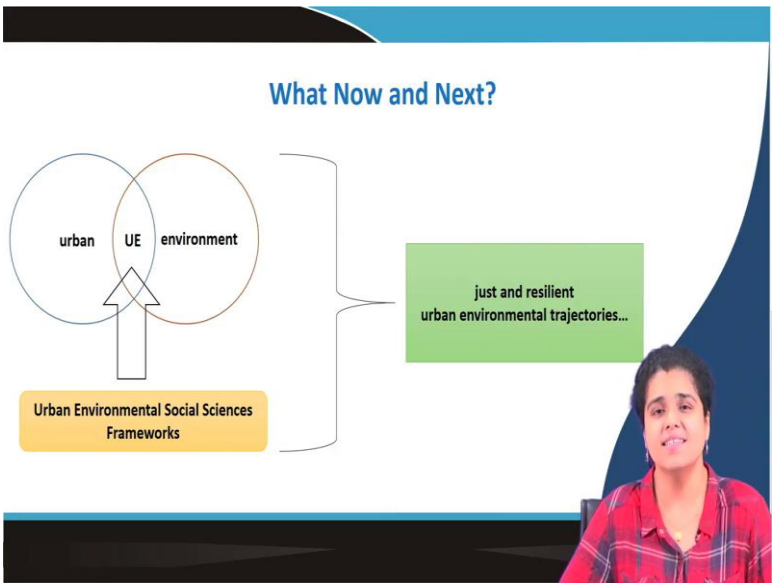

So, now we know that we are facing this pandemocene, we are in the pandemocene and the urban sustainability solutions are really not working they are creating more uneven geographies and more unjust the you know urban environmental trajectories then what now and what next.

So, I would like to argue that it is imperative now to actually reontologize the urban, environment and the relationship between the two through rigorous, robust and detailed epistemological exercise and exposure to Urban Environmental Social Sciences Framework with the ultimate axiological agenda of forging and crafting just and resilient urban environmental trajectories.

So, I think you know this course is actually motivated to do this. So, this is the larger rationale and larger agenda of the course where I would definitely be exposing you to urban environmental social sciences framework which will enable you to reontologize urban the environment and urban environment.

So, that you know together we can think about and we can really you know we can really discuss and also dream for regenerative urbanization in and for a desired and good anthropocene.

Thank you.