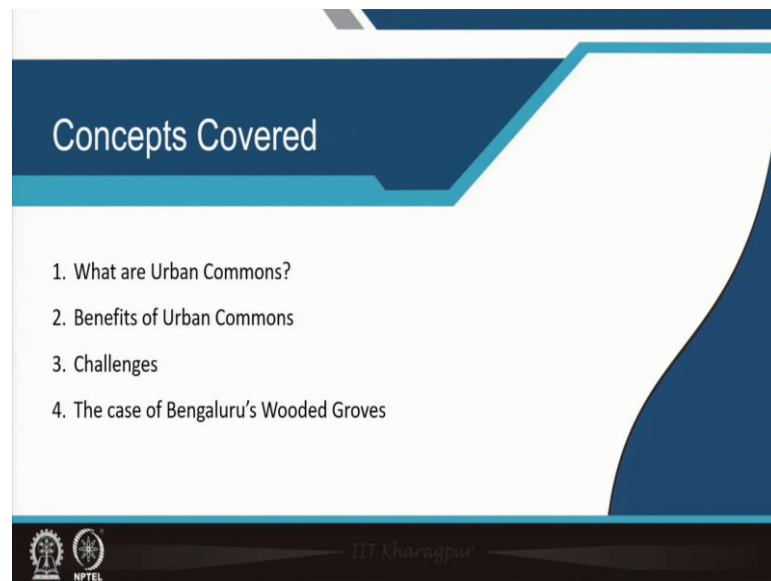


Sociology and Resource Management
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Module - 03
Understanding Urban Commons
Lecture - 11
Natural resources and urban ecological commons in the city

Hello everyone I am Doctor Amrita Sen and I would be delivering the lectures of Sociology of Resource Management starting from week 3 through week 4. This portion of the course would largely focus on the commons in the city, thus the name of the module as you can see is ‘Understanding Urban Commons.’ We begin the first lecture that is on Natural resources and urban ecological commons in the city.

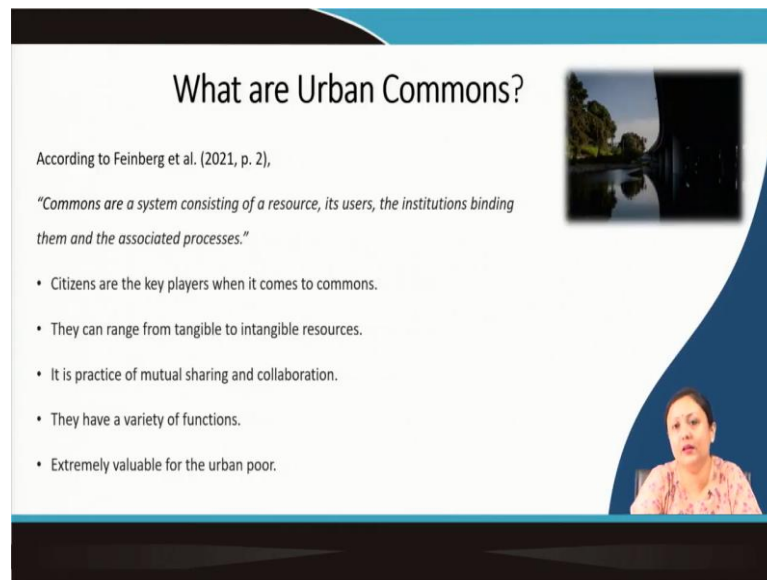
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As you can see that, as we would be focusing on the commons in the city. So, the outline is majorly focused on urban commons. We will first begin by defining what we mean by urban commons, then we will discuss about the variety of functions that urban commons serve. We will then move on and discuss about the challenges that we face - those that threaten the urban commons.

Finally, we will discuss about some case studies, starting with the particular case from Bangalore, the city of Bengaluru's Wooded Groves. So, let us begin with the lecture.

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What are Urban Commons?

According to Feinberg et al. (2021, p. 2),

"Commons are a system consisting of a resource, its users, the institutions binding them and the associated processes."

- Citizens are the key players when it comes to commons.
- They can range from tangible to intangible resources.
- It is practice of mutual sharing and collaboration.
- They have a variety of functions.
- Extremely valuable for the urban poor.

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In the beginning like to mention this fact that we often see commons as a part, particularly the ecological commons, as a part of the rural, as a part of the villages, like many of you would be knowing by now that commons largely mean the particular ecological tracts like they may be the lakes, they may be the rivers, they may be the grazing lands, particularly those resources that are shared by a group of people by a community together. And I would like to reiterate here that just as we find a predominance of urban commons in particular villages commons that are jointly shared by the village communities - it is very fascinating to see an equal amount or I would say- I would say a very vibrant coverage of ecological commons in the cities as well.

But because of the fast pace of life in the cities we usually miss out on these ecological commons, but they are very integrally present in many of these cities historically and they perform a variety of functions very very critical provisioning services, ecosystem services, regulating services for the city considering the current challenges environmental challenges that many of the cities are facing.

And also, I would like to mention here that the study of urban commons recently has seen a particular resurgence of interest within the scholars. But let us systematically here try to look into the definition or what exactly we mean by the commons. So, in one paper we find that Hardt and Negri describe the term commons as “the foundation of shared material

as well as symbolic resources; based on which humankind the communities can live together.”

So, in a larger sense they are a set of shared resources which the community shares within themselves preferably equally. And commons can range from different things - so, they can be tangible they can be intangible, but for the interest of this course for today's particular lecture we would be largely focusing on the ecological commons in the city, the urban ecological commons which are largely tangible in nature.

Another very important definition is offered by Feinberg et al. They define the commons as a system consisting of a resources, it is users, the institutions binding them and the associated processes. So, according to this particular study the commons are not only a resource in themselves, but they are at large a network that is constituted by the resources, the users, the institutions as well as the different other agencies who govern and use these resources collectively.

Again, we can say that the commons is a way of looking at societal transformations via the practice of mutual sharing, via the practice of collaboration because as we already know that most of these commons are shared by the community together. Thus, as we are talking about the urban ecological commons it goes without saying that the rivers, the lakes, the ponds, the green patches, the grazing lands all of these act as common pool resources or the commons in the city.

And here in a city particularly, in the context of the city the citizens are the key players when it comes to these commons. As we can see that most of the urban commons are generated and used by the community itself. In fact, we should also mention here that many of these urban ecological commons have a variety of functions, as I was telling you about provisioning services, regulating services. So, we can see that these commons integrally they provide food, they provide water, they support biodiversity, they regulate climate.

And also, they are in many cases in the city we see that they are very important sites of recreation as well as we see parks and green spaces in the city. So, they are used for multiple other kinds of functions recreational functions by the urban community as well. In fact, we should also mention here that the concept of urban commons rests on the fact that it should be accessible to, it should be utilized by the urban communities, specially

the most vulnerable sections who are largely dependent on many of these commons for the livelihood services that they provide to produce goods and services that are important for the sustainability of these people. And another thing that is very important here is that - we see that all too often most of the times we forget about these resources when we talk about urban planning - when we talk about planning the city, we do not give much importance to the fact that cities are also very very critical sites of ecological commons. And the fact that these commons are extremely important and significant for the functions that they provide to the city in the times of the current environmental crisis and also for the reason that most of these commons are absolutely critical for the livelihood, for the subsistence of different marginal population.

As we were discussing, they may be the migrants they may be the pavement dwellers, they may be the slum dwellers at for most of these people who are the city marginal. We see that the commons provide several livelihood services, they provide fodder for the cattle, they provide protection during harsh winters, they provide places to bathe, to wash their clothes and several other kinds of functions.

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The slide features a title 'Benefits of Urban Commons' at the top center. Below the title, it states 'They provide people with:' followed by a numbered list: 1. Livelihood opportunities, 2. Sites of Recreation, 3. Creates Identity, 4. Economic factors, and 5. Ecosystem Services. At the bottom of the list, it says 'But at the same time, there are many challenges.' To the right of the text is a small rectangular image of a park with a pond and trees. In the bottom right corner of the slide, there is a small video inset showing a woman speaking.

Urban commons are beneficial to individuals and we must mention here that the degradation of urban commons is generally considered to be a loss. Now systematically let us look into some of the services that they provide as we were talking about them. So, first and foremost livelihood, they provide livelihood support largely for people who

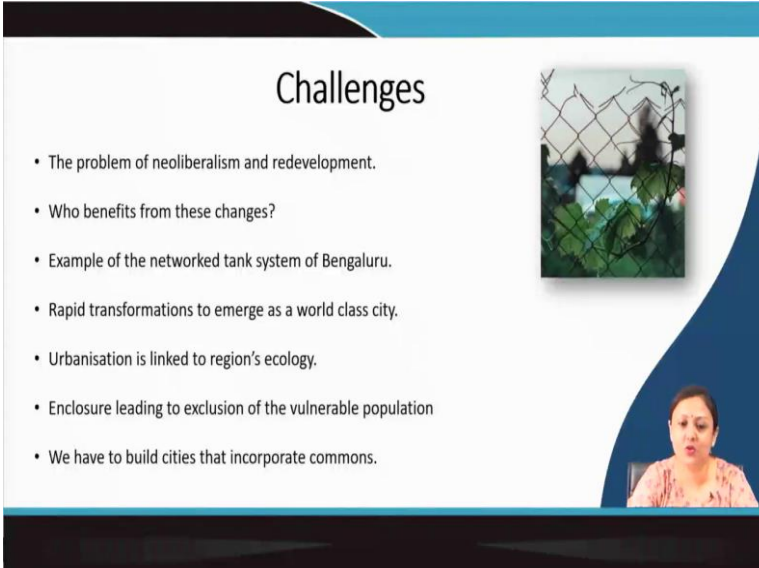
practice urban farming, gardening, agriculture, irrigation, fishing and also, they may have a very important sacred value and cultural function; something that we will come to when we discuss the case of Bengaluru.

Recreation is another very important benefit. Commons provide the opportunity for recreation and give people a place, where they can connect with nature in an otherwise very busy city. Identity - so, commoning which is a practice that links the resource to the nearby community of users also helps to create individual and collective identity and urban commons may also represent an opportunity for social integration, cultural diversity and co-production.

They also have certain very important economic value; because the urban commons can help neighborhoods increase or create economic value. The socio-economic backdrop is usually a very powerful motivator for communing. Greener and cleaner environments are most susceptible to investment than, than decaying dense neighbor neighborhoods.


And also, ecosystem factors greenery driven climate regulation, urban biodiversity preservation, soil fertility maintenance and air water and noise pollution reduction are all very key ecosystem services that are provided by the commons in the city. But at the same time there are many challenges in today's world in the context of conserving these very critical urban commons.

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Challenges

- The problem of neoliberalism and redevelopment.
- Who benefits from these changes?
- Example of the networked tank system of Bengaluru.
- Rapid transformations to emerge as a world class city.
- Urbanisation is linked to region's ecology.
- Enclosure leading to exclusion of the vulnerable population
- We have to build cities that incorporate commons.



So, Feinberg provides a very powerful critique on neoliberalism here. The interests of global finance capital rather than the interests of the society or more broadly human rights are seen as driving socio economic dynamics. Redevelopment typically benefits affluent communities at the expense of the urban poor, thus the conversion of commons areas into private or public places is one of the primary points in the critical debate on market driven developments.

As I was telling you about the challenges faced this can be better elaborated with an example. In a particular paper, Unnikrishnan, Nagendra and myself look at how the history of urban water commons in Bengaluru - transformed in the city of Bengaluru and here we elaborate the networked tank system of Bengaluru. How this particular system was created by human interventions with the documented history that dates back as far as the 9th century CE.

And it was a very integral local community driven system - this entire system of tank irrigation that existed historically in the city of Bengaluru, where we find that the local chieftains they oversaw and supported the construction and maintenance of the tanks which were further managed through caste based and gender based manual labor systems. But largely as the city urbanized right now we see that many of these lakes have declined have completely lost their critical usages, their functions, the functions that they used to provide earlier, their role as key supplies of water in the city.

For example, this has widely deteriorated and also several kinds of land use changes also had an impact on the socio ecological commons landscape, worsening marginalization among nature dependent communities like the grazers, the fishers as a result of the lost livelihoods. Because nowadays we see that many of these lakes even if they exist in the city they are mostly fenced.

And in this particular paper we have also argued that ecological commons in the cities can have profound values for long term human wellbeing of numerous communities, specifically, I would again say about the urban marginal whose stakes and interests need to be recognized while designing nature restoration plans. We gain more insights into the networked lake commons of Bengaluru to show injustice, heterogeneities and different kinds of contestations that have existed for years around the lake areas.

In the previous two decades India's metropolitan areas including their cores, sub centers and peripheries have grown significantly changing much of the rural agrarian hinterland terrain into built spaces. This has been brought about by the imagination of the middle class - a relatively homogeneous urban community, who possess shared aspirations and interests which can be motivated to co produce or undertake stewardship of the resources.

According to Arjun Appadurai, who is a very prolific urban scholar, such transformations have made blatantly visible contradictions between high concentrations of wealth and even higher concentrations of poverty and disenfranchisement. Multinational franchises, high rises supermarkets, luxurious shopping malls drawing the affluent urban shoppers, fitness centers, multi specialty clinics and other amenities are all the necessities of the urban elite as well as the common facilitators of rapid transformations into the world class city.

So, we see that manicured parks with exotic planting, gated green spaces, rooftop gardens and other constructed areas are largely being developed in the cities. But with urbanization and population growth tangible imbalances in access to these kinds of lands basic infrastructure as well as livelihood have emerged. So, we were talking about the city of Bengaluru and we largely see that the transformation of Bengaluru is mostly on these lines only towards creating a manicured city, manicured green areas.

So, Bengaluru's urban regeneration we see which was largely fueled by national and state investments and also the desire of the city itself to become globally competitive as an information technology hub, mostly disregarded the cities poor who continue to live in squalors with inadequate infrastructure and facilities and we have to keep in mind that Bangalore as a city suffers from different kinds of issues - like we see that the city is experiencing severe water scarcity, temperature rise, air pollution.

Over a 100 years later, the population of Bengaluru right now we can see it is over 95 lakh and the city covers an area of about 750 square kilometers. So, according to Harini Nagendra, in Bengaluru there is, there was never any perennial water source and so the city planners of the 20th century used the undulating topography of the region to create a series of interconnected lakes for the water needs.

They developed tanks and lakes that were largely constructed to meet the needs of the city's rising population. According to another paper, the tank system of water supply was

in operation until the mid 19th century after which the city began to receive piped water from other distance sources - right now the city largely imports water from river Kaveri.

As a result of this effort of waterscape engineering inhabitable places were created on formerly harsh terrains. This rising demand for water later corresponded with the introduction of electricity allowing for alternative methods to fulfill the new demand such as pumping water over increasing great distances straight into people's house. The older tank system completely became outdated as a result of the new networked pipe infrastructure, which eventually led to their degradation and conversion into other built structures.

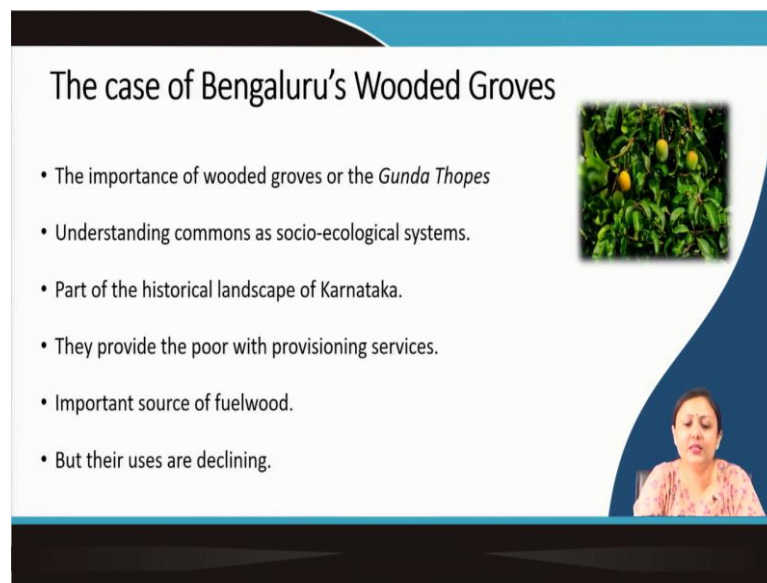
Now, with all these kinds of transformations what happens to the natural spaces on which the vulnerable people depend. Thus, as we can see urbanization has often been linked to threats of dislodging the lower income settlements of marginalized communities leading to multiple forms of exclusion, from the urban commons, that were once the source of livelihoods in these cities, in cities like Bengaluru. The city's middle- and upper-class people are no less reliant on the commons, we should mention this because of our own very existence, we also need many of the ecosystem services like temperature regulation, reduction of the pollution - all of these ecosystem services are very brilliantly provided by the ecological commons in the city. So, we should not say that it is only the marginal who are in need of these commons for their livelihoods, but equally we as the middle-class residents of the city require these kinds of commons.

And we must remember that gentrification, the growing gentrification in many of these cities and the enclosure of urban commons are believed to reduce pollution and increase aesthetic and recreational value. On the other hand, this form of governance we see it severely limits the capacities of many of these water bodies like lakes as we discussed the case of Bengaluru to provide provisioning and cultural ecosystem services.

As we see that urban commons right now are available only to a selected set of people who have a myopic perspective on the resources. So, in the city of Bengaluru as with several other cities across the globe - the social justice aspect of these activities is less salient than the focus on aesthetic and recreation. However, the inherent heterogeneity vulnerability and historically produced inequity in urban planning processes and discourses must be recognized and addressed.

It is thus our task to envision a just future in which cities look beyond mere greening and urban design to make societally meaningful, environmentally friendly and rooted restoration with the objective of promoting ecological and social health for a wide range of city residents.

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The case of Bengaluru's Wooded Groves

- The importance of wooded groves or the *Gunda Thopes*
- Understanding commons as socio-ecological systems.
- Part of the historical landscape of Karnataka.
- They provide the poor with provisioning services.
- Important source of fuelwood.
- But their uses are declining.

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Let us explore another study in the context of Bengaluru which talks about the wooded groves which are also very commonly known as the Gunda Thopes in the city. And this will give us a clearer picture on how these groves which were earlier a very important part of the commons, help the communities and were also maintained by them. It is obvious from or from our discussion so far that the urban commons are characterized by close interactions between the society and nature and they are very essential parts of the social ecological system.

And we see that in one particular paper Mundoli, Manjunatha & Nagendra talk about the importance of these sacred groves or the Gunda Thope as they are called because, they have been a very important part of the historical ecological landscape of the entire state of Karnataka. And these Thopes or these groves are full of a variety of trees, so they are basically a particular tract of land which has a very dense cover of different kinds of small and large trees.

The preferred species of trees, particularly in the city of Bengaluru, found in these thopes included native timber and fruit yielding varieties, such as mango, jamun, jackfruit,

tamarind, different species of Ficus, mainly cluster fig, Mysore fig, banyan and the sacred fig. The thopes provided the urban poor with provisioning services supported traditional livelihoods, but have become of significant importance for the migrant communities as well.

One of the primary purposes of the groves in the past was to provide wood to meet the needs of the village and individual households. Even for this it was mainly the dry and old branches that were used and rarely the healthy trees were cut. So, there was a very fascinating community managed system, which ensured that resources or trees from this particular tract are not over exhausted.

So, fuel wood was an important raw material that was very frequently sourced from these commons and community meals during the festivals were cooked using the wood from these particular Thopes. Fruits from trees like mango and tamarind too were distributed for consumption at home, the thopes we see, still today, they continue to support several provisioning ecosystems services as we spoke about here.

But naturally with the expansion of the city we see that their critical contribution towards livelihood and subsistence as it used to be earlier has largely declined, it has declined over the years. The social and cultural functions of the Thopes for the local communities have also declined for a number of reasons, particularly the growing urbanization and the impacts of industrialization.

And we see that initially historically these thopes would be sites where the villagers would gather for meetings or to celebrate festivals and during the festivals, feasts - different kinds of festivals were held there. The thopes also had religious functions as there were shrines dedicated to different gods and goddesses.

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The case of Bengaluru's Wooded Groves

- This is due to conversion, encroachment and degradation.
- Infrastructural projects are leading to conversion
- Restrictions placed on cutting wood
- Increased land prices
- Many *thopes* exist in peri-urban Bengaluru and are important for the survival of the migrant population.
- Major consequences for resource dependent groups.

The ecosystem services provided by the Thopes have been compromised owing to their conversion, rapid encroachment, due to city growth and degradation. The traditional land uses have disappeared and are now paving the way for urban land uses fueled by sky rocketing land prices and illegal land dealings. The decisions related to conversion in the past was primarily by the local community mainly keeping in mind the development requirements of the village. But now we see that proposed infrastructural projects like building ring roads are accelerating the process of conversion of the Gunda Thopes.

Today the restrictions placed on cutting wood has reduced the thopes contribution to village development works. On the other hand, as a result of urbanization and the increased land prices many of the local residents have actually become rich by selling their erstwhile lands. The health of the urban commons is important thus as multiple ecosystem services that they provide improve the quality of life and they are also very critical for the ecological resilience of the cities.

The loss of these ecosystem services we should remember, on the other hand, whether as a result of ecological degradation or the social political or economic processes and transformations has many severe costs and they can actually negatively affect the social ecological resilience for cities particularly for the resource dependent population.

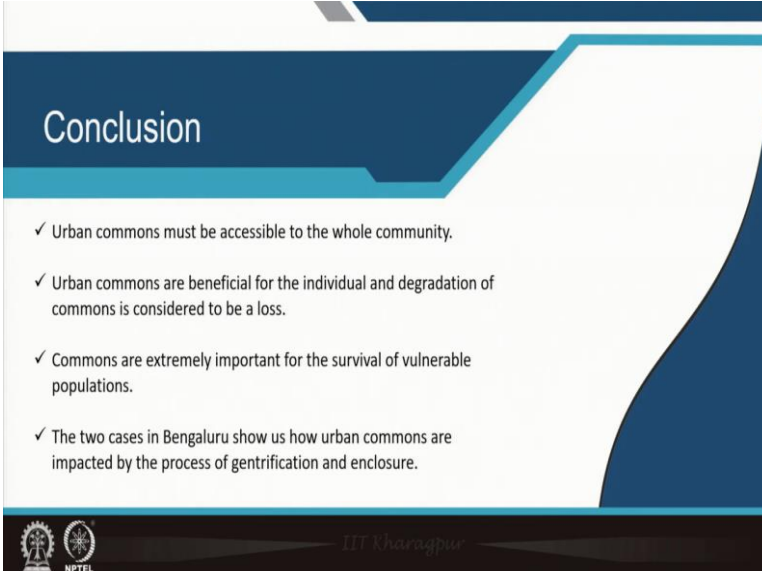
According to Mallik, the peri urban interface of Indian cities such as the Bengaluru is predicted to grow and become more impoverished as a result of the concentration of an

unorganized migrant workforce. We can also see today that many Gunda Thopes exist in per urban Bengaluru and they are actually very important for this migrant community, there the migrant population - for their food their fuel wood fodder gathering as well as a variety of other ecosystem functions that these commons provide till-still now.

The Thopes are no longer available for grazing, because there have been several restrictions imposed on these Thopes due to the current urban planning system. And while many households have switched to liquefied petroleum gas as a fuel source many can no longer afford the expense of cooking with fuel wood taken from public lands. Thus the loss of Gunda Thopes provisioning services can actually have major consequences for people's lives and livelihoods.

Particularly for resource dependent urban underprivileged groups, when compared to rural commons urban commons are we can see that they are highly contested resource because of the large population size of the cities and the major hierarchies, social hierarchies that exist in a very stark way in many of these cities.

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Conclusion

- ✓ Urban commons must be accessible to the whole community.
- ✓ Urban commons are beneficial for the individual and degradation of commons is considered to be a loss.
- ✓ Commons are extremely important for the survival of vulnerable populations.
- ✓ The two cases in Bengaluru show us how urban commons are impacted by the process of gentrification and enclosure.

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Let us come to the conclusion and let us summarize what we discussed about today's lecture briefly. So, urban commons must be accessible to the whole community. Urban commons are beneficial for the individual and degradation of commons is considered to be a loss for the entire urban community. Commons are extremely important for the

survival of the vulnerable people. The two cases of Bengaluru as we discussed show us how urban commons are impacted by the process of gentrification and closure.

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So, these are the references that has been used for this particular lecture and these references would be sent to you. I would suggest all of you to go through all these papers that have been suggested here for a much clearer understanding of the concepts and the issues that have been covered in today's lecture.

Thank you and we would meet again in the next lecture which is on Urban Commons and Social Ownership.