

Urban Governance and Development Management (UGHM)
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Lecture - 15
Improving Systems and Processes for Urban Governance

Welcome to lecture 15. In this lecture we will discuss the systems and process improvement in any urban governance paradigm. In this week we have been discussing various aspects of organizational development. In the beginning we started with the discussion that for providing better service in the municipal areas, Municipality or Municipal Corporation or any third-tier government should be working efficiently.

And we have seen that for that purpose efficient purpose three factors are responsible. One is motivational factor, one is environmental factor and the second third is the, the capacity of the organization which matters. Now mostly the motivational and the environmental factor is mostly external and which matters most in day-to-day functioning of an organization is the capacity of the organization.

And out of the capacity one-by-one we have discussed the like transparency in accountability, urban reform and managing change all these aspects. So today, we will see one very important aspect for improving the day-to-day service delivery in municipalities or corporation that is the systems and process improvement.

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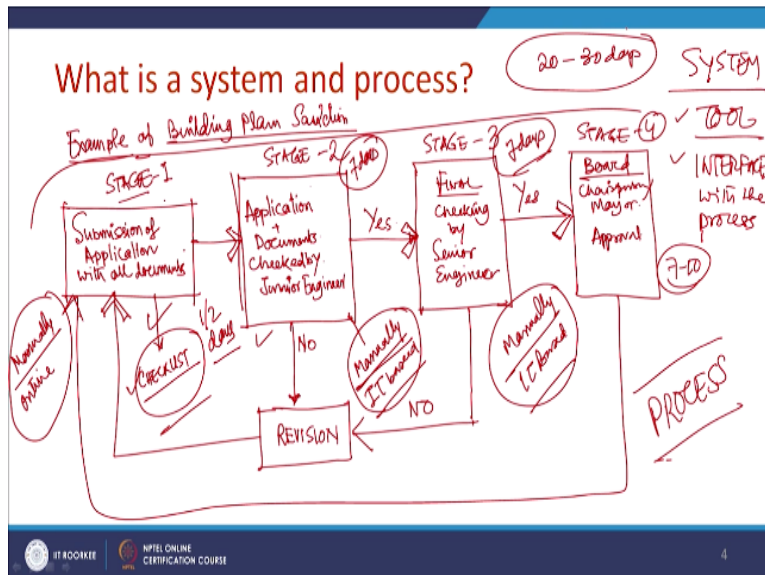
Contents

- What is systems and processes in Urban Governments
- How to improve systems and processes ✓
- Use of technology in Systems and processes ✓



So in this lecture first we will discuss that what is systems and processes. Some definitional and some conceptual discussions; we will discuss how we can improve the systems and processes. And use of technology and in systems and processes what could be there as an example that, that is what we are going to discuss today.

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Now first I start with what is the system and process. I ask you one simple example that when a common man or common citizen submits application to a municipality for asking a water supply connection or for kind of a sanction of a building plan, now how much time a normal a moderate municipality they take to accord those kind of approval. It varies. Sometimes an efficient organization can definitely provide that approval within one week.

There are organizations who can even after two months also they are not able say whether it is approved or not approved. So those kind of problems are there. Now which matters exactly in non-performing, or performing or service delivery or non-service delivery. Let us see a little details that how the internal systems and process matters and influence the outcome of a service. For our case any service as we discussed like say building plan sanction or a water supply connection.

Now please see this example, suppose we take a example of building plan sanction and suppose the first stage is that submission of application with all documents. So this become the first stage which is done by a common citizens. Next is that the application plus documents checked by say Assistant or Junior Engineer. Then there can be two scenarios, one is that after initial checking it could be found that yes it is, it could be forwarded and now it may not be forwarded because the papers are no in order so revision could be asked to the citizen.

And then it will be finally, final checking by Senior Engineer and then also there could be two situation one could be no, one could be yes and if it could be forwarded to the Board, whoever is the top person of the board it can be a Chair Person or Mayor, so they give the final approval, so that approval is final approval is given to the citizen. So you can see that in this mechanism I tried to map the process or the stages of that sanctioning or the approval process starting from a common citizen submit the paper.

It is screened by a junior engineer then it is screened by the senior engineer and then finally it is put up to the board and board finally accords the approval. Now please see the chart again. In this chart, the process which I showed by using the arrows or the directions okay and the actions or stages, so these are the stages or steps, so the method by which a sequential stages or steps are shown with direction showing the arrows, this is called a process. So this particular thing is called as process which gives the direction of the particular function.

Now if I ask you that for every stage like stage 1, stage 2, stage 3, stage 4 what is the system or tools used for checking or for giving taking a decision. For example, see the chart once again. In

the first stage where the citizen submits the application with all documents, how it is being received? Is there any; there could be a kind of a checklist to check whether the documents submitted are as per the requirement or not.

This stage 2 and stage 3, how they are checking; maybe they are checking manually or they can check by IT based operation that is the computerized system. So they can check manually or even IT based. Similarly, for the first stage they can also submit manually or they can submit online or IT based platform, right. So the interface by which a common man interacts with the process of the internal people who are working in the process they are interfacing they are interfering or interacting with the process that particular interface is called system.

For this case, a checklist could be a system, a manual checking method could be a system and IT based platform online submission could be a system. So system is basically is a tool interface with the process. And this system could be different for each and every stage. So that is how we define the systems and process. Now you can understand that if the process is so lengthy that actually it needs 3 to 4 stage but it is designed or it is being continued as a say 8 to 10 stage definitely it will take more time then what is required.

At the same time, if every stage is; the systems which they are using, the system is very old, system is basically manual which is having error or possibility of the more error so that can take not only the more time that can also divert the screening process or approval process to a wrong decision. So those kind of errors are there in the internal systems and process. This is the reason that some organizations they are not able to provide the essential service within the time period.

The way we discussed the citizen interface or citizen chart, in the citizen chart people get to know that within what time I am going to get such and such services, so it is the responsibility of the organization to provide that service. Now unless you rationalize or see the process and rationalize the process that at every stage how much time you will give. For example, in this current example what we discussed, please see the chart once again.

Like in stage 1, how much time it is required from stage 1 to stage 2 it is just checking of the checklist and providing the application to the junior engineer. So maybe maximum 1 to 2 days could be required. Similarly, in the stage 2 based on the number of people and the number of application received maybe 7 days' maximum and in the stage 3 if we consider another 7 days then in the stage 4 in stage 4 we can understand another 7 to 10 days. We are assuming on this just to calculate or; so total you can understand that between 20 to 30 days it is possible to give an approval of a building plan.

So; but if this process is too lengthy and have more stages than what we discussed definitely it will have more time and transfer time between one stage to another stage, one section to another section, one table to another table this also takes not only time, time, extra man power and also it brings an invite so many manual practices in the municipality, corruptions and the non-transference conditions in the municipality. That is why if the system and process is improved it can desirable delivery can be improved.

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The slide is titled "What is a system and process?" in red text. It contains three bullet points defining process and system. Handwritten red annotations include "DISCRETE SEQUENCE" above the first bullet point, "SYSTEMS INTERFACE" written across the first two bullet points, and "JOURNEY" and "MODE" underlined in the third bullet point. The slide footer includes the IIT Kharagpur logo, the NPTEL Online Certification Course logo, and the number 5.

What is a system and process?

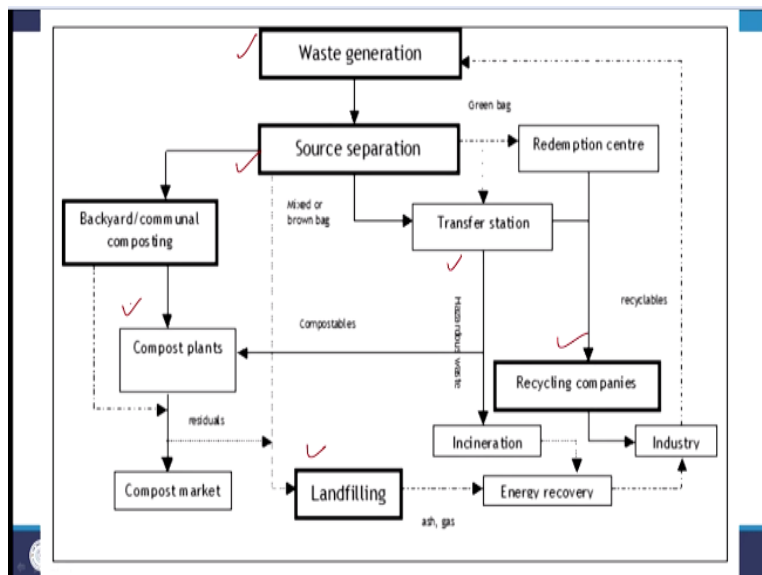
- A process is a DISCRETE SEQUENCE of events that enables a people in a business to do what they do. Systems are what's used to execute the process. SYSTEMS INTERFACE
- A process is a continuous actions, systems is tools to help in the process
- Process is journey, systems is the mode for the journey

So basically system is the process is the sequence and system is basically the interface as I discussed with you with the process. So therefore, you can see the process is a conceptual sequence of the events enables the people in business to do what they want to do and systems are what they used to execute the process that means the interface. Next is the process is a continuous action and system is a tool to help in the process.

Next, process is a journey and system is the mode of the journey. It is like you are taking a vehicle and reaching somewhere and after that you are changing the vehicle reaching some other place. So here your journey is the process, how you start from origin and reach in a destination point. And in the whole journey you can change the various modes and transfer from one mode to another mode that is also taking time.

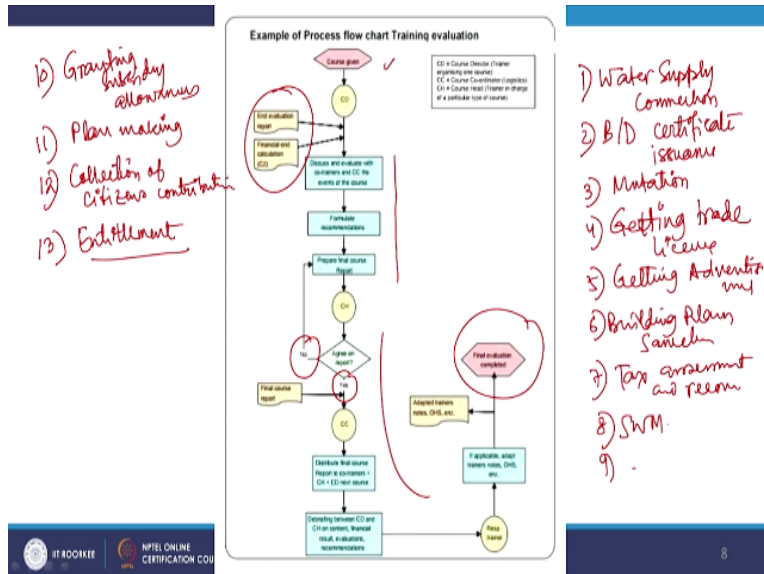
Therefore, every system every mode takes specific time they demands specific treatment and transfer from one mode to another mode is also important. Therefore, process is a journey; system is a mode for the journey.

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Now I show some of the examples of the process flowchart. This is a typical one process flowchart of solid waste management of a municipality. You can see that how it is shown, this is typical example like from starting from generation to separation then from the separation it is going to the transfer station then from the transfer station you are taking it from the recycling companies, some amount is going to landfill side and then some amount is going to compose plan, so this is a complete flowchart of the process flowchart of the solid waste management.

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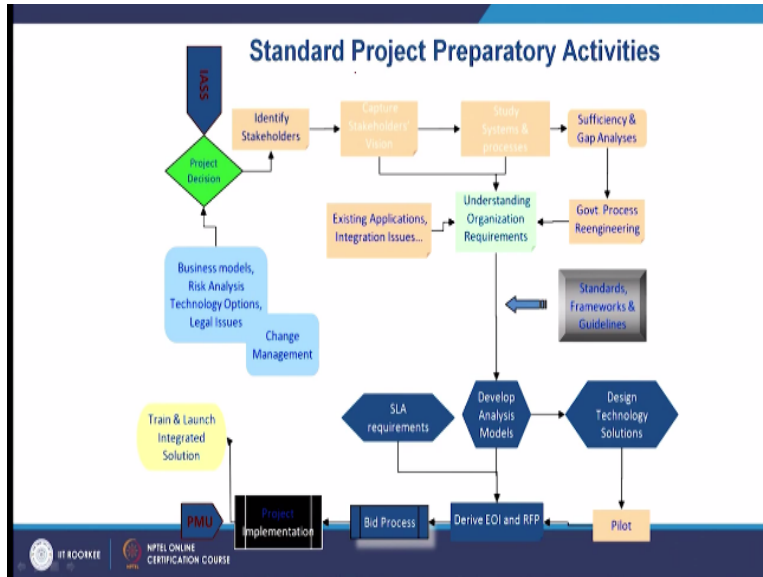
Next you can see this is a typical process flowchart of a training evaluation how a training can be done. So course is given then the course detector that he makes the evaluation report and submits then discuss an evaluate with co-trainers, formulate recommendation, prepare a final course report and that is how with decision-making processes they come to a final evaluation completed through various processes. Similarly, we can make various process flowcharts for each and every activity or service in the municipality.

For example, there could be process flowchart for sanctioning water supply connection. There could be process for birth and death certificate issuance. There could be process for mutation. I hope you know that meaning of the mutation, mutation is basically the process by which the name of the owner of a particular plot is changed in the register of the municipality that process is called mutation.

Then there could be process of getting trade license, getting advertisement then building plan sanction then tax assessment and recovery then even solid waste management service etcetera. So these, there are many actually. So apart from; this is the regular job apart from that there could be like the process of granting subsidy and allowances. There could be process of plan making that could be also mapped using a flowchart and that could be a process of collection, collection of citizen's contribution.

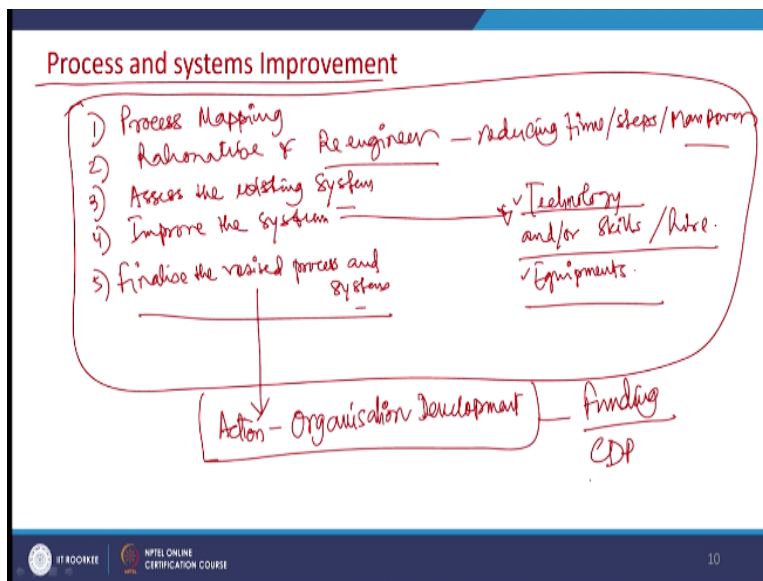
And then there are other entitlement any other entitlement that could be mapped with the process flowchart. So this; with this flowchart you can see the flowchart and you can assess and you can rationalize that whether this flowchart can be reduced to a lesser number of stages so that you can minimize the time requirement.

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This is another process flowchart that how a project preparation activity takes place. So there are many examples you can see your examples also.

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Now how we can improve the process and systems improvement that is very important because if you do not take every sections every activity as I discussed and map the process, rationalize

the process, reduce the time taken for each process improve the systems which is being used and come to a new system more efficient system you cannot improve.

So there are the some essential steps. For example, as I discussed number 1 is that, first is the Process Mapping then Rationalize and Reengineer, that means reengineer means reducing time, steps and manpower. Maybe earlier that process was required 3 to 4 manpower involvement but now you are reducing it to be maybe 1 or 2 manpower involvement like that.

Then, assess the existing system, system and then improve the system either by improving technology and/or improving the skill of the people who are working skills, you can hire also if required for some time and you; so this kind of improvement and also not only technology you needs specialized equipments in some cases. For example, this NPTL course what we are running without this essential equipment without the essential technological setup it is very unable very difficult to deliver online courses.

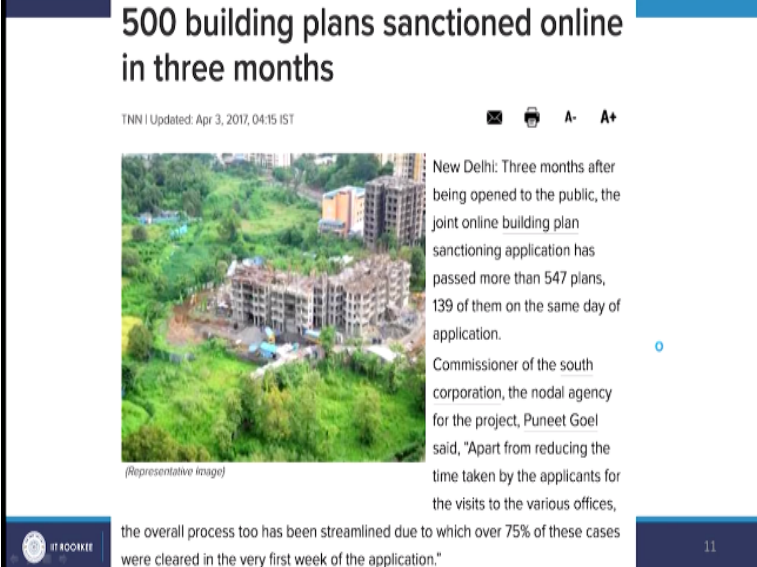
Similarly; and because of this online courses you do not need to organize the physical courses in the universities like you do not need the hostel accommodation do not need; so many advantages there. Similarly, there would be some stages in the municipal service delivery which could be converted to online mode so that you do not need to interface or you reduce the interface with the people or interface through the logistic or the material requirement, right. So after that you finalize the revised process and system both.

So if you follow this process then it is possible in this whole mechanism whatever you do now definitely the process and system improvement is an action this is an action under organization development. Therefore, whatever funding is required for this action, so funding should be earmarked in City Development Plan itself CDP. So; and definitely you need to mobilize the funding from the central or the other sources so that you can do the process and system improvement.

So the process and system improvement is like your internal circulation of your body and because of that you are able to perform day-to-day services. If you do not take food or water or

some sleep then you cannot work. Similarly, process and systems are like internal systems, this enables an organization to perform better.

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500 building plans sanctioned online in three months

TNN | Updated: Apr 3, 2017, 04:15 IST

New Delhi: Three months after being opened to the public, the joint online building plan sanctioning application has passed more than 547 plans, 139 of them on the same day of application.

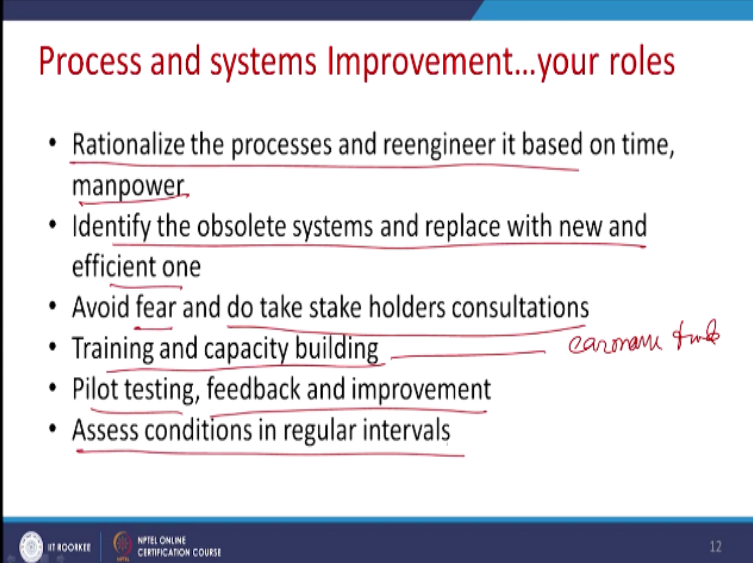
Commissioner of the south corporation, the nodal agency for the project, Puneet Goel said, "Apart from reducing the time taken by the applicants for the visits to the various offices, the overall process too has been streamlined due to which over 75% of these cases were cleared in the very first week of the application."

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So now you can see, this is an example of that using the online building plans sanctioning how government could deliver 500 building plans. This is the newspaper clipping from Times of India.

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Process and systems Improvement...your roles

- Rationalize the processes and reengineer it based on time, manpower.
- Identify the obsolete systems and replace with new and efficient one
- Avoid fear and do take stake holders consultations
- Training and capacity building *economic link*
- Pilot testing, feedback and improvement
- Assess conditions in regular intervals

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Then, so what your role is? So this I discussed before. So rationalize the processes and reengineer it based on time, manpower etc. Identify the obsolete systems and replace it with new and efficient one. Avoid fear; in the beginning always we have seen that in the when you try to

change the system there is a kind of a fear or resistant. I can share my experience when the first time the computerization came in the municipality, in the banking service people was in a fear.

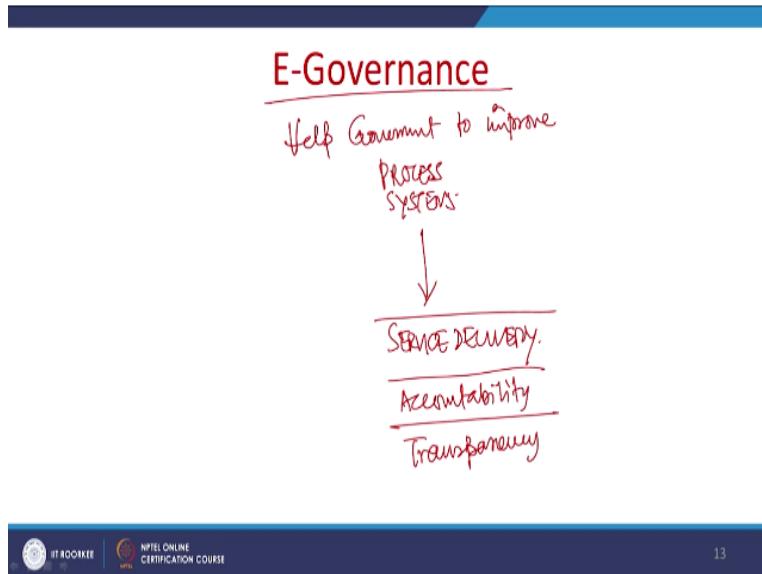
They try to resist the computerization but after sometime when they accepted and when they understood the benefit of the computerization they accepted it. So it needs constant persuasion, negotiation, counseling and convincing of the people so that you can avoid and eliminate the fear. And please do take this stakeholders consultations which is required. Then training and capacity building is required, for that you earmark the form fund.

Pilot testing, feedback and improvement. The moment you change the system and the process you do not assume that the new system and the new process will work fantastic the next very next day. So therefore, it is required that you test a pilot case or for some time maybe for month or six months you keep the new process and systems under observation and you try to observe try to note down or document the problems faced by the issues faced by the people.

And the people who are working in the systems and process so that you can improve it. And take the regular feedback from the citizen so that you can improve. Then assess the condition for; in regular interval. What process you are doing now within five years that process and systems could be obsolete again. So after some interval for example, every three years there should be a kind of a audit of a process and system so that you can improve it regularly.

So that is a regular job of a leader of your organization; it can be Municipal Commissioner; it can be Executive Officer it is there job to assess every time the condition of the process and systems and reengineer it time to time.

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Now in this context I would like to mention that the essence of E-Governance you might have heard this, this type of terminology. So the E-Governance basically came as the essence to help government to improve this process and systems both so that it can improve the service delivery and better accountability and also transparency.

So the objective of the E-Governance was to integrate the transactions at the central level, state level, local level and even my grassroots level in a common platform of the information technology so that there is a seamless connection with the information and some of the information is available to the common people common people can access that information, they can interact for day-to-day services.

And the services or the processes is also done on the E-Governance platform so that instead of manual process people can interface with the system through online or through other efficient mode. That was the importance of the E-Governance. So some of the essence of the governance.

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Essence of E-Government

- Involves process of reform in the way Governments work, share information and deliver services to external and internal clients
- Clear intent of greater transparency in functioning
- Achieving greater efficiency
- On-line delivery of services to citizens/ businesses for convenient access (time and place) , less transaction time, and lower cost.
- Harnesses information technologies such as Wide Area Networks (WAN), Internet , World Wide Web, and mobile computing to connect computerized back ends
- On-line does NOT necessarily imply Internet.
- The resulting benefits could be more transparency, empowerment, greater convenience, less corruption, revenue growth, and cost reduction.



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You can see some points. Like it involves process of reform in the government, how they works; share information I told you. So it is not only the external it is internal people; it is external and internal clients both that means the citizens and also to the external people who are coming to the city for investment for different purposes. Then clear intent of greater transparency in functioning then greater efficiency, online delivery of the services, this is much more important for day-to-day transaction.

Then you are using information technology using Wide Area Networks, using Internet then so many tools are there, you are basically using these so you can achieve all these benefits. Then online always does not necessarily imply internet. There are other modes like it can be offline also but the interface will be based on IT, for example when you submit even physically some documents or some form to the municipality or some bank it may not be online.

But they sometimes processes through some computerized system so those kind of system may not be online every time but the system is different which is not exactly the manual system and it reduces the error. So this kind of advantages is there. And it results the benefit towards the transparency, empowerment, greater convenience, less corruption. After the RTI Act now it is very easy for common citizens to ask for an information.

And initially it was very difficult for government organization to provide any information because all the information are recorded manually in the file noting or in the documents hard copy document. But now after the governance platform almost major section major portion of the information are there in the online platform and that online platform or the e-platform is being used by the internal people that the government organization as well as the external people seamlessly and that is the great benefit in the current days.

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Capacity Building Requires eGov Stds.

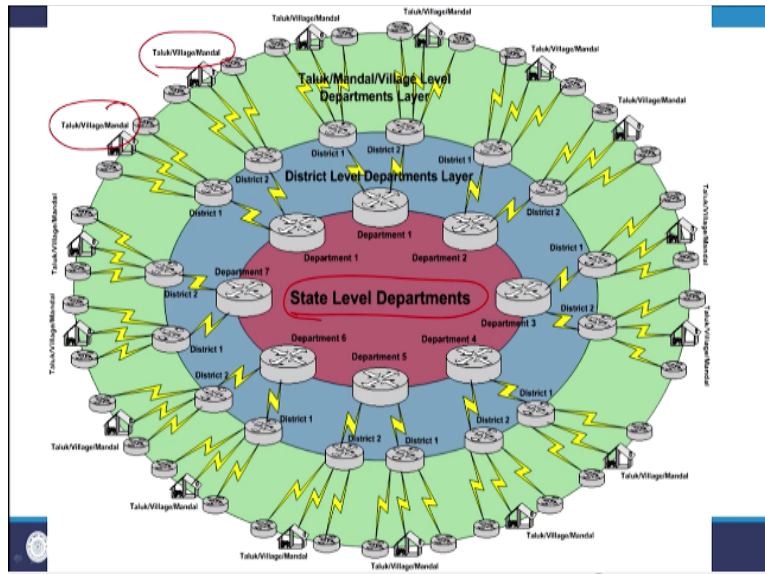
- **Adoption of Standards facilitates**
 - Uniform Interaction and Implementation
 - Reduced Costs to Develop & Deploy solutions
 - Effective Communication
 - Government, Businesses and Citizens ✓
 - Easy Interconnection
 - Disparate applications with-in the department
 - Interconnect Government Departments
 - Reusability of Elements
 - Processes, Designs patterns and Technology components
- **India has a federal setup**
 - Multiple Gateways
 - State, Central and Vertical levels

Handwritten annotations: A red arrow points from the text "State, Central and Vertical levels" to the word "multiple" in the handwritten note "multiple Co".

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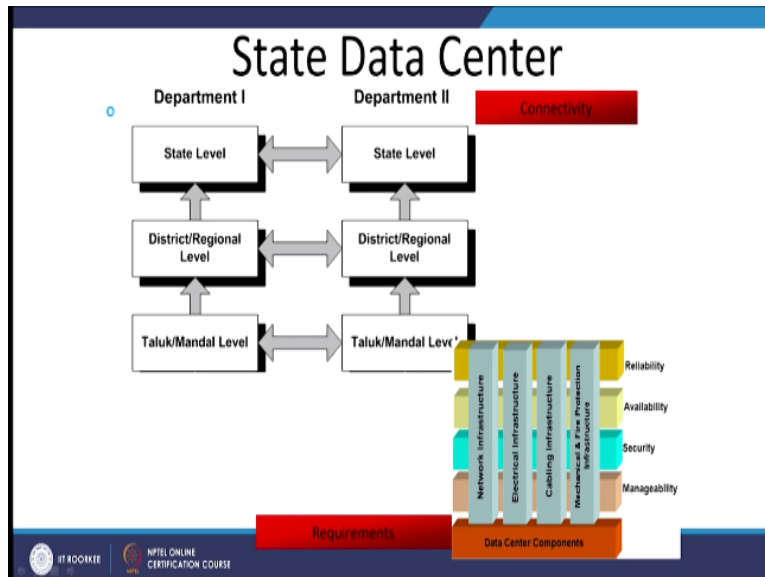
So you need to have a robust capacity building for E-Governance so just see the keywords, the standards of the facilities, uniform interaction, okay then reduced cost, effective communication with government businesses and citizens, easy interconnection through the government department and the other department, reusability of the elements, the processes, design patterns and technology component. Now since we have for our country we have multiple layers basically our system will work like this.

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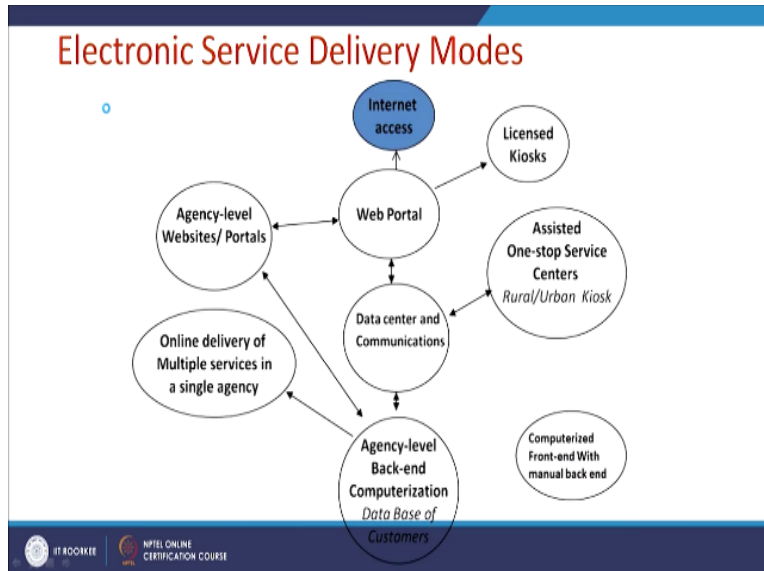
So we have a State department or any Nodal department from the Nodal department basically there are district level administration or the department which is working and then village level of city level organizations who are working. This is how; this is a schematic diagram, how the seamless information and the connectivity could be there for day-to-day information sharing.

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Then this is another diagram.

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This is another indicative flowchart for the electronic service delivery mode. This is a general flowchart but definitely this can be customized for each and every flowchart process flow chart for your municipality.

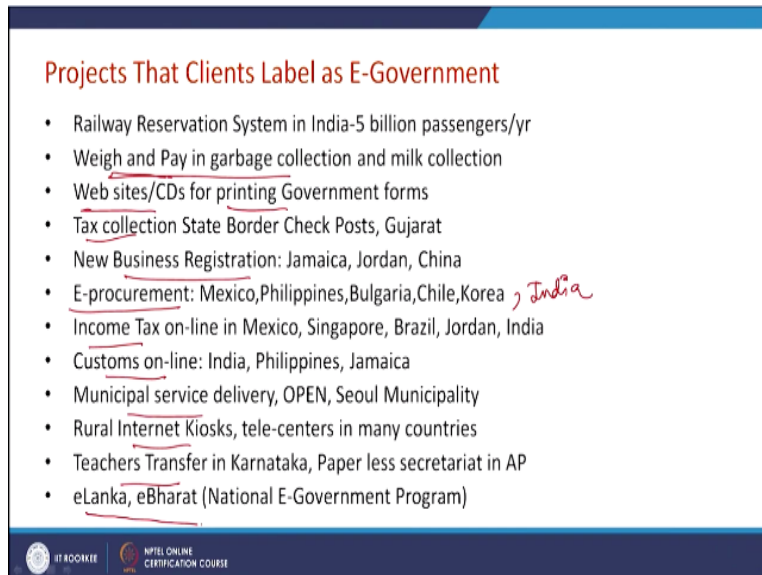
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This is the front page of the National E-Governance Plan; this, in short it is called NEGP. So government has a robust E-Governance plans not only for the urban governance but also the every other sector of the governance, it can be rural governance, district level, state level every level. So please go through this site you will get to know some latest information what is going on with the E-Governance platform.

So there are very much advantages and advances. Say some of the advantage that people have appreciated.

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Projects That Clients Label as E-Government

- Railway Reservation System in India-5 billion passengers/yr
- Weigh and Pay in garbage collection and milk collection
- Web sites/CDs for printing Government forms
- Tax collection State Border Check Posts, Gujarat
- New Business Registration: Jamaica, Jordan, China
- E-procurement: Mexico, Philippines, Bulgaria, Chile, Korea, *India*
- Income Tax on-line in Mexico, Singapore, Brazil, Jordan, India
- Customs on-line: India, Philippines, Jamaica
- Municipal service delivery, OPEN, Seoul Municipality
- Rural Internet Kiosks, tele-centers in many countries
- Teachers Transfer in Karnataka, Paper less secretariat in AP
- eLanka, eBharat (National E-Government Program)

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For example, right now we use Railway Reservation System then we weight and pay for garbage collection then websites which is use for the printing of the forms then tax collection then business registration in some of the countries then E-procurement which has happened in India also. Now in India also the procurement is going on.

Then Income Tax on-line. Income tax is through the online platform in India also, the customs online, the municipal service and rural internet kiosks then teaching transfer in; for example, this NPTEL and whole firm is happening on the e-platforms therefore it is not on the basic service, it is the teaching platform. Apart from that eLanka, eBharat all these are National E-Governance Program for the; not only India of the other countries.

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Successful e-delivery of Services

- Issue of land titles in Karnataka
- Railway Reservation in India-5 billion passengers per yr
- Property Registration in Maharashtra and Andhra Pradesh
- eSeva center in Andhra Pradesh at \$ 7-8 million investment
- OPEN-on line tracking in Seoul Municipality
- Citizen Service Center (mobile), Bahia, Brazil



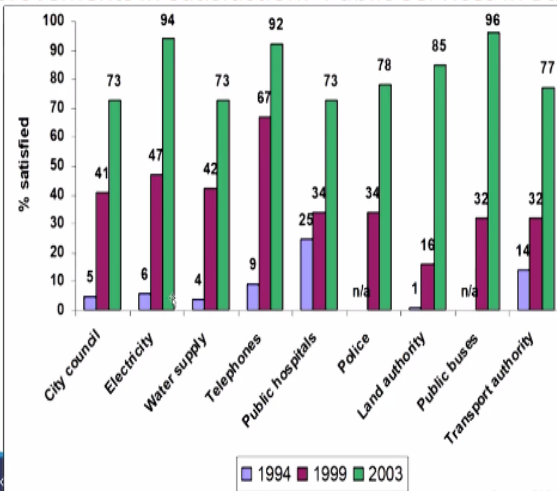
Some other E-Government delivery service like in Karnataka have started issue of land title. Railway Reservation I have already told you. Property Registration in Maharashtra through the platform, eSeva center in the Andhra Pradesh and then OPEN-online tracking in Seoul Municipality then Citizen Service Center for some of the municipality. So these are the achievement; these are indicative.

I hope that at your place in your district and in your local bodies you must have taken some of the activities some of the actions in changing the process, changing the systems and integrating the E-Governance platform given by the Government of India. And now another advantage of this platform is that if you want to change the systems and process there will not be any dearth of funding.

There will not be any shortage of the funding, government will give the necessary funding which is only your preparedness and proactiveness which matters and that is why that is how you can definitely mobilize the fund and improve your condition.

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Improvements in Satisfaction: Public Services in Bangalore.



So definitely with E-Governance and the better systems and service the satisfaction level is improved this is for city of Bangalore for some past studies. So with this I would like to summarize and conclude today's lecture. So in this lecture we have tried to discuss the various methods of the process and systems which is required to mobilize the internal functions of an organization under the overall organization development framework the systems and process improvement is very much essential.

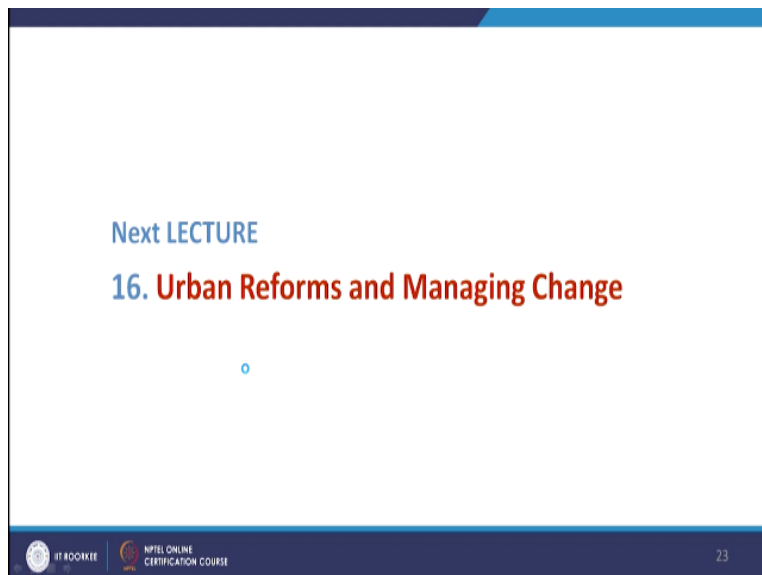
Because whatever we do as a day-to-day service delivery every work relates to a particular process flow which is nothing but the sequential activity or arrangement of the various stages or the steps that is called process. And for every process every stage or every step it is done by some particular system it could be manual system or online system, computerized systems using some guidelines checklist or various methods are there.

Now how we can change the process and systems towards minimizing the time taken towards minimizing the hassles towards minimizing the wastage and the errors that is an essence. So task what is required to do is that to rationalize the process, minimize the process timing, minimize the manpower etc and improve the system from the manual to the online platform or it can be a combination of that and time to time it is required to assess the systems and process and again reengineer and change it.

And in this context in this note we have also discussed the essence of E-Governance. The objective of E-Governance activity in India which came as a major reform after JNNURM was to improve the service delivery at all level including the urban governments. Now E-Governance platform, it is the seamless connectivity between the central, state and local level government. So your organization if you are working in a Development Authority or Public Sector organization or the Urban Government definitely you can change your process and systems and take maximum advantage of the E-Governance activity.

I have shown some of the resources and references some will be also given to you therefore you can go through and can take the essential learning out of that. So with this I would like to conclude.

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Next day, I will discuss on the Urban Reforms and the Managing Change which is also very much important, including this E-Governance there are various other reforms which came in the Urban sector in last 10 years or so and those reforms were basically subjected to change the performance of the organization, that is what we are going to discuss in the next lecture. So for today's lecture I thank you very much for attending.