

Urban Governance and Development Management (UGDM)
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Lecture – 50
Managing Trans-Municipal and Large Projects

Welcome to the lecture 50, in this lecture we are going to discuss various aspects of some large projects and trans-municipal project. In this week, we have been discussing various aspects of project management, we have discussed the various phases of projects, what kind of projects that they are, how to formulate projects and DPR's, so I hope you got some ideas but in some cases, you will find that municipalities are not so big that they can afford a large project to sustain a large infrastructure.

For example, water supply or major roads so, if there are some situations where municipalities are required to collaborate with other neighbouring municipalities or other local bodies to make a bigger project, so that the project can have a larger share, larger catchment of the population, so that is what we are going to discuss.

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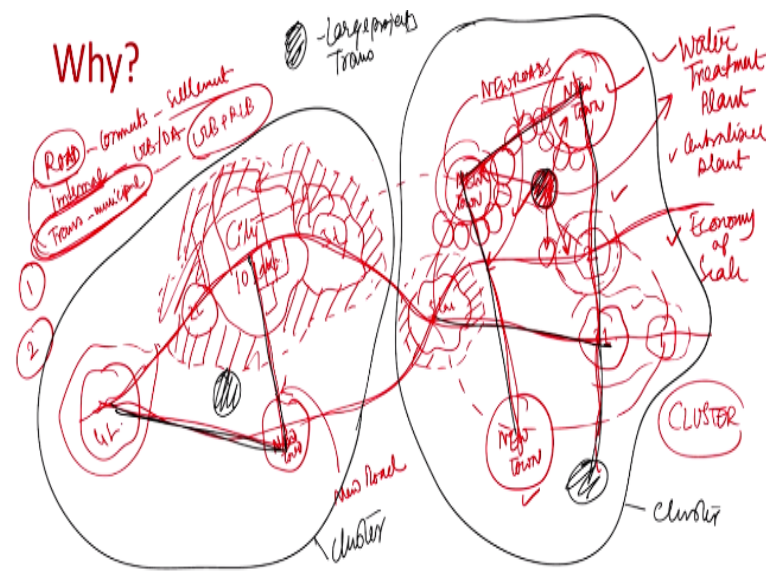
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Coordination

So, in this lecture we are going to discuss that why we need such kind of large project and the trans-municipal project and for doing such project, what are the major concerns and the approach including the roles and the responsibility of the organisations and what could be our approach

methods and the considerations, so that is what we will discuss basically, the considerations for the planning we will do.

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Now, why we need such kind of project, I give an example that suppose, you have seen the maps of the metropolitan area, the district areas which I showed earlier suppose, this is a city of say, population 10 lakh and may be these are the smaller cities like 5 lakh population or 2 lakh, 1 lakh or maybe there are some contiguous cities like 5 lakh or 2 lakh something like that and this is connected with transportation network, something like that.

This is a very schematic drawing, I am trying to make, so that you get some basic idea may be this is 4 lakh, now suppose, over the period of time, this will; this agglomeration will increase like that and definitely, all the cities will be bigger than what they are right now, right something like that and definitely, they will need larger roads which will connect larger cities and like that or like that or like that.

So, new roads will be required to connect the extended population of the current city, so these are the extended population of the current city, extended population, here also the extended population and the built-up area and apart from that there are situation that we create some new towns, we create new towns, now in order to connect this new town with the existing cities or existing urban extent and the its extension, we need to have new connection, right like that.

So, new connection, new road like this one or this one has to be built off, so we need new road if we want to build of a new town here also, so road is one factor which connects the settlement that means, in this case, various size of cities now, you can understand that this roads which I am showing here, this roads are touching all the cities or major cities and definitely, more than one cities, therefore this roads cannot be constructed by only one municipalities or one cities, okay.

Whereas, the roads within the cities like the internal road like that may be there are internal road as I am showing maybe these are the internal road which is there, so this kind of internal road they can do, it can be done at the city level, so road which is internal, which can be done by the urban local bodies or the development authorities and road which is trans-municipal that means, it is extending beyond one city area to the transitional area and other municipalities or the neighbouring panchayat.

Because apart from the cities, there will be the panchayat areas, there will be various small panchayat or rural local bodies areas that also we have to think, no areas will be covered by like any other settlement other than the urban local bodies and rural local bodies, therefore the trans-municipal roads will consist the urban local bodies, rural local bodies together and not only one, there will be more number of urban local bodies and rural local bodies.

So, this kind of situation we need trans-municipal road projects, this is one example, so this could be the one example. Second; suppose, I would like to make a water treatment plant and if I see that if I make separate water treatment plant for this new town, this new town, this new town, this new town and this, then the total cost of the water treatment plant will be very much higher rather than if we make one centralised facility may be one centralised plant, we can make a bigger plant may be somewhere here.

So that it can serve water to all neighbouring cities and the rural local bodies as such and therefore, we can take the advantage of economy of scale because the moment it will be big and it will be able to serve large population, large geographical area definitely, it will give some advantage in terms of the cost and the its function. So, similarly like road construction; trans-

municipal road construction, this type of large set up or large treatment plant will also serve more than one municipality that is the trans-municipal in nature.

Similarly, road, water treatment plant, solid waste management ground, all these can be done bigger project, done as a cluster basis, so when we make a cluster of several cities, so in this case we can make a cluster like this, say this could be one cluster, this could be one cluster and maybe we can make another cluster, so that we can design the large projects and locate the large projects, so this could be one large project.


There could be some other large project like this, so these are the large projects or trans-municipal projects and apart from that there are roads which is also trans-municipal in nature which we are going to develop in coming future right, so this kind of projects are trans-municipal in nature and that needs to be considered that needs to be design, formulated in differently than any other project in the municipalities where the basic methodology for the project formulation will be same.

But there are some additional criteria, so those additional criteria's and concerns we are going to discuss, so this is an overall conceptual diagram I just wanted to show you that why a trans-municipal project is required, why all the projects cannot be limited to the geographical extent of a municipality. Similarly, in some lecture I discuss that when you make a drainage plant, drainage plant cannot be made in a particular geographical region.

For the drainage plant, you need to take a whole river basin or the catchment basis of the natural out fall, so to do that within that geographical region, you have to identify all the settlements and then plan all the outfalls, man-made and the natural out fall, so that cannot be done by only one city, one urban local bodies, so from that ground such kind of facility, such kind of infrastructures also become trans-municipal in nature like the road and the water supply treatment plant.

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Why large projects?

- Durable infrastructure assets — Enhance - size
- Serving large population
- Serving multi regions and areas
- Serving more than one ULBs/economies of scale
- Serving future population 

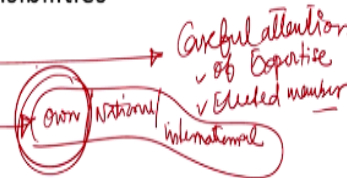
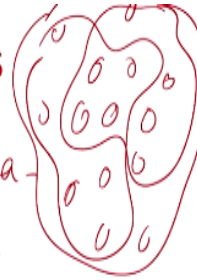
So, basically let us summary; summarise that the what are the reasons, so first is the we can make a durable infrastructure asset if we enhance the size, so that it can cover the large geographical area, so it can cover large population and also it can serve multi regions and areas in the earlier conceptual drawing, I showed you that it can serve multiples urban areas, rural areas, the river basins and also local areas including the rural local bodies.

And serving more than one urban local bodies to achieve the economies of scale that is what I told you and it can also serve the future population, if the cities like these, so future population also need to be catered for that is what we showed in the earlier slide so, it can also serving future population for the large project.

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Concerns for Trans-Municipal projects

- Delineating catchment and coverage area
- Deciding on share of investment and risk
- Deciding roles and responsibilities
- Formulating projects
- Resource generation



So, these were the reason or the purpose why we do the large project and the trans-municipal project now, within a particular municipality or the large corporation, there could be also some large project, those are different, we are discussing only those large project or medium project which are trans- municipal in nature and that needs to be done in consultation with several agencies or several organisation.

So, for doing that there are major concerns which we need to remember during the planning, so here are the concerns. Number 1; now, delineating the catchment and the coverage area that is very crucial because there could be several settlement how you take the boundary of such project whether these or that or the whole boundary that depends on various criteria's, the first criteria could be the geographical reason, if it is a drainage plant, definitely you have to take the drainage basin area.

If it is a road construction project, you have to take the urban local bodies and the rural local bodies which is being connected by the new roads, something like that and also you have to take the compatibility of the organisation in terms of the political, social, cultural because ultimately you have to make a collaboration between them to make this kind of project successful, so delineating the catchment and the coverage area is a first concern we should remember.

Second is the deciding on the share of investment and the risk, when you collaborate with your partner or the neighbouring urban local bodies, you decide how you are going to share the investment and the risk, if it is a proportionate risk and investment which is quite traditional and the conventional, it is fine but otherwise also you can decide and you can; in recent years, you have seen that there has been conflicts even between various states, various municipal bodies in terms of the sharing of the common property like what are our road.

So, this kind of situation can be avoided, if we decide and collaborate between various trans-municipal agencies, third is the deciding roles and responsibility, what is the exact roles and responsibilities of all the organisations who are sharing the investment and the risk that has to be clearly spelt out, so that there should not be any unattended areas of the work. Then, formulating project, now this formulating project, since it is a large project, it needs careful attention of expertise and elected member both.

I tell you why; because this kind of project since it is large trans- municipal project for doing this kind of project, you need land beyond the municipal boundary and when you need land definitely, you have to acquire the land or you have to come to a consensus with a land pooling mechanism or town planning scheme mechanism by which you get the land from the people and then only you can made such kind of project.

So, there comes the role of the elected representative who can facilitate the land acquisition or land polling process and expertise also is required because these projects are large in terms of the geographical coverage, in terms of the population coverage, so formulation of the project is crucial which is little different than the project which we do at the local level within one organisation.

So, managerial aspect is very crucial for this project, next is the resource generation that how you are going to generate the resource, if it is a own resource or funding by the national agencies or international agency that has to be spelled out so, usually for the trans- municipal projects, some amount of trans- municipal projects are allotted or allowed under the centrally sponsored schemes like AMRUT like smart city or any other mission.

But definitely, it needs a careful formulation of the project, so that the project is justified that it is the need of the day for the cluster of the municipalities or the cluster of the settlements, so therefore but if it is not available, then other sources like say, international funding also can be worked out but for getting international funding, you need to have much more competency and much more technical representation.

So that we will discuss later that for what kind of representation is required at the international level, what kind of competency is required for a city manager, so that is also another option that you can explore the national and international both the funding for resource generation of the trans- municipal project. Apart from that do not ignore the capacity of the people to pay for any valid and the significant project which can satisfy their need.

If the people are convinced that yes, they are going to get a real benefit from the infrastructure; they also can contribute even if it is a small amount. So, you should consider the own source of revenue generation for Trans- municipal project.

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Applicability

- Projects which by size, scale, nature, demand and coverage go beyond the boundaries of one municipality and certain critical population T.M. Project
- District roads, expressways, MRTS, Landfill sites, STP, WTP, major terminals, major industry, disaster management, large institutes etc

Then, let us see where, which kind of projects are applicable here, so basically, the projects which are by size, scale, nature, demand and coverage go beyond the boundaries of one municipality and certain critical population that is called a kind of a trans- municipal project, so

under this project basically, district level roads, expressways, mass rapid transit system that is metro railways, the landfill sites, sewerage treatment plan, water treatment plan, major terminals, major industry, disaster management activities for example, rehabilitation house construction.

Because disaster does not affect people city by city or region wise, it affect generally based on the natural phenomenon, it can be earthquake, it can be flood, it can landslide, so disaster does not know the administrative boundary of the; of a democracy, so that is why disaster management has to be done in some cases at the trans- municipal level also. Then large institutions like say, University or technical University, Vocational University, general University can come, medical college can come.

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Examples

- **Water supply** – Surface source development, treatment works and distribution system
- **Sewerage** – Treatment plants and network services and outfalls
- **Solid Waste Management** – Waste disposal facilities
expensive mobile equipments *transportation*
- **Arterial Road Network and flyovers**
- **Any other infrastructure** that can be provided as trans-municipal infrastructure

So, those kind of facilities are required at the trans- municipal level, some examples, so for water supply like surface source development, treatment plants and distribution system could be one, for this sewerage treatment; sewerage treatment plant and the network services and outfalls, for solid waste management, waste disposal facilities and expensive mobile equipment that is a transportation which sometimes becomes unaffordable to a particular small municipality or small town.

And apart from that any other infrastructure that can be provided as trans- municipal as I talked like say, transportation, MRTS, all those in infrastructure. Now, for doing all these kind of projects, what are the mandates and what are the roles of the key players that we should see.

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Mandate and key players

• Identification of Trans- Municipal projects

*initiated at local level
planned at dist/prov
state*

• Planning, designing, implementing and operations and maintenance

• Development Authority and ULBs

Requirements

• District/Metropolitan Planning Committee

Identify the cluster projects

• Para-statal agencies ✓

• Funding agencies — *state/center/international*

• Special Purpose Vehicle (SPV)

Now, basic mandate is the basically, the planning, designing, implementation and operations and maintenance but before planning, I should also mention another very important one that is identification, so planning after identification, planning, designing, implementation and operation and maintenance now, how you identify your trans-municipal project? Now, trans-municipal project will be identified, number 1, based on the response of the people that people need a connecting road between the surrounding cities or a distance cities something like that.

People needs a faster connection from their own city to the other bigger mother city, so those kind of response has to be taken number 1, number 2; you can take the real data of the kind of traffic volumes and kind of a requirement at the demand in terms of the traffic, so those kind of response and the real data has to be considered for identifying the project similarly, other than the road you can take the actual data of the water requirement of the neighbouring municipalities, rural local bodies in the given cluster.

Now this clusters are basically, hypothetical cluster or based on the physical phenomenon and it is the job of a not a particular individual, personality individual, mayor or the chairperson, so it

say combine job of a full cluster you can understand that it cannot be done at one urban local bodies level or one city level, so therefore it has to be done at certainly at the higher level.

So, in the higher level basically, higher level beyond the development authorities and urban local bodies, it is the district and the Metropolitan planning committee or the district level authority who is the higher level authority who can combine the requirements of the development authorities and urban local bodies and formulate and identify; the identify the cluster and the projects. Similarly, apart from the district and the metropolitan planning committee there could be para-statal agency.

For example, in your state you might have seen that there are dedicated agencies who are like say PWD who makes the road, connecting one city to another city, there could be CPWD, they also make road and the buildings apart from the PWD, there are agencies who construct the water supply, pipelines, water supply treatment plants and there are agencies who are devoted and dedicated for the sewerage and the sanitary networks.

So, those kind of para-statal agencies are also responsible for this kind of trans-municipal project that but definitely, the project must be initiated at the urban local bodies or the local level, so identification of the trans- municipal project is initiated basically, at local level and planned at district or para-statal level, then apart from that there are funding agency, now funding agencies can be state as I told, state, centre that means a national agencies or there could be international funding agency.

Now, some international funding agencies they have their own criteria to fund the project either as a grant or as a loan whatever it may be so they have their own criteria so, for formulating those kind of project, those criteria need to be seen and considered for formulating project and apart from the funding agency there could be special purpose vehicle, government time to time they create some organisation for a particular duration of the some projects.

So that organisation can be created that organisation is supposed to function that project or implement the project and after the project completion the organisation is dissolved for example,

in some cities government has created a special purpose vehicle for the metro rail construction, they have created a SPV's for the smart city, implementation for a given time period, so in some cases if the project is very large and has a large coverage or large responsibility, so SPV is also can be created in addition to existing para-statal bodies or district planning authorities.

So that depends on the volume, size, significance and the decision of the State government but at the local level, your job is to propagate and your job is to initiate, your job is to advocate the project at the district level and the state level.

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Role of ULBs

- Identify infrastructure service linkages that extends across more than its own boundaries, *initiate*
- analyse its need for such facilities, *response / data*
- build a case for such facilities Take feedback on its own proposed plans for other infrastructure subcomponents

So, some role of ULB is basically as I told that identified the infrastructure services linkage that extends across the more than its boundaries that and initiate, identify and then initiate and analyse its needs for such facilities based on the as I told that response and also data and build a case for such facilities, take feedback on its own proposed plans and other infrastructure subcomponents.

So, not only the identification, you take feedback and response of the people and make a case that yes this project is required socially and technically both and that project you can initiate at the district level, state level, so that the project is accepted for the funding.

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Composition of Plan

- A compilation of a set of infrastructure linkage proposals — not statutory — Thematic / Implementation
- Consensus with multiple agencies responsible for delivering infrastructure services

So, composition of such project plan will be a basically a compilation of a set of infrastructure linkage proposal now, I would like to mention here that even if you are doing a road project, there could be; along with a road project, there could be some other project associated with the road project because once you are making a road projects, it is not only road, the facilities around 2 sides of the road.

For example, petrol pumps, for example, some hospitals for example, some major networks, all this has to be integrated and therefore, it is a compilation of all such similar projects but that compilation can be thematic also based on the funding agency so that compilation has to be done theme wise, has to be done geographical wise, has to be done funding agency wise, separately as the case maybe.

So, this composition of plan, this is not a particular statutory plan as we have discussed earlier that city development plan or zoning plan or metropolitan plan, these are statutory plan because it is under this constitutional amendment act or the municipal act, the statutory plan but this kind of plan is not as a statutory but this is essential for executing the project for develop the whole region therefore, this plan is not statutory but it is not statutory.

But this is basically, thematic and for implementation and for that you need a consensus with multiple agencies responsible for delivering infrastructure services where a country like India

particularly lacks because we have very; sometimes we lack the coordination between the parastatal agencies, district level organisations and the local level organisations, so that integration or communication, better communication is required at the vertical level between the governance structures.

And at a horizontal level between the various kinds of settlements, in the next few lectures we will discuss all this communication and the interrogation; integration element also, how it can be improved therefore, I am not going into that but just take a mental note that a consensus and the integration is essential to implement successfully this kind of projects. Now, we see that what are the major considerations for implementing such projects?

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Major Considerations

- Proposal to be presented before the concerned Agency Funding
Approving
- Contribution of the ULB - share
- Current situation or key constraints Assessment
- Desired level of service what current level of service
designed/targeted level?
- Suggested project Location why (A) (B) (C)
- Operations and maintenance mechanism - (inbuilt)
- Persons benefited, especially poor. Quantification of benefits
- Opportunities for realisation of user charges + Value Capture
- Projects of other agencies likely to be impacted by this.

One is proposal to be presented before the concerned agency, it can be a funding agency or it can be an approving agency usually, the funding agency as I told national or international, for approving agency, always the approval agency here in this case is district planning committee or metropolitan planning committee by Constitutional mandate and municipal mandate, the DPC and the MPC's are the approving agency.

Second is the contribution of the ULB's, contribution and share that I have already told you that these are the critical consideration and the concern then current situation of the or key constraints that is the situation assessment and how you represent that assessment with better documentation

of the facts, figures, response of the people that is major consideration for any funding for a new implementation.

Then, desired level of service, now here the basic question is that what is the current level of service and what is the designed or targeted level? So, this question definitely be asked at the approval level or at the funding level that what is the current level of service or what is the future, if you make a road construction, you have to definitely tell that what is the current travel time between place A to B.

And what is the future travel time, if a new road is constructed as per your proposal between A and B are what is the percentage increase in terms of the efficiency similarly, if you make a water treatment plant that what is the current supply of the water in terms of the LPCD and what is the future supply of water in terms of the LPCD so, those kind of comparative statement is need to be presented before the funding agency.

Then, suggested project location that why a particular location A that you have to justify that why location A, location B, location C, if you have 3, 4 options that after a comparative statement and thorough analysis of the locational advantage and disadvantage, why and how you have chosen or zero down to a particular location that justification need to be there in the your proposal.

And operations and maintenance, how you are going to accommodate it, what is the mechanism, in the project itself, so in build, basically the expectation from the funding agency and the approval agency for all large project and the trans-municipal project what they need to see, they expect to see that what is the inbuilt sustainable sustainability in terms of the operation and maintenance, maintenance is designed in the project formulation.

And in terms of the maintenance, management that means how you are get a recurring money to operate and maintain and how you are getting a recurring flow of the manpower or the man hour and how it will be assembled from which municipalities and how whether it will be a new recruited people or it is; it will be maintained by the para-statal agencies or the district level

agencies, those kind of questions will be asked to you for the by the funding agency in terms of the operation and the maintenance.

Next, the how many persons are benefited, if it is the new project is benefiting only a handful person of like few 1000's definitely, this is not the case, if it serves the new population and the existing population which in beyond few lakhs definitely, it is benefitted and here definitely, it has to be seen that the invested; investment per capita, so investment per capita if the total project cost is few crores.

And the populations to be served is few lakhs, so investment per capita in the criteria which they would like to see, so the persons benefited and especially for the poor, quantification of the benefits so, if you have those kind of facts and figures also have some distributed figure that out of the total population which is going to be served, what is the percentage of the population of the poor; poor population in terms of the percentage going to be benefited.

Not only that apart from the poor, what is the percentage of the woman group of the people or what is the disadvantageous group, excluded group who are going to get the advantage, so those kind of facts, data's has to be generated based on your study and that has to be submitted along with the project and opportunities for the realisation of the user charge, have you considered any potential opportunities for the user charge.

And also here, I would like to mention another very essential point which we discussed earlier that is the added value capture because the moment you make a large infrastructure in terms of road, water treatment plant, new industry, new institute definitely, the surrounding land value will be increased, so what mechanism we have considered to in build, to consider to integrate or to include the user charge and to capture the added value or enhance value due to the new infrastructure.

Those kind of the opportunities you should not miss, so that and these are currently also asked by the funding agency and the approving agency and the last is the projects of other agencies likely to be impacted by this, what is the impact of this project? In the environment and in the other

projects done by the individual municipalities or the urban local bodies, so an impact assessment study has to be definitely done along with this is; this I told earlier also that for any large project you need to have environmental impact.

But here in addition to that impact on the surrounding project has to be also dealt out and clearly spelled out, so having said that I summarise today's lecture, today we have discussed the various aspects of large and trans-municipal projects, the trans-municipal projects are those which covers a large geographical area definitely beyond one municipalities or one settlement which covers large municipalities and which is much more in demand by the people and which is the need of the day.

And to take the advantage of the economics of the scale, this kind of large projects is designed and formulated to give the benefit to a large amount of population beyond few lakhs and to the mostly, the poor population of the several municipalities, several cities, those kind of the projects are crucial and these projects are the current population, current and sub population, future population of the existing city, future population of the new towns and the new cities.

Examples of trans-municipal projects are like trans-municipal roads, district roads, expressways, the mass rapid transit corridor and the major terminals, water treatment plants, sewerage treatment plant, then your solid waste dumping ground or a large universities, large institutes, so those kinds of projects can be done to give the benefit to a cluster of the local bodies. Now, these clusters of the local bodies need to be delineated at the district level.

Because district level planning or the metropolitan level planning can definitely integrate those kind of elements but the project has to be initiated from the ULB level, so that there is a thrust from the people representative and the project is accepted, now when it is initiated at the ULB level, there are district planning authority, metropolitan planning authority and also some para-statal who are also identified to do some this kind of projects.

Sometimes, government can make special purpose vehicle that is the new organisation to implement those kind of projects and for formulating the projects definitely, funding authority

and the approving authority, they will see whether the project is substantiated or justified by the response of the people, requirement of the people or the and the analysis based on the actual data and the service.

And then whether you have considered the operation maintenance in build in the project formulation or not, whether you have assess the impact on the environment and the other project or not, whether you have considered the user charges or not, whether you have given or showed a specific framework for the implementation when the role and the share of the investment and the risk of the various agencies.

Those kind of features is extra required than in the project formulation than any other normal project which we do at the urban local bodies level which is internal project which; for which we do not need to make collaboration between the several municipalities and for implementing this kind of project, we need to integrate and you need to communicate with the horizontally with the other settlements, other municipalities, other cities.

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Next LECTURE

51. Enhancing City Image

And also vertical with the state, national and the international level agencies, so with this, I conclude this lecture, next lecture I will discuss about the image of the city, so in this lecture today; by todays lecture we have completed the portion of the project management, we will share the document, some cases and the additional readings for your benefit and next lecture, next 2

weeks definitely, we will be devoting on the how after all these discussion, how we can enhance the image of the city.

And for doing that how we can sharpen our saw and how we can sharpen our skills set, competency set, so that we can advocate our cases, we can propagate our cases, we can make a solid team and we can definitely excel in terms of the urban governance and management, so thank you very much for attending this lecture.