Urban Services Planning
Professor. Debapratim Pandit
Department of Architecture and Regional Planning
Indian Institute of Technology Kharagpur
Lecture 01
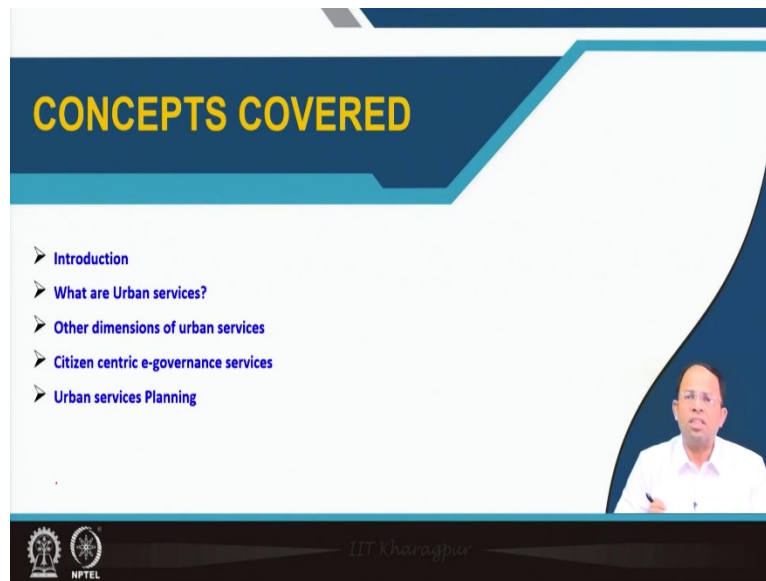**Introduction**

(Refer Slide Time: 00:25)

Welcome to this course on Urban Services Planning. I am Dr Debapratim Pandit from Department of Architecture and Regional Planning, IIT Kharagpur.

(Refer Slide Time: 00:32)

In the first lecture, we will introduce this concept of urban services planning.

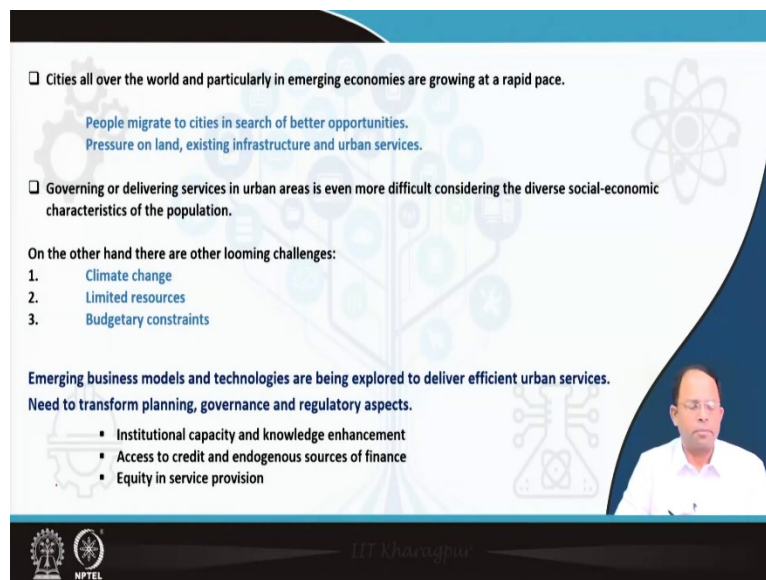So, the different concepts that we will cover are on what are urban services, what are the different dimensions of the services and we will focus we will talk a little bit on the citizen centric e-governance services. And finally, in general, we will talk about urban services planning.

Cities all over the world are particularly and also particularly in the emerging economies such as India is growing at a very rapid pace, and not only the major cities are growing, but many of the rural centres are gradually being transformed into urban areas. And lots of people not

only from the rural areas migrate to different cities, but from smaller cities people migrate to larger cities and so on.

So, this migration is primarily the reason because people want to look for better opportunities, they will look for jobs. So, they will all for a better life or a better quality of life. So, people would tend to migrate to better urban areas or bigger urban areas. Now, this puts an enormous amount of pressure on the land, that is the existing land in an urban area on the existing infrastructure that is there in the urban area, and the different source of urban services that are provided in an urban area.

So, the problem is we have a fixed quantity of land, which needs to be expanded because new people are coming in. And with this expansion requires the infrastructure to be augmented as well. But sometimes the infrastructure design is such that augmentation is a problem. And for that matters, if I have to provide certain kinds of services to the citizens, those kinds of based on the kind of people who are coming to this urban area, we have to cater to different groups of people.

So, gradually because of this enormous growth, it is getting difficult to deliver this kind of urban services in urban areas, and the challenges are increasing every day. And particularly in the context of we have different socio-economic groups, every groups have different requirements. So, all this diversity is actually making delivering of the services very, very difficult.

So, in addition to the demographic or addition to the pressure from population, and also based on this, and also other issues that are related to land use, or the amount of available resources that are there in the urban area, we have other looming pressure challenges at all as well, such as the climate change, and as you know, that because of climate change, there are certain changes in the weather pattern, we are having more number of cyclones and we are seeing that there is increasing flooding in urban areas and so on.

So, all these problems are augmented. So the existing problems which are already there, are getting augmented because further because of climate change. So in when not only climate change, because all our urban areas are growing and there are new areas being transformed into urban areas. There is also pressure on the amount of resources that we can spend to augment our infrastructure or augment services in our area. So that means we have to the if problems are increasing, but at the same time, the resources required to tackle this kind of

problem, both physical resources as well as budgetary resources or financial resources there is a pressure on both of this. So that is the challenge that we have to deal with. And to do that, we have to really look into urban service delivery from a different perspective, we have to use different sorts of business models, we have to use different new technologies. And we have to see that how all these mechanisms that we propose can actually help us in delivering more efficient urban services.

So it is to bring in this new ways of business models of operation or to bring in this new technologies. For example, if I tried to introduce smart monitoring systems or smart systems in urban areas, this also requires transformation of every aspect of urban services planning. That means we need to transform the overall planning approach the governance approach and also the regulatory aspects that govern urban services plan.

Now, regulatory aspects mean for example, the different rules and the laws that we set or the standards that we said that this is what has to be delivered. So, all these aspects need to be looked into and how do I design a system which is which will be able to take care of this new technologies or it will be able to deliver decisions that are much more faster pace, that is the focus of this kind of transformation that is required for urban areas.

So, in addition to when we talk about this transformation, actually we are talking about, we need to enhance the knowledge that is there, that is the first thing that means, our municipal or our officials or the urban managers who are supposed to deliver the services or the technical people who are supposed to deliver the services, they should be aware of the different technologies they should be, so, their existing knowledge base has to be enhanced, so, that they can introduce these kinds of services in urban areas.

So, to take care of these changes. So, not only the staff or the knowledge base of the staff has to be enhanced, but at the same time the institutional capacity or the overall structure of the institutions, how to design a particular management service, all this needs to be upgraded. So, institutional capacity reform is also required, then, to make sure that we get finance as I was telling you that finances are limited, we have to make sure that we get access to credit that means, we can get money at as, we can take loans at a lower interest rate, and we have to make sure that we generate adequate money inside our municipal areas or inside our urban areas.

So, that means the services that we are going to provide that should not be given a free of cost, but there has to be some component of recovery so that we can generate finances to actually sustain the overall services delivery for an urban area. Finally, we talked about equity in service provision as there are different socio-economic groups. And as you know that in an urban area, there are different parts of the city may have different the quality of life may be different, different approaches needs to be taken to address those particular service gaps.

So, how do I provide service and for whom I should provide service should I provide service uniformly to everybody or should I provide some services mode in certain areas. So, this is where we talk about equity and equity is another big aspect which has to be considered when we do urban services planning.

(Refer Slide Time: 07:46)

So, first, let us try to define what urban services. Now, Lineberry defines it as the services performed by municipalities are those most vital to the preservation of life, liberty, property and public enlightenment. Now, what does preservation of life means that means we required the basic services such as we required services to fight fire, we required services to provide a security like the police services, we require services towards sanitation, that means we want clean cities and finally, we want Public Health Services.

That means in case we have certain health issues, we like for example, there is a Dengue outbreak or there is a malaria outbreak in the city, there has to be some way to address this through certain services in the urban area. So public health is also a big part of our urban

services plan. Now, when we talk about liberty, that means it is how what kind of rights we give to people, what rights people have.

So, this is what when we talk about the police codes or the prosecutors, this is what we are talking about that every person has the right to voice his opinion as well as the way he wants to live his life that he can do. So, this is liberty. And then property means when a person is living in an urban area, we cannot take his and he owns something, we cannot forcefully take his particular property. So and not only that, how do I manage this property and the biggest property in urban area is land or the buildings that come on those land right.

So how do I manage that so we need to zone the urban area to a certain… we need to create different zones, like some zones for commercial areas, some zones for residential area, or we need to do a proper planning or a structural plan of that particular city. And then we also need to generate resources by taxing this that means we can ask to ask people to pay money for the property they own and the services they receive in that particular city.

So this zoning, planning, taxing, these are not physical services that are being provided. But these are also some sort of semi or quasi services that you can say that has to be taken up in urban areas to manage urban areas and finally, to improve the quality of human life or we can introduce schools, libraries. So, not every person in a city is has a can afford to go to a school where he can buy the… he can pay for his education like a private school.

So, there has to be some facility from the government. So that everybody is given it everybody has right to education and so, that should be provided. So, that is why government also should municipal services also include provision of education via schools, libraries and so on. And in addition to what Lineberry said, William C, Baer he also introduced a few additional points. For example, he talks about the pursuit of happiness.

So, pursuit of happiness means, how I can improve the quality of life by giving some sort of recreational and other aspects or we look into some recreation or other aspects such as we talk about provision of parks, provision of spaces for recreation in an urban area, then overall promotion of General Welfare which may include the transportation services, the social services, the street network, and all this. And overall, we can also say that in addition to all this, we also required domestic tranquillity.

So that means the overall neighbourhood level environment, the housing situation, all these things should be also taken care of. So, this is how urban services has been defined. But, if I want to give it a more distinct definition on what urban services is, I can follow I can take the queue from Charles K. Coe, who in his book on urban services, he has mentioned 17 core services and 4 functional domains.

So, what are these 4 domains, these are public safety and health services, public works and planning services, Leisure Services and Support Services. So, these are more or less aligned with the previous aspects that we were talking about. And for example, in public safety and health services, we have police services, we have fire services, emergency management systems, emergency medical systems, for example, ambulance services in our city, for many of the old people living in neighbourhoods and all they in many parts of the country, we will show you in some case studies later maybe that they complain about availability of ambulances at different times of the day.

So that is a big service that has to be provided from the municipal government, so that people have access to this kind of emergency medical services, then animal control, public health and so on. So, similarly, when we talk about public works and planning services, which includes certain water treatment and distribution of water, wastewater and storm water management, street cleaning, street maintenance, and construction and repair of streets, and we have to do regular inspection and all this then solid waste collection and disposal, urban forestry all this comes under Public Works and planning services.

And finally, within Leisure Services, we can focus on Parks and libraries and those kinds of facilities and in support services, we can talk about certain kinds of public facilities, certain kinds of public equipment's, like for example, in many cities nowadays, to promote active living and to promote healthy living, people are introducing some sort of exercise and gym equipment's in urban parks and all so that people can also exercise along with a little bit of enjoying their walk in the park, they can also do some sort of exercises. So, this sort of things could be part of urban support services.

(Refer Slide Time: 13:49)

So, when we talk about urban services, usually we are talking about public services, municipal services or local services. So, these are the 3 terms which are used interchangeably, that when sometimes people will say public service, sometimes people will say municipal service and sometimes people will say local service. Now, problem is public, even though it is a public service, but it does not means that the service has to be provided by the government or by that urban local body or the Municipal Corporation for that matters.

So it has to be provided it can be provided by a private entity. For example, if there is a, there are a lot of old people in a particular community, then private companies can come and provide support at homes, for helping out the senior citizens. So in that case, it is a service provided by a private entity, but it can be monitored via the urban local bodies, but it is not directly provided by the Urban local bodies.

Similarly, when we say municipal services plan it is there a lot of services such as health services, education services, transportation services, these are not directly provided by the municipal body. So, they may be partly provided by the municipal body maybe for example, when I set up public bus services, this sum of many private operators can provide this service, but the municipal body can actually set what sort of fare can be charged from this particular or in this particular urban area.

So, it may have a say on that or in which routes the service has to be provided, but it may partly be involved, but the service is not directly provided by the government entity or the municipal body. Or similarly, if you talk health education, there could be private nursing

home there could be big hospitals, similarly, there are big private schools. So, they are all providing the same service, they are monitored to certain extent by the municipal bodies, but actual services provided by private entities.

Similarly, when we talk about the other things such as electricity, gas telephone services, so, in this particular case, municipality, either directly is usually not involved in providing the services, we have this companies, which could be state owned companies, which could be fully private companies, or it could be some sort of semi government body, which provides this kind of services, usually, we call this utility companies. So, this utility companies, they may not be limited to one urban area.

So, there may be a utility company, which operates in multiple urban areas. So, if it is a state level body, it may operate in different cities of the state, or if it is a private company, it may operate in different parts of the country. So, in that case, it is not a municipal service that means even though if the service needs to be provided at the municipal level, it is a service which will benefit all the citizens, but actually citizens are paying for it and also the services provided by a public company or private company or a utility company.

So, usually, so, this electricity, gas telephone services, these are fully privately owned utility companies, whereas there could be another form of utility companies, which are closely connected with municipal bodies and they jointly provide the services with the Urban local bodies, like such as utilities in water supply, sanitation, these are the companies which are in most cases, partially owned by the company partially owned by the government.

And what these companies do is they monitor the services, they will provide the they will set up the rules for provision of services. And they will tell some, they can also give some of their services on contract to certain private companies to augment that their capacity or they can by themselves also provide these kinds of services.

So to summarize, when we talk about municipal public municipal services, there are services provided by public utilities, it could be public utility companies or even sometimes private utility companies, services co-produced by voluntary and non-profit organizations. For example, suppose for solid waste management, when I have a collection system in the neighbourhood, a local non-governmental non-profit organization may be actually providing those kinds of services.
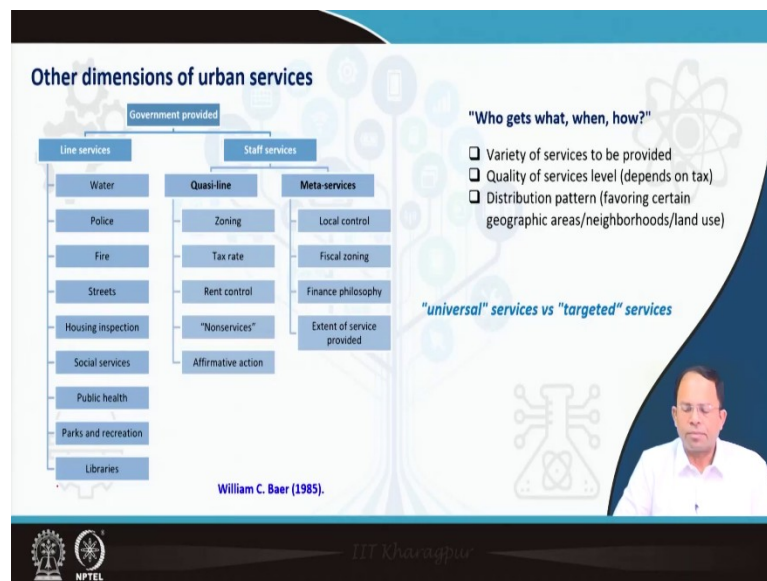
So in that case, it could be also voluntary service by a particular community group to do a certain service for a particular neighbourhood services could be co-produced by voluntary and non-profit organizations, then services co-produced by private citizens and governments, for example, a private citizen is having an app through which he can report that we were in the in the urban road network, where are the potholes, or he can read take a photograph and he can upload it.

So he is also doing a work or he is also doing a service for everybody else. So, it is a self-reporting case by citizens and this also helps in augmenting the service delivery for urban area. So, this is where a private citizen also becomes a partner to a government if not directly, but indirectly. The services provided by the private sector in view of government or co-produced with government that means sometimes the government gives a contract to a private company which can execute a particular work or it can do it as a public private partnership with a company it can co-produce it with a particular government with a public body or the municipal body.

Then there are e-services which are produced by joint ventures between public and private agencies. The for example, tax collection or for example, a new application for water supply connection. So there is an app which is developed by a private company, they take the feedback from the people but they also take the money or a person can pay money for that their job is to send this information to the municipal body of the particular office which actually does this work. And not only that, to actually monitor that if the work is being executed or to make sure that facilitate this entire process.

So, it is a joint venture between a private company which is developed this particular smart system and the public company, which is actually physically producing this particular service. And finally, there are many services which are also provided by the ULB directly that means the urban local body or the municipal body, they also provide many services on their own as well.

So, if I want to categorize the services, you can see that again, this categorization is also this different people have done different forms of categorization, but if I in general want to categorize you can see that there are urban line services. This means these are standard services provided along a network and all so as you can see, what are services police services, fire services, street cleaning, and all housing inspection, social services, public health.

So, these are provided at certain spatial locations in an urban area directly, then there are quasi line services that means these are services which are provided in an urban area, but this is not actually experienced by the people directly, but these are more in terms of rules, laws or other kinds of things. For example, the zoning rules for urban area the tax rate, how do you set up this tax rate?

So, that would be planning as an urban planner or as a planner for these municipal services, I have to determine how do I set the tax rate for this property tax or tax rate for something else, or rent control measures, what sort of rent control measures should be there, or what sort of other affirmative actions has to be taken for this particular area or what sort of zoning laws I should do for this particular urban area. So, these are also planning actions that has to be undertaken, but this is not actual physical service delivery at a particular geographic location.

Finally, there are meta services that means which are services which are not actually planning but it is of sort of a philosophy or a decision making like for example, local control, fiscal zoning, finance philosophy for this particular urban area, and to what extent of services

provided that means, what should be the quality of the service, so, this kind of decision making also is part of the urban planning process.

So, it is the way the overall when we have an urban area, of course, there are people who live there, but people are actually represented by elected representatives, and based on the overall philosophy of that particular elected body, there may be certain decisions which are taken for an urban area. So, in that way, we can say that those kinds of decisions also form another level of planning that has to be done, which could be called as meta services.

Now, when we talk about urban services planning there are few questions that comes to our mind. The first question is, who gets what, what kind of services of course, and when he gets that and how he gets that. So, the first of all, when I talk in terms of the over urban area, that means, what variety of services has to be provided, that means not all municipalities provide all sorts of services, so, what varieties of services has to be provided and not everything has to be provided at the same point of time, so, if a municipality is growing or I want to develop my services or the quality of life in my urban area, I will gradually improve upon it.

So that variety of services has to be considered, then the quality of service level, that means what should be the quality of the service that I should provide? Now, why quality of service is important, because quality of service determines that based on the tax base or the based on the amount of money, I can generate from my services that I am providing, I will be able to decide on what sort of quality of service I should provide.

Now, to give you an example, if I go to some countries, I can drink water from a public tap. Whereas if I say that in a standard Indian urban municipal area, I maybe not be that much confident to drink water from a municipal water supply system. Now, the reason maybe because of many reasons, maybe because of certain the quality of the treatment maybe because of the quality of the network where there is some leakage and we may feel that the water quality that we receive is not that good that we can directly drink it out of a tap or sometimes we can drink, in certain municipalities we can drink and some places we cannot.

So that quality of service if I really want to give a better service, I have to put more money or we have to invest more in checking regularly inspecting, if there are leaks in the water supply network, we have to regularly… we have to improve the quality of treatment. So that requires more money. And if I do not collect that amount of tax from the population, how will I be able to sustain this kind of services, so, tax and quality of service goes hand in hand together.

So, then finally comes the distribution pattern, that is when we are providing services are we going to provide services everywhere exactly uniformly, or we are going to provide certain kinds of services somewhere, whereas we can favour certain geographic areas, or we can favour certain neighbourhoods, or we can favour certain land users. For example, if I want to attract more people to our city, or more businesses to our city, so that means the services that I should provide to my commercial area should be so nice, that business would be planning to relocate to this particular area, or people would like to set up shops over there.

Now what is the benefit for the urban local body, if a business sets up shop in that particular city, probably I will be able to make more generate more taxes or more revenue out of that. So, that is how we can also determine that where I should provide these services. Now, also, some services are for the entire population, then there are some services which are targeted towards certain population groups.

For example, if I have a service where I regularly we have a health monitoring services for some people, then that means for maybe for older people, we may have a service so that we can at the community level there may be we may actually call those families which are having older people to find out that if they are well if their health is well and so on, because many families leave older people leave alone and there has nobody to take care of these people. So that has to be actually considered.

(Refer Slide Time: 27:15)

Now, in addition to all these kinds of services, if I as you remember, we were talking about quasi line services. So, a lot of this kind of services could be done in a more efficient way through the use of certain technologies or use of citizens directly. So, citizen centric administration is one thing that we are going to focus on that means what it wants to do is it wants to bring the services instead of going through an intermediary you can directly have a service from your own smartphone or from your own computer terminal.

Now, what is means that means that you are removing certain levels in between your application and the receipt of the service, and because it is done via this smart system, automatically there is no problem with transparency or no problem with some your requests getting lost or those issues. So, that means if I use this kind of services or if I provide these services, which could be… these are also known as e-governance services, and particularly for municipal areas, these are municipality governance services.

So if I allow people to directly apply for the services from the safety of or from the convenience of their home, and automatically this request is recorded, it goes into the right places to the right people, and immediately people can act upon it. So and so we remove lot of middlemen in the process. And that actually makes the process very, very transparent, efficient, stable, and it will help to address the concerns of the citizen faster and because it is done in this way overall the governance improves.

So, over here you can see some e-governance services provided by the government of West Bengal Municipal Affairs Department. So, this urban development and Municipal Affairs Department provide these kinds of services. If you go to their website, you can see that you can actually take do this kind of provide, they actually provide these kinds of services directly to the citizen. So this includes construction permit for new buildings, e-imitation, intimation of the commencement of construction, then permission to cut a road for some purpose, sanction for storage of construction materials in some particular areas, and then permission for shooting movies maybe.

So all these permissions instead of going to the municipality interacting with people for filling up some forms. You can do it all interactively via a e-process. So, that is what how this entire process can be made much more efficient.

(Refer Slide Time: 30:07)

Now, once we have defined the different types of services, now, let us look into what Indian urban municipal bodies are supposed to provide. So, as per the 74th Constitutional Amendment Act, and which was which actually gave a change the way the entire governance of the country has to be conducted, it said that, in urban areas we have to form local self-governments and this is this is mandatory as per constitution and because this local… and what it will do is it will do decentralization of power. So, power was in the hands of the central government, the state government, but after this amendment power is also given to the municipal governments right or the urban local bodies.

Now, what is this power, the power is to collect tax, they are also given power to conduct some, to take a lot of decisions. Now, because they are given power to collect tax or to generate revenue, they are also given a lot of responsibilities and also power to execute these responsibilities. So, these are all listed in the 12th schedule, of the 12th schedule of the constitution. So, some of the powers which are listed are urban planning including town planning so, overall planning of the urban area that is given.

Roads and bridges construction of those, regulation of land use in construction or building, slum improvement and upgradation, regulation of slaughterhouses cattle pounds and all those then there could be a lot of… this as you can see that these are mostly related with urban land use and transportation, mobility planning, these are the things. Now, some of this power is given to the municipality but not all, still some of this power is given to only development bodies. So, a municipal body and a development body is 2 different entities. Now, development bodies are in charge of developing a particular urban area planning for a particular urban area, whereas the municipal body is supposed to provide certain services then it can collect revenue and so on.

So, there is municipal bodies is also supposed to give be given this power, but still this is not there in many of our urban areas, but gradually we are moving towards that regime where municipalities will also have the power to increase up their boundaries or they will also decide on certain zoning and all those aspects. Then in addition to this land use zoning and all this planning this part, there are also other services which are related with urban poverty alleviation, then planning for economic and social development, promoting of cultural, educational and aesthetic aspects and so on.

So, these are different aspects where we try to look into the different sections of society provide some social services and those kinds of services also has to be provided from the municipality.
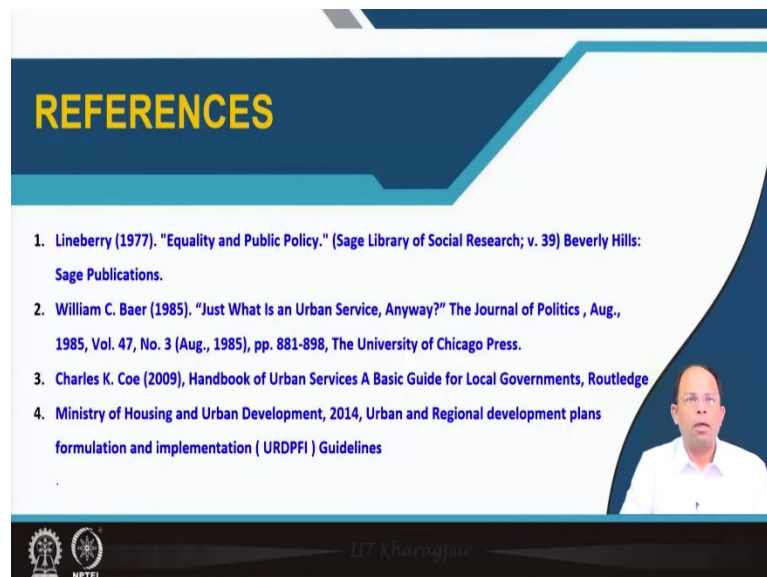
(Refer Slide Time: 33:16)

Then, urban municipal services then finally, the more physical and social infrastructure services planning aspects, these include the urban forestry, then protection of the environment in urban areas, then provision of parks, gardens, playgrounds, then street lighting services, then provision a bus stops, parking lots and so on water supply, and then public health, sanitation, solid waste management services, fire services and so on.

So, these are the different line services and facilities that has to be provided by the municipal governments. So, if I can summarize there are 3 kinds of services one is related with land use transportation, those kinds of planning. One is related with services which are provided, which require a lot of infrastructure such as water supply, then sanitation and so on maybe solid waste management also requires infrastructure, but there is a huge component of services like waste collection and so on. So, but fire services this more than infrastructure service, then there are services for health and all this.

So, if I can divide this physical and social infrastructure services planning, we can say that some services are provided by the utility companies and all and then there are other services which are mostly provided by the municipal bodies. So, in that way, the entire Urban Utilities and services planning can be divided into 2 parts. And in this particular course, we are going to look into the into urban services planning, whereas in the second part of this course, Urban Utilities planning which involves water supply, sanitation and drainage, it is already been covered in one of my earlier NPTEL courses.

So, this is the second part of this particular NPTEL course, which talks about the service planning. And in addition, if you are interested to look into urban land use and transportation planning, then you can follow this particular NPTEL course on urban land use transportation planning and the link is also given in this particular slide.
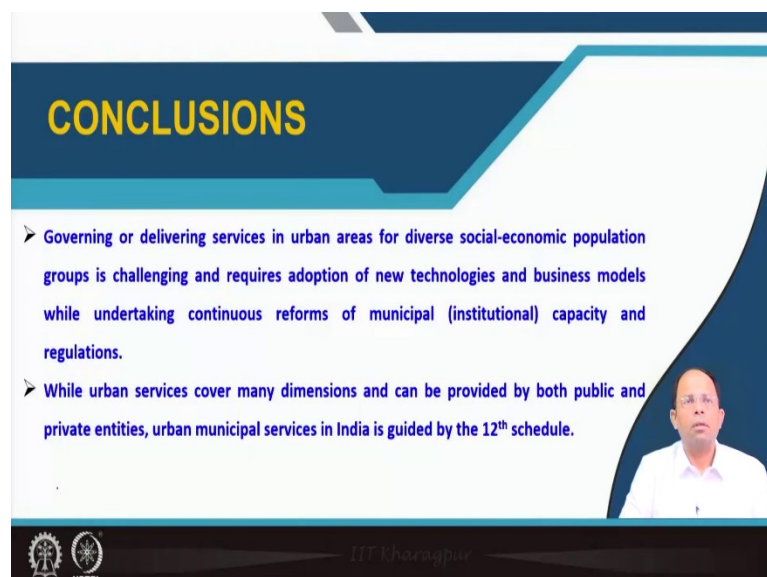
(Refer Slide Time: 35:21)

So, these are the references.

(Refer Slide Time: 35:25)

And to conclude, governing or delivering services in urban areas for diverse social economic population groups is challenging, and it requires adoption of new technologies and business models while undertaking continuous reforms of municipal capacity and regulations. And

while urban services covered many dimensions, as we have discussed and can be provided by both public and private entities, urban municipal services is guided by the 12th schedule and in this particular course, we are looking into the services provided by municipal bodies, and particularly we will look into services planning. Thank you.