Sociology and Resource Management
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Module - 03
Understanding Urban Commons
Lecture - 13
Ecological Commons and Sustainable City Planning

Hello everyone and I welcome back all of you to the course on Sociology of Resource Management. We will continue today with module 3 and our lecture today will also be very interesting, it is on Ecological Commons and Sustainable City Planning.

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So, before this we have been talking about in the last two lectures about the significance of urban ecological commons for a city; the different kinds of functions that they perform for the city and what are the use and access issues. So, if you remember in the last lecture, we were talking about the issue of social ownership including some of the very very integral sociological concepts like that of caste, that of exclusion, that of race.

So, for instance we discussed about environmental racism and also in the end we talked about the fact that many of these social problems, social complexities are entrenched within the use and access of ecological commons in the cities. More so because cities are, in any way cities are very complex social spaces.

There is a lot of dynamism and on the other hand there are also a lot of hierarchies, structural hierarchies issues of discrimination and complexities particularly with the growing population, population explosion - we see a large scale migration in most of the Indian cities for instance. So, for today's lecture we will first talk about the concept of sustainable development and then we will briefly examine the problems and the contradictions within the sustainable development goals or the SDGs we will then move on to discuss about India's very ambitious - one of the most ambitious policies that is the Smart Cities Mission and whether or not it can deal with the problems of urbanization and whether or not it pays specific attention to the conservation of urban ecological commons and whether or not it shares an integral vision to upscale the urban ecological resilience in the coming days.

Finally, we will talk about the people centered approach for achieving sustainability in the, with contextualizing it in the global south and some innovative ideas for the future.

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The concept of sustainable cities is derived from the very idea of sustainable development. So, let us first start by discussing what sustainable development is. Now, we will go back a bit into the past, we will go a bit back to discuss the report of the Brundtland commission.

So, many of us know about it because this particular report, the report of the Brundtland Commission which was entitled 'Our Common Future' contains the very definition of

sustainable development and a very detailed discussion of the major issues surrounding the achievement of sustainable development by the entire planet. So, the report first and foremost let us see the definition of sustainable development, the report defines sustainable development "as a kind of development that meets the needs of the present without compromising the ability of the future generations to meet their needs."

Now, as you can see that this is a very broad definition, I would say the definition of sustainable development is multidimensional, it can be analyzed from different angles and this very concept of sustainability that this report provides can be interpreted in several ways. But something that I would want to tell you here is that at its very core, at the very core of this definition of sustainable development, it gives us a message about an approach to development that in a way looks to balance different kinds of needs.

And often I would say competing needs in the society and for a very long period of time before the advent of this definition many of these needs were quite sacrosanct. So, many of these needs were considered to be very discreet and no interconnections were established between these needs.

But for the very first time in this report, we find that it mentions that the social, the economic and the environmental factors are all interconnected to each other and all would affect each other and also the fact that each of them are equally important for a holistic and sustainable vision of development. So, we cannot compromise any factor at the expense of any other. So, for instance if we are talking about the environment, then we have to think about the economic and the social.
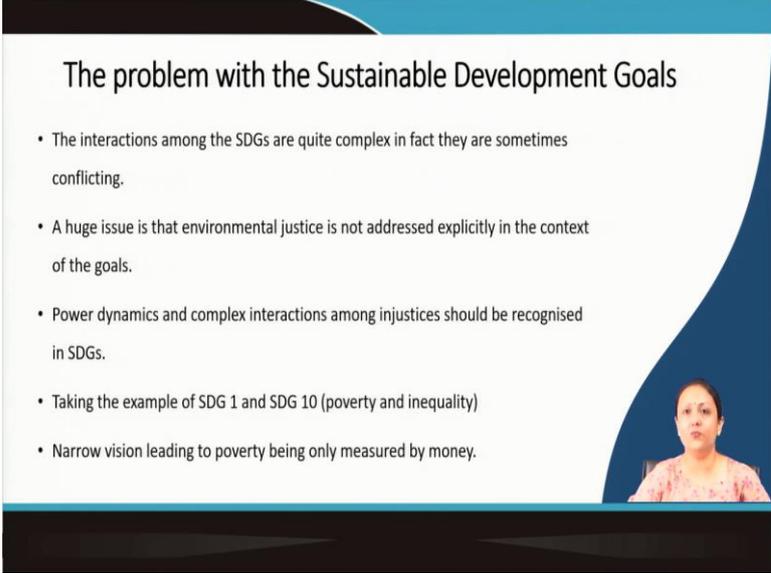
In order to upscale economic growth, we have to think about the social and environmental conservation at the very first place. So, these three factors the social, the economic and the environmental form the three basic pillars of sustainable development. And, as I was telling you that all too often we see that a vision of development particularly in countries like ours is driven by one particular need and most of the times we see that it is economic need, economic growth is always favored at the expense of other kinds of growth other kinds of development.

But this is most often done without fully considering the wider impacts of the future impacts of this kind of unilateral focus on any one kind of development, any one factor within these three pillars if there is a univocal focus on any one, particular pillar then that

would basically not be a kind of development that is sustainable. And in a country like India, economic growth has all too often led to different kinds of compromise that we have seen particularly social and environmental compromise.

So, for instance if we see in the post-independence period, we have seen that there had been an overarching focus on economic growth, which largely relegated environmental and social concerns. And thus, this report I would say provides a very path breaking aspect in terms of coining this particular term sustainable development and also defining what exactly it is and it says and it emphasizes the fact that strategies for achieving global sustainable development, sustainable development all across the world not only in the north not only in the south, but all across the world should be focused on reducing world poverty, improving agricultural practices, conserving energy resources, reducing greenhouse gas emissions, improving technology and reducing the disparities between the rich and the poorer nations. It also calls for resource sharing between the different nation states.

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Now, I think all of us know that there are 17 sustainable development goals, but the interactions among the sustainable development goals I would say, is quite complex, in the fact that they are sometimes conflicting and they have a wide range of potential implications for environmental justice. Let us look at this a bit critically, a huge issue is that, so, we were also talking about environmental justice in the previous lecture, when

we were talking about environmental racism, environmental casteism and issues like that and I would say that a particularly significant issue is that environmental justice is not addressed explicitly in the context of the goals, in the context of most of the goals. But many of the goals and targets have very critical implications towards the achievement of environmental justice. And also, at this point particularly with this Covid crisis that we are all experiencing more needs to be done to address, something that is known as the elephant in the room also known as the economic growth in order to go beyond the promises of decoupling growth from environmental harm and towards sustainable degrowth that takes into account the intersectionality of injustices faced by the marginalized people. Power dynamics and complex interactions among injustice must be recognized in the sustainable development goals.

Say for example, poverty and inequality which is SDG, which is focused in SDG 1 and SDG 10, as we all know that the SDG 1 states that an end to poverty in all of its manifestations by 2030. But how far is it achievable considering the current forms of social and economic crisis that many of the nation states are going through in the post Covid period.

And it also intends to provide, I think the very definition of sustainable development and the fact that many of the nation states are major signatories to this convention, to the very promise of sustainable development, we also need to focus here on the fact that it intends to provide social protection for the poor, for the vulnerable, expand access to essential services and provide assistance to people who have been damaged by climate related extreme events as well as other economic, social and environmental shocks and disasters.

While the sustainable development goals refer to poverty in all of its forms and acknowledges some multi dimensional nature of poverty, such as health in SDG 3 and education in SDG 4 - the sustainable development goals nevertheless focus on poverty only as measured by money, but it is obvious that increased income, even if there is an increased income it cannot compensate for the depletion of the very critical environmental resources or the degradation of ecosystems like water availability, water quality, forest biomass etcetera on which the lives and livelihoods of several urban communities, marginal communities are dependent.

In recent years there is a talk about the smart cities mission as a way to achieve sustainability in India. In a particular article in a very recent article, we find that the authors critically examined the vision of smart cities in India. Now, we all know that India's land cover and land usage are changing drastically as a result of rapid urbanization and we have already seen that Delhi, Bombay and Kolkata are three of the world's most populous cities and more than half of India's population is also projected to reside in the cities.

Now, this enormous space of urbanization will offer very significant challenges to urban resilience to the vision of sustainability, particularly for the poorest and the most vulnerable sections in the city; the city dwellers, the migrant laborers, the traditional village people etcetera. Smart cities are very ambitious initiative by our country is seen as having a major promise in tackling many of the sustainability issues.

And this strategy is driven by a belief that technology is supreme in the effective management of urban growth and there are also other concerns involving the significance of nature and the restoration of flourishing ecosystem for the well being and health of the city people. And the mission considers this particular focus on environmental sustainability as very critical, a robust adaptive and a resilient road to urban sustainability is thus promised by this particular mission, requiring a systemic focus on the urban ecosystems as well as the conservation of urban commons.

And in this particular process many of the urban poor whose livelihoods, resilience, health and nutritional levels depend on the access to provisioning ecosystem services have been affected to a large extent. They have lost access to services provided by the natural ecosystems due to the dual process of privatization for urban land use and public protection for conservation.

The environmental implications of increased urbanization are right now apparent to all of us. Most Indian cities and small towns have degraded and destroyed their natural ecosystems, turning urban woods, lakes and wetlands into polluted versions of their previous ecological strength and converting them into enormous swaths of concrete building.

And one of the major questions now that is being asked by many urban ecologists, particularly keeping these ambitious policies like the smart cities in mind that why should we be concerned about the effects of urbanization on the urban ecological commons. Now, of course, this is partly due to their inner worth that we have all discussed that they perform different kinds of services.

However, something that is very again very less discussed by in most of the scholarship that we find, are the enormous health and well being implications - the very very positive health and well being implications that are being provided that are provided by the urban ecological commons for most of these overpopulated cities that we find in India.

So, for instance we see that trees, street trees I would say particularly they provide shade for all including vulnerable groups such as different street vendors. We see that urban ecosystems provide a variety of services that are necessary for the cities long term viability. Wetlands, we see that the wetlands in the cities, they help in filtering water for instance in the lakes and the ponds that have been largely contaminated by industrial pollutants - by sewage, while we see that the trees clean air, they help to reduce pollution.

Coastal wetlands in many of the cities for example, so far, we have already discussed the case of Mumbai, which has in the previous lecture we were talking about the fact that Mumbai has large number of fisher communities. So, coastal wetlands for instance in Navi Mumbai are very very ideal ecosystems which protect the city from flooding

whereas, the inner wetlands protect cities like Chennai from flooding during the periods of heavy rain.

Trees in multiple cities we see that they purify the air and they provide shade for street sellers and pedestrians lowering the dangerous pollutants, including suspended particulate matter and sulfur dioxide levels and since they regulate the environment, these services are many of the services that are provided by the urban ecosystems the urban ecological commons these services are known as the regulatory services. Because they are regulating the environment of many of these cities and they are bringing their pollutions to a permissible level.

Urban ecosystems such as the Mumbai's coastal wetlands and for instance Bangalore's parks provide very important supporting ecosystem services for instance; like they provide habitat for migratory birds, for bats and different other species. Cultural and recreational ecosystem services are also essential in urban ecosystems.

Through their sacrality and reverence ecosystems hold a very very significant place in the cultural landscape of urban India as well, as we were talking about the sacred groves in the last class - you must be must be remembering that many of these sacred groves house varieties of trees that have been worshipped by the community, the erstwhile community for a very long period of time. And as I was saying that green landscapes they promote health, they provide psychological reprieve from the growing urban stress.

Parks, lakes and coastal beaches serve as key social gathering places, building social ties among the dispersed the nameless, otherwise nameless city dwellers the public as well as the policy maker and planners realize the necessity of urban regulatory supportive and recreational services. And nonetheless the availability of urban ecosystems for providing these services we see have been declining in many of the Indian cities.

Lakes, tree cover, grasslands, wetlands previously provided fodder fuel wood and other key resources these we find in practically all Indian cities. Many people from the livestock ranchers and fishers to migratory workers as well as the destitute still use these environmental resources, thousands of local residents for example, they harvest fodder, fuel wood and food from Mumbai's mangroves while the lakes we see in many parts of Bangalore, continue to give fodder for cattle and milk and fish to the city residents.

And also, we have seen that in times of scarcity and necessity these species have historically served as urban commons offering collective resources for the entire community. But unfortunately, as I was telling you that we see that most of the times local planners and the administration have allowed for large scale conversion of these lands towards urban different kinds of urban projects.

Another very important point that I would be mentioning here is the fact that many of the projects like we were talking about smart cities and the particular vision that smart cities entail about the fact that we should make these cities much more ecologically diverse. But several examples from different parts of India again talk about the fact that while making the city smart - the project is mostly focused on technology driven, infrastructure driven visions of transforming the cityscapes.

But so, I was referring to one paper which was talking about the green spaces in Bangalore. So, several such studies, recent studies are trying to argue that instead of a sole focus on technology driven cities at which are largely compromising the urban ecosystem - an "environmentally smart city" can actually be the smartest city that one had ever thought of.

And this kind of approach - an "environmentally smart city" would help the cities becoming more resilient by delivering different kinds of things, like low cost adaptable and efficient solutions to the issues of supplying safe food, clean water, clean air towards the unprecedented and rising population. A very systematic focus on urban ecosystems is thus essential to construct environmentally smart cities, restoring their original function as urban commons that provide vital provisioning, regulating, recreational and supporting ecosystem functions.

So, in another study we find that Mahadevia points out how debates on urban development look either at urban development or sustainable cities, but they often overlook people centered approaches to development. Now, urban development generally entails economic growth whereas, the latter these environmental problems. There is a need for a more inclusive approach, one that puts the vision of the poor and the marginalized sectors at the center and includes all other dimensions of development in a more holistic manner.

The pursuit of sustainable development and sustainable cities is thus set against the backdrop of a globalized world, where the North dominates the South in economic terms, the ways in which sustainability have been understood in the North has led to the development of ecological cities where economic and environmental costs are largely taken into account.

There is self reliance in terms of resource production and waste absorption. But in cities of the global south the condition is quite different as the national and the local governments in most cases fail to provide sustainable solutions for poverty. We see that there is a very - for instance in different cases we have seen that different organizations, different global organizations for instance the World Bank and the IMF they have been providing with significant aid right now to many of the nation states towards a vision of development, but then very little of that is actually people centered and while the focus

would be on the issues of eradication of poverty and diminishing inequality - if we cannot interlink between these issues the economic issues and the social issues, as I was saying earlier, then there would be a very I would say skewed focus on holistic development, on holistic growth, on holistic solutions or towards a particularly resilient and particularly useful people centered approach towards development.

So, that is why I again reiterate that four factors are extremely important and these are interlinked environmental sustainability, definitely, social equity, economic growth with redistribution and political empowerment of the disempowered.

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So, let us look at some of the ways in which we can achieve sustainable urban planning. It is obvious that we are at a critical juncture to ensure the protection and safeguarding of our cities lungs against the ill intentions of the real estate sector. According to Samarth Das, empowering our cities to plan for a truly positive nature, natural future will necessitate empowering the very natural assets and features that will ensure a long-term balance between the built and the unbuilt environments.

According to Gajjar, the first step is biodiversity planning or green printing, this will facilitate a combination of efforts including education and communication campaigns about nature, increased direct access to nature, conservation planning and establishment of green and blue infrastructures. Asian, African and South American cities or city regions we can see are experiencing spatial concentration of biodiversity loss.

So, there is a need for the collaboration between scientists across a range of natural sciences and urban planners and practitioners if we are to combat this particular problem. Efforts of citizens groups who demand protection of nature in their cities by engaging them in the assessment process through citizen science tools and empowering them to align their efforts based on scientific evidence may also help in this regard.
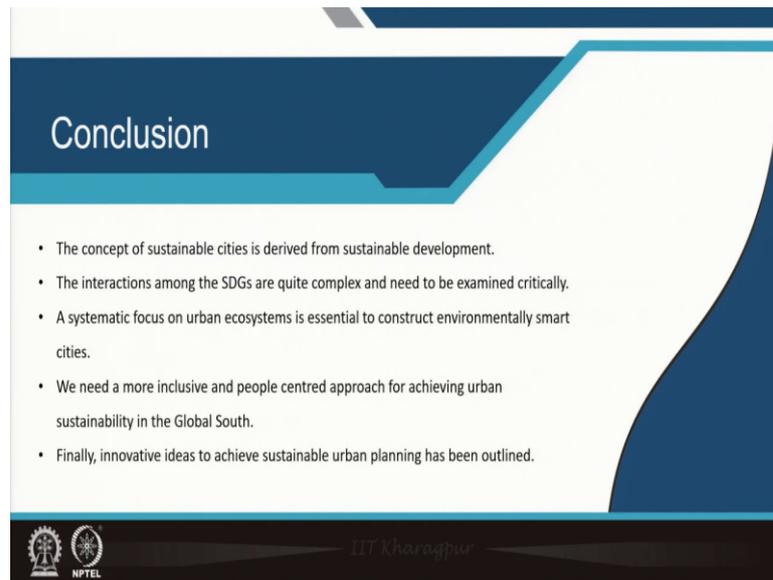
Arosemena says that a fundamental strategy for empowering the cities and guiding them towards a positive natural future is to develop a model of the city, that contains the growth of the urban sprawl through re-urbanization. According to Grant, understanding embracing and acting on the "sponge city" concept will be the most powerful and effective way that we can increase the biodiversity in our cities among many other benefits.

So, what is a sponge city? A sponge city is an urban region that uses a number of ways to deal with excessive rainfall. So, existing metropolitan areas frequently experience floods as a result of the heavy rain, high tides or overflowing rivers. And the "sponge city" design can help lessen or prevent such catastrophes by allowing the environment to absorb the water naturally. Reducing the quantity of hard surface and increasing the amount of absorbent land particularly green space, help reduce the intensity and frequency of flooding disasters.

Another article by Lynch refers to the fact that meaningful citizen engagement for participation in decision making is the best way to empower cities to achieve their aspirations and goals for a positive natural future. Working together city governments and communities can make rapid progress towards creating healthy natural cities.

According to Maxwell, justice is all about people and about places. If we invest in natural solutions in neighborhoods that need them most, we can ensure not only a natural future for cities that protect the biodiversity, but an equitable resilient and sustainable future as well.
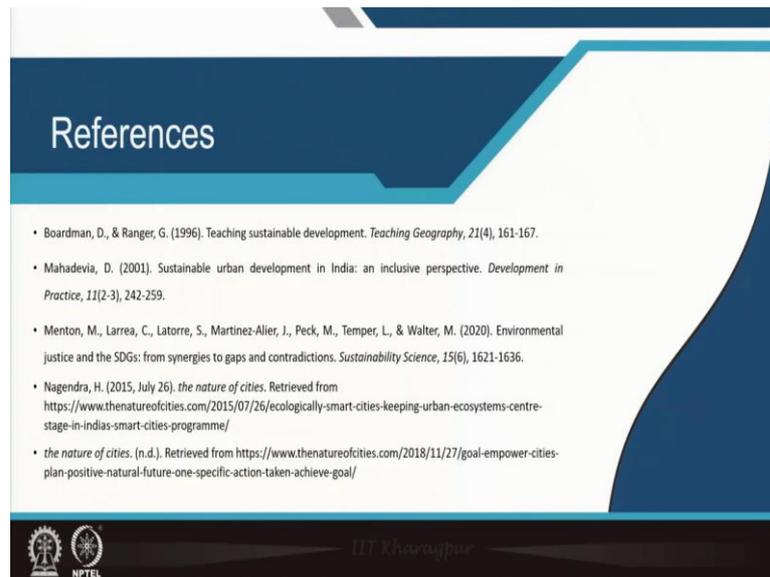
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Let us briefly summarize what we learnt in today's class. Firstly, the concept of sustainable cities is derived from sustainable development definition containing in the Brundtland commission report, 'Our Common Future'. The interactions among the sustainable development goals are quite complex and need to be examined critically.

A systematic focus on urban ecosystems is essential to construct environmentally smart cities. We need a more inclusive and people centered approach for achieving urban sustainability in the global South. Finally, innovative ideas to achieve sustainable urban planning has been outlined.

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So, these are the references that has been used for the making of this lecture.

Thank you for joining and I will see you again in the next class which is about "Rethinking environmental justice in the cities."