Urban Governance and Development Management (UGDM)
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Lecture – 29
Value Capture Financing

Welcome to lecture 29, In this lecture, we will discuss few alternate and innovative methods of financing urban infrastructure in the municipal governments. So, under this lecture we will discuss the concepts.

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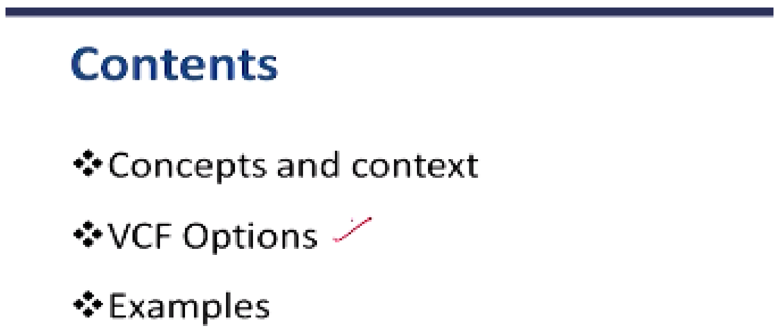

And the context of the value captures financing and the options of developed capture financing which we have to apply in urban areas. And we will also see some examples in this week. Basically we have been discussing the financing and accounting matters. The municipality so we have discussed the traditional methods of financing and the alternate method of the financing so let us have a look what we discussed last few lectures.

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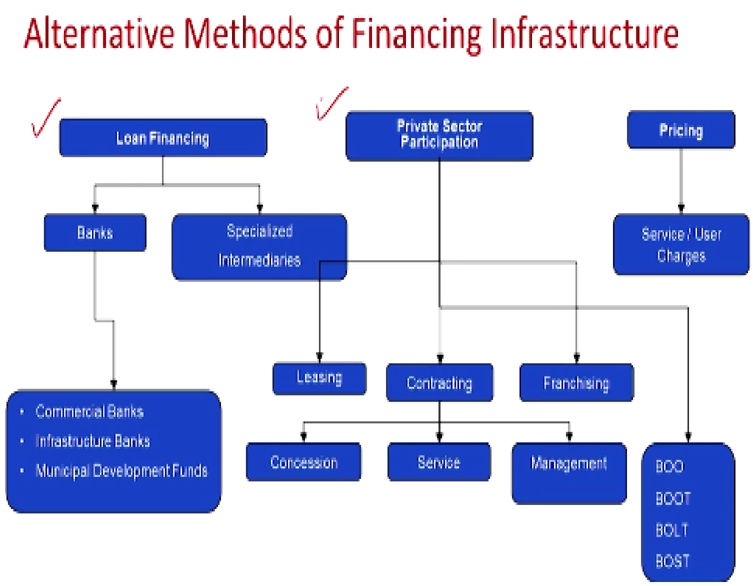

So, these are the diagram I showed you earlier, this is the alternative methods of financing infrastructure. Apart from the traditional method there could be loan financing private sector financing or various kinds of financing.

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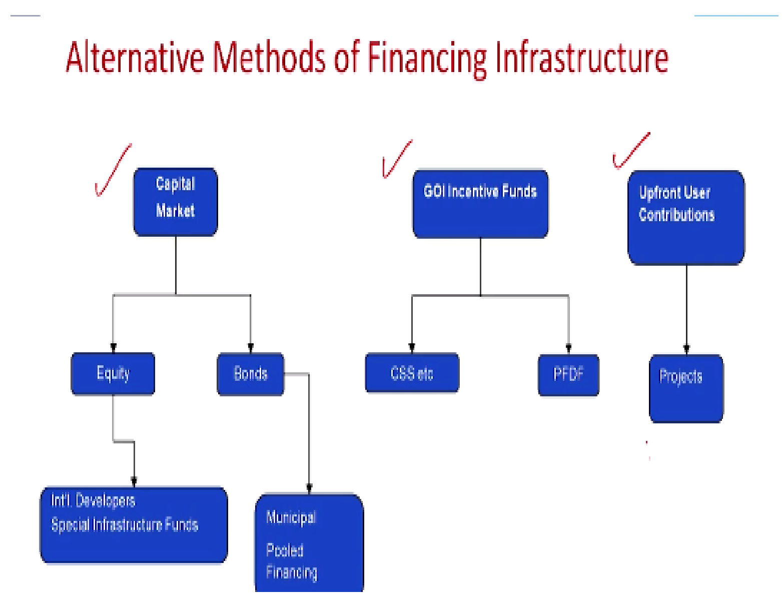

Or they could be like financing from the capital market or from incentive funds from the upfront user contribution in the project. Now apart from all these alternate methods of financing there could be other financing methods like value capture financing. Now what exactly is value capture financing and where it can be applied I just try to give you some concept about financing now please see this diagram.

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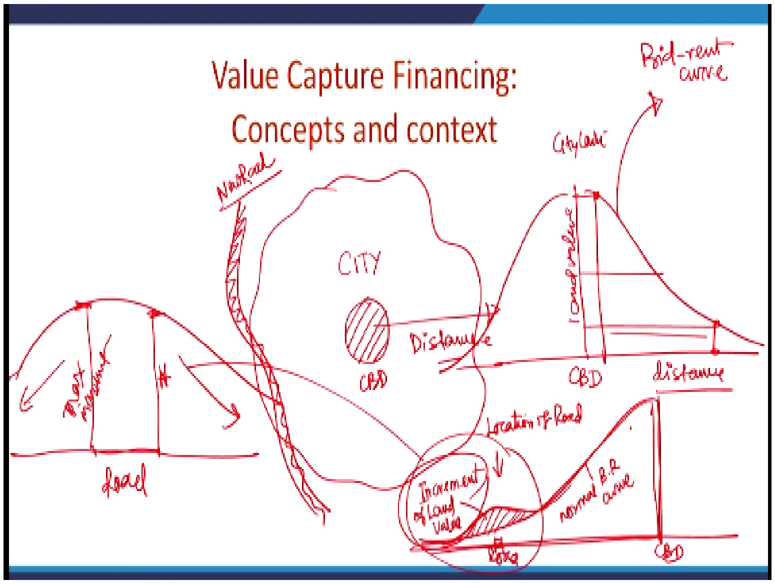

If this is a conceptual diagram of the city and if this is the city centre you know that if this is the CBD and if I try to put the distance and land value. The graph will be something like that if this is CBD so the CBD it is the maximum land value and slowly it will go so this is the city centre and this is basically the periphery of the city so this curve is called bid rent curve which basically shows the relationship between the distance and land value like this.

And more the distance the lesser the land value lesser the distance higher the land value so this is the mechanism and how it works. Now suppose in this situation in this periphery I am doing a road infrastructure like this so this is the new road which is coming there. So, this is new road which the public authorities going to construct so in this situation the scenario will be like if this is your CBD and this is your land value curve or bid rent curve.

Then because of this road this is the location of the road because of this road the land value of the adjoining area of the road will be slightly higher and it will shift from the original location of the bid rent curve. And there will be additional increment of the land value so, this increment and this is the road I am just shrink conceptually so that it is understandable. So, this is the normal bid rent curve or the land value curve.

And because of the new infrastructure project the curve changes like this. Now this increment of the land value of the adjoining land value if I take a close look of these areas it will look like if this is the road and this is the adjoining areas. The again the advantage of the land value increment will be highest here. Slowly it is going down so if this is road so it will maximum in both sides of the road maximum increment and then goes down.

Now the question is please think about that how we can utilize this increment of land value because the road is constructed by the public agency but the adjoining the land of this road owned by the private property or private owners and they are getting the advantage of the enhancement of the land value. Now if a share of this enhancement can be taken back to the public (()) (06:16) to fund that particular infrastructure.

In this case it is the road that mechanism can be called as a value capture financing. You might have seen that whenever we make any new road likes national highway or state highway or district roads are major urban road which is passing through the periphery or in the internal side. If it is a green field project or is a brown field project the both side of the road. They get maximum benefit of the land value enhancement.

This is just one example this type of example can be applicable for any time of development where a new development comes for example apart from the road whenever there is a construction of a new terminals likes say metro lakes terminals or the new railway stations or new transport corridor. Both side of the corridor and both side of the terminal gates and some added advantage and some extra valuation of their land and property.

So, how the government department and the local government department can leverage or they can take care of the land value increment for financing particularly infrastructure that is called land value capturing. Traditionally in India, we have not been able to explore this land value capture the value capture financing in a broader term in true sense in most of the cases you might have seen that we have built infrastructure.

We have done several investment in the infrastructure that we have done a transport and transport corridors. We have made the treatment plants major universities were major hospital project. But the land value increment because of that particular physical or social infrastructure which has caused a surrounding that land area that has been taken by the developer or by the private property.

So, it is the inability of the government organization or the government and department to take the advantage of the land value the capture or value capture financing. Now let us see what the options available in this land value capture are and how different those options are.

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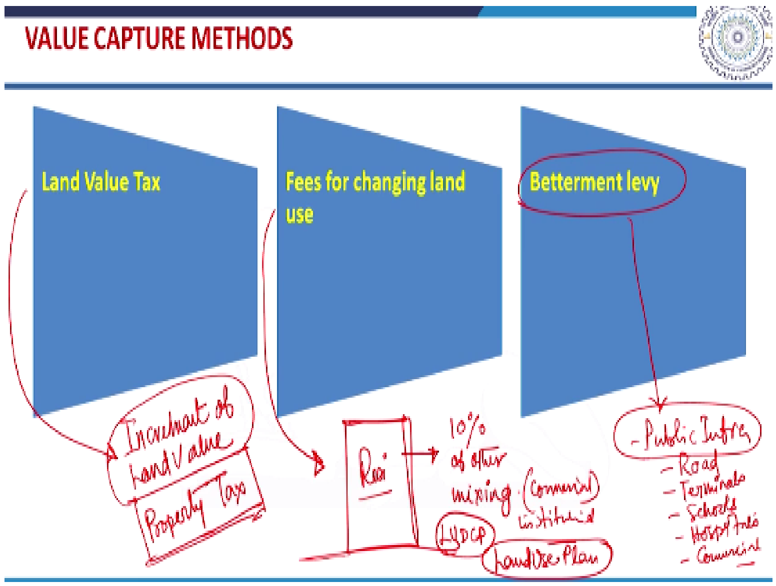

So, first step will be the land value tax the land value tax is basically is the increment of land value of any land value. Now it is different from the property tax because property tax is a general tax which is taking by the municipality and which can be amount could be fixed by the municipality for a fixed amount every year. But land value can increase due to several reasons and for that reason that additional value.

Or some share of that value can be taken by the municipality second is the fees for changing of the land use. Suppose some land person is prescribed as per your land use plan or land use development control plan as residential. And within that plan it is also recommended that there could be 10% of the other mixing of land use. For example, it can be commercial it can be institutional etc.

Now the owner wishes to develop a little more than 10% that is 20% or 30%. The first question is that will allow this additional other users of the land or you do not allow if you allow this a non-residential land uses then on what ground and what is the condition and what is the fees for changing that land use. So, first of all this kind of provision has to be there in your land use plan or land use control plan.

So, therefore your land use and development control plan LUDCP land use plan what we have discussed earlier that should have the provision of this and then we can charge some amount for a changing of the land use. So, therefore one is the land value tax and 2nd is the changing of the land use then 3rd is betterment levy. The betterment levy is the exactly what we discussed as an example.

In the beginning that when government department a construct some public infrastructure for example it can be road it can be terminals it can be schools it can be hospitals etc or it can be commercial centre or any other like petrol form or any other public amenities or infrastructure. Now based on this construction of the public infrastructure the neighbouring land gets the benefit of those locations.

Because of that government can a levy an amount of the; from the surrounding plot owners as a betterment levy. So, it is the share of the land value or share of the value addition due to some public infrastructure in a given area.

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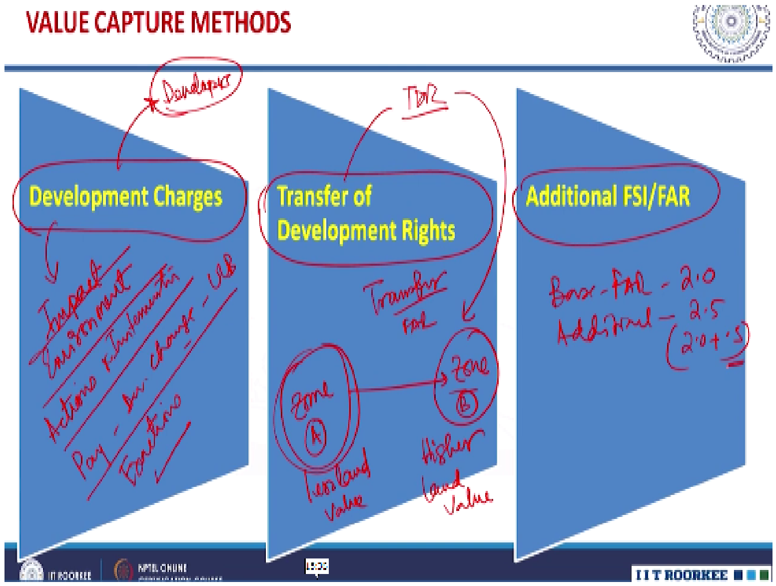

The next is the like development charges is basically it is charges this charges is mandate for the developer. So, whenever there is a developer which is developing particular land or infrastructure and because of that development there are some impacts in the environment. Now they are some impact which is not reversible and which is not allowed so as per the environmental laws.

If this impact is reversible and if this impact can be taken several interventions, then the private developer will be asked to take actions and interventions for taking care of the impact of the development. And also they will pay a development charge to the urban local audit in some areas it is called as a developer exertion also. This is the charge which is charged by the urban development authority or the urban government to the developer.

For developing a particular infrastructure or developing a land third is that the public authority can also charge some fees and they can play with FAR how they can take additional revenue or additional charges because of FAR that I try to explain. You might have heard about the term transfer of developing right. The provision of the transfer of development right in short it is TDR basically enables you to transfer your FAR.

From one zone of the city to another zone within some terms and condition and some restrictions now the question is why people will ship their presumable FAR one zone to another zone. The basic reason is being land value may be zone A is having less land value and zone B could be with higher land value ship some amount of the FAR from zone A to zone B and if the moment I take a decision to transfer that land value from one zone to another zone.

The public authority can charge an amount that is called transfer of development rights fees that is a very popular in India also in some of these states including Maharashtra. And then sometimes we also provide additional FAR suppose there is a base FAR of 2.0 and an additional maximum up to 2.5. So, that means 2.0+0.5 so this 0.5 becomes the additional FAR with additional payments.

So, this kind of provisions also can be framed under the local bylaws local rules and regulation by the municipal corporation. In some of the states like Maharashtra they have been trying these tidier and additional FAR and both.

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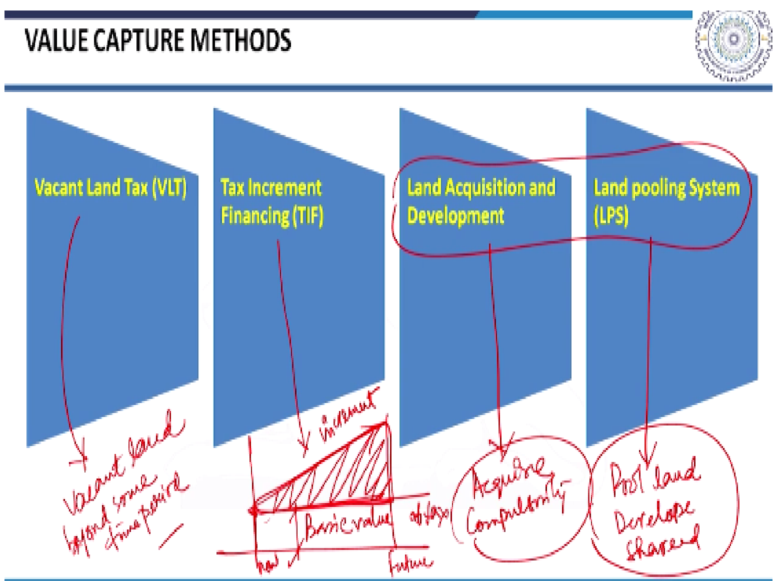

Then there are few more methods like vacant land tax in many cities especially the new townships you might have seen that people buy the land but they do not construct the house. And for years the land is being vacant and land is vacant then the surrounding infrastructure which you have created that infrastructure is unused and as a matter. The purpose of the development is not fulfilled that is why the urban development authority.

They also charge tax for the vacant land beyond some and another method is the tax increment financing. The objective of the tax increment financing is that when in an inner city or any part of the city due to some conjunction and some adverse effect. You are trying to renew the area or you are trying to regenerate the area by giving additional boosting of the financing in the infrastructure projects.

And in that case your tax this could be your basic value of tax and this could be the increment and this is time now and this is for the future. Now after this part of the increment due to the agreement renewal if that can be taken in part as an or during the process of the urban renewal or urban regeneration. That could be termed as a tax increment financing and government time to time.

They announced that notify some zones are words as a tiff zones in US. It is a very common and very popular method of the value capture financing. Then we have land based tools and we assemble the land we discuss thoroughly the land pooling schemes and the land acquisition both in land acquisition. We acquired land compulsorily and in land pulling scheme we pool land we develop and then it is shared.

So, in this 2 method also the moment we acquire or pool the land or some public infrastructure the value of that land also become higher. And in this method also we can share the value increment and value enhancement in that particular land. In both the cases the basic value of the land is enhanced due to laying of the new infrastructure especially in the land pooling scheme from the raw land to the developed land.

The enhancement of the land value is shared between the public authority between the owner and also between the developers whereas in the land acquisition the land value or the enhancement of the land value is shared between the public authorities. And the owner under the current and the present land acquisition act now they are few many but I have just shown you the some of the basic methods.

Now what are the differences between all value capture financing? Let us have a look.

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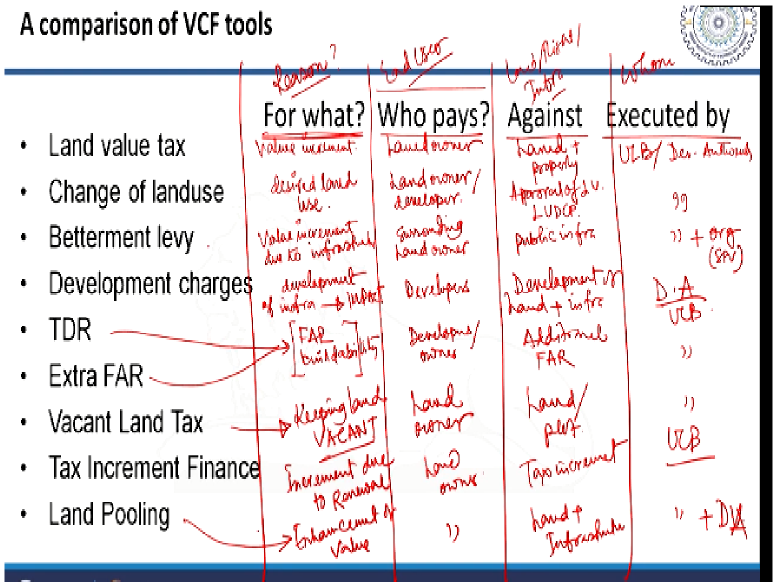

So, under 4 categories we will discuss that for what that means. What is the reason basically this mechanism then who pays? Who is the funding who funding and who is the client here and who is the end user of the product or this tool and why there are paying against what is it a land or it is some right or infrastructure etc and it is executed by whom? These are the questions we are going to us.

So, land value tax is basically for value increment who pays basically any land owner will pay individual against the land and in some cases also property executed by it can be executed with urban local bodies or develop in authority. The change of land use is basically we are giving the additional amount of money. Because the desired land use who pays here also it is paid by landowner in some cases developer right.

And it is given against the approval of land use based on land use and developer control plan of the city. It is also executed by the urban local bodies or developer authority Then the betterment levy is levied or charged due to the value increment due to some infrastructure who pays that surrounding land owner against the public infrastructure. And it also executed by the urban local bodies development authorities.

In some cases, it can be executed by some other organization like special purpose vehicle like metro rail authorities they can develop the metro rail and they can also act as a organization in this purpose. And development charges is given for development of infra structure and each possible impact Basically it is charged from developers and against the development of land plus infrastructure.

It is executed by the development authority in some cases it can be urban local bodies also. Then TDR is basically the if here so basically the FAR so basically TDR and extra FAR both are applicable for the FAR as a tool. So, FAR gives you more buildability so it is paid by either developer or owner it is paid against additional FAR and executed by development authority or urban local bodies.

The vacant land tax is basically paid or given for keeping land vacant it is just opposite to the development. In the developing charges we are charging for developing the land or infrastructure here we are charging for keeping the land vacant. And it is paid by also the land owner against the land or plot and executed by the development authority. Tax increment financing is also a also paid because of the increment due to renewal.

It is paid by the landowner against the tax increment in that zone. And it can be executed by the urban local bodies are the local government. Land pooling is basically the enhancement of value of the land here it is paid by landowner against the land plus infrastructure and it can be executed by urban local bodies. In some cases, it is also developing development authority now you can see that the whole options.

Or whole categories of the value capture financing have different connotation for the target group the reason the difference for which they are being charged and executed by. So, these are the difference between the various value capture financing tools.

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S. No	Value Capture Method	Frequency of Incidence	Scale of Intervention
1.	Land value tax R	Annual rates based on gain in land value uniformly	Area-based
2.	Fees for changing land use (agricultural to non-agricultural)	One-time at the time of giving permission for change of land use	Area/Project-based
3.	Betterment levy	One-time while applying for project development rights	Area/Project-based
4.	Development charges (Impact fees)	One-time	Area-based
5.	Transfer of Development Rights O+R	Transaction-based	Area/Project-based
6.	Premium on relaxation of rules or additional FSI	One-time	Area (Roads, railways)/Project (Metro)
7.	Vacant land tax R	Recurring	Area-based
8.	Tax increment financing R	Recurring and for a fixed period	Area-based
9.	Land Acquisition and Development	One-time upfront before project initiation	Area/Project-based
10.	Land Pooling System	One-time upfront before project initiation	Area/Project-based

Now let us see that some comparison this is taken from the value capture financing policy from smart city mission. Here you can have a look that some of the value capture financing like say land use change then betterment levy development charge and then additional FSI or FAR then land acquisition land pooling. These are one time charge it is taken before the development whereas land value tax these are recurring.

TDR also based on it can be recurring or one time. Vacant land tax is recurring tax increment is for recurring for some time till the project is complete. So, these are the difference based on the recording or the one-time tax. In the right side in this column we have shown that some of the tax is based on the area based some of the taxes are area and the project based like betterment or the change of land use the TDR all this.

And the land acquisition whereas some of the tools are only area best for example developing charge or the vacant land tax or the tax increment financing. So, these are the difference in kind of a scale or the frequency of the charging between the value capture financing methods. Now let us see some of the example.

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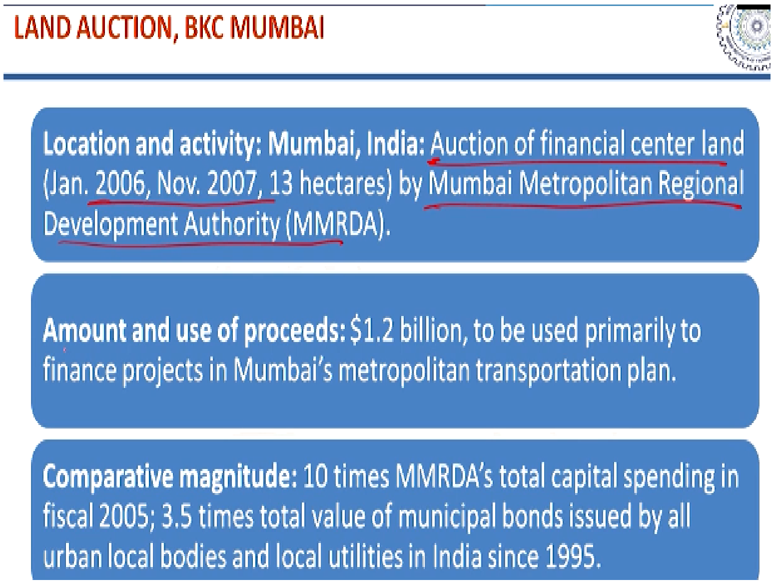

In Bandra Kurla complex in Mumbai what they did after completion after the project these are the few information about the project I feel that you know you have heard about this project till I mentioned this location of this project was through the and it started in 2006 to 2007 by Mumbai metropolitan regional development authority. Through the auction it was done through auction say amount this amount is also given in this chart.

And this whatever price MMRDA kept as a best price 10 times of the total capital spending in was there as a gain from this transaction. And I tell you the what happened exactly.

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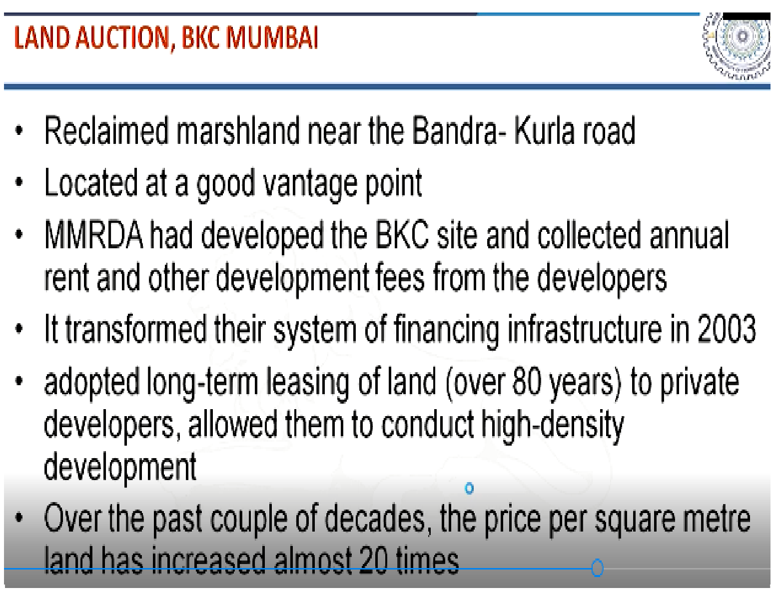

Now basically this Bandra Kurla complex is a reclaimed and marsh land marshy land in the Bandra Kurla road located at the good advantage point. MMRDA had developed the BKC site and collected annual rent and other development fees from the developers. Then it transformed their system of financing infrastructure in 2003. From 2003 they started I mean applying all these methodologies then adopted long term leasing of land over 80 years to private developer.

Allowed them to conduct high density development based on some terms and condition and over the past couple of decades the price per square meter has increased almost 20 times.

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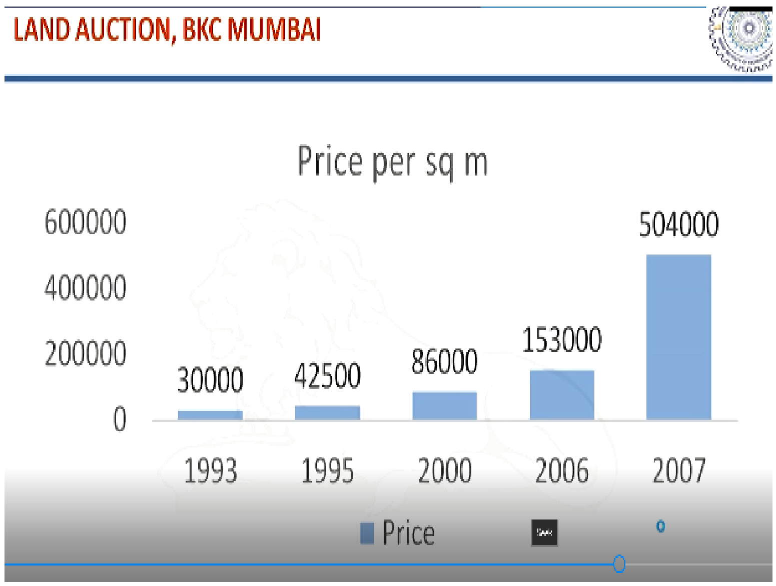

This is some of the example that how it has increased from 19 you can see the how the average price has increased for this Bandra Kurla complex.

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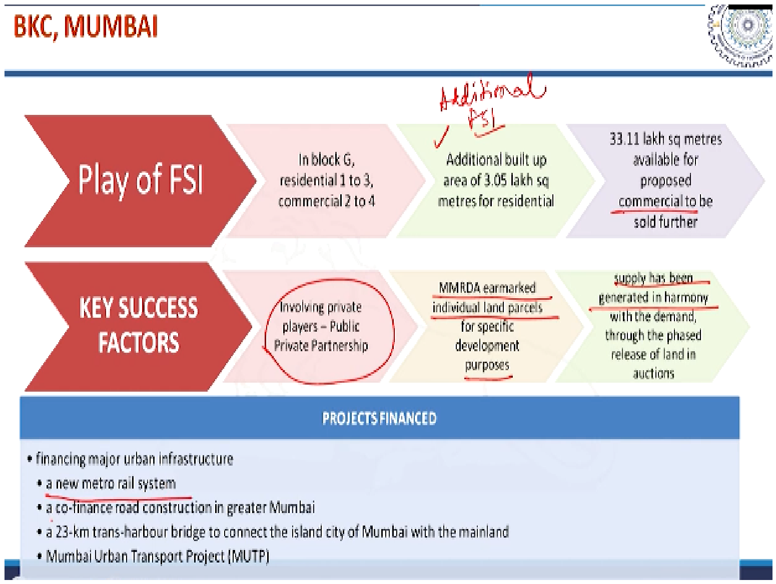

Now what they did basically they played with the FSI they provided additional FSI here FSI for the residential area and also additional FSI for the commercial area. Because of that the developer they tried to bid the project or bid the land basically with a very high quotation or very high quote. That is why MMRDA got a very advantage of getting additional revenue through this case.

So, key success factor was that involving the private players here in this case private public partnership and MMRDA earmarked individual and the land parcel for specific development purpose. Then the auction the land and supply has been generated in harmony with the demand through the phase release of the land. This is important because whenever there is a demand for the residential they generated residential plot and auction that.

Whenever there is a requirement of the commercial or the institutional plot that was kind of auction. So, these are the kind of appropriateness during the decision making during the whole land transaction by a development authority. So, through this method they finance several infrastructure including one new metro rail system. The core finance the road construction is greater Mumbai.

Another 23 kilometre trans harbour bridge which will connect Mumbai city and not only that they also tried to connect the Mumbai using the Mumbai urban transport project. So, this kind of project they finance through the value capture financing from which was available after the Bandra Kurla complex development during the post 90s and early 2000 and that decade. So, I hope that you got some idea about value capture financing.

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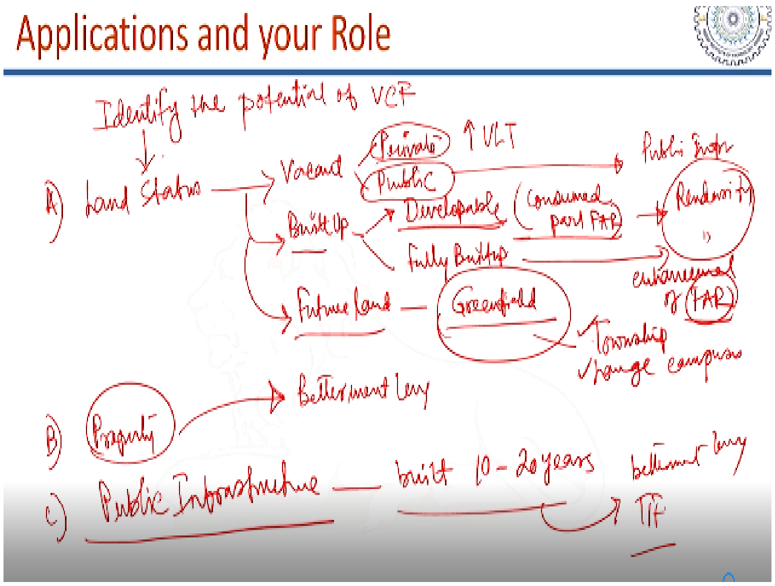

Now the application and your role in municipality will be to identify the potential of value capture financing for that you need to identify the land status in terms of vacant land owned by private owned by public then built up then within built up there could be that developable or fully built up that means they have consumed the FAR provided for that particular plot. So, in the developable they have consumed part FAR or like that.

And also you see that what is the future land which can be used as a green field development on that. And apart from the land physically you have to also see the other property and also public infrastructure which you are going to build in next 10 to 20 years. So, based on these now here from the land status if it is a private land not built definitely you can use a vacant land tax. The private land which is vacant you can use as to construction of the public infrastructure.

The built up land which is developable which was consumed part FAR can definitely play with FAR or you can reidentify even in the fully built up area you can reidentify if the infrastructure is permitting. So, that discussion I had already in some of the lectures I am not going into that so reidentification is possible in enhancement of FAR and that also FAR can be saleable for the future land.

If you find some greenfield area in the greenfield area you can try to develop township or large campuses and then take a share of the value enhancement from that project. And from the property you can definitely try the betterment levy if you do any public infrastructure definitely you can charge betterment levy and tax increment financing as well for the renewal project. So, here your role but definitely a political willingness is required to do this.

And also technical expertise is required so here this exercise of value capture financing is basically in one side it is a technical exercise secondly it is a political and administrative trust is required. And third is you need to develop your local rules and regulation based on some overall guidelines which is given time to time by the government of India. So, with this few words I would like to conclude todays lecture.

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Next LECTURE

30. PPP in Urban Governance

So, next lecture we will discuss about the another very important public financing possibility that if the public private partnership in the urban governance. So, today we discussed basically the value capture financing mechanism. Today we told you that apart from the conventional and the alternate sources of the revenue. There could be value capture financing in various public projects and private projects.

There are various methods of helicoptering from the public infrastructure. It can be a land value tax it can be a vacant land tax it can be a betterment tax it can be developing charges it can be a charges due to the land pooling and land acquisition. It can be a charges due to tax increment of the particular zone. So, this kind of value capture financing is possible to be explored in your city as well.

Therefore, you can go through the document and the reading materials and then you can apply. Definitely I hope you got some idea about value capture financing. Thank you very much.